Home In Tacoma Phase 2
Draft Environmental Impact Statement

City of Tacoma
Planning and Development Services

February 5, 2024

The City of Tacoma Planning and Development Services Department is pleased to present the Draft Environmental Impact Statement (Draft EIS) for Home In Tacoma Phase 2. After several years of community-wide discussions, the City of Tacoma is proposing to adopt new zoning designations, development standards, and other actions, together referred to as Home In Tacoma Phase 2. The project goals are to increase housing supply, affordability, and choice for current and future residents, as well as to ensure housing development supports multiple goals. The City of Tacoma is seeking input on the proposals and the Draft EIS through March 8, 2024, to finalize recommendations to the City Council – the decision-makers for this project.

The Draft EIS was prepared in accordance with the Washington State Environmental Policy Act (SEPA). Its purpose is to support the decision-making process by studying potential environmental impacts, as defined by SEPA. It evaluates the following elements of the environment:

- Plants and Animals
- Water Resources
- Air Quality and Greenhouse Gas Emissions
- Land Use
- Housing
- Transportation
- Public Services
- Utilities
- Parks and Recreation
- Historic, Cultural and Archaeological Resources

The Draft EIS finds that no significant adverse impacts are anticipated from the proposal. The Draft EIS does anticipate both positive and negative impacts from the proposal, and identifies a range of actions the City could pursue to reduce negative impacts and promote the project goals. The Executive Summary is a good place to start to understand the key issues identified.

Tacoma has worked hard to develop proposals that will help meet our community's housing needs and support multiple goals. It took a major effort to reach this milestone. I am thankful to the thousands of community members who have participated so far. I also recognize the hard work of our elected decision-makers, public sector staff, the housing development community, volunteers on commissions and work groups, and other stakeholders. Housing and neighborhoods matter to all of us. Thank you for sharing your insights, expertise and dedication. I hope you will continue to do so.

Sincerely,

Peter Huffman, Director
Planning and Development Services Department

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Citation

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Fact Sheet

Name of Proposal

Home In Tacoma Phase 2.

Proponent and SEPA Lead Agency

City of Tacoma.

Location

Home In Tacoma Phase 2 will primarily affect areas that are designated as Low-Scale and Mid-Scale Residential on the City's Future Land Use Map, as well as other areas dispersed throughout the City of Tacoma.

Proposed Action

The City of Tacoma is proposing to adopt new zoning designations, development standards, and other actions, together referred to as Home In Tacoma Phase 2 (the Proposal), to increase housing supply, affordability, and choice for current and future residents. The Proposal is intended to implement the policy direction adopted in Phase 1 (Ordinance No. 28793, December 2021). The Proposal is more fully described in Section 1.3 of the Draft Environmental Impact Statement (EIS).

Proposed Alternatives

The Draft EIS will evaluate three alternatives, described further in Section 2.2 of the Draft EIS:

- Baseline Alternative (the No Action Alternative)
- Lower Zoning Alternative
- Higher Zoning Alternative

The action alternatives are defined primarily based on the number of new housing units likely to be developed under new zoning designations, over an approximately 30-year horizon (out to 2050) but also provide a comparison of allowed density (number of dwellings allowed based on lot area), allowed housing types and building scale (height, building width, Floor Area Ratio and similar), and the potential bonus density and scale available in exchange for affordable housing and other public benefits.

Lead Agency

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Permits and Approvals

Home In Tacoma Phase 2 requires approval by Tacoma City Council.

Principal Contributors

The EIS was prepared by Parametrix, in coordination with Tacoma staff.

Date of Issue of Draft EIS

February 5, 2024

Comment Period

The public comment period on the Draft EIS will last 30 days, ending at 5 p.m. on March 8, 2024.

Comments on the Draft EIS must be submitted to the City of Tacoma, in writing by 5:00 pm on March 8, 2024. The public is encouraged to submit comments along with a name and email or mailing address through one of the following options:

- Email: homeintacoma@cityoftacoma.org
- Online Comment Portal: cityoftacoma.org/homeintacoma
- Mail: 747 Market Street, Room 345, Tacoma WA 98402
- Hardcopy letter or comment form at Draft EIS open house (see below)

Alternative Formats:

- TTY Relay 711
- 311 or 253-591-5000

Written comments received during the public comment period will become part of the public record for this proposal and will help decision makers develop a preferred growth alternative. Comments and responses will be provided in the Final EIS.

Public Open Houses and Public Hearing

Tuesday, February 20, 6 to 7:30 p.m. on Zoom.

Thursday, February 22, 6 to 7:30 p.m. at Bates Technical College South Campus, 2201 S 78th Street.

Wednesday, February 28, 6 to 7:30 p.m. at University of Puget Sound Upper Marshall Hall, 1500 N Warner Street.

Saturday, March 2, 2 to 4 p.m. at Eastside Community Center Social Hall, 1721 E 56th Street.

Wednesday, March 6, 2024, 5 to 7 p.m., Planning Commission Public Hearing, on Zoom or in person at the City of Tacoma Customer Service Center at 747 Market Street, Municipal Building, Council Chambers.

Projected Date of Final EIS Issuance

The City of Tacoma anticipates publishing the Final EIS for Home In Tacoma Phase 2 in summer or fall 2024.

Related Documents and Draft EIS Availability

A complete list of references for the Draft EIS is provided in Chapter 6. The Draft EIS is available in electronic format on the City of Tacoma's website, cityoftacoma.org/homeintacoma. Paper copies are available for review at the City of Tacoma Customer Service Center, at 747 Market Street, Room 345, Tacoma WA 98402).

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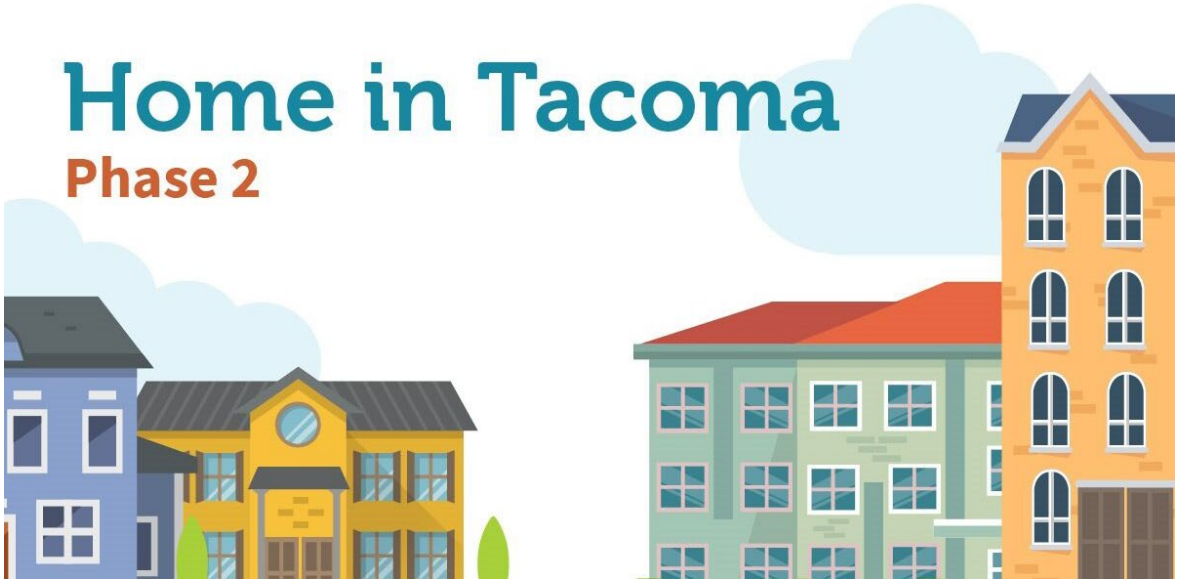
Frequently Used Acronyms and Abbreviations

ADA	Americans with Disabilities Act
ADU	accessory dwelling unit
AHAS	Affordable Housing Action Strategy
APS	accessible pedestrian signal
BP	before present
BRT	bus rapid transit
City	City of Tacoma
CLG	Certified Local Government
CPP	Countywide Planning Policy
DAHP	Washington Department of Archaeology and Historic Preservation
Ecology	Washington State Department of Ecology
EIS	Environmental Impact Statement
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FLUM	future land use map
GHG	greenhouse gas
GMA	Washington State Growth Management Act
HB	House Bill
I-5	Interstate 5
I-705	Interstate 705
I/I	inflow and infiltration
IRP	Tacoma Water Integrated Resource Plan
LOS	level of service
LPC	Landmark Preservation Commission
MDNS	Mitigated Determination of Environmental Nonsignificance
MTCO2e	metric tons of carbon dioxide equivalent
NAAQS	National Ambient Air Quality Standards
NMFS	National Marine Fisheries Service
NPDES	National Pollution Discharge Elimination System

Frequently Used Acronyms and Abbreviations (Continued)

NPR	National Pacific Railway
NRHP	National Register of Historic Places
PCRC	Pierce County Regional Council
Phase 1	Home In Tacoma Phase 1
Proposal	Home In Tacoma Phase 2
PSCAA	Puget Sound Clean Air Agency
PSRC	Puget Sound Regional Council
RCW	Revised Code of Washington
SB	Senate Bill
SEPA	Washington State Environmental Policy Act
SMP	Shoreline Master Program
SOV	single-occupancy vehicle
ST3	Sound Transit 3
TAZ	Transportation Analysis Zone
TDM	Transportation Demand Management
TGM	Trip Generation Manual
TIP	Transportation Improvement Program
TMC	Tacoma Municipal Code
TMP	Transportation Master Plan
TOD	transit-oriented development
TRHP	Tacoma Register of Historic Places
UR	Urban Residential
USC	United States Code
VMT	vehicle miles traveled
WAC	Washington Administrative Code
WHR	Washington Heritage Register
WISAARD	Washington Information System for Architectural and Archaeological Records Data
WSDOT	Washington State Department of Transportation



Executive Summary

Proposal Description

The Home In Tacoma Project, which consists of two phases, is intended to increase housing supply, affordability, and choice for current and future residents as part of Tacoma's Affordable Housing Action Strategy.

"Home In Tacoma Phase 1" (Phase 1) was completed in December 2021 and consisted of amendments to the One Tacoma Comprehensive Plan (One Tacoma Plan), enacting changes to Tacoma's housing growth strategy, policies, and programs along with near-term code and programmatic actions. A key component of Phase 1 was to adopt a new Future Land Use Map, which replaced all Single-Family and Multifamily Low-Density land use designations with Low-Scale and Mid-Scale Residential. Additional information regarding Phase 1 can be found in City of Tacoma Ordinance No. 28793 and the associated Mitigated Determination of Nonsignificance and is described further in Section 1.2.2 of this Draft Environmental Impact Statement (Draft EIS).

The City of Tacoma is now working to implement the Phase 1 policy direction through new zoning designations, development standards, and other actions, together referred to as "Home In Tacoma Phase 2" (the Proposal). Specifically, the Proposal includes the following:

- Establishment of new Urban Residential (UR) zones supporting a range of middle housing options, along with base and bonus densities, scale, and other standards, to replace existing residential zones. All of the new UR zones would support a range of housing types, including middle housing. The proposed UR zones are differentiated by the allowed density (number of dwellings allowed based on lot area), the allowed housing types and building scale (height, building width, Floor Area Ratio and similar), and the potential bonus density and scale available in exchange for affordable housing and other public benefits.

Middle Housing refers to a range of multiunit or clustered housing types, such as duplexes, fourplexes, courtyard housing, and multiplexes, that is reasonably compatible in scale with single-family homes. Middle housing often supports walkability and can provide housing options along a spectrum of affordability.

- Determination of the geographic extent of the new UR zones in areas designated Low-Scale and Mid-Scale Residential in the One Tacoma Plan.
- Zoning changes to residentially zoned areas in other One Tacoma Plan designations to UR or other appropriate zones.
- Changes to residential design and development standards (including height, building size, yards, trees and landscaping, access, parking ratios, lot dimensions, setbacks, subdivisions, ownership, and others).
- Changes to residential land uses, definitions, and permit processes.
- Increases to the residential environmental review threshold from 20 to 40 units and new standards for transportation, soil testing, and historic, cultural, and archaeological review.
- Enhancement and expansion of regulatory affordability tools (including the Multifamily Tax Exemption Program and bonuses in residential zones).
- Actions to ensure that infrastructure and services are adequate to support growth.
- Actions to address the potential demolition of viable structures.
- Actions to create green, sustainable, and climate-resilient housing.
- Actions to protect and enhance the urban forest.
- Actions to promote physical accessibility.
- Development of an anti-displacement strategy.
- Potential view protections in areas where they do not currently exist.
- Actions to ensure consistency with state legislative direction.
- Education and technical support for developers and the public.

Additional detail regarding Home In Tacoma Phase 1 and the Proposal is included in Tacoma's 2022 Phase 2 Scope of Work and Assessment Report. The Proposal has been further defined through public engagement, response to state directives, and technical analysis, all of which are reflected in this Draft EIS.

Proposal Objective

The purpose of the Proposal is to implement Tacoma's adopted policies regarding housing growth and development—particularly the policy direction adopted by the Tacoma City Council in Phase 1, which enacted a new housing growth vision and updated policies to enable Missing Middle Housing in Tacoma's neighborhoods, ensure Tacoma gets housing growth right, and take actions to make housing more affordable. The Proposal's housing and land use objectives are to:

- Increase housing supply, affordability, and choice for current and future residents as part of Tacoma's Affordable Housing Action Strategy,
- Promote housing equity and combat displacement,
- Promote equitable access to opportunities,
- Promote complete neighborhoods,
- Promote quality design and scale of new structures that is reasonably compatible with residential patterns, and
- Promote adaptive reuse of existing structures.

In addition, the Proposal will promote environmental goals, including protection for sensitive areas, a robust urban forest, water and air quality, climate resilience, and public health, and will promote infrastructure and mobility goals, including walkability, transportation choices and safety for people of all abilities, and efficient and resilient public utilities and services.

Alternatives Considered

The Draft EIS will evaluate three alternatives: the No Action Alternative, referred to throughout as the Baseline Alternative, and two action alternatives, the Lower Zoning Alternative and the Higher Zoning Alternative. The action alternatives are defined primarily based on the number of new housing units likely to be developed under new zoning designations, as well as associated development standards establishing new density, building size, parking, landscaping, and other requirements, over an approximately 30-year horizon (out to 2050) and described further in Section 2.2 of the Draft EIS. The Baseline Alternative assumes 3,840 new housing units would be constructed, the Lower Zoning Alternative assumes 25,660 new housing units would be constructed, and the Higher Zoning Alternative assumes 53,620 new housing units would be constructed through 2050.

Under all of the alternatives, potential growth in Tacoma, including new growth associated with the Proposal, is anticipated to be consistent with the regional growth targets adopted under the Puget Sound Regional Council's Vision 2050.

Summary of Impacts and Mitigation Measures

Home In Tacoma Phase 2 is being proposed within the context of anticipated growth throughout the Puget Sound Region and in Tacoma specifically (VISION 2050). Focusing growth in an already urbanized area, per adopted regional growth policies and consistent with "smart growth strategies," can result in direct and indirect environmental benefits, including minimizing air and water pollution, reducing greenhouse gas emissions, conserving resources, and preserving natural and environmentally sensitive lands.[1] As a result, the Proposal is likely to have beneficial impacts to the environment, in addition to any localized potential adverse impacts identified throughout this Draft EIS.

The potential impacts of the Proposal to the elements of the natural and built environment determined to be relevant during the scoping process, are described further in Table ES-1. Although the Proposal is anticipated to have some adverse impacts to the environment, existing policies, programs, and regulations, as well as new proposals that are part of Home In Tacoma Phase 2, are anticipated to preclude those impacts from rising to the level of significance. Furthermore, this Draft EIS also identifies potential mitigation measures that could be implemented to further reduce potential adverse impacts or improve environmental conditions. Some of those potential mitigation measures are also included in Table ES-1 (see individual chapters for the full list).

Under all alternatives, the type of potential impacts would be similar, but the scale of those impacts would vary. For most elements of the environment, the more quickly and the more geographically concentrated future development occurs, the greater those impacts are likely to be.

Some actions that are part of the Proposal, described above and further described in Section 1.2 and 1.4 of this Draft EIS, are aimed at promoting improvement to the environment (such as protection for sensitive areas, a robust urban forest, water and air quality, and climate resilience); promoting infrastructure and mobility goals (such as pedestrian and American with Disabilities Act

[1] Environmental Protection Agency (EPA), Our Built and Natural Environments: A Technical Review of the Interactions Between Land Use, Transportation, and Environmental Quality (2nd Edition).

(ADA) access, transportation choices and safety for people of all abilities, and efficient and resilient public utilities and services), or at promoting equity (such as improving public health and increasing housing choice and affordability citywide, particularly in higher opportunity areas). Although this Draft EIS does not weigh the impacts against the benefits of the Proposal, many of the specific elements of the Proposal could result in a reduction in impacts from the Baseline Alternative or environmental benefits, which is reflected throughout.

Table ES-1. Summary of Potential Impacts

Environmental Resource	Baseline (No Action) Alternative	Lower Zoning Alternative	Higher Zoning Alternative	Examples of Potential Mitigation Measures
Plants and Animals	Current development patterns would continue and would be the most likely to generate more development pressure in less-developed areas outside the city, where development-related impacts on plants and animals would be greater. Within the City, no tree protection regulations would apply outside of critical areas, which would result in continuing trends related to the loss of tree canopy.	The amount of undeveloped land potentially available to support tree canopy would be reduced under this alternative, but net tree canopy loss is not anticipated due to the Proposal's actions to protect urban tree canopy. Tree canopy loss could occur if tree preservation regulations are not adopted. The Lower Zoning Alternative would be expected to reduce development pressure in less-developed areas outside the city, thereby reducing development-related impacts on plants and animals at a regional scale.	The amount of undeveloped land potentially available to support tree canopy would be further reduced under this alternative, but net tree canopy loss is not anticipated due to the Proposal's actions to protect urban tree canopy. Even greater tree canopy loss could occur if tree preservation regulations are not adopted as part of this alternative. The Higher Zoning Alternative would be expected to further reduce development-related impacts on plants and animals outside of Tacoma and to a greater degree than the Baseline or Lower Zoning Alternative.	▪ Resource and implement policies and codes consistent with the City's Urban Forest Management Plan (2019) and Climate Action Plan (2021). ▪ Adopt "Green Factor" requirements (Green Factor is a menu of landscaping and stormwater strategies intended to increase the amount and quality of urban landscaping while allowing increased flexibility with development). ▪ Increase funding for City-led tree planting and maintenance in parks and rights-of-way, particularly in and near areas identified as heat islands. ▪ Expand existing programs that fund and support tree planting. ▪ Expand tree preservation regulations on private property and in the right-of-way. ▪ Evaluate policy to allow the City to have a more active role in the control and responsibility for tree planting and maintenance in the right-of-way. ▪ Acquire property within low tree canopy neighborhoods to preserve and enhance tree canopy where it is needed.

Environmental Resource	Baseline (No Action) Alternative	Lower Zoning Alternative	Higher Zoning Alternative	Examples of Potential Mitigation Measures
Water Resources	Current trends would continue under the Baseline Alternative, resulting in some development occurring within the proximity of surface water resources, greater amount of development in areas that have not already been impacted by being historically over 40% impervious, and may increase development demand in more pristine watersheds outside of Tacoma, Climate change is resulting in increased instances of urban flooding under existing conditions.	Some potentially higher density development could occur within proximity to water resources and in areas not historically developed but may reduce development demand in some pristine watersheds outside of the city. Impacts from increased instances of urban flooding due to increased impervious surfaces and climate change would be reduced through new onsite stormwater management requirements.	The highest density of development could occur within the proximity of water resources and in areas not historically developed but would be the most likely to reduce development demand in more pristine watersheds outside of city. Impacts from increased instances of urban flooding due to increased impervious surfaces and climate change would be reduced through new onsite stormwater management requirements.	▪ Install updated stormwater controls on impervious surfaces. ▪ Reduce need for additional or expanded roadways and parking through support of transit projects and other approaches. ▪ Strengthen critical areas ordinances and restore critical area buffers. ▪ Expand programs that integrate stormwater objectives with tree canopy (such as Green Factor approaches). ▪ Continue research and implementation of innovative stormwater best management practices, such as regional stormwater facilities, especially those focused on water quality treatment in the most urban areas.
Air Quality and Greenhouse Gas Emissions	Current air quality trends would continue, including the reduction in natural gas or other fossil-fuel based energy sources, the reduction in vehicle ownership rates, and a slight decrease in energy use and emissions for transportation overall.	While population growth is likely to result in air quality impacts, the Lower Zoning Alternative is more likely to result in a reduction of per capita greenhouse gas (GHG) and other emissions based on proposals to create green, sustainable, and climate resilient housing. Specifically, smaller homes that would utilize electric power, be cleaner and more energy efficient, and be located near transportation choices, which is likely to reduce VMT per capita. The proposal also incentivizes retention of existing buildings, retaining the embodied carbon and promoting energy retrofits.	While population growth is likely to result in air quality impacts, the Higher Zoning Alternative is likely to result in a an even larger reduction of per capita GHG and other emissions based on proposals to create green, sustainable, and climate resilient housing—specifically smaller homes that would utilize electric power, be cleaner and more energy efficient, and be located near transportation choices, which is likely to reduce VMT per capita. The proposal also incentivizes retention of existing buildings, retaining the embodied carbon and promoting energy retrofits.	▪ Require solar readiness for detached one- and two-family dwellings. ▪ Updates to the City's Building Code to encourage construction salvage to address anticipated increase in waste stream for residential, commercial, and multifamily projects. ▪ Further promote green building certification. ▪ Adopt emission standards for electric appliance replacement for residential projects. ▪ Expand the availability of e-bike and electric car charging infrastructure. ▪ Require all electric appliances in residential properties. ▪ Build out the transit and active transportation network to reduce dependence on automobiles.

Environmental Resource	Baseline (No Action) Alternative	Lower Zoning Alternative	Higher Zoning Alternative	Examples of Potential Mitigation Measures
Land Use	Zoning in Tacoma would be inconsistent with the policy direction in Phase 1 and the adopted Future Land Use Map, as well as with adopted state law (House Bill 1110, 2023 session). It is likely that current trends would continue including an annual growth rate, which is not on track to meet Tacoma's Vision 2050 regional growth targets, and growth primarily within designated Growth Centers, with little growth in residential zones.	While the majority of growth would likely still occur within designated Growth Centers, a larger proportion of growth would occur in formerly single-family zones. Zoning would be consistent with Phase 1 and the adopted Future Land Use Map, consistent with state law, and Tacoma would be more likely to meet its regionally adopted growth targets. Since the proposal allows higher residential densities near "complete neighborhoods features" such as parks, schools, shopping, and transit, a higher proportion of Tacoma residents would live within "20 minute" walkable neighborhoods, as called for by Tacoma policies.	While the majority of growth would likely still occur within designated Growth Centers, an even larger proportion of growth would occur in formerly single-family zones. Zoning would be consistent with Phase 1 and the adopted Future Land Use Map and consistent with state law. Tacoma would be even more likely to meet its regionally adopted growth targets than under the Lower Growth Alternative. Since the proposal allows higher residential densities near "complete neighborhoods features" such as parks, schools, shopping, and transit, a higher proportion of Tacoma residents would live within "20 minute" walkable neighborhoods, as called for by Tacoma policies.	▪ Extend residential development standards adopted through the Proposal to other zoning districts. ▪ Evaluate ongoing implementation after adoption to identify potential unintended outcomes. ▪ Evaluate the pace of growth to identify potential actions to remove barriers and/or ensure concurrent provision of urban infrastructure and services. ▪ Continue to refine residential and related policies through the upcoming Comprehensive Plan updates and on an ongoing basis.

Environmental Resource	Baseline (No Action) Alternative	Lower Zoning Alternative	Higher Zoning Alternative	Examples of Potential Mitigation Measures
Housing	Current housing trends would continue, resulting in inadequate housing options for Tacoma residents. New housing supply would continue to be limited geographically primarily to within Mixed-Use Centers and limited in terms of housing options to primarily multifamily development. Overall housing supply goals would likely not be met. Housing costs for both rental and ownership would likely continue to rise, with the commensurate increase in displacement risk for at-risk groups.	Overall housing supply would increase, making it more likely that supply would be adequate to keep up with population growth. Housing costs would be moderated by the introduction of a large area of the city to middle housing options, which are substantially more affordable than detached single-family houses and large multifamily buildings. Housing choices would expand substantially in terms of the range of housing types available throughout the City's neighborhoods. A substantial increase in affordable ownership and rental opportunities citywide would result. Since housing densities are higher in areas with transportation choices, secondary household costs would be lower than the baseline. While citywide displacement risk would be lower, there could be some area-specific increase in displacement risk.	Overall housing supply would increase even more than with the Lower Growth Alternative, making it more likely that supply would be adequate to keep up with population growth. Housing costs would be moderated even more by the introduction of a large area of the city to middle housing options, which are substantially more affordable than detached single-family houses and large multifamily buildings. Along with more housing supply, a greater proportion of the new housing will be expected to be more deeply affordable. Housing choices would expand substantially in terms of the range of housing types available throughout the City's neighborhoods—particularly in areas near transportation choices resulting in reduced household costs. A substantial increase in affordable ownership and rental opportunities citywide would result. While citywide displacement risk would be lower, there could be some area-specific increase in displacement risk.	▪ Implement the City's Anti-Displacement Strategy. ▪ Implement additional actions outlined in the City's Affordable Housing Action Strategy. ▪ Activate additional programs and policies that prioritize keeping people in their homes. ▪ Establish equitable homeownership targets, monitoring, and tracking strategies. ▪ Update the Affordable Housing Bonus Program in Downtown, Mall, and Mixed-Use Centers. ▪ Provide administrative and educational support, such as streamlining the permit process and providing support for affordable housing, education, and application materials for homeowners and developers. ▪ Provide additional funding for deeply affordable and special needs housing. ▪ Update housing policy and affordability targets in the Comprehensive Plan.

Environmental Resource	Baseline (No Action) Alternative	Lower Zoning Alternative	Higher Zoning Alternative	Examples of Potential Mitigation Measures
Transportation	Current transportation trends would continue. Vehicle trips would increase (by approximately 2,500 during PM peak period and citywide by 29,900 daily on weekdays, which would have a minimal impact citywide or to corridor traffic operations but may increase congestion at some intersections. Per capita vehicle miles traveled (VMT) would be the highest compared to the Lower and Higher Alternatives. Bicycle and pedestrian trips on existing city facilities would increase slightly based on current trends, resulting in a minimal effect on active transportation infrastructure. Transit service may be minimally impacted along arterial corridors, based on continuation of current development trends.	Vehicle trips would increase (by approximately 8,550 during PM peak period and citywide by 120,200 daily on weekdays) and could result in greater VMT on an average weekday compared to the Baseline Alternative, although per capita VMT would be lower due to reduced reliance on personal vehicles associated with increased density. Bicycle and pedestrian trips would increase on existing city facilities, moderately affecting active transportation infrastructure. Sidewalk improvements associated with new development would reduce potential impacts. Transit service may be slightly impacted along arterial corridors, particularly if new development is consolidated geographically. The proposed reduction/elimination of parking requirements and increase in bike parking requirements will further support the shift to multimodal transportation.	Vehicle trips would increase (by approximately 17,000 during PM peak period and citywide by 171,600 daily on weekdays) and could result in greater VMT on an average weekday compared to the Baseline and Lower Zoning alternatives, although per capita VMT would be the lowest. Bicycle and pedestrian trips would increase on existing city facilities slightly more than the Lower Zoning Alternative. Like the Lower Zoning Alternative, sidewalk improvements associated with new development would reduce potential impacts under the Higher Zoning Alternative. Transit service may be moderately impacted along arterial corridors, particularly if new development is consolidated geographically. The proposed reduction/elimination of parking requirements and increase in bike parking requirements will further support the shift to multimodal transportation.	▪ Use an approach based on equity, safety, and connectivity to prioritize investments in the pedestrian network, missing sidewalk connections, and access to transit. ▪ Implement Vision Zero Action Plan. ▪ Invest in improvements to and expansion of the City's bicycle network and transit service. ▪ Implement an impact fee system for new development. ▪ Adopt additional parking management strategies for on-street, public off-street, and private off-street parking. ▪ Ongoing evaluation of access and right-of-way standards to promote multimodal and safety, along with housing development goals.

Environmental Resource	Baseline (No Action) Alternative	Lower Zoning Alternative	Higher Zoning Alternative	Examples of Potential Mitigation Measures
Public Services and Utilities	Demand for services and utilities would continue to outpace existing capacity for some public services such as Fire and Police. Existing standards would require provision of new infrastructure and facilities with development. Current pressures on public services and utilities, such as response to urban flooding caused by climate change, would continue.	Demand for services and utilities will increase beyond existing demand. Existing standards would require provision of new infrastructure and facilities with development. Consolidating development may lead to increased efficiency in providing services and utilities.	Demand for services and utilities will increase the most beyond existing demand. Existing standards would require provision of new infrastructure and facilities with development. Consolidating development may lead to increased efficiency in providing services and utilities.	▪ Increase staffing levels for public services (Police, Fire, Schools, etc.). ▪ Expand System Development Charge program or explore additional "fee in lieu" charges for infrastructure needed for development. ▪ Adopt a "fee in lieu" charge, or expand system development charge eligibility so that developers pay a share of the local area distribution system upgrades necessary, such as fire flow and low pressure. ▪ Allow shared solid waste service. ▪ Update stormwater and wastewater policies and design standards, such as changes to the minimum pipe size when installing or replacing wastewater mains. ▪ Require solar readiness for detached one- and two-unit dwellings. ▪ Consider requiring shade trees, window awnings, white roofs, or other features that mitigate peak summer electrical load. ▪ Require developers to oversize water mains to provide additional benefit to the water system. ▪ Update access and utilities standards to more clearly address issues specifically related to middle-housing types. ▪ Revise solid waste rate structure for multifamily housing. ▪ Adopt new requirements for alley and road access, parking restrictions, and other improvements to allow safer and more efficient solid waste collection.

Environmental Resource	Baseline (No Action) Alternative	Lower Zoning Alternative	Higher Zoning Alternative	Examples of Potential Mitigation Measures
Parks and Recreation	Current trends related to parks and recreation would continue. Recreational needs will be met for many households primarily in private yards.	Increased population density will result in greater utilization of parks and open spaces, which could impact programs and facilities. The proposed zoning approach, which allows higher densities near parks and schools, will gradually increase the proportion of Tacoma residents who live within the "10-minute walkshed" of parks and schools. Amenity space on residential sites would be smaller and shared.	Increased population density will result in even greater utilization of parks and open spaces, which could impact programs and facilities. The proposed zoning approach, which allows higher densities near parks and schools, will gradually increase the proportion of Tacoma residents who live within the "10-minute walkshed" of parks and schools. Amenity space on residential sites would be even smaller and shared.	▪ Consider implementation of a Parks Impact Fee system to fund additional park and recreational opportunities. ▪ Invest in pedestrian safety projects to improve access to parks. ▪ Strategic land acquisition for new parks in areas not currently meeting "10-minute walksheds" to increase parks and recreation access for the community.
Historic, Cultural, and Archaeological Resources	Current protections of historic built environment and archaeological resources would not change and there would be a negligible increased potential for impacts to those resources due to additional development, including the potential for demolition.	The potential impacts to historic built environment and archaeological resources (demolition of existing structures or disturbance during construction) could be greater than under current trends, but not as great as under the Higher Zoning. However, the potential risk of demolition or disturbance could be reduced based on proposals to provide a bonus for retention of existing buildings and additional flexibility to utilize existing buildings over 50 years old for nonresidential uses. There would be an increase in development pressure within designated Historic Districts as well as areas eligible for designation.	The potential for impacts to historic built environment and archaeological resources (demolition of existing structures or disturbance during construction) is the highest of the three alternatives. However, like the Lower Zoning Alternative, the potential risk of demolition or disturbance could be reduced based on proposals to provide a bonus for retention of existing buildings and additional flexibility to utilize existing buildings over 50 years old for non-residential uses. There would be an increase in development pressure within designated Historic Districts as well as areas eligible for designation.	▪ Update design guidelines and standards for designated Special Review Districts and Conservation Districts. ▪ Update City's Demolition Code and/or Building Code to encourage construction salvage to address anticipated increase in waste stream resulting from increased demolition.

1. Introduction

Home In Tacoma Phase 2 (the Proposal) is intended to implement changes to Tacoma's housing growth strategy, policies, and programs developed during Home In Tacoma Phase 1 (Phase 1) and adopted by Tacoma City Council in December 2021. The Proposal is intended to increase housing supply, affordability, and choice for current and future residents of the City of Tacoma and to encourage housing development that supports multiple goals. Tacoma City Council plans to take action on the Proposal in spring 2024, following completion of the Washington State Environmental Policy Act (SEPA) process.

1.1 Project History

1.1.1 Home In Tacoma Phase 1

As part of the City's Affordable Housing Action Strategy (AHAS), Home In Tacoma Phase 1 evaluated diverse housing types and inclusionary zoning options throughout Tacoma. The intent was to increase housing supply, create affordable housing options, and increase the choice of housing types throughout Tacoma's neighborhoods while encouraging housing development that supports multiple goals.

Phase 1 began with a policy evaluation of Tacoma's housing growth strategy citywide. The Urban Form chapter of the One Tacoma Plan includes Tacoma's Future Land Use Map (FLUM) and designations that set the vision and high-level direction for growth citywide. The Council's Phase 1 action updated Tacoma's FLUM, making the following changes:

- Replaced Single-family and Multifamily Low-Density Land Use designations with Low-Scale Residential and Mid-Scale Residential designations, allowing more housing choices citywide.
- Designated areas near Centers, Corridors, and bus routes for Mid-Scale Residential.
- No changes were made to Downtown, Centers, or to areas where housing is not the primary goal (such as parks and commercial and industrial areas), with map cleanups to recognize parks and open spaces and the Airport Compatibility Area.

Phase 1 policies call for three broad categories of actions, each of which are applicable in different areas. The two primary categories are Inclusionary Zoning and Diverse Housing Types (Missing Middle Housing), and the third is reviewing residential zoning in areas outside of the Low-Scale and Mid-Scale Residential designations. Diverse Housing Types/Missing Middle Housing strategies pertain to housing types between Detached Single-Family Housing and Mid-Rise Multifamily. Inclusionary zoning strategies typically pertain to medium to high-density housing types.

Phase 1 policies call for a thorough evaluation of the potential impacts of the new housing growth strategy and implementation of mitigation actions as appropriate as part of the Proposal. The Phase 1 package was informed by an environmental review under SEPA. The City issued a Mitigated Determination of Environmental Nonsignificance (MDNS), structured as the first of two environmental review processes, which also calls for in-depth analysis as part of the Proposal. The Phase 1 MDNS concluded that, overall, implementing Home In Tacoma policies will result in a better outcome for the environment as compared to the current housing growth strategy. Adoption of these proposals would make it more likely that Tacoma will meet its adopted local and regional growth goals and will result in improved outcomes in terms of housing, health, transportation, sustainability, economic growth, and other goals. Potential environmental impacts of these proposals will be addressed through existing policies, standards, and programs; by policy proposals included in this package; and by required

mitigations detailed in the MDNS. Specifically, the MDNS commits to environmental review of the following topics in the Proposal (additional topics are likely to be addressed):

- Infrastructure and services capacity to support housing growth.
- Open space, stormwater and urban forestry standards and processes.
- Design, scale, and demolition risk evaluation.
- Ongoing review of implementation and actions to address any unintended consequences.

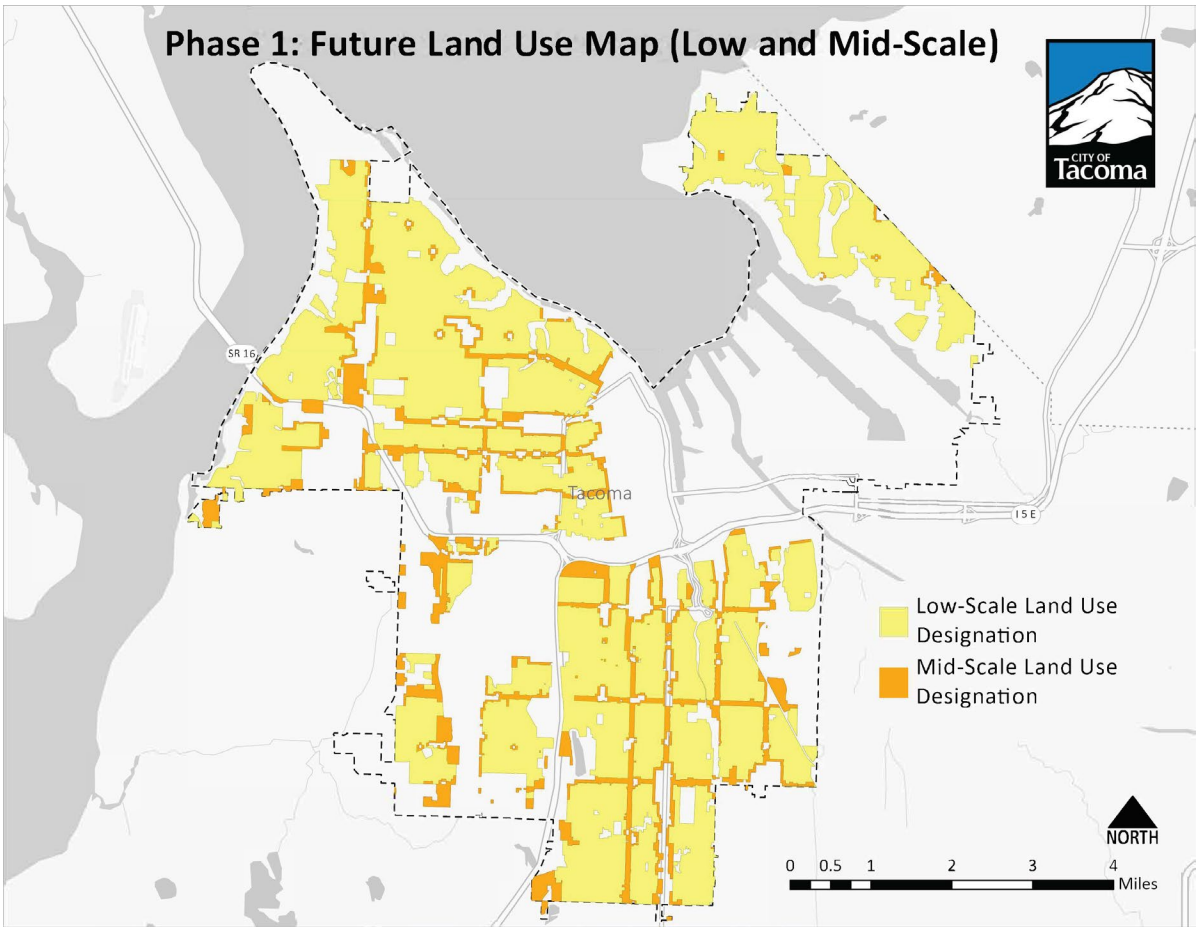
After a 2-year policy development effort, in December 2021 the City Council adopted Phase 1 policies. Ordinance 28793 changed policies in the One Tacoma Plan, the City's blueprint for community growth. The City Council action adopts a new housing growth vision, updates housing policies, enables Missing Middle Housing in Tacoma's neighborhoods, calls for actions to ensure Tacoma gets housing growth right, and calls for actions to make housing more affordable. Council's action has initiated this second phase of policy work and public engagement to develop zoning, standards, programs, and other implementation steps (2022 Final Scope and Assessment Report).

Phase 1 culminated in the adoption of Ordinance 28793. The City Council's action adopted the following components:

- Housing Growth Scenario Map.
- One Tacoma Plan changes.
- Near-term code changes.
- Tacoma Housing Action Plan.

The housing growth scenario map adopted for Phase 1 is shown in Figure 1.1-1.

Figure 1.1-1. Phase 1 Future Land Use Map



Source: Tacoma 2023

1.1.2 Tacoma Planning Commission Evaluation Criteria

After the completion of Phase 1, the Tacoma Planning Commission identified a number of criteria intended to help inform and compare how well the alternatives meet the objectives of the Proposal, described further in Section 1.3. Those criteria guided the development of the Proposal alternatives, described further in Chapter 2, Alternatives Evaluated, as well as informed the analysis of impacts included in Chapter 3, Natural Environment – Affected Environment, Impacts, and Potential Mitigation Measures, and Chapter 4, Built Environment – Affected Environment, Impacts, and Potential Mitigation Measures. The criteria include:

Housing and Land Use: Affordability, Supply, Choice, Equity & Displacement, Access to Amenities, and Historic Preservation/Design Character

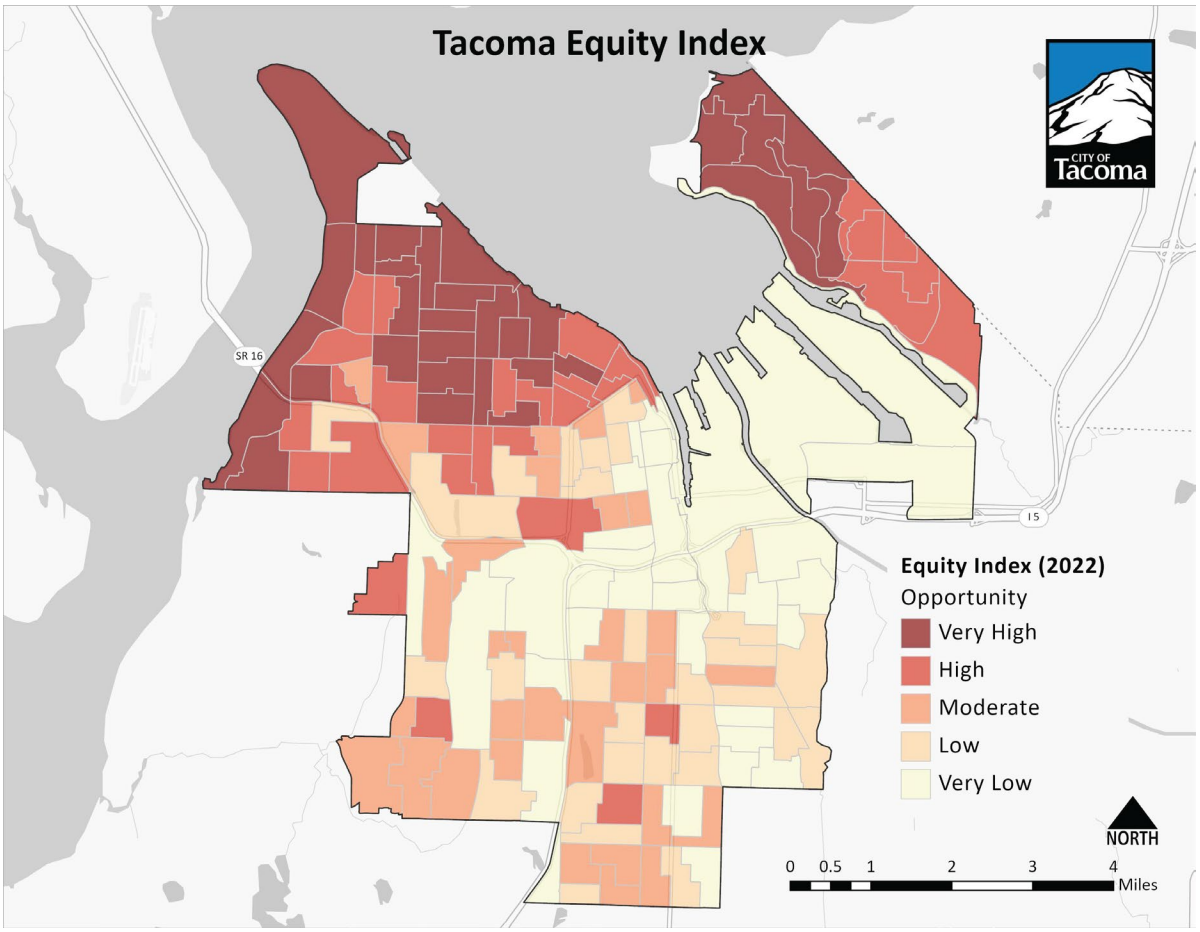
Environment: Critical Area Conservation, Tree Protection, Water Quality, Air Quality, Public Health, and Climate Resistance.

Infrastructure and Mobility: Access to Transit, Traffic Congestion, Public Services/Utilities, Parking, Cycling Access, and Safety.

1.1.3 Tacoma Equity Index

The Proposal has also been informed by the City's Equity Index Map (Figure 1.1-2), which is a data-driven tool that is used to identify, track, and close disparities and prioritize investments based on where and who has access to opportunity.[2] Access to opportunity includes the opportunity to safely walk to school, earn a living wage, and access healthy food. Access to transit is a key component of high opportunity areas. Tacoma's policies generally support actions to reduce the disparities in opportunities across neighborhoods of the City, as well as making access to high opportunity areas more equitable.

Figure 1.1-2. Tacoma Equity Index Map



Source: Tacoma 2023

[2] Tacoma's Equity Index Map can be accessed at https://tacomaequitymap.caimaps.info/CAILive/?location=Tacoma&layer=EquityLayer&tab=demo&searchType=city

1.1.4 Existing Tacoma Policy and Regulatory Framework

Home In Tacoma Phase 2 is being proposed within the context of existing regulations, programs, and policies within the City of Tacoma, as well a larger regional planning framework. For example, any additional development allowed under the Proposal on properties designated or near properties designated as critical areas would still be regulated by the City's Critical Areas Preservation Code (Tacoma Municipal Code [TMC] Chapter 13.11), which may limit increased density on those properties. Similarly, all applicable federal, state, and local regulations and guidelines that govern development, including the State Environmental Policy Act (SEPA), apply. Any additional growth anticipated as a result of the Proposal would also be consistent with the range of growth planned for Tacoma through the Puget Sound Regional Council's regional planning, VISION 2050.

Other relevant plans, programs and policies include the following:

- City of Tacoma Affordable Housing Action Strategy.
- One Tacoma Plan –particularly the Housing, Design and Development, Urban Form, and Environment Elements, currently undergoing a major update.
- Tacoma 2025 Strategic Plan.
- Antiracism Transformation (Resolution No. 40622).
- Tacoma's Equity and Empowerment Framework.
- Tacoma's Equity Index.
- Tacoma Environmental Action Plan.
- Tacoma Urban Forest Management Plan.
- Tacoma's Climate Action Plan.
- Trust for Public Lands Community Schoolyards Program.
- Grit City Trees Program.
- Vision Zero Tacoma.
- 2017 Safe Routes to School Action Plan.
- Tacoma Sidewalk Program.
- ADA Transition Plan.
- Tacoma in Motion Program (Commute Trip Reduction).
- Transportation Master Plan.
- Historic Preservation Program.

Any potential impacts that may occur as a result of the Proposal would occur within the context of these existing regulations, programs, and policies, many of which are specifically intended to reduce impacts or improve environmental conditions within Tacoma.

1.1.5 State Legislative Direction

In 2023, the Washington State Legislature passed several housing bills related to Home In Tacoma, including:

- House Bill (HB) 1110, which requires larger cities, including Tacoma, to allow up to 4 units per residential lot; up to 6 per lot if located within a quarter-mile of a transit stop or if 2 of the homes are affordable.

- HB 1337, which requires jurisdictions to allow 2 accessory dwelling units per lot and lifting numerous restrictions, such as owner-occupancy requirements.
- Senate Bill (SB) 5412, which provides that jurisdictions may adopt a categorical exemption for housing development that is consistent with all development regulations implementing an applicable comprehensive plan, where the City has prepared an environmental analysis that considers the proposed use or density and intensity of use in the area proposed for exemption and analyzes multimodal transportation impacts.

Other bills legalized adding housing to existing buildings (HB 1042), helping to streamline permitting (SB 5290), adding limitations to local design review (HB 1293), and reducing regulatory barriers to condo construction (SB 5258).

The Proposal is consistent with the recent state housing actions including HB 1110 and Tacoma intends for this EIS to support future adoption of a categorical exemption for housing development, pursuant to HB 5412.

1.2 Proposal Description

In December 2021, the Tacoma City Council amended the One Tacoma Plan to enact changes to Tacoma's housing growth strategy, policies, and programs in order to increase housing supply, affordability, and choice for current and future residents as part of Tacoma's Affordable Housing Action Strategy. Those changes, along with near-term code and programmatic actions, were referred to as Home In Tacoma Phase 1, described further in Section 1.1. A key component of Phase 1 was to adopt a new Future Land Use Map, which replaced all Single-Family and Multifamily Low-Density land use designations with Low-Scale and Mid-Scale Residential. Additional information regarding Phase 1 can be found in City of Tacoma Ordinance No. 28793 and the associated Mitigated Determination of Nonsignificance.

The City of Tacoma is now working to implement the Phase 1 policy direction through new zoning designations, development standards, and other actions, together referred to as Home In Tacoma Phase 2. Specifically, the Proposal includes:

Middle Housing refers to a range of multiunit or clustered housing types, such as duplexes, fourplexes, courtyard housing, and multiplexes, that is reasonably compatible in scale with single-family homes. Middle housing often supports walkability and can provide housing options along a spectrum

- Establishment of new Urban Residential (UR) zones supporting a range of middle housing options, along with base and bonus densities, scale, and other standards, to replace existing residential zones. All of the new UR zones would support a range of housing types, including middle housing. The proposed UR zones are differentiated by the allowed density (number of dwellings allowed based on lot area), the allowed housing types and building scale (height, building width, Floor Area Ratio and similar), and the potential bonus density and scale available in exchange for affordable housing and other public benefits.
- Determination of the geographic extent of the new UR zones in areas designated Low-Scale and Mid-Scale Residential in the One Tacoma Plan.
- Zoning changes to residentially zoned areas in other One Tacoma Plan designations to UR or other appropriate zones.
- Changes to residential design and development standards (including height, building size, yards, trees and landscaping, access, parking ratios, lot dimensions, setbacks, subdivisions, ownership, and others).
- Changes to residential land uses, definitions, and permit processes.

- Increases the residential environmental review threshold from 20 to 40 units and adds standards for transportation, soil testing, and historic, cultural, and archaeological review.
- Enhancement and expansion of regulatory affordability tools (including the Multifamily Tax Exemption Program and bonuses in residential zones).
- Actions to ensure that infrastructure and services are adequate to support growth.
- Actions to address the potential demolition of viable structures.
- Actions to create green, sustainable, and climate-resilient housing.
- Actions to protect and enhance the urban forest.
- Actions to promote physical accessibility.
- Development of an anti-displacement strategy.
- Potential view protections in areas where they do not currently exist.
- Actions to ensure consistency with state legislative direction.
- Education and technical support for developers and the public.

Additional detail regarding Home In Tacoma Phase 1 and the Proposal is included in Tacoma's *2022 Phase 2 Scope of Work and Assessment Report*. The Proposal has been further defined through public engagement, response to state directives, and technical analysis, all of which are reflected in this EIS.

1.3 Proposal Objective

The purpose of the Proposal is to implement Tacoma's adopted policies regarding housing growth and development—particularly the policy direction adopted by the Tacoma City Council in December 2021, Home In Tacoma – Phase 1 (Ordinance 28793), which enacted a new housing growth vision and updated policies to enable Missing Middle Housing in Tacoma's neighborhoods, ensure Tacoma gets housing growth right, and take actions to make housing more affordable. The Proposal's housing and land use objectives are to:

- Increase housing supply, affordability, and choice for current and future residents as part of Tacoma's Affordable Housing Action Strategy,
- Promote housing equity and combat displacement,
- Promote equitable access to opportunities,
- Promote complete neighborhoods,
- Promote quality design and scale of new structures that is reasonably compatible with residential patterns, and
- Promote adaptive reuse of existing structures.

In addition, the Proposal will promote environmental goals, including protection for sensitive areas, a robust urban forest, water and air quality, climate resilience, and public health, and will promote infrastructure and mobility goals including walkability, transportation choices and safety for people of all abilities, and efficient and resilient public utilities and services.

1.4 Need for Environmental Review

The City of Tacoma, as lead agency for environmental review, has determined that Home In Tacoma Phase 2 will likely have significant impacts on the environment and issued a Determination of Significance, pursuant to SEPA (Revised Code of Washington [RCW] 43.21C.030(2)(c)) on November 12, 2022. In response to the Determination of Significance, the City of Tacoma has analyzed impacts to the natural and built environments in this Draft EIS.

Home In Tacoma Phase 2 is considered a non-project action. SEPA defines non-project actions as governmental actions involving decisions on policies, plans, or programs that contain standards controlling use of or modifications to the environment, or that will govern a series of connected actions. This includes, but is not limited to, the adoption or amendment of comprehensive plans, transportation plans, ordinances, rules, and regulations (Washington Administrative Code [WAC] 197-11-704). SEPA review for non-project actions requires agencies to consider the "big picture" by taking the following actions:

- Conducting comprehensive analysis.
- Addressing cumulative impacts.
- Considering possible alternatives.
- Outlining successful mitigation measures.

An EIS for a non-project proposal does not require site-specific analyses. Therefore, the EIS provides qualitative and quantitative descriptions of the likely environmental effects that may occur with the alternatives.

As discussed in Section 1.1.4, Tacoma intends for this EIS to support future adoption of a SEPA categorical exemption for housing development, pursuant to HB 5412, by considering the proposed use or density and intensity of use in the area proposed for exemption and analyzing multimodal transportation impacts.

1.5 Benefits and Disadvantages of Delaying Implementation

SEPA requires the consideration of the benefits and disadvantages of delaying implementation of a proposal (WAC 197-11-440(5)(c)(vii)). Delaying the implementation of the Proposal would delay or reduce the beneficial impact of adding to the diversity and affordability of housing within Tacoma. Minor impacts, including construction impacts associated with development, would be delayed.

1.6 Draft EIS Process and Public Outreach

The City of Tacoma issued a Determination of Significance and a Notice of an EIS for the Proposal on January 3, 2023. The public was invited to comment on the scope of the EIS through February 10, 2023.

In addition to the initial scoping comment period, continuous public engagement is being conducted to support the Proposal as well as for the formal EIS process. This includes multiple online and in-person events; public, City Council, taskforce, and commission meetings; three formal public hearings; and three citywide public notice mailings.

Two rounds of engagement to connect with the community regarding Home In Tacoma Phase 2 have been completed to inform the development of the Proposal. The first round of engagement took place from January to March 2023 and included the following:

- Housing Equity Champions: 24 Participants.
- EIS: Approximately 100 comments.
- Home In Tacoma survey: Approximately 1100 responses.
- Social Pinpoint Ideas Wall: More than 300 comments.
- Developer engagement.
- Community events and meetings.

The second round of engagement took place from April to June 2023:

- In-person City Council District meetings.
- Eight Open House events (seven in person and one virtual).
- Over 1,000 participants.
- Publicly available summary of prior public engagement and FAQ document.

A third round of engagement will include additional activities and methods to get feedback on the public review draft of the Home In Tacoma proposal (proposed zoning, development regulations, and supporting analysis) that will be considered by the Tacoma Planning Commission (Commission) and, eventually, Tacoma City Council. Engagement activities will include in-person and online events and an online map where comments may be added.

In addition to these engagement activities, ongoing meetings and presentations have been made to various commissions, neighborhood councils, community events, and stakeholder groups.

A public comment period and public meeting will be held on the Draft EIS (see Fact Sheet for further details). A list of who the Draft EIS will be distributed to is attached as Appendix B, Distribution List.

2. Alternatives Evaluated

SEPA requires an EIS to analyze the probable adverse environmental impacts of a range of reasonable alternatives, including a "no action" alternative (WAC 197-11-402(1) and WAC 197-11-060(3)). For non-project proposals, such as Home In Tacoma Phase 2, SEPA encourages agencies to describe the proposal in terms of alternative means of accomplishing a stated objective rather than a preferred solution (WAC 197-11-442(2)).

2.1 How the Alternatives Were Developed

2.1.1 Home In Tacoma Phase 1

In adopting Home In Tacoma Phase 1 and setting Tacoma's new housing growth strategy, the City Council also initiated Home In Tacoma Phase 2, an initiative to develop zoning, standards, and actions to support housing growth. Council directed that Phase 2 would be a broad, equitable, and collaborative citywide conversation about how to manage growth and change in Tacoma, supported by relevant studies and technical analysis to ensure that the Proposal's goals would be met.

2.1.2 Defining Zoning – Preliminary Evaluation

Tacoma began its alternatives development process by considering potential new zones, defined by development intensity and criteria, such as:

- Maximum unit-based floor area ratio.
- Maximum total height.
- Maximum lot coverage.
- Minimum off-street parking requirements.

The general process for defining housing types and associated zoning districts took into consideration the city's growth, housing demands, and affordability factors. City staff conducted extensive community engagement and consultation with a broad range of stakeholders in scoping and developing. They engaged the community in a discussion regarding housing needs, development trends, zoning, and neighborhood changes. The process also analyzed data to identify gaps or opportunities for housing types in different areas of the city.

The policies adopted in Phase 1 called for increasing housing flexibility and choice by creating two new residential land use designations to replace the previous Single-Family and Multifamily Low-Density Land Use designations on Tacoma FLUM—the City's blueprint for guiding growth.

The adopted changes would shift Tacoma's housing rules from an emphasis on housing types (such as single-family) to building form, design, and scale. The objective is to provide more housing options, support affordability, diversity, walkability, and thriving neighborhood businesses while ensuring that new housing complements the overall scale and residential patterns of existing neighborhoods.

2.1.3 Establishing Growth Estimates

Once the general zoning districts were defined, Tacoma undertook an exercise to establish potential growth estimates to understand approximately how much density would be allowed under new zoning scenarios and how many new units were likely to be developed under each. The methodology is

documented and attached as Appendix A, Revised Growth Estimates Methods. Those growth estimates were then used to help define the alternatives evaluated in this Draft EIS (see Section 2.2).

The growth estimates are distinct from Tacoma's adopted population growth targets, adopted by the Pierce County Council in August 2022 (Ordinance No. 2022-46s), which allocates 105,977 in new population growth and 42,390 new housing units to the city over the next 20-year horizon. They are also distinct from the City's adopted Vision 2050 growth targets, which call for 63,900 additional households or 137,000 in population growth.

2.2 Summary of Alternatives

The Draft EIS will evaluate three alternatives: the No Action Alternative, referred to throughout as the Baseline Alternative, and two action alternatives, the Lower Zoning Alternative and the Higher Zoning Alternative. The action alternatives are defined primarily based on the number of new housing units likely to be developed under new zoning designations, over an approximately 30-year horizon (out to 2050). Under all of the alternatives, potential growth in Tacoma, including new growth associated with the Proposal, is anticipated to be consistent with the regional growth targets adopted under the Puget Sound Regional Council's Vision 2050.

Both action alternatives would replace several existing residential zones (R-1, R-2, R-2-SRD, HMR-SRD, R-3 and R-4L) with new UR zones developed to implement the policy direction for the Low-Scale Residential and Mid-Scale Residential designations established in Phase 1, as shown in Figure 1.1-1. Although the action alternatives primarily replace existing residential zones within the One Tacoma Plan Low- and Mid-Scale Residential designations, both action alternatives would also replace some existing residential zones in other land use designations, such as Parks and Open Space and Major Institutions. In these areas, the existing residential zones would be replaced by the proposed UR zones or by other zoning more consistent with the comprehensive plan land use designation.

In addition, both action alternatives include changes to allowed land uses, permit processes, and development standards that may be applicable outside of the Low- and Mid-Scale Residential designations in order to enhance the consistency of the regulatory framework or to meet state law.

For purposes of this EIS, the attributes associated with the proposed UR zones (UR-1, UR-2, and UR-3) that have been developed as part of the Proposal have been assigned to representative zones used to compare the potential environmental impacts of a range of reasonable alternatives to accomplish the Proposal. These attributes include:

- The allowed density (number of dwellings allowed based on lot area),
- The allowed housing types and building scale (height, building width, floor area ratio, and similar), and
- The potential bonus density and scale available in exchange for affordable housing and other public benefits.

The representative zones are referred to throughout the EIS as "Lower Alternative Low-Scale Residential," "Lower Alternative Mid-Scale Residential," "Higher Alternative Low-Scale Residential," and "Higher Alternative Mid-Scale Residential" and are described further below, along with additional descriptions of the three alternatives to be evaluated in this EIS.

2.2.1 Baseline Alternative (No Action)

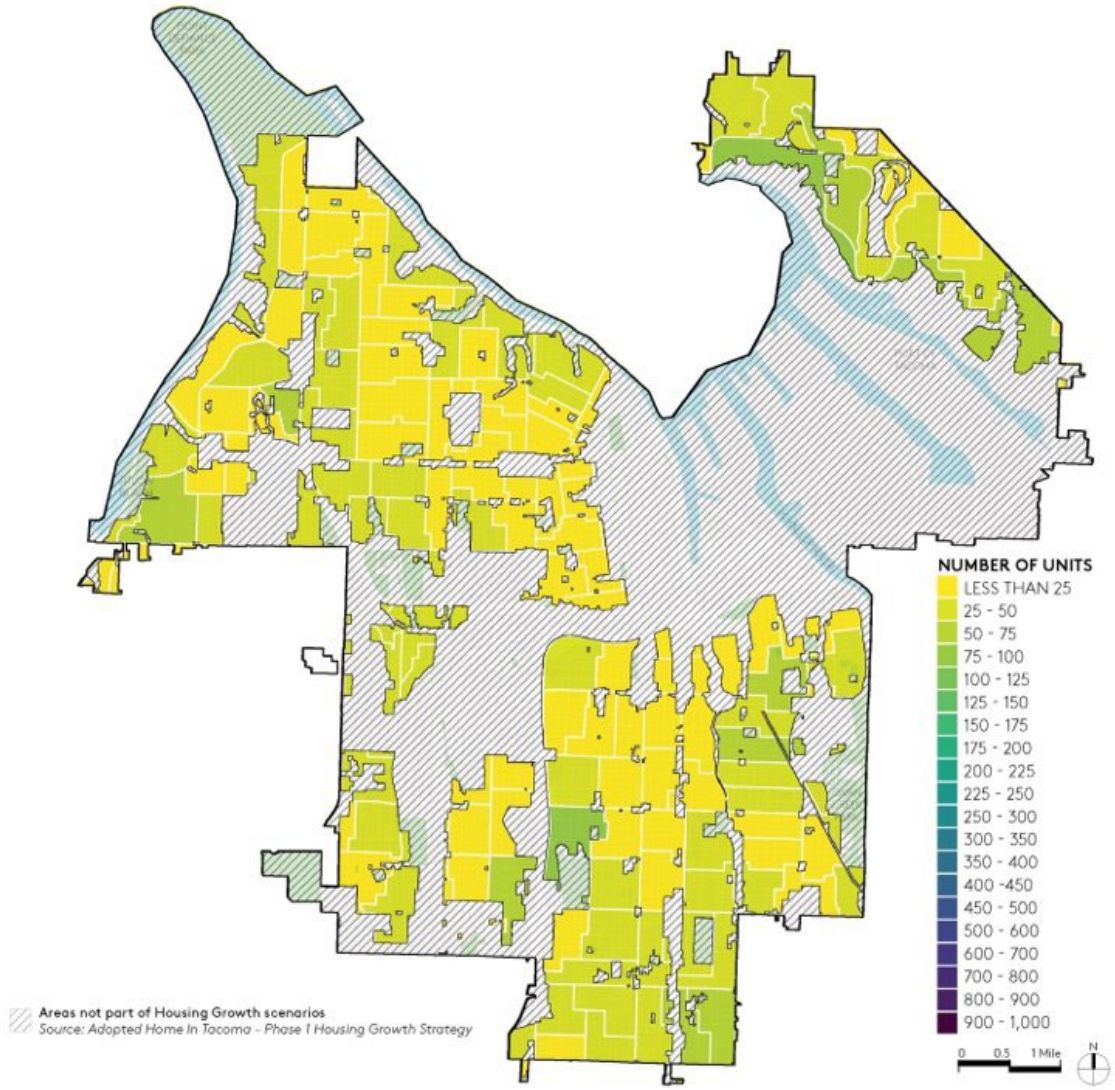
This alternative would reflect existing zoning, including R-1 (1 dwelling unit dwelling unit per 7,500-square-foot lot), R-2 and R2-SRD (1 dwelling unit per 5,000-square-foot lot), R-3 and

HMR-SRD (2 to 4 dwelling units per 5,000-square-foot lot), R-4-L and R-4 (4 to 10 dwelling units per 5,000-square-foot lot).

Under the Baseline Alternative, approximately 3,840 new units would be likely to be constructed in the project area by 2050, as illustrated in Figure 2.2-1.

Per adopted Phase 1 policy and state middle housing mandates adopted in the 2023 legislative session, this alternative is not viable moving forward and is included solely for comparison purposes.

Figure 2.2-1. Baseline Alternative – Likely New Housing Units



Source: Tacoma/Mithun 2023

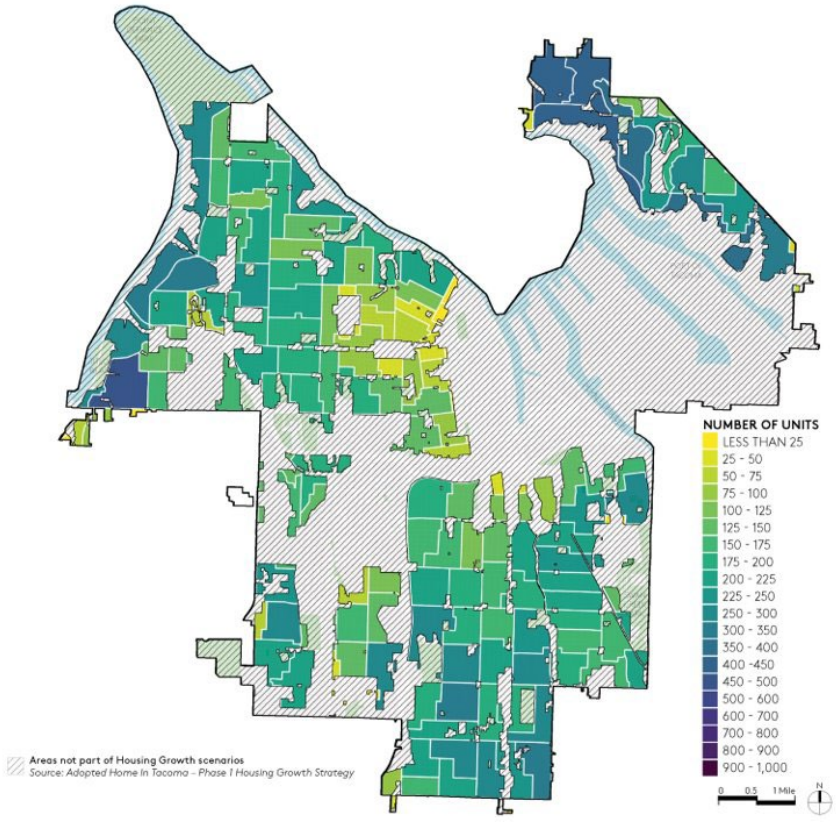
2.2.2 Lower Zoning Alternative

This alternative would allow 4 dwelling units per 6,000 square foot lot in all areas designated as Low-Scale Residential in Phase 1, which is equivalent to the base density that would be allowed under the proposed UR-1 zone and referred to in this EIS as Lower Alternative Low-Scale Residential. The Lower Zoning Alternative would allow 6 dwelling units per 6,000 square foot lot in all areas designated as Mid-Scale Residential in Phase 1, equivalent to the density that would be allowed under the proposed UR-1 zone, with bonus, or the base density allowed under the proposed UR-2 zone and referred to as "Lower Alternative Mid-Scale Residential."

Under the Lower Zoning Alternative, approximately 25,660 new units would be likely to be constructed in the project area by 2050,[3] as illustrated in Figure 2.2-2.

In the Lower Alternative Low-Scale Residential zone (Lower Alt Low-Scale zone), Houseplexes, Backyard Buildings, Rowhouses, and Courtyard Housing (detached) would be allowed. In the Lower Alternative Mid-Scale Residential zone (Lower Alt Mid-Scale zone), in addition to the above housing types, Courtyard Housing (all) and multiplexes would also be allowed.

Figure 2.2-2. Lower Zoning Alternative – Likely New Housing Units



Source: Tacoma/Mithun 2023

[3] The likely net new units for the Lower Zoning Alternative were estimated based on a 7.5% redevelopment rate for developed parcels and a 12% redevelopment rate for vacant parcels. In addition, the net new units were estimated assuming a 5,000-square-foot lot, and thus result in a conservative estimate when applied to 6,000-square-foot lot, as assumed for the action alternatives.

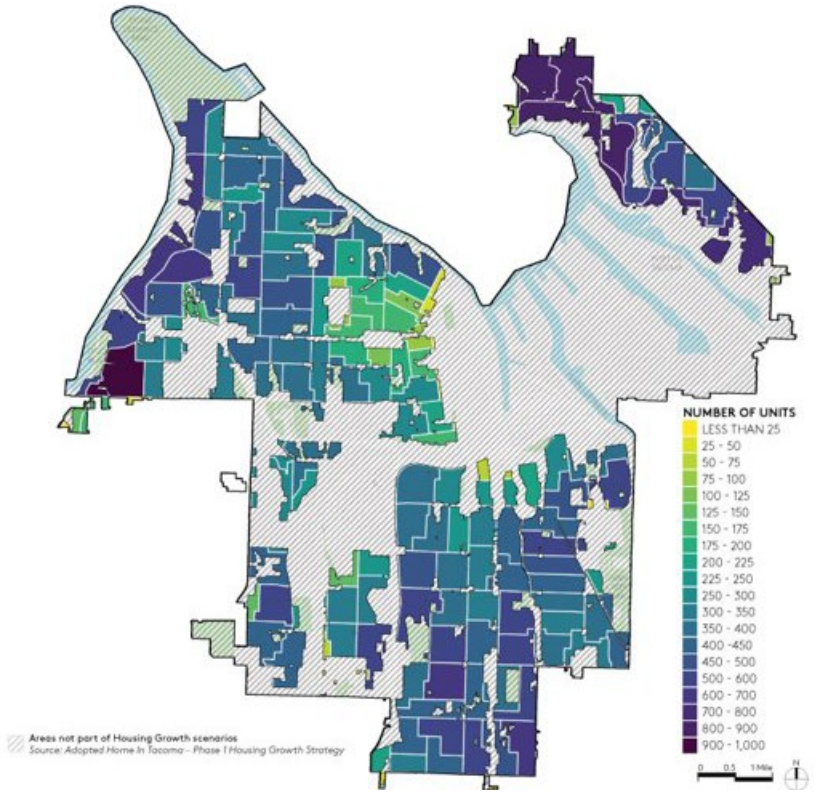
2.2.3 Higher Zoning Alternative

This alternative would allow 8 dwelling units per 6,000-square-foot lot in all areas designated as Low-Scale Residential in Phase 1, equivalent to the density that would be allowed under the proposed UR-2 zone, with bonus density, or the base density allowed under UR-3, and referred to as Higher Alternative Low-Scale Residential. The Higher Zoning Alternative would allow 12 dwelling units per 6,000-square-foot lot in all areas designated as Mid-Scale Residential in Phase 1, equivalent to the density allowed under the proposed UR-3, with bonus, and referred to as Higher Alternative Mid-Scale Residential.

Under the Higher Zoning Alternative, approximately 53,620 new units would be likely to be constructed in the project area by 2050,[4] as illustrated in Figure 2.2-3.

In the Higher Alternative Low-Scale Residential zone (Higher Alt Low-Scale zone), Houseplexes, Backyard Buildings, Rowhouses, and Courtyard Housing (all) would be allowed. In the Higher Alternative Mid-Scale Residential zone (Higher Alt Mid-Scale zone), in addition to the above housing types, multiplexes would also be allowed.

Figure 2.2-3. Greater Zoning Alternative – Likely New Housing Units



Source: Tacoma/Mithun 2023

[4] As with the likely net new units for the Lower Zoning Alternative, the likely net new units for the Higher Zoning Alternative were estimated based on a 7.5% redevelopment rate for developed parcels and a 12% redevelopment rate for vacant parcels. In addition, the net new units were estimated assuming a 5,000-square-foot lot, and thus result in a conservative estimate when applied to 6,000-square-foot lot, as assumed for the action alternatives.

2.2.4 Additional Definition of Alternatives

The assumed densities in each representative zone were selected to approximate the "bookends" of lowest and highest densities likely to be permitted in Low- and Mid-Scale Residential areas. The potential typical density maximums for Low-Scale Residential were assumed to be between 4 dwellings per 6,000-square-foot lot (the assumed density in the Lower Alt Low-Scale zone) and 8 dwellings per 6,000-square-foot lot (the assumed density in the Higher Alt Low-Scale zone). The potential typical density maximums for Mid-Scale Residential were assumed to be between 6 dwellings per 6,000-square-foot lot (the assumed density in Lower Alt Mid-Scale zone) and 12 dwellings per 6,000-square-foot lot (the assumed density in the Higher Alt Mid-Scale zone).

Multiple components of the Proposal will affect the actual number of new units constructed—including the zoning and development standards described below, which may continue to be refined as the Proposal moves forward.[5]

Assumed Density – Likely New Units

Rather than the zoned capacity, this EIS focuses on the potential impacts of likely net new units that could result from each alternative. An estimate of the number of total dwelling units that are likely to be constructed, based on existing housing units, zoned capacity under the new zoning for each alternative and assumed redevelopment rates, are illustrated in Table 2.2-1. The likely net new dwelling units, by alternative, are also illustrated in Figure 2.2-1 through Figure 2.2-3.

Table 2.2-1. Existing and New Housing Unit and Zoning Capacity by Alternative

Alternatives	Existing Housing Units	Existing Zoned Capacity	Net New Capacity	*Likely Net New Units*	TOTAL (Existing + Net New Units)
Baseline Alternative	66,235	106,552	49,186	***3,840***	70,072
Lower Zoning Alternative	66,235	394,473	334,705	***25,660***	91,891
Higher Zoning Alternative	66,235	760,988	700,734	***53,620***	119,854

Source: Pierce County Taxlot Data with calculations by Mithun, Pierce County 2014 BLI, Pierce County 2022 BLI. redevelopment rate of 75% for all non-vacant lots and 12% for vacant lots.

It is important to note that the estimated likely net new units are not intended to be predictive of actual development outcomes for Tacoma, which depends upon multiple factors not evaluated in developing the net new zoning capacity and likely net new units identified in Table 2.2-1. Instead, the intended use of the new zoning capacity and likely net new units is to provide context and relative scales of difference between the three alternatives, summarized at the city-wide level. To determine the likely net new development under the new UR zoning, a 7.5% redevelopment rate was assumed for all non-vacant lots, and a 12% redevelopment rate was assumed for all vacant lots over a 30-year planning horizon (2020 to 2050). For more information on the assumptions and analysis that established these estimates, see Appendix A, Growth Estimates Methods Memo.

[5] The Proposal also includes standards allowing the creation and development of smaller lots. However, an assumed typical lot size of 6,000 square feet is used in the EIS to evaluate development potential on a citywide basis.

Allowed Density: Baseline Versus Action Alternatives

For comparison between the Lower Zoning Alternative and the Baseline Alternative, the density that would be allowed under the Lower Alt Low-Scale zone is somewhat higher than what is currently allowed under existing R-3 zoning and the density that would be allowed under the Lower Alt Mid-Scale zone, is between that allowed in the existing R-4-L and R-4 zones.

For comparison between the Higher Zoning Alternative and the Baseline Alternative, the density that would be allowed by Higher Alt Low-Scale is roughly equivalent to what would be allowed in the R-4 zoning and the density that would be allowed by Higher Alt Mid-Scale reflects a density that is somewhat higher than that allowed in the existing R-4 zone.

Housing Types by Alternative

In addition to the number of dwelling units, commonly referred to as "housing units," that would be allowed or likely to be constructed, the alternatives also include assumptions regarding the types of housing allowed, permitted uses, and development standards (height, bulk, scale, setbacks, etc.), based on the allowed zoning.

For both of the action alternatives, the range of permitted residential development would fit within five housing types, described below.

Houseplexes
A single building containing 1 to 6 units, which is generally the size of a single-family house and includes an entry from the street and a backyard. Single-family houses, duplexes, triplexes, fourplexes, sixplexes, and townhouses accessed with driveways perpendicular to the street (often called "slot homes") are included in this type.

Backyard Building
A building located behind another structure at the rear of a lot.

Rowhouse
A multistory building with access to the street from its front door and a private yard. Each rowhouse may contain more than 1 unit accessed from the same sidewalk and front door. A rowhouse is always attached to two to five other rowhouse buildings, which together create a "rowhouse cluster."

Courtyard Housing
A group of buildings or units arranged around a shared courtyard. Depending on the zone, units may be detached or attached. The courtyard is entered from the street, provides pedestrian access to the units, and is a shared social space that takes the place of private back yards.

Multiplexes
A medium building consisting of 7 or more stacked units, with the appearance of a large house or a small apartment building. Access is often from one shared entry at the street leading to a central corridor accessing all units, but other configurations are possible (including a few single-stair buildings connected together). Shared open space is provided at grade or on the roof.

- In the Lower Alt Low-Scale zone, houseplexes, backyard buildings, rowhouses, and courtyard housing (detached) would be allowed (which are the housing types that would be allowed under the proposed UR-1 zoning).
- In Lower Alt Mid-Scale zone, in addition to the above housing types, courtyard housing (attached), and multiplexes would also be allowed (which are the same housing types that would be allowed under the proposed UR-3 zoning).

- In the Higher Alt Low-Scale zone, houseplexes, backyard buildings, rowhouses, and courtyard housing (attached) would be allowed (which are the same housing types that would be allowed under the under the proposed UR 2 zoning).
- In Higher Alt Mid-Scale zone, in addition to the above housing types, multiplexes would also be allowed (which are the same housing types that would be allowed under the proposed UR-3 zoning).

Development Standards by Alternative

Along with housing type, new development standards would apply to each of the new zones. For purposes of this EIS, assumptions have been made regarding the range of potential development standards associated with each of these representative zones, with the least intensive or dense options associated with the Lower Zoning Alternative and the most intensive or dense options associated with the Higher Zoning Alternative. Although the specifics of these standards are not set, this approach is intended to support the EIS analysis of impacts. It is also important to note that this is a high-level summary intended to address components of the Proposal most likely to have relevance to the EIS. The City Council's final decisions regarding this Proposal may differ in both the specifics of the zoning, development standards and other actions, as well as in the manner that various development standards are combined, but all actions are intended to be supported by this EIS.

Some development standards would be the same for all UR zones and, thus, all of the representative zones, including:

- Minimum lot size of 2,500 square feet (baseline minimum lot size is 2,500 to 7,500 square feet), with provisions to allow separate ownership of each dwelling unit.
- Lot width of 25 feet (baseline lot width is 25 to 50 feet).
- Minimum lot frontage of 25 feet (baseline lot frontage is 25 feet).
- Minimum side setback of 5 feet (8 feet when used to access a unit entry door; baseline minimum side setback is 5 to 7.5 feet)

Other development standards would vary between the proposed UR zones and, therefore, between the representative action alternative zones in the Low- and Mid-Scale Residential designations, as shown in Table 2.2-2.

Table 2.2-2. Development Standards

	Baseline Alternative	Lower Alternative Low-Scale[a]	Lower Alternative Mid-Scale[b]	Higher Alternative Low-Scale[c]	Higher Alternative Mid-Scale[d]
Maximum Base Density (units per site area)[6]	1/7,500 SF lot–8/5,000 SF lot	1/1500 SF (4 DU per 6,000 SF lot)	1/1000 SF (6 DU per 6,000 SF lot)[7]	1/750 SF (8 DU per 6,000 SF lot)	1/500 SF (12 DU per 6,000 SF lot)
Maximum Height	35 feet	35 feet	35 feet	35 feet	45 feet
Maximum Height for Backyard Units	20 feet	25 feet	25 feet	35 feet	35 feet
Front Setback	15–25 feet	15 feet	10 feet	15 feet	10 feet
Minimum Rear Setback	20–25 feet	15 feet	10 feet	15 feet	10 feet
Maximum FAR		0.6 –0.8	1.0–1.2	1.2	1.6
Amenity Space	10%–20% of lot or 400 SF/DU private + 100 SF/DU common space for townhouses	300 SF/DU	200 SF/DU	100 SF/DU	100 SF/DU
Tree Canopy	0%–30%	35%	25%	30%	25%
Parking	1–2 stalls/DU	1.0 (0 within 0.5 miles of major transit)	0.5 (0 within 0.5 miles of major transit)	0.75 (0 within 0.5 miles of major transit)	0.5 (0 within 0.5 miles of major transit)

Notes: DU = dwelling unit; SF = square feet

[a] Consistent with proposed UR-1 base zoning.

[b] Mostly consistent with proposed UR-3 base zoning.

[c] Consistent with proposed UR-2, with bonus.

[d] Consistent with proposed UR-3, with bonus.

[6] Platting and development of smaller lots will also be allowed under the Proposal, consistent with the requirements of House Bill 1110 from the 2023 Washington Legislative Session.

[7] This density is consistent with the proposed UR-2 base density, rather than with UR-3 base density.

3. Natural Environment – Affected Environment, Impacts, and Potential Mitigation Measures

As required by SEPA (WAC 197-11-440), this chapter summarizes the existing policy and regulatory framework and affected environment, potential impacts, and mitigation measures related to elements of the natural environment: plants and animals, water resources, and air quality and greenhouse gases (GHGs).

Home In Tacoma Phase 2 is being proposed within the context of anticipated growth throughout the Puget Sound Region and in Tacoma specifically (VISION 2050). Focusing growth in an already urbanized area, per adopted regional growth policies and consistent with "smart growth strategies," can result in direct and indirect environmental benefits to the natural environment, including minimizing air and water pollution, reducing GHG emissions, conserving resources, and preserving natural and environmentally sensitive lands.[8] As a result, the Proposal is likely to have beneficial impacts to the natural environment, in addition to any localized potential adverse impacts identified throughout this Draft EIS. Although the Proposal is anticipated to have *beneficial* impacts to some elements of the environment within Tacoma and when considered at a more regional scale, the focus of this EIS is to identify any potential significant adverse impacts.

3.1 Plants and Animals

This section provides an overview of the existing species and communities of plants and animals that could be affected by the alternatives under consideration in this EIS, including the existing tree canopy, and evaluates the potential impacts. Potential mitigation measures that could further reduce potential impacts are also identified.

3.1.1 Affected Environment

Section 3.1.1.1 summarizes the regulatory environment pertinent to the potential for development projects to affect these resources. Section 3.1.1.2 identifies plants and animals present in Tacoma, with special attention to tree canopy cover, because stakeholders expressed the loss of tree canopy cover was one of the primary concerns during the scoping process.

3.1.1.1 Policy and Regulatory Framework

Numerous federal, state, and local regulations, plans, and polices govern the implementation of development projects in Tacoma. Many of these involve review and permitting processes to ensure impacts to the environment (including plants and animals) are avoided, minimized, documented, and mitigated to the greatest extent possible. The procedures associated with these regulations also create opportunities for public notice and comment on projects before implementation. Regulations and policies that address water quality (a vital component of habitat for fish and other aquatic organisms) are identified in Section 3.2. Relevant laws, regulations, and policies include:

- The Migratory Bird Treaty Act, 16 USC 703-712, administered by the U.S. Fish and Wildlife Service (USFWS), prohibits the taking, killing, or possession of migratory birds or any parts, nests, or eggs of such birds, except as authorized by USFWS.

[8] Environmental Protection Agency (EPA), Our Built and Natural Environments: A Technical Review of the Interactions Between Land Use, Transportation, and Environmental Quality (2nd Edition).

- The Bald and Golden Eagle Protection Act, 16 USC 668-668C, also administered by USFWS, prohibits the taking (including disturbance) of eagles or their nests, except as authorized by USFWS.
- Section 404 of the Clean Water Act, administered by the U.S. Army Corps of Engineers, requires authorization for excavating, land clearing, or discharging dredged or fill material into waters of the United States, including wetlands.
- The Marine Mammal Protection Act, 16 USC 1361-1407, administered by the National Marine Fisheries Service (NMFS), prohibits injury or harm (including disturbance) to marine mammals, except as authorized by NMFS.
- The Endangered Species Act (ESA), 16 USC 1531, requires federal agencies to ensure that actions they authorize (e.g., through issuance of a permit), fund, or carry out are not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of critical habitat for those species. ESA Section 7 requires that federal action agencies consult with USFWS and NMFS on any proposed actions that may affect ESA-listed species or critical habitat.
- The Biological Opinion for the Implementation of the National Flood Insurance Program in the State of Washington (NMFS 2008), requires compliance for proposed projects in mapped floodplains.
- The State Environmental Policy Act (SEPA) requires state and local agencies to review proposals and identify environmental impacts; permits and approvals can be conditioned or denied, to mitigate or avoid the impacts identified through SEPA review.
- The State Hydraulic Code, Chapter 220-660 WAC, administered by the Washington Department of Fish and Wildlife, regulates activities that use, divert, obstruct, or change the natural flow or bed of waters (marine or fresh); project proponents must obtain a Hydraulic Project Approval, which ensures the work is done in a manner that protects fish life.
- The Shoreline Management Act, Chapter 90.58 RCW and Chapter 173-26 WAC, provides for the management of the shorelines of the state by planning for and fostering reasonable and appropriate uses. To meet the Shoreline Management Act's goal of protecting natural shorelines and encouraging water-related and water-dependent uses, local governments develop master programs and administer shoreline substantial development permits, shoreline conditional use permits, and shoreline variance permits.
- The City's Critical Areas Preservation Ordinance, TMC 13.11, protects critical areas and regulates activities in or adjacent to them.
- The Environmental Element of the City's One Tacoma Plan establishes policies for critical area protection. Critical areas include fish and wildlife habitat conservation areas (which include streams, riparian corridors, wildlife habitats mapped or designated by Washington Department of Fish and Wildlife, corridors connecting priority habitats, and areas that support species of local importance), wetlands, flood hazard areas, and geologically hazardous areas. These policies and regulations are intended to prevent the loss and degradation of Tacoma's environmental assets and ensure no net loss of essential ecosystem functions. To that end, development is required to avoid and minimize adverse impacts to existing critical areas and to provide mitigation to compensate for project impacts.
- The Shoreline Master Program, TMC Title 19, regulates activities in and near major water bodies (e.g., Puyallup River, Wapato Lake, Commencement Bay, Tacoma Narrows) and establishes requirements for protecting habitat for a variety of fish and wildlife, including salmon, shellfish, forage fish, and waterfowl. The policies and regulations are intended to

ensure no net loss of ecosystem functions in these areas and include protections for native vegetation.

- Title 9 of the TMC, Public Ways, prohibits the removal or pruning of trees in City of Tacoma rights-of-way without first obtaining a permit and clarifies required protective measures for right-of-way trees when developing or redeveloping the abutting real property.
- The Urban Forest Policy Element of the 2010 Comprehensive Plan designated trees as essential public infrastructure and established a goal of 30% tree canopy cover citywide by 2030. The Council has adopted many additional policies that reinforce the value of the urban forest for community health, environmental justice, habitat preservation, and climate change mitigation. Relevant adopted policies include the Environmental Action Plan, the Urban Forest Management Plan, the Climate Emergency Resolution, and the Climate Action Plan.

3.1.1.2 Existing Conditions

Habitats in Tacoma

Habitats in Tacoma support a wide range of plant and animal communities. The abundance and diversity of species in any given area vary with the degree of urban development. More intensely developed areas (parcels dedicated to commercial and/or industrial uses, for example) generally have little vegetative cover and support a comparatively small number of wildlife species that are adapted to high levels of human activity. Many of the plants and animals in such areas are not native to the region. More diverse assemblages of plants and animals, including native species, may be found in less-developed areas—parks and open spaces, for example. Trees offer structural diversity that provides habitat for a wide range of species; areas in the city with extensive tree canopy cover are likely to support comparatively diverse plant and animal communities. Parks and undeveloped stream and steep slope corridors may provide movement corridors for mammals and amphibians. Streams, shorelines, and flood hazard areas provide habitat for fish and wildlife, including fish species, such as salmon, that are listed for protection under the ESA.

Many residential areas include trees and other vegetation (native or non-native) interspersed with buildings and impervious surfaces. These conditions generally support plant and animal communities that are intermediate in terms of diversity and abundance between intensely developed areas and parks and open spaces. At the scale of an individual parcel, as the proportion of a lot that is occupied by buildings and impervious surfaces increases, the amount of vegetative cover typically decreases—as does the lot's capacity to help support diverse and abundant communities of plants and animals.

The plant and animal species found in Tacoma are widespread in the region; some are globally abundant. Areas in the city limits represent a very small proportion of the total amount of habitat available to any given species. ESA-listed and state-listed species known or expected to use habitats in the city limits include Chinook salmon, steelhead, bull trout, and northwestern pond turtle. Marbled murrelets and southern resident killer whales may also be present in marine waters within the city limits.

Table 3.1-1 identifies salmonid fish that are known or expected to be present in surface-flowing streams in Tacoma. These salmonid fish are also present along shorelines and in marine waters (Commencement Bay and Tacoma Narrows) that receive stormwater runoff from impervious surfaces in the city. Salmonids receive particular attention in this analysis because these species are a management concern due to widespread habitat degradation and population declines. Other species of fish and other aquatic invertebrates are present in these and other streams in the city.

Table 3.1-1. Known or Expected Presence of Salmonids in Tacoma Streams

Stream	Chinook Salmon	Coho Salmon	Chum Salmon	Pink Salmon	Sockeye Salmon	Steelhead	Bull Trout	Cutthroat Trout
Unnamed Tributary to Day Island Lagoon								P
Puget Creek		D						D
Puyallup River	D-R	D-R	D	D	D	D	D	D
First Creek	GA	GA	GA	GA		GA		
Swan Creek	D	D-S	D-R	D		D-S		
Erdahl Ditch	GA	GA	GA	GA		GA		
Wapato Creek	GA	D	D	GA		D		
Hylebos Creek	D	D	D	P		D		
Unnamed Tributary to Puget Sound via Dash Point State Park	GA	D	GA	GA		GA		

Source: NWIFC 2023

Presence codes: D = Documented; D-R = Documented Rearing; D-S = Documented Spawning; GA = Gradient-Accessible (i.e., no natural barriers to access, but use is impeded by human-created barriers and/or degraded habitat conditions); P = Presumed Presence; [blank] = No known or expected presence.

Tacoma's Urban Forest

Trees are critical infrastructure that provide essential benefits, including the following:

- Sequestering carbon (i.e., capturing and storing carbon dioxide from the atmosphere, reducing the input of a key GHG).
- Providing shade and reducing heat.
- Absorbing air and stormwater pollution.
- Intercepting and attenuating stormwater runoff, reducing peak flows.
- Consolidating soils on steep slopes, preventing mass wasting, erosion, and landslides.
- Improving physical and mental health.
- Improving neighborhood safety through traffic calming.
- Providing habitat for plants and animals.
- Supporting riparian habitat functions, such as shade that maintains cool water temperatures, input of organic material, and logs that provide habitat diversity.

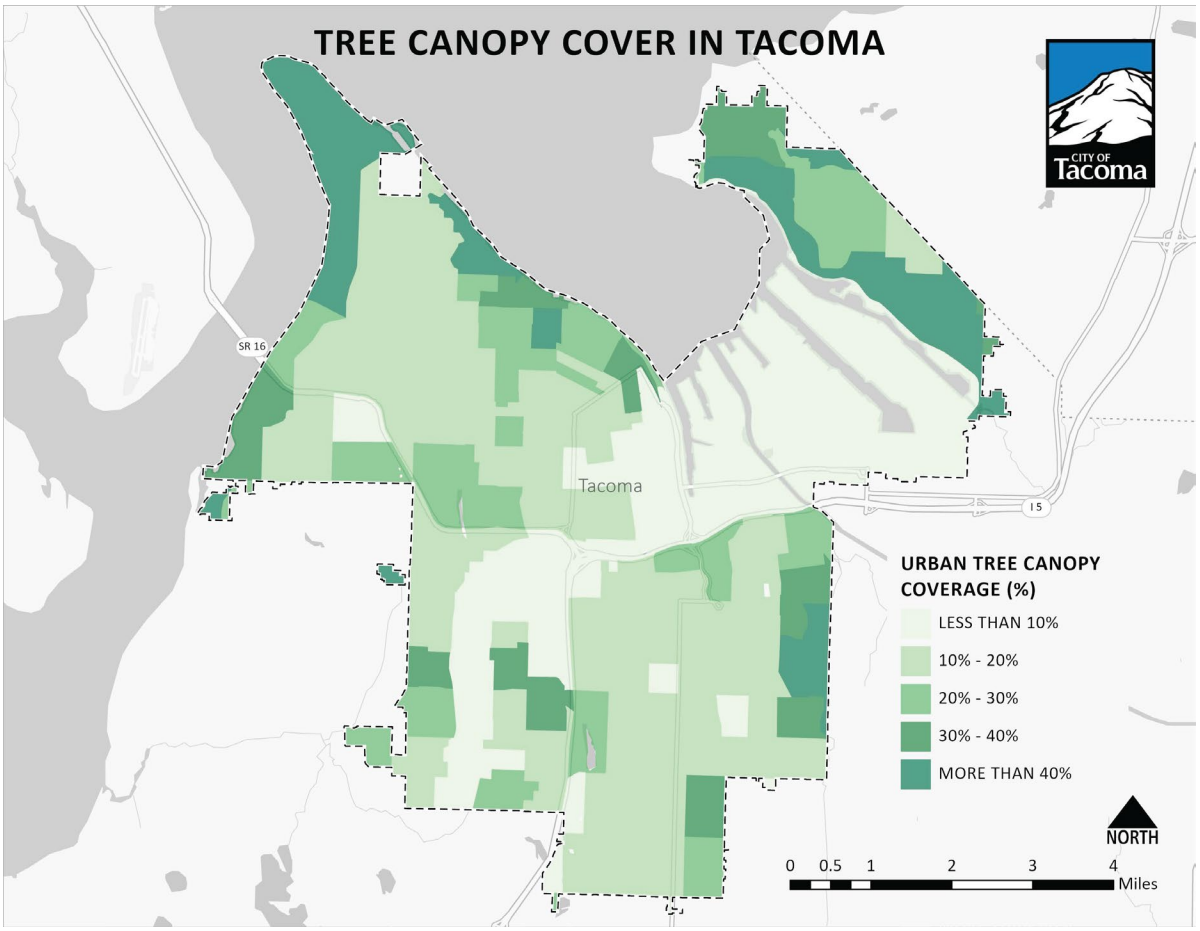
These benefits are provided most effectively by mature trees, which have broad, tall canopies and robust root systems that enhance their tolerance of drought and heat stress. A healthy, thriving, and sustainable urban forest is a community priority, to be thoughtfully managed and cared for by partnerships between the City and our community. Canopy cover is the percentage of the city's land area that is covered by trees, as seen in an aerial view. Canopy cover is an important management tool for planners to understand the extent and distribution of trees in Tacoma. The City's goal, established in the 2010 Comprehensive Plan, is to have 30% tree canopy cover by 2030.

In 2018, the City of Tacoma completed a study that used 2017 lidar data to assess the amount and distribution of tree canopy cover in Tacoma (Plan-It Geo 2018). The study found that 20% of the land

area in Tacoma is covered by tree canopy. This amount is substantially below the City's goal, and it is the lowest proportion of canopy cover among all communities assessed in the Puget Sound region.

The study also found that tree canopy is not distributed evenly in the city, ranging from 3% in some census block groups to more than 60% in others, as illustrated in Figure 3.1-1, Tree Canopy Cover. In addition, tree canopy is not distributed equitably. Based on data from the City of Tacoma Equity Index map, the average canopy cover in areas classified as Very Low Opportunity[9] was approximately 15%. In contrast, the average canopy cover in areas classified as Very High Opportunity was more than 26%. Nearly 70% of the census block groups in the city have less than the citywide average of 20% canopy cover. In general, the census block groups with the highest canopy cover are the ones where a substantial amount of land consists of parks or undeveloped open space.

Figure 3.1-1. Tree Canopy Cover



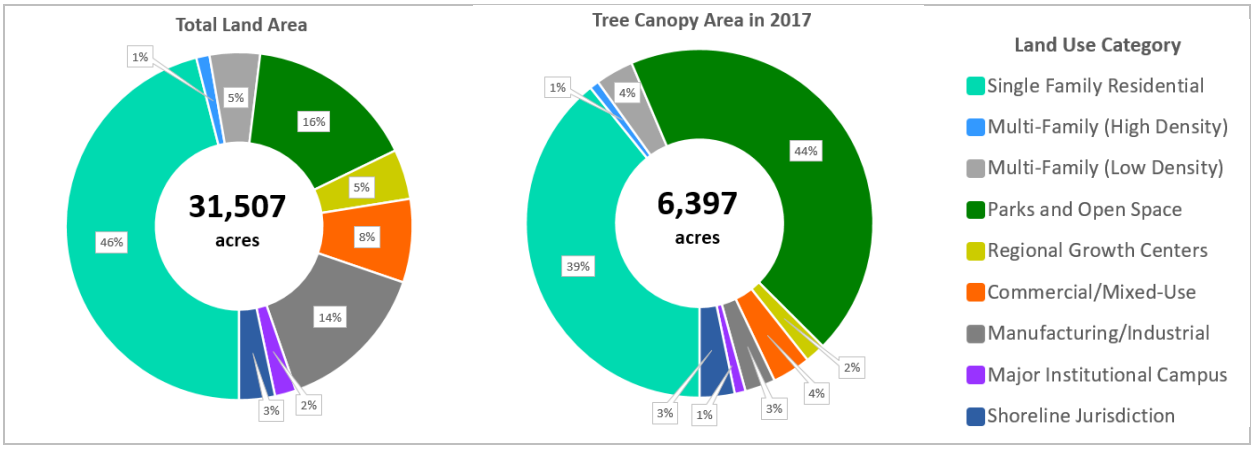
Source: Tacoma 2023

The 2018 study also found that the amount of tree canopy cover varies with land use categories (Figure 3.1-2). For example, parks and open space make up about 16% of the total land area in Tacoma, but almost half of the city's tree canopy is found in those areas. Conversely, the land use categories that support more high intensity uses (Regional Growth Centers, Commercial/Mixed/Use, Manufacturing/Industrial, and Major Institutions) represent about 29% of the city's total land area

[9] Equity Index values indicate the relative degree of access to opportunities for succeeding and excelling in life.

but support less than 10% of the tree canopy cover. The Single-Family Residential land use category encompasses the largest proportion of the city's total land area, and it provides a similarly large proportion of the city's tree canopy cover (Figure 3.1-2). As shown in Figure 3.1-2, most areas classified as Low-Scale Residential or Mid-Scale Residential in the City's Future Land Use Map have a moderate to low proportion of tree canopy cover.

Figure 3.1-2. Land Area and Tree Canopy Cover, by Land Use Category



Source: Plan-It Geo 2018

Given that the alternatives include zoning changes for Low-Scale and Mid-Scale Residential designations in Tacoma, a closer look at tree canopy cover in residential zones is in order. Table 3.1-2 summarizes the amount of tree canopy cover in various land use categories in Tacoma. The table also provides information about the distribution of areas where tree planting is biologically and logistically feasible (i.e., Possible Planting Area). Areas classified as Possible Planting Area currently lack tree cover but could be planted with trees in the future. Examples include areas of bare ground, grass, or shrubs. These areas represent existing opportunities for establishing new tree canopy.

Table 3.1-2. Tree Canopy Cover and Possible Planting Area (by Land Use Category)

	Tree Canopy[a]		Possible Planting Area (PPA)		
Land Use Category	Acres	Percent of Area in Land Use Category	Acres	Percent of Area in Land Use Category	Percent of Total PPA
Single-Family Residential	2,507	17%	2,318	16%	57%
Multi-Family (Low Density)	226	15%	178	12%	4%
Multi-Family (High Density)	56	14%	54	14%	1%
Parks and Open Space	2,805	56%	784	16%	19%
Regional Growth Centers[b]	121	8%	96	7%	2%
Manufacturing/Industrial	181	4%	271	6%	7%
Commercial/Mixed-Use	228	9%	179	7%	4%
Major Institutional Campus	65	10%	69	11%	2%
Shoreline Jurisdiction	208	20%	110	10%	3%
Total	6,397	20%	4,059	13%	100%

Source: Plan-It Geo 2018

[a] See Figure 3.1-1 for the proportion of citywide tree canopy present in each land use category.

[b] Includes the Downtown Regional Growth Center and the Tacoma Mall Regional Growth Center.

The values in Table 3.1-2 show a pattern of increasing tree canopy cover with decreasing degree of development. The areas with the lowest proportion of tree canopy cover are those zoned for Manufacturing/Industrial uses. Areas where residential and commercial development are prohibited or substantially constrained (Parks and Open Space, Shoreline Jurisdiction) have the highest proportion of tree canopy cover. Among the areas where residential and commercial development are not prohibited or substantially constrained, the highest proportion of tree canopy cover is found in the Single-Family Residential category. Within the residential zoning categories, the proportion of tree canopy decreases with increasing density of development (Table 3.1-2).

A similar pattern is evident in the numbers for Possible Planting Area. Areas zoned for Single-Family Residential uses offer the most opportunities for additional planting of trees, both in terms of total acreage and proportion of the area in that land use category. In addition, areas zoned for Manufacturing/Industrial uses offer relatively abundant opportunities for tree planting (more than 250 acres), compared to other developed land use categories (Table 3.1-2).

Trees in public rights-of-way play an important role in contributing to canopy cover citywide. Given the constraints of ownership, limited space, and soil volume in planting strips, trees in rights-of-way face extra challenges. Soil quality can also be a challenge, particularly in areas that have been used for parking or other activities that compact soil. These challenges mean that frequent maintenance and care for trees in these areas is essential. In Tacoma, the adjacent property owner is responsible for the care of trees in the right-of-way, which further reduces the opportunity for effectively increasing healthy tree canopy in the right-of-way.

3.1.2 Potential Impacts

Discussions in this section evaluate, at a broad, programmatic level, the potential impacts of the alternatives on plants and animals. The analyses in this section evaluate potential impacts related to increased residential development and density, with an emphasis on tree canopy cover.

Big Picture Impacts

Tree protection regulations proposed as part of the Proposal would counter potential impacts to tree canopy that could otherwise occur under all of the alternatives.

The Lower Zoning and Higher Zoning alternatives would reduce development pressure in less-developed areas outside the city, thereby reducing development-related impacts on plants and animals at a regional scale.

3.1.2.1 Impacts Common to All Alternatives

Under any of the alternatives, the potential for adverse effects on plants and animals would be avoided, minimized, documented, and mitigated to the greatest extent possible through regulatory reviews and permitting processes that apply to individual residential development projects (see Section 3.1.1.1). In some cases, compliance with the City's Critical Areas Protection Ordinance and other regulations may result in limited or no density increases for properties in or within close proximity to designated critical areas. It is assumed that the regulatory requirements that limit the potential for development projects to affect plants and animals would be the same under all alternatives in all ways but one. The exception is that the action alternatives would include new tree protection regulations to promote tree canopy cover and tree retention, while the Baseline Alternative would not. The potential implications of this difference are discussed in the evaluations of the alternatives.

Given that habitats in the city limits represent a very small proportion of the total amount of habitat available to any species, differences in the availability or distribution of habitats in the city would be unlikely to result in any appreciable impacts on regional populations of plants or animals.

Development and redevelopment projects would, however, have the potential for localized impacts on plant and animal communities. Projects that entail vegetation clearing would likely reduce the diversity and/or abundance of plants and animals on and near the affected parcels. These impacts would be expected to diminish over time as vegetation regrows in temporarily disturbed areas. Projects that increase the area of individual parcels occupied by buildings and impervious surfaces would be expected to result in long-term (but localized) reductions in the diversity and/or abundance of plant and animal communities in the affected areas.

Under any of the alternatives, infill development or redevelopment (i.e., development that increases the number of dwelling units per acre) would decrease the amount of area on residential lots available for trees and other vegetation to grow. Associated effects would include the following:

- Removal of existing trees and vegetation, with the resultant loss of the benefits they provide (see Section 3.1.1.2).
- Reduced opportunities for future low-impact development, including tree planting.
- Alteration of hydrology and degradation of water quality in streams and other waterbodies that receive stormwater runoff (see Section 3.2.2).

These impacts would be most severe in areas where infill projects remove existing mature trees. Tacoma currently does not have any tree protections outside of regulated critical areas. In the absence of regulatory protections, infill projects would result in an increase in the removal of existing mature trees.

In addition to removing existing tree canopy, infill projects would reduce the amount of area available for tree planting. Currently, more than 57% of the land classified as Possible Planting Area in Tacoma is in areas zoned for Single-Family Residential uses (Table 3.1-2). Development and redevelopment projects in these areas would entail the conversion of Possible Planting Area to impervious surfaces, reducing opportunities for increasing tree canopy in the future.

As noted in Section 3.1.1.2, urban tree canopy supports public health, both physical and mental. Depending on the timing and location of infill projects, the impacts of development-related tree canopy loss could lead to negative effects on public health—particularly in underserved neighborhoods (e.g., areas classified as Very Low Opportunity), where existing tree canopy is comparatively low and public health needs are comparatively high. For example, the temperature-moderating properties of tree canopy reduce the risk of heat-related illness. However, many residents of underserved neighborhoods face disproportionate financial burdens that prevent them from installing air conditioning, traveling to cooling centers, having adequate health care, or taking other actions to insulate themselves from adverse environmental conditions that threaten their health.

Broadly speaking, the amount of land available to support tree canopy would be expected to decrease as residential density increases. Under current conditions, the areas zoned for low-density residential uses (e.g., Single-Family Residential) have a higher proportion of tree canopy and Possible Planting Area compared to areas zoned for higher-density (Multi-Family) residential uses. This general pattern would be expected to hold true under any of the alternatives: in the long term, tree canopy cover would likely be higher in areas with relatively low-density residential development (fewer than 20 dwelling units per acre) and lower in areas with relatively high-density residential development (more than 40 dwelling units per acre); areas with 20 to 40 dwelling units per acre would be expected to support an intermediate amount of canopy cover. This expectation provides the basis for comparisons of the potential impacts of the alternatives on tree canopy cover in Tacoma.

Under any of the alternatives, development or redevelopment projects that increase housing density would not occur immediately or simultaneously. Multiple factors (e.g., market forces, permitting requirements, availability of materials and labor) would limit the number of parcels that can be developed or redeveloped in any given year. Even in the long term, not all parcels would be redeveloped to full capacity. As discussed in Section 2.2.4, it is assumed that 7.5% of non-vacant lots available for redevelopment would be redeveloped by 2050, as would 12% of vacant lots. The alternatives differ both in allowable density and in the number of lots available for development or redevelopment during the 30-year planning horizon.

It is worth noting that a recent study of tree canopy in Seattle found that most canopy loss between 2016 and 2021 was not associated with development activities; only 14% of the canopy loss occurred on parcels that underwent development or redevelopment during that period (Seattle Office of Sustainability & Development 2022). It is not certain that a similar pattern would play out in Tacoma, since Seattle has tree protection regulations on private development, and Tacoma currently does not protect trees outside of critical areas. The Proposal includes additional protections, however, so future development-related canopy loss would be expected to have a relatively minor influence on the total amount of tree canopy cover in the city.

Development or redevelopment projects may also create or replace pollution-generating impervious surfaces (see Section 3.2.2). If runoff from these surfaces enters marine waters or fish-bearing streams (see Table 3.1-1), contaminants in the runoff may harm or kill fish. Implementation of required stormwater management would occur under any of the alternatives and would prevent or minimize the delivery of contaminants to marine waters or fish-bearing streams. This, in turn, would avoid or minimize the potential for adverse impacts on aquatic species and habitats.

The locations, design, and performance standards of stormwater facility improvements would be determined on a project-by-project basis and cannot be predicted for a programmatic review such as this. For this analysis, it is assumed that the potential for stormwater contaminants to be delivered to marine waters or streams would be proportional to the amount of area available for conversion to higher density uses (e.g., conversion from Single-Family Residential to Multi-Family Residential uses). Assuming that a greater amount of area is available for redevelopment projects, it is possible that some projects may have unavoidable adverse impacts on water quality.

Encouraging residential and commercial development within the urban environment of Tacoma could indirectly benefit plants and animals at a regional scale by easing development pressure in less -developed areas outside the city. Tree canopy assessments such as *i-Tree* show that, compared to urban areas, suburban and rural areas generally have more tree canopy and lower levels of human activity. Development projects in such areas typically entail the conversion of vegetated or minimally disturbed areas to impervious surfaces and areas with elevated levels of human activity. In contrast, most currently undeveloped properties in Tacoma are in protected areas (e.g., parks, greenspaces) and are unlikely to be developed during the timeframe of this analysis. In addition, concentrating new housing in densely developed areas like Tacoma reduces the impacts associated with suburban sprawl, such as GHG emissions generated by vehicle trips. Data from the National Household Travel survey show that suburban households drive 37% more than those in urban centers (WSDOT 2023).

3.1.2.2 Potential Impacts of the Baseline Alternative

Under the Baseline Alternative, existing zoning would persist. Most residential areas in Tacoma would be zoned for low-density (Single-Family Residential) uses. These areas would likely continue to support a substantial proportion of the tree canopy cover in the city, similar to the pattern evident in Figure 3.1-1. These areas would also provide the most opportunities for tree planting (Table 3.1-2). As a result, compared to the action alternatives, the Baseline Alternative would likely result in the

lowest rate of development-related tree canopy cover loss. For this reason, the Baseline Alternative would also have a lower risk than the action alternatives of contributing to adverse effects in underserved neighborhoods.

Based on the amount of area where development or redevelopment may result in losses of vegetated areas, the Baseline Alternative would likely have the lowest potential for short-term and long-term decreases in the diversity and/or abundance of plant and animal communities in areas where development or redevelopment projects occur. Compared to the action alternatives, the Baseline Alternative would be expected to generate more development pressure in less-developed areas outside the city, where the development-related impacts on plants and animals would likely be greater.

Based on the anticipated amount of area likely to be redeveloped, the Baseline Alternative would also have a lower potential of leading to increased delivery of stormwater contaminants to marine waters or streams compared to the other alternatives.

3.1.2.3 Potential Impacts of the Lower Zoning Alternative

The Lower Zoning Alternative assumes that only about 7.5% to 12% of the parcels available for redevelopment would likely be redeveloped by 2050, and not every redeveloped parcel would be developed to the full extent of its allowable density. However, by increasing the number of parcels available for redevelopment, this alternative would be expected to decrease the amount of land available to support tree canopy, compared to the Baseline Alternative.

Most parcels currently zoned for low-density residential development would thus be available for conversion to moderate-density residential uses, and a smaller proportion would be available for conversion to high-density residential uses. As described in Section 3.1.2.1, without substantial tree protection regulations, many existing trees on such parcels could be removed when development or redevelopment projects are implemented, and the space available for future tree planting could be reduced. The Lower Zoning Alternative would thus be expected to result in a higher rate of development-related tree canopy cover loss compared to the Baseline Alternative, but a lower rate compared to the Higher Zoning Alternative. The Lower Zoning Alternative would also have an intermediate risk of contributing to adverse effects in underserved neighborhoods.

In contrast to the Baseline Alternative, the Lower Zoning Alternative would include new tree protection regulations to promote tree canopy cover and tree retention. The details of these regulations are still being finalized, and their capacity to limit development-related tree canopy loss cannot be precisely predicted. It is likely that the regulations would focus on the protection of existing trees rather than Possible Planting Areas. If this is the case, then many areas currently classified as Possible Planting Areas could be available for conversion to buildings and other impervious surfaces, substantially reducing opportunities for increasing tree canopy in the future. However, as discussed in Section 3.1.3, the inclusion of certain elements in new tree protection regulations could result in long-term increases in tree canopy cover.

Based on the amount of area where development or redevelopment may result in losses of vegetated areas, the Lower Zoning Alternative would also likely have an intermediate potential for short-term and long-term decreases in the diversity and/or abundance of plant and animal communities in areas where development or redevelopment projects occur. If new tree protection regulations result in increased tree canopy cover, the Lower Zoning Alternative could contribute to long-term increases in the diversity and/or abundance of plant and animal communities in some areas.

In addition, by emphasizing the development of new housing in the urban environment of Tacoma, the Lower Zoning Alternative would be expected to reduce development pressure in less-developed

areas outside the city, thereby reducing development-related impacts on plants and animals at a regional scale. Almost 22,000 more new dwelling units would be built in Tacoma under the Lower Zoning Alternative than under the Baseline Alternative (Table 2.2-1). This difference would translate into a reduced degree of development pressure in suburban and exurban environments.

Based on the anticipated amount of area likely to be redeveloped, the Lower Zoning Alternative would also have an intermediate potential of leading to increased delivery of stormwater contaminants to marine waters or streams, compared to the other alternatives.

3.1.2.4 Potential Impacts of the Higher Zoning Alternative

As under the Lower Zoning Alternative, development or redevelopment projects that increase housing density would not occur immediately or simultaneously, and not every redeveloped parcel would be developed to the full extent of its allowable density. However, by increasing the number of parcels available for redevelopment, this alternative would be expected to decrease the amount of land available to support tree canopy compared to the Baseline Alternative and the Lower Zoning Alternative. Given that all residential areas would support high-density residential uses, the Higher Zoning Alternative would have the highest potential for development-related tree canopy cover loss among the alternatives. This alternative would also have the highest risk of contributing to adverse effects in underserved neighborhoods.

As with the Lower Zoning Alternative, the Higher Zoning Alternative would include new tree protection regulations to promote tree canopy cover and tree retention. The combination of high-density residential zoning plus restrictions on tree clearing would likely lead to a high level of development pressure in Possible Planting Areas, reducing opportunities for increasing tree canopy to an even greater degree than under the Lower Zoning Alternative. However, as discussed in Section 3.1.3, the inclusion of certain elements in new tree protection regulations could result in long-term increases in tree canopy cover.

Based on the amount of area where development or redevelopment may result in losses of vegetated areas, the Higher Zoning Alternative would likely have the highest potential for short-term and long-term decreases in the diversity and/or abundance of plant and animal communities in areas where development or redevelopment projects occur. As with the Lower Zoning Alternative, the Higher Zoning Alternative could contribute to long-term increases in the diversity and/or abundance of plant and animal communities in some areas if new tree protection regulations result in increased tree canopy cover.

Also, like the Lower Zoning Alternative, the Higher Zoning Alternative would be expected to reduce development-related impacts on plants and animals outside Tacoma. Over 50,000 more new dwelling units could be built in Tacoma under the Higher Zoning Alternative than under the Baseline Alternative (Table 2.2-1). This is more than twice the difference anticipated under the Lower Zoning Alternative. As such, the Higher Zoning Alternative would be expected to reduce development pressure in suburban and exurban environments to a greater degree than either the Baseline Alternative or the Lower Zoning Alternative.

Based on the anticipated amount of area likely to be redeveloped, the Higher Zoning Alternative would also have the highest potential of leading to increased delivery of stormwater contaminants to marine waters or streams, compared to the other alternatives.

3.1.2.5 Potential Significant Adverse Impacts

As discussed above, none of the alternatives would be expected to result in appreciable impacts on regional populations of plants or animals. In addition, based on the implementation of required

stormwater management (see Section 3.2.2.6), the alternatives would be expected to avoid or minimize the potential for significant adverse impacts on aquatic species and habitats.

Development or redevelopment projects implemented under any of the alternatives would be expected to reduce tree canopy cover without the Proposal's proposed tree protection regulations. Depending on the level of protections, the tree canopy might be maintained or would potentially even increase if coupled with significant tree planting requirements. As such, either of the action alternatives could have a significant adverse effect on tree canopy cover in Tacoma if new tree protection regulations are not included as part of the Proposal. If tree protection regulations are adopted as part of the Proposal, both of the action alternatives would likely reduce the amount of development-related loss of existing tree canopy, reducing the potential for significant adverse impacts. The inclusion of certain elements in new tree protection regulations, could result in long-term increases in tree canopy cover. Those elements include:

- The protection of existing trees.
- Requiring that new tree planting requirements replace the functions and values of trees that must be removed due to development.
- Minimum soil volume requirements to promote healthy tree growth.
- Landscaping requirements to increase survival of planted trees.
- Bonds, post tree establishment inspections, or other mechanisms to ensure tree survivability.

As discussed in Section 3.1.2.1, encouraging residential and commercial development within the urban environment of Tacoma could indirectly benefit tree canopy cover regionally by easing development pressure in less-developed areas outside the city. In addition, development-related canopy loss under any of the alternatives would be expected to have a relatively minor influence on the total amount of tree canopy cover in the city, especially if the new tree protection regulations implemented under the action alternatives include provisions that foster long-term increases in tree canopy cover. Finally, provided that the proposal incorporates meaningful tree planting and protection requirements, some development-related canopy loss would be temporary, and requirements for tree planting in road rights-of-way and on residential parcels may create opportunities for additional tree canopy development in areas that currently lack trees.

3.1.3 Potential Mitigation Measures

As noted above, either of the action alternatives could result in significant adverse impacts on tree canopy cover in Tacoma unless the new tree protection and planting regulations implemented under those alternatives succeed in reducing the rate of canopy loss.

Additional measures that could further protect and enhance tree canopy cover in Tacoma include the following:

- The resourcing and implementation of polices and codes that are consistent with the City's Urban Forest Management Plan (2019) and Climate Action Plan (2021). Specific examples include monitoring tree loss and gain through annual tree removal and planting permit reporting; updating post-planting tree care requirements for City projects and developers; using the tree inventory data in private development as part of permit inspections for compliance; and conducting a high-resolution tree canopy assessment Citywide and planning boundaries to track canopy gains and losses and to inform future tree plantings and preservation.

- Implementation of systems to ensure landscaping standards are crafted to meet their objectives of protecting and improving function while accommodating growth in a flexible way. An example of such a system is a Green Factor requirement in residential areas. The Green Factor is a menu of green infrastructure strategies that is intended to increase the amount and quality of urban green infrastructure while allowing increased flexibility for developers and designers to efficiently use their properties.
- Engagement in ongoing evaluation of standards for floor area ratios and tree protection to seek opportunities to maximize space available for planting and for stormwater management.
- Increased funding for City-led tree planting and maintenance in parks and rights-of-way, particularly in and near areas identified as heat islands.
- Evaluate the City's ability to take on a more active role in the management of right-of-way trees.
- Expansion of existing programs, such as Grit City Trees, which provides financial and logistical support for people who want to plant trees in public rights-of-way, as well as programs to increase tree planting on private property.
- Implementation of technologies such as flexible pavement, structural soil cells, expanded tree pits, and appropriate soil types to increase tree retention and survivability in City rights-of-way.
- Pursue creative approaches for maximizing green infrastructure in appropriate locations in City- rights-of-way—for example, green stormwater infrastructure (stormwater parks, bioretention facilities, pervious pavements, stormwater treatment tree wells), installing planted bike lane and curb line buffer strips between curbs and sidewalks, or replacing parking spots and curb bulbs to support park-scale street trees.
- Develop a standardized procedure to evaluate and direct new construction in the right-of-way adjacent to existing trees, intended to minimize negative impacts and to protect existing trees to the extent feasible.
- Update standards to limit allowable clearing limits for new development to preserve, where applicable, existing vegetation and soil structure.
- Conduct high-resolution (LiDAR) tree canopy assessments on regular intervals (e.g. 5 years) to monitor tree canopy gain or loss, with the intent to reevaluate tree regulations if tree canopy loss is actualized.
- Strategic land acquisition to preserve and enhance urban open space and tree canopy in priority neighborhoods in alignment with the Tacoma Urban Forest Management Plan.
- Staff arborists within Planning and Development Services who have the technical expertise to assist the development community with direction on tree protection and compliance with tree regulations.
- Update and strengthen the critical areas ordinances and restore critical areas and buffers, focusing development densities farther away from critical areas.
- Clearly indicate in all code updates that compliance with the critical areas ordinance and other regulations may result in limited or no density increases for properties in or within close proximity to designated critical areas.

3.2 Water Resources

This section discusses water resources in Tacoma, including streams, rivers, shorelines, floodplains, floodways, critical aquifer recharge areas, sole source aquifers, and wellhead protection areas and evaluates potential impacts that may be associated with the Proposal. Potential mitigation measures that could further reduce potential impacts are also identified.

3.2.1 Affected Environment

3.2.1.1 Policy and Regulatory Framework

Guiding regulations, plans, and policies relevant to surface waters in Tacoma are listed below. Some regulations listed (especially those on the federal and state level) are either directly delegated to the City or serve as the foundation through which the City has jurisdiction to regulate activities that may impact surface waters. Also, the U.S. Environmental Protection Agency (EPA) has jurisdictional review for project crossing over a sole source aquifer or discharge to streams that recharge the sole source aquifer.

- Clean Water Act, United States Code (USC) Title 33, Section 1251 et seq., including Sections 401, Water Quality Certification; 402, National Pollutant Discharge Elimination System; and 404, Permits for Dredge or Fill.
- Coastal Zone Management Act, 16 USC 1451 et seq.
- Section 14 of the Rivers and Harbors Act of 1899, 33 USC 408 (Section 408).
- National Flood Insurance Act of 1968 and Flood Disaster Protection Act of 1973, 42 USC 4001 et seq.
- Floodplain Management Presidential Executive Order 11988 of May 24, 1977, and its subsequent updates (Executive Orders 3690 and 14030).
- ESA Biological Opinion for the Implementation of the National Flood Insurance Program in the State of Washington (NMFS 2008).
- Water Quality Standards for Surface Waters, Chapter 173-201A WAC.
- Flood Control Management Act, Chapter 86.16 RCW.
- Water Pollution Control Act, Chapter 90.48 RCW.
- Shoreline Management Act, Chapter 90.58 RCW and Chapter 173-26 WAC.
- National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit.
- NPDES Western Washington Phase I Municipal Stormwater General Permit.
- Washington State Department of Ecology (Ecology) Underground Injection Control (UIC) Program, Chapter 173-218 WAC.
- Stormwater Management Manual for Western Washington (Ecology Manual).
- Washington State Department of Transportation (WSDOT) Highway Runoff Manual (WSDOT 2019a).
- WSDOT Hydraulics Manual (WSDOT 2019b).
- Washington State Hydraulic Code, Chapter 220-660 WAC.

- TMC Subchapter 12.08d Utilities – Stormwater Management.
- City of Tacoma Stormwater Management Manual.
- TMC Title 19, Shoreline Master Program.
- TMC Chapter 13.11, Critical Areas Preservation.
- TMC Chapter 13.06.070(D), South Tacoma Groundwater Protection District (STGPD).
- Environmental Services Directive ESD17-1 – South Tacoma Groundwater Protection District Infiltration Policy.

3.2.1.2 Existing Conditions

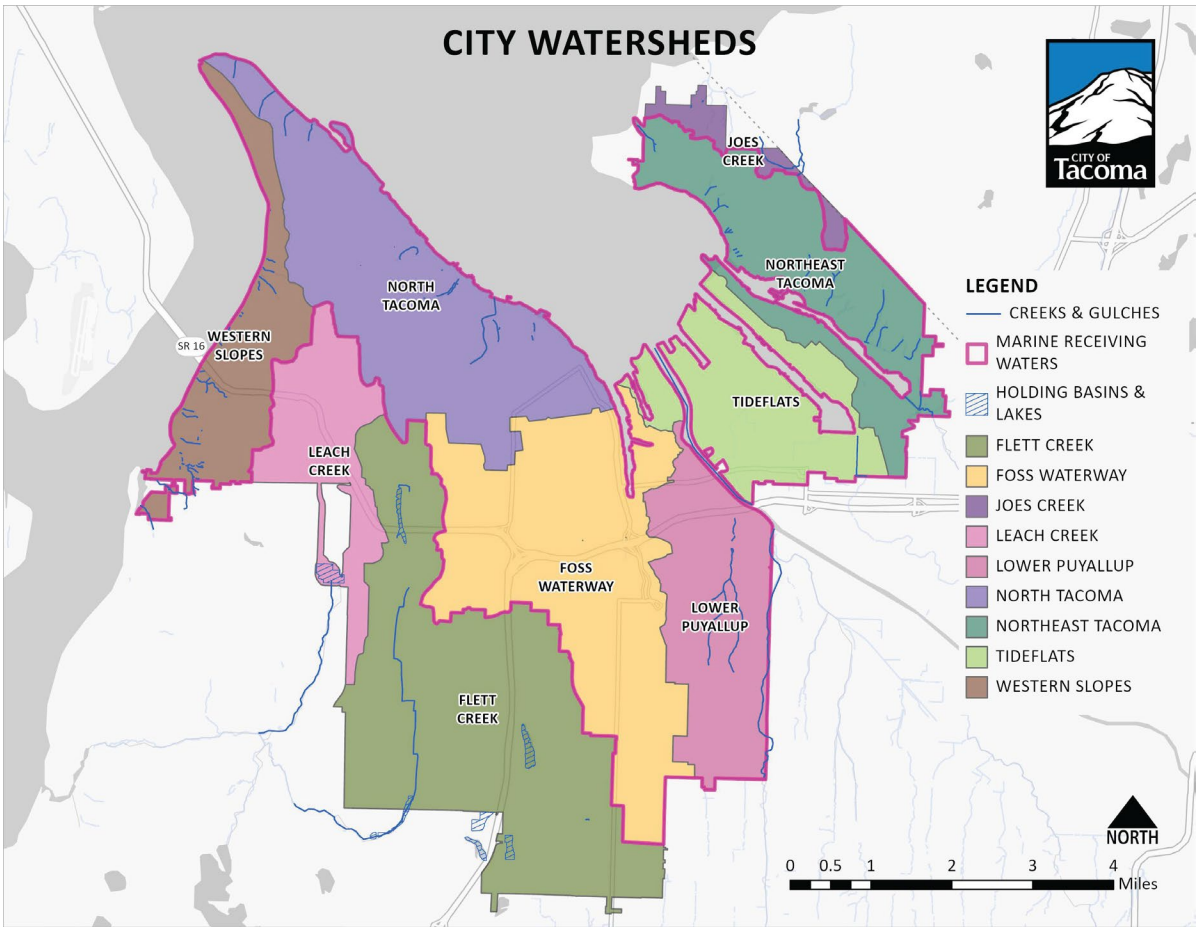
Natural Water Bodies

The surface water in the city drains to nine watersheds, which are shown in Figure 3.2-1. Characteristics of each watershed and associated receiving waters (streams, waterways, and marine waters) are shown on Figure 3.2-2. Also, Ecology has mapped areas in the state that have had over 40 percent impervious (hard-surface) cover for about the last 40 years. As shown in Figure 3.2-3, many of these areas are concentrated in Tacoma. These areas are important because the local water resources have likely already been significantly impacted by this historical level of development and have changed over time as a result. An overall summary of surface water resources in the city presented in Table 3.2-1.

More detailed information about the city's watersheds can be found in the following:

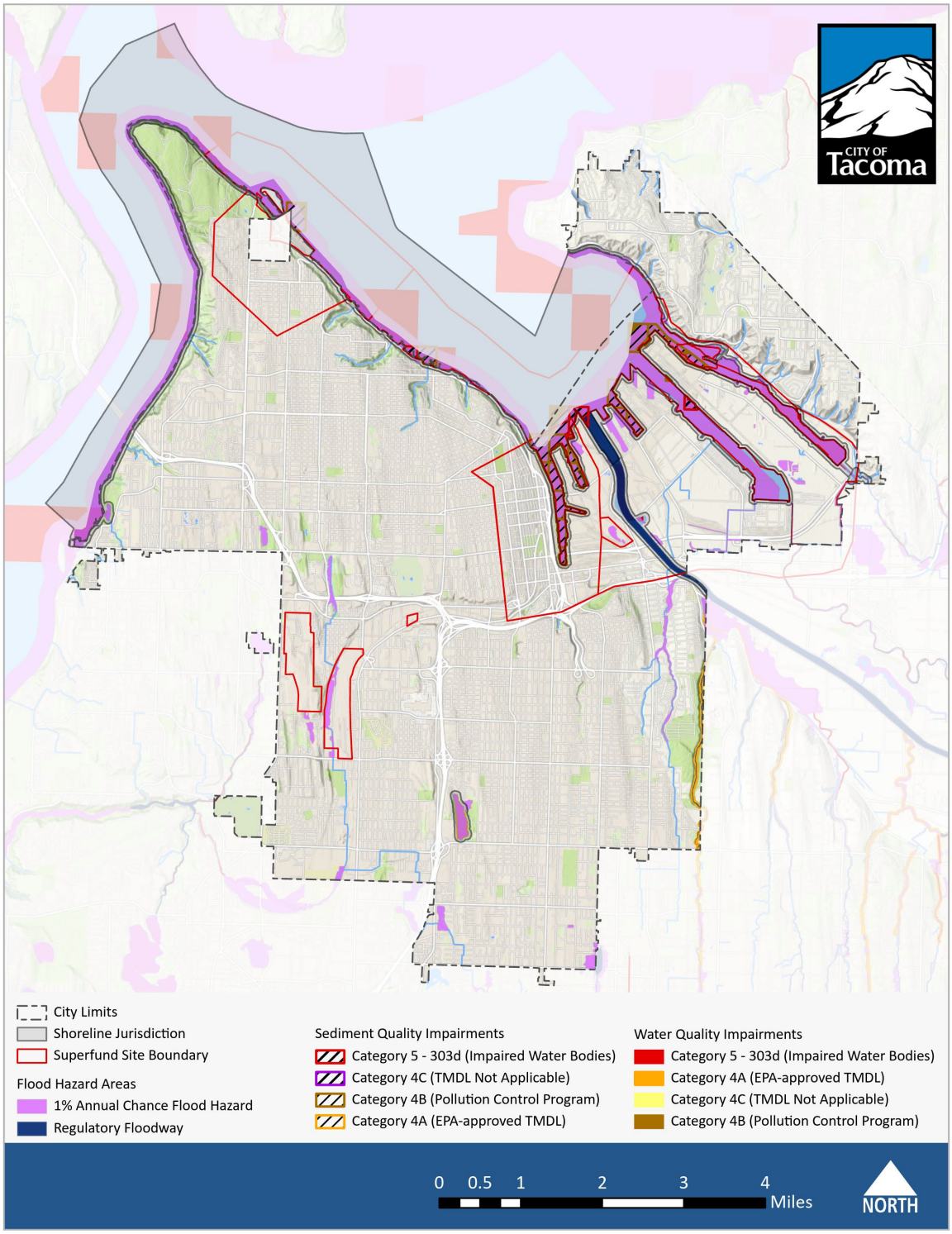
- One Tacoma: Comprehensive Plan – Environment and Watershed Health Section (Tacoma 2015).
- Urban Waters Protection Plan – Watershed Characterization Report (in progress).
- Thea Foss and Wheeler-Osgood Waterways 2022 Source Control and Stormwater Monitoring Report (Tacoma 2023b).

Figure 3.2-1. City Watersheds



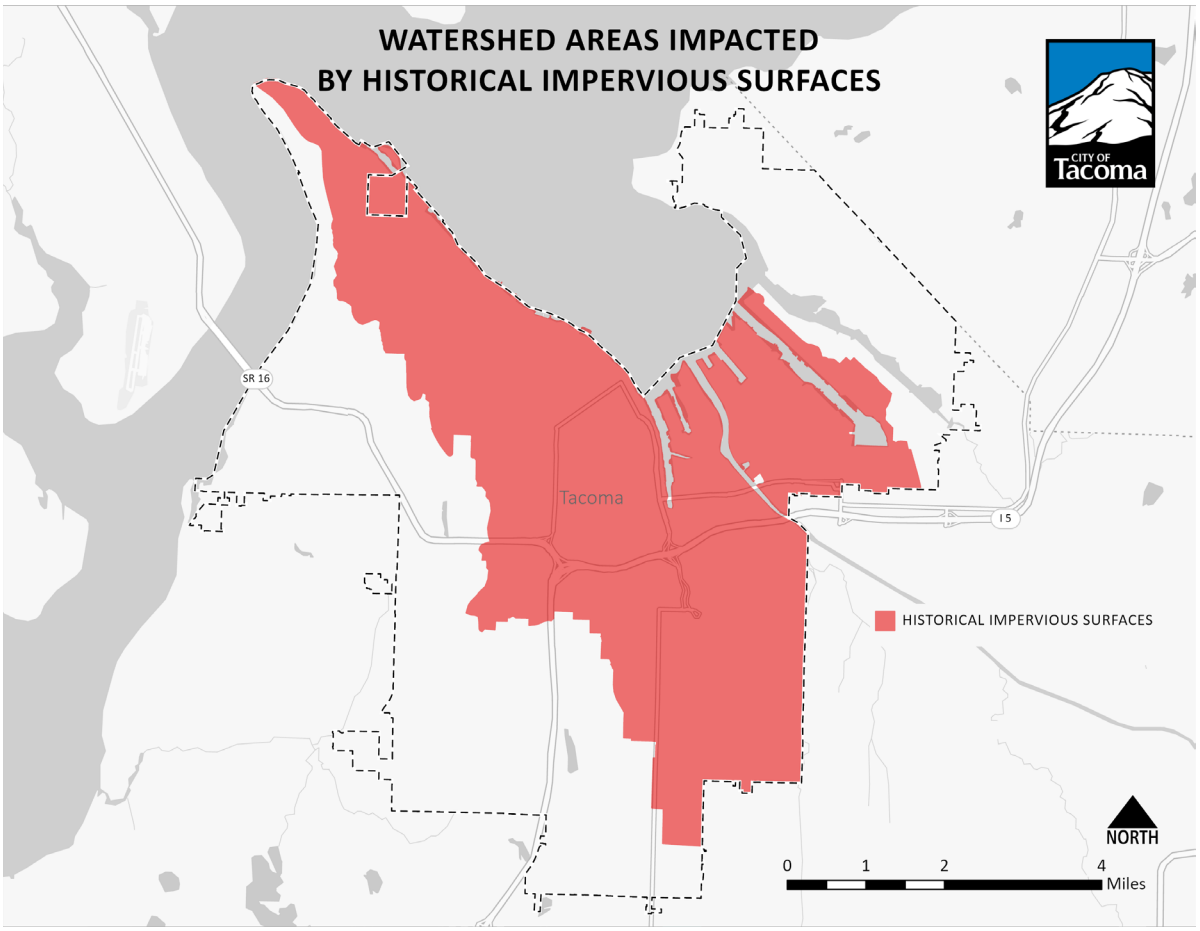
Source: Tacoma 2023

Figure 3.2-2. Surface Waters – Key Characteristics



Source: Ecology 2018, Tacoma 2023

Figure 3.2-3. Watershed Areas Likely Impacted by Historically Impervious Surfaces



Source: Ecology 2019b

Table 3.2-1. Natural Surface Waters Summary

Watershed (area in city)	Key Receiving Waters	Already Impacted by Historical Impervious	Direct Discharge to Marine	Current Land Uses	Water Quality Impairments	Additional Details
Western Slopes (2,090 acres)	Gold Creek Narrows Creek Crystal Creek Crystal Springs Creek Marinera Creek Titlow Park Creek Titlow Lagoon Narrows Passage in Puget Sound	No	Yes	Residential (main use) Commercial (6th Avenue) Public open space (Point Defiance Park)	Chambers Creek (fecal coliform)	Subwatershed of the Clover-Chambers Creek watershed. Steep slopes with underground springs and near surface groundwater. Area drains directly to the Narrows Passage via two small creeks – Gold Creek and Narrows Creek.
North Tacoma (4,766 acres)	Commencement Bay Ruston Creek Asarco Creek Puget Creek Gulch Mason Creek Gulch Garfield Gulch	Yes	Yes	Residential (main use) Commercial (6th Avenue, Proctor District, Ruston Way, Westgate Shopping Center) Industrial (North End Treatment Plant, former Asarco smelting site)	Commencement Bay (multiple impairments) Chambers Creek (fecal coliform) Puyallup River (fecal coliform)	Subwatershed of the Puyallup and Clover-Chambers Creek watersheds. City of Tacoma, Port of Tacoma, Commencement Bay Cleanup Action Committee, and community groups working to improve stream geometry and riparian vegetation along Puget Creek.
Leach Creek (1,728 acres)	Leach Creek	No	No	Residential Commercial	Leach Creek (bacteria and mercury) Chambers Creek (fecal coliform)	Subwatershed of the Clover-Chambers Creek watershed. Area drains to the Leach Creek holding basin, which discharges into Leach Creek (a highly urbanized stream), then flows into Chambers Creek.

Watershed (area in city)	Key Receiving Waters	Already Impacted by Historical Impervious	Direct Discharge to Marine	Current Land Uses	Water Quality Impairments	Additional Details
Flett Creek (7,153 acres)	Flett Creek	No	No	Residential (main use) Light commercial Industrial	Flett Creek (dissolved oxygen and fecal coliform) Chambers Creek (fecal coliform)	Flett Creek subwatershed flows into Snake Lake and Wapato Lake. Surface water drains through a series of holding basins, is pumped to the Flett Dairy wetlands. The wetlands flow to Flett Creek, Chambers Creek (a salmonid-bearing stream), Chambers Bay, then the Narrows. Clover Park Technical College preserved a portion of the Flett Dairy wetland as open space and for student environmental training.
Foss Waterway (5,781 acres)	Thea Foss Waterway Wheeler-Osgood Waterway Commencement Bay	Yes	Yes	Residential (main use) Industrial (Tideflats and Nalley Valley)	Puyallup River (fecal coliform)	Subwatershed of the Puyallup watershed. Thea Foss and Wheeler-Osgood waterways designated Superfund cleanup sites in 1983, cleanup completed in 2006, and the City is monitoring for the next 10 years.
T-Street/ Lower Puyallup (2,971 acres)	Puyallup River First Creek Swan Creek T Street Gulch	Yes	Yes	Industrial Commercial Residential Undeveloped open space	Puyallup River (fecal coliform) Swan Creek (fecal coliform)	Subwatershed of the Puyallup watershed. The lower Puyallup confluence with Commencement Bay is a salt-wedge estuary that is a mix of deep marine water with fresh water on top. Swan Creek was part of a 12-acre restoration project completed by the City in 2001.

Watershed (area in city)	Key Receiving Waters	Already Impacted by Historical Impervious	Direct Discharge to Marine	Current Land Uses	Water Quality Impairments	Additional Details
Tideflats (2,112 acres)	Puyallup River Middle Waterway Sitcum Waterway Blair Waterway Wapato Creek Commencement Bay	Yes	Yes	Industrial Commercial	Puyallup River (fecal coliform) Wapato Lake (total phosphorus and fecal coliform) Wapato Creek (multiple impairments)	Subwatershed of the Puyallup watershed. Hylebos Creek discharges into the head of the Hylebos Waterway, and Wapato Creek discharges into the head of the Blair Waterway. The Sitcum and Hylebos waterways have been identified as Superfund cleanup sites.
Northeast Tacoma (2,641 acres)	Hylebos Waterway Hylebos Creek Commencement Bay	No	Yes	Residential (main use) Commercial (under development)		Subwatershed within the Commencement Bay watershed. The fastest growing development area in the city. Many large residential developments, as well as shopping areas to support them, have been built or are under development.
Joe's Creek (157 acres)	Joe's Creek Dumas Bay	No	No	Residential (main use) Open space Vacant land	Joe's Creek (fecal coliform)	Most of the watershed is in Federal Way and discharges into Puget Sound at Dumas Bay.

Sources: Ecology 2018 and 2019b; Tacoma 2023c and 2023d

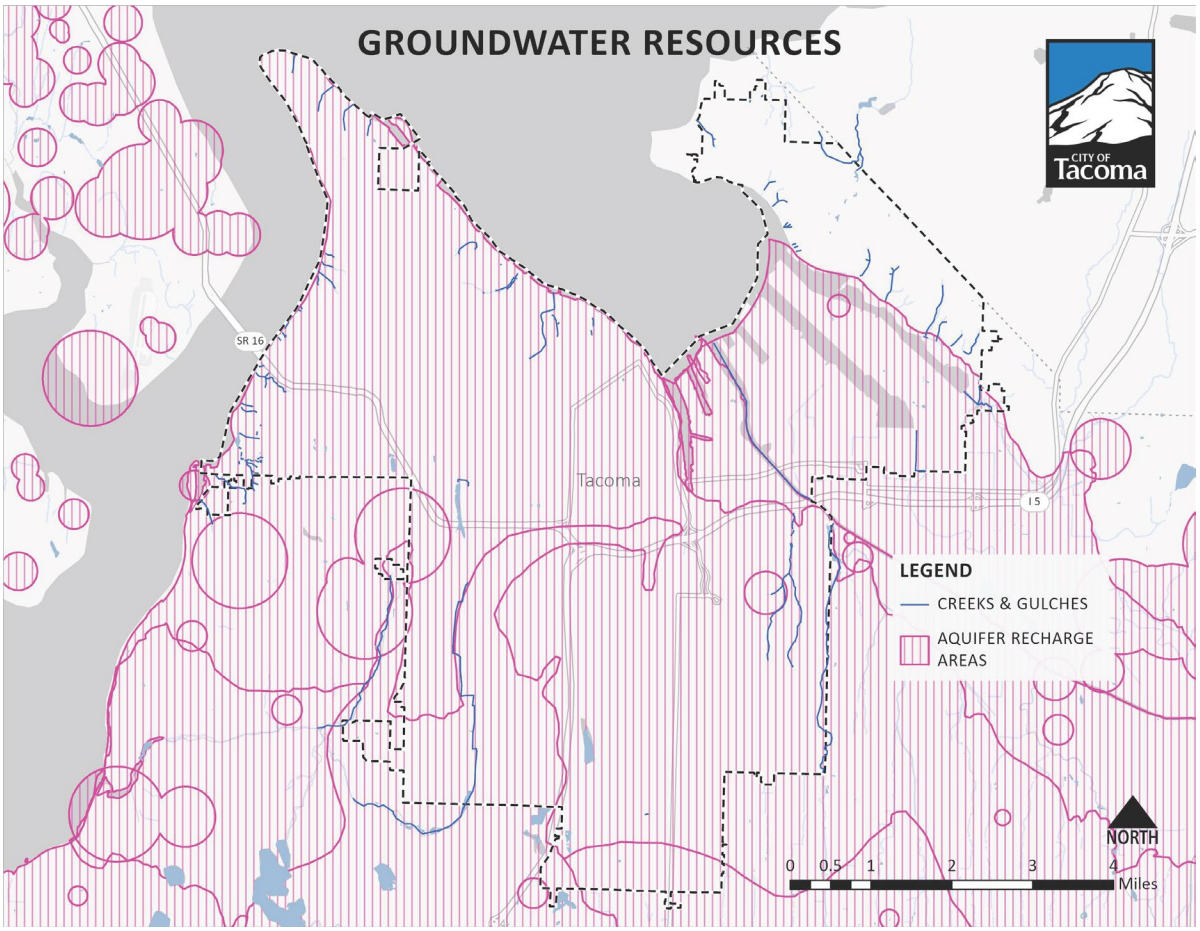
Groundwater Resources

The City of Tacoma sits atop the South Tacoma Aquifer, which normally supplies up to 5% of Tacoma's drinking water on an annual basis. However, in stressed years this valuable source can supply up to 40% of the summer peak. Tacoma's groundwater supply is managed by the South Tacoma Groundwater Protection District (STGPD) (Tacoma-Pierce County Health Department 2019) and the Planning and Development Services, Site Development Group (SDG) has jurisdiction over the review and approval of projects for stormwater issues, including enforcement of the City's Stormwater Management Manual. Specific regulations apply to businesses and properties with aboveground or underground storage tanks, hazardous substances at regulated quantities, and/or stormwater infiltration systems within the STGPD. The STGPD designates aquifer recharge areas, as well as fixed-radius wellhead protection areas, to regulate the expected groundwater travel distances and times associated with municipal wells. Artesian conditions, which produce groundwater that flows upward due to pressure differences, have been encountered in this area (WA Department of Conservation 1961; Shannon and Wilson 2014).

The City of Tacoma also sits atop the EPA-designated Central Pierce County Sole Source Aquifer. A sole source aquifer is an aquifer that supplies at least 50% of the drinking water for its service area

and is located where no reasonably available alternative drinking water sources exist if the aquifer becomes contaminated (EPA 2019). Figure 3.2-4, Groundwater Resources, identifies aquifer recharge areas and wellhead protection areas for the study area. Additional discussion of water supply and other potential impacts to utilities is included in Section 4.5.

Figure 3.2-4. Groundwater Resources



Source: Tacoma

3.2.2 Potential Impacts

Big Picture Impacts

The comprehensive future planning associated with the plan alternatives would focus growth in the city's already-developed area as opposed to allowing that same growth to impact more rural, undeveloped areas outside of the city. This is expected to help prevent impacts to higher-quality surface water resources throughout the region.

This section discusses potential impacts based on how the alternatives are different from one another in ways that matter to surface water resources. It should be noted that for future individual residential development projects that may result from the planning alternatives, compliance with the City's stormwater management codes, critical areas codes, shoreline master programs, and other applicable regulations and policies would avoid and minimize impacts to surface water resources to the maximum extent practicable. In some cases, compliance with the City's Critical Areas Protection Ordinance and other regulations may result in limited or no density increases for properties in or within close proximity to designated critical areas.

3.2.2.1 Impacts Common to all Alternatives

Types of Impacts

Under any zoning framework or development standards, including the Baseline Alternative, potential impacts could include the following:

- Construction impacts – Construction activities can involve removal of vegetation and soil disturbance, causing erosion and water quality impacts. Construction activities and associated rainfall runoff controls are required to meet permitting requirements that should prevent or minimize adverse impacts.
- Impaired waters – Impaired waters are widespread throughout the region; therefore, all alternatives would likely result in some development around both impaired waters and nonimpaired waters. Future redevelopment around impaired waters could provide an opportunity to improve water quality through upgrades and improvements to existing stormwater treatment systems that may not meet current standards.
- Other water resources – Sole-source aquifers, large contiguous floodplains, wetlands, lakes, rivers, and streams are located throughout the region. All alternatives could have impacts on these resources if development occurs in proximity to these resources. Development within and near these water resources is regulated and any impacts would be mitigated under local jurisdictions' stormwater management codes, critical areas codes, and shoreline master programs, as applicable. Compliance with these codes could limit any density increases in these areas.
- Impervious surfaces – All alternatives would result in an increase in the amount of impervious surface in the region as a result of added residential, commercial, and infrastructure development required to support an additional 1.8 million people and 1.2 million jobs in the region. Increasing the amount of impervious surface may alter stormwater hydrology, reduce aquatic habitat from sediment transport and scour, degrade water quality through an increase of pollutants in stormwater, increase water temperature, and decrease groundwater recharge.
- Sea level rise – All alternatives may experience the effects of sea level rise, depending on the rate of climate change and the effectiveness of mitigation actions.

Magnitudes of Impacts

As discussed above, natural water resources (streams, lakes, marine waters, and associated floodplains) exist throughout the city. Potential impacts common to all alternatives exist and are listed in the section above. However, an alternative could have an increased magnitude of these impacts on surface water resources if it has any of the following potentially harmful characteristics:

- Closer proximity to surface water resources – Where development density is focused in closer proximity to surface water resources, there is higher risk of impacts. There is no specific distance threshold, and generally the closer the development the higher the risk. However, development within and near these surface water resources is regulated and impacts would be mitigated under the applicable City codes, as discussed in Section 4.5.8.
- **Development focus in areas not already impacted by historical impervious** – Focusing new development in areas that have already been significantly modified by historical development is expected to have less impact on the already changed water resources. In addition, new or redevelopment in these areas can trigger upgrades in old stormwater infrastructure that can often result in a benefit to these water resources. In contrast, avoiding further development in areas that are historically less developed will result in less impact to surface water resources (even when new development is compliant with current stormwater management codes).
- Providing less growth in the city – Alternatives that focus more growth overall in the city's already-developed area to meet regional needs may reduce the demand for growth in more rural, undeveloped areas outside of the city. This is expected to help prevent impacts to more pristine, higher-quality surface water resources throughout the region.

3.2.2.2 Potential Impacts of the Baseline Alternative

The Baseline Alternative provides a scenario against which all other alternatives are compared. It would allow a continuation of growth of approximately 3,840 new units in the project area by 2050, distributed across the study area. Therefore, the Baseline Alternative would have development areas in close proximity to water resources. In addition, it would focus some of the higher-density development in areas not already impacted by being historically over 40% impervious, in turn leading to more extreme impacts to natural waters in these less developed areas.

Overall, the Baseline Alternative has the lowest amount of density increase among the alternatives and is therefore expected to have the lowest magnitude of impacts to water resources in the city. In contrast, though, its lower amount of new housing in the city compared to the other plan alternatives could result in more demand for housing growth in the region beyond the city. This could indirectly result in adverse impacts to more pristine water resources throughout the region.

3.2.2.3 Potential Impacts of the Lower Zoning Alternative

The Lower Zoning Alternative would allow a continuation of growth of approximately 25,660 new units in the project area by 2050, distributed across the study area. Therefore, the Lower Zoning Alternative would have development areas in close proximity to water resources. In addition, it would focus some of the higher density development in areas not already impacted by being historically over 40% impervious, in turn leading to impacts to natural waters in these less developed areas.

Overall, the Lower Zoning Alternative has a medium amount of density increase among the alternatives and is therefore expected to have a medium magnitude of impacts to water resources in the city. In contrast, though, its medium amount of new housing in the city compared to the other

plan alternatives could result in some demand for housing growth in the region beyond the city. This could indirectly result in adverse impacts to some pristine water resources throughout the region.

3.2.2.4 Potential Impacts of the Higher Zoning Alternative

The Higher Zoning Alternative would allow a continuation of growth of approximately 53,620 new units in the project area by 2050, distributed across the study area. Therefore, the Higher Zoning Alternative would have development areas in close proximity to water resources. In addition, it would focus some of the higher density development in areas not historically over 40% impervious surface, in turn leading to impacts to natural waters in these areas.

Overall, the Higher Zoning Alternative would provide the most density increase among the alternatives and is therefore expected to have the highest magnitude of impacts to water resources in the city. In contrast, though, its high amount of new housing in the city compared to the other plan alternatives is expected to result in the least demand for housing growth in the region beyond the city. This is expected to provide the most protection from adverse impacts to pristine water resources throughout the region among the alternatives.

3.2.2.5 Comparison of Impacts

The difference in impacts to water resources from the alternatives are described in Table 3.2-2 and illustrate that although the type of impacts would be the same under all of the alternatives, the scale of those impacts will vary.

Table 3.2-2. Comparison of Impacts to Water Resources in Tacoma

Potential Impact	Baseline Alternative	Lower Zoning Alternative	Higher Zoning Alternative
Proximity to water resources (Greater risk of damage)	Same proximity to water resources as other alternatives, with lower densities at those proximities	Same proximity to water resources as other alternatives, with medium densities at those proximities	Same proximity to water resources as other alternatives, with highest densities at those proximities
Development focus in areas not historically over 40% paved (Greater risk of impacts in an area where fewer existing impacts)	Same locations across areas not historically developed as other alternatives, with lower densities at those locations	Same locations across areas not historically developed as other alternatives, with medium densities at those locations	Same locations across areas not historically developed as other alternatives, with highest densities at those locations
Providing less density in the city (Greater risk of impacts to broader region outside of Tacoma)	Provides the least new growth in the city, which may increase development demand in more pristine watersheds outside of city	Provides moderate new growth in the city, which may increase development demand in some pristine watersheds outside of city	Provides the most new growth in the city, which is expected to prevent development demand in more pristine watersheds outside of city

3.2.2.6 Potential Significant Adverse Impacts

As discussed in Section 3.1, landcover across much of the city has been extensively modified for over a century by development, which has already resulted in long-term impacts to water resources. The proposal allows development citywide (outside of critical areas and other protected areas), and both alternatives designate the most intensive scale of redevelopment to areas that are nearest to established Centers and Corridors. This approach concentrates a higher density to areas that have

been somewhat impacted already, though the associated receiving waters near these established Centers and Corridors may still be of higher quality (and therefore benefiting from more protection) compared to those in the historically impacted region. Concentrating the new density near established Centers and Corridors also reduces the need for new roadways and other impervious surfaces to support new development. Redevelopment associated with each alternative would likely be required to provide permanent stormwater management to mitigate potential impacts from site-specific changes. These required stormwater management measures are designed to minimize pollution at the source; remove or reduce the amounts of pollutants in the stormwater before it enters the receiving water; and manage the rate at which stormwater flows into a receiving water or the separated storm drainage system. Furthermore, the future planning associated with the alternatives would focus growth in the city's already developed area as opposed to allowing that same growth to impact undeveloped areas outside of the city. This is expected to be beneficial to water resources across the region. Therefore, no significant unavoidable adverse impacts to water resources are expected.

3.2.3 Potential Mitigation Measures

As previously discussed, compliance with applicable regulations and policies would avoid and minimize impacts to water resources to the maximum extent practicable as provided by the City's stormwater management codes, critical areas codes, and shoreline master programs. No significant adverse impacts to water resources are anticipated, so no mitigation is required. Furthermore, many of the mitigation measures identified in Section 3.1 Plants and Animals, and Section 4.5 Utilities, would also help to avoid impacts to water resources.

Although no significant adverse impacts to water resources are anticipated, the City could implement mitigation measures above and beyond compliance with applicable regulations and policies. Mitigation measures that would modify the proposed alternatives to avoid and minimize impacts to water resources could include concentrating more of the higher-density future development in areas already impacted by being historically over 40% paved.

Other potential mitigation measures, based on regional and state best practices and considered with respect to conditions within the city, could include the following:

- Complete and implement the City's Urban Waters Protection Plan, including prioritized stormwater management activities and treatment retrofits in areas with the highest pollutant loading potential.
- Reduce need for additional or expanded roadways and parking through support of transit projects and other approaches.
- Strengthen critical areas ordinances and restore critical area buffers, focusing development densities farther away from surface water resources (wetlands, streams and lakes) and other critical areas.
- Update the Shoreline Master Program to increase sea-level rise resiliency actions (such as construction of barriers or property acquisitions) by basing boundaries and elevation restrictions on the Mean Higher High-Water Mark (the average of the higher daily tides) or some other metric higher than the Ordinary High-Water Mark.
- Update the landscaping code to further promote tree canopy and retention in all areas of the city.
- Expand programs that integrate stormwater objectives with tree canopy.
- Continue research and implementation of innovative stormwater best management practices, especially those focused on water quality treatment and flow control in the most urban areas.

- Implement the Puget Sound Partnership Action Agenda and Water Resource Inventory Area Salmon Recovery/Habitat Protection plans.
- Continue to implement the Puget Sound Regional Council (PSRC) Four-Part Strategy to reduce GHG emissions.

3.3 Air Quality and Greenhouse Gas Emissions

This section discusses air quality and GHG emissions in Tacoma and evaluates potential impacts that may be associated with the Proposal. Although the evaluation focused on impacts within Tacoma, air quality and GHG emissions are typically evaluated and discussed at a more regional or broader level, based on the nature of the environment. Potential mitigation measures that could further reduce potential impacts are also identified.

3.3.1 Affected Environment

3.3.1.1 Policy and Regulatory Framework

Some of the primary laws, regulations, policies, and programs guiding air quality in Tacoma include the following:

- Clean Air Act, 42 USC 7401.
- Code of Federal Regulations Title 40, Section 50, EPA, National Primary and Secondary Air Quality Standards.
- Washington Clean Air Act, RCW 70.94.
- Chapter 173-420 WAC, Conformity of Transportation Activities to Air Quality. Implementation Plans.
- 2021 Washington State Energy Strategy and 2023 Biennial Energy Report.
- Climate Commitment Act.
- Pierce County 2022 Geographic GHG Inventory Report.
- One Tacoma Plan, which is the City's Comprehensive Plan and includes goals and policies for environmental health and stewardship that relate both to air quality and to climate change and resiliency.
- Tacoma Climate Action Plan, which sets climate strategies and actions to address the climate emergency by 2030 and sets a 2050 net-zero GHG emissions goal.
- Puget Sound Clean Air Agency (PSCAA) Regulation I, Article 9, Section 15, Fugitive Dust Control Measures.
- PSCAA Air Quality Data Summary.
- PSCAA 2018 Greenhouse Gas Emissions Inventory.
- PSCAA 2030 Strategic Plan.
- PSRC Regional Transportation Plan; Appendix D, Regional Air Quality Conformity Analysis, 2018 (PSRC 2018a).
- PSRC VISION 2050: A Plan for the Central Puget Sound Region.

Three agencies have jurisdiction over the air quality in Tacoma: EPA, Ecology, and PSCAA. These agencies establish regulations that minimize concentrations of pollutants in the outdoor air (i.e.,

ambient air) and limit emissions from air pollution sources. Each of these regulations are similar, but each agency has established its own standards. As part of the Clean Air Act, EPA regulates six common air pollutants—known as criteria pollutants—that can be harmful to public health and the environment under the National Ambient Air Quality Standards (NAAQS). Those pollutants include carbon monoxide, particulate matter, lead, sulfur dioxide, ozone, and nitrogen dioxide. Common sources and effects of those six criteria air pollutants are listed in Table 3.3-1.

Table 3.3-1. Criteria Air Pollutant Sources and Effects

Criteria Air Pollutant	Common Sources	Common Effects
Lead	Ore/metal processing plants, piston engine aircraft, waste incinerators, and utilities	Health: neurological effects in children and other serious health effects in adults, depending on exposure Environment: decreased growth and reproduction in plants and animals
Ground-Level Ozone[a]	Formed from the reaction of sunlight with chemicals from vehicle emissions, paints, and solvents such as nitrogen dioxide and volatile organic compounds	Health: respiratory problems, including increasing asthma symptoms Environment: harmful to sensitive vegetation and ecosystems
Carbon Monoxide	Fossil-fuel burning, including vehicle exhaust and other machinery	Health: dizziness, unconsciousness, and death when concentrations are high; particularly bad for people with heart conditions
Nitrogen Dioxide	Fossil-fuel burning, including vehicle exhaust, power plants, and off-road equipment	Health: damages the human respiratory tract and increases a person's vulnerability to, and the severity of, respiratory infections and asthma
Sulfur Dioxide	Fossil-fuel burning, including power plants, refineries, and other industrial facilities	Health: respiratory problems, including increasing asthma symptoms Environment: primary component in acid rain
Particulate Matter[b]	Emitted directly from sources such as vehicle exhaust, woodstoves, and wildfires or formed from reactions of chemicals in the air, such as sulfur dioxide and nitrogen dioxide	Health: PM-2.5 poses the greatest risk to health because it can be inhaled deep into the lungs, causing severe and chronic respiratory and cardiovascular problems Environment: PM-2.5 and PM-10 cause regional haze that can reduce visibility

Sources: U.S. Environmental Protection Agency, Criteria Air Pollutants, 2022; Washington State Department of Health, Outdoor Air Pollution and Health Impacts, 2022.

[a] Different than upper atmosphere ozone, which helps prevent the earth from the sun's ultraviolet (UV) rays.

[b] Includes particles less than 2.5 microns in diameter (PM-2.5) and particles less than 10 microns in diameter (PM-10).

Based on measured ambient air quality data, EPA and Ecology designate portions of the state as attainment (meeting a NAAQS standard), nonattainment (not meeting a NAAQS standard), or unclassifiable (not enough information to designate) areas. If the measured concentrations in a nonattainment area improve so that they are consistently below the NAAQS standards, Ecology and EPA can reclassify the nonattainment area to a "maintenance area." Pierce County, including Tacoma, is currently classified as in attainment and is not part of any maintenance area.

Ecology regulates certain types of pollution at the state level, such as smoke, car pollution, industrial emissions, and other pollutants, including through the implementation of the Climate Commitment Act, which creates a market-based program (called the "cap-and-invest" program) to cap and reduce GHG emissions.

The PSCAA is a special-purpose regional government chartered by state law and has jurisdiction over air quality in Pierce, King, Kitsap, and Snohomish Counties. The agency's mission is to "preserve, protect, and enhance air quality and public health, enforce the Clean Air Act, support policies that reduce climate change, and partner with communities to do this work equitably." Per the PSCAA 2030 Strategic Plan (PSCAA 2023) the objectives are as follow:

- Meet and surpass NAAQS.
- Measure, analyze, and communicate air quality risk.
- Reduce GHG emissions.
- Prevent, reduce, and control emissions from stationary sources.
- Reduce harmful wood smoke emissions and exposure.
- Reduce harmful diesel pollution emissions and exposure.

The PSCAA concentrates on regional air quality issues and review and permitting of stationary sources.

3.3.1.2 Existing Conditions

Existing Climate and Air Quality

The City of Tacoma is a mature city with a range of land uses and development types, from intensive industrial activity to dispersed low-intensity residential areas. The most common sources of air pollution in the area are vehicles and wood smoke. In 2015, transportation accounted for 38% of GHG emissions and was the largest source of emissions after the built environment (PSCAA 2018). Most transportation emissions in 2015 stemmed from passenger vehicles (74%), followed by emissions from freight and service vehicles (14%) (PSCAA 2018). Air quality has improved despite regional growth (see the PSCAA 2030 Strategic Plan), and the region is currently in compliance with all NAAQS, including for particulate matter. Table 3.3-2 shows a summary of the air quality in Pierce County throughout 2022.

Table 3.3-2. 2022 Air Quality Data Summary

County	Good	Moderate	Unhealthy for Sensitive Group	Unhealthy	Very Unhealthy	Hazardous
Pierce	281 days	74 days	8 days	2 days	0 days	0 days

Source: https://pscleanair.gov/615/Data-Summary

Pollutants of Concern

In March 2023, Ecology identified South and East Tacoma as areas where people are vulnerable to health and environmental inequities and are also highly impacted by criteria air pollution under the Climate Commitment Act. Ecology is required to expanded air monitoring and the development of strategies to reduce the pollution in those areas over the coming years.

GHG Emissions and Climate Change

GHG emissions caused by humans, especially over the last 100 years, are significantly increasing temperatures that continue to have catastrophic damage to the Earth and its environment—globally and locally. The most significant GHG is carbon dioxide. The Tacoma Climate Action Plan identified Tacoma's GHG emissions inventory to be about 1.7 million metric tons of carbon dioxide equivalent

emissions (MTCO2e), or 7.8 MTCO2e per person. This is below Washington state's 11.1 MTCO2e per person in 2019 (www.eia.gov), although it does not account for GHGs emitted outside of Tacoma's city limits, such as emissions created for individual consumption or commercial/residential pre-construction. Transportation accounted for 44% of the city's emissions from the use of gasoline and diesel, including personal vehicles, commercial vehicles, city buses, and freight. Residential construction and occupancy accounted for 10% of the emissions, the majority of which are attributed to the use of natural gas to heat and cool homes.

Vehicle Ownership

According to Tacoma's Climate Action Plan, Tacomans owned 1.81 vehicles per household in 2019.

3.3.2 Potential Impacts

3.3.2.1 Impacts Common to all Alternatives

All of the alternatives would have the following types of impacts to air quality:

- Emissions from construction of infrastructure and development, including changes to land use.
- Emissions from increased traffic due to population growth (which would continue to be the single largest air pollutant source category within the city).
- Emissions from development, such as homes/buildings.

Construction Impacts and Changes to Land Use

All of the alternatives would have impacts on air quality from construction-related emissions, including temporary increases in local concentrations of exhaust emissions from heavy duty construction equipment and trucks fueled by gasoline and diesel engines, as well as fugitive dust emissions associated with excavation and grading activities. Some phases of construction (e.g., installation of new paving) would cause temporary odors that would be detectable to some people close to the construction sites. Construction equipment and material hauling can affect traffic flow near the construction sites. If construction were to delay traffic enough to significantly reduce travel speed, then general traffic-related emissions would temporarily increase.

Big Picture Impacts

Additional concentrated growth in already developed areas, particularly near transit, would likely reduce air quality impacts in the region as a whole over the long term.

The Baseline Alternative may appear to have lower air quality impacts based solely on less population growth and lower total VMT, but *per capita* impacts to air quality would be greater and would be spread throughout the region.

Fugitive dust emissions are regulated through the City's site development permitting and construction inspection process. Construction vehicle-related emissions are transient, so will likely have a minor adverse air quality impact. In addition, although there would be GHG emissions from residential construction, transportation of materials and construction itself typically only represent 5% to 10% of total life-cycle emissions of the home and would therefore have an insignificant impact (RMI 2023).

Under any of the alternatives, compliance with local, state, and federal regulations would be expected to prevent short-term and localized increases in airborne dust and equipment emissions at

construction sites from noticeably degrading air quality. As such, air quality would be expected to continue to meet federal air quality standards, and no significant impacts on air quality related to construction would occur under any of the alternatives.

Transportation Impacts

Under all the alternatives, the average weekday daily total vehicle miles traveled (VMT) would increase due to increased population. Total GHG emissions, however, are expected to go down under all alternatives as a result of more stringent motor vehicle fuel efficiency standards, implementation of the state's Clean Fuel Standard, and expanded use of electric/hydrogen vehicles.

Under all alternatives, there would be more miles traveled in Tacoma due to greater population, but there would likely be fewer per capita personal use vehicle miles due to an increase in active transportation and transit. The anticipated growth and development under any of the alternatives will contribute to increased demands on the transportation infrastructure. Such demands encompass elevated traffic volumes, potential changes in travel patterns, and heightened pressures on existing transit systems.

Vehicle Ownership

Under each of the alternatives, a modest decline in the rate of personal vehicle ownership is anticipated, primarily attributable to the increased density with expanded housing options within the city and growth in transit oriented centers. This shift is influenced by the characteristic patterns associated with multifamily housing, which would increase under all of the alternatives and where residents often exhibit lower rates of personal vehicle ownership compared to those in single-family homes.

Development

Under all of the alternatives, residential development would contribute to GHG emissions through factors such as energy consumption, heating, and transportation associated with housing. Typical GHG emissions from residential development include those from the construction phase, energy use for heating and cooling, and vehicle emissions related to commuting. These impacts would be only a minor contributor to GHG emissions compared to other sources.

3.3.2.2 Potential Impacts of the Baseline Alternative

Potential impacts under the Baseline Alternative would be the same as the impacts common to all alternatives, discussed above.

Transportation Impacts

From 2019 to 2050, energy use for transportation is anticipated to decrease by approximately 10%, owing to modest improvements to transit and active travel mode shares, older vehicles being replaced with newer more efficient vehicles, and market-based uptake of commercial and personal use electric vehicles, which are more energy efficient than internal combustion engine vehicles. These improvements also result in a 15% decrease in emissions from transportation. These trends would continue under the Baseline Alternative.

Development

The Tacoma Climate Action Plan provides that residential energy use in Tacoma is anticipated to increase by 10% even without the additional new housing units associated with the Baseline Alternative. And decreases in building emissions would be even more pronounced than building energy use, with emissions from residential buildings anticipated to decrease by 46%. Energy use

from electricity increases by 40% for residential buildings, while energy use from natural gas decreases by 42% as natural gas and other fossil fuel-based space and water heating systems are replaced with electric heat pumps.

One other factor impacting building energy use is degree days, which measures how much heating and cooling is required for buildings based on the temperatures in a particular year. As temperatures warm over the coming years, the need to heat buildings will decrease, while cooling needs will increase (although this will include an increase in extreme heat and cold days). In Tacoma, space and water heating represent a much greater proportion of energy requirements and emissions than space cooling; for the time being, that trend would continue under the Baseline Alternative.

3.3.2.3 Potential Impacts of the Lower Zoning Alternative

In addition to the impacts common to all, the Lower Zoning Alternative would specifically include actions to create green, sustainable, and climate-resilient housing. Therefore, it might be closer to Tacoma's 2021 Climate Action Plan targets, which include 100% of new buildings built to net-zero emissions standards by 2030, 98% of systems converted to air source heat pumps by 2050, and no natural gas lines built in new buildings. As space and water heating were responsible for the majority of building emissions in 2019 (nearly 90%), switching from fossil fuel-based heating systems to electric heat pumps represents the greatest opportunity for emissions reductions from buildings in Tacoma (Tacoma 2021: 22).

The development of anti-displacement efforts by Home In Tacoma Phase 2 means more people can live near destinations like jobs, schools, and transportation choices, producing less emissions from transportation to get their needs met compared to if they were displaced. For example, gentrification of neighborhoods of color forces existing community members to move to areas that are further away from economic opportunities, culturally relevant services, and other community hubs (UTexas 2023). This increases VMT and emissions, especially from SOVs.

Similarly, if Home In Tacoma Phase 2 were successful in making housing more affordable, people would be able to live closer to where they work instead of being pushed out of Tacoma and contributing to air pollution and GHG emissions by traveling. It also follows that a neighborhood with more transportation choices has a lower need for SOVs, thus reducing emissions.

Finally, the Lower Zoning Alternative may reduce upfront emissions related to potential demolition of viable structures by encouraging renovation versus demolition. Renovations have lower embodied carbon emissions than new construction because they require less production and disposal of existing building components.

Under the Lower Zoning Alternative, approximately 25,660 new units would likely be constructed in the project area by 2050. Seeing a decrease in new residential buildings that are single family and a decrease in dwelling sizes would result in less GHG emissions (Tacoma 2021: 22).

The Lower Zoning Alternative would also improve mode shares and reduce the need for SOVs that contribute to GHG emissions. This would be achieved by increasing the proportion of biking, walking, and transit by 2050, thereby the impact of personal vehicle use on internal trips in Tacoma. (Tacoma 2021: 22).

By 2050, there will be more miles traveled in Tacoma because there will be a larger population. However, the uptake of active transportation and transit means that there would be fewer personal use vehicle miles traveled overall by 2050 (Tacoma 2021: 24). In fact, the Lower Zoning Alternative would help improve, if not meet, the 2030 Climate Action Plan indicator target to increase compact, complete, walkable neighborhoods where 80% of residents live in a 20-minute neighborhood.

3.3.2.4 Potential Impacts of the Higher Zoning Alternative

For the Higher Zoning Alternative, impacts would be similar to the Lower Zoning Alternative, but at a more rapid rate and a much larger decrease in GHG and other pollutant emissions per capita. The potential trade-offs between the benefits of dense development and the downsides of new development may be greater.

Specifically, the Higher Zoning Alternative would have the greatest reduction in per capita GHG and other pollutant emissions because the proposed zoning allows higher densities throughout the study area, particularly in areas in close proximity to Centers, Corridors, parks, and schools, which would further reduce energy consumption and VMT per capita. Like the Lower Zoning Alternative, the tree protection requirements that are part of the Higher Zoning Alternative would also help reduce GHG overall.

3.3.2.5 Comparison of Impacts

The following table compares the impacts of the three alternatives to air quality (Table 3.3-3). This analysis is strongly correlated with the analysis of potential transportation impacts, Section 4.3, Transportation.

Table 3.3-3. Comparison of Impacts

Potential Impact	Baseline Alternative	Lower Zoning Alternative	Higher Zoning Alternative
Emissions from Transportation	Pierce County's Transportation Model Mode share 2019 to 2050: Bike 3% to 7%. SOV 90% to 78%. Transit 3% to 9%. Walk 3% to 6%. Emissions would continue to increase from total VMT, but less VMT per capita because of electrification.	Bike/transit/walk proportions will increase more than the Baseline Alternative; SOVs will decrease. More total VMT, but less VMT per capita than the Baseline Alternative. Per capita emissions would be less than the Baseline Alternative.	Bike/transit/walk proportions will increase the most. SOVs will decrease the most. Most total VMT, but least VMT per capita. Least amount of per capita emissions anticipated.
Emissions from Construction	Residential development would continue to occur and emit pollutants and GHGs.	Residential development would occur at a higher rate and emit pollutants and GHGs.	Residential development would occur at the highest rate and emit pollutants and GHGs.
Emissions from Energy Use	Total energy use would increase but have less per capita energy use because of multifamily building and because current zoning, electrification, and energy efficiencies are expected.	Total energy use would increase more than the Baseline Alternative because of more heating and cooling. Per capita energy use would decrease more than the Baseline Alternative because of smaller housing footprint.	Most amount of total energy use. Least amount of per capita energy use.

Notes: GHG = greenhouse gas; SOV = single-occupancy vehicle; VMT = vehicle miles traveled

Source: Tacoma Climate Action Plan

3.3.3 Potential Mitigation Measures

No significant adverse impacts to air quality or GHG emissions is anticipated, so no mitigation is required beyond compliance with existing regulations.

Some actions that are already part of the Proposal would mitigate potential impacts to air quality and GHG emissions. For example, both action alternatives call for a package of changes intended to expand tree requirements with residential development, while streamlining the code and improving tree health and longevity. Any increase in tree canopy would contribute to a reduction in impacts from GHG emissions. In addition, both action alternatives are likely to include measures to reduce environmental impacts of housing development and occupation. The more sustainable design and construction, the fewer air quality and GHG impacts of additional development.

In response to the pressing need to address climate change, both the state and local levels have initiated comprehensive efforts to reduce GHGs. Washington State has implemented ambitious goals outlined in the Clean Energy Transformation Act, aiming to achieve a carbon-neutral electricity supply by 2030 and transition to a 100% clean energy supply by 2045. The state has established benchmarks for reducing per capita VMT by 50% from a baseline of 75 million by 2050, recognizing that the transportation sector is the largest contributor of GHG in the state. The PSCAA, which regulates air quality in Pierce County, adopted regional targets for reducing GHG emissions, aiming to reduce emissions to 80% below 1990 levels by 2050 (PSRC 2020). VISION 2050, the regional comprehensive plan developed by the PSRC, includes several policies and actions to reduce GHG emissions through strategies around land use, development, alternative energy, alternative modes of transportation, and protection of natural resources (PSRC 2020). Locally, the City of Tacoma has actively participated in these climate initiatives, with ongoing efforts like the Tacoma Climate Action Plan focusing on reducing GHG emissions and enhancing the City's resilience to climate impacts. Those climate initiatives could mitigate potential impacts from the Proposal.

Additional mitigation actions that are not part of the Proposal but could be implemented, include the following:

- Require solar readiness for detached one- and two-family dwellings.
- Encourage or require Green Stormwater Infrastructure, particularly in areas with poorer air quality.
- Adopt construction and demolition management requirements (salvage/waste diversion/deconstruction) for residential, commercial, and multifamily projects, such as the optional State Building Code appendices for Construction and Demolition Salvage.
- Adopt emission standards related to electric appliance replacement for residential projects.
- Require all-electric appliances in residential properties.
- Further promote green building certification through permit streamlining and other actions.
- Implement Tacoma's Community Decarbonization Strategy and Climate Action Plan.
- Prioritize investment to reduce VMT and encourage electric vehicles.
- Consider clean diesel construction equipment requirements.
- Build out the transit and active transportation network to reduce dependence on automobiles.
- Expand the availability of e-bike and electric car charging infrastructure.

4. Built Environment – Affected Environment, Impacts, and Potential Mitigation Measures

Like Chapter 3, Natural Environment – Affected Environment, Impacts, and Potential Mitigation Measures, and as required by SEPA (WAC 197-11-440), this chapter summarizes the existing policy and regulatory framework and affected environment, potential impacts, and mitigation measures related to elements of the built environment: land use, housing, transportation, public services and utilities, parks and recreation, and historic, cultural, and archaeological resources.

Focusing growth in an already urbanized area, per adopted regional growth policies and consistent with "smart growth strategies," can also result in direct and indirect environmental benefits to the built environment, including reducing reliance on SOVs and creating additional housing types at a variety of income levels.[10] As a result, the Proposal is likely to have beneficial impacts to the environment, in addition to any localized potential adverse impacts identified throughout this Draft EIS. Although the Proposal is anticipated to have *beneficial* impacts to some elements of the built environment within Tacoma and when considered at a more regional scale, the focus of this EIS is to identify any potential significant adverse impacts.

4.1 Land Use

This section discusses existing land use in Tacoma and evaluates potential impacts that may be associated with the Proposal. Potential mitigation measures that could further reduce potential impacts are also identified.

4.1.1 Affected Environment

Land use in the City of Tacoma is primarily regulated by TMC Title 13, Land Use Regulatory Code, and Title 19, Shoreline Master Program (SMP), and is guided by the One Tacoma Plan, Vision 2050, the Tacoma 2025 Strategic Plan, and the Tacoma Housing Action Plan. One Tacoma fulfills the Washington Growth Management (GMA) requirements for comprehensive planning and conforms to Pierce County's Countywide Planning Policies.

4.1.1.1 Policy and Regulatory Framework

The following state, regional, and local regulations, policies, and plans guide land use in Tacoma:

- GMA, Chapter 36.70A RCW.
- WAC 365-196, Growth Management Act—Procedural Criteria for Adopting Comprehensive Plans and Development Regulations.
- SEPA, WAC 197-11, which requires the consideration of potential environmental impacts and provides substantive authority to condition or deny a proposal that is not exempt.
- PSRC VISION 2050 contains the regional growth strategy and multicounty planning policies, adopted October 2020.
- Pierce County Comprehensive Plan, including the General Policy Plan.

[10] Environmental Protection Agency (EPA), Our Built and Natural Environments: A Technical Review of the Interactions Between Land Use, Transportation, and Environmental Quality (2nd Edition).

- Pierce County Shoreline Management Program: Shoreline Environment Designations, Policies and Regulations.
- Pierce County Buildable Lands Report.
- E2SHB 1923: Incentives to Increase Residential Density in Cities.
- Home In Tacoma Phase 1 Ordinance 28793.
- City of Tacoma SMP (adopted 2013, amended 2019).
- Pierce County SMP (adopted 2015, amended 2018).
- Vision 2050 Housing Strategy.
- Other ongoing City policy initiatives (i.e., Watershed Planning, 2024 Comprehensive Plan updates, etc.).

Growth Management Act

The One Tacoma Plan, including the Future Land Use Map, was developed in accordance with both the procedures and the substantive requirements of the GMA, Chapter 36.70A RCW, which requires fast-growing cities and counties—including Tacoma—to develop comprehensive plans to manage their population growth. The GMA also requires that development regulations align with and execute local comprehensive plans. Furthermore, the GMA imposes the responsibility on local jurisdictions to ensure that their comprehensive plans and development regulations collectively provide sufficient land capacity suitable for accommodating housing and employment growth allocated to their jurisdictions. This includes the accommodation of essential facilities like medical, governmental, educational, institutional, commercial, and industrial establishments associated with such growth. These allocations should align with the applicable CPPs and remain consistent with the 20-year population forecast (RCW 36.70A.115).

The GMA also mandates that counties and cities encourage the availability of affordable housing to all economic segments of the population, promote a variety of residential densities and housing types, and encourage preservation of the existing housing stock. The GMA requires that the adoption of CPPs establish a consistent county-wide framework from which county and city comprehensive plans are developed and adopted. RCW 36.70A.210 requires each county to adopt policies for housing, which, at a minimum, "consider the need for affordable housing, such as housing for all economic segments of the population and parameters for its distribution" (RCW 36.70A.210(3)l).

In alignment with the GMA, there have been recent state legislative actions driving much of the zoning and standards proposals in Home In Tacoma. In 2023, the Washington State Legislature introduced significant changes affecting local government's authority over zoning and development standards. Pertinent housing-related bills impacting the Proposal include HB 1110 (Middle Housing), HB 1337 (Accessory Dwelling Unit Support), and SB 5412 (SEPA Exemptions). These, along with other housing laws, offer specific guidance to cities, including Tacoma, to modify zoning and standards, aiming to bolster housing supply, choice, and affordability.

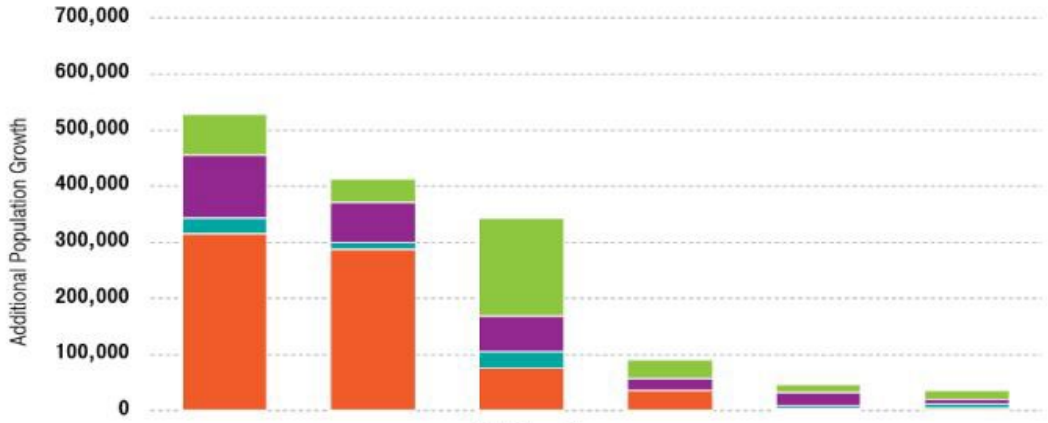
Tacoma's initial Home In Tacoma zoning and standards proposals align closely with the state's directives. Both allow widespread middle housing, enhanced development standards facilitating housing construction, and incentives for increased affordability. Nevertheless, disparities existed in certain specifics within the new housing laws, offering guidance on various topics under consideration in Home In Tacoma. Following the conclusion of the state legislative session, Tacoma assessed these differences, leading the City Council to opt for complete alignment of the Home In Tacoma package with the state housing regulations. Adjustments were made to the Proposal package to meet the new requirements, encompassing changes such as an increased number of

allowable dwellings per lot, reduced parking requirements, expanded affordability incentives, and more flexibility for separate ownership of dwellings.

Vision 2050

Tacoma is strategically planning for future growth in accordance with Vision 2050 targets. Vision 2050 advocates for the development of compact, complete communities that enhance livability, accessibility, and environmental stewardship. Key policy directions include increasing housing choice and affordability, fostering transit-oriented development (TOD), preserving open spaces, and promoting economic vitality through innovation and workforce development. Vision 2050 underscores the importance of social equity, aiming to address disparities and ensure that growth benefits all segments of the population. Additionally, the vision advocates for resilient infrastructure, climate action, and the protection of natural resources (https://www.psrc.org/planning-2050/vision-2050). Figure 4.1-1 illustrates Vision 2050 regional population growth projections.

Figure 4.1-1. Regional Growth Strategy — Population Growth 2017–2044



County	Metropolitan Cities		Core Cities		High Capacity Transit Communities		Cities & Towns		Urban Unincorporated		Rural	
King	316,000	44%	288,000	40%	76,000	11%	36,000	5%	3,000	0%	5,000	1%
Kitsap	27,000	34%	12,000	16%	29,000	36%	-	0%	5,000	6%	7,000	8%
Pierce	113,000	38%	71,000	23%	64,000	21%	21,000	7%	24,000	8%	9,000	3%
Snohomish	72,000	20%	42,000	12%	174,000	50%	34,000	9.5%	15,000	4%	15,000	4.5%
Total	**529,000**	**36%**	**412,000**	**28%**	**343,000**	**24%**	**91,000**	**6%**	**47,000**	**3%**	**36,000**	**2%**

Source: VISION 2050 Planning Resources: Guidance for Growth Targets to Implement the VISION 2050.

VISION 2050 states that counties should establish local housing targets based on population projections. Translating population to housing is a critical step in recognizing and planning for regional housing needs and ensuring that local land use plans are sufficient to accommodate the projected population target (PSRC 2020). With a forward-looking approach, the City is actively working to align its development initiatives and policies with the comprehensive Vision 2050 plan. By incorporating these growth targets into its planning processes for Home In Tacoma Phase 2, Tacoma aims to create a vibrant and resilient community that not only meets the evolving needs of its residents but also contributes positively to the broader regional vision for sustainable and inclusive growth by the year 2050. Figure 4.1-2 provides Vision 2050 regional growth and projected housing units.

Figure 4.1-2. Regional Growth Strategy 2020-2050 Housing Unit by Regional Geography

	METROPOLITAN CITIES	CORE CITIES	HIGH CAPACITY TRANSIT COMMUNITIES	CITIES & TOWNS	URBAN UNINCORP.	RURAL	TOTAL
King	194,200	158,000	42,400	18,400	1,600	3,400	418,000
Kitsap	14,200	6,700	15,300	-	2,800	3,500	42,600
Pierce	63,900	41,200	32,100	10,600	9,100	3,900	160,800
Snohomish	42,400	22,400	91,900	16,300	6,900	6,700	186,500
Total	**314,700**	**228,300**	**181,700**	**45,300**	**20,400**	**17,500**	**807,900**

Source: VISION 2050 Planning Resources: Guidance for Growth Targets to Implement the VISION 2050.

Pierce County Regional Council

The establishment of the PCRC was aimed at guaranteeing coordinated and consistent planning between Pierce County and its municipalities. The primary role of the PCRC is to ensure the coordinated implementation of GMA requirements both within the county and across the broader region. In addition to its planning role, the PCRC plays a crucial part in addressing population dynamics and projections, as shown in Table 4.1-1, which provides population projections for Tacoma.

Table 4.1-1. Population Projections for Tacoma

Jurisdiction	2020 Census Population	2020-2044 Population Growth	2044 Total Population
Tacoma	219,346	105,977	325,323

Source: Adopted 2044 Population/Housing/Employment for Pierce County and Its Cities and Towns.

In accordance with the GMA, the PCRC maintains the Pierce County CPPs to coordinate planning on a countywide basis. Last updated in 2012, the CPPs provide guidance to cities on a wide range of topics, including affordable housing, community and urban design, economic development, health and well-being, historic and cultural preservation, natural resources, and transportation facilities. Tacoma One has been prepared consistent with the guidance of the Pierce County CPPs.

Pierce County has adopted various policies and plans to guide its housing affordability initiatives, aiming to enhance both the quantity and diversity of homes available in the market. PCRC's housing objective, which seeks to increase the overall housing supply and variety, resonates with the goals of the Proposal. The emphasis on regulatory reforms, permitting efficiencies, and improved incentives in strategies supporting this objective mirrors the approach taken by Tacoma to facilitate the development of new housing units. By addressing the housing supply and affordability challenges through coordinated efforts, both at the county and city levels, Pierce County and Tacoma collectively contribute to fostering a housing market that is more accessible and diverse, meeting the needs and desires of a broader resident population.[11] Table 4.1-2 provides housing unit growth targets for Tacoma.

[11] Affordable Housing Working Group Recommendations.

Table 4.1-2. Housing Unit Growth Targets 2020 – 2044

Jurisdiction	2020 Census H.U.	2020-2044 H.U. Growth	2044 Total H.U.
Tacoma	92,309	42,390	42,390

Source: Adopted 2044 Population/Housing/Employment for Pierce County and its Cities and Towns, Pierce County CPPs.

One Tacoma Comprehensive Plan

The One Tacoma Plan (2015) guides development over the long term, addresses the entire community, and describes how the community's vision for the future is to be achieved. It guides decisions on land use, transportation, housing, capital facilities, parks, and the environment. It also sets standards for roads and other infrastructure, identifies how they'll be paid for, and establishes the basis for zoning and development regulations. The One Tacoma Plan builds on the City's periodic reviews, responds to community needs, and fulfills the Washington GMA requirements for periodic review. It also conforms to Pierce County's CPPs and guidance from the PSRC VISION 2040 (2008).

Chapter 2 of One Tacoma, titled Urban Form, articulates the City's vision and policies pertaining to the allocation of space and the physical layout and design of the city. This chapter delves into key aspects such as land use, density and zoning, the link between land use and transportation, economic development, historic preservation, and housing. Notably, Policy UF-1.2 emphasizes the implementation of the One Tacoma Plan land use designations through zoning designations and target densities, as detailed in Table 3, Comprehensive Plan Land Use Designations and Corresponding Zoning. Additionally, Policy UF-1.1 underscores the City's commitment to ensuring that the One Tacoma Plan Land Use Map establishes and maintains designations capable of accommodating planned population and employment growth (Tacoma 2015).

With the Proposal, Tacoma is actively pursuing a diverse selection of housing choices as part of its comprehensive planning and local regulations. This also aligns with the goals of HB 1110, which specifically addresses the state's acute housing shortage by opening up affordable middle housing options for families, workers, and both elderly and young home seekers.

4.1.1.2 Existing Conditions

One Tacoma Plan Future Land Use Map

The FLUM adopted in Phase 1 (see Figure 1.1-1), provides a visual representation of the City's envisioned land use patterns for the next 20 years. This allocation of land uses results from a comprehensive analysis that considers the One Tacoma Plan policies, existing land use and zoning, development trends, anticipated land use demands, and desirable growth and development objectives. Within each designation, various types of zoning and land use may be allowed. The land use map and designations work in conjunction with other adopted policies of the One Tacoma Plan to inform land use decisions.

The FLUM outlines the City's long-term vision for accommodating projected population and delineates distinct land use designations and categories situated throughout the city, each specifying the appropriate uses for its respective area. Some of these designations suggest specific land uses and include single-family and multifamily (both low- and high-density) residential, neighborhood and general commercial, light and heavy industrial, major institutional campuses, parks and open spaces, and shoreline areas. Conversely, designations such as Downtown and Tacoma Mall Regional Growth Centers, Crossroads, and Neighborhood Centers encompass broader ranges suitable for multiple types of uses. A description of the FLUM land use designations is included in Table 4.1-3, Future Land Use Map Designations.

Comprehensive Plan Future Land Use Designations

On December 7, 2021, the City Council approved Ordinance 28793, amending the comprehensive plan specifically tailored for low-scale and mid-scale areas, as detailed below.

Low-Scale Areas

The current Low-Scale Residential designations offer a range of housing choices, aligning with the scale and height typical of detached houses, extending up to 3 stories above grade. The standards for low-scale housing types allow flexibility in building width, depth, and site coverage, in harmony with detached houses, backyard accessory structures, and pedestrian orientation. These designations are typically situated within complete neighborhoods, conveniently within a short to moderate walking distance from parks, schools, shopping, transit, and other amenities.

Supported housing types include detached houses, units with attached or detached accessory dwelling units, duplexes, triplexes, townhouses (up to 3 units), cottage housing, and co-housing. Existing houses are not considered nonconforming. Secondary housing types, including fourplexes and small-scale multifamily units, may be permitted, contingent on appropriate design, locational, and other standards, ensuring harmonious integration with the overall neighborhood scale. The presence of community facilities, such as parks, schools, and religious facilities, is encouraged to enhance neighborhood vitality.

Qualities associated with Low-Scale Residential areas encompass diverse housing types and prices, lower noise levels, limited vehicular traffic, moderate setbacks, private and shared open space, street trees, green features, and complete streets with alleys. Infill in historic districts is supported to expand housing options in line with the Low-Scale designation, provided it aligns with neighborhood scale and defining features, adhering to policies discouraging demolition. The target development density is set at 10 to 25 dwelling units/net acre.

Mid-Scale Areas

Mid-Scale Residential designations are generally located in close proximity to Centers, Corridors and transit and provide walkable, urban housing choices in buildings of a size and scale that is between Low-Scale Residential and the higher-scale of Centers and Corridors. Standards for mid-scale housing support heights up to 3 stories (above grade) and 4 stories in limited circumstances along corridors. Standards ensure that development is harmonious with the scale and residential patterns of the neighborhood through building height, scale, width, depth, bulk, and setbacks that prevent overly massive structures, provide visual variety from the street, and ensure a strong pedestrian orientation. Development is subject to design standards that provide for a smooth scale transition by methods that include matching low-scale building height maximums where Mid-Scale Residential abuts or is across the street from low-scale areas.

Housing types supported include small-lot houses, accessory dwelling units, duplexes, triplexes, townhouses, cottage housing, cohousing, fourplexes and multifamily. Existing houses shall not be considered nonconforming. Community facilities, including parks, schools and religious facilities, are also desirable. Some nonresidential uses, such as small childcare, cafes or live work, may be appropriate in limited circumstances.

Qualities associated with Mid-Scale Residential areas include diverse housing types and prices; a range of building heights and scales; walkability; transportation choices; moderate noise and activity levels; generally shared open space and yards; street trees; green features; and complete streets with alleys. Infill in historic districts is supported to expand housing options consistent with the mid-scale designation but must be consistent with neighborhood scale and defining features and with policies discouraging demolition. The target development density is 15 to 45 dwelling units/net acres.

Table 4.1-3 describes the FLUM Designations and the proposed Urban Residential zoning.

Table 4.1-3. Future Land Use Map Designations

Land Use Designations	Description	Typical Density	Proposal Zoning Approach per FLUM Designation
Low-Scale Residential	Housing types supported include detached houses, houses with attached and/or detached accessory dwelling units, duplexes, triplexes, townhouses with up to 3 units, cottage housing, cohousing, and, in some cases, fourplexes and small-scale multifamily.	Target Development Density: 10-25 dwelling units/net acre.	Rezoned UR-1 as new lowest intensity zone. UR-2 in areas near complete neighborhood features (parks, schools, transit, Centers).
Mid-Scale Residential	Housing types supported include small-lot houses, accessory dwelling units, duplexes, triplexes, townhouses, cottage housing, cohousing, fourplexes, and multifamily.	Target Development Density: 15-45 dwelling units/net acre.	Rezoned to UR-3.
Airport Compatibility Residential	This designation is intended to increase safety in residential areas within the approximately 200-acre area of South Tacoma corresponding with the Joint Base Lewis McChord Airport Protection Zone II. Safety will be increased by preventing development conditions that could interfere with airport operations or increase the likelihood of an accident and by reducing risk to life and property in the incidence of a crash.	N/A	Will be zoned UR-1 as the new lowest-density residential zoning district, in order to be consistent with the policy direction of the Airport Compatibility Overlay, which calls for keeping residential densities low in order to reduce risk in the pathway of the McChord Air Force Base.
Multi-Family (High Density)	This designation allows for a wide range of residential housing types at medium- and higher-density levels along with community facilities and institutions and some limited commercial uses and mixed-use buildings.	Target Development Density: 45–75 dwelling units/net acre	No change proposed. These areas already allow a range of housing types (future review could integrate these areas with the new Urban Residential zones and middle housing standards).
Tacoma Mall Regional Growth Center	The urban center is a highly dense, self-sufficient concentration of urban development. Buildings can range from 1 to 12 stories, and activity is greater than in most areas of the city.	Minimum Allowable Site Density: 25 dwelling units/net acre	No change proposed.[a]
Downtown Regional Growth Center	Focal point for the city, the center of government, cultural, office, financial, transportation and other activities.	Target Development Density: 45–75 dwelling units/net acre	No change proposed.[a]
Crossroads Mixed-Use Center	The Crossroads Center is a concentration of commercial and/or institutional development that serves many nearby neighborhoods and generally includes a unique attraction that draws people from throughout the city. Some residential development may already be present, and there is a goal to have more residential development	Minimum Allowable Development Density: 25 dwelling units/net acre	No change proposed.[a]

Land Use Designations	Description	Typical Density	Proposal Zoning Approach per FLUM Designation
Neighborhood Mixed-Use Center	Concentrated mix of small- to medium-scale development that serves the daily needs of center residents, the immediate neighborhood, and areas beyond. Development contains a mix of residential and commercial uses. Buildings are generally up to 6 stories along the commercial corridors, up to three stories at the periphery of the centers near Low-Scale Residential districts, and up to 4 stories in areas between the core and the periphery.	Minimum Allowable Development Density: 25 dwelling units/net acre	No change proposed.[a]
General Commercial	This designation encompasses areas for medium- to high-intensity commercial uses that serve a large community base with a broad range of larger-scale uses. These areas also allow for a wide variety of residential development, community facilities, institutional uses, and some limited production and storage uses. This designation is characterized by larger-scale buildings, longer operating hours, and moderate to high traffic generation.	Target Development Density: 45–75 dwelling units/net acre.	No change proposed.[a]
Neighborhood Commercial	This designation is characterized primarily by small-scale neighborhood businesses, with some residential and institutional uses. Uses within these areas have low to moderate traffic generation, shorter operating hours, smaller buildings and sites, and less signage than general commercial or mixed-use areas. There is a greater emphasis on small businesses and development that is compatible with nearby, lower intensity residential areas.	Target Development Density: 14–36 dwelling units/net acre.	No change proposed.[a]
Major Institutional Campus	This designation includes hospitals, medical centers, colleges, universities, and high schools typically greater than 10 acres in size.	N/A	Proposed to be zoned UR-1 as the new, lowest density category of residential zoning since the primary purpose is not residential in nature.
Light Industrial	This designation allows for a variety of industrial uses that are moderate in scale and impact, with lower noise, odors, and traffic generation than heavy industrial uses. This designation may include various types of light manufacturing and warehousing and newer, clean, and high-tech industries, along with commercial and some limited residential uses.	N/A	No change proposed.[a]
Heavy Industrial	This designation is characterized by higher levels of noise and odors, large-scale production, large buildings, and sites, extended operating hours, and heavy truck traffic. This designation requires access to major transportation corridors, often including heavy haul	N/A	No change proposed.[a]

Land Use Designations	Description	Typical Density	Proposal Zoning Approach per FLUM Designation
	truck routes and rail facilities. Commercial and institutional uses are limited, and residential uses are generally prohibited.		
Parks and Open Space	This designation is intended to conserve and enhance open, natural, and improved areas valuable for their environmental, recreational, green infrastructure and scenic character and the benefits they provide. The designation encompasses public and private parks and open space lands, with lands set aside for these purposes by the City of Tacoma and the Metropolitan Parks District forming the core of the designation.	N/A	Proposed to be zoned UR-1 as the new lowest-intensity residential zoning district since the primary policy direction for these areas is not residential.
Shoreline	This designation includes areas that support deepwater port and industrial sites, habitat for a variety of fish and wildlife, archaeological and historical sites, open space, recreation and community activities, and some commercial and residential development.		No change proposed.[a]

[a] All other FLUM designations: These areas are generally not zoned residential and are not the focus of this Proposal. However, in limited instances, areas are currently zoned with one of the zones that is being repealed through this Proposal. In those instances, zoning changes are proposed for consistency (replacing the existing zones with the new UR zones or other zones consistent with their FLUM designations. Also, it should be noted that some general standards that apply across all zones are being changed and will be effective in nonresidentially zoned areas.

The low and mid-scale FLUM designations are illustrated in Figure 1.1-1.

Tacoma Land Use Code

The Land Use Code is intended to implement the vision and policy direction of the One Tacoma Plan. Land use in Tacoma is regulated by TMC Title 13. The Land Use Regulatory Code is a comprehensive framework consisting of multiple chapters and sections, each designed to effectively implement policy direction. Within this regulatory landscape, the following chapters play pivotal roles:

- Chapter 1.39 – Affordable Housing Bonuses Administrative Code: Provides the requirements for use of bonuses, such as affordability levels and duration, and outlines the review, approval and monitoring process for affordable housing bonuses.
- Chapter 13.05 – Land Use Permits and Procedures: Outlines the processes and requirements for obtaining various land use permits. This chapter serves as a guide for property owners, developers, and the public to navigate the permitting system.
- Chapter 13.06 – Zoning Code: This includes development regulations that address land use, density, setbacks, and other zoning-related aspects. It provides guidelines for permissible land uses, building standards, and zoning district classifications.
- Chapter Title 19 – Shoreline Master Program: Although not currently under update, the SMP governs land use and development activities along shorelines, ensuring environmental protection and sustainable use of these areas.
- Chapter 13.11 Critical Areas Preservation: Although not currently under update, addresses the protection and conservation of environmentally sensitive areas deemed critical for ecological, geological, or hydrological reasons. Common critical areas include wetlands,

streams, shorelines, steep slopes, and other areas with unique ecological or geological significance.

- 13.12 Environmental Code: The Environmental Code addresses environmental regulations, permitting processes, and guidelines for sustainable development. This includes considerations for natural resource protection, air and water quality, and habitat conservation.
- Chapter 13.17 Residential Target Areas: This chapter provides for increasing residential housing opportunities in areas that lack sufficient available, desirable, and convenient residential housing to meet the needs of the public who would likely live in the residential target area if desirable, attractive, and livable places were available.
- Chapter 13.18 Affordable Housing Inclusionary Development Areas: This chapter outlines the incentives and standards that are applicable within designated affordable housing target areas. This prioritizes and targets inclusionary zoning and other actions to effectively meet the community's housing needs.

The Land Use Regulatory Code serves as a comprehensive tool for implementing and regulating various aspects of land use and development in alignment with broader policy goals.

Additional Areas Not Included in Home In Tacoma Phase 2

In addition to the primary focus areas, the Proposal has limited direct impact on various programs, including the SMP and areas designated as Passive Open Space. While these areas may not be the primary focus of the Proposal, it is important to acknowledge potential indirect effects that may arise as a result of broader development strategies.

Shoreline Areas

The SMP aims to enhance and elaborate upon the policy guidelines for the city's shorelines, offering detailed zoning regulations and development criteria. The SMP uses a system of "environment designations" that further guide the character, intensity, and use of individual shoreline segments. These classifications include Natural, Shoreline Residential, Urban Conservancy, High Intensity, Aquatic, and Downtown Waterfront and are based on the existing development patterns, natural capabilities and goals and aspirations of the community for its shoreline areas (Tacoma 2015).

The zoning alternatives proposed by the Home In Tacoma project may have indirect effects on areas governed by the SMP. While the primary focus is on targeted zones for increased middle housing zoning, changes in land use and development patterns in these areas could impact transportation, infrastructure, and overall city dynamics. Indirectly, the increased population density and altered zoning may contribute to changes in traffic patterns, potentially influencing transportation routes that intersect with or connect to shoreline areas. Moreover, the demand for amenities and services resulting from growth proposed by the Alternatives could indirectly affect the availability and accessibility of resources along the shoreline.

Tacoma's Passive Open Space

Passive open space, i.e., "natural areas," are an important part of supporting the city's livability, resiliency, and sustainability for future generations. Passive open spaces provide many public benefits, including clean water, air quality, habitat, aesthetics, passive recreation, carbon sequestration, critical areas preservation, and climate resiliency. As the city's population and density increases, so does the demand for natural area respite and the GMA requirement for open space acres per capita. Preservation and restoration of natural areas are supported by multiple City plans and the Tacoma Municipal Code including, the One Tacoma Plan, TMC 13.11, the Passive Open

Space Management Plan, and the City's Climate Action Plan and Urban Forestry Management Plan. See Section 5.5, Parks and Recreation.

The zoning alternatives proposed could have indirect effects on Tacoma's Passive Open Space areas. While the primary focus is on targeted areas for increased middle housing options, the broader implications of development based on the Alternatives may extend to these open spaces. Indirectly, increased population density may lead to heightened demand for recreational and green spaces, potentially impacting the use and accessibility of nearby passive open areas. Changes in land use and development patterns could also influence transportation routes and pedestrian traffic, indirectly affecting how residents utilize and access passive open spaces.

Asarco Plume

Much of Tacoma's north and west neighborhoods are located within the footprint of the area known as the "Asarco Plume." Properties within the plume are known to contain contaminants associated with the operation of the former Asarco smelter located in North Tacoma and Ruston. While many of these areas have been remediated through actions of EPA and/or Ecology, there remains a high likelihood that soil contamination will be encountered in the development process.

Current Zoning

Tacoma's current zoning is illustrated in Figure 4.1-3, Current Tacoma Zoning Map. By definition of the Proposal, a majority of the study area is currently zoned single-family and multifamily low-density residential, with small areas zoned for mixed use, multifamily, or commercial. The majority of the current existing land uses in the study area are also generally single-family, consistent with current zoning.

Many older neighborhoods in Tacoma already provide a diverse array of middle housing types, reflecting the city's historical development patterns, aligning organically with the goals outlined in the Home In Tacoma plan. These neighborhoods, often characterized by tree-lined streets and a mix of architectural styles, have evolved over time to include a range of middle housing options. Middle housing types in these areas typically encompass duplexes, triplexes, townhouses, and other multiunit structures. This variety in housing options not only reflects the historical growth of Tacoma but also aligns with the principles of creating inclusive, accessible, and sustainable neighborhoods. The Proposal's zoning alternatives, which seek to promote and expand middle housing choices, would build upon this existing foundation by encouraging responsible growth and enhancing the accessibility of diverse housing options.

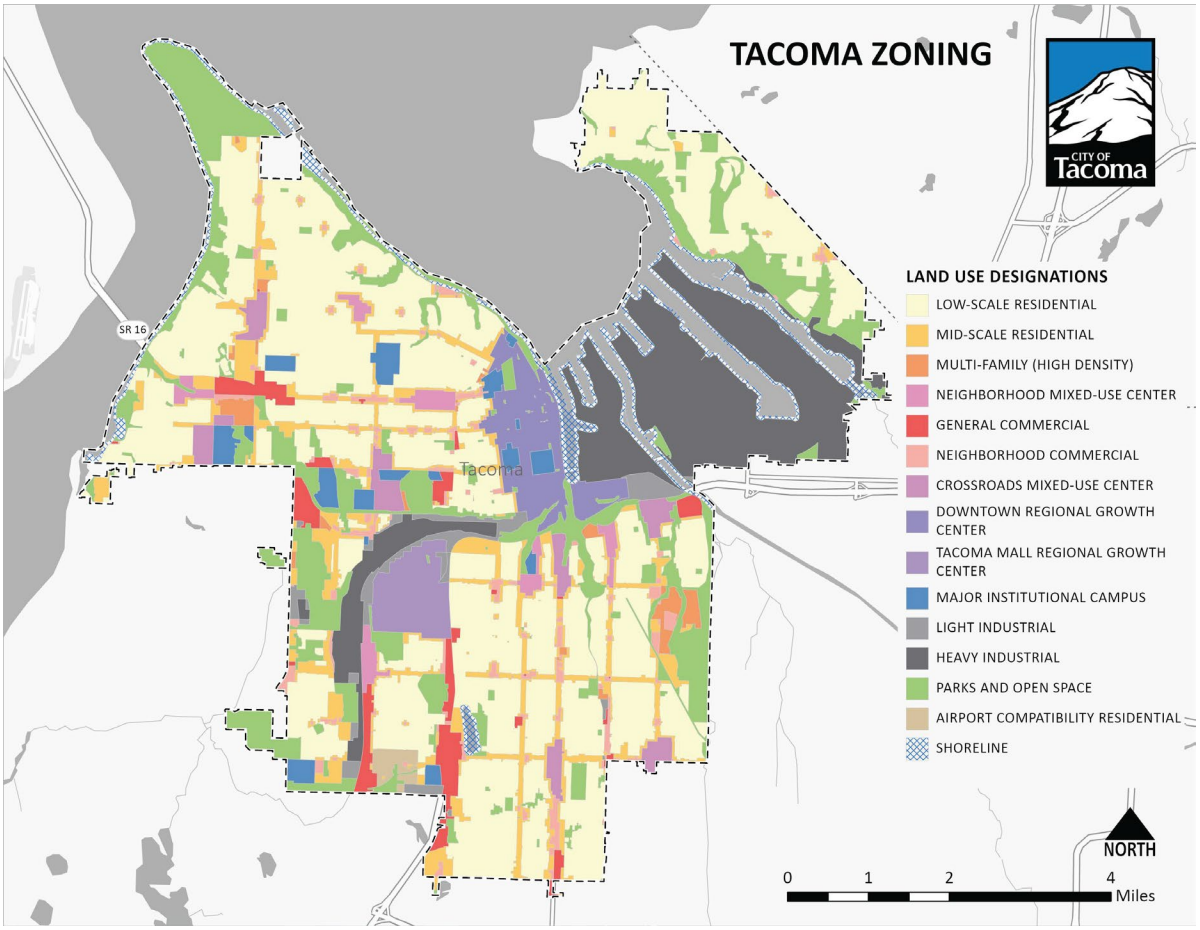
Tacoma's zoning also includes several overlay districts pertinent to residential zones and areas. These include the Planned Residential Development District, South Tacoma Groundwater Protection District, Historic Special Review Overlay District, Joint Base Lewis McChord Airport Compatibility Overlay District, Port of Tacoma Transition Overlay District, and View Sensitive Overlay District.

The Proposal does not alter the mapped extent of any of the overlay districts. It does include changes to the text governing the Planned Residential Development District and the Joint Base Lewis McChord Airport Compatibility Overlay District, which are proposed in order to maintain consistency with the new Urban Residential zoning framework.

While no changes are proposed to the View-Sensitive Overlay District, additional detail is provided here since building heights have been a topic of high community interest. The purpose of the View-Sensitive Overlay District is to maintain height compatibility between new development and existing development in areas with long-standing residential development with views of the Puget Sound and the Narrows Bridge. It imposes a maximum building height of 25 or 20 feet, depending on the location. The View Sensitive Overlay District was established to balance the interests of new development or remodel to existing development with the interests of the surrounding property

owners who wish to preserve the character of the neighborhood including public and private views. The View Sensitive Overlay District has been established in areas with steep topography and an established pattern of larger lots.

Figure 4.1-3. Current Tacoma Zoning Map



Source: Tacoma 2023

4.1.2 Potential Impacts

This section describes the consistency of the alternatives with existing land use plans, as well as whether the alternatives would result in changes to building density, urban design, or scale that would be incompatible with existing development in the designated Low-scale and Mid-scale areas.

4.1.2.1 Impacts Common to All Alternatives

Total growth across the city will not surpass the predetermined Vision 2050 growth target under any of the alternatives. As a result, potential growth-related impacts have already undergone some examination at both regional and local levels and have been incorporated into City and regional policies, programs, and standards.

While the majority of Tacoma's growth citywide is anticipated to occur in the Downtown area and designated Centers, the Proposal—and thus, the analysis in this Draft EIS—focuses on the shift toward increased growth in formerly single-family and multifamily low-density neighborhoods, now designated as Low-Scale and Mid-Scale. Although additional growth and shifts in growth are assumed under all of the alternatives, these assumptions do not imply a definitive prediction. Numerous factors can influence the location and pace of growth and the estimates for likely net new units for each alternative serve as a measure for analysis, rather than a foregone conclusion.

Big Picture Impacts

The Baseline Alternative would not be consistent with existing land use plans or HB 1110 and would not accomplish the objectives of the Proposal.

The Higher Zoning Alternative is the most consistent with existing land use plans and most likely to accomplish the objectives of the Proposal.

Future development under any of the alternatives could convert undeveloped and infill areas to more intensive uses than currently exist. Impacts associated with increased density, changes in housing type, or number of units could include construction-related and operational impacts, such as associated population growth, aesthetic impacts, increased noise, light and glare, traffic delays, changes in views, and increased pressure to develop or redevelop adjacent vacant or underutilized areas. In some cases, compliance with the City's Critical Areas Protection Ordinance and other regulations may result in limited or no density increases for properties in or within close proximity to designated critical areas. At the same time, the "smart growth" strategies associated with the action alternatives, discussed further in Section 1.1.3, are likely to have beneficial impacts to the environment.

More specific impacts vary by alternative and are discussed in the following sections.

4.1.2.2 Potential Impacts of the Baseline Alternative

The Baseline Alternative would reflect existing zoning and no changes would be made to the Land Use Code. Real estate and housing market considerations aside, the current trajectory for the construction of housing and development would continue, and it is anticipated that approximately 3,840 new housing units are expected to be constructed in the project area by 2050. The Baseline Alternative is characterized by relatively low-density development compared to the action alternatives and the current problems of housing affordability and supply would persist, failing to accomplish the Proposal's objectives.

Consistency With Existing Land Use Plans

The Baseline Alternative is not consistent with existing land use plans, particularly the policies adopted during Home In Tacoma Phase 1. The Baseline Alternative is also inconsistent with state middle housing mandates adopted in the 2023 legislative session (HB 1110). As a result, this alternative is not viable moving forward and is included solely for comparison purposes.

Historically, Tacoma has faced challenges in keeping up with its designated share of regional growth. The city's growth rate has been slower compared to unincorporated Pierce County, revealing shortcomings in the effectiveness of growth management strategies to meet regional objectives. With an anticipated 3,840 likely net new units, the Baseline Alternative is highly unlikely to add enough units to help meet 2050 housing targets. Moreover, relying primarily on concentrated multifamily development in limited areas poses constraints on overall housing supply, choice (including ownership opportunities), and affordability.

Consistency with Existing Residential Scale and Patterns

The Baseline Alternative is likely to be the most consistent with existing residential scale and patterns, since there would be no change to the types or scale of housing allowed under existing Land Use Code, because the likely number of new units is the lowest, and because development would be likely to occur the most gradually over time.

However, as additional growth continues to be focused in high-density multifamily developments within designated Centers the abrupt scale transitions at the peripheries of these Centers could be exacerbated. For example, the difference in scale between a single-family residence and a 4 to 8 story multifamily building is less consistent than a more gradual transition from single-family, to a rowhouse, and then to a multifamily apartment building that would be encouraged under the action alternatives.

Furthermore, the escalating demand for housing coupled with intensified competition may result in the replacement of existing smaller-scale housing with larger single-family houses, often referred to as "McMansions." This shift not only has the potential to disrupt established residential scale and patterns, but would also fail to effectively address the pressing housing needs in the community.

Consistency with Existing Land Uses and Impacts to Other Elements of the Environment

The lower density associated with the Baseline Alternative would be more consistent with existing single-family land use in the study area and may result in fewer environmental impacts compared to the action alternatives such as less land disturbance, fewer displacements, lower water and energy consumption, and potentially lower carbon emissions. However, reduced environmental impacts under the Baseline Alternative are reliant on the lower growth anticipated; if measured at a per-capita level, impacts would likely be greater than the action alternatives. In addition, although some impacts within the city may be lower under the Baseline Alternative, impacts within the region as a whole would likely be greater due to the likelihood of additional growth dispersed outside of Tacoma.

Residential SEPA Threshold Increase

The Proposal would increase the threshold for environmental review under TMC Chapter 13.12 from 20 dwellings to 40 dwellings. This would result in fewer projects being required to go through project-level environmental review, resulting in a streamlined development permit process in support of housing development goals. However, the Proposal does increase the likelihood of development, including soil disturbance. In order to ensure that issues that currently are addressed under SEPA will continue to be adequately addressed, the Proposal also includes three new standards for projects within that range. With adoption of these standards, the Proposal is not anticipated to result in an increase in negative impacts.

- Soil testing within the Asarco plume – The Proposal adds a requirement for soil testing to the standards—the same review that is currently required will continue to be required for projects from 20 to 40 dwellings.
- Transportation impacts – The Proposal authorizes the City to require a limited Traffic Impact Assessment as part of permitting for projects from 20 to 40 dwelling units.
- Historic, cultural, and archaeological impacts – The Proposal authorizes the City to require specified measures to reduce the likelihood of disturbing and address the unintended discovery of protected resources.

4.1.2.3 Potential Impacts of the Lower Zoning Alternative

Consistency With Existing Land Use Plans

The Lower Zoning Alternative would encourage a greater mix of density and changes in housing type and scale than the Baseline Alternative and would be more consistent with VISION 2050, the One Tacoma Plan, and would support the AHAS. The Lower Zoning Alternative is also consistent with HB 1110 and would be more likely to help Tacoma reach its share of planned regional housing growth.

Consistency with Existing Residential Scale and Patterns

Under the Lower Zoning Alternative, new land use regulations and development standards would reduce the potential for incompatible scale and patterns of development. Change could, however, occur more rapidly compared to the Baseline Alternative, especially in Mid-Scale Residential areas.

The new development standards under the Lower Zoning Alternative aim to prevent abrupt scale transitions and encourage compatibility with existing patterns, such as by continuing to require similar maximum height, yard setbacks, and other development standards even as the number of allowed lots is increased. The Lower Zoning Alternative would also incentivize the retention of existing buildings, which would further maintain existing scale and development patterns, as well as help preserve historic built resources.

In addition, the Lower Zoning Alternative incorporates measures to integrate trees effectively in the urban landscape through new tree coverage requirements (35% for Low-Scale Residential and 25% for Mid-Scale Residential), which would help maintain visual consistency with more open, green, single-family development, while also contributing to overall environmental quality.

Consistency with Existing Land Uses and Impacts to Other Elements of the Environment

The Lower Zoning Alternative may be less consistent with existing single-family land uses than under the Baseline Alternative, although that inconsistency is minimized by the applicable development standards. Similarly, the Lower Zoning Alternative may have greater impacts to some elements of the environment, discussed throughout this Draft EIS. However, it is also likely to have fewer potential impacts as a result of the more concentrated development proposed. For example, additional density would be more concentrated in close proximity to already-established transit systems, which could lead to a decrease in GHG emissions and mitigate the impacts on air quality.

4.1.2.4 Potential Impacts of the Higher Zoning Alternative

Impacts under the Higher Zoning Alternative would be similar to those under the Lower Zoning Alternative. The Higher Zoning Alternative would make the greatest changes to the Land Use Code, resulting in a greater diversity of housing types and a higher volume of housing construction compared to both the Lower Zoning Alternative and the Baseline Alternative. This alternative envisions a more significant impact on the built environment, aiming to accommodate increased housing options and construction activity.

Consistency With Existing Land Use Plans

The Higher Zoning Alternative would encourage a greater mix of density and changes in housing type and scale than the Baseline Alternative and would be more consistent with VISION 2050 and the One Tacoma Plan and would best support the AHAS. The Higher Zoning Alternative is also consistent with HB 1110 and would be the most likely to help Tacoma reach its share of planned regional housing growth.

Consistency with Existing Residential Scale and Patterns

Like the Lower Zoning Alternative, new land use regulations and development standards would reduce the potential for incompatible scale and patterns of development, although to a slightly lower degree. For example, the Higher Zoning Alternative would allow slightly taller backyard units in Low-Scale areas than the Lower Zoning Alternative, which would be slightly less consistent with existing residential scale and patterns. Similarly, the Higher Zoning Alternative would require a smaller minimum rear setback than the Lower Zoning alternative in both Low and Mid-Scale designated areas. In addition, change could occur the most quickly under this alternative, especially in Mid-Scale Residential areas, where the proposed zoning allows for the most significant increases in density and market demand is likely to be the highest.

Consistency with Existing Land Uses and Impacts to Other Elements of the Environment

The Higher Zoning Alternative may lead to increased land use intensification, higher energy and water consumption, and greater stress on transportation infrastructure. However, the per capita impacts to some elements of the environment would likely be lower due to more efficient land use, potentially reducing urban sprawl and transportation-related emissions.

4.1.2.5 Comparison of Impacts

The Baseline Alternative is characterized by lower density and gradual development, resulting in the least immediate impact on land use and the environment. However, it would also have the least improvement in accommodating the regional share of growth, both in terms of overall progress and sustainability and would be the most inconsistent with local and regional land use planning. While its approach minimizes immediate effects, it falls short in effectively addressing the broader goals of accommodating growth in a sustainable manner compared to other alternatives.

The Lower Zoning Alternative promotes higher density and intensification, potentially leading to faster changes and greater overall impacts to some elements of the environment but would be more consistent with local and regional land use planning.

The Higher Zoning Alternative allows for the highest density and may result in the most rapid land use transformation, posing both opportunities and challenges for environmental sustainability. The Higher Zoning Alternative is the most likely to help Tacoma meet its housing growth goals and consistency with local and regional land use planning.

4.1.3 Potential Mitigation Measures

To address the potential adverse impacts associated with the proposed alternatives, various mitigation measures could be implemented, such as:

- Evaluate the pace of growth over time, along with trends regarding where growth is occurring, and consistently integrate growth data into regular planning efforts for all municipal functions.
- Identify future actions that would better achieve Tacoma's housing growth goals through land use and other actions.
- Regularly evaluate the implementation of Tacoma's residential zoning and standards to identify opportunities to address challenges and better meet the intent of accommodating growth that is compatible with residential patterns.
- Extend residential development standards adopted through this Proposal to other zoning districts, as appropriate for the policy intent in those zones.

- Since land use and overall density affects everything, seek to improve coordination between land use and other spheres of planning for municipal, capital, programmatic objectives. Ensure that land use informs accurate future growth planning to provide realistic inputs for planning efforts.
- Evaluate alternative models for funding of public improvements for transportation, environmental, utilities, and other functions through such tools as impact fees for changes in land use to offset the public costs associated with infrastructure and services related to the new land uses.
- Partner with public agencies to invest in expanding and improving public transportation networks to support high-density areas and reduce the need for private vehicle usage.
- Upgrade and expand water supply, sewage systems, and public utilities to accommodate increased development and prevent infrastructure stress.
- Ensure that equity is systematically considered in the development of land use through such methods as inclusionary zoning requiring a percentage of affordable housing units in new developments in Tacoma's higher-intensity zoning districts.
- Evaluate the permitting review processes for the full range of middle housing types, including projects that do not go through SEPA review, for such impacts as soil disturbance, transportation, disturbance of archeological and cultural resources, and others, to ensure that Comprehensive Plan goals are being addressed.
- Continue to refine residential and related policies through the upcoming Comprehensive Plan updates and on an ongoing basis.

4.2 Housing

This section discusses existing housing conditions in Tacoma and evaluates potential impacts to housing that may be associated with the Proposal. Potential mitigation measures that could further reduce potential impacts are also identified.

4.2.1 Affected Environment

This section summarizes the current housing planning and policy environment in Tacoma and household demographics and housing trends, including householder characteristics, tenure, race/ethnicity, income, and affordability. The regulatory context for the housing analysis primarily relies on the best available information in the One Tacoma Plan and the City's AHAS (2018a).

4.2.1.1 Policy and Regulatory Framework

The following resources, plans, and policies were consulted in preparing the analysis for this housing section.

- American Community Survey 1-year Estimates.
- Tacoma AHAS.
- Analysis of Systemic Disparities in Achievable Housing Options.
- Home In Tacoma: Housing Action Plan (developed in 2021 as part of Home In Tacoma Phase 1).
- The One Tacoma Plan and CPPs on housing.
- Monthly median rent in single family and multifamily rental properties (Zillow).

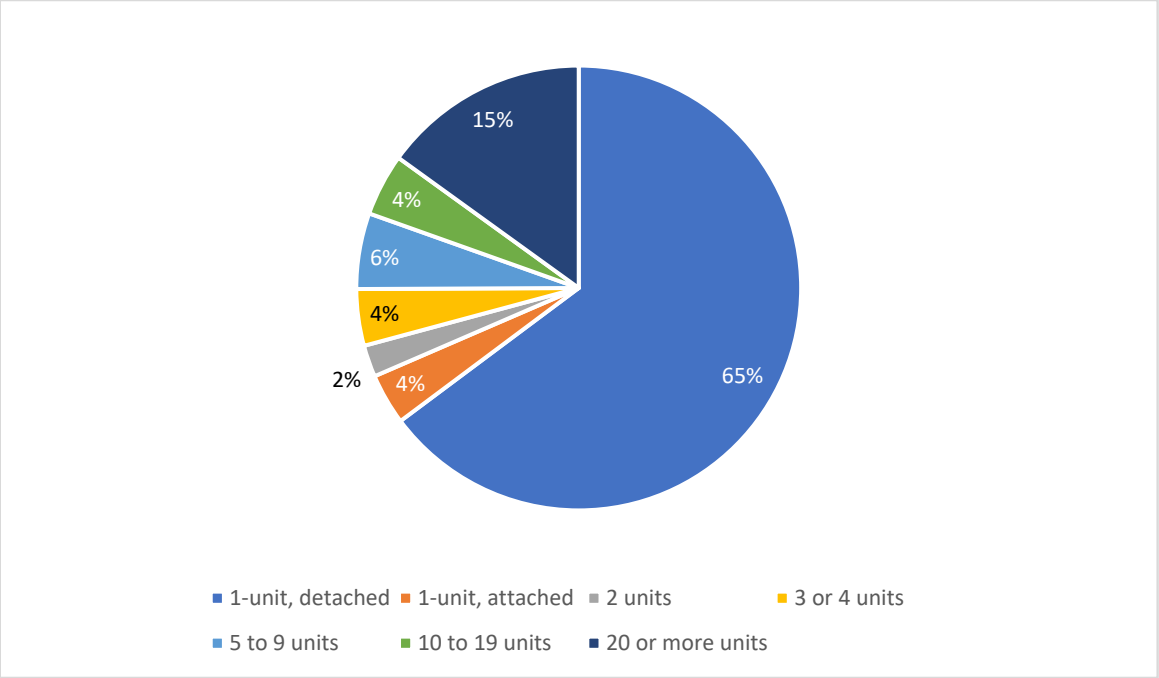
- Monthly median home sale price (Zillow).
- Regional fair market rent.
- Tacoma Equity Index (City's GIS hub).
- City's Multifamily Property Tax Exemption program (Resolution 40866), which provides financial incentives for the construction of multifamily housing that provides affordable units in Tacoma's Residential Target Areas. These areas include 17 designated mixed-use centers and areas zoned as Mid-Scale Residential along key corridors.
- Anti-Displacement Resolution.
- Tacoma Anti-Displacement Strategy (under development).

4.2.1.2 Existing Conditions

Housing

Tacoma had 92,516 total housing units and 88,819 occupied units in 2021, compared to 87,549 housing units and 81,811 occupied units in 2016 (ACS 2016, 2021). Most of those housing units are single-family dwellings; just over 68% of Tacoma's total housing stock is composed of 1-unit detached and 1-unit attached buildings, compared to just under 72% in Pierce County as a whole. Approximately 4% of the total housing units in Tacoma are condo or townhome-style dwellings. Tacoma's second most common housing type is buildings with 20 or more units, which comprised 15% of total housing units in 2021. Buildings with 20 or more units comprised 7.3% of total housing units in Pierce County in the same year. Structures containing 2 to 19 housing units range comprise 2% to 6% of the total housing units. Over half of all people living in Tacoma moved into their unit in 2015 or later, signifying that many residents are still searching for housing units that will meet their long-term needs. Housing affordability is also decreasing for people with low incomes as overall incomes increase; HUD recorded an increase of the median family income in Pierce County from $74,600 in 2018 to $112,600 in 2023 (HUD 2018, 2023). The PSRC Regional Housing Affordability report shows that housing affordability in Pierce County dropped for homebuyers from a score of 148.8 in 2016 to a score of 85.1 in Q1 of 2022 (with a score of 100 indicating adequate income to purchase a median priced single-family home with a 20% down payment and 30-year amortizing mortgage) (PSRC 2022). Figure 4.2-1 breaks down the number of units present in Tacoma's housing structures.

Figure 4.2-1. Housing Units in Structure



Source: American Community Survey, 1-Year Estimates, 2021

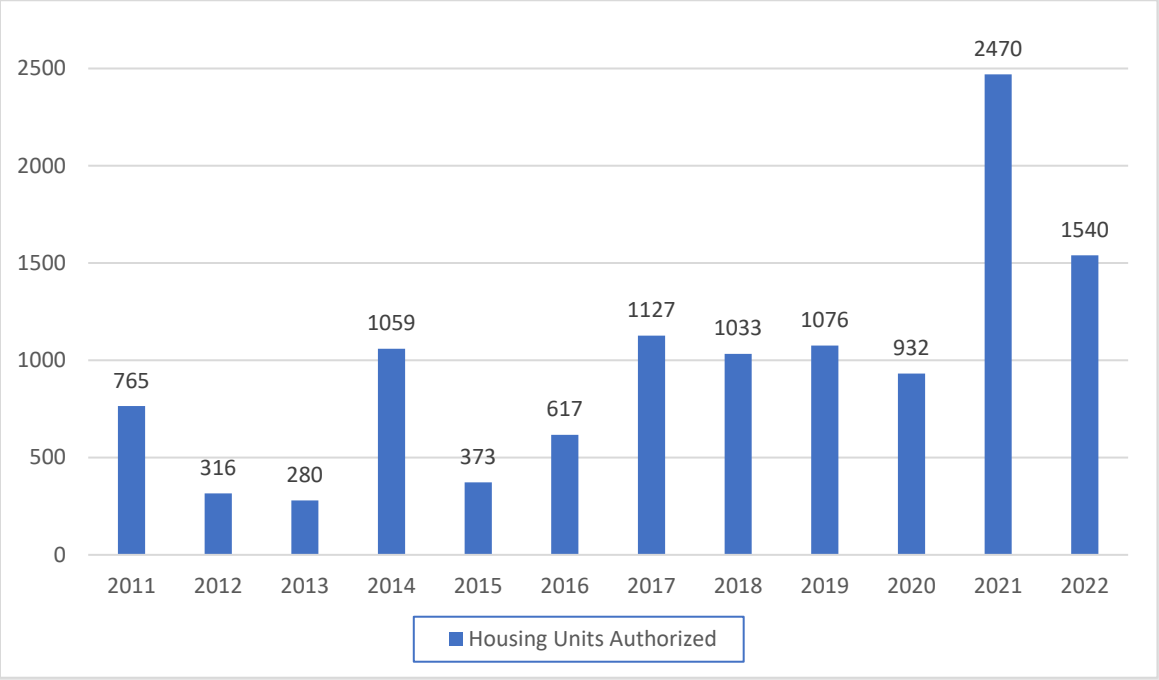
Tacoma has authorized an average of 965 privately owned housing units per year between 2011 and 2022 (U.S. Census Bureau 2022). Authorization is defined as the issuance of building or zoning permits for construction projects (U.S. Census Bureau 2022). Not all authorized projects have been constructed. The year 2021 yielded the largest authorization of housing units, with 2,470 housing units authorized, while 2013 yielded the smallest authorization of housing units, with only 280 housing units authorized. Development permits skew towards multifamily housing; between 2016 and 2020, such permits formed 85% of all housing units permitted compared to 70% since 2010 (PSRC 2022). Table 4.2-1 provides a detailed list of the number of authorized housing units in the past 12 years, visualized by Figure 4.2-2.

Table 4.2-1. New Privately Owned Housing Unit Authorizations

Year Authorized	Housing Units
2011	765
2012	316
2013	280
2014	1,059
2015	373
2016	617
2017	1,127
2018	1,033
2019	1,076
2020	932
2021	2,470
2022	1,540

Source: U.S. Census Bureau, Building Permits Survey, 2022

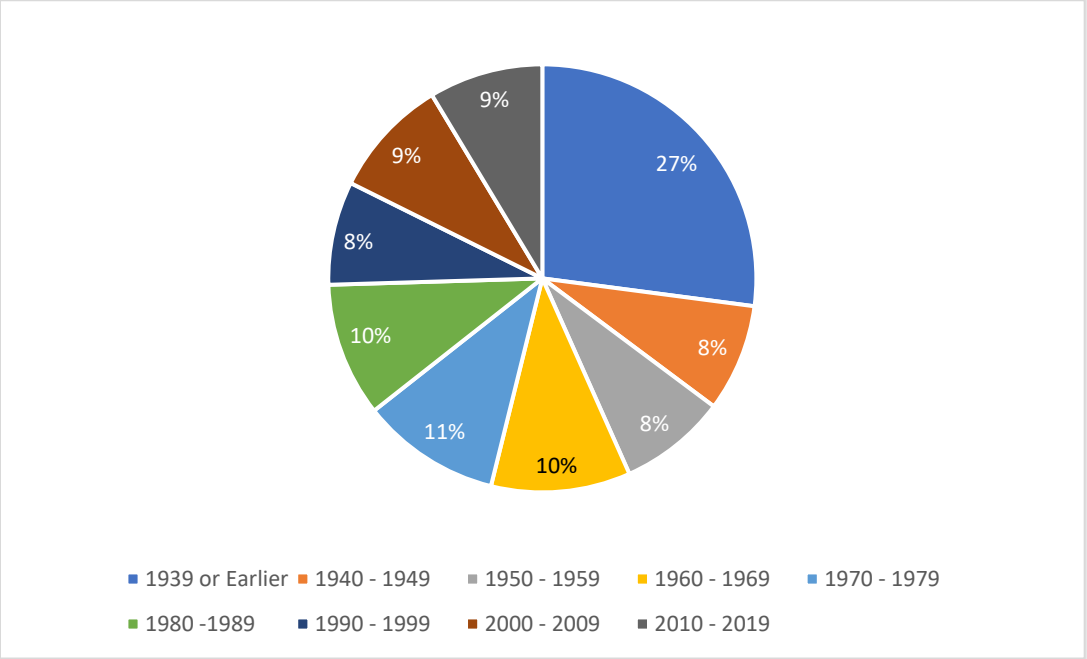
Figure 4.2-2. New Privately Owned Housing Unit Authorizations in Tacoma



Source: U.S. Census Bureau, Building Permits Survey, 2022

About 27% of Tacoma's housing stock was built before 1939. Housing construction has remained quite stable since then, with each subsequent decade representing approximately 8% to 10% of the city's standing housing stock. While housing construction has been steady, it has not kept pace with the region's population growth, leading to an undersupply of housing. Figure 4.2-3 visualizes the age of existing housing in Tacoma.

Figure 4.2-3. Year Housing Structures Built



Source: American Community Survey, 1-Year Estimates, 2021

In March 2019, Tacoma's City Council adopted a set of laws that made building accessory dwelling units (ADUs) easier, resulting in a notable increase in ADU permits issued: permits for ADUs more than tripled between 2018 and 2019. Between 2019 and 2022, an average of 55 permits were issued per year, with a current high of 78 permits issued in 2021. Not all permits result in completed construction. Table 4.2-2 lists the number of ADU permits issued since 2016 in Tacoma.

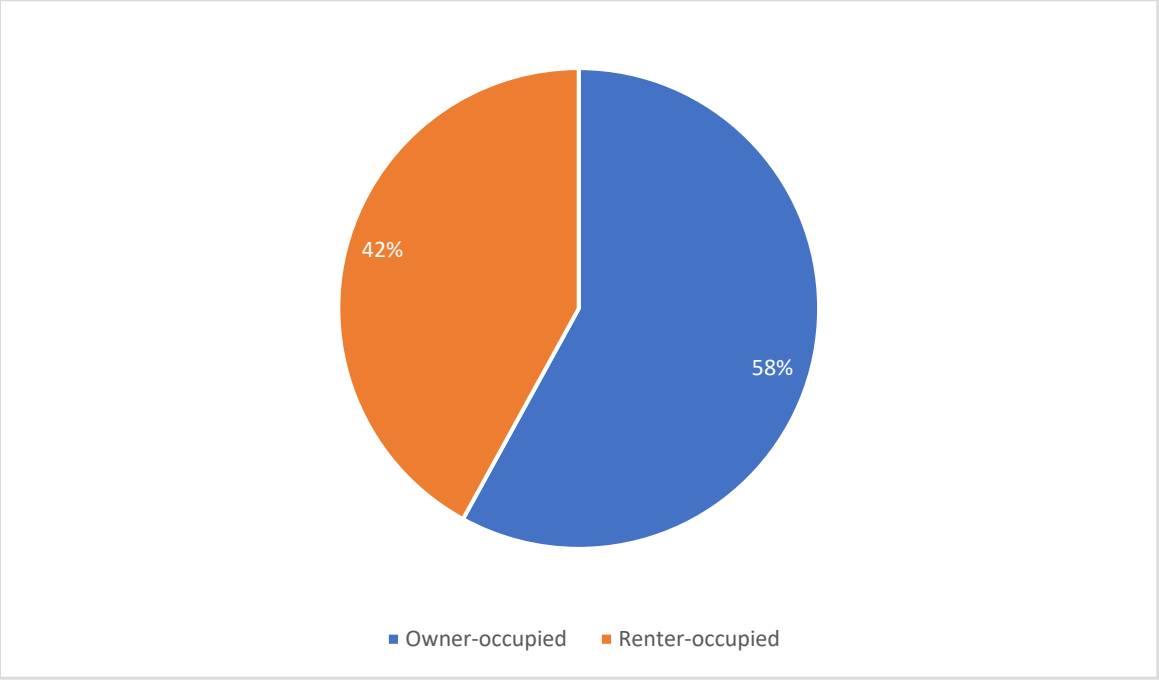
Table 4.2-2. ADU Permits Issued

Year	ADU Permits Issued
2022	59
2021	78
2020	51
2019	32
2018	9
2017	8
2016	6

Source: Tacoma Permits, Residential Alterations and New Buildings, author's analysis

In 2021, 58% of occupied housing units in Tacoma were occupied by owners, while 42% were occupied by renters. Figure 4.2-4 illustrates the percentage of renters versus owners.

Figure 4.2-4. Percentage Renters v. Owners



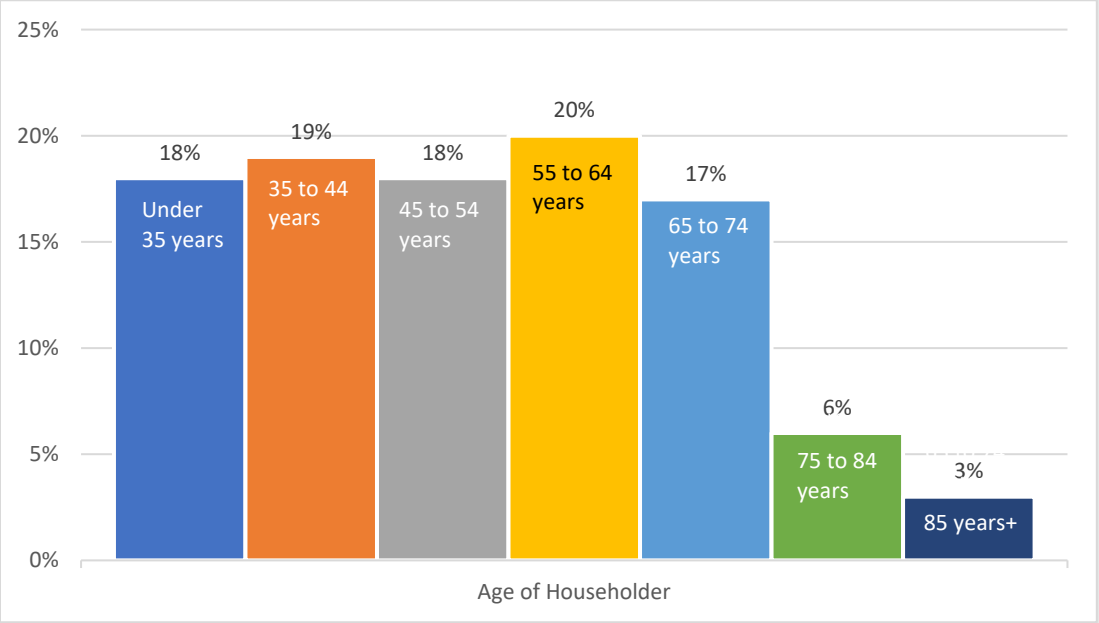
Source: American Community Survey, 1-Year Estimates, 2021

According to the 2021 American Community Survey 1-Year Estimate, white residents (non-Hispanic or Latino) are over-represented among homeowners, based on the city's racial and ethnic demographics. Whites comprised 57% of Tacoma's population in 2021 but occupied about 72% of the owner-occupied housing stock.

Tacoma's Black and multiracial residents are disproportionately more likely to rent than own their housing. Black residents comprised approximately 9% of Tacoma's population in 2021 but represent 14% of rental households; multiracial residents make up 9% of residents and 11% of the City's renters.

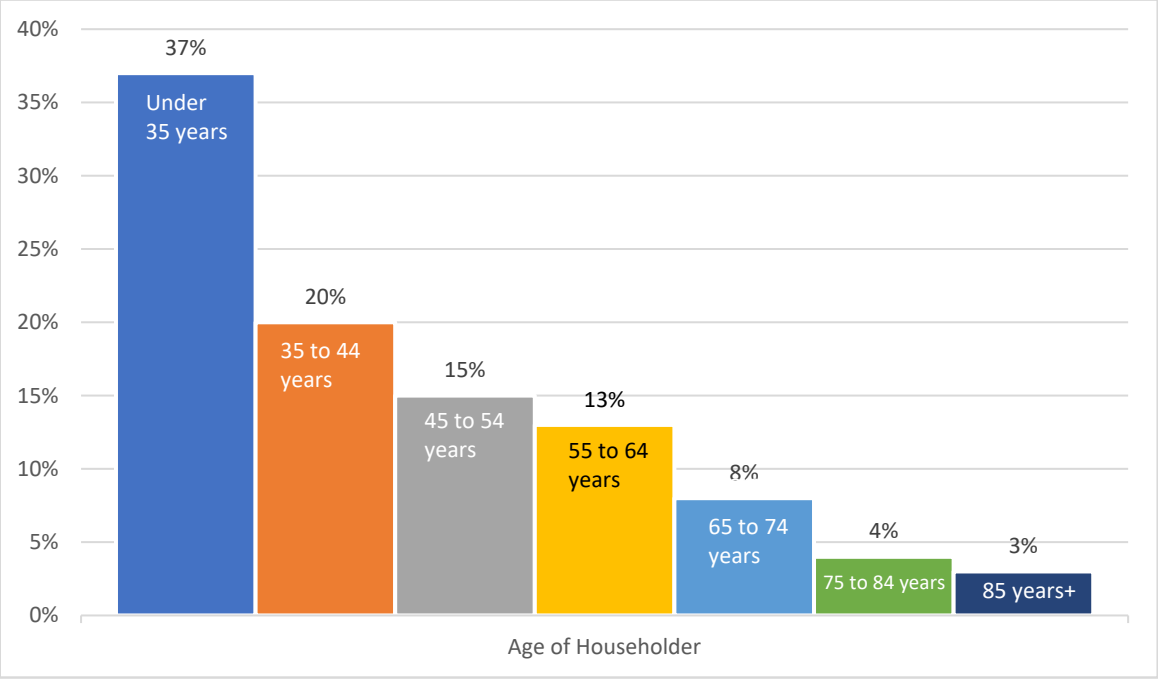
Owner-occupied housing in Tacoma is split quite evenly across age, as shown in Figure 4.2-5. Renter-occupied- housing by age, displayed in Figure 4.2-6, is more varied by age, skewing towards younger householders. Close to 40% of renters are age 35 or younger, and older householders are increasingly less likely to rent.

Figure 4.2-5. Owner-Occupied Housing by Age



Source: American Community Survey, 1-Year Estimates, 2021

Figure 4.2-6. Renter-Occupied Housing by Age



Source: American Community Survey, 1-Year Estimates, 2021

Just over 42% of residents in Tacoma rented their housing in 2021 compared to 30.5% of residents who rented their housing in Pierce County. Residents occupied 37,659 rental units in Tacoma and 120,293 rental units in Pierce County.

Housing in Tacoma is likely to be proportionately more expensive for residents than in neighboring cities in Pierce County due to a lower median income in Tacoma (ACS 2021). Less spending power increases the difficulty of purchasing a home, resulting in people who would like to own being forced to rent. This can lead to a decrease in rental supply and an increase in rental prices (The Pew Charitable Trusts 2018).

Housing Affordability

Housing affordability is the measure of housing costs in relation to household income and is expressed as the percentage of a household's gross income dedicated to paying housing expenses, including utilities. Any households paying above 30% of their gross income towards housing expenses experience a cost burden. Severely cost-burdened households pay over 50% of their gross income towards housing expenses. Cost-burdened households are more likely to experience economic hardship and displacement, which occurs when a household is compelled to move from a home involuntarily due to termination of lease, rising housing costs, or another factor that can be physical, economic, or cultural.

Tacoma, like many other cities in the U.S., experiences varying levels of housing cost burdens for both renters and homeowners, with low-income households often being the most affected. For low-income renters in Tacoma, rents can vary significantly, depending on the neighborhood, the type of housing, and market conditions. In addition, affordability issues for renters are often exacerbated by rising rent prices and limited availability of affordable rental units. Local and state housing assistance programs, such as Section 8 vouchers, may provide some relief for eligible low-income renters.

Low-income homeowners in Tacoma may also experience housing cost burdens. These burdens can come from mortgage payments, property taxes, and maintenance costs. The extent of the burden on homeowners can depend on factors such as interest rates, property values, and the size of their mortgage.

Additionally, incomes have not kept up with housing costs. From 2016 to 2019, median rent increased by 21%, while median renter income increased by only 12% (Tacoma 2021). Similarly, the median home value of owner-occupied housing increased by 44% compared to a 22% increase in median income for owner households. It is becoming increasingly difficult for renters to afford to rent or buy in Tacoma as wages fail to keep up with rising housing costs (Tacoma 2018a). Other factors that affect housing cost burden include the economic conditions in Tacoma, such as job availability and income levels. Some existing programs, such as a Pierce County property tax relief program and other financial assistance, are currently available for some low-income homeowners.

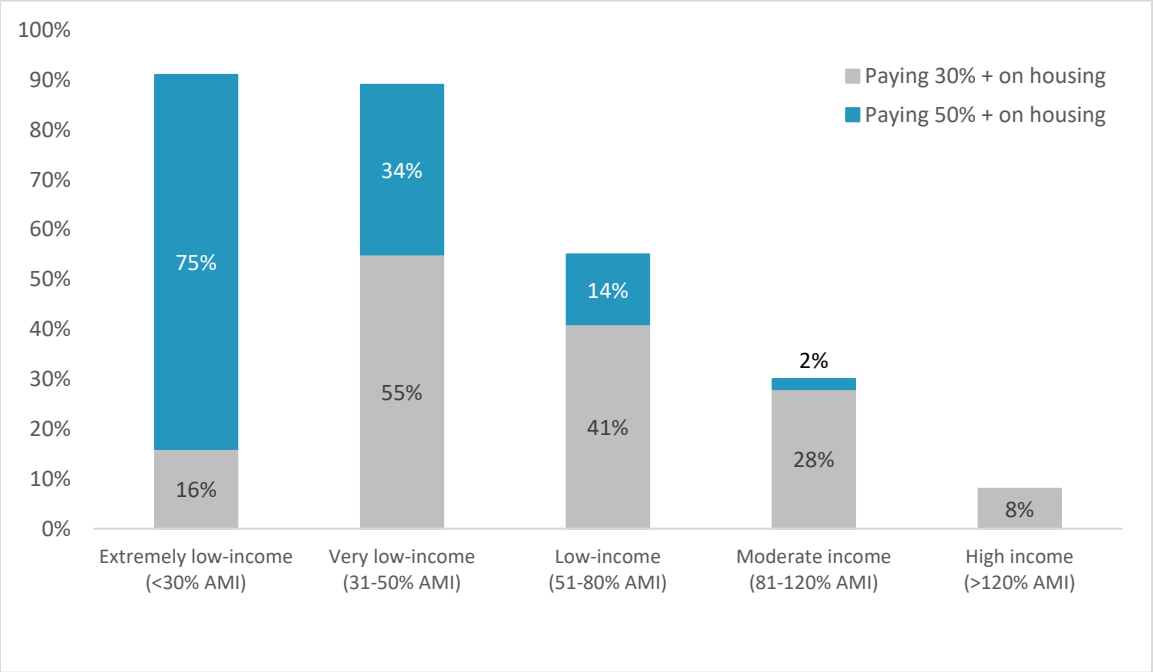
Table 4.2-3 illustrates housing cost burdens for renters and homeowners with and without a mortgage. American Community Survey data from 2021 shows that 46% of renters in Tacoma are housing cost burdened, paying 30% or more of their household income towards rent. Homeowners are less likely to be cost burdened than renters, particularly homeowners without a mortgage. Approximately 37% of owner households with a mortgage are cost burdened, compared to 15% of owner households without a mortgage. Figure 4.2-7 illustrates the percentage of cost-burdened households in Tacoma, by income.

Table 4.2-3. Monthly Housing Costs as Percentage of Household Income

Household Type	Number of Households	Cost Burdened Monthly housing costs equal 30% or more of household income	Not Cost Burdened Monthly housing costs equal less than 30% of household income
Renter households	34,846	46%	54%
Owner households with a mortgage	38,425	37%	63%
Owner households without a mortgage	12,357	15%	85%

Source: American Community Survey, 1-Year Estimates, 2021

Figure 4.2-7. Cost-Burdened Households by Income Level



Source: 2016 American Community Survey Public Use Microdata Sample 1-Year Estimates

Displacement

Displacement can occur when housing costs become too high for residents, forcing them to move to a different neighborhood. High housing costs can occur due to a shortage of housing, which increases housing demand and prompts a rise in housing market rates for renters and homebuyers. Rent increases may cause residents to incur cost burdens that were not present before or cause residents to incur additional strain on their present cost burden. Coupled with other factors, such as an increase in goods and services, staying in the same location becomes prohibitively expensive. Communities will seek other neighborhoods with lower housing costs and be replaced by others who can afford higher housing costs without incurring the same cost burden. As this phenomenon occurs on a broad scale, the demographic and sociographic character of a neighborhood transforms. Displacement can also occur due to physical environment changes, such as residents being forced to move due to building renovations or rent covenant expirations, or cultural changes, such as residents moving due to a withdrawal of culturally similar businesses or institutions from the neighborhood. People with low incomes, renters, and People of Color are typically at the highest risk for displacement.

The PSRC's Displacement Risk map illustrates areas of Tacoma that have a higher risk of displacing current residents. Higher risk neighborhoods include the South End, the East Side, Downtown, and Hilltop, a historically Black neighborhood. The University of California, Berkeley's Housing Precarity Risk model, the University of Washington's Eviction Study Map, and the City of Tacoma's Equity Index all corroborate these findings from the PSRC (UC Berkeley 2021; UW 2020; Tacoma 2023).

Since new market rate development will typically command higher rents to cover increasing construction costs, it is frequently the most expensive space in a neighborhood. While new housing, office, and commercial development can attract companies and expand housing options, it can also push up surrounding rent prices due to the increasing attractiveness of a neighborhood and lead to displacement. Homeowners in neighborhoods experiencing an increase in home sales or development may absorb higher property taxes they cannot afford to pay and sell their home to move to a more affordable neighborhood. Development activity between 2016 and 2020 has focused around the Downtown, St. Helens, Hillside, Hilltop, South Tacoma, and Point Ruston neighborhoods, as well as along prominent roadway corridors and Centers (Tacoma 2021a). People with low incomes who live in these neighborhoods may be at a higher risk for displacement in accordance with the displacement risk mapping tools above. Other investments, like the recent light rail extension of the T Line through Hilltop, have the potential to increase housing development due to the popularity of mixed-use buildings near transit stations. However, renters living near extensive transit infrastructure or planned transit service improvements may be evicted in preparation for demolishing an existing building and constructing a new, larger one.

Resolution 40781, passed on November 16, 2021, affirms the City of Tacoma's support of the use of data-informed tools, such as community prioritization, to prevent displacement of local residents, with a focus on households from "low" and "very low" opportunity areas of the city as well as Black, Indigenous, and People of Color households. The resolution also underscores the City's support for community partners to employ data-informed anti-displacement tools, exemplified by policies centered on community prioritization. Tacoma passed expanded tenant protections in July 2023, and the City is currently considering additional anti-displacement strategies, such as increased support for first time homebuyers, and zoning and development policies, programs, and practices (anticipated to be adopted by Tacoma Council in late 2023).

4.2.2 Potential Impacts

This section examines the likely impacts to Tacoma's housing supply, affordability and choice based on changes proposed in the Baseline, Lower Zoning and Higher Zoning Alternatives. The types of impacts considered include:

- Net new housing units.
- Housing cost pressure.
- Loss of de facto affordable housing.
- Displacement pressure.
- Racially based housing disparities.
- Equitable access to opportunity.

Generally, continued housing pressures (affordability, displacement, and disparity of impact based on race) identified in the City's 2021 Analysis of Systemic Disparities in Achievable Housing Options are anticipated to continue. Because the primary objectives of Home In Tacoma Phase 2 include increasing housing supply, affordability, and choice, as well as promoting housing equity and combatting displacement, the Proposal is anticipated to have beneficial impacts to housing.

4.2.2.1 Impacts Common to All Alternatives

There are several impacts to housing in Tacoma that would result from all alternatives considered, including the Baseline Alternative. Firstly, all alternatives would see a net increase in housing units, although the number of new units varies widely between alternatives. Also, all alternatives would likely see an increase in the types of housing built, although this too will vary considerably between alternatives.

Additionally, it is likely that racially based housing disparities will persist in the city under all alternatives because of longstanding underlying causes and results of racial disparity, including slavery, restrictive zoning, redlining, racially restrictive covenants, and mortgage discrimination, that have led to disparate unemployment rates, educational attainment, household income and homeownership rates for people of color. Racial disparity in housing is not a direct impact of the Home In Tacoma alternatives, but is a common context of all alternatives.

4.2.2.2 Potential Impacts of the Baseline Alternative

The Baseline Alternative would not modify allowed density within targeted residential zones and would result in a very small net increase in housing units by 2050—approximately 3,840 new units. Per adopted Home In Tacoma Phase 1 policy and Washington State middle housing mandates adopted in the 2023 legislative session, this alternative is not viable moving forward and is included solely for comparison purposes.

Impacts to housing and housing affordability in Tacoma under the Baseline Alternative would be detrimental to the City's objective to create more affordable housing due to the minimal increase in net housing units that would be expected by 2050. This alternative would be likely to result in substantially fewer new housing units and less diversity in housing type compared to the Lower or Higher Zoning Alternatives. The Baseline Alternative would not support the City's Affordable Housing Action Strategy to increase housing supply, affordability, or choice.

There is also significant potential for displacement under the Baseline Alternative as Tacoma's population grows, requiring relocation to different neighborhoods or to areas outside of Tacoma completely. The current problems of housing affordability and supply would be compounded if the City does not substantially increase housing development.

4.2.2.3 Potential Impacts of the Lower Zoning Alternative

The Lower Zoning Alternative would allow more density and would result in substantially more housing units compared to the Baseline Alternative—approximately 25,660 new units by 2050. These new units are anticipated to include a mix of new ownership and rental housing options at a variety of price points affordable to many Tacoma residents located throughout Tacoma neighborhoods (depending on market conditions).

The Lower Zoning Alternative would better accomplish the City's objective to create more affordable housing due to the substantial increase in net housing units that would be expected by 2050. This alternative would result in 21,820 more units than the baseline but 27,960 fewer units than the Higher Zoning Alternative. The Lower Zoning Alternative would support the City's Affordable Housing Action Strategy by helping to increase housing supply, affordability, and choice for current and future residents.

The Lower Zoning Alternative (like the Higher Zoning Alternative) would result in new housing units built for market rate rental and sales prices. Paired with incentives to include affordable housing in market-rate developments, which are also part of the Proposal, this alternative would be likely to create housing units with below-market-rate prices for low-income would-be renters or owners. Fully

market-rate multiunit and middle housing types would still likely be more affordable than newly constructed single-family housing. As well, middle housing typically includes 2- and 3-bedroom units, which help to serve the need for affordable options for family housing.

There is some potential for displacement as existing housing stock is replaced with more housing units per parcel; the financial incentives for redevelopment existing housing stock are greatest for housing that provides relatively lower value to the property owner. This means that some of the City's de facto affordable housing (housing that is lower cost by nature of its condition, age, or other characteristics but is not formally managed or protected as affordable housing) could be redeveloped into higher-priced multiunit housing if developers choose to not take advantage of incentives like density bonuses and multifamily property tax exemptions to incorporate affordable units into their projects. However, because of the net increase in housing units, residents could be displaced from a specific housing unit but be more likely to find an affordable housing option and remain in the neighborhood because of the increase in housing development.

The potential for displacement under the Lower Zoning Alternative is greater than under the Baseline Alternative, but less than the Higher Zoning Alternative. However, the net increase in new housing could temper the displacement risk because so many additional units will be available, lowering pressure on prices. Moreover, many of the new units created will be middle housing types typically priced at more affordable rates than new single family home construction, creating further downward pressure on housing costs and countering displacement risk (ECONorthwest 2022). Furthermore, displaced households would be more likely to find new housing within their neighborhood or the City as a whole under the Lower Zoning Alternative than under the Baseline Alternative due to the addition of new affordable housing options within the City.

4.2.2.4 Potential Impacts of the Higher Zoning Alternative

The Higher Zoning Alternative would allow more density within targeted residential zones and would result in the highest number of new housing units built by 2050, approximately 53,620 new units by 2050. Like the Lower Zoning Alternative, these new units would include a mix of new ownership and rental housing options at a variety of price points affordable to many Tacoma residents.

Impacts to housing and housing affordability in Tacoma under the Higher Zoning Alternative would best accomplish the City's objective to create more affordable housing due to the substantial increase in net housing units that would be expected by 2050. This alternative would result in 49,780 more units than the baseline and 27,960 units more than the Lower Zoning Alternative, more than doubling the expected net new units in the Lower Zoning Alternative. The Higher Zoning Alternative would support the City's Affordable Housing Action Strategy by helping to increase housing supply, affordability, and choice for current and future residents.

Like the Lower Zoning Alternative, the Higher Zoning Alternative would result in new housing units built for market rate rental and sales prices and would be likely to create housing units with below-market-rate prices for low-income would-be renters or owners based on proposed incentives to include affordable housing in market-rate developments. Fully market-rate multiunit housing types would still likely be more affordable than newly constructed single-family housing. Additionally, middle housing typically includes 2- and 3-bedroom units, which help to serve the need for affordable options for family housing.

There is potential for displacement as existing housing stock is replaced with more housing units per parcel; the financial incentives for redeveloping existing housing stock is greatest for housing that provides relatively lower value to the property owner. This means that some of the City's de facto affordable housing (housing that is lower cost by nature of its condition, age, or other characteristics but is not formally managed or protected as affordable housing) could be redeveloped into higher-priced multiunit housing if developers choose to not take advantage of incentives, like density

bonuses and multifamily property tax exemptions, to incorporate affordable units into their projects. However, because of the net increase in housing units, residents could be displaced from a specific housing unit but be more likely to find an affordable housing option and remain in the neighborhood because of the increase in housing development.

The potential for displacement from a specific housing unit is greater in the Higher Zoning Alternative than the Baseline or Lower Zoning Alternatives because many more existing housing units are likely to redevelop. However, the net increase in new housing could temper the displacement risk because so many additional units would be available, lowering pressure on prices and making it more likely that residents could find affordable alternatives nearby and remain in the neighborhood. Moreover, many of the new units created will be middle housing types typically priced at more affordable rates than new single-family home construction, creating further downward pressure on housing costs and countering displacement risk (ECONorthwest 2022). Furthermore, displaced households would be more even more likely to find new housing within their neighborhood or the city as a whole under the Higher Zoning Alternative than the Lower Zoning or Baseline alternatives due to the addition of new affordable housing options within the city.

4.2.2.5 Comparison of Impacts

Table 4.2-4 summarizes the relative potential for the following housing impacts from the three alternatives:

- Net new housing units.
- Housing cost pressure.
- Loss of de facto affordable housing.
- Displacement pressure.
- Racially based housing disparities.
- Equitable access to opportunity.

Table 4.2-4. Comparison of Potential Impacts from the Alternatives

Potential Impact	Baseline Alternative	Lower Zoning Alternative	Higher Zoning Alternative
Net New Housing Units Expected by 2050	3,840 units	25,660 units	53,620 units
Additional New Units Compared to Baseline	n/a	21,820 additional units	49,780 additional units
Housing Cost Pressure	Highest potential for housing price increases due to housing scarcity	Moderate potential for housing price increases due to housing scarcity; middle housing types (multiunit, small lot, and smaller units) are more likely to be affordable to a broad range of residents	Lowest potential for housing price increases due to housing scarcity; middle housing types (multiunit, small lot, and smaller units) are more likely to be affordable to a broad range of residents
Loss of de Facto Affordable Housing	Lowest potential for destruction and redevelopment of de facto affordable housing	Moderate potential for destruction and redevelopment of de facto affordable housing; mitigated by increase in new affordable housing options	Highest potential for destruction and redevelopment of de facto affordable housing; mitigated by largest increase in new affordable housing options

Potential Impact	Baseline Alternative	Lower Zoning Alternative	Higher Zoning Alternative
Displacement Pressure	Highest potential for displacement due to housing scarcity and increasing cost pressure (scarcity will likely drive up costs)	Moderate potential for displacement due to housing scarcity and increasing cost pressure; increase in affordable new units means residents may be more likely to find affordable housing to stay in the neighborhood	Moderate potential for displacement due to loss of de facto affordable housing; lowest potential for displacement due to housing scarcity and increasing cost pressure; increase in affordable new units means residents may be more likely to find affordable housing to stay in the neighborhood
Housing Disparities Based on Race	Likely to persist; limited housing development exacerbates existing barriers	Likely to decrease because of increasing housing choice at a range of price points	Likely to decrease more because of increasing housing choice at a range of price points
Equitable Access to Opportunity	Lowest potential for increasing equitable access to opportunity	Moderate potential for increasing equitable access to opportunity, based on increased housing development in areas that increase access to opportunity, access to transit and transportation options, and mixed-use walkable communities	Highest potential for increasing equitable access to opportunity, based on increased housing development in areas that increase access to opportunity, access to transit and transportation options, and mixed-use walkable communities

4.2.2.6 Potential Significant Adverse Impacts

Tacoma will continue to face housing affordability challenges and displacement pressure under all three alternatives, especially for low-income households. However, the Higher Zoning Alternative and, to a lesser extent, the Lower Zoning Alternative would result in the construction of far more housing units than the Baseline, increasing housing supply and reducing the upward pressure on housing prices that comes with housing scarcity. Racially based housing disparities experienced by Tacoma's residents of color, particularly Black and Hispanic residents, are likely to persist under all alternatives, but they will likely be substantially lessened under the Lower and Higher Zoning Alternatives.

The risk of displacement from a particular housing unit increases with increased redevelopment of existing housing stock (somewhat a risk in the Lower Zoning Alternative and a higher risk in the Higher Zoning Alternative). And it is likely that redevelopment would affect lower value, older housing stock, which often makes up a substantial component of a city's de facto affordable housing and is more likely to affect the city's lowest-income households. However, although individuals and households may be more likely displaced from a unit undergoing redevelopment, it would be met with an increase of housing units, particularly middle housing types that are more affordable. This increases the likelihood that residents would be able to find another housing unit affordable to them in the same neighborhood and provides mitigation. It is expected that displacement from a neighborhood or from the City of Tacoma would decrease as the number of new units built increases.

4.2.3 Potential Mitigation Measures

The following mitigation strategies are identified to address significant housing affordability issues and potential risk of vulnerable resident displacement, based on recommendations from the City's 2021 *Analysis of Systemic Disparities in Achievable Housing Options*:

- Activate additional programs and policies that prioritize keeping people in their homes.
- Expand the supply of for-sale housing that is more affordable to middle to low-income households.
- Improve the homeownership promotion programs and expand program support.
- Provide support to help more diverse households become homeowner ready.
- Provide education on and promote program opportunities.
- Provide help needed to navigate the mortgage application process.
- Provide mortgage loss mitigation support.
- Develop alternative homeownership program options.
- Establish equity homeownership targets, monitoring, and tracking strategies.

Additional mitigation could include the following:

- Actions outlined in the AHAS.
- Implement Tacoma's Anti-Displacement Strategy
- Future updates to the Affordable Housing Bonus Program in Downtown, Mall, and Mixed-Use Centers.
- Update housing policy and affordability targets in the Comprehensive Plan.
- Administrative and educational support, such as streamlining the permit process and providing support for affordable housing, education, and application materials for homeowners and developers.
- Additional funding for deeply affordable and special needs housing.
- Implementing the Disparities Study recommendations.
- Examination of impacts to property values (and property taxes), particularly as it impacts homeowners with fixed incomes.

4.3 Transportation

This section discusses transportation in Tacoma and evaluates potential impacts that may be associated with the Proposal. Potential mitigation measures that could further reduce potential impacts are also identified.

4.3.1 Affected Environment

This section summarizes current transportation planning and policy in Tacoma and current plans and projects from other agencies that affect the transportation network in Tacoma. The regulatory context for the land use analysis primarily relies on best available information in the City of Tacoma's One Tacoma Plan (2015a), Transportation Master Plan (TMP) (2015b), and Transportation Improvement Program (TIP); Pierce Transit's Destination 2040 Plan (2020) and future network; and Sound Transit's Sound Transit 3 (ST3) Plan (2016). The City of Tacoma has been in regular

coordination with WSDOT on potential effects to state highways and with other agencies, including Pierce Transit.

4.3.1.1 Policy and Regulatory Framework

Transportation Master Plan

The City of Tacoma adopted its first TMP in 2015, which included a vision for the City's transportation system, with an emphasis on sustainability, safety, and multimodal options. The plan included a set of maps by mode that defined the future of Tacoma's transportation system, with priority networks for walking, biking, riding transit, driving and freight. The policies in the TMP are targeted toward the City's goals for engagement and coordination, a multimodal system, stewardship and accountability, transportation demand management, and land use and transportation. The 2015 TMP incorporates Green Transportation Hierarchy principles, which prioritize investment in transportation modes that have the lowest environmental impact with the highest priority on pedestrians, bicycles and transit. This hierarchy places emphasis on the modes that enhance access for the majority of Tacomans and de-emphasize SOV travel.

The future of the City's transportation system is primarily articulated through the plan's multimodal system policies, which include policies that "prioritize the movement of people and goods via modes that have the least environmental impact and greatest contribution to livability" (City of Tacoma 2015b). These policies include promoting complete streets, prioritizing active transportation modes in the City's transportation modal hierarchy, and a complete system with access for people walking, biking, riding transit, and driving in Tacoma. TMP policies are reflected in the modal priority maps that the City has been implementing through its Six-Year Comprehensive Transportation Program, which is updated annually. The TMP includes priority pedestrian, bike, freight, auto, and transit networks. The priority bicycle network identifies priority bicycle corridors and the planned facility type. Transit, freight, and auto priority maps identify corridors of particular importance for those modes. Priority transit corridors from the TMP are incorporated into City of Tacoma code as designated transit streets, which prioritize transit access.

As part of the TMP, the City of Tacoma developed a system completeness approach for evaluating the proportion of the transportation network that is completed.

Transportation Improvement Program

The City's TIP includes the programs and capital projects that the City of Tacoma intends to fund in the following six-year period. The current TIP, adopted in 2023, includes planned projects through 2029, which range from bridge replacement and street reconstruction to active transportation corridor and spot improvement projects. The projects listed in the TIP are intended for implementation in the near term as funding is identified. The TIP is that primary forum for the City to advance projects included in the priority network maps from the TMP.

Complete Streets Ordinance

The City of Tacoma adopted a complete streets ordinance and complete streets design guidelines for mixed-use centers and residential neighborhoods in 2009 and adopted an updated ordinance (Ordinance No. 28446) in 2017. This commitment to complete streets is incorporated in TMC Title 10. Tacoma's current complete streets ordinance directs the City Manager and Public Works Department to implement complete streets policies and requires that those policies be incorporated into Tacoma's Comprehensive Plan, Rights-of-Way Manual, and other guiding documents.

Vision Zero

Tacoma adopted a Vision Zero Action Plan in 2022 that aims to achieve zero traffic deaths or serious injuries on the City's roadways. The Plan recognizes road safety as an equity issue and reaffirms the City's dedication to eliminating racial, socio-economic, and disability-related disparities. The toll of traffic collisions does not affect Tacomans equally, with 75% of the of the City's high-risk transportation network (greatest risk for fatal and serious injury crashes) in areas with low or very low access to opportunity, according to the City's Equity Index. This plan lays out a process to achieve vision zero and transformative actions that will facilitate implementation of the plan across all City departments.

Equity and Anti-Racism

In 2020, the Tacoma City Council adopted Resolution No. 40622 which affirmed the City's dedication to a comprehensive and sustained transformation of all of the institutions, systems, policies, practices, and contracts impacted by systemic racism, with initial priority being given to policing in the City of Tacoma. This began the City's Transforming Tacoma initiative and called on City departments to prioritize anti-racism in the evaluation of new policies and programs as well as the sustained and comprehensive transformation of existing services. The Public Works Department uses an equity lens in project prioritization, planning, and implementation.

Safe Routes to School

The City of Tacoma administers a Safe Routes to School Program in partnership with Tacoma Public Schools and local community organizations that works to make walking and rolling to school safer, more convenient, and fun for K–12 students. The City adopted its Safe Routes to School Action Plan in 2017, with an update following in 2023. The actions incorporated in the plan include programs that fall under the national framework for Safe Routes to School's six categories: equity, engagement, education, engineering, encouragement, and evaluation. The plan outlines activities that engage the community in a meaningful way around walking, biking, and actively rolling to school as well as infrastructure investments and policies that support safe routes to school.

Americans with Disabilities Act Transition Plan

The ADA requires cities to consider requests for curb ramps from people with disabilities as the top priority for construction. In addition, according to the ADA as well as the City of Tacoma ADA Self-Evaluation and Transition Plan, public entities must give priority to walkways serving State and local government offices and facilities, transportation, places of public accommodation and employment, walkways serving areas frequented by people with disabilities, and reconstruction of noncompliant curb ramps.

Tacoma's ADA Transition Plan was adopted in 2008 and updated in 2013. The plan focuses on upgrades to City facilities so that they become accessible to people of all abilities. The ADA Transition Plan addresses seven areas, some of which correspond to different types of facilities. As part of the ADA Transition Plan, the City identified barriers to access and prioritized those facilities in need of modification. In 2023, the City was awarded a federal Safe Streets and Roads for All grant to conduct supplemental planning to update the public right-of-way section of their ADA Self-Evaluation and Transition Plan, including measurements of accessibility criteria for sidewalks, curb ramps, traffic signals, bus stops, and driveway curb cuts in the public right-of-way, as well as an assessment of existing policies and procedures.

Climate Action Plan

Tacoma adopted the 2030 Climate Action Plan in 2021, which includes modeling and analysis of future emissions in the year 2030 along with actions to advance the City's 2050 climate goals of

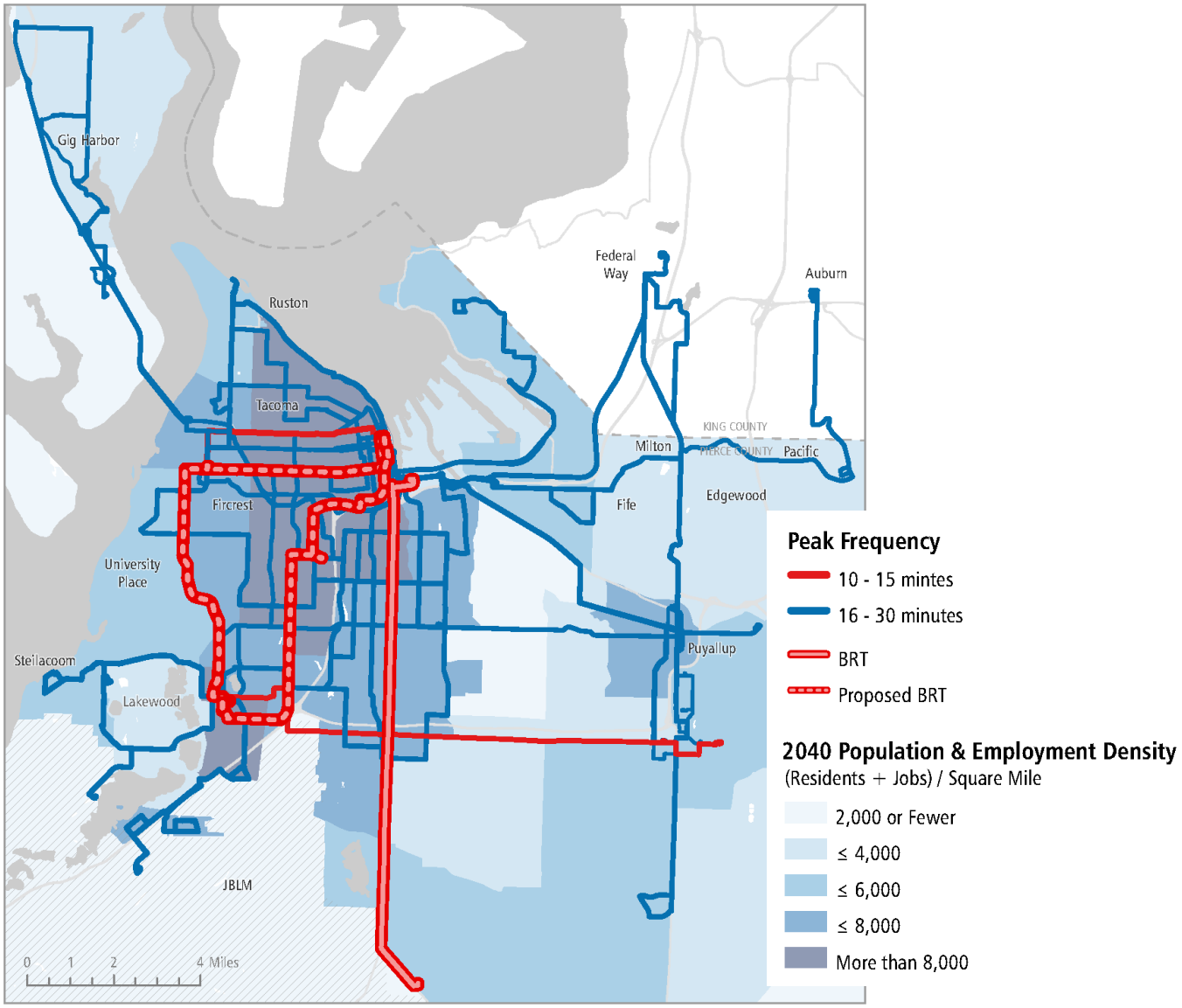
net-zero GHG emissions by 2050. The plan includes short term actions from 2021 to 2024, as well as longer term actions and targets through 2030 to meet the City's climate goals. Energy and emissions modeling for the year 2019 showed that transportation was the largest contributor to emissions in Tacoma, accounting for 44% of emissions in Tacoma. To reach net-zero goals by 2050, transportation emissions would need to be reduced by 97%. The plan outlines assumptions for the year 2050 to reach that goal, including mode-shift and vehicle electrification targets for the year 2050. Transportation and travel behavior assumptions to achieve the City's 2050 net-zero targets are described below.

- **Mode Shift:** 15% of trips are made by biking, 15% of trips are made by walking, and 19% of trips are made by transit in 2050.
- **VMT Reductions:** 15% reduction in VMT from strategies to reduce last-mile delivery for commercial vehicles and 25% reduction in VMT from increases in working from home.
- **Vehicle Electrification:** 100% of new personal vehicle and light duty sales are electric vehicles by 2030, while heavy duty sales are 50% hydrogen and 50% electric vehicle.
- **Sustainable Rail and Marine Goods Movement:** All marine terminals use shore power by 2040 and are net-zero by 2050, and rail fuel switching/efficiency improvements reduce emissions by 100% by 2050.

Transit Planning

Pierce Transit operates a variety of services that include bus routes, vanpool, paratransit, and on--demand microtransit services in Pierce County and Tacoma. The agency's long-range plan for the bus network in Tacoma and Pierce County is Destination 2040, adopted in 2020. Destination 2040 lays out different visions for the future of transit in Pierce County through 2040, based on available funding. Pierce Transit presented concepts for transit expansion based on an increase in dedicated sales tax from 0.6% to 0.9%, or an additional 235,000 services hours on the future transit network, which is a 47% increase over existing service hours. That network included three bus rapid transit (BRT) routes, seven new fixed-route bus routes, and greater frequency on 16 routes, bringing the average daily boardings in 2040 to a forecast 85,000, based on PSRC modeling. Pierce Transit's planned 2040 service with additional funding is shown in Figure 4.3-1.

Figure 4.3-1. Pierce Transit 2040 Planned Service with Additional Funding



Source: Pierce Transit

Pierce Transit identified a total of five potential BRT routes, including the SR 7/Pacific Avenue corridor between Downtown Tacoma and Spanaway. In March 2023, Pierce Transit published the Stream BRT System Expansion Study that evaluated the other four proposed routes to select the highest priority for implementation. Two of those corridors—Corridor A along the existing Route 2 and Corridor B along the existing Route 3—were included as proposed BRT routes in Destination 2040. Analysis in the Stream BRT System Expansion Study included alignment alternatives, potential station locations and speed, and reliability improvements. Enhanced bus service on SR 7/Pacific Avenue will be supported by the City of Tacoma's ongoing planning efforts on the corridor, including the Pacific Avenue Subarea Plan that is currently underway. This subarea planning process is intended to better align land use, zoning, urban design, housing, and infrastructure, among others, to support future transit investments and equitable TOD.

Sound Transit operates light rail, commuter rail, and fixed-route bus service in Tacoma and nearby communities in Pierce County. The agency's ST3 Plan for transit expansion through the entire Sound

Transit service area was approved for funding by voters in 2016 and will extend Link Light Rail from Federal Way to the Tacoma Dome and extend the T Line from its 2023 terminus in the Hilltop Neighborhood to Tacoma Community College. These two light rail expansion projects would add eight new stations in the City of Tacoma: six along the S 19th Street corridor to Tacoma Community college and two as part of the Tacoma Dome Link Extension at Portland Avenue and Tacoma Dome, where the Tacoma-Ballard service line would connect to the Tacoma Link. ST3 would also add Link Light Rail and Sounder service to surrounding areas of Pierce County, with a light rail station in Fife and a Sounder South commuter rail extension from Lakewood to DuPont, with new stations at Tillicum and DuPont (see Figure 4.3-2).

Figure 4.3-2. Sound Transit Future Service with Completion of the ST3 Plan

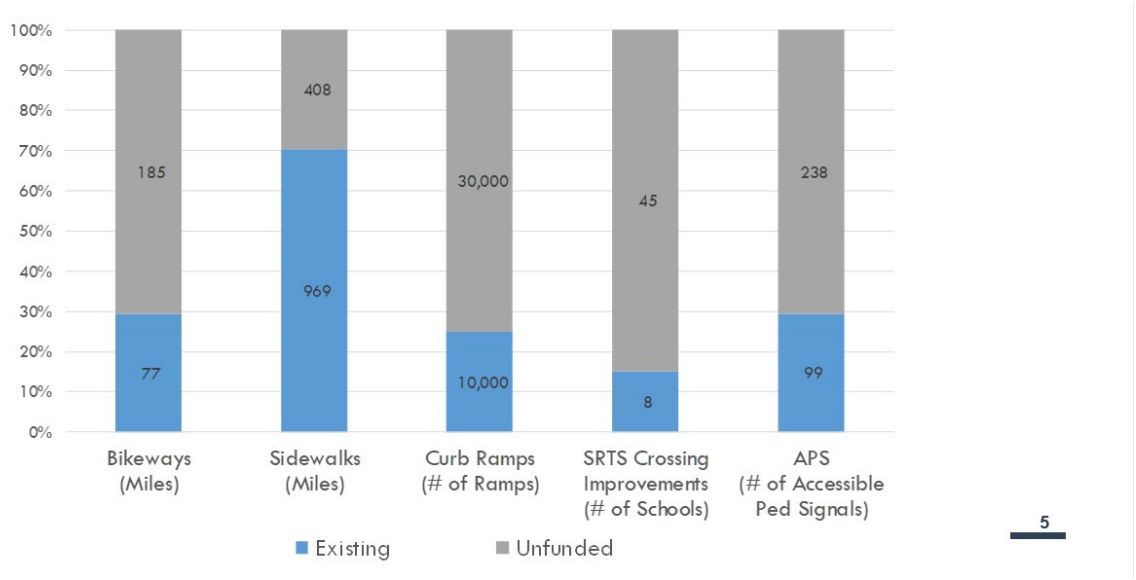
Source: Sound Transit

4.3.1.2 Existing Conditions

Active Transportation

Tacoma's active transportation network is growing; however, it remains incomplete, with a number of roadways that lack complete pedestrian and/or bike facilities. In 2022, the City of Tacoma estimated progress towards its active transportation network completion and the estimated funding needed to complete its active transportation network. The estimated network completeness as of 2022 is shown in Figure 4.3-3 below.

Figure 4.3-3. Estimated Bicycle and Pedestrian Network Completeness



Pedestrian Network

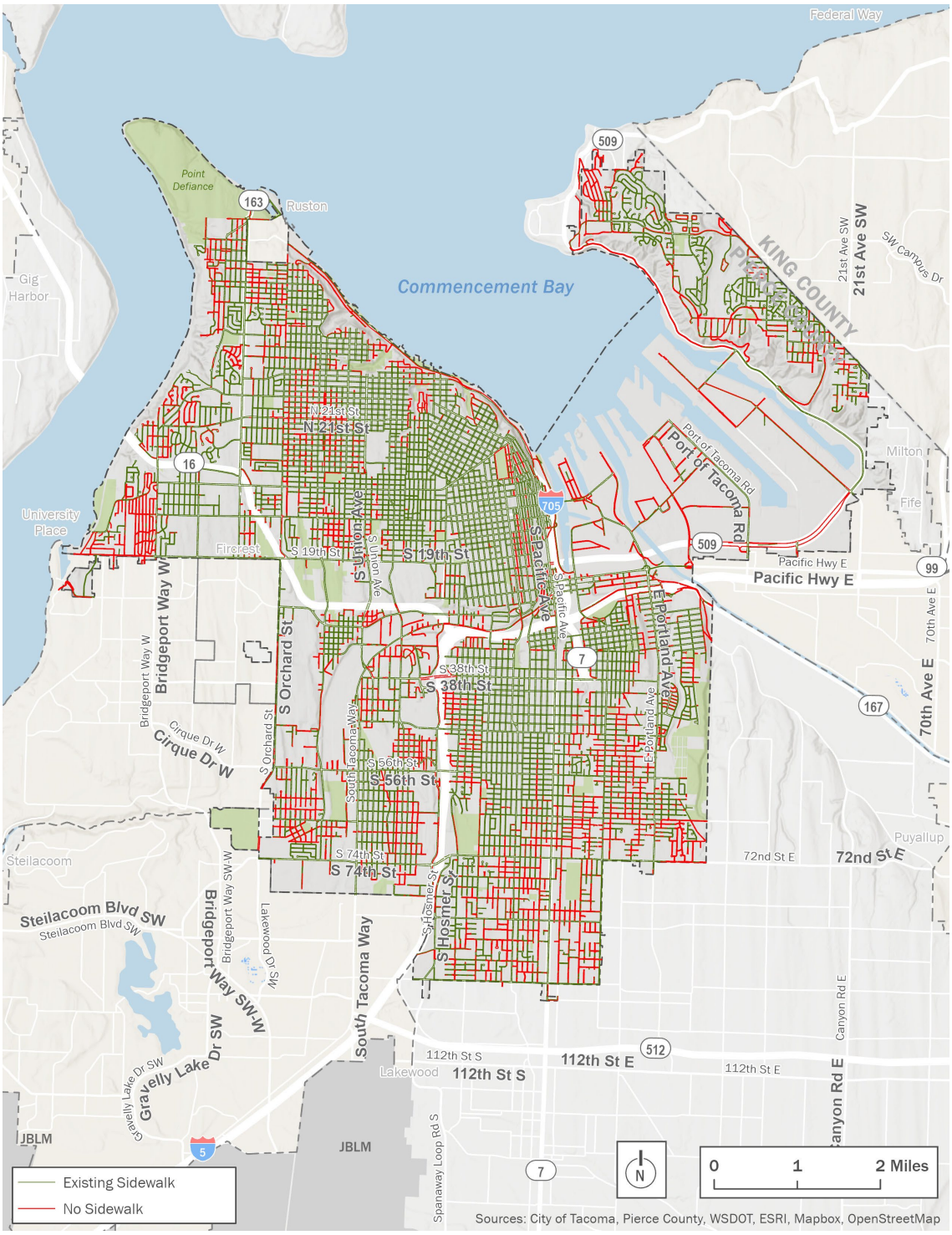
In 2022, the City of Tacoma completed a sidewalk inventory and found that there are approximately 408 linear miles of missing sidewalk citywide and 969 linear miles of existing sidewalks citywide. Citywide sidewalk coverage based on these numbers is approximately 70.4%. The areas of Tacoma with the most linear miles of missing sidewalk were the Eastside, South End, South Tacoma, and West End Neighborhood Council Districts of the City. Existing and missing sidewalks citywide are shown in Figure 4.3-4. The City does not officially track condition of sidewalk, but much of the sidewalk network is not up to City standards or ADA compliant. The City has made it a priority to improve the sidewalk network by installing missing link sidewalk, upgrading curb ramps to be ADA compliant, and improving sidewalks identified as unfit/unsafe.

In the 2020 Community Satisfaction Survey, Tacoma residents identified making it easier to walk as a high priority for the community. Historically, the City's Unfit/Unsafe Sidewalk Program has been funded at $500,000 per year. Funding is spent on removal and reconstruction of unfit/unsafe sidewalks and constructing short sections of missing sidewalks. There are relatively few projects to construct new sidewalks where none currently exist due to limited funds. Missing link sidewalk locations are selected based on safety, equity, and connectivity in order to improve access to transit, schools, parks, and community destinations and are usually constructed as part of larger capital projects. Sidewalk reconstruction locations are identified using the City's 311 requests, the equity index map, and a Pierce County assessor's data that identifies underserved and low-income communities. About 3 miles of sidewalks are constructed each year through Capital Improvement Projects, private development, and the City's Sidewalk Program.

The City has a curb ramp inventory and data on whether curb ramps meet current standards or need to be replaced. Information in the City's curb ramp database includes approximately 60% to 70% of the curb ramp locations in the City. Approximately, 400 to 600 curb ramps are constructed in Tacoma each year as part of the Capital Improvement Plan and private development projects. The City's ADA Curb Ramp Program has historically received about $350,000 every 2 years to construct curb ramps that are requested by people with disabilities. Each curb ramp costs an average of $15,000, and requests outweigh available funding. Tacoma currently has approximately 10,000 curb ramps, which cover roughly 25% of curb ramps required for safe crossings citywide.

Accessible pedestrian signals, also known as APS, convey signal information in audible and vibrotactile formats to allow people who are blind and Deaf-Blind to cross streets safely at signalized crosswalks. The City of Tacoma has 337 signalized intersections. Of the 337 intersections, 99 are full APS and 2 are partial APS. The remainder of these intersections, approximately 238, have no push buttons or have old push buttons that do not communicate to people who are blind and Deaf-Blind as to when the walk signal is on to cross a street. The cost of installing eight APS at a signalized intersection ranges from $30,000 to over $500,000. The cost is dependent on the existing signal system equipment, whether ADA-compliant curb ramps are present, and the ability to place the APS in locations that comply with federal laws.

Figure 4.3-4. Existing and Missing Sidewalks Citywide



Source: City of Tacoma

There are a number of major trails and shared-use paths that connect the city and nearby communities in Pierce County, described in Table 4.3-1 below, as well as other recreational trails and short trail connections in and around City parks.

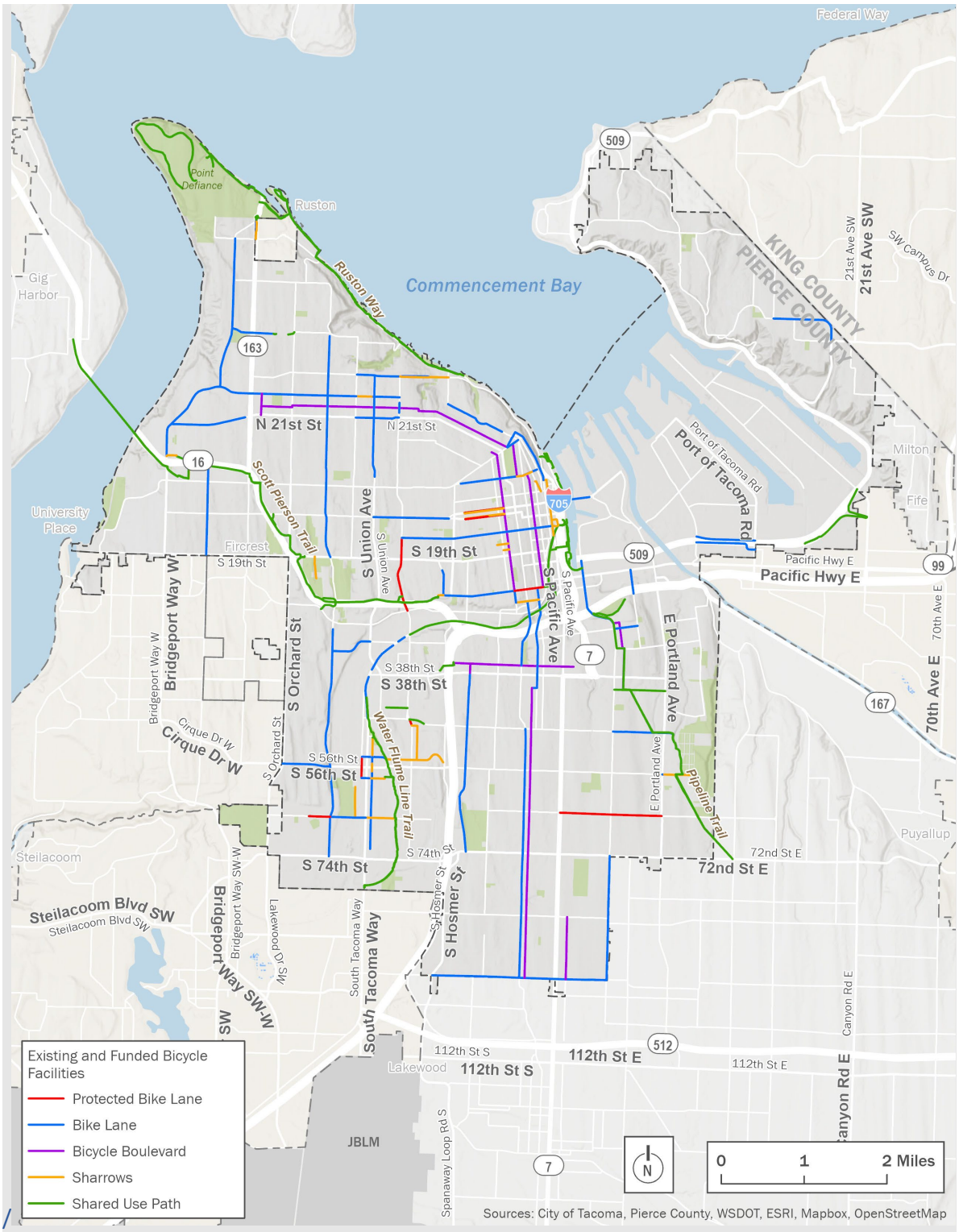
Table 4.3-1. Major Shared-Use Path Facilities within the City of Tacoma

Trail	Description	Approximate Length
Scott Pierson Trail	From S 25th Street, along SR 16, to southern Gig Harbor.	6.6 miles (including Tacoma Narrows section)
Prairie Line Trail	From S 21st Street in Downtown to the Thea Foss Esplanade.	1 mile
Thea Foss Esplanade	From East D Street to Pacific Avenue and S 4th Street, with missing links near the E 11th Street Bridge.	1.9 miles
Water Flume Line Trail	From S 47th Street to S Tacoma Way near the City Line (one northern section in S Tacoma Way between Hood S and South M Street).	2.4 miles
Pipeline Trail	From E 40th Street to E 72nd Street alongside Swan Creek Park.	4.3 miles
Ruston Way Esplanade	From Chinese Reconciliation Park to Point Ruston along Commencement Bay.	2.5 miles

Bike Network

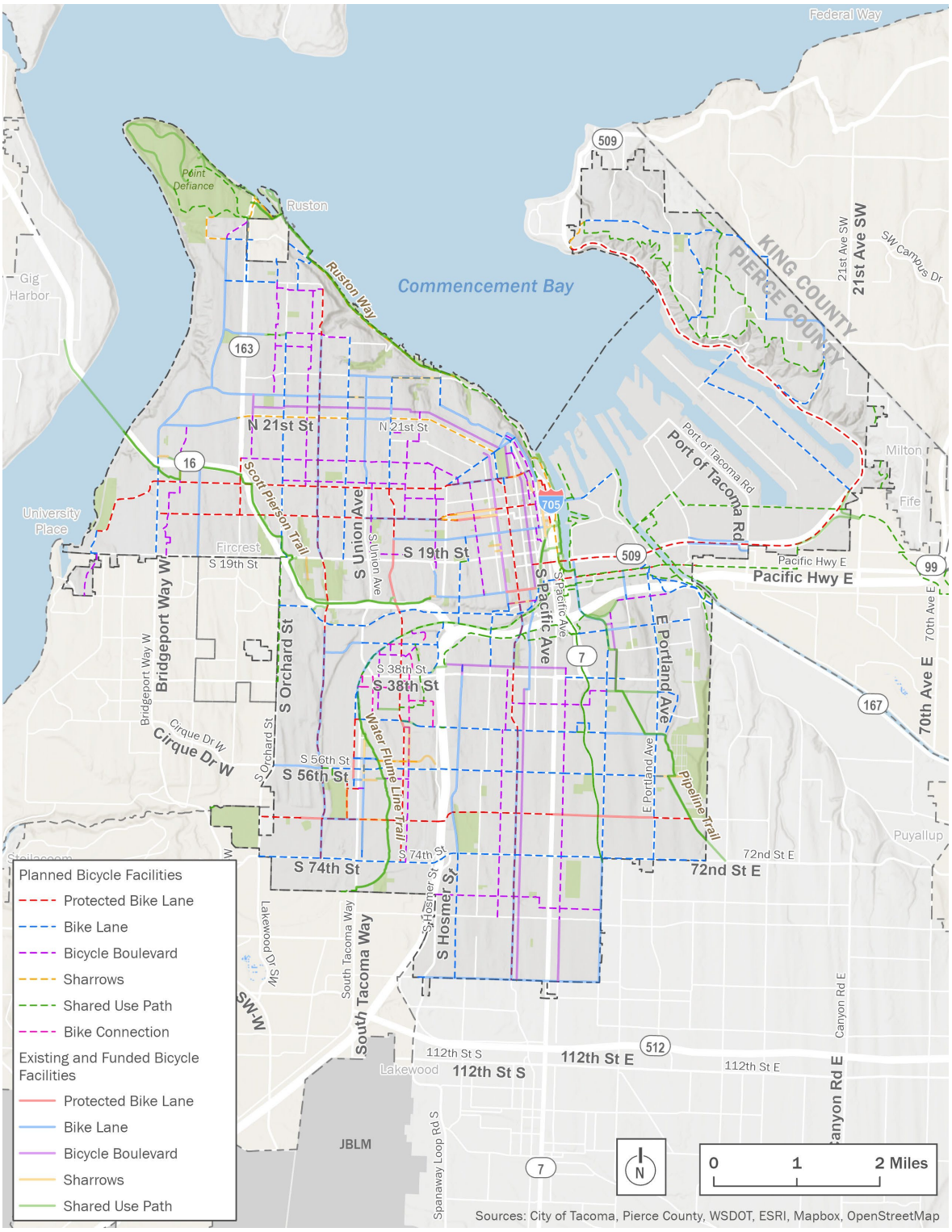
The City of Tacoma has a growing bike network. Tacoma has a number of existing and funded bike facilities that include 43 linear miles of painted bike lanes, 4 linear miles of protected bike lanes, 14 linear miles of bike boulevards, and 7 linear miles of marked shared roadways (sharrows). Existing and funded bikeways in the City of Tacoma are shown in Figure 4.3-5. The City's planned bike network would connect a number of these existing and funded facilities into a more cohesive network of bikeways. Tacoma's planned bike facilities include 56 miles of painted bike lanes, 43 miles of protected bike lanes, 35 linear miles of bike boulevards, 36 linear miles of shared-used paths, 9 miles of shared lane markings, and 3 linear miles of unspecified connections. Planned bikeways in Tacoma are shown in Figure 4.3-6.

Figure 4.3-5. Existing and Funded Bicycle Facilities in Tacoma



Source: City of Tacoma

Figure 4.3-6. Planned Bicycle Facilities in Tacoma



Source: City of Tacoma

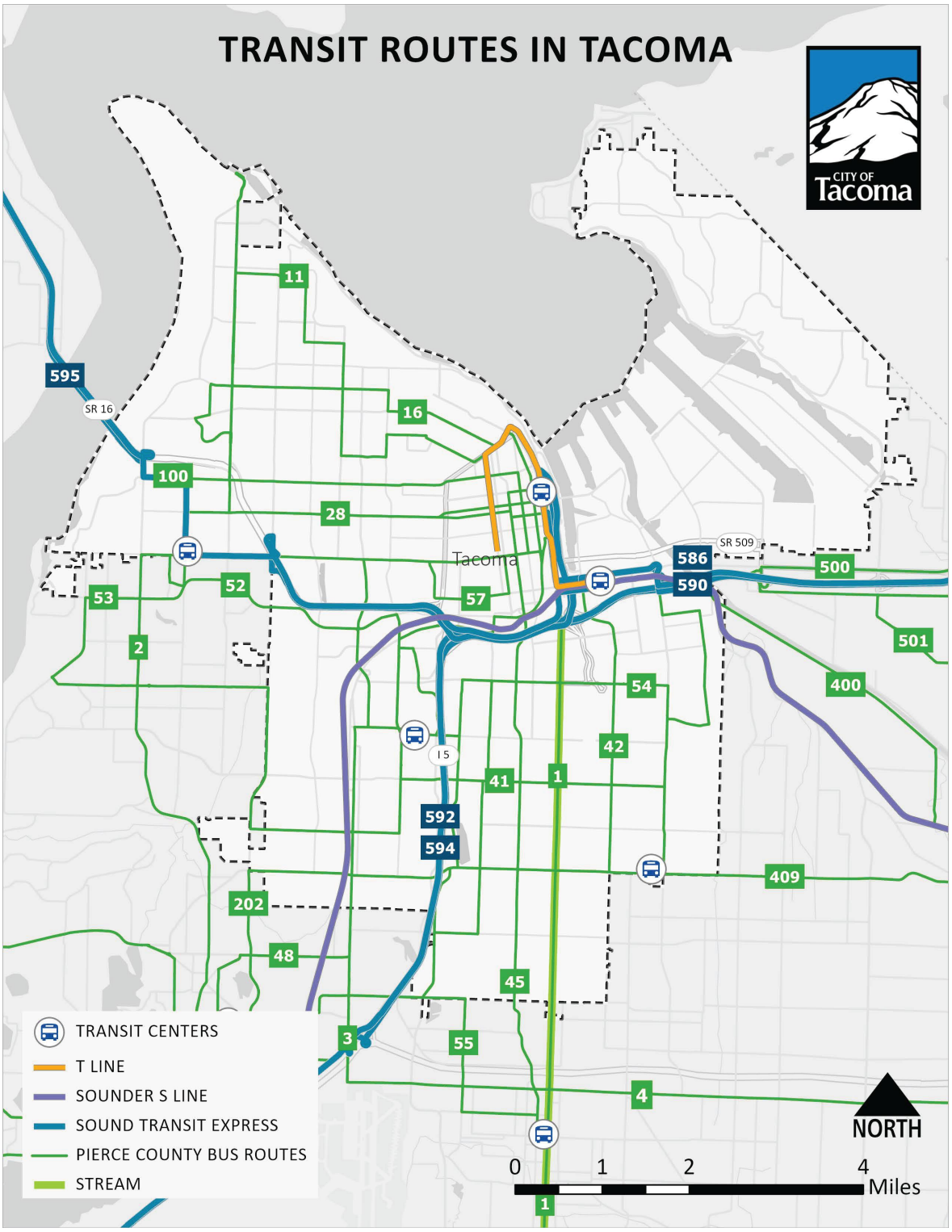
Public Transit

Pierce Transit provides most of the fixed-route bus service in the City of Tacoma, with 24 bus routes that serve the City of Tacoma as of 2022. Together, these routes had over 4 million boardings in 2022, with the highest ridership on Route 1 between Tacoma and Spanaway along Pacific Avenue/SR 7, the corridor for Pierce Transit's Enhanced Bus Service, which the agency plans to deliver in spring 2024. The next highest ridership Pierce Transit routes serving the City of Tacoma are the Route 2 connecting Downtown Tacoma and Lakewood via S 19th Avenue and Bridgeport Way and the Route 3 connecting Downtown Tacoma and Lakewood via Tacoma Mall and the South Tacoma Sounder station.

Pierce Transit also provides on-demand microtransit services that offer shared rides in specified zones that have limited or no fixed-route transit service. Three microtransit zones are located in or adjacent to the City of Tacoma: Tideflats Runner around the Port of Tacoma and into Fife and Milton, the Ruston Runner along the north end of Tacoma into Ruston, and the Spanaway Runner, which primarily covers areas outside of Tacoma to the south and east but serves a small section of the south end near Midland.

Sound Transit provides light rail service through Downtown Tacoma to Tacoma Dome Station on the T Line, running primarily in dedicated right-of-way on surface streets to serve 12 stops from the Tacoma Dome Station through Downtown Tacoma, the Stadium District and the Hilltop neighborhood. Service on the Tacoma Link Hilltop Extension from the theater district (now replaced by the Old City Hall station) to St. Joseph began in September 2023. Sound Transit is currently planning a six-station extension to bring the T Line farther west to Tacoma Community College. Sound Transit also operates the Sounder South (S Line) commuter rail between King Street Station in Seattle and Lakewood, with service to Tacoma Dome and South Tacoma stations. The S Line serves Tacoma Dome Station with 13 weekday round trips and South Tacoma Station with eight weekday round trips. S-Line service does not operate on weekends. All current Pierce Transit and Sound Transit service in Tacoma is shown in Figure 4.3-7. At the time this Draft EIS was published,, Routes 13 and 63, among others, are in service, but have been approved for elimination as of March 31, 2024.

Figure 4.3-7. Existing Transit Service in Tacoma



Source: Pierce Transit, Sound Transit

Arterials and Vehicular Circulation

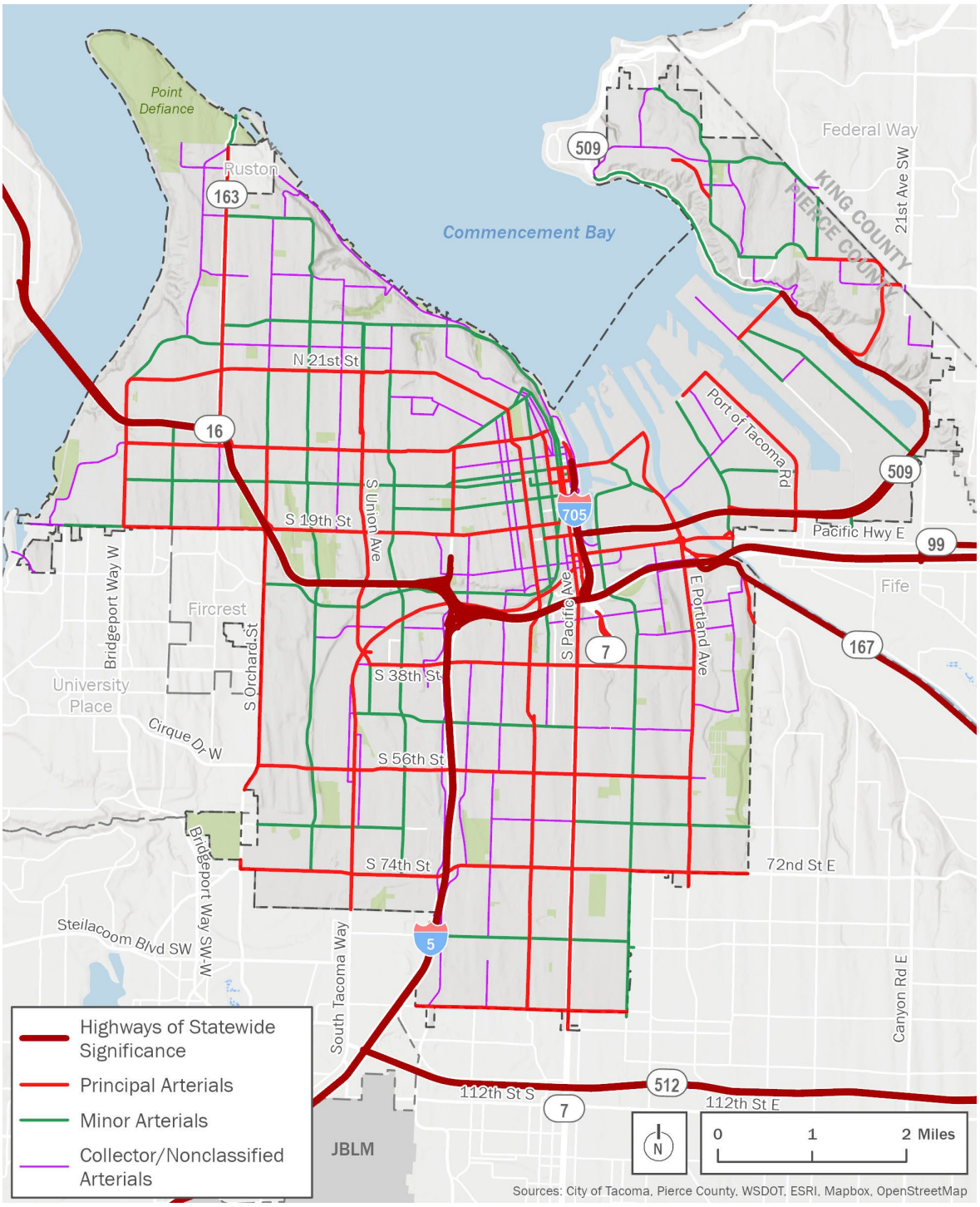
There are several Interstate and state highways that provide regional access to and through the City of Tacoma. Interstate 5 (I-5) is a limited-access highway connecting the entire west coast of the U.S., from the Canadian border in Washington to the Mexican border in California. Within Tacoma, I-5 extends east-west from the city's eastern boundary with Fife and continues north-south between South Tacoma and the South End. I-705 is a spur off I-5 that runs along the Thea Foss Waterway in Downtown Tacoma, ending at the interchange with Stadium Way, Schuster Parkway, and Pacific Ave/SR 7.

Four state highways run through Tacoma, providing both regional and local access within and through the city. SR 509 extends from SR 99 in Federal Way, enters Tacoma south of Dash Point, and comes around the east side of Commencement Bay and along the south side of the Port of Tacoma to connect with I-705 in Downtown Tacoma. SR 7 extends from Spanaway and points south, continuing north-south through the Tacoma's South End as Pacific Avenue, turning east onto S 38th Street and onto a limited-access highway bridge that terminates at the interchange with I-705 and I-5. SR 16 is a limited-access highway that extends from the curve in I-5 toward southern Tacoma, then northwest to the Tacoma Narrows Bridge, connecting to the Kitsap Peninsula. SR 163 is a designated state highway along N Pearl Street/SR 163, running north-south from the Point Defiance Ferry Terminal to SR 16. Portions of several state highways through Tacoma are under the City of Tacoma's jurisdiction, including Pacific Avenue/SR 7, Pearl Street/SR 163, and SR 509.

WSDOT and the City of Tacoma recognize that many state highways also serve as local connectors. In 2022, the State Legislature passed RCW 47.04.035, which directs that "in order to improve the safety, mobility and accessibility of state highways, it is the intent of the Legislature that the department must incorporate the principles of complete streets with facilities that provide street access with all users in mind, including pedestrians, bicyclists and public transportation users" for "state transportation projects starting design on or after July 1, 2022, and that are $500,000 or more." This aligns with the State's Target Zero goal to eliminate crashes that cause serious or fatal injuries by 2030.

The City of Tacoma maintains approximately 857 lane miles of arterial streets, with an arterial street grid connecting through neighborhoods at regular intervals in a semi-gridded network. These arterial streets typically carry more traffic moving at higher speeds than along local streets. Many of the city's commercial districts are along arterial streets, and these streets are often the only connection across obstacles like highways, water bodies, and topographic features. Tacoma's arterial roadways are shown in Figure 4.3-8.

Figure 4.3-8. Arterial Roadways and Highways of Statewide Significance in the City of Tacoma



Source: City of Tacoma

Limited-access highways in Tacoma, including SR 16, I-5, I-705, and portions of SR 7, carry higher volumes of traffic compared to the roadways under the City of Tacoma's jurisdiction that function as surface roads. WSDOT tracks average annual daily traffic on state highways in Tacoma, including Pacific Avenue/SR 7, which is listed in the table above with segments that have some of the highest volumes in the area where potential zoning changes are proposed in the action alternatives. WSDOT's annual count data for state highways generally show a pattern of higher traffic volumes toward the southern end of Pacific Avenue/SR 7 near SR 512 and on the southern end of N Pearl Street/SR 163 near the access ramps for SR 16. Traffic on limited-access highways in Tacoma and average annual daily traffic as recorded by WSDOT are shown in Table 4.3-2.

Table 4.3-2. Traffic Volumes on Limited Access Highways in Tacoma

Highway Location	2022 AADT (2-Way)
SR 7 north of 38th Street Interchange	25,404
I-705 south of Shuster Parkway	38,404
I-5 west of Yakima Avenue	160,950
I-5 north of 56th Street Interchange	193,259
I-5 north of 72nd Street On-Ramp	194,302
I-5 south of 84th Street Off-Ramp	1,946
SR 16 at S Tyler Street	127,915
SR 16 south of S 12th Street	96,248
SR 16 at the Tacoma Narrows Bridge	95,829

AADT = average annual daily traffic

4.3.2 Potential Impacts

4.3.2.1 Analysis Methodology

Trip generation is estimated based on likely residential growth under each alternative according to the Institute of Transportation Engineers' Trip Generation Manual, 11th Edition. The number of additional residential units likely to develop in each alternative is allocated to areas with low- and Medium-Scale Residential zoning by Transportation Analysis Zone (TAZ), a geographic unit defined by PSRC for use in travel modeling. The estimated number of potential trips generated by new residential development varies by the type of development or residential use as defined by the Trip Generation Manual, including single-family attached, single-family detached, and mid-rise multifamily. The setting or location of future development also affects trip generation estimates based on the scale and mix of uses in nearby development and proximity to rail transit. The residential growth scenarios presented in each alternative do not include residential or employment growth in higher-density and mixed-use zoning districts and do not include the City's full 2044 housing and employment growth allocation based on PSRC forecasts.

For residential use categories that could be differentiated in terms of setting or location in trip generation estimates (single-family attached and mid-rise residential), the following methodology was used to classify the built environment and mix of uses in each TAZ for analysis. All TAZs with 40% or more of their area within 0.25 miles of planned mixed-use centers or commercial and mixed-use zoning that permits new commercial, services and/or office uses were considered dense multiuse urban. All TAZs with less than 40% of their area within 0.25 miles of planned mixed-use centers or commercial and Tacoma's mixed-use zoning districts were considered general urban/suburban.

Multifamily residential developments also have different trip generation profiles in the trip generation manual based on their proximity to rail transit. To classify TAZs in terms of their proximity to rail transit in the future, all existing and planned Sounder and Link stations were included in analysis, including stations along the recently completed Hilltop Tacoma Link Extension and the planned Tacoma Community College Tacoma Link Extension and Tacoma Dome Link Extension. All TAZs with more than 50% of their area in within 0.5 miles of existing and planned rail stations were considered "close to rail" for the purposes of trip generation analysis.

A blended trip generation rate was used for each alternative to estimate the number of trips based on the mix of development expected under each zoning scenario, with mid-rise multifamily residential intended to capture both low- and midrise multifamily development because of limitations in available data for low-rise development. In the Baseline Alternative, likely residential growth was assumed to be 50% single-family detached and 50% single-family attached for trip generation estimates. In the Lower Zoning Alternative, likely residential growth was assumed to be 50% single-family attached and 50% mid-rise multifamily for trip generation estimates. In the Higher Zoning Alternative, likely residential development was assumed to be 100% mid-rise multifamily for trip generation estimates.

Potential citywide traffic effects of each alternative were analyzed at the Neighborhood Council District level, with residential areas approximately corresponding to eight districts. The evaluation of potential citywide effects to Tacoma's roadways network analyzed potential growth together with traffic data from Replica, a transportation and land use data platform that brings together a range of travel data, including origins and destinations, trip purpose, travel mode, trip distance, and duration. Replica network volume data from spring 2023 for trips starting in census block groups in each Neighborhood Council District was used to estimate how trips from new growth would be distributed at a citywide level and what roadways would be most likely to experience traffic operations impacts. TAZ classifications by setting, according to the Institute of Transportation Engineers and neighborhood council districts, are shown in Figure 4.3-9, and residential areas by Neighborhood Council District are shown in Figure 4.3-10.

Active transportation analysis uses trends from Replica travel data from 2019 through 2023 to determine the likely share of trips to be made by each mode in the 2050 horizon year. While these modes experienced some declines early in the COVID pandemic, the share of all trips made on foot or by bike has grown steadily over the 5 years for which travel data is available.

4.3.2.2 Future Transit Improvements

The City of Tacoma, in partnership with South Transit and Pierce Transit, have planned investments in the transit network that could moderate the potential for impacts in any of the three alternatives. These projects would affect demand for vehicle trips on roadways that serve local and regional trips.

Sound Transit is planning to deliver two light rail expansions to serve the City of Tacoma. The Tacoma Dome Link Extension, with stations at Tacoma Dome and Portland Avenue, is expected to start service in 2035 and would reduce the number of vehicle trips that access I-5 in the future, but it may also shift some vehicle trips to local roadways to access Tacoma Dome Station. The Tacoma Community College extension to the T Line on S 19th Street is expected to start service in 2039. The extension to the T Line would reduce demand for east-west vehicle trips in Central Tacoma.

In 2024, Pierce Transit is planning to deliver Stream as an enhanced bus service along Pacific Avenue/SR 7 from Tacoma to Spanaway. The full-fledged bus rapid transit (BRT) Stream project is currently paused, with no specific implementation date. The Stream System Expansion Study Phase 2 will define the next BRT projects the Pierce Transit will pursue with local partners, including the City of Tacoma. Improvements to stream corridors—such as Stream Corridor A on S 19th Street, parallel to the T-Line extension to Tacoma Community College, and Stream Corridor B along Jefferson

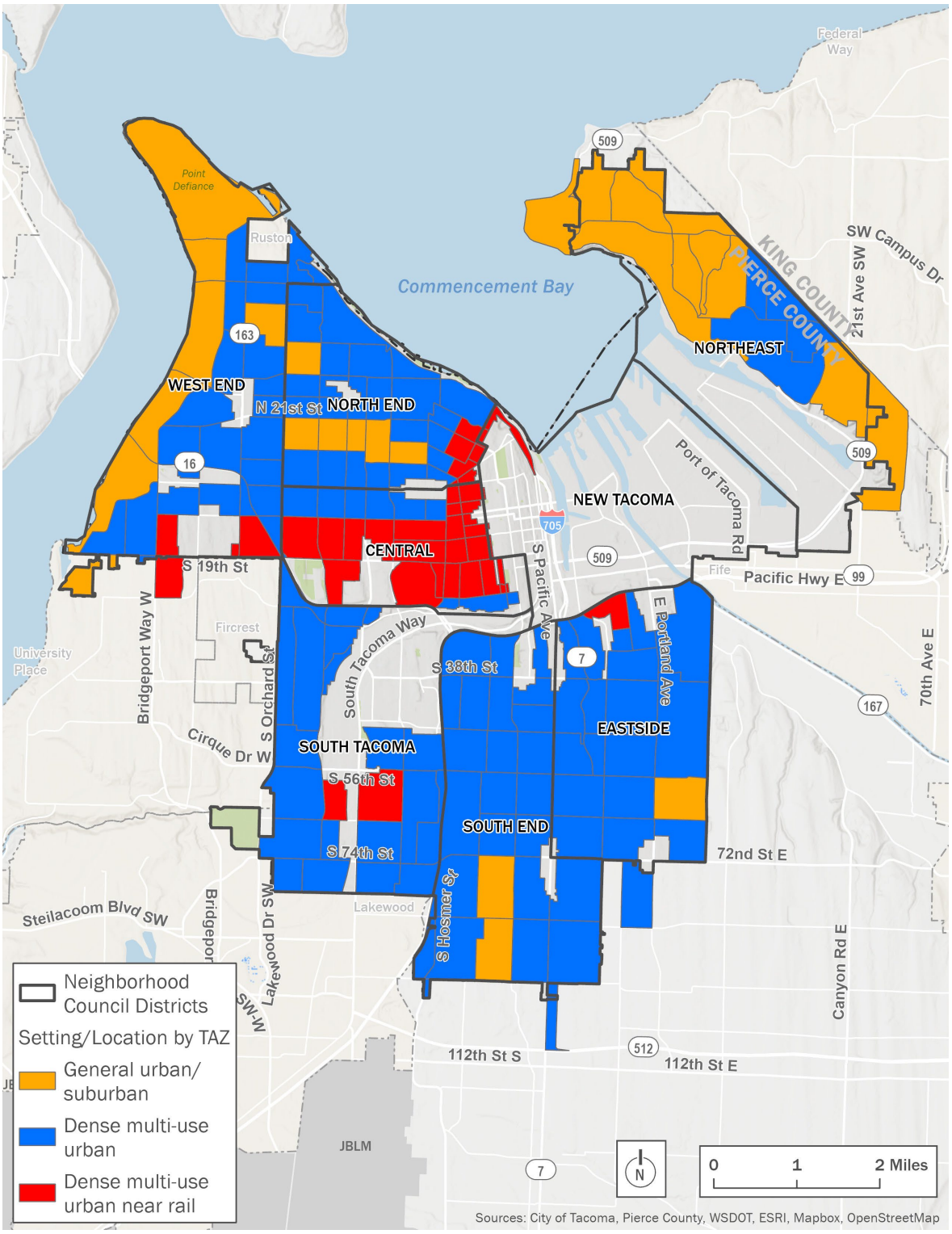
Avenue Pine Street and S Tacoma Way—could help reduce demand for vehicle travel. Destination 2040, Pierce Transit's long-range plan update also includes frequent bus service along 6th Avenue, which may help reduce the number of vehicle trips along 6th Avenue in the future, particularly for local trips within Tacoma.

4.3.2.3 Incorporated Features of the Proposal

The zoning changes proposed as part of the Lower and Higher Zoning alternatives include higher intensity residential zoning near transit routes and facilities that could support TOD and transit-supportive zoning that would encourage transit ridership and support future transit investments. This would likely reduce demand for vehicle trips and help expand transit mode share for trips in Tacoma.

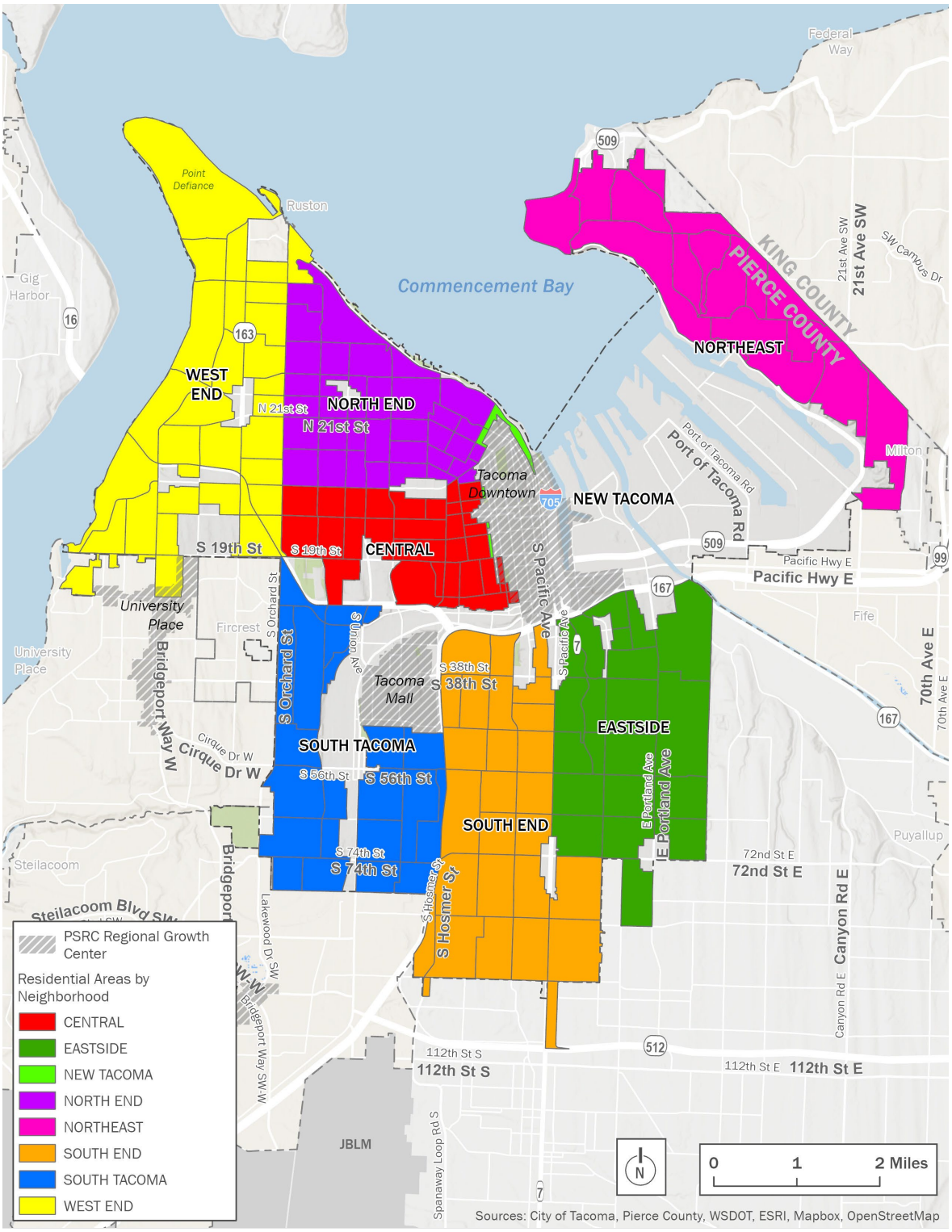
As part of zoning changes, the City of Tacoma is revisiting site access standards to reduce the amount of space dedicated to vehicles. Pedestrian and bicycle access to new development would be enhanced as part of these changes, and vehicular access would be deemphasized in new development. Onsite parking requirements would also be reduced as part of zoning changes to Low- and Medium-Scale Residential zones. Reducing the supply of parking for new residential development is likely to encourage mode shift away from driving and enhanced pedestrian and bike access could help encourage bicycle and pedestrian travel.

Figure 4.3-9. Tacoma TAZ Classifications by Location



Source: Parametrix

Figure 4.3-10. Residential Areas by Neighborhood Council District



Source: Parametrix

4.3.2.4 Potential Impacts of the Baseline Alternative

Active Transportation

The share of trips in Tacoma made by walking and biking have increased steadily compared to pre-pandemic numbers (Replica 2023). Based on year-over-year increases between 2019 and 2023, the share of bike trips in Tacoma would potentially be about 3% by 2050, and the share of walking trips in Tacoma would potentially be over 20% in 2050. If current trends continue, the bike mode share would fall short of the assumed 15% share of trips made by bike to reach net-zero emissions from the Climate Action Plan, but the walking mode share exceeds the assumed 15% share to meet those goals. However, the City has the opportunity to further increase the active transportation mode split through infrastructure investments—the Climate Action Plan calls for the City to complete its active transportation network by 2050. As the City continues to build new bicycle facilities and connect existing bicycle infrastructure to implement Tacoma's planned bicycle and pedestrian network, the share of trips made by biking, walking, and rolling are likely to increase with the availability of safe and accessible routes.

Residential development in the Baseline Alternative is likely to add a small number of bicycle and pedestrian trips to the City's existing and planned facilities, and it would not have an impact on bike facilities, sidewalks, or multiuse paths. The City of Tacoma has constructed approximately 3 miles of sidewalk per year through City programs and private development, and this rate would not change because the pace of private development is expected to remain the same as part of the Baseline Alternative. In the Baseline Alternative, there would likely be fewer localized improvements to the pedestrian network as part of private development.

Public Transit

The share of trips made by transit in Tacoma has not completely recovered to pre-pandemic levels but has been steadily increasing since most COVID precautions were lifted in Washington state. Transit trips are expected to comprise a larger share of trips in Tacoma in the future. Additional traffic from new residential development in the Baseline Alternative may have minor impacts to transit service along arterial corridors in Tacoma. These potential impacts would be limited because the estimated total number of trips to be added to these roadways is relatively low.

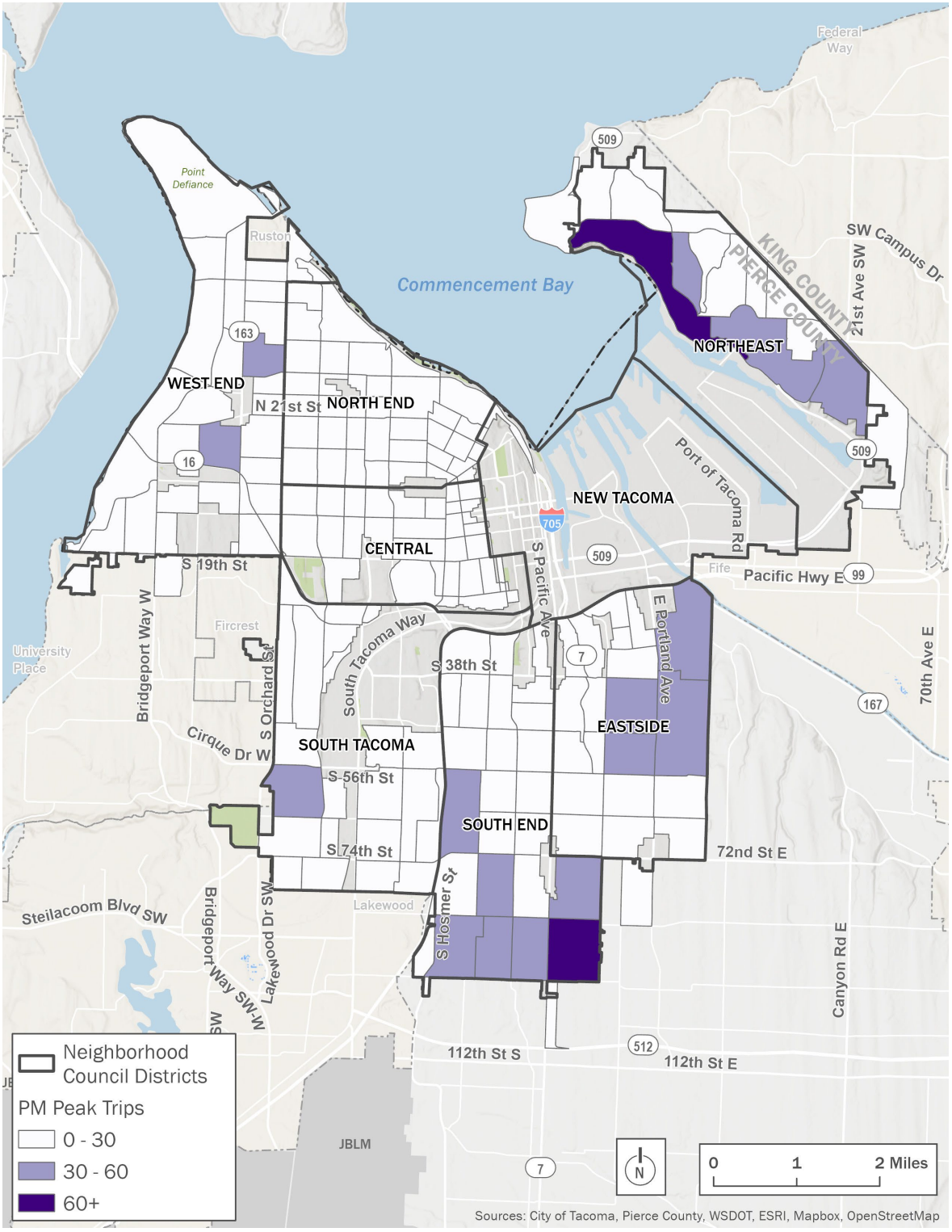
Traffic and Vehicular Travel

The Baseline Alternative would potentially add an estimated 2,500 vehicle trips during the PM peak period and 29,900 daily weekday trips throughout the entire City of Tacoma based on probable net new units as a result of zoning changes. Replica travel data from fall 2022 indicates that the most common destinations for vehicle trips originating in Tacoma were within the City of Tacoma; surrounding communities in Pierce County, such as Fife, Lakewood and Spanaway; and south King County. The estimated median weekday trip length for people driving or riding in cars Tacoma in fall 2022 was 4.7 miles. This median trip length and estimated trip generation were used to analyze potential weekday VMT. This analysis indicated that the Baseline Alternative is associated with potential for limited additional vehicle miles traveled.

The Baseline Alternative reflects limited potential for new residential development based on current zoning in Low- and Mid-Scale Residential zoning districts. New residential in the Baseline Alternative would likely add more trips to roadways, particularly in Tacoma's South End, Eastside, West End, and Northeast Neighborhood Council Districts. Potential for additional PM peak trips as a result of new residential growth in the Baseline Alternative are shown in Figure 4.3-11. While the number of potential new PM peak trips from residential development may be lower per TAZ in some

neighborhoods such as the West End, small changes in additional residential units at the TAZ level can contribute to a larger total increase in trips at the neighborhood scale.

Figure 4.3-11. Additional PM Peak Trips from New Residential Growth in the Baseline Alternative



Source: Parametrix

Since principal arterials serve traffic traveling longer distances through Tacoma, the effects of new development on traffic operations would not only be localized, but potentially citywide or even regional. For an analysis of citywide effects of likely new development in the Baseline Alternative on the roadway network, additional residential units and estimated trip generation were analyzed by Neighborhood Council Districts. These neighborhoods are useful for understanding general trip distribution and where development across the city is likely to have effects on intersections that carry longer distance traffic or are important highway access points.

The greatest capacity for new residential development was in the South End, followed by the West End, Eastside, and Northeast neighborhoods. These areas have the potential for a larger number of new PM peak trips in the Baseline Alternative. Fewer new vehicle trips would potentially come from new residential development in the New Tacoma and Central Tacoma neighborhoods as part of the Baseline Alternative. The estimated number of additional trips from potential residential growth during the 2-hour PM peak period (4 to 6 p.m.) are shown in Table 4.3-3.

Table 4.3-3. Baseline Alternative PM Peak Trips by Subarea

Neighborhood Council District	Additional PM Peak Trips	Percent of New PM Peak Trips Citywide
Central	165	7%
Eastside	404	16%
New Tacoma	8	0%
Northeast	364	15%
North End	217	9%
South End	571	23%
South Tacoma	276	11%
West End	455	18%
TOTAL	2459	100%

The number of total new vehicle trips during the PM peak period citywide are not likely to affect traffic operations on a citywide or corridor scale but may affect operations at intersections that are already congested.

4.3.2.5 Potential Impacts of the Lower Zoning Alternative

Active Transportation

The share of trips in Tacoma made by walking and biking have increased steadily compared to pre-pandemic numbers (Replica 2023). Based on year-over-year increases between 2019 and 2023, the share of bike trips in Tacoma would potentially be about 3% by 2050, and the share of walking trips in Tacoma would potentially be over 20% in 2050. If current trends continue, the bike mode share would fall short of the assumed 15% share of trips made by bike to reach net-zero emissions from the Climate Action Plan, but the walking mode share exceeds the assumed 15% share to meet those goals. However, the City has the opportunity to further increase the active transportation mode split through infrastructure investments—the Climate Action Plan calls for the City to complete its active transportation network by 2050. As the City continues to build new bicycle facilities and connect existing bicycle infrastructure to implement Tacoma's planned bicycle and pedestrian

network, the share of trips made by biking, walking, and rolling are likely to increase with the availability of safe and accessible routes.

Residential development under the Lower Zoning Alternative is likely to add a moderate number of bicycle and pedestrian trips to the City's existing and planned facilities. If anticipated growth in bicycle and pedestrian mode share were primarily a shift from driving or riding in cars, these new walking and biking trips would be less than one-third the number of new vehicle trips estimated for this alternative. Higher volumes of pedestrian and bicyclists would not impact existing or planned facilities and are generally associated with lower proportional rates of vehicle collisions involving pedestrians and bicyclists (Elvik and Goel 2019).

The City of Tacoma has constructed approximately 3 miles of sidewalk per year through City programs and private development and this rate may increase slightly because the pace of private development is expected to increase due to private development as part of the Lower Zoning Alternative. This alternative would include more new residential development compared to the Baseline Alternative, which would be built together with sidewalk improvements per City of Tacoma standards.

Public Transit

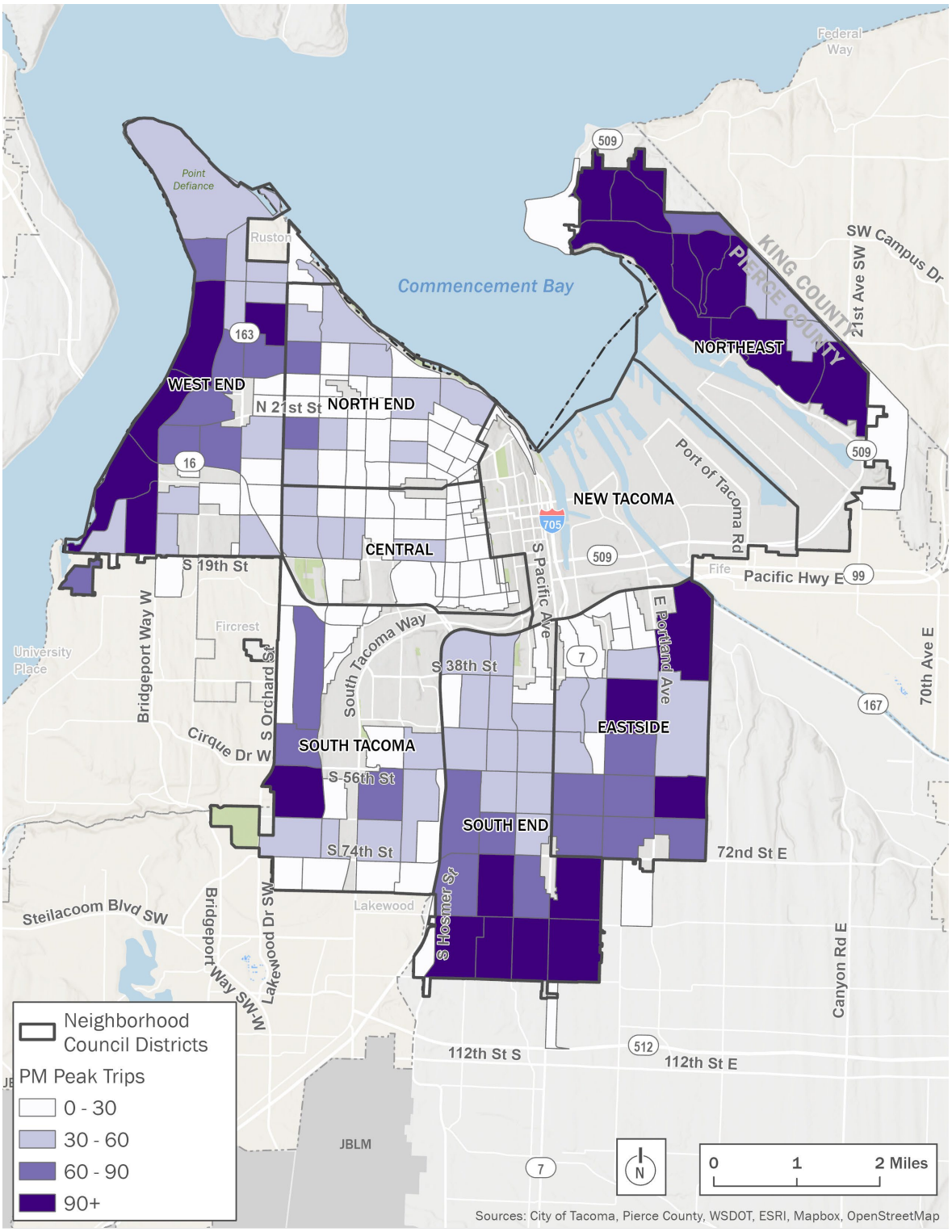
The share of trips made by transit in Tacoma has not completely recovered to pre-pandemic levels but has been steadily increasing since most COVID precautions were lifted in Washington state. Transit trips are expected to comprise a larger share of trips in Tacoma in the future. Additional traffic from new residential development in the Lower Zoning Alternative would potentially have minor impacts to transit service along arterial corridors in Tacoma. These impacts would likely be limited, as the total number of trips estimated to be added to these roadways is relatively low.

Traffic and Vehicular Travel

The Lower Zoning Alternative would potentially add an estimated 8,550 vehicle trips during the PM peak period and 120,200 daily weekday trips throughout the entire City of Tacoma based on probable net new units. The Lower Zoning Alternative would likely result in greater vehicle miles traveled on an average weekday compared to the Baseline Alternative with those additional weekday trips. The Lower Zoning Alternative would also result in a decrease in VMT per housing unit compared to the Baseline Alternative.

The Lower Zoning Alternative reflects likely development with some additional residential density permitted in Low and Mid-Scale Residential districts. New residential development in the Lower Zoning Alternative would likely add more trips to arterial roadways in Tacoma, particularly in South End, West End and Northeast neighborhoods, where residential growth in this alternative would potentially be highest. Additional PM peak trips anticipated as a result of new residential growth in the Lower Zoning Alternative are shown in Figure 4.3-12.

Figure 4.3-12. Additional PM Peak Trips from New Residential Growth in the Lower Zoning Alternative



Source: Parametrix

The greatest capacity for new residential development in the Lower Zoning Alternative was in the South End, followed by the West End, Northeast and Eastside neighborhoods. These areas have the potential for a larger number of new PM peak trips. The estimated number of additional trips from potential residential growth during the 2-hour PM peak period (4 to 6 p.m.) are shown in Table 4.3-4.

Table 4.3-4. Lower Zoning Alternative PM Peak Trips by Neighborhood Council District

Neighborhood Council District	Additional PM Peak Trips	Percent of New PM Peak Trips Citywide
Central	557 Trips	7%
Eastside	1,158 Trips	14%
New Tacoma	12 Trips	0%
Northeast	1,674 Trips	20%
North End	880 Trips	10%
South End	1,804 Trips	21%
South Tacoma	701 Trips	8%
West End	1,764 Trips	21%
TOTAL	8,550 Trips	100%

Of the estimated new PM peak vehicle trips from residential development, 21% would potentially start or end in the South End neighborhood of Tacoma. If current travel patterns continue, additional vehicle trips may contribute to future traffic volumes along Pacific Avenue/SR 7, S 72nd/S 74th Streets, and S 38th Street. Other parts of the roadway network like S 56th Street, South M Street, and E Portland Avenue may receive some traffic from these new vehicle trips, but the greatest volume on these roadways would be near access to or crossings of I-5.

Of the estimated new PM peak vehicle trips from residential development, 21% would potentially start or end in the West End neighborhood of Tacoma. Current travel patterns in this neighborhood indicate that these trips may contribute most to traffic volumes on Pearl Street/SR 163 and on some connecting roadways, including 6th Avenue and S 12th Street. Other roadways, like S Jackson Avenue and S 19th Street, may receive some traffic from these new vehicle trips, with the highest traffic volumes near access ramps to SR 16.

Of the estimated new vehicle trips in the PM peak period, 20% would potentially start or end in the Northeast neighborhood, and those trips may affect traffic on Norpoint Way NE, Marine View Drive, and 29th Street NE. Existing travel patterns show more trips from the Northeast neighborhood to and from points east in south King County, with trips to other parts of Tacoma more dispersed on highways like SR 509, SR 19, and I-5.

Although new development typically generates new vehicle trips and associated miles traveled, higher residential density has been shown to reduce VMT in certain circumstances (WSDOT 2013). Land use controls for denser urban development could provide an overall reduction in vehicle trips of 5% or a VMT reduction of 5% to 12% (EPA 2014). Access to jobs and land use diversity has been found to have a stronger effect on both mode shift and VMT and could provide an overall VMT reduction of 13% to 25% (National Center for Sustainable Transportation, 2017). The observed effects of the built environment on travel behavior shows that these factors generate fewer vehicle trips per housing unit, resulting in lower VMT.

The Lower Zoning Alternative would increase residential density and access to nearby employment and would potentially result in fewer vehicle trips and lower VMT than estimated from trip generation analysis. Net density increases in designated low- and mid-scale areas as part of the Lower Zoning Alternative would represent a 39% increase in density citywide. Residential growth under this alternative would be located in close proximity to the PSRC Metro Regional Growth Center in Downtown Tacoma; Urban Regional Growth Centers in Tacoma Mall, University Place, and Lakewood; and the Manufacturing/Industrial Center at the Port of Tacoma. Therefore, the residential growth would be accessible to planned growth in local employment. This density increase and proximity to job centers would potentially result in fewer vehicle trips and lower VMT than is estimated in the analysis of potential additional VMT and vehicle trips.

4.3.2.6 Potential Impacts of the Higher Zoning Alternative

Active Transportation

The share of trips in Tacoma made by walking and biking have increased steadily compared to pre-pandemic numbers (Replica 2023). Based on year-over-year increases between 2019 and 2023, the share of bike trips in Tacoma would potentially be about 3% by 2050, and the share of walking trips in Tacoma would potentially be over 20% in 2050. If current trends continue, the bike mode share would fall short of the assumed 15% share of trips made by bike to reach net-zero emissions from the Climate Action Plan, but the walking mode share exceeds the assumed 15% share to meet those goals. However, the City has the opportunity to further increase the active transportation mode split through infrastructure investments - the Climate Action Plan calls for the City to complete its active transportation network by 2050. As the City continues to build new bicycle facilities and connect existing bicycle infrastructure to implement Tacoma's planned bicycle and pedestrian network, the share of trips made by biking and walking and rolling are likely to increase with the availability of safe and accessible routes.

Residential development in the Higher Zoning Alternative has the potential to add a significant number of bicycle and pedestrian trips to the City's existing and planned facilities. If anticipated growth in bicycle and pedestrian mode share were primarily a shift from driving or riding in cars, these new walking and biking trips would be less than one third the number of new vehicle trips estimated for this alternative. These additional trips would not be likely to have an impact on existing or planned bicycle facilities, sidewalks, and multiuse paths. Potential new walking and biking trips may have a safety benefit for people walking and biking in Tacoma, as higher volumes of pedestrians and bicyclists are generally associated with lower rates of vehicle collisions involving pedestrians and bicyclists (Elvik and Goel 2019).

The City of Tacoma has constructed approximately 3 miles of sidewalk per year through City programs and private development, and this rate would increase with the pace of private development as part of the Higher Zoning Alternative. This alternative would include the most potential new residential development compared to other alternatives and has the potential for the greatest sidewalk improvements as part of private development compared to other alternatives. Additional sidewalk improvements would help address some existing sidewalk gaps in Tacoma's residential areas.

Public Transit

The share of trips made by transit in Tacoma has not completely recovered to pre-pandemic levels but has been steadily increasing since most COVID precautions were lifted in Washington state. Transit trips are expected to comprise a larger share of trips in Tacoma in the future. Additional traffic from new residential development in the Higher Zoning Alternative would potentially have moderate adverse impacts to transit service along arterial corridors in Tacoma. These impacts are more likely along arterial corridors that accommodate longer distance travel within and through

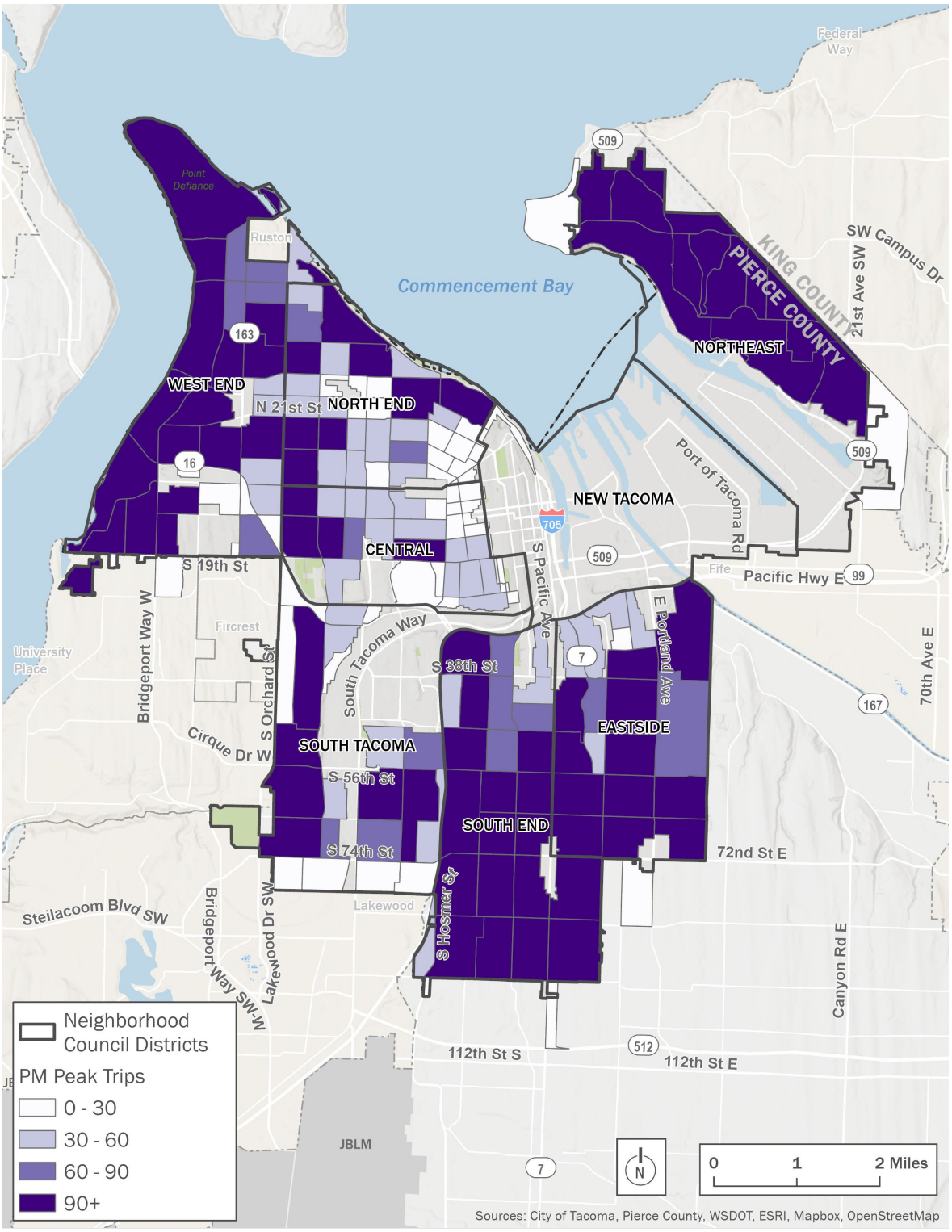
Tacoma. Some impacts may be moderated by planned transit improvements in partnership with Pierce Transit and Sound Transit described in Section 4.3.2.2.

Traffic and Vehicular Travel

The Higher Zoning Alternative would add an estimated 17,000 vehicle trips during the PM peak period and 171,600 daily weekday trips throughout the entire City of Tacoma based on probable net new units as a result of zoning changes. Using the 4.7-mile median vehicle trip length for the City of Tacoma in fall 2022 to estimate weekday VMT, this alternative could result in an additional 806,400 vehicle miles traveled on the average weekday. The Higher Zoning Alternative would also result in a decrease in VMT per housing unit compared to the Baseline Alternative and Lower Zoning Alternative.

The Higher Zoning Alternative reflects likely development under with more residential density permitted in Low- and Mid-Scale Residential districts. Potential new residential development as part of the Higher Zoning Alternative is likely to add more trips to arterial roadways in Tacoma, particularly in South End, West End and Northeast Neighborhood Council Districts, where residential growth in this alternative would be highest. The Higher Zoning Alternative would generate approximately twice the number of new vehicular trips compared to the Lower Zoning Alternative in some neighborhoods of Tacoma, but would result in a lower number of trips per housing unit compared to the Baseline Alternative and Lower Zoning Alternative. Additional PM Peak trips anticipated as a result of new residential growth in the Higher Zoning Alternative are shown in Figure 4.3-13.

Figure 4.3-13. Additional PM Peak Trips from New Residential Growth in the Higher Zoning Alternative



Source: Parametrix

The most PM peak trips in the Higher Zoning Alternative come from new development in the South End, followed by the West End and Northeast Neighborhood Council Districts s. Fewer new vehicle trips are expected from new residential development in the New Tacoma, Central Tacoma, and South Tacoma neighborhoods in the Higher Zoning Alternative, and a moderate number of new vehicle trips would be expected from net development in South Tacoma. The estimated number of additional trips from potential residential growth during the 2-hour PM Peak period (4 to 6 p.m.) are shown in Table 4.3-5.

Table 4.3-5. Higher Zoning Alternative PM Peak Trips by Neighborhood Council District

Neighborhood Council District	Additional PM Peak Trips	Percent of New PM Peak Trips Citywide
Central	1,177	7%
Eastside	2261	13%
New Tacoma	25	0%
Northeast	3,352	20%
North End	1,821	11%
South End	3,545	21%
South Tacoma	1,374	8%
West End	3,486	20%
TOTAL	17,041	100%

Current travel patterns from fall 2022 Replica data indicate that these trips would likely affect similar streets as the Lower Zoning Alternative, with 21% of new PM Peak vehicle trips starting or ending in the South End neighborhood, 20% in the Northeast neighborhood and 20% in the West End neighborhood. These new PM Peak vehicle trips would likely contribute to traffic volumes along Pacific Avenue/SR 7, S 72nd/S 74th Street, and S 38th Street in the South End; traffic on Norpoint Way NE; Marine View Drive and 29th Street NE in Northeast Tacoma; and on Pearl Street/SR 163 and connecting roadways, including 6th Avenue and S 12th Street in the West End. Other roadways connecting to or crossing I-5 and SR 16 may be affected by addition vehicle trips in the PM Peak hour, including S 56th Street, South M Street, and E Portland Avenue in the South End and the Eastside and S Jackson Avenue and S 19th Street in the West End.

While they do not comprise a large percentage of potential new trips in the City of Tacoma, residential development in the North End and Eastside neighborhoods would generate approximately 4,000 new vehicle trips in the PM Peak period from 4 to 6 p.m. New trips from the North End would contribute to heavier PM Peak traffic volumes on 6th Avenue, Schuster Parkway and Union Ave, and along N Pearl Street near SR 16 and Pacific Avenue/SR 7 in Downtown Tacoma. New trips from the Eastside neighborhood would primarily affect traffic volumes on E Portland Avenue and Pacific Avenue/SR 7 south of I-5 and along S 72nd Street/E 72nd Street and S 38th Street/E 38th Street.

Some major access routes for the North End and Eastside neighborhoods overlap with streets used to access other neighborhoods with a large share of the city's overall growth in the Higher Zoning Alternative. N Pearl Street/SR 163 and 6th Avenue provide highway access to both the North End and West End neighborhoods. Similarly, Pacific Avenue/SR 7, E Portland Avenue, S 72nd/E 72nd Street, and S 38th/E 38th Street provide highway access to both the South End and Eastside neighborhoods, and Pacific Highway/SR 7 is a significant regional roadway serving communities south of Tacoma in Pierce County and east Lewis County. These six corridors are likely to experience traffic impacts from new residential growth citywide.

Although new development typically generates new vehicle trips and associated miles traveled, higher residential density has been shown to reduce VMT in certain circumstances (WSDOT 2013). Land use controls for denser urban development could provide an overall reduction in vehicle trips of 5% or a VMT reduction of 5% to 12% (EPA 2014). Access to jobs and land use diversity has been found to have a stronger effect on both mode shift and VMT and could provide an overall VMT reduction of 13% to 25% (National Center for Sustainable Transportation, 2017). The observed effects of the built environment on travel behavior shows that these factors generate fewer trips per housing unit and result in lower VMT.

The Higher Zoning Alternative would increase residential density and access to nearby employment and would potentially result in fewer vehicle trips and lower VMT than estimated from trip generation analysis. Net density increases in designated low- and mid-scale areas as part of the Lower Zoning Alternative would represent a 39% increase in density citywide. Residential growth under this alternative would be located in close proximity to the PSRC Metro Regional Growth Center in Downtown Tacoma; Urban Regional Growth Centers in Tacoma Mall, University Place, and Lakewood; and the Manufacturing/Industrial Center at the Port of Tacoma. Therefore, the residential growth would be accessible to planned growth in local employment. This density increase and proximity to job centers would potentially result in fewer vehicle trips and lower VMT than is estimated in the analysis of potential new VMT and vehicle trips.

4.3.2.7 Comparison of Impacts

Both the Lower Zoning Alternative and Higher Zoning Alternative would add new vehicle trips to the City's roadway network beyond what would be expected with existing zoning in the Baseline Alternative. The Lower Zoning Alternative would potentially generate 6,000 more vehicle trips than would be expected in the Baseline Alternative to the City's roadway network during the PM Peak period, and approximately 90,000 trips more than would be expected in the Baseline Alternative on an average weekday, 11% of estimated fall 2022 weekday car trips. The Higher Zoning Alternative would potentially generate 14,500 more vehicle trips than would be expected in the Baseline Alternative during the PM peak period and approximately 140,000 more trips compared to the Baseline Alternative on an average weekday, 16% of estimated fall 2022 weekday car trips. See Table 4.3-6, below.

Table 4.3-6. Comparison of Trip Generation by Alternative

Trip Generation Period	Baseline Alternative	Lower Zoning Alternative	Higher Zoning Alternative
New Households	3,837	25,656	53,619
PM Peak Vehicle Trips	2,459 Trips	8,550 Trips	17,041 Trips
Weekday Vehicle Trips	29,873 Trips	120,209 Trips	171,566 Trips
Weekday VMT per Housing Unit	36.6 vehicle miles	22 vehicle miles	15 vehicle miles

VMT per housing unit is likely to be highest for the Baseline Alternative, with a higher number of trips per residential unit based on development patterns under existing zoning compared to zoning options with greater density. Estimated weekday VMT per capita from car trips would potentially be lower for the Lower Zoning Alternative and event lower for Higher Zoning Alternative based on trip generation analysis.

4.3.2.8 Potential Adverse Impacts

The Higher Zoning Alternative has the potential to result in adverse impacts to certain roadways that are major access routes for Neighborhood Council Districts that are expected to experience high or moderate growth in this alternative. This includes N Peal Street/SR 163, 6th Avenue, Pacific Avenue/SR 7, E Portland Avenue, S 72nd/E 72nd Street and S 38th/E 38th Street, each of which provide highway access for multiple neighborhoods of Tacoma with high and moderate growth capacity. These potential traffic impacts could be mitigated by incorporating the mitigation features described in the following section including, transit and active transportation improvements and transportation demand management strategies.

Potential traffic impacts from residential growth proposed as part of the Higher Zoning Alternative also have the potential to affect transit service on arterial corridors. Pierce Transit bus service may be affected by additional traffic that could, in turn, affect speed and reliability, particularly on routes 1, 10, 16, 48, 54, and 202 which run on arterial roadways that may carry more new vehicle trips. Planned enhanced bus improvements to Pierce Transit's Route 1 bus on the Pacific Avenue/ SR 7 corridor would help maintain reliable service along this line despite increased traffic volumes along the corridor.

The Higher Zoning Alternative also has the potential to impact pedestrian and bicycle facilities. Increases in vehicle trips may affect safety and connectivity for pedestrians and bicyclists where new conflict areas or increased volumes are introduced by vehicular traffic. These potential active transportation impacts could be lessened by incorporating the mitigation features described below.

4.3.3 Potential Mitigation Measures

Proven strategies to decrease demand for vehicle trips on busy roadways include pedestrian, bicycle, and transit improvements as well as programmatic transportation demand management measures. Specific intersections in Tacoma where traffic operations are expected to be affected by citywide growth will be analyzed in future modeling and analysis. Individual residential developments that include a total number of residential over the City's SEPA exemption threshold would be subject to environmental review for potential project impacts including transportation impacts.

4.3.3.1 TMP Updates and Implementation

The City of Tacoma's TMP provides a framework for transportation investments that mitigate the traffic impacts of residential growth as part of the Lower and Higher Zoning Alternatives. The City of Tacoma is currently embarking on an update to the TMP as part of the 2024 Comprehensive Plan update, and this plan will continue to move away from vehicle LOS standards and will include more targeted improvements to transit priority corridors that support TOD and the pedestrian network, including prioritizing investments based on safety, equity, land use, and connectivity and updating the City's ADA Transition Plan to prioritize accessibility improvements.

4.3.3.2 Pedestrian Improvements

- Strengthen and implement pedestrian-focused policies
- Continue to work towards completing a safe and connected sidewalk system, including improving intersection and mid-block crossings for ADA accessibility and pedestrian safety
- Continue to de-prioritize off-street parking
- Additional/more specific development requirements to improve pedestrian safety and accessibility could include the following:

- Provide wide sidewalks that offer a safe and comfortable experience for users of all abilities and needs. Separate sidewalks from travel and parking lanes with planting and furnishing areas.
- Include street and pedestrian-scale lighting that promotes safety and visibility for all users. Plantings should be carefully placed to ensure visibility and sight distance for pedestrians.
- Since people with mobility issues have difficulty walking long distances, benches should be provided at regular intervals and be located adjacent to but outside of the pedestrian access route.
- Provide ample room for bicycle parking and other mobility devices.
- Sidewalks must be continuous, unobstructed, and linear without horizontal deflections to connect businesses, services, recreation and transportation options.
- Different surface textures and treatments may be used to help define the pedestrian access route for people with visual impairments.
- Provide curb ramps to connect all sidewalks to street crossings and provide ADA-accessible crossings. Each crossing of an intersection is required unless a crossing is closed to all users. Directional curb ramps must be provided for each street crossing. Required safety enhancements may include, but are not limited to, APSs, signalization (e.g., rectangular rapid flashing beacons, pedestrian hybrid beacons), leading pedestrian intervals, crosswalk striping, and curb bulbs. Support and promote a Point-of-Sale ordinance and program that ensures certain conditions are met when property ownership changes, specifically sidewalk repairs and sidewalk infill.
- Ensure that the design of new developments support pedestrian safety and ADA accessibility, including limiting driveway access, and encourage site design that reduces pedestrian conflicts.
- Strengthen code requirements to require the construction of ADA ramps and missing link sidewalk and the repair of unfit/unsafe sidewalks and noncompliant driveways.
- Align design requirements for pedestrian and bicycle infrastructure and crossings with recognized best practices, such as the National Association of Transportation Officials design guidance.
- Evaluate the potential for shared space design approaches that allow pedestrians, cyclists, and motorists to operate within the same space—provided that such designs will promote safety for all users.

4.3.3.3 Bicycle Improvements

- Continue to implement the planned bicycle network included in the TMP. Support bicycle travel with the provision of bicycle parking on public facilities and through requirements as part of private development.
- Consider other programs to mitigate vehicle traffic effects and promote mode shift to bicycles, including e-bike incentive programs.

4.3.3.4 Transit Improvements

- Continue to work in partnership with Pierce Transit and Sound Transit to deliver transit improvements included in the ST3 and Pierce Transit plans for enhanced bus service and improve access to transit with active transportation improvements.
- Continue to implement access to transit improvements included in the current TMP and the 2024 update.

4.3.3.5 Financing

Consider impact fees, bonds, and business license fees,

4.3.3.6 Automobile Improvements

- Explore strategies to address segments of principal arterials that are expected to perform below City standards, including opportunities to optimize travel times through lane reconfiguration, transit system priority, or signal retiming. Consider implementing transportation demand management strategies and active transportation and transit investments to reduce SOV trips, particularly during peak times.
- For surface facilities that are integrated in the City's transportation network and owned by WSDOT, the City could work with WSDOT to determine appropriate conceptual improvements that mitigate impacts by anticipated growth by 2050. Conceptual improvements for traffic mitigation shall be consistent with City policy, including the Transportation Master Plan, Vision Zero Action Plan, and Complete Streets.

4.3.3.7 TDM and Parking Management Strategies

The City of Tacoma has established a Commute Trip Reduction Program and a TMP, but these strategies could be enhanced with parking management and more targeted programs for smaller employers. The City could consider specific strategies to incentivize modes other than driving, such as the following:

- Reductions in required parking for new residential and nonresidential development.
- Requirements and incentives to include bicycle parking and related amenities in development.
- Transit incentives and transit pass programs for residents and businesses.

Parking management strategies include management of both the supply of parking and demand for parking within the City of Tacoma. On-street, public off-street, and private off-street parking in Tacoma can be managed through a variety of strategies that including:

- Regular assessment of paid parking performance to ensure rates and time limits align with target parking occupancy and utilization.
- Expansion of paid and time-restricted parking.
- Planning for accessible parking in the public right-of-way.
- Shared parking between land uses or as part of a shared parking system that opens off-street parking for public use.
- Dedicated spaces for carpooling and vanpooling vehicles, or restrictions at certain times of day.
- Dynamic signage to direct drivers to off-street parking facilities with available spaces.

- Designated pick-up and drop-off locations and short-term delivery spaces in areas with higher volumes of curbside deliveries.

4.4 Public Services

This section provides an overview of the existing public services that may be affected by the alternatives under consideration in this EIS and evaluates the potential impacts. Potential mitigation measures that could further reduce potential impacts are also identified.

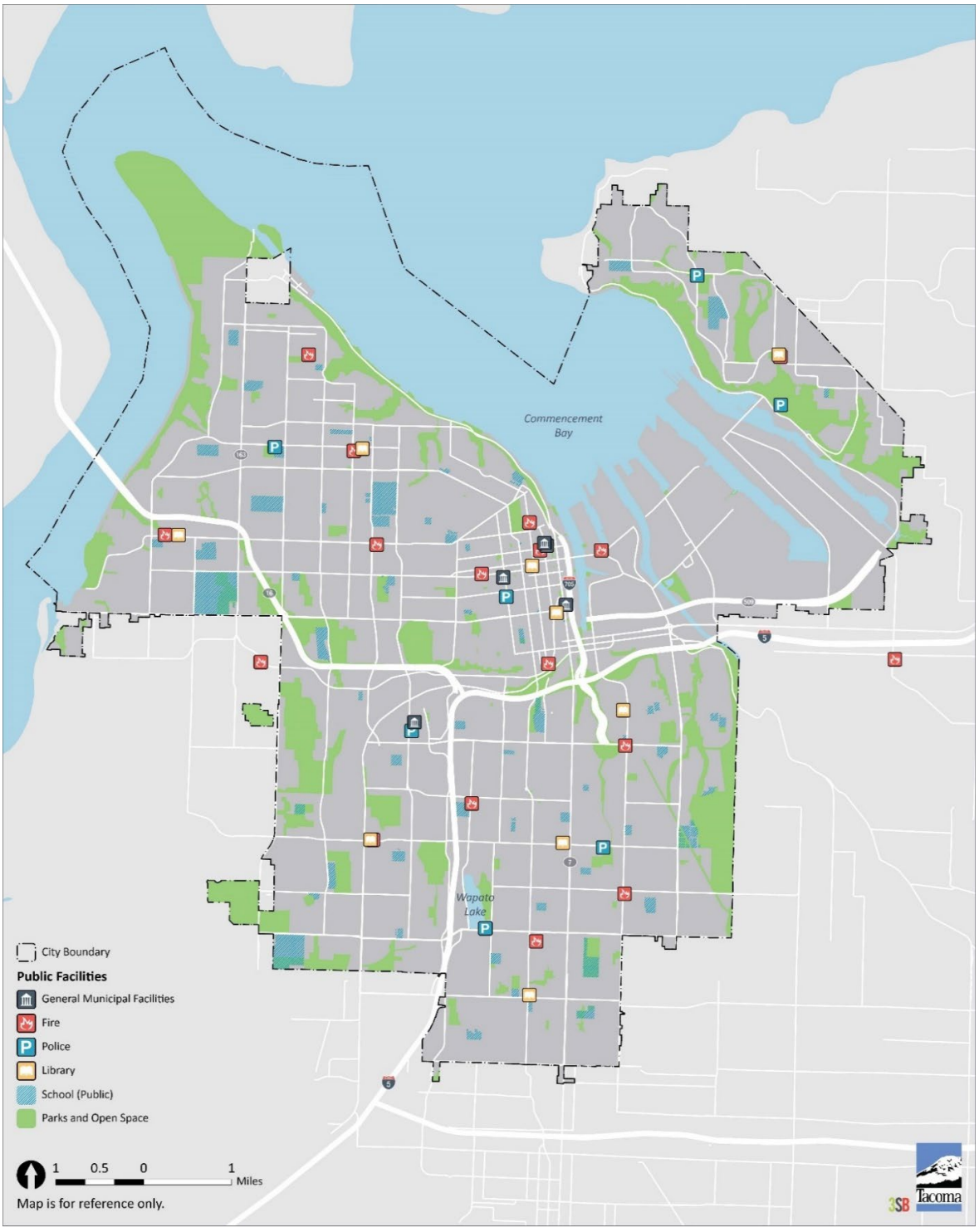
4.4.1 Affected Environment

A list of public facilities and service providers in Tacoma is included in Table 4.4-1, and some of the key public facilities in Tacoma are shown in Figure 4.4-1.

Table 4.4-1. List of Public Facilities and Service Providers

Type of Service	Provider
General Municipal Facilities	Tacoma Public Works Department
Fire	Tacoma Fire Department
Libraries	Tacoma Public Libraries
Police	Tacoma Police Department
Schools	Tacoma Public Schools

Figure 4.4-1. Key Public Facilities Map



4.4.1.1 Policies and Regulations

Guiding regulations, plans, and policies pertinent to this analysis include:

- GMA concurrency policies.
- Capital Facilities Plan policies.
- Tacoma Capital Facilities Program, 2021–2026.
- Tacoma Fire Department Annual Reports, 2015–2019.
- Tacoma Fire Department Community Risk Assessment and Standards of Cover Study, 2023.

4.4.1.2 Existing Conditions

Tacoma Fire

The Tacoma Fire Department provides services to a wide range of populations, including residents, businesses, and students, as well as safeguarding nonresident populations and tourism. The service area covers 72 square miles (TFD 2020). As of 2022, the Tacoma Fire Department employed 504 staff, including 445 commissioned personnel and 59 non-commissioned personnel (TFD 2022), and stations are staffed by engine, medic, air car and ladder companies. Tacoma Fire Department stations are staffed daily districtwide by a minimum of 83 fire station personnel 24 hours per day (TFD 2023). In addition to responding to calls for fire or emergency response, the Tacoma Fire Department performs fire code inspections, pre-fire planning, community presentations on fire prevention, and other public safety issues (TFE 2020).

According to a Risk Assessment Report prepared in 2023, "the [Fire] Department is organized to accomplish 'yesterday's mission' and is struggling to meet current EMS [emergency medical services] workload demand, much less the impending impacts of future growth." Current demand occasionally exceeds quality of care and crew workload limits. The growth in population and medical incident demand, which has occurred in the city over the past decade and is projected to continue, has strained the Department's response times[12] (Tacoma 2023). In 2021, the Tacoma Fire Department determined that no station area met the goal of 4 minutes for 90% of incidents.

Recent response performance data is shown in Table 4.4-2 and information regarding current Fire Stations is included in Table 4.4-3.

Table 4.4-2. Response Performance Summary (2021)

Response Component	Best Practice Time	90th Percentile Performance	Performance Versus Best Practice and Time Reference Current Goal
Call Processing/Dispatch	1:30	1:57	+ 0:27
Crew Turnout	2:00	2:10	+ 0:10
First-Unit Travel	4:00	7:45	+ 3:45
First-Unit Call to Arrival	7:30	11:08	+ 3:38
ERF Call to Arrival	11:30	14:51	+ 3:21

Source: Citygate Risk Assessment Report, 2023.

[12] Citygate Risk Assessment Report, 2023.

Table 4.4-3. Current Fire Stations (2023)

Station	Address	Response Resources	Minimum Daily Staffing
1	901 Fawcett Ave	Engine 1 Ladder 1	3 3
2	2701 Tacoma Ave S	Engine 2 Battalion 2 Safety 3 Medic 3	3 1 1 2
3	206 Browns Point Blvd	Engine 3	3
4	1453 Earnest S Brazill St	Engine 4 Medic 4	3 2
5	3510 E 11th St	Engine 5	3
6	1015 E F St	Aid 1 EMS 1	2 1
7	5448 S Warner St	Engine 7	3
8	4911 S Alaska St	Engine 8 Truck 2 Medic 2 Battalion 3 Aid 2 Rescue 8	3 3 2 1 2 **
9	3502 6th Ave	Engine 9 Battalion 1 Aid 4	3 1 2
10	7247 S Park Ave	Engine 10	3
11	3802 E McKinley Ave	Engine 11 Medic 5 Aid 5	3 2 **
12	2015 54th Ave. E., Fife	Engine 12 Ladder 4 Aid 3 HazMat 12	3 3 2 **
13	3825 N 25th St	Engine 13 Ladder 3	3 3
14	4701 N 41st St	Engine 14 Fireboats	3 **
15	6415 E McKinley Ave	Engine 15	3
16	7217 6th Ave	Engine 16 Medic 1	3 2
17	302 Regents Blvd, Fircrest	Engine 17 Aid 7	3 *
	Wapato Police Substation 1501 S 72nd St	Aid 6	*
Total Daily Response Staffing			83

* Peak-hour staffing (+ six firefighters) by overtime only 7:30 a.m. – 7:00 p.m. Not included in minimum daily staffing.

** Cross-staffed as needed by on-duty personnel.

Tacoma Police

The City of Tacoma is served by the Tacoma Police Department, which is responsible for law enforcement services. In 2019–2020, the Tacoma Police Department had approximately 406 full-time employees, including approximately 207 patrol service officers, 19 homicide or special assault officers, five homeless outreach team members, and several administrative or support service specialists (City of Tacoma 2021). As of 2020, a study found that Tacoma Police patrol and investigation workloads exceed the levels required to deliver services effectively, and the department has not been at full staffing since 2008 (TPD 2020).

Police responded to 195,948 calls for service districtwide in 2019, a 2% increase over 2016.

The department operates from various locations, including the Police Headquarters situated at 3701 S Pine Street, five substations, a firearms range, and a warehouse. The total combined square footage of these facilities amounts to 85,043 square feet. Tacoma has set a level of service (LOS) standard for police facilities at 288.58 square feet per 1,000 people (One Tacoma Public Facilities and Services Element Policy PFS-4.3). Currently, TPD surpasses this standard.

The Patrol Division facilitates law enforcement patrol coverage 24 hours a day, 7 days a week, with three overlapping shifts. On average, there are approximately 21 officers patrolling Tacoma at any given time. The city is divided into four sectors comprised of approximately five officers per sector. Each Patrol Officer responds to approximately 20 calls per shift and writes approximately six reports (City of Tacoma) (Figure 4.4-2).

Figure 4.4-2. Tacoma Police Call Data

	2015	2016	2017	2018	2019	5-Year Average
Population	202,300	206,100	208,100	209,100	211,400	
Citywide Calls for Service	N/A[a]	192,156	189,595	192,358	195,948	0.92 per capita (923 per 1,000 residents)

Source: TPD 2023.

[a] Data are not available for calls to service in 2015.

Schools

Tacoma Public Schools is the third largest district in Washington state, serving more than 28,000 students in preschool through grade 12. The district has 36 elementary schools, 13 middle schools, 11 high schools, and 4 early learning centers. These schools are located throughout neighborhoods in Tacoma and Fircrest. Tacoma Public Schools has more than 5,000 employees and is one of the largest employers in Tacoma.

4.4.2 Potential Impacts

4.4.2.1 Impacts Common to all Alternatives

The likely net new units anticipated to be constructed under any of the alternatives would increase density, including both population and employment growth, which will result in increased demand for public services. Increases in population density under all alternatives could increase the number of calls for police and medical emergency services. Increases in traffic-related to growth under all alternatives could affect the response time of emergency vehicles. Increases in population could occur and increase the use of existing schools, as well as create a need for new educational facilities.

Fire and Police

Under all alternatives, future population growth is likely to increase the demand for emergency services and increase response time. Additional services will be needed throughout the city to serve the planned growth and existing facilities may need to be expanded or new facilities built. Road infrastructure that effectively facilitates the flow of traffic also improves response times for emergency services. If roadways exceed LOS with increased density, this could reduce the reliability of police and fire response during peak hours. These findings are outlined in Section 4.3, Transportation.

Although demand for emergency services and response time are expected to increase due to anticipated population growth under any of the alternatives, research and urban planning studies suggest that there can be a connection between meeting people's housing needs and crime rates in a city (HUD 2016), which could result in the impacts between the alternatives being narrower. Several factors contribute to this connection including the following:

- Housing Stability – Adequately meeting people's housing needs and providing stable housing can have a profound impact on public safety. When individuals have secure housing, it reduces stress and alleviates socioeconomic pressures that may contribute to criminal behavior. Stable housing not only provides a sense of security for residents but also fosters a strong sense of community, creating an environment less conducive to criminal activities.
- Eyes on the Street/Activated Public Spaces – The design of urban spaces plays a crucial role in enhancing public safety. Creating environments that encourage community engagement and have "eyes on the street" is a recognized strategy. This concept, popularized by Jane Jacobs in her seminal work The Death and Life of Great American Cities (1961), emphasizes community-oriented urban design, mixed-use neighborhoods, and the importance of constant community presence to foster safer and more vibrant communities.
- Walkable Neighborhoods – The walkability of neighborhoods contributes significantly to increased community interaction, positively influencing public safety. In walkable communities, residents strolling through their neighborhoods promote social cohesion and act as a natural form of surveillance, making it less likely for criminal activities to go unnoticed.
- Ownership Opportunities – Ownership opportunities have been linked to community investment and a heightened sense of responsibility among residents. This mix contributes to the creation of safer neighborhoods where individuals feel a stronger connection to their community and are more likely to actively contribute to its well-being.
- Community Engagement – Actively involving residents in their community fosters a sense of shared responsibility for safety. When community members engage in collaborative efforts for crime prevention, it creates a stronger sense of cohesion and solidarity. This shared commitment contributes significantly to the overall safety and well-being of the neighborhood.

Call Volume Impacts

The Home In Tacoma initiative will result in population growth that will increase emergency calls for both the Tacoma Police Department and Tacoma Fire Department.

Response Times Impacts

Home In Tacoma will increase overall VMT and result in increased on-street parking and traffic congestion that could impede timely emergency response.

The proposed infill of mid-scale housing types, such as two- and three-family attached housing and low-scale multifamily dwellings without off-street parking, will make timely emergency response challenging. Side streets, especially narrow ones throughout the City's residential neighborhoods, are already congested and will become more so if the parking issues are not addressed.

Currently, there are some open parking spaces on residential streets for vehicles to pull over and merge with fire department response vehicles when responding with lights and sirens. Once all parking spaces are full beyond design capacity, these open parking spaces are lost and will impact the capability of large emergency response vehicles to navigate the City's narrow streets when responding safely to calls.

Schools

The anticipated population growth resulting from the implementation of the alternatives, coupled with increased densification, may reverse the declining trend in school enrollment observed in Tacoma. How much density the alternatives produce will determine the school districts/areas most affected. The costs associated with school construction and maintenance are likely to increase over time along with the cost of land and construction materials. Regular capital facility planning, adjustments to attendance areas, amendment of the impact fees where appropriate, bonds, levies, and other steps could be taken as growth occurs to reduce impacts to a less than significant level.

Rapid growth in specific areas could significantly impact school enrollment, presenting both challenges and opportunities for the local educational system. Challenges include potential strain on existing capacity, requiring immediate infrastructure upgrades or new facilities, as well as adjustments in resource allocation and a transitional phase where infrastructure may struggle to meet demand.

4.4.2.2 Potential Impacts of the Baseline Alternative

Under the Baseline Alternative, development would continue at the current pace with slower change in the density or scale of new construction than the action alternatives. Population growth would continue to result in an overall rise in the demand for public services but would be consistent with the population growth planned for in the One Tacoma Plan.

Under the Baseline Alternative, the Police department anticipates it will need an additional 9,582 square feet by 2040 to maintain its LOS standard (One Tacoma).

4.4.2.3 Potential Impacts of the Lower Zoning Alternative

The potential impacts to public services under the Lower Zoning Alternative would be slightly greater than those identified for the Baseline Alternative. However, providing services on a per capita basis is more cost-efficient, even though per capita demand would be lower.

4.4.2.4 Potential Impacts of the Higher Zoning Alternative

The Higher Zoning Alternative would place the greatest demand on public services. However, providing services on a per capita basis is more cost-efficient, even though per capita demand would be lower.

4.4.2.5 Comparison of Impacts

Any of the alternatives could have potentially significant adverse environmental impacts to public services if the proposed actions could lead to development that exceeds the ability to provide the public service at the desired LOS. However, any proposed action would be required to comply with

the One Tacoma Plan, applicable subarea plans, local regulations, and codes. The proposed actions would also be subject to all applicable Tribal, federal, state, and local laws, regulations, and permitting requirements. The plans, laws, and regulations require that new development does not exceed service capacity. Therefore, none of the alternatives would be expected to result in a significant adverse impact on public services or utilities.

A comparison of likely call volume impacts to the Tacoma Fire Department, are shown in Table 4.4-4.

Table 4.4-4. Tacoma Fire Department Call Volume Impacts

Alternative	New Housing Units	X 2.4 People Per Household	Estimated Population Growth	*Per Capita Call Rate	Annual Call Growth Estimate
Baseline	3,887	2.4	9,328	200	1,865
Lower Zoning Alternative	25,656	2.4	61,574	200	12,314
Higher Zoning Alternative	53,619	2.4	128,685	200	25,373

*Per Capita call rate is 200 calls per 1,000 population

Source: TFD 2023

Police call volumes may increase similarly to those to TFD, however population growth does not directly correlate to an increased demand for police services.

Increased demand for services from TFD under each of the alternatives would require additional equipment, facilities, and staffing; the differences are illustrated in Table 4.4-5.

Table 4.4-5. New Equipment and Facilities Needed to Meet Demand

Alternative	Apparatus/Staffing	Apparatus/Staffing	New Fire Stations
Baseline	1 engine/14 firefighters	1 ambulance/10 firefighters	0
Lower Zoning Alternative	4 engines, 1 ladder/70 firefighters	4 ambulances/ 40 firefighters	2
Higher Zoning Alternative	9 engines, 1 ladder/140 firefighters	8 ambulances/ 80 firefighters	5

The population growth that is likely to occur under all alternatives would result in an increase in school enrollment. A comparison of this likely increase is shown in Table 4.4-6.

Table 4.4-6. Population Increase and School Enrollment Projections

Alternative	Likely New Housing Units	Estimated Population Growth[a]	Estimated School Enrollment (Assuming 0.5 students per household)
Baseline	3,840	9,216	1,920
Lower Zoning Alternative	25,660	61,584	12,830
Higher Zoning Alternative	53,620	128,688	26,810

[a] Assumed 2.4 people per likely new unit.

The Higher Zoning Alternative would have the greatest total number of students and the Baseline Alternative would have the least. New, expanded, or remodeled schools may be necessary for the Lower and Higher Zoning Alternatives as compared to the Baseline Alternative.

4.4.3 Potential Mitigation Measures

Potential mitigation that could be considered to reduce potential impacts to public services includes:

- Emergency Services Optimization: Optimize emergency services by increasing staffing levels, improving response times, and ensuring resources are adequately allocated to address increased demands.
- Community Services Expansion: Plan for expansion of community services including park access, recreational facilities, and social services, to meet the needs of the growing population.
- Impact fees: Adopt impact fees to support additional equipment, facilities, and staff, including school infrastructure.
- New service models: Consider shifting some current TPD responsibilities, such as encampment outreach, connection to services, and mental health or homelessness-related issues, to outside organizations, diverting nonemergency calls to noncommissioned officers or other best practice approaches.
- Capacity Analysis: Conduct a thorough demographic analysis to understand current and projected population growth. Identify areas experiencing the most significant growth and anticipate the impact on school enrollment.
- Infrastructure Planning: Assess the capacity of existing school facilities to accommodate additional students. Assess and improve pedestrian and bicycle infrastructure to ensure safe routes to schools. Collaborate on infrastructure planning to expand or build new schools where necessary.
- Zoning and Land Use Planning: Ensure that zoning regulations align with educational needs and allow for the establishment of schools in higher growth areas. Collaborate on land use planning to designate suitable locations for educational facilities. Establish clear criteria for selecting school sites based on population density, accessibility, and future growth projections.
- Transportation Planning: Evaluate transportation infrastructure to ensure safe and efficient access to schools, with a priority on students walking and rolling. Plan for increased transportation needs resulting from population growth.
- Public School Expansion: Plan for the expansion of public educational facilities to accommodate the growing student population, considering new school construction or additions to existing schools.
- Innovative School Solutions: Consider innovative solutions, such as modular classrooms, shared facilities, or adaptive reuse of existing buildings, to address needs.
- Boundary Adjustments: Modifying school boundary lines to evenly distribute the increased student population and maintain manageable class sizes.
- Portable Classrooms: Adding temporary portable classrooms to accommodate the surge in student enrollment until permanent solutions can be implemented.
- Transportation (Safe Routes to Schools): Evaluate, adjust, and improve school walking routes to ensure safe and reliable walking and rolling routes for students and to minimize increased demand for bussing services.

- Transportation (Bussing): Evaluate and potentially adjust transportation plans to efficiently manage increased demand for bussing services, ensuring safe and reliable transportation for students.
- Office of Superintendent of Public Instruction Standards: Adhere to standards set by the Office to ensure that any changes align with educational guidelines and regulations.
- School Yards: Consider the impact on school yards and outdoor spaces, and explore opportunities to enhance or modify these areas to accommodate increased student activity.
- Community Gathering Spaces: Recognize the importance of schools providing community gathering spaces, and assess how the increased density may affect these areas, including potential modifications or additions.

4.5 Utilities

This section discusses existing utilities in Tacoma and evaluates the potential impacts of the Proposal, including potential shifts in demand, infrastructure changes, and the overall ability of key utilities to accommodate increased density and changes to land use. This section also identifies potential mitigation strategies and innovative approaches to manage increased demand, enhance infrastructure resilience, and ensure the continued reliability of essential utilities.

4.5.1 Affected Environment

4.5.1.1 Policy and Regulatory Framework

Utilities in Tacoma are guided by the following plans, policies, and regulations:

- NPDES Permit, which establishes requirements for mapping, reporting, operation, effluent limits (wastewater only), and maintenance requirements for the City's wastewater and storm systems.
- TMC, including Chapter 12.08, Wastewater and Stormwater Management, Chapter 12.09, Solid Waste, Recycling and Hazardous Waste, Chapter 12.10, Water Regulations and Rates, Chapter 12.06, Electric Energy – Regulations and Rates, and Chapter 12.06A, Electrical Code
- City of Tacoma Right-of-Way Design Manual, Chapter 11, which establishes minimum design standards for infrastructure improvements.
- City of Tacoma Stormwater Maintenance Manual, which establishes minimum requirements for new and redevelopment stormwater management.
- City of Tacoma Side Sewer and Sanitary Sewer Availability Manual, which establishes minimum requirements for side sewers and policies around extension or upsizing of pipes due to private development.
- PSCAA Air Permit, which regulates air quality and odor control system at wastewater treatment plant and collection systems (including pump stations).
- Tacoma – Pierce County Solid and Hazardous Waste Management Plan: 2021 – 2040
- Water System Plan, which demonstrates system capacity and how the system will address present and future needs in a manner consistent with other relevant plans and applicable laws.
- The Tacoma Water 2018 Integrated Resource Plan (IRP), which identified improvements needed to meet future water needs (not including the Proposal).

- The Tacoma Water Conservation Plan 2018, which focuses on summer peak reduction and education of the vital resource for prosperity of the region.
- The Tacoma Water Customer Service Policies, which state requirements for existing customers and customers applying for connection to Tacoma Water's system.
- The Tacoma Power 2022 IRP, which identifies a resource strategy to meet future electrical load.
- The Tacoma Power Customer Service Policies, which state requirements for existing customers and customers applying for connection to Tacoma Power's system.
- The Tacoma Power Conservation Potential Assessment 2022–2041, which identifies areas for potential electrical energy conservation measures.

4.5.1.2 Existing Conditions

Water Supply

Tacoma Water, a division of Tacoma Public Utilities, provides potable water throughout Tacoma, including the designated Low and Mid-scale areas, as well as portions of the Puyallup Indian Reservation, portions of nearby cities including University Place and Federal Way, Pierce County unincorporated areas, and other nearby areas, including areas in King County. Tacoma Water serves 101,197 residential customers and 6,945 commercial or industrial customers (Tacoma Water 2023).

Tacoma Water owns and maintains over 1,400 miles of water mains, and numerous pump stations, reservoirs, standpipes, and wells. The Green River, located in King County, is the primary source of water for Tacoma Public Utilities. The Green River Filtration Facility can treat up to 150 million gallons a day for Tacoma Water and Regional Water Supply System Partners (City of Kent, the Covington Water District, and the Lakehaven Water and Sewer District). Local wells can also supply up to 40 million gallons per day. Tacoma's water storage amounts to 67.6 million gallons in McMillin Reservoir and 69.9 million in 17 other reservoirs and standpipes (Tacoma Public Utilities 2023).

Households served by Tacoma Water used an average of 168 gallons of water per day between 2018 and 2022.

The current One Tacoma Public Services and Facilities element goals are intended to ensure public facilities and services necessary to support development are planned, sized, and constructed to serve new development. Such facilities and services will be designed to meet the capital facility needs of the community and to support Tacoma's land use growth and development concept. In situations where the public facility is not owned directly by the City, the City will encourage the provision of adequate services and coordinate with the responsible agency and requires certain public facilities and services to be available concurrent with development.

Under existing regulations, developers are responsible for the cost of water main extension, upsizing to support development requirements, hydrants, and new services so that the there is no impact to the existing customers. Infrastructure for new development is charged in accordance with TMC 12.10 and may include the cost of mains, inspection, fees, services, meters, and any necessary fire protection services. A system development charge will be imposed on new or expanded services. Adequate provisions must be made to allow those who develop new services to recover water main extension costs from those who subsequently use those water mains. Tacoma Water also offers the Private Contract program and Local Improvement District program as means to design, construct, and finance needed water infrastructure.

Stormwater Management

Tacoma's Environmental Services Department maintains more than 500 miles of public stormwater pipe, 22,000-plus storm drains (catch basins), four pump stations and numerous detention ponds/structures and implements the City's stormwater management program, which is discussed further in Section 3.2. The collection system pipes date back to the early 1880s. For the most part, the collection system stormwater pipes have been extended over time as areas of the city developed and some current residential areas do not have stormwater services (i.e., catch basins and pipes that convey stormwater).

The stormwater collection system is primarily a gravity system, which means the capacity of the system to convey stormwater runoff from catchment area (impervious and pervious surfaces) resulting from rainfall is dependent on the size and slope of the pipes and the size of inlets into the pipes. The existing collection system was sized based on the assumed buildout condition determined by the allowable density of the land use zoning in place at the time of construction. The expected service life of pipes are typically around 100 years; therefore, changes in zoning may require a pipe to be replaced before the end of its useful life.

Currently the stormwater utility is working on the development of a Stormwater Comprehensive Plan to ensure that the utility can meet future capacity requirements.

Wastewater Treatment and Collection System

Tacoma's wastewater facilities include the Central and North End Wastewater Treatment Plants, over 700 miles of collection system sewer pipe and 50 pump stations. The Central and North End Wastewater Treatment Plants provide wastewater treatment for the City of Tacoma, parts of Pierce County, and the cities of Milton (via Pierce County), Fife, Fircrest and Ruston. Wastewater from the Western Slopes area of Tacoma is treated at the Pierce County Chambers Creek Regional Wastewater Treatment Plant, through an inter-local agreement with Pierce County.

Like the City's stormwater infrastructure, the City's wastewater collection system dates back to the early 1880s, with the original construction of the Central Treatment Plant and the North End Treatment Plant occurring in 1952 and 1967, respectively. The collection system sewer pipes have been extended over time as areas of the city developed and the treatment plants have been upgraded over time to address new regulatory requirements. Side sewer pipes that connect individual homes to the public sewer pipes are considered private and the responsibility of the homeowner to maintain.

Typical to most collection systems, the collection system is influenced by inflow and infiltration (I/I). Inflow is stormwater that enters the wastewater collection system via a direct connection to the system, such as roof drain and downspout connections, foundation drains or inappropriate storm drain connections. Infiltration is stormwater that enters the sewer system by percolating through the soil and then through defects in private side sewers or public sewer pipes. Wastewater systems are designed with capacity for a reasonable amount of I/I. Currently, during major wet-weather events portions of the collection system may surcharge due to high levels of I/I. The City has an ongoing rehabilitation and replacement program for the collection system, which should result in a reduction in the amount of I/I over time.

Again, like the City's stormwater infrastructure, the City's wastewater collection system is primarily a gravity system, which means the capacity of the system to convey wastewater is dependent on the size and slope of the pipes. The existing collection system was sized based on the allowable density of the land use zoning in place at the time of construction. The expected service life of pipes are typically around 100 years; therefore, changes in zoning may require a pipe to be replaced before the end of its useful life.

Currently the wastewater utility is working on the development of a Wastewater Comprehensive Plan to ensure that the utility can meet future capacity requirements.

Solid Waste Management

Tacoma's solid waste utility (Solid Waste Management) provides curbside services to over 58,500 residential and commercial customers within the city, including the collection of garbage, recycling, and food/yard waste. Solid Waste Management also offers self-haul alternatives for disposing of garbage, recycling, yard waste, and household hazardous waste at the Tacoma Recovery and Transfer Center (City of Tacoma 2020).

Tacoma is dedicated to diverting 70% of solid waste from landfills by 2028 (Resolution No. 38907, May 2014). However, additional efforts are necessary to reach the target of 70% diversion by 2028, particularly when accounting for the projected increase in waste resulting from population and economic growth (City of Tacoma 2015).

In 2015, the Office of Environmental Policy and Sustainability and Solid Waste Management, both departments under Environmental Services, collaborated on a study to evaluate Tacoma's present waste stream and recycling levels. The study also included projections of future diversion levels under normal operating conditions, along with an analysis of alternative options and strategies to attain the 70% diversion objective. In order to reach the recycling rate of 70% by 2028, the City will have to recuperate an additional 62,000 tons, which accounts for roughly 50% of the recoverable tons found in Tacoma's discarded waste stream. These tons will necessitate the implementation of new and expanded programs, investments, incentives, regulations, and other initiatives (City of Tacoma 2015).

Multifamily properties are currently not required to provide recycling and organics collection services for their tenants; however, collection companies must offer these services to interested properties. These services can be provided by Solid Waste Management, or any permitted hauler licensed to do business in the City of Tacoma. New solid waste legislation that would require recycling at multifamily properties is currently under consideration.

Tacoma's Sustainable Materials Management Plan offers metrics and suggested key performance indicators to assist in measuring progress. These indicators take into account factors such as population growth, economic fluctuations, emerging waste materials, and the comprehensive environmental impact associated with material usage. By considering these aspects, the plan enables Tacoma to track advancements and ensure sustainable practices throughout the lifecycle of materials (City of Tacoma 2015).

Electricity

Tacoma Public Utilities (Tacoma Power) is the primary provider of electrical power to Tacoma and the surrounding Urban Growth Area, supplying electricity to approximately 181,630 residents throughout Tacoma, University Place, Fircrest, Lakewood, Federal Way, Steilacoom, Joint Base Lewis McChord, parts of Fife, and other regions of Pierce County. Tacoma Power relies on a combination of sources for electricity generation. A little over half of Tacoma Power’s electricity is obtained through a long-term agreement with the Bonneville Power Administration, and the remaining portion is produced by Tacoma Power themselves, utilizing four hydroelectric generation projects situated on four rivers in western Washington that they own and operate (Tacoma Public Utilities 2022).

Hydroelectric projects include the following:

- Cowlitz River Project
- Nisqually River Project

- Wynoochee River Project
- Cushman Hydroelectric Project

Demand for energy in Tacoma has been less than the existing power supply over the past decade or so.

Utilities from Other Providers

Other utilities are provided by various service providers, including natural gas, telecommunications, and irrigation district facilities.

Natural gas service is provided to Tacoma residents and businesses by Puget Sound Energy, a private utility providing natural gas and electric service to homes and businesses in the Puget Sound region of Western Washington and portions of Eastern Washington, covering 8 counties and approximately 6,000 square miles. As of March 2015, Puget Sound Energy provides natural gas service to approximately 38,920 customers within the City of Tacoma. About half the gas is obtained from producers and marketers in British Columbia and Alberta, and the rest comes from Rocky Mountain states. To meet the regional and City of Tacoma's natural gas demand, Puget Sound Energy's delivery system is modified every year to address new or existing customer growth, load changes that require system reinforcement, rights-of-way improvements, and pipeline integrity issues (One Tacoma).

Telecommunications services in Tacoma are provided by private companies, which have established infrastructure throughout the city, encompassing lines, poles, cables, antennas, towers, and system hubs. The City has a franchise agreement in place with the private cable provider Comcast. Another private cable provider, CenturyLink, serves the city and is exempt from requiring a franchise agreement under state law due to its lengthy operation history.

Additionally, the City has franchise agreements with several private telephone providers, including Integra, Sprint, Level 3, Zayo, TW Telecom, and LS Networks. Currently, the City is in the process of renegotiating its franchise agreement with AT&T. The existence of these franchise agreements fosters healthy competition among the various service providers.

4.5.2 Potential Impacts

4.5.2.1 Impacts Common to All Alternatives

The likely net new units anticipated to be constructed under any of the alternatives would increase density, including both population and employment growth, which will result in increased demand on utilities. Providing utilities can be more efficient with increased density.

Demand for Water

Under all of the alternatives, overall water use likely will increase due to a greater number of customers. The Home In Tacoma growth projections will create a large increase in demand if realized. Generally, the Lower Zoning Alternative may result in a 10% demand increase of Tacoma Water's retail demand, and Higher Zoning Alternative may result in a 20% demand increase of Tacoma Water's retail demand.

City of Tacoma single and multifamily residential customers used an average of 168 gallons per day between 2018 and 2022. On average, new middle housing water use is anticipated to use less water than the 168 gal/day/household average due to more efficient plumbing fixtures.

An indirect impact of the Proposal would be an increased demand for water for commercial uses, which would likely increase as additional growth occurs.

Water Supply

Demand for drinking water would increase with each of the alternatives. As discussed in Section 4.5.1, Tacoma Water relies on the conjunctive use of surface and groundwater to meet customers' demands for water. Tacoma Water provides water service to residences, businesses and industries located in the cities of Tacoma, University Place, Puyallup, Bonney Lake, Fircrest, Lakewood, Federal Way, and the town of Ruston. Tacoma Water also serves portions of Pierce and southern King County. Tacoma Water provides wholesale water supplies to independent water purveyors operating in Pierce and King counties. Tacoma Water is also a participant in a regional partnership known as the Regional Water Supply System formed by Tacoma Water, the Lakehaven Utility District, the City of Kent, and the Covington Water District.

The growth due to Home In Tacoma will be spread throughout the city since the existing Single-Family zoning is also spread throughout the city. Therefore, impacts to the existing water system as a result of that growth likely will also be spread throughout the water system, including, and not limited to reservoirs, transmission pipes, pump stations, wells, treatment systems, distribution mains, and fire hydrants.

The demand changes due to Home In Tacoma noted above will likely require improvements to supply and transmission infrastructure to serve additional customers. The specific improvements to supply infrastructure are not known at this time and will be dependent on the location and quantity of additional demands. In general, additional water storage and pumping facilities will be needed to meet higher peak system demands associated with the growth due to the action alternatives. This could require construction of additional facilities to access supplies or storage in other parts of the system.

The Tacoma Water 2018 IRP identified improvements in water supply were necessary to meet future water demands, which did not include the proposed increases from Home In Tacoma Alternatives. Therefore, additional supply improvements would be needed to meet the increased demand proposed in Home In Tacoma alternatives. The Tacoma Water IRP is planned to be updated in 2025, and it will document the results of additional water supply analysis and required improvements.

Localized impacts to existing and new customers in the distribution system will likely occur before supply impacts, where localized growth exceeds the distribution system capacity. Housing related projects which increase water needs beyond the capacity of the local distribution system may be delayed until improvements to the water system are completed.

In addition, increased demands from the proposed Home In Tacoma alternatives would cause reduced water system pressures throughout Tacoma, particularly on high-demand summer days. Distribution system improvements (pipelines, hydrants, etc.) would be necessary to maintain current pressures and ensure proper functioning of existing building fire suppression systems.

Stormwater

Based on current regulations, along with the change in zoning, most single development or redevelopment within the Proposal areas will require onsite stormwater treatment, and some will require flow control based on their particular location.

More density in an area increases impervious area resulting in more stormwater flow and pollutants and the need to treat the stormwater and convey the flow to receiving waters. The impact from the increased density will be based on the location of the development over time. Impacts to the collection system for the tributary area were evaluated using hydraulic modeling software and the

projected growth for each of the alternatives. All alternatives would add impervious areas with the greatest potential under the Higher Zoning Alternative.

Based on the 30-year projected growth rate, with development distributed equally across the proposed rezoned area, the Baseline Alternative, the Lower Zoning Alternative, and the Higher Zoning Alternative increase the number of flooding manholes by 30%, 98%, and 161%, respectively.

As development/redevelopment occurs over time, segments of the collection system may need to be upsized to provide adequate capacity. Some of these pipes may need to be replaced before their anticipated useful life. This will increase the amount of funding required to maintain the collection system.

Current policies related to the collection system will also need to be revised to address the impacts associated with the alternatives. Revised policies will likely require onsite flow control using stormwater best management practices, such as stormwater infiltration and flow control facilities, on all single development or redevelopment within the Proposal areas.

Neighboring jurisdictions served by Tacoma could also be required to change to a denser land use, this may also trigger capacity improvement projects in Tacoma. Local Jurisdictions all serve Tacoma, which may also trigger capacity improvement projects within their jurisdiction (Pierce County, WSDOT, Port of Tacoma, and neighboring cities) system. Both of these conditions will require full and partial funding, respectively, by the stormwater utility.

Energy

Additional population growth will result in additional demand for petroleum, natural gas, and electricity. Moreover, federal and state efforts to decarbonize, such as the Clean Energy Transformation Act and Washington State Climate Commitment Act, will affect the portion of energy delivered by electricity versus by fossil fuels.

Electricity

Over the past decade or so, Tacoma Power has experienced a period of stable customer demand that it has been able to meet comfortably with its existing power supply. However, many changes are on the horizon. There is a real possibility that Tacoma Power could experience substantial growth in customer demand from building and vehicle electrification, growth of data centers and policies and incentives to support green industrial development. Tacoma Power is analyzing the extent to which customer demand might grow over the coming decades and how quickly it might grow, but this is an area of substantial uncertainty. There are many scenarios in which Tacoma Power might need to supplement its current power supply with additional generating resources.

The Proposal's zoning changes are expected to primarily impact electricity consumption based on population growth. Changes to electricity consumption due to decarbonization efforts and climate change adaption (e.g., increased air conditioning usage) are being considered separately by Tacoma Power.

Tacoma Power anticipates transmission and distribution constraints in meeting future load growth, system reliability and operational flexibility. It will be necessary to address these constraints in order to operate and maintain a reliable and safe system.

Reductions in setback requirements and increases in allowable building heights may lead to increased conflicts between buildings and overhead power lines. The Washington Administrative Code typically requires 14 to 17 feet of clearance between buildings and power lines. In areas with existing overhead power lines, reducing setbacks from 20 to 10 feet may not significantly increase the buildable area unless the developer pays for the lines to be converted to underground

construction. Reduced setback requirements may also increase the cost and difficultly for Tacoma Power to site new power lines needed to serve the increased population density.

Solid Waste Services

An increase in housing options leads to an increase in population, which puts additional pressure on solid waste facilities. As the number of residents increases, the demand for waste disposal services also rises, leading to a greater strain on existing landfill and waste management resources. This escalating population trend necessitates careful planning, innovative strategies, infrastructure, and new programs to effectively manage and accommodate the expanding waste disposal needs. Current policies related to the collection system will also need to be revised to address the impacts associated with the alternatives.

With the expected growth of multifamily housing across Tacoma, there will be an opportunity to expand recycling collection services to these customers. The goal is to develop targeted campaigns to promote waste reduction, recycling materials with the highest GHG impact on the environment and to keep recyclable materials out of the landfill. The difficulty will be in reducing contamination in the recycle waste stream while increasing recycling diversion and expanding basic access to customers (Tacoma-Pierce County Solid Waste Management Plan 2021–2040).

According to the One Tacoma Plan, current landfill capacity is expected to be sufficient for at least six years. Before the City's contract with Pierce County expires in 2030, the City will have the option to extend or renegotiate the contract, or to put out a bid for alternative landfill services. The City has no plans to build a new landfill in the coming years. Presently, the City is in the process of formulating a waste management strategy and examining methods to redirect waste away from the landfill. These efforts might contribute to curbing the rise in demand for solid waste services until 2040 (One Tacoma, Public Facilities).

An increase in housing density will likely put a strain on road/alley access, especially for large collection vehicles. There will be limited space for solid waste container storage and set-out (footprint) requirements as well as limited service level options for customers.

Wastewater

The 30-year growth projections for each of the three Home In Tacoma alternatives were used to project future capacity requirements for the two treatment plants. These future capacity requirements were then compared to the permitted design capacities for flows and loadings for the Central Treatment Plant and the proposed re-rated capacity of the North End Treatment Plant to determine the impact of the Home In Tacoma alternatives. The results are as follows:

- North End Treatment Plant – The 30-year projected flows and loadings from all three Home In Tacoma alternatives are within the proposed re-rated capacity for flow, total suspended solids, and biological oxygen demand.
- Central Treatment Plant – The 30-year projected flows for Baseline Alternative and Lower Zoning Alternative are within the permitted capacity. The Higher Zoning Alternative is within the permitted capacity but is projected to exceed the 85% threshold of the permitted capacity prior to 2050. When the flows reach the 85% threshold, the wastewater utility is required to begin the planning process for upgrades to accommodate future growth.
- Central Treatment Plant – The 30-year projected loading for biological oxygen demand for all three alternatives are within the permitted capacity.
- Central Treatment Plant – The 30-year projected loading for total suspended solids for all three alternatives are within the permitted capacity. However, it is anticipated that the projected loadings for total suspended solids will exceed the 85% threshold for all three

alternatives. As part of the work associated with the Wastewater Comprehensive Plan, the wastewater utility is currently performing a Comprehensive Solids Assessment to evaluate alternatives to increase solids treatment capacity as well as address aging infrastructure needs.

Wastewater Collection System and Pump Stations

Impacts to the collection system and pump stations for each tributary area were evaluated using hydraulic modeling software and the projected growth for each of the alternatives.

Based on the modeling results for the 30-year projected growth rate, with development distributed equally across the proposed rezoned area, the Baseline Alternative will have deficient pipes that may require upsizing. The impacts from the Lower Zoning Alternative and Higher Zoning Alternative increase the number of deficient pipes that may need upsizing by an average of 9.5% and 12%, respectively.

As development and redevelopment occur over time, segments of the collection system will need to be upsized to provide adequate capacity. Some of the pipes will need to be replaced before their anticipated useful life. This will increase the amount of funding required to maintain the collection system.

The Interlocal Agreements with Pierce County for the treatment of wastewater for the Western Slope tributary area will need to be updated to reflect the need for additional capacity. This may also trigger capacity improvement projects within Pierce County's system that will require partial funding by the wastewater utility.

Telecommunications

Telecommunications services are mostly provided by regional providers that conduct their own planning processes to ensure that adequate system capacity is available to support future demand and that infrastructure is updated as necessary to serve growth. Under any of the alternatives, expansion of communication infrastructure in these areas could carry additional cost. For some services, such as cable television and internet, the decision to extend service would be at the discretion of the provider.

4.5.2.2 Potential Impacts of the Baseline Alternative

Water Supply

Tacoma Water's Water System Plan identified a 182 gallons per day per equivalent residential unit, which is approved by the City and Washington State Department of Health. A review of recent water use for single- and multifamily residential customers within only the City of Tacoma identified a slightly lower water use of 168 gallons per day per equivalent residential unit.

The Tacoma Water IRP (Tacoma Water 2018b) states that in both years 2037 and 2050, water resources will be adequate in all but the most stressed conditions. Under the most stressed conditions in 2050, the Resource Adequacy Standard would not be achieved. The IRP evaluated a range of alternative solutions that could contribute to future reliability of the water system. While the IRP analysis of Tacoma Water's supply system demonstrated that the system has ample water to meet customer needs under normal conditions, it also notes a record drought, such as the 2015 drought, would stress the system. The five alternatives considered in the IRP would enable Tacoma Water to meet the Resource Adequacy Standard through 2037. The IRP states that in the near term, Tacoma Water will implement improvements to enable its existing water supplies to provide optimal production and reliability. One item to note that was not included in the IRP, Tacoma Water is working with the U.S. Army Corps of Engineer's on the Additional Water Supply Project, which will

increase reliability of our Green River water supply. In the more distant future, Tacoma Water expects that improvements to continue meeting its water supply, customer service, and environmental obligations (Tacoma Water 2018b).

The IRP identified improvements did not include the proposed increases from Home In Tacoma Alternatives. Therefore, additional supply improvements would be needed to meet the increased demand proposed in Home In Tacoma alternatives.

Electricity

Tacoma Power expects no significant impacts, assuming the baseline quantity of additional housing is not condensed to a small geographical area. Impacts of dense baseline development could result in the need for expansion of existing distribution substations. This may also require additional overhead distribution lines with associated poles or replacement of existing poles with taller ones.

4.5.2.3 Potential Impacts of the Lower Zoning Alternative

The potential impacts of the Lower Zoning Alternative will be generally the same as the impacts common to all of the alternatives. A comparison of the potential impacts is included in Table 4.5-1.

4.5.2.4 Potential Impacts of the Higher Zoning Alternative

The potential impacts of the Higher Zoning Alternative will be generally the same as the impacts common to all of the alternatives. A comparison of the potential impacts is included in Table 4.5-1.

4.5.2.5 Comparison of Impacts

Table 4.5-1 is provided below for comparing and visualizing the potential impacts across the different utility categories and proposed alternatives.

Table 4.5-1. Comparison of Impacts to Utilities

Impact Category	Baseline Alternative	Lower Zoning Alternative	Higher Zoning Alternative
Water	**Shifts in demand:** Minimal increase in demand due to stable population growth. **Infrastructure changes:** Existing infrastructure may be sufficient in the near term. **Reliability:** Stable and reliable water supply for the near term.	**Shifts in demand:** 10% demand increase of Tacoma Water's retail demand. **Infrastructure changes:** moderate expansion of water distribution network to serve new developments; potential upgrades to treatment plants. **Reliability:** Slightly increased risk of supply interruptions due to increased demand; potential pressure variations.	**Shifts in demand**: ~20% demand increase of Tacoma Water's retail demand. **Infrastructure changes:** higher amount of expansion of water infrastructure to support higher population concentrations; major treatment plant upgrades may be necessary. **Reliability**: Increased risk of supply interruptions and pressure variations; potential challenges in meeting peak demand.

Impact Category	Baseline Alternative	Lower Zoning Alternative	Higher Zoning Alternative
Stormwater	**Shifts in demand:** Minimal near-term impact on stormwater infrastructure due to steady development. **Infrastructure changes:** Existing stormwater infrastructure is adequate near-term. **Reliability:** Current stormwater systems are reliable near-term.	**Shifts in demand:** Increased stormwater runoff from new developments; potential strain on existing systems. **Infrastructure changes:** Expansion of stormwater management systems including potential targeted green infrastructure and small regional stormwater facilities. **Reliability**: Slightly increased risk of localized flooding and drainage issues in new developments.	**Shifts in demand:** Significant increase in stormwater runoff due to higher concentration of density and development. **Infrastructure changes:** Major upgrades and expansion of stormwater management systems, including large-scale green infrastructure and regional stormwater facilities. **Reliability:** Increased risk of flooding, especially in higher-density areas; potential for overwhelmed drainage systems.
Wastewater	**Shifts in demand:** Minimal near-term impacts on wastewater infrastructure due to stable population growth. **Infrastructure changes:** Existing wastewater infrastructure is adequate near-term. **Reliability:** Stable and reliable wastewater treatment near-term.	**Shifts in demand:** Moderate increase in wastewater generation from new developments; potential strain on existing systems. **Infrastructure changes:** Moderate upgrades to wastewater treatment plants may be needed; expansion of sewer networks. **Reliability:** Slightly increased risk of treatment plant overloads; potential challenges in meeting peak demand.	**Shifts in demand:** Significant increase in wastewater generation from a higher concentration of density and development. **Infrastructure changes:** Moderate expansions and upgrades to wastewater treatment plants; more expansion of sewer networks. **Reliability:** Increased risk of treatment plant overloads; potential strain on sewer systems.
Solid Waste	**Shifts in demand:** Steady increase in solid waste generation due to steady population growth. **Infrastructure changes:** Existing waste management facilities are adequate near-term. **Reliability:** Stable waste collection and disposal services near-term.	**Shifts in demand:** Moderate increase in solid waste generation due to population growth in zoned areas. **Infrastructure changes:** Expansion of waste management facilities to serve new development; potential introduction of additional recycling programs. **Reliability:** Slightly increased strain on waste management services; potential challenges in meeting peak demand.	**Shifts in demand:** Significant increase in solid waste generation due to higher concentration of density and development. **Infrastructure changes:** Significant expansions and upgrades to waste management facilities; implementation of advanced waste recycling and disposal technologies. **Reliability:** Increased strain on waste management services; potential challenges in meeting peak demand for waste disposal.
Utilities	**Shifts in demand:** Minimal impact on utilities near-term due to steady development. **Infrastructure changes:** Existing facilities are adequate near-term. **Reliability:** Reliable utility services near-term with minimal risk of interruptions.	**Shifts in demand:** Moderate increase in utility demand from new developments; potential need for network expansions. **Infrastructure changes:** expansion of utility networks to serve new developments; potential upgrades to support higher demand. **Reliability:** Slightly increased risk of service interruptions and pressure variations; potential	**Shifts in demand:** Significant increase in utility demand due to higher concentration of density and development. **Infrastructure changes:** Significant expansion and upgrades to utility networks to accommodate increased demand and ensure reliability. **Reliability:** Increased risk of service interruptions and fluctuations; potential

Impact Category	Baseline Alternative	Lower Zoning Alternative	Higher Zoning Alternative
		challenges in meeting peak demand.	challenges in meeting peak demand.
Telecommunications	**Shifts in demand:** Minimal impact on telecommunications networks near-term due to steady development. **Infrastructure changes:** Existing telecommunication networks are sufficient. **Reliability:** Reliable telecommunication services.	**Shifts in demand:** Moderate increase in demand for data services due to higher population density. **Infrastructure changes:** Expansion of fiber optic networks; deployment of small cells to enhance network capacity. **Reliability:** Slightly increased risk of network congestion; potential for minor service disruptions.	**Shifts in demand:** Significant increase in utility demand due to higher concentration of density and development. **Infrastructure changes:** Extensive expansion of fiber optic networks; deployment of small cells in high-density areas. **Reliability:** Increased risk of network congestion; potential for service disruptions in densely populated areas.

4.5.3 Potential Mitigation Measures

Potential mitigation could include the following:

Water

- New financial mechanisms, such as a "fee in lieu" type charge or expanding system development charge eligibility, for developers to pay a share of the local area distribution system upgrades necessary, such as fire flow, low pressure, etc., so that one developer does not bear the whole cost of the upgrade due to past incremental development demands.
- Tacoma Water could require developers to oversize water mains to serve a project in order to provide additional benefit to the water system. In these circumstances, the Water Division may contribute based on budget availability.
- Amend the TMC, Water Customer Service Policies, and Tacoma Public Utilities Customer Services Policies to address billing and ownership issues that arise from the addition of new middle housing types, such as the development of multiple units on one parcel and multiple smaller units on separate smaller parcels, and how the customer accounts will be transitioned or created when existing homes/ADUs/parcels are developed further, for example unit lot subdivision.
- Update the design standards and requirements, as necessary, for middle housing types, such as the development of multiple units on one parcel and multiple smaller units on separate smaller parcels, and how the existing homes/ADUs/parcels are developed further, for example unit lot subdivision.

Electricity

- New financial mechanisms, such as an "Amp Fee" to pay a share of transmission and distribution system upgrades necessary for insufficient capacity, low voltage, etc., so that one customer does not bear the whole cost of the upgrade due to past incremental development demands.
- Acquire additional resources such as demand response and/or all achievable economic conservation identified in the Tacoma Power Conservation Potential Assessment 2022–2041, and renew the power contract with BPA, (2022 Tacoma Power IRP).

Solid Waste

- Further promote activities that reduce waste before it ever enters the system
- Further improve the management of the impacts of solid and hazardous waste, including reducing litter in our communities, managing stormwater quality, safe handling of household hazardous waste materials, and reducing GHG emissions from waste streams and facilities (Tacoma-Pierce County Solid Waste Management Plan 2021-2040).
- Update rate structure for multifamily housing, including increased collection fees and/or system development charges related to the increased capacity requirements for the solid waste collection system.
- Expand and/or upgrade solid waste handling facilities and operating hours to handle peak daily tonnages and number of vehicles.
- Procure additional fleet vehicles, equipment and resources necessary to collect, process, and sort materials for recycling or disposal.
- Code revisions to allow for shared solid waste services or establishing a HOA for shared services on one primary solid waste account.
- Code revisions to allow for minimum safe distances for alley and road access. May include no parking requirements on collection days.
- New requirements or enhancements to improve multifamily recycling, including options for organics collection.
- New code requirements for solid waste enclosures, screening and required setbacks.
- Updating existing agreements with stakeholders to increase capacity.

Wastewater and Stormwater

- Amend current regulations and policies related to the collection system and private side sewers.
- Implement of a system development charge or other funding mechanisms.
- Updating of policies and design standards. For example:
  - → Reviewing the minimum pipe size when installing or replacing stormwater and wastewater mains (pipes).
  - → Reviewing policies to ensure that new development is contributing their proportional share towards necessary infrastructure improvements.
  - → Reviewing policies or programs related to I/I reduction in wastewater pipes.
  - → Reviewing policies related to private or shared side sewers (wastewater).
- Updating inter-local agreements with neighboring jurisdictions to increase capacity, if available.

Telecommunications

- Increase telecommunication infrastructure investment to ensure reliable and high-speed internet access for residents, supporting the demands of a larger population.
- Expand telecommunications infrastructure by collaborating with telecommunication providers to expand network infrastructure including the deployment of additional cell towers and fiber optics to meet increased demand.

- Engage in ongoing collaboration with telecommunication service providers to understand their expansion plans and coordinate efforts to meet growing demand.
- Streamline zoning and permitting processes to expedite the approval of new telecommunication infrastructure installations and work with local authorities to create a conducive regulatory environment for network expansion.
- Explore public-private partnerships to facilitate the deployment of telecommunication infrastructure and leverage private sector expertise and resources to enhance and expand the telecommunication network.

4.6 Parks and Recreation

This section discusses parks, recreation, and open space in Tacoma and evaluates potential impacts that may be associated with the Proposal. Potential mitigation measures that could further reduce potential impacts are also identified.

4.6.1 Affected Environment

Park service in Tacoma is provided by the City and by Metro Parks Tacoma. The City of Tacoma and Metro Parks Tacoma together manage more than 3,000 acres of active parks and passive open space, including developed parks and natural areas, local and regional trails, the urban tree canopy, and community gardens (One Tacoma). Active parks are parks intended to meet community needs for a wide range of recreational activities, such as playing team sports, practicing individual physical activities such as running or bicycling, playing on play equipment, having a picnic, and hosting events and classes. Active parks are primarily owned and managed by Metro Parks Tacoma, with some spaces owned and managed by the City of Tacoma. In some cases, park land owned by the City is managed, operated, and maintained by Metro Parks under the terms of an Interlocal Agreement. Additional outdoor public recreation opportunities are provided on Tacoma Public School properties. Passive open space includes lands that are intended to be left primarily in their natural state, with few or no facility improvements. The City of Tacoma owns and maintains the majority of passive open space in Tacoma.

4.6.1.1 Policy and Regulatory Framework

- GMA, which requires cities planning under RCW 36.70A.040 to include a park and recreation element in its comprehensive plan that implements, and is consistent with, the capital facilities plan element of the comprehensive plan.
- Metro Parks Tacoma's Strategic Master Plan Update 2018 provides an inventory of existing facilities, forecast of future needs, proposed projects, and anticipated financing for proposed projects and fulfills requirements to maintain the District's accreditation status with the National Recreation and Park Association Commission for Accreditation of Park and Recreation Agencies and eligibility for funding opportunities offered through the Washington State Recreation and Conservation Office. The Strategic Master Plan is currently being updated to set goals, standards and strategy for developing a parks and recreation system that is responsive to community demands and also contributes to a built environment that advances health for people and the planet. The updated plan, organized around a future vision for Tacoma as a "City in the Park," will examine community needs, recreation and leisure trends analysis, other providers of recreation space and programs, and standards for the levels of service to be delivered by the parks and recreation system. The plan is expected to be adopted by Metro Parks Board of Park Commissioners in spring 2024.
- Metro Parks Tacoma 2019–2020 through 2023–2024 Budget.

- Passive Open Space Restoration Plan, 2016.
- City of Tacoma Capital Facilities Program, which provides an inventory of existing facilities, forecast of future needs, proposed projects, and anticipated financing for proposed projects.
- One Tacoma Comprehensive Plan Parks and Recreation Chapter, which provides policy direction from the City of Tacoma's perspective on provision of parks and open space.

4.6.1.2 Existing Conditions

The existing parks, trails, open space and other recreational resources maintained and operated by Metro Parks Tacoma are listed in Table 4.6-1 and shown on Figure 4.6-1. An inventory of City-owned Open Space and Parks is included in the 2019–2024 Capital Facilities Program.

Table 4.6-1. Existing Tacoma Parks, Trails, Open Space, and Other Recreational Resources

Name	Description
Alderwood Park	Neighborhood Park
Frank Alling Park	Neighborhood Park
Baltimore Park	Neighborhood Park
Browns Point Lighthouse Park	Community Park
Browns Point Playfield	Neighborhood Park
Ryan's Park/Celebration Park	Neighborhood Park
China Lake Park	Natural Area
Cloverdale Park	Neighborhood Park
Cummings Park	Regional Park
DeLong Park	Natural Area
Fern Hill Park	Neighborhood Park
Senator Rosa Franklin Park	Community Park
Garfield Park	Neighborhood Park
Irving Park	Neighborhood Park
Jane Clark Park	Neighborhood Park
Kandle Park	Community Park
Lots for Tots	Neighborhood Park
Oak Tree Park	Natural Area
Judge Jack Tanner Park	Regional Park
McKinley Park	Community Park
Verlo Playfield	Community Park
Jerry Meeker Memorial	Other park land
Neighbors Park	Neighborhood Park
North Slope Historic Park	Neighborhood Park
Northeast Tacoma Playground	Neighborhood Park
Oakland Madrona Park	Neighborhood Park
Old Town Park	Neighborhood Park
Optimist Park	Neighborhood Park

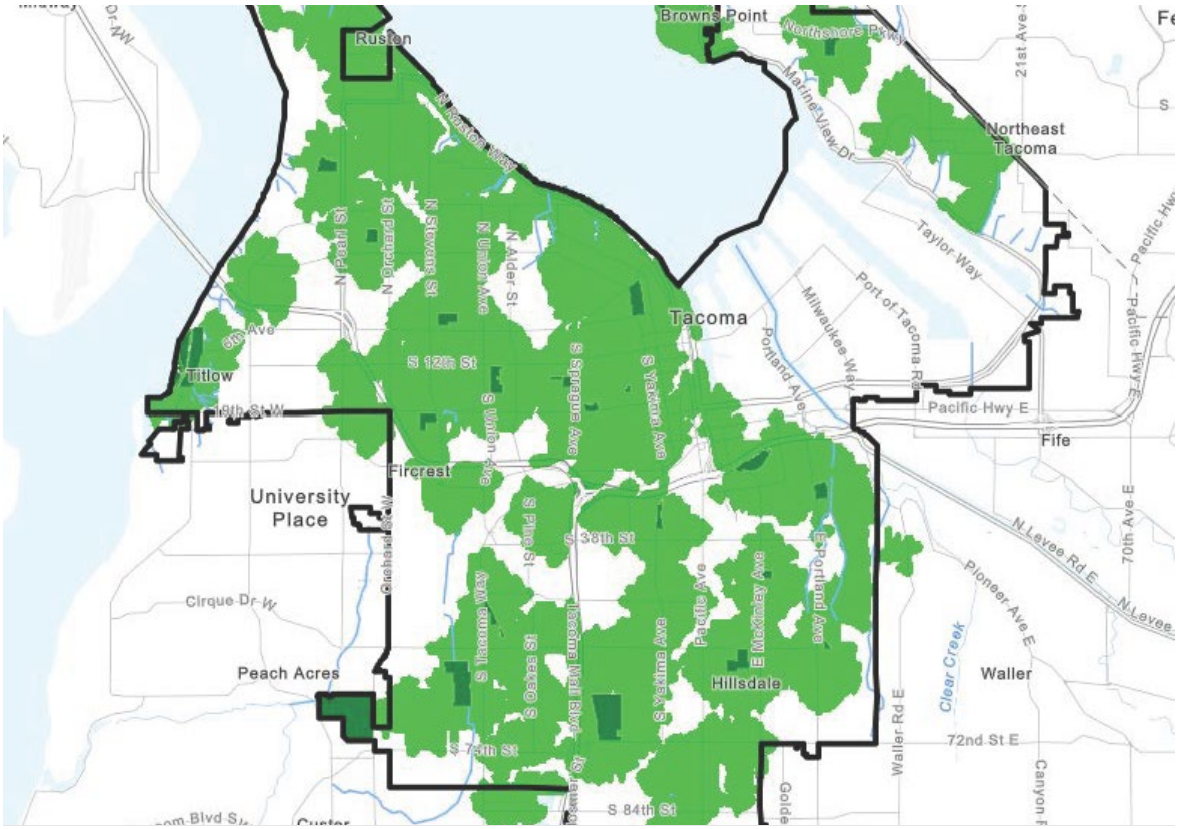
Name	Description
South End Recreation & Adventure (SERA) Campus	Community Park
Peck Field	Community Park
Point Defiance Zoo & Aquarium	Regional Park
Dune Peninsula at Point Defiance Park	Regional Park
People's Park	Neighborhood Park
People's Community Center	Community Park
Point Defiance Park	Regional Park
Portland Avenue Park	Community Park
Puget Park	Neighborhood Park
Puget Creek Natural Area	Natural Area
Rogers Park	Neighborhood Park
Chinese Reconciliation Park	Regional Park
Ruston Way Area 3 (between Judge Jack Tanner and Dickman)	Regional Park
Ruston Way Area 4 (between ASARCO and Cummings)	Regional Park
Sawyer Tot Lot	Neighborhood Park
Sheridan Park	Neighborhood Park
Stanley Playfield	Community Park
Thea's Park	Neighborhood Park
Catherine Ursich Park	Natural Area
Vassault Park	Community Park
Jack Hyde Park	Regional Park
Wright Park	Community Park
Edna Travis Park (formerly McCarver Park)	Neighborhood Park
Lincoln Heights Park	Neighborhood Park
Dash Point Park and Pier	Community Park
Roosevelt Park	Neighborhood Park
MPT Headquarters	Other Park Land
Manitou Park	Neighborhood Park
Tacoma Nature Center Park/Snake Lake Natural Area	Natural Area
Point Defiance Marina	Regional Park
Wapato Park	Community Park
Lincoln Park	Community Park
Ruston Way Area 2 [Between Hamilton and Old Town]	Regional Park
Fort Nisqually Living History Museum	Regional Park
Heidelberg/Davis Park	Community Park
Stewart Heights Park	Community Park
Titlow Park	Community Park
Norpoint Park	Community Park
Julia's Gulch	Natural Area

Name	Description
Northwest Trek Wildlife Park	Regional Park
Swan Creek Park	Regional Park
Ferry Park	Neighborhood Park
Jefferson Park	Community Park
Meadow Park Golf Course	Community Park
Wapato Hills Park	Neighborhood Park
South Park	Community Park
Dickman Mill Park	Regional Park
Old Town Dock	Regional Park
Hamilton Park	Regional Park
Charlotte's Blueberry Park	Natural Area
Garfield Park	Natural Area
Eastside Community Center	Community Park
Gas Station Park	Neighborhood Park
Melanie Jan LaPlant Dressel Park	Regional Park
Waterway Park	Regional Park
George Weyerhaeuser Jr. Park	Regional Park
Center at Norpoint	Community Park
Helen B. Stafford Community Schoolyard	Community Park
Jennie Reed Community Schoolyard	Community Park

Figure 4.6-1. Existing Tacoma Parks, Trails, Open Space, and Other Recreational Facilities

Metro Parks aims to provide every resident access to a park or open space within a 10-minute walk from their residence. As of 2018, nearly 50% of Tacomans had access within the 10-minute walkshed; 75% if School District K-12 properties are included (Metro Parks 2018). The current 10-minute walkshed around each of the Metro Parks managed sites is illustrated in Figure 4.6-2.

Figure 4.6-2. 10 Minute Walkshed to Metro Parks Tacoma Parks



4.6.2 Potential Impacts

The analysis in this section is based on existing parks, trails, and other open space facilities. Potential new future parks and facilities are not accounted for in this impact analysis.

4.6.2.1 Impacts Common to All Alternatives

Potential impacts common to all alternatives include increased use and, in some locations, crowding. Increased use could lead to:

- Degradation of the recreational experience and potential degradation of the natural and open space resources, including associated wildlife and habitat.
- Need for additional maintenance and accelerated replacement schedules.
- Increased need for public safety or other services and programs to manage larger crowds of users.
- Increased demand to redevelop existing parks and develop, operate, and maintain new facilities, which would increase capital and operational expenses.
- Conflicts between different types of recreational users and reduced convenience of access.
- Increasing expense of acquiring land to expand the current parks and recreation system.
- Potential increase in people seeking out less crowded public spaces farther away than those within their immediate vicinity, which could result in additional VMT or demand for improvements to transit or nonmotorized access.

In addition, increased housing density in areas with existing parks could increase access to opportunity under all alternatives.

4.6.2.2 Potential Impacts of the Baseline Alternative

Under the Baseline Alternative, the impacts common to all would occur, but to the least degree. Access to opportunity, including parks, may increase slightly, but less than the action alternatives.

4.6.2.3 Potential Impacts of the Lower Zoning Alternative

Under the Lower Zoning Alternative, the impacts common to all would occur more than under the Baseline Alternative, but less than the Higher Zoning Alternative. Although additional density could create additional demand for parks and open spaces, it will also create additional opportunity for more people to live in areas with access to parks. Such opportunity would be greater with additional effort to improve connectivity and enhance access.

4.6.2.4 Potential Impacts of the Higher Zoning Alternative

The potential impacts to park and recreational resources is likely to be the greatest under the Higher Zoning Alternative, creating the most additional demand for parks and potential overcrowding, but also providing access to parks for more people. Improving connectivity and enhancing access would create greater opportunities for a wider range of people. The Higher Zoning Alternative would provide the greatest number of people with access.

4.6.2.5 Potential Significant Adverse Impacts

As with any public service, any of the alternatives could have potentially significant adverse environmental impacts on parks and public open spaces if the proposed actions could lead to development that exceeds the ability to provide parks and public open spaces at the desired LOS.

4.6.3 Potential Mitigation Measures

The City could consider the following mitigation measures to reduce potential impacts to Parks:

- Improve existing parks.
- Adopt a concurrency mechanism for public facilities that are deemed necessary for development, including parks, per WAC 365-196-840(2).
- Address gaps in Parks system.
- Partner with the Tacoma School District to provide community access to school playgrounds.
- Consider impact fees to provide additional parks and recreation.
- Invest in infrastructure such as active transportation and take other steps to improve the safety of walking and biking routes and accessibility via public transit to improve connectivity and access to existing parks and open space.

4.7 Historic, Cultural, and Archaeological Resources

This section discusses historic, cultural, and archaeological resources in Tacoma and evaluates potential impacts that may be associated with the Proposal. Potential mitigation measures that could further reduce potential impacts are also identified.

4.7.1 Affected Environment

This section provides a cultural context for the City of Tacoma, a review of cultural resources (i.e., historic built environment resources, archaeological resources, cultural landscapes, and traditional cultural properties) that may be affected by future development potentially allowed under the alternatives reviewed in this EIS and an overview of relevant local, state, and federal historic preservation programs, laws, and regulations.

4.7.1.1 Cultural Context

Human cultural developments in the Puget Sound region prior to contact with European Americans have been summarized by a number of reviewers, including Kidd (1964), Greengo and Huston (1970), Nelson (1990), Matson and Coupland (1995), and Ames and Maschner (1999). Ames and Maschner (1999) divide the precontact cultural sequence into five periods from about 12,500 to 225 before present (BP) based on the evolutions over time of patterns of land use, subsistence resource types and methods of collection, and tool types. These five periods are Paleo-Indian (earlier than 12,500 BP), Archaic (12,500 to 6,400 BP), Early Pacific (6,400 to 3,800 BP), Middle Pacific (3,800 to 1800/1500 BP), and Late Pacific (1800/1500 to 225 BP). The archaeological record reflects three general trends in human cultural development across these five periods: first, the gradual movement of peoples from upland and riverine locations to littoral and subalpine areas; second, the diversification of subsistence resources and resource collection technologies; and third, an increasing degree of semisedentary and seasonal pattens of settlement compared to previously nomadic and seminomadic cultures, which is indicated by an increased frequency of village sites and long-term food storage constructions and technologies. Importantly, these delineated periods and cultural development trends are academic constructs and do not necessarily reflect tribal viewpoints.

The City of Tacoma is located on the traditional territory of the Puyallup peoples. The Puyallup inhabited areas along the Puyallup River, from its mouth on Commencement Bay to the foothills of Mount Rainier, as well as areas to the west in present-day Tacoma and on Point Defiance, in western Pierce County across the Tacoma Narrows, and on Vashon Island and Murray Island (Smith 1940:6-14). The Puyallup peoples spoke Lushootseed, a dialect of the Salish language (Puyallup Tribe of Indians n.d.; Ruby et al. 2010:237, 320). Today, descendants of the Puyallup are members of the Puyallup Tribe of Indians and live on the Puyallup Reservation and in communities throughout the region (Puyallup Tribe of Indians n.d.). Additionally, other Native American peoples inhabited areas in the vicinity of the Tacoma area and likely also utilized areas within the territory of the Puyallup, including the Squamish to the north, Muckleshoot to the east, Nisqually and Steilacoom to the south, and Squaxin Island people to the west (Ruby et al. 2010: xxxvii).

The first European Americans to explore the southern Puget Sound were British Royal Navy Lieutenant Peter Puget and Master Joseph Whidbey in 1792, themselves a detachment of Captain George Vancouver's expedition (Dougherty 2006). In 1841, the first U.S. Navy expedition of the Puget Sound, led by Lieutenant Charles Wilkes, departed from Commencement Bay (Wilma and Crowley 2003). The earliest permanent European American settlement in Pierce County was Fort Nisqually, a Hudson's Bay Company trading post established in 1833 near Sequalitchew Creek in the vicinity of present-day DuPont, Washington (Becker 2006). A small community of European and American settlers grew in the vicinity of Fort Nisqually over the next several decades, which was governed under the 1818 Treaty of Joint Occupation between the U.S. and Great Britain. Though the U.S. gained sole governance of present-day Washington through the 1846 Treaty of Oregon, the Hudson's Bay Company did not turn over Fort Nisqually to the U.S. until 1859 (Becker 2006). Nicholas Delin, a Swedish immigrant, was the first European American to settle in present-day Tacoma, establishing a water-powered sawmill in 1852 on the Puyallup River's tributary creeks at the bay's head (Wilma and Crowley 2003). Delin's sawmill operated for several years but was abandoned during the Puget Sound War in 1855 and 1856.

Conflicts between Native Americans and European-Americans over land use, resources, and cultural pressures from traders and missionaries increased as more immigrants entered the region. The U.S. Army established Fort Steilacoom in 1849 near present-day Waughop Lake in Lakewood, Washington, as a base from which to conduct military activities against regional tribes (Becker 2006). In 1854, Washington Territorial Governor Isaac Stevens organized a treaty council at Medicine Creek (located in present-day Thurston County) with representatives of the Puyallup, Nisqually, Muckleshoot, Steilacoom, and Squaxin Island tribes to obtain land in exchange for allotted reservation and trust land; payment; and retention of the right to use usual and accustomed fishing, hunting, and gathering places (Ruby et al. 2010:214; HistoryLink.org 2003). The Treaty of Medicine Creek, signed in 1855, established the reservations for the Nisqually, Puyallup, and Squaxin Island tribes (Ruby et al. 2010:214; Caldbick 2021a). A reservation for Steilacoom people was not established; the Steilacoom were directed to the reservations of the Nisqually, Puyallup, and Squaxin Island peoples (Steilacoom Tribe 2013). Native American representatives disputed both the terms of the Medicine Creek Treaty and the veracity of their signatures to it. A series of attacks on U.S. Army troops and European American settlers by Native Americans in October 1855 initiated nearly a year of hostilities in the Puget Sound region, now known as the Puget Sound War (also referred to as the Puget Sound Indian War or Puget Sound Treaty War) (Caldbick 2021b). Hostilities west of the Cascades effectively ceased after the Mashel Massacre in April 1856, in which U.S. Army troops led by Captain Hamilton J.G. Maxon killed a group of Native Americans near the confluence of the Mashel and Nisqually Rivers (Emerson 2009). In August 1855, Native American groups negotiated with Governor Stevens at a second treaty council on Fox Island, which resulted in expanded reservation allotments for the Nisqually and Puyallup and a separate reservation for the Muckleshoot (Caldbick 2021b; Ruby et al. 2010:198, 237).

In 1864, Job Carr settled on the shoreline of Commencement Bay in the area now known as Tacoma's Old Town neighborhood (Wilma and Crowley 2003). Carr sold most of his original claim to developer Morton McCarver in 1968, on which McCarver platted the townsite of Tacoma City. In 1873, the Northern Pacific Railway (NPR) selected Tacoma as the western terminus of its transcontinental rail line from Minnesota to the Puget Sound (Wilma and Crowley 2003). Over the next year, NPR constructed a depot at a site south of McCarver's Tacoma City plat along the southwest shoreline of Commencement Bay. In January 1874, service commenced between New Tacoma—the settlement that grew around the NPR terminus—and Kalama on the Columbia River; NPR's transcontinental line was fully completed in 1883 (Wilma 2005; Wilma and Crowley 2003). McCarver's original settlement was incorporated by the Washington territorial legislature in 1875 as Old Tacoma, which became the Pierce County seat in 1880 (Wilma and Crowley 2003). Old and New Tacoma were incorporated as a single city in 1883 by the Washington territorial legislature (Wilma and Crowley 2003).

While the Panic of 1893 briefly hampered local economic growth, by the turn of the 20th century, Tacoma was a veritable boom town with a thriving freight industry that shipped the abundant timber, coal, and agricultural goods from Pierce County's interior across the U.S. by rail and overseas by ship (Wilma and Crowley 2003). Since NPR's arrival in 1873, its subsidiary, the Tacoma Land Company, controlled much of the city's development, particularly along the waterfront where NPR's rail lines were the focal point of the city's industrial and commercial districts (Wilma and Crowley 2003). An anti-monopoly U.S. Supreme Court decision in 1904 broke up NPR into its component subsidiaries, allowing many of its local assets to be acquired by the city and private developers (Wilma and Crowley 2003).

As Tacoma expanded at the end of the 19th century, private companies began to develop streetcar networks to provide public transit within the city's core and outer lying neighborhoods. The City's first streetcar lines were built in 1888 by Tacoma Street Railways (later Tacoma Railway & Power Company and then Puget Sound Traction, Power, & Light Co.) to serve the Downtown and Central Tacoma neighborhoods (Kershner 2019). By 1890, horse-drawn streetcars had been replaced, first

by steam-powered vehicles and then electrified lines throughout much of the city's core. By 1907, streetcar lines had been constructed through Tacoma's North End neighborhood as far north as Point Defiance, southwest to Steilacoom and American Lake through central and western Tacoma, and southeast to Puyallup (Street Railway Journal 1907:423).

By the turn of the century, streetcar access incentivized residential development in outer lying areas. Tacoma expanded to include additional residential plats along Commencement Bay to the northeast toward Point Defiance and to the south of the NPR depot district (Wilma and Crowley 2003; USGS 1897). The City of Tacoma's One Tacoma Plan (2015) has identified this and five subsequent patterns of residential development. The earliest pattern (the areas are not ordered chronologically), Pattern Area 3 Pre-War Compact, includes those expansion neighborhoods along Commencement Bay, such as Yakima Hill, North Slope, and the northern portion of the North End (Tacoma 2015:2-64). This area is characterized by its prevalence of pre-1900 single-family residences of moderate and large scale in popular late-19th century architectural styles and intense land development, with a compact street grid of short straight blocks with alleyways.

The City's municipal utilities acquired and improved NPR's water supply system and supplemented it with a new system from the Green River in the early 1900s (Wilma 2003; Wilma and Crowley 2003). The City also expanded its electricity distribution system during this period. Building on its 1890s acquisition of local private power companies, the City completed the LaGrande hydroelectric project on the Nisqually River in 1912 (Wilma 2003). This improved municipal infrastructure provided key utilities to commercial and industrial properties in the city's core and supported the continued growth of residential areas to the south and west of the initial settlement areas along Commencement Bay over the first half of the 20th century, identified as Pattern Area 4 Pre-War Expansion (south) and Pattern Area 2 Mixed-Era Transition (west) (USGS 1941, 1949). The Pre-War Expansion area (South Tacoma) is characterized by a prevalence of early 20th century homes, typically smaller in scale than those previously constructed and featuring early 20th century architectural forms and styles (City of Tacoma 2015:2-66). Residential blocks in these areas were longer and less intensively developed, and broader neighborhoods were less interconnected and separated by larger, high-traffic thoroughfares that formed localized centers of commercial activity. The Mixed-Era Transition (northwest Tacoma) areas reflects both pre-war and post-war trends of residential development. Its housing stock is mixed, with both smaller-scale pre-war, mid-century, and post-war forms and styles, and its street-grid is less compact and block size more varied than previously developed areas (Tacoma 2015: 2-63).

Racial and social stratification was prevalent in Tacoma's neighborhoods during the mid-20th century. The practice of redlining, the designation of certain areas as unviable for housing investment based on the presence of non-white or lower socioeconomic class residents, resulted in nearly two-thirds of the city having limited access to funds for building or building homes in the late 1930s (Tacoma 2022a. Some developments were explicitly racially exclusive. Restrictive covenants that barred home ownership by non-white residents were included at the time of development, such as those for the 1944 Narrowmoor additions in western Tacoma (Tacoma 2023). Due to these discriminatory practices, older neighborhoods north of the city's core along Commencement Bay consisted of primarily of affluent white residents, while African-American, Latin-American, Asian-American, and other low-income residents predominantly resided in newly developing neighborhoods in the western and southern portions of the city (Tacoma 2015:5-17). Though these discriminatory practices were later banned under federal and state law, these historical housing demographic trends had a lasting impact on the composition of Tacoma's neighborhoods.

The docks, wharfs, shipyards, warehouses, and factories along the tideflats on the south end of Commencement Bay that drove Tacoma's growth in the late 19th and early 20th century were consolidated into the Port of Tacoma in 1918 under the provisions of the state's Port District Act of 1911. The port district was established to regulate the disorganized and congested development

along the waterfront and address increasingly frequent localized iterations of common issues across the state's freight industry, including the freight-rate wars conducted by competing companies in the 1910s and growing disputes between labor unions and shipping companies. Over the next three years, the tideflats were dredged and a series of piers was constructed, with new shipyards, warehouses, factories, and plants soon occupying the piers. Shipping commenced in early 1921, and by the end of the decade, millions of tons of goods were shipped from the port annually (Magden 2008). Tacoma's economy, like others in the region and country, suffered in the depression years of the 1930s. However, local conditions were alleviated, in part, by New Deal recovery programs and local public works projects, such as the construction of the first Tacoma Narrows Bridge, as well as by an influx of military spending for the expansion of the World War I-era Camp Lewis (later Fort Lewis) and the conversion of the Tacoma Municipal Airport to McChord Field (Wilma and Crowley 2003).

The onset of World War II renewed the city's shipbuilding industry, with employment in its shipyards and demand for local lumber rising again. The city's Eastside and South Tacoma neighborhoods (Pattern Area 5 Mid Century Expansion) and neighborhoods along the Tacoma Narrows and east of Commencement Bay (Pattern Area 1 Post-War Slopes) were developed during this period. Mid Century Expansion neighborhoods contained a mix of mid-century residential building forms and architectural styles, and street grids were oriented to automobile use, with longer blocks and generally wider streets (Tacoma 2015: 2-68). Discrete neighborhoods developed during this period are largely disconnected, separated by commercial corridors. These neighborhoods are similar in housing form and style to those Mid-Century expansion neighborhoods. However, homes tend to be larger in scale, and street networks typically utilize curvilinear networks and cul-de-sacs within a broader grid formed by major thoroughfares rather than the grid system previously implemented (Tacoma 2015:2-62).

Following World War II, shipping continued to be central to Tacoma's local economy. Maritime trade with countries in the Pacific Rim and southeast Asia increased during this period, and the industry was bolstered immensely when the American embargo on trade with China was lifted in 1979 (Oldham 2008a). In the 1980s the City of Tacoma and the Port of Tacoma became embroiled in litigation and negotiation with the Puyallup Tribe over the land on which the Port and portions of downtown and southern Tacoma were built (Oldham 2008b). These areas were located within the reservation lands allotted to the Puyallup Tribe at Medicine Creek Treaty of 1857 and had gradually been taken from the Puyallup Tribe as the city and Port expanded. In 1984, the Puyallup Tribe won a $77 million judgment for 12 acres used by the Port since 1950 and, in 1987, accepted a settlement of $162 million for the remaining reservation land within the City and Port's jurisdiction (Oldham 2008b).

In recent decades, Tacoma incorporated neighborhoods along its southern boundary into the city, such as Fern Hill. These neighborhoods (Pattern Area 6 Suburban Fringe) consist of the most recent residential development in the city. The areas contain a mix of Planned Residential Developments with closely developed new residences of similar scale and style, and large, nearly rural lots with older residences (Tacoma 2015:2-70). The area's street grid is irregular with and disconnected with large residential blocks and cul-de-sacs.

4.7.1.2 Inventory of Cultural Resources within Tacoma City Boundary

The Washington Department of Archaeology and Historic Preservation (DAHP) administers the Washington historic property inventory of cultural resources listed in the National Register of Historic Places (NRHP), Washington Heritage Register (WHR), and Washington Heritage Barn Register. This inventory is publicly available through an online database and geographic information system map tool called the Washington Information System for Architectural and Archaeological Records Data

(WISAARD). Additionally, the City of Tacoma maintains the Tacoma Register of Historic Places (TRHP), a local historic property inventory of City Landmarks and locally registered historic districts.

In total, 193 individual historic built environment resources listed in the NRHP, WHR, and/or the TRHP are located within the Tacoma City Boundary. Of the 192 individually listed resources, 94 are listed in the NRHP, WHR, and TRHP. Two of these 94, Fireboat No. 1 and Fort Nisqually Granary and Factors House, have also been designated as National Historic Landmarks. Four resources are listed in only the WHR, and 84 are listed in only the TRHP. Seven resources are listed in both the NRHP and WHR but not the TRHP, while two are listed in the WHR and TRHP but not the NRHP. One resource, the Tacoma Municipal Barn Table, is listed in the Washington Historic Barn Register in addition to the TRHP. Table 4.7-1 provides a summary of these individual historic resources and their respective listings, as well as their relationship to the One Tacoma FLUM Low-Scale and Mid-Scale areas.

Table 4.7-1. Individual Historic Built Environment Resources within the Tacoma City Boundary Listed in the NRHP, WHR, WHRB, and TRHP

NRHP/WHR Listing Name; TRHP Listing Name	Listing(s)	FLUM Area
Abbott/Passages Building[a]	TRHP	N/A
Adams Street Substation	TRHP	Mid-Scale
Albers Brothers Mill	NRHP, WHR, TRHP	N/A
Annobee Apartments	NRHP, WHR	Mid-Scale
Ansonia Apartments[b]	NRHP, WHR, TRHP	N/A
Armory	TRHP	N/A
Auditorium Dance Hall	NRHP, WHR, TRHP	N/A
Balfour Dock Building	NRHP, WHR	N/A
Beals House Duplex	TRHP	Low-Scale
Beutel, Conrad F. & Annie Residence	NRHP, WHR, TRHP	Low-Scale
Blackwell, William House	TRHP	N/A
Blue Mouse Theatre	NRHP, WHR, TRHP	N/A
Bob's Java Jive	TRHP	N/A
Bone Dry Shoe Manufacturing Company[c]	TRHP	N/A
Born-Lindstrom House[b]	TRHP	N/A
Bostwick Building[a]	NRHP, WHR, TRHP	N/A
Bowes Building (Tacoma Savings and Loan)	NRHP, WHR, TRHP	N/A
Bridge Clinic (Marcourt Building)	TRHP	N/A
Brix, Anton House	TRHP	N/A
Building at 1602 South G Street/Hilltop – Hillside Grocery	NRHP, WHR, TRHP	N/A
Building at 712-716 Sixth Avenue/Hilltop – Hob Nob Restaurant	NRHP, WHR, TRHP	N/A
Buren Apartments/Hilltop – Buren/Holden Apartments	NRHP, WHR, TRHP	N/A
Byrd Square	WHR	Mid-Scale
Cabin No. 97 - Salmon Beach/Cabin No. 97 (Walter Crooks' Cabin)[d]	NRHP, WHR	N/A
Carman Manufacturing Building	TRHP	N/A

NRHP/WHR Listing Name; TRHP Listing Name	Listing(s)	FLUM Area
Carnegie Library (Tacoma Public Library)	TRHP	N/A
Carroll Duplex; Hilltop - Thomas Carroll Double House	NRHP, WHR, TRHP	N/A
Central Elementary School; School – Central Administration Building/Central Elementary	NRHP, WHR, TRHP	N/A
Central Lutheran Church – Tacoma; Central Lutheran Church[b]	NRHP, WHR, TRHP	Mid-Scale
Charles Hebard and Franke Tobey Jones House[b]	NRHP, WHR, TRHP	Low-Scale
City Waterway Bridge; Bridge – 11th Street Bridge	NRHP, WHR, TRHP	N/A
Commencement Bay Building	TRHP	N/A
Crescent Apartments (New York Apartments)[b]	NRHP, WHR, TRHP	N/A
Cunningham Electric[c]	TRHP	N/A
Cushman Substation	NRHP, WHR, TRHP	Low-Scale, Mid-Scale
Dickman Lumber Company Head Saw	WHR, TRHP	N/A
Dorothy Apartments[b]	NRHP, WHR, TRHP	N/A
Drum, Henry House	NRHP, WHR, TRHP	N/A
East 34th Street Bridge – Tacoma; Bridge - East 34th Street Bridge	NRHP, WHR, TRHP	N/A
Edgecliff Apartments	TRHP	N/A
Eldridge Hotel/Y.M.C.A. Building[a]	TRHP	N/A
Ella and John Snyder House; Snyder, Ella and John House[b]	NRHP, WHR, TRHP	N/A
Ellington House[b]	NRHP, WHR, TRHP	Mid-Scale
Engine House No. 11 – Tacoma; Fire Station - Engine House No. 11	NRHP, WHR, TRHP	N/A
Engine House No. 13 – Tacoma; Fire Station - Engine House No. 13	NRHP, WHR, TRHP	N/A
Engine House No. 4 – Tacoma; Fire Station - Engine House No. 4	NRHP, WHR, TRHP	N/A
Engine House No. 8 – Tacoma; Fire Station - Engine House No. 8	NRHP, WHR, TRHP	Low-Scale
Engine House No. 9 – Tacoma; Fire Station - Engine House No. 9	NRHP, WHR, TRHP	N/A
Epworth LeSourd United Methodist Church	TRHP	N/A
Fire Alarm Station – Tacoma; Fire Station No. 1 – Tacoma/Fire Station - Communications & Maintenance	NRHP, WHR, TRHP	N/A
Fire Station No. 1 – Tacoma; Fire Station - Communications & Maintenance	NRHP, WHR, TRHP	N/A
Fire Station No. 10 – Tacoma; Fire Station - Fire Station No. 10	NRHP, WHR, TRHP	Low-Scale
Fire Station No. 14 – Tacoma; Fire Station - Fire Station No. 14	NRHP, WHR, TRHP	Low-Scale
Fire Station No. 15 – Tacoma; Fire Station - Fire Station No. 15	NRHP, WHR, TRHP	N/A
Fire Station No. 2 – Tacoma; Fire Station - Fire Station No. 2	NRHP, WHR, TRHP	N/A
Fire Station No. 5 – Tacoma; Fire Station - Fire Station No. 4	NRHP, WHR, TRHP	N/A
Fireboat No. 1	NHL, NRHP, WHR, TRHP	N/A
Fireboat Station – Tacoma; Fire Station - Fire Station No. 18 (Fireboat)	NRHP, WHR, TRHP	N/A
First Baptist Church (Urban Grace Church)	TRHP	N/A
First Presbyterian Church	TRHP	N/A

NRHP/WHR Listing Name; TRHP Listing Name	Listing(s)	FLUM Area
First Swedish Baptist Church	TRHP	N/A
Fogg House[b]	NRHP, WHR, TRHP	Low-Scale
Foreman, B.H. Residence	TRHP	Low-Scale
Fort Nisqually	NRHP, WHR, TRHP	N/A
Fort Nisqually Granary and Factor's House	NHL, NRHP, WHR, TRHP	N/A
Fraternity Hall	TRHP	N/A
Frisko Freeze[e]	NRHP, WHR, TRHP	N/A
Gardener, C.N. Building	TRHP	N/A
Geiger, Henry O. House[e]	NRHP, WHR, TRHP	Mid-Scale
Gray, Claude House	TRHP	N/A
Haddaway Hall	NRHP, WHR, TRHP	N/A
Hammer Building	TRHP	N/A
Heidelberg Brewing Co. Warehouse & Shipping Depot[c]	TRHP	N/A
Hendrickson Homestead	WHR	Low-Scale
Hilltop - Adam Pfenning House	TRHP	Low-Scale
Hilltop - Charles Madsen House	TRHP	Low-Scale
Hilltop - Cone/Reynolds House	TRHP	Low-Scale
Hilltop - Frank Calvert House	TRHP	N/A
Hilltop - H.C. Pochert Building	TRHP	N/A
Hilltop - St. James Apartments	TRHP	N/A
Hilltop - W.G. Nyman House	TRHP	N/A
Holgerson, Rhode House	TRHP	Mid-Scale
Holy Rosary Church	TRHP	N/A
Hosmer, Thomas Theodore Residence	TRHP	N/A
House at 1510 Tacoma Avenue South – Tacoma; Hilltop - Brenden House	NRHP, WHR, TRHP	N/A
House at 1610 South G Street – Tacoma; Hilltop - Anderson House	NRHP, WHR, TRHP	N/A
House at 2314 South Ainsworth Avenue – Tacoma; Hilltop - Olsen House	NRHP, WHR, TRHP	Low-Scale
House at 2326 South L Street – Tacoma; Hilltop – Burkee-Francois House	NRHP, WHR, TRHP	N/A
House at 605 South G Street – Tacoma; Hilltop - Agnew House	NRHP, WHR, TRHP	N/A
Hunt-Mottet Warehouse	TRHP	N/A
Indian Cemetery	NRHP, WHR	N/A
James S. and Chloe A Dyer Home; Snyder, Andrew House[e]	NRHP, WHR, TRHP	Low-Scale
JD Aubrey Wagon & Auto Works	TRHP	N/A
Johnson-Gehri, Residence[f]	TRHP	Low-Scale
Kellogg-Sicker	TRHP	N/A
Klinkenberg-Decker House	TRHP	Low-Scale
Kress Building	TRHP	N/A
Larsen, Idius M Home	TRHP	Low-Scale

NRHP/WHR Listing Name; TRHP Listing Name	Listing(s)	FLUM Area
Lavroff, Samuel Home[b]	NRHP, WHR, TRHP	Low-Scale
Lord-Heuston House/Lord, George T, Residence	NRHP, WHR, TRHP	Low-Scale
Lynn, C.O., Co. Funeral Home; Lynn Funeral Home	NRHP, WHR, TRHP	N/A
M.V. Kalakala (ferry)	NRHP, WHR	N/A
Manley-Thompson Ford Agency	NRHP, WHR, TRHP	N/A
Marymac/Carlton Apartments	TRHP	N/A
Masonic Temple - Tacoma/Masonic Temple and Temple Theater	NRHP, WHR, TRHP	N/A
McCormack Mansion[b]	NRHP, WHR, TRHP	Low-Scale
McFarlane, John F and Edith House	TRHP	N/A
McIlvaine Apartments; Hilltop – McIlvaine Apartments	NRHP, WHR, TRHP	N/A
McIlvaine, Alvin and Anna, House[f]	TRHP	Mid-Scale
McNeely, James House	TRHP	N/A
Mead-Keyser House	TRHP	Low-Scale
Murray, Frederick H. House[e]	NRHP, WHR, TRHP	Low-Scale
National Bank of Tacoma	NRHP, WHR, TRHP	N/A
National Reality Building	TRHP	N/A
National Shuffleboard Sales Company	TRHP	N/A
New York & Ted Brown Building	TRHP	N/A
Nisqually Power Substation	NRHP, WHR, TRHP	N/A
North 21st Street Bridge – Tacoma; North 21st Street Bridge	NRHP, WHR	Mid-Scale
North 23rd Street Bridge – Tacoma	NRHP, WHR	N/A
Northern Pacific Office Building; Northern Pacific Railroad Headquarters Building[a]	NRHP, WHR, TRHP	N/A
Old City Hall – Tacoma; Old City Hall[a]	NRHP, WHR, TRHP	N/A
Olof Carlson House	TRHP	Low-Scale
Olympic Garage	TRHP	N/A
Osgood-Anderson House[b]	NRHP, WHR, TRHP	Mid-Scale
Pacific Brewing and Malting Company; Puget Sound Brewing Company	NRHP, WHR, TRHP	N/A
Pantages Theatre; Jones Building	NRHP, WHR, TRHP	N/A
Park Universalist Church[e]	NRHP, WHR, TRHP	N/A
Perkins Building	NRHP, WHR, TRHP	N/A
Point Defiance Lodge	NRHP, WHR, TRHP	N/A
Point Defiance Streetcar Station	NRHP, WHR, TRHP	N/A
Provident Building	TRHP	N/A
Puyallup Waterway Crossing	WHR	N/A
Pythian Temple – Tacoma; Pythian Temple	NRHP, WHR, TRHP	N/A
Rhodes, Henry A. and Birdella, House; Rhodes Medical Arts Building/Medical Arts Building (Tacoma Municipal Building)	NRHP, WHR, TRHP	N/A
Rhodes, Henry House[e]	NRHP, WHR, TRHP	Low-Scale
Rialto Theatre	NRHP, WHR, TRHP	N/A

NRHP/WHR Listing Name; TRHP Listing Name	Listing(s)	FLUM Area
Rust, William Ross, House; Rust, William R. House[e]	NRHP, WHR, TRHP	Mid-Scale
Rutland and Woodstock Apartments[b]	NRHP, WHR, TRHP	N/A
Saint Luke's Memorial Church	TRHP	Low-Scale
Saint Peter's Episcopal Church – Tacoma; Saint Peter's Church (Episcopal)	NRHP, WHR, TRHP	Mid-Scale
Sandberg-Schoenfeld Building	NRHP, WHR, TRHP	N/A
School – Fern Hill Elementary School	TRHP	Low-Scale, Mid-Scale
School – Hoyt Elementary School	TRHP	Low-Scale
School – Jason Lee Middle School	TRHP	Mid-Scale
School – Lincoln High School	TRHP	N/A
School – McCarver Elementary	TRHP	N/A
School – McKinley Hill Elementary	TRHP	N/A
School – Oakland Elementary	TRHP	N/A
School – Stewart Middle School	TRHP	Low-Scale, Mid-Scale
Schultz Apartments/Hilltop – Schultz Apartments	NRHP, WHR, TRHP	N/A
Seaman's Rest	TRHP	Low-Scale
Semple Residence	TRHP	Low-Scale
Seymour Conservatory (Wright Park)[g]	TRHP	N/A
Shackleford, John A. House[e]	NRHP, WHR, TRHP	N/A
Shaw, Stanley Residence	TRHP	Low-Scale
Slavonian Hall	NRHP, WHR, TRHP	N/A
Sprague Building[c]	NRHP, WHR, TRHP	N/A
Stadium High School/School – Stadium High School[b]	NRHP, WHR, TRHP	N/A
Starr Street Houses	TRHP	Low-Scale
Steele-Fuller House	TRHP	Low-Scale
Sunset Telephone and Telegraph Building; Sunset Telephone and Telegraph Company	NRHP, WHR, TRHP	N/A
Swedish Mission Tabernacle	TRHP	N/A
Tacoma Buddhist Church	TRHP	N/A
Tacoma Building	NRHP, WHR, TRHP	N/A
Tacoma Ice Company's Cold Storage Plant; Tacoma Cold Storage Building	NRHP, WHR, TRHP	N/A
Tacoma Mausoleum	NRHP, WHR, TRHP	Low-Scale
Tacoma Municipal Barn	WHBR, TRHP	N/A
Tacoma Narrows Bridge Ruins; Bridge – Tacoma Narrows Bridge Ruins	NRHP, WHR, TRHP	N/A
Tacoma Narrows Bridge; Bridge – Highway 16, over Tacoma Narrows	WHR, TRHP	Low-Scale
Tacoma Nash Sales Company Building	TRHP	N/A
Tacoma Totem Pole; Totem Pole	WHR	N/A
Thompson, Walter J Residence	TRHP	N/A
Titlow House; Titlow, Aaron House[e]	NRHP, WHR, TRHP	Low-Scale

NRHP/WHR Listing Name; TRHP Listing Name	Listing(s)	FLUM Area
Titlow Lodge/Hotel Hesperides	TRHP	N/A
Trecento Block	TRHP	N/A
Union Passenger Station – Tacoma; Union Station[h/c]	NRHP, WHR, TRHP	N/A
University Union Club	TRHP	N/A
U.S. Post Office – Tacoma Downtown Station – Federal Building; Federal Building	NRHP, WHR, TRHP	N/A
Waddell Building[c]	TRHP	N/A
Wagner Motors Building	TRHP	N/A
Walker Apartment Hotel; Walker Apartments	NRHP, WHR, TRHP	N/A
Washington Building – Tacoma; Washington Building/Scandinavian American BankBuilding	NRHP, WHR, TRHP	N/A
Washington School – Tacoma; School – Washington Elementary School	NRHP, WHR, TRHP	N/A
Webster Apartments	TRHP	N/A
White Shield Home	TRHP	Low-Scale
Whitman Elementary School; School – Whitman Elementary School	NRHP, WHR, TRHP	Low-Scale, Mid-Scale
Whitworth Literary Society Hall	TRHP	Low-Scale
Willamette Building	TRHP	N/A
Wilson/Ladenburg House	TRHP	Low-Scale
YMCA Building – Tacoma/YMCA (The Kensington Apartments)	NRHP, WHR, TRHP	N/A
Yuncker, John F. House	NRHP, WHR, TRHP	N/A
YWCA	TRHP	N/A

Notes: FLUM = Comprehensive Plan Future Land Use Map; NRHP = National Register of Historic Places; TRHP = Tacoma Register of Historic Places; WHBR = Washington Heritage Barn Register; WHR = Washington Heritage Register.

[a] Denotes that an individually listed property is also listed in the NRHP, WHR, and TRHP as a contributing resource to the Old City Hall Historic District.

[b] Denotes that an individually listed property is also listed in the NRHP and WHR as a contributing resource to the Stadium Seminary Historic District.

[c] Denotes that an individually listed property is located within the Union Station Conservation District.

[d] Denotes that an individually listed property is also listed in the WHR as a contributing resource to the Salmon Beach Historic District.

[e] Denotes that an individually listed property is also listed in the NRHP, WHR, and TRHP as a contributing resource to the North Slope Historic District.

[f] Denotes that an individually listed property is also listed in the NRHP and WHR as a contributing resource to the Wedge Historic District.

[g] Denotes that an individually listed property is also listed in the NRHP, WHR, and TRHP as a contributing resource to the Wright Park and Seymour Conservatory.

[h] Denotes that an individually listed property is also listed in the NRHP, WHR, and TRHP as a contributing resource to the Union Depot-Warehouse Historic District.

Ten historic built environment districts listed in the NRHP, WHR, and/or the TRHP are located within the Tacoma City Boundary. Of these 10 historic districts, 5 are listed in the NRHP, WHR, and TRHP; 4 are listed in the NRHP and WHR but not the TRHP; and 1 is listed in only the WHR. Table 4.7-2 provides a summary of these historic district and their respective listings, as well as their relationship to the One Tacoma FLUM Low-Scale and Mid-Scale areas.

Table 4.7-2. Historic Districts within the Tacoma City Boundary Listed in the NRHP, WHR, WHRB, and TRHP

NRHP/WHR Listing Name/TRHP Listing Name	Listing(s)	FLUM Area
Buckley's Addition Historic District	NRHP, WHR	Low-Scale, Mid-Scale
College Park Historic District	NRHP, WHR	Low-Scale, Mid-Scale
North Slope Historic District	NRHP, WHR, TRHP	Low-Scale, Mid-Scale
Old City Hall Historic District	NRHP, WHR, TRHP	N/A
Salmon Beach Historic District	WHR	N/A
South J Street Historic District	NRHP, WHR, TRHP	N/A
Stadium-Seminary Historic District	NRHP, WHR	Low-Scale, Mid-Scale
Union Depot-Warehouse Historic District	NRHP, WHR, TRHP	N/A
Wedge Historic District	NRHP, WHR, TRHP	Low-Scale, Mid-Scale
Wright Park and Seymour Conservatory/Wright Park	NRHP, WHR, TRHP	N/A

Note: NRHP = National Register of Historic Places; TRHP = Tacoma Register of Historic Places; WHR = Washington Heritage Register.

WISAARD also includes records for 41,193 individual historic built environment resources within the Tacoma City Boundary that are not listed in any local, state, or national register. These resources include those that have not yet been evaluated for eligibility for listing in the NRHP, those that DAHP has concurred are not eligible for listing in the NRHP, or those that DAHP has concurred are eligible for listing in the NRHP, but which have not yet been formally listed. Of these 41,193 resources, DAHP has concurred that 152 are eligible for listing in the NRHP and 1,731 are not eligible for listing in the NRHP. The remaining 39,310 resource have not been evaluated for eligibility for listing in the NRHP. Of these 41,193 resources, 3,935 were recorded in WISAARD through survey projects, individual documentation, or cultural resource review of state and federal projects. The remaining 36,258 resources were derived from Pierce County Assessor-Treasurer data provided to DAHP in 2011, indicating the likelihood for additional unrecorded resources in the City of Tacoma that have since become historic-age.

While DAHP also maintains records in WISAARD of the location and nature of archaeological resources, information pertaining to archaeological resources is confidential and available only to qualified cultural resource professionals. For the purposes of this study, WISAARD was reviewed to identify the total number and general disposition of identified archaeological resources within the Tacoma City Boundary to determine whether known archaeological resources were present within FLUM Low-Scale and Mid-Scale areas. Fifty-four archaeological resources have been identified within the Tacoma City Boundary. Three of these resources have been determined eligible for listing in the NRHP, while the remaining 51 have not been evaluated for listing in the NRHP. No known archaeological resources are located within either the Low-Scale or Mid-Scale areas of the FLUM. Additionally, WISAARD's archaeological sensitivity model (Predictive Model) was reviewed to provide a general sense of archaeological sensitivity within the Tacoma City Boundary. Based on geologic factors like slope, distance to water, soils, geology, and the distribution of known archaeological sites, the Predictive Model categorizes archaeological sensitivity into five levels of risk: low, moderately low, moderate, high, and very high. Depending on the level of risk, cultural survey may be contingent on project parameters (low/moderately low), recommended (moderate), or highly advised (high/very high). The Tacoma City Boundary includes areas across all five risk levels. Areas along bodies of water, such as Commencement Bay, Tacoma Narrows, Chambers Bay, Chambers Creek, and the Puyallup River, have very high sensitivity for archaeological resources. Adjacent inland areas generally have high and moderate archaeological sensitivity. Further inland areas, such as portions of the Central Tacoma and South Tacoma neighborhoods, have moderately low archaeological

sensitivity due to their distance from water bodies and geologic factors. Similarly, only limited areas on the bluffs of Northeast Tacoma have low archaeological sensitivity.

4.7.1.3 Policies and Regulations

City of Tacoma

The City of Tacoma is a participant in the Certified Local Government (CLG) Program. The CLG program is administered nationally by the NPS and in Washington by DAHP. CLG participants are eligible for financial and technical assistance from the National Parks Service and DAHP to local governments for historic preservation purposes. CLGs are required to adopt a local ordinance that creates a local historic preservation commission and empowers the commission to establish a local register of historic places, institute procedures and design guidelines for projects that may affect historic resources within its jurisdiction, conduct local historic property survey, review property nominations to the NRHP, and provide for public participation in historic preservation-related educational and interpretive activities (DAHP n.d.).

The TMC includes several sections that establish processes for review of projects or actions that involve historic resources. TMC 1.42, Landmarks Preservation Commission establishes Tacoma's Landmarks Preservation Commission (LPC) and defines its purpose, composition, powers and duties, and administrative procedures. Additionally, TMC 1.42.110 provides for a Historic Preservation Officer within the Tacoma Planning and Development Services Department, responsible for the administration and support of LPC activities. TMC 13.05.040, Historic Preservation Land Use Decisions, specifically details the authority and responsibilities of the LPC and Historic Preservation Officer in the review of projects effecting historic resources designated as City Landmarks (those listed on the TRHP) or located with Historic Special Review Districts or Conservation Districts.

TMC 13.07 Landmarks and Historic Special Review Districts describes the procedures for these project reviews, including the criteria and standards for Certificates of Approval for individual projects and the relocation or demolition of City Landmarks. TMC 13.07 also includes the establishment and criteria for the TRHP (consistent those established for the NRHP) and Special Review and Conservation Districts and provides for the adoption and maintenance of design guidelines for these districts. Special Review District boundaries align with those of the designation boundary of a given historic district, while Conservation Districts are "intended to buffer the core historic district from the impact of development in the surrounding area" (Tacoma 2020b). Tacoma has designated the following six districts as either Special Review Districts or Conservation Districts: Wedge Neighborhood Historic District, Wedge Neighborhood Conservation District, North Slope Historic Special Review District, Old City Hall Historic District, Union Depot-Warehouse Historic District, and Union Station Conservation District. Though listed in the NRHP and/or WHR, the following historic districts have not been locally listed: Stadium-Seminary Historic District, Salmon Beach Historic District, South J Street Historic District, and Buckley's Addition Historic District.

TMC 13.12 Environmental Review, Subsection 570 Archaeological, Cultural, and Historic Resources provides additional regulations for the protection of archaeological, cultural, and historic resources for projects located within Regional Growth Centers, Mixed Use Centers, and National Register Historic Districts. TMC 13.12.570.A.2 requires cultural site assessments for all applications within Regional Growth Centers. However, the boundaries of the Downtown Tacoma Regional Growth Center and Tacoma Mall Neighborhood Regional Growth Center do not overlap with the FLUM Low-Scale and Mid-Scale areas. As such, this review process is not anticipated to be triggered by projects stemming from changes to zoning designations proposed in this EIS. TMC 13.12.570.B regulates the demolition of historic resources (i.e., 50 years of age or greater at the time of permit application), demolitions of greater than 4,000 gross square feet within a single parcel, demolition of properties within designated Mixed Use Centers, and properties listed in the NRHP individually or as part of a district. The Historic Preservation Officer is responsible for review of demolition applications and for

providing recommendations to LPC for their review and concurrence by the appropriate Council Committee. Finally, TMC 13.12.570.C provides for the preparation of an Unanticipated Discovery Plan for all permit applications. Unanticipated Discovery Plans provide procedures for the documentation and protection of previously unrecorded archaeological or cultural resources encountered during project activities.

The City of Tacoma Historic Preservation Plan, A Comprehensive Plan Element (Historic Preservation Plan) provides further guidance for historic preservation activities in the City of Tacoma (Tacoma Planning Commission and Landmarks Preservation Commission 2011l). The purpose of the Historic Preservation Plan is to define the City's preservation goals, policies, and actions to promote historic preservation activities in Tacoma. It is divided into five components: administration, identification, management tools, incentive and benefits, education, and advocacy. The administration component includes goals, policies, and actions for the maintenance of a functional and integrated preservation program. The identification component encourages the survey of historic properties and development of historic contexts as the basis of all other City preservation activities. The management tools component encourages the adoption and use of regulations and procedures for the protection of historic resources. The incentives and benefits component proscribes the provision of financial assistance and incentives and technical assistance programs for the preservation of historic properties. The education component includes public-facing activities for interpretation of Tacoma's history and historic properties and the promotion of the public's understanding of historic preservation processes and practices. Finally, the advocacy component supports community-based organizations that promote historic preservation activities and encourages collaboration among City departments to integrate historic preservation goals, policies, and actions across all City departments.

State

SEPA requires that all planned projects assisted, funded, permitted, or approved by state and/or local agencies consider the effects of those projects to cultural resources (RCW 43.21C). SEPA defines cultural resources as properties listed in or eligible for listing in national, state, or local historic registers. In addition to SEPA, projects may trigger cultural review under Governor's Executive Order 21-02 if a project uses state funds or is located on state land. Three other state laws provide further protection for archaeological resources: Indian Graves and Records (RCW 27.44); Archaeological Sites and Resources (RCW 27.53); and Abandoned Historic Cemeteries and Historic Graves (RCW 68.60).

4.7.2 Potential Impacts

The following impacts analysis is qualitative in describing potential effects of the alternatives on historic built environment and archaeological resources within the Tacoma City Boundary. The impacts of specific developments undertaken as a result of the selected alternative would be limited to a given development's location and the historic property(s) involved and subject to cultural resource laws and regulations relevant to the specific project.

4.7.2.1 Impacts Common to All Alternatives

All three alternatives would result in continued development of housing within the Tacoma City Boundary and vary only in their degree of density (number of dwellings based on lot area), allowed housing types, and building scale (i.e., building height and building width). Increased developmental pressure has the potential to impact historic built environment resources either physically, through alterations that increase dwelling unit density or through demolition and redevelopment, or visually, through the introduction of new buildings within their significant viewsheds. Ground disturbance associated with housing development has the potential to impact known and unknown

archaeological resources. However, both the Lower Zoning and Higher Zoning Alternatives include a density bonus for the retention of existing buildings, which may mitigate against potential demolition of historic built environment resources.

4.7.2.2 Potential Impacts of the Baseline Alternative

New housing developments under the Baseline Alternative would reflect existing zoning designations, as described in Section 2.2.1. Under the Baseline Alternative new development would likely continue under current trends, with no change in the density or scale of new construction. As a result, potential for impacts to historic built environment resources and archaeological resources in the City of Tacoma would be consistent with current conditions.

4.7.2.3 Potential Impacts of the Lower Zoning Alternative

The Lower Zoning Alternative would allow for additional dwelling units per lot, as described in Section 2.2.2. Of the 193 individually listed historic built environment resources, 37 are located in Low-Scale areas, 13 are located in Mid-Scale areas, and 4 overlap with both areas. No eligible historic built environment resources are located in either the Low-Scale or Mid-Scale areas. However, 28,183 unevaluated historic built environment resources are located in the Low-Scale areas, and 4,520 unevaluated historic built environment resources are located in the Mid-Scale areas. These zoning designations would allow for development of higher density and greater scale than is currently allowed but would be less than under Higher Zoning Alternative. As such, the potential for physical modification, visual, and demolition impacts to the 54 individually listed resources and 32,703 unevaluated resources in these areas would be greater compared to the Baseline Alternative, but lower than the Higher Zoning Alternative.

Low-Scale and Mid-Scale FLUM areas overlap with 5 of the 10 historic districts. Two of the five historic districts, the North Slope Historic District and Wedge Historic District, are listed in the TRHP. New developments within these two historic districts would be subject to LPC review and would be required to conform to the specific requirements of the design guidelines for the historic district in which the development would occur. However, developments occurring in the three remaining historic districts, Buckley's Addition Historic District, College Park Historic District, and Stadium-Seminary Historic District, would not be subject to LPC review. As such, anticipated impacts from development in Low-Scale and Mid-Scale FLUM areas within the boundaries of these three historic districts would not be similarly considered at the local level but may be subject to cultural resource review under state or federal environmental review processes. An overall increase in demolitions within historic districts is anticipated as a result of upzoning and the increased SEPA threshold for residential development of up to 40 units under the Lower Zoning Alternative, although these demolitions would be reviewed as part of the permitting process outlined in TMC 13.12.570.B.

No identified archaeological resources are located in either Low-Scale or Mid-Scale FLUM areas. However, there remains the potential that unknown archaeological resources may be impacted by new development incentivized by the changes to zoning designations under the Higher Zoning Alternative.

4.7.2.4 Potential Impacts of the Higher Zoning Alternative

The Higher Zoning Alternative would allow for additional dwelling units per lot, as described in Section 2.2.3. Of the 193 individually listed historic built environment resources, 37 are located in Low-Scale areas, 13 are located in Mid-Scale areas, and 4 overlap with both areas. No eligible historic built environment resources are located in either the Low-Scale or Mid-Scale areas. However, 28,183 unevaluated historic built environment resources are located in the Low-Scale areas, and 4,520 unevaluated historic built environment resources are located in the Mid-Scale areas. These

zoning designations would allow for development of higher density and greater scale than is currently allowed or that would be allowed under Lower Zoning Alternative. As such, the potential for physical or visual impacts to the 54 individually listed resources and 32,703 unevaluated resources in these areas would be the greatest under Higher Zoning Alternative.

Low-Scale and Mid-Scale FLUM areas overlap with 5 of the 10 historic districts. Two of the five historic districts, the North Slope Historic District and Wedge Historic District, are listed in the TRHP. New developments within these two historic districts would be subject to LPC review and would be required to conform to the specific requirements of the design guidelines for the historic district in which the development would occur. However, developments occurring in the three remaining historic districts, Buckley's Addition Historic District, College Park Historic District, and Stadium-Seminary Historic District, would not be subject to LPC review. As such, anticipated impacts from development in Low-Scale and Mid-Scale FLUM areas within the boundaries of these three historic districts would not be similarly considered at the local level but may be subject to cultural resource review under state or federal environmental review processes. An overall increase in demolitions within historic districts is anticipated as a result of upzoning and the increased SEPA threshold for residential development of up to 40 units under the Higher Zoning Alternative, though these demolitions would be reviewed as part of the permitting process outlined in TMC 13.12.570.B.

No identified recorded archaeological resources are located in either Low-Scale or Mid-Scale FLUM areas. However, there remains the potential that unknown archaeological resources may be impacted by new development incentivized by the changes to zoning designations under the Higher Zoning Alternative.

4.7.2.5 Comparison of Impacts

As noted in Section 4.7.2.1, the types of impacts to historic built environment resources and archaeological resources are the same for all three alternatives, such as building modification, demolition, noncompatible visual introductions into historic districts or within the significant viewsheds of individual resources, and disturbance of archaeological resources. However, the three alternatives differ in degree of potential for impacts, which is correlated to the density of development, types, and scale of housing allowed under each alternative. As the Higher Zoning Alternative would allow the greatest degree of housing density and building scale within the Low-Scale and Mid-Scale FLUM areas, the potential for impacts to historic built environment resources and archaeological resource is the highest of the three alternatives. The Lower Zoning Alternative would allow a greater degree of housing density and scale than is currently allowed (the Baseline Alternative) but to a lesser degree than under the Higher Zoning Alternative. As such the potential for impacts would be greater than under current trends, but not as great as under the Higher Zoning Alternative.

4.7.2.6 Potential Significant Adverse Impacts

Typically, significant adverse impacts to cultural resources include demolition of historic built environment resources listed in local, state, or federal inventories or the disturbance of archaeological resources. The Proposal itself will have no direct impacts to cultural resources. However, significant adverse impacts could occur as a result of a specific development under either the Lower Zoning Alternative or Higher Zoning Alternatives. All project specific actions will be governed by relevant local, state, or federal historic preservation laws and regulations, which are intended to avoid, minimize, or mitigate significant adverse impacts to cultural resources.

4.7.3 Potential Mitigation Measures

Tacoma's Historic Preservation Plan includes the aforementioned components and their respective goals, policies, and actions that promote the preservation and protection of cultural resources in the city. The goals, policies, and actions are actively implemented and will help to identify, analyze, and avoid, minimize, or mitigate potential impacts to cultural resources in Tacoma as they arise from developments incentivized by the selected alternative. To mitigate impacts to cultural resources the City of Tacoma may pursue programmatic activities to enhance the identification, documentation, and protection of historic resources that may be affected by developments incentivized by changes to zoning designations analyzed here, including:

- Conducting architectural and cultural resource surveys in previously un-surveyed or under-surveyed areas within the Low-Scale or Mid-Scale FLUM areas. Such surveys could be targeted at areas with high concentrations of unevaluated historic resources recorded in WISAARD, such as those inventories from Pierce County Assessor-Treasurer data.
- Updates to WISAARD inventory of Pierce County Assessor-Treasurer data to capture current historic-age built environment resources not previously included in 2011 dataset.
- Preparation of historic context statements to address topics including, but not limited to, specific neighborhood development patterns, marginalized populations, or historic practices of discriminatory housing policies in Tacoma.
- Updates to design guidelines and standards for designated Special Review Districts and Conservation Districts.
- Adoption of guidelines for Mixed Use Centers that are sensitive to an area's historic context.
- Updates to the TMC 13.12.570 (Demolition Code) to address anticipated LOS needs.
- Updates to the Historic Preservation Plan as part of Comprehensive Plan updates in 2024.
- Updates to City's Demolition Code and/or Building Code to encourage construction salvage to address anticipated increase in waste stream resulting from increased demolition.

On a project-by-project basis, local regulations of cultural resources in the form of the LPC review process, design guidelines for Special Review Districts and Conservation Districts, and review of demolition applications ensure that impacts to historic built environment resources are considered and mitigated. Specific project-based mitigation may be implemented for new developments that impact cultural resources. However, the processes by which mitigation measures may be determined and implemented would be subject to the relevant local, state, or federal cultural resource laws and regulations governing a specific project. Additionally, the financial incentives and technical assistance offered by the City's well-established historic preservation program is effective in reducing development pressures that could impact cultural resources and supplements the Federal Historic Preservation Tax Incentives program and state-level property tax valuation adjustments for designated historic built environment resources that are substantially rehabilitated (RCW 84.26) (NPS 2023).

5. Potential Cumulative Impacts

SEPA requires the consideration of cumulative impacts, which is defined as the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions. Home In Tacoma Phase 2 is being proposed within the context of existing, historical, and future land use and development in the City of Tacoma, particularly in the areas designated as Low-Scale and Mid-Scale Residential. This includes the list in Section 1.1.4, as well as other ongoing or future initiatives or code changes, such as:

- Pacific Avenue Subarea Plan.
- Tideflats Subarea Plan.
- Urban Design Studio/Design Review Program.
- 2023 major update to the Comprehensive Plan and Land Use Regulatory Code.
- Ongoing public facility planning and design, including Cushman and Adams Substation, work by the Transit Oriented Development Advisory Group, Prairie Line Interpretive Plan, Schuster Promenade, Chinese Reconciliation Park, Emergency Response/Intelligent Transportation System (Tideflats and Port of Tacoma), and the First Creek Action Plan.
- Homeless Encampments code updates and implementation actions.
- Tacoma's Urban Waters Protection Plan, watershed planning.
- Zoning changes in neighboring communities.
- Tacoma Dome Link Extension Project.

As a non-project proposal that will allow and guide future development, the cumulative impacts of that development are considered throughout this Draft EIS.

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Appendix A

Revised Growth Estimates Methods Memorandum

ECONorthwest
ECONOMICS · FINANCE · PLANNING

DATE: March 23, 2023
TO: City of Tacoma
FROM: Tyler Bump, Justin Sherrill, Jennifer Cannon, ECONorthwest; Heidi Oien, Mithun
SUBJECT: Revised Growth Estimates Methods, Home in Tacoma Phase II Project

Section 1. Growth Estimates Technical Approach

Purpose & Background

As part of Task 2, Mithun and ECONW worked together to prepare a set of zoning scenarios and growth estimates. Zoning scenarios, which are being created by Mithun in collaboration with City Staff, are intended to test the potential for missing middle housing development under broad zoning concepts. The growth estimates prepared by ECONW are intended to reflect the potential change in housing units that could result under each zoning scenario.

Growth estimates are not intended to reflect forecasted growth; rather, they are estimates of the potential change in housing units over a **30-year** horizon (out to 2050) based on zoning changes to capacity and reasonable redevelopment rates (see redevelopment rates section below for more details). This memo summarizes the methodology to be used to generate the zoning scenarios and subsequent growth estimates, as well as present high-level results.

Relationship to Other Plans and Policies

This analysis is intended to show the potential housing units that could be allowed through changes to zoning. In this sense, it is a form of "capacity" analysis that is testing what *could* happen given regulatory changes rather than a forecast or projection of what *will* happen like other regional models (such as the PSRC model). For this reason, growth estimates and the zoning scenarios are not tied to existing targets for housing growth or distribution within the city. However, these results can be compared to these targets or projections to inform future policy direction in comprehensive planning and zoning decisions in Tasks 3 and 4 of this project.

Zoning Scenarios

Zoning scenarios were based on the adopted Future Land Use Map (FLUM) from Phase 1 of Home in Tacoma. This map designates areas as future Low Scale or Mid-Scale zones. These two categories are further subdivided into a Low 1 and Low 2, and a Mid 1 and Mid 2. Each "1" reflects the lower end of the density range identified for the Phase 1 category, and "2" reflects the higher end of that density range. These densities were derived from typical densities for applicable housing types. All densities are reported as

net density, which includes all development parcel areas, but excludes public Right of Way (ROW), parks, and other non- parcel areas.

The proposed zoning scenarios are briefly described below:

- *No Action/Baseline (Alt 1):* This alternative would reflect existing zoning. The consultant team will work with City staff to identify the appropriate zoning category (from among Low .25, Low .5, Low .75, Low 1.5, or Mid 1) that best reflect existing zoning districts.
- *Lower Zoning (Alt 2):* This alternative would allow Low 1 in all Low-Scale areas, and Mid 1 in all Mid-Scale areas.
- *Higher Zoning (Alt 3):* This alternative would allow Low 2 in all Low-Scale areas, and Mid 2 in all Mid-Scale areas.

For each scenario, the consultant team used Geographic Information Systems (GIS) to apply these designations to the applicable parcels.

Figure 1. City of Tacoma Zoning Crosswalk for Alternatives

Notes: DU=Dwelling Units, SF = Square Feet

Existing Zoning	ALT Zone	Description	Lot Size Threshold
R1	LOW 0.25[1]	6 DU/acre	7,500 SF
R2,R2-SRD	LOW 0.5[1]	9 DU/acre	5,000 SF
R3, HMR-SRD	LOW 0.75[1]	17 DU/acre	5,000 SF
	LOW 1	25 DU/acre	5,000 SF
R4L	LOW 1.5[1]	35 DU/acre[2]	5,000 SF
	LOW 2	30 DU/acre	5,000 SF
R4	MID 1	45 DU/acre	10,000 SF
	MID 2	60 DU/acre	10,000 SF
T, C1, C2, RCX, NCX, CCX	N/A	Non-residential parcels designated as MMH in FLUM not shown as	NA

[1] Zone only applies to the ALT 1 scenario calculations.

[2] The existing zone category Low 1.5 only includes parcels that would be converted to Mid 1 or Mid 2 under the alternatives (1 and 2). Therefore, Low 1.5 should not be considered as coexisting with Low 2 zoning, and should be perhaps considered equivalent to a "Mid 0.5" designation.

redevelopable for residential in Alt 1

Methodology for Calculating Growth Estimates

ECONorthwest received a geospatial layer of FLUM scenario parcels and their designated scenario development prototypes (from Mithun), as well as other standard parcel attribute information (ID, surface area, current land use, etc.). We performed some additional data cleansing and checks on this layer, removing stacked condominium parcel shapes from the layer, as well as current utility parcels. Additionally, ECONorthwest used Pierce County's 2022 Buildable Lands Inventory (BLI) parcel data to identify and filter out any parcels designated as vacant and undevelopable due to environmental constraints. The Pierce County BLI data also contains the number of current dwelling units on all parcels, so this field was joined to our scenario parcel layer based on the parcel identification number.

The cleaned scenario parcels were then joined with the density assumptions crosswalk seen in Figure 1, and their assumed density calculated based on each parcel's surface area. For each zoning type (Low 1, Mid 2, etc.) the lot size component from the crosswalk was treated as a **minimum** lot size threshold – e.g., if a parcel's surface area was at least 95 percent of this threshold, the assumed development capacity was calculated using the dwelling unit-to-acre ratio of the prototype. If a parcel was smaller than 95 percent of this threshold, no future development was allowed, and the parcel retained its existing number of dwelling units based on Pierce County BLI data. The net number of new units on a parcel was calculated by subtracting existing units on that parcel from the scenario-prototype capacity.

Redevelopment rates were then applied to the parcels. Our research in other jurisdictions around the region indicate that redevelopment rates in comparable communities for middle scale housing are approximately 4 to 5 percent, so a 5 percent redevelopment rate was used for all **non-vacant** scenario parcels to simulate possible development over a 30-year horizon.

Vacant parcels were given an 8 percent redevelopment rate, based on the following assumption methodology: Using Pierce County BLI reports for Tacoma from 2014 and 2022, we observed an 18.9-acre difference in vacant developable residential land in the city, or about 2.4 acres per year over 8 years. This per year value represented 0.4 percent of the city's 2014 total vacant developable residential land (567.3 acres). Multiplying this

rate over a 30-year horizon, we therefore assume that Tacoma will develop 8 percent of its vacant developable residential land, and by extension, its units.

Once these parcel-level results were calculated, we summed the capacity, gross developed, net developed, and existing units by Census block group and Transportation Analysis Zone (TAZ) for each of the three scenarios.

Sources

Data sources used in ECONorthwest's process:

- Scenario/FLUM parcels - Pierce County Assessor's Taxlot Data w/ Mithun Calculations
- Pierce County 2014 BLI
- Pierce County 2022 BLI

Appendix B

Distribution List

The Draft EIS has been issued with a notice of availability, consistent with WAC 197-11-510, including distribution to the following:

Tribal and Federal Agencies

Puyallup Tribe of Indians

Regional and County Agencies

Pierce County

Pierce Transit

Port of Tacoma

Puget Sound Clean Air Agency

Sound Transit

State of Washington

Department of Archaeology and Historic Preservation

Department of Commerce

Department of Ecology

Department of Fish and Wildlife

Department of Health

Department of Natural Resources

Department of Social and Health Services

Department of Transportation

Parks and Recreation Commission

Puget Sound Partnership

Puget Sound Regional Council

City of Tacoma, Tacoma Service Providers, Adjacent Cities

City of Federal Way Planning Manager

City of Federal Way Community Development Director

Metro Parks

Tacoma-Pierce County Health Department

Tacoma Planning and Development Services

The Draft EIS has also been made available at cityoftacoma.org/homeintacoma and a notice of availability was sent to all commentors during the public scoping process.