

A Hierarchical Growth Management Strategy in Seattle

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The Sphere, Amazon
Jan 2023, Bae

Map of US, Washington state, South Korea



	S. Korea	US	WA	City of Seoul	City of Seattle (2022)	Seoul/Seattle
Area (sq. mi.)	38,492	288,378	71,342	233.8	142.5	1.64
Pop (million)	49.02	302.41	5.89	9.976	0.762	13.09
Gross Pop Den (per sq. mi)			82.6	42,669	5,347	7.98
GDP (Med Inc)/capita	24,500*	25,035**	26,662**	42,500	85,956	0.49



Metropolitan areas in the “Cascadia” Region



Vancouver:

222 km north

2.5 million people (Metro Region)

662,000 (City, 2021)

Portland:

283 km south

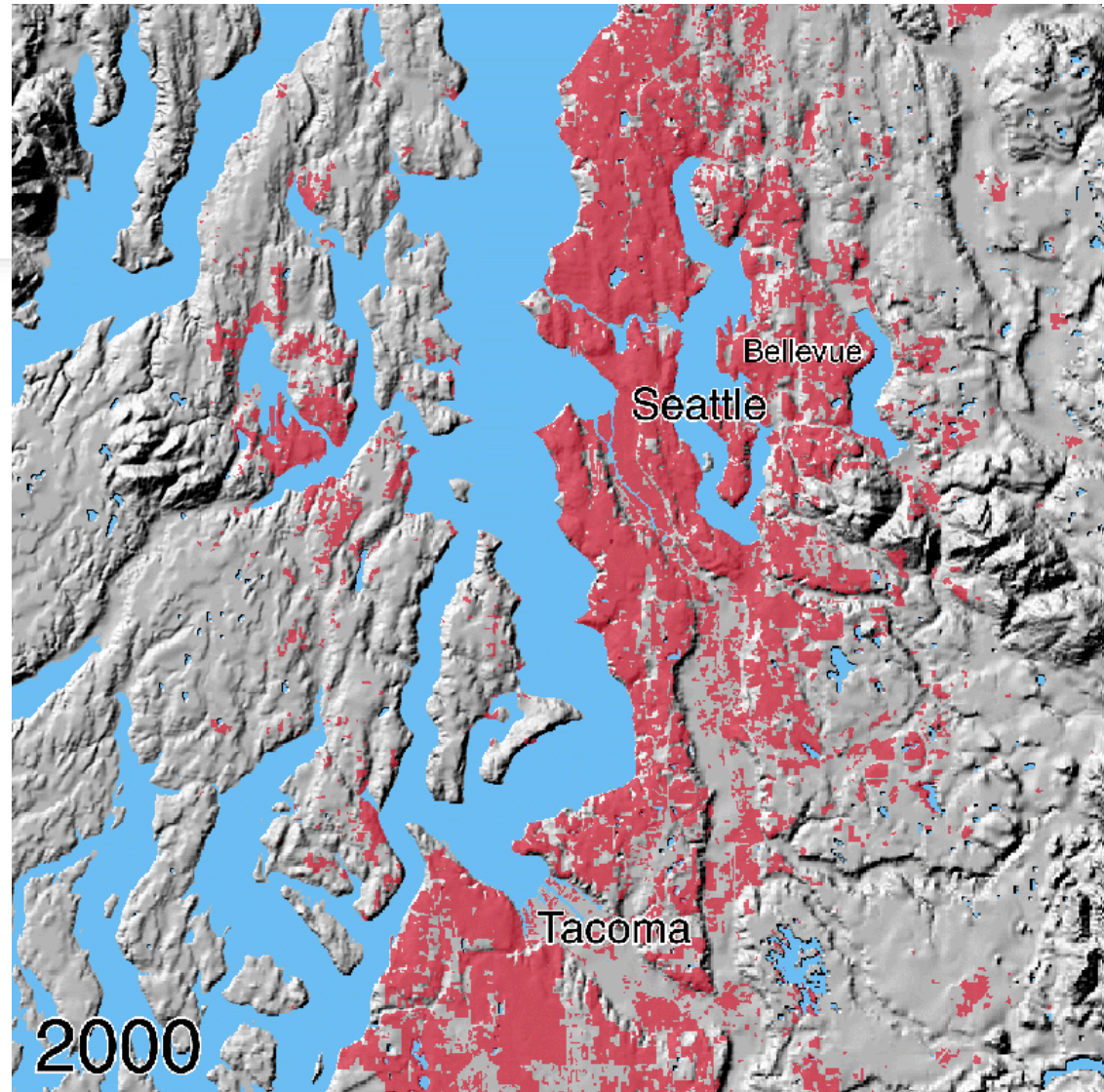
2.5 million people (Metro Region)

641,000 (City, 2021)

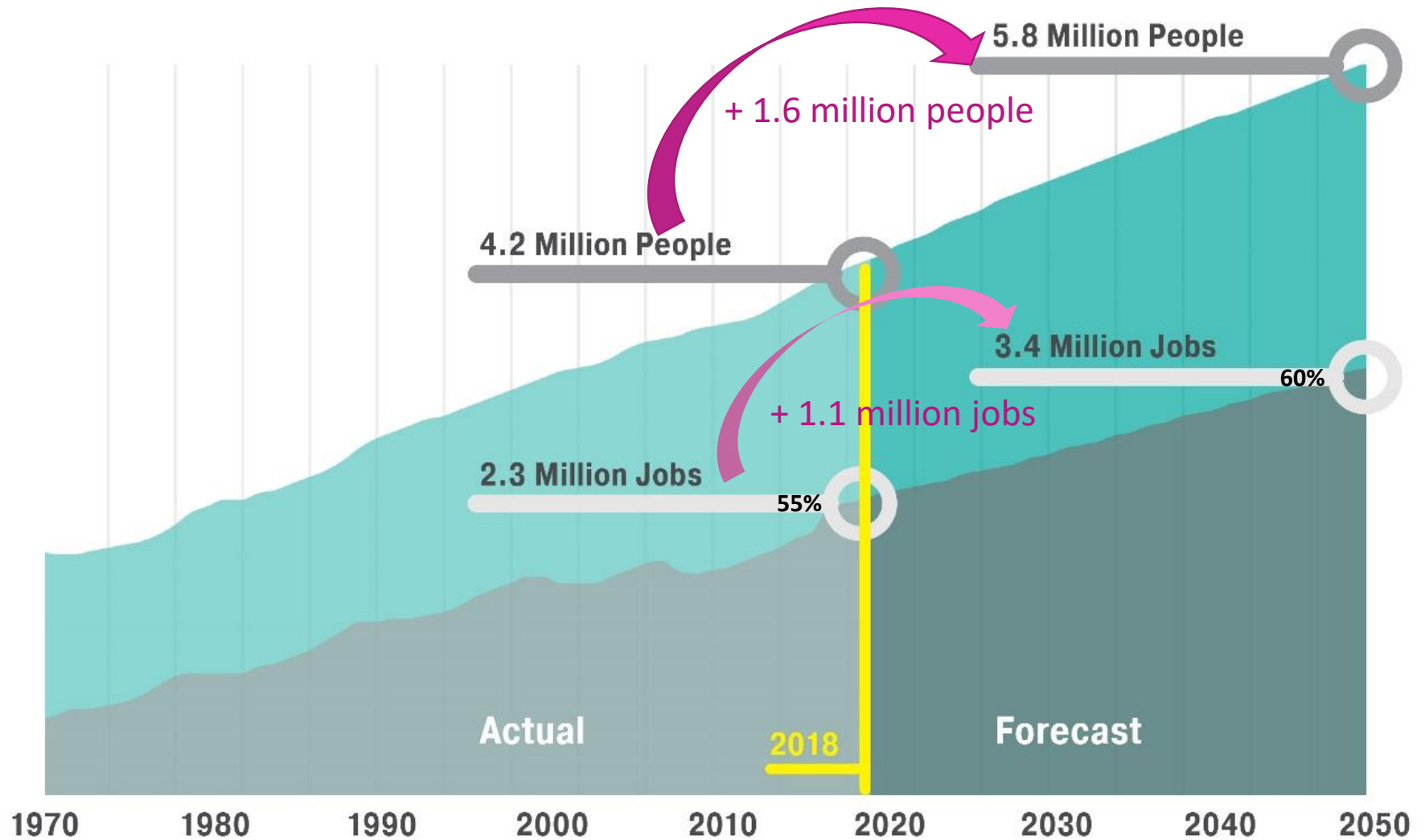


Urban Growth of the Puget Sound Region, 1950-2000

- 1950:
Washington State: 2.4 million people
Puget Sound Region:
1.2 million people
- 2000:
 - Washington State: 6.3 million people
 - Puget Sound Region: 3.5 million people



Regional 2050 Growth Forecast



Source: PSRC, 2018 Regional Macroeconomic Forecast



Seattle: Fast Growing City

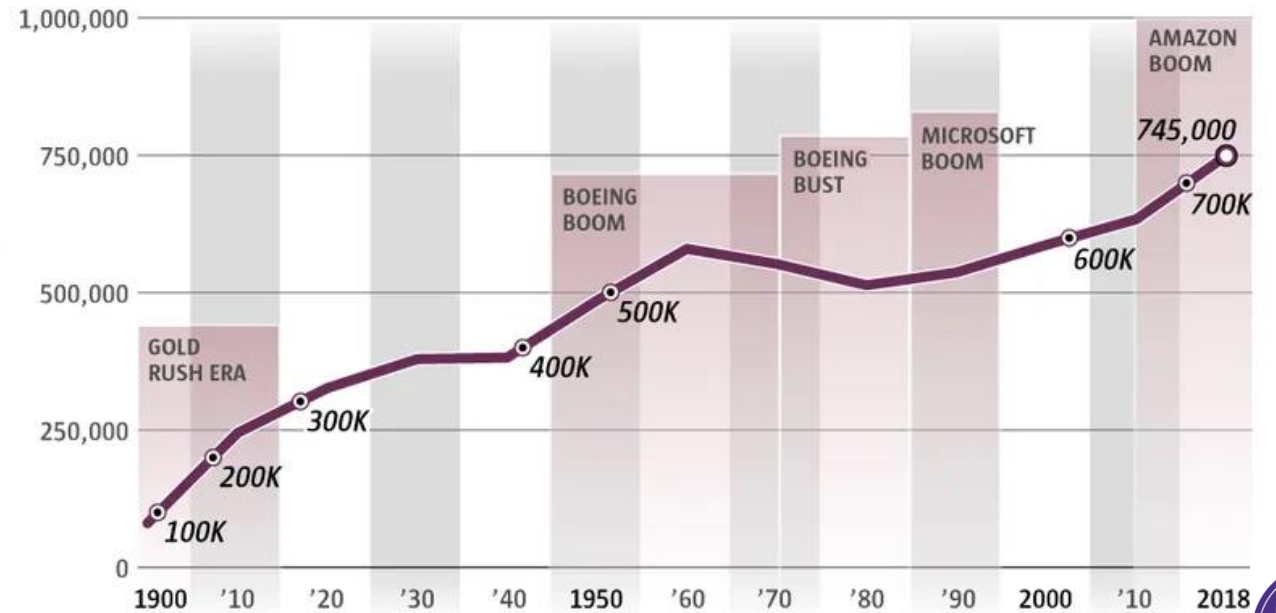
Seattle No. 1 for growth this decade

Since 2010, Seattle's population has increased by 18.7 percent, the fastest growth rate among the 50 largest U.S. cities.



Sources: U.S. Census
MARK NOWLIN /
THE SEATTLE TIMES

Seattle population milestones



Source: U.S. Census Bureau

EMILY M. ENG / THE SEATTLE TIMES



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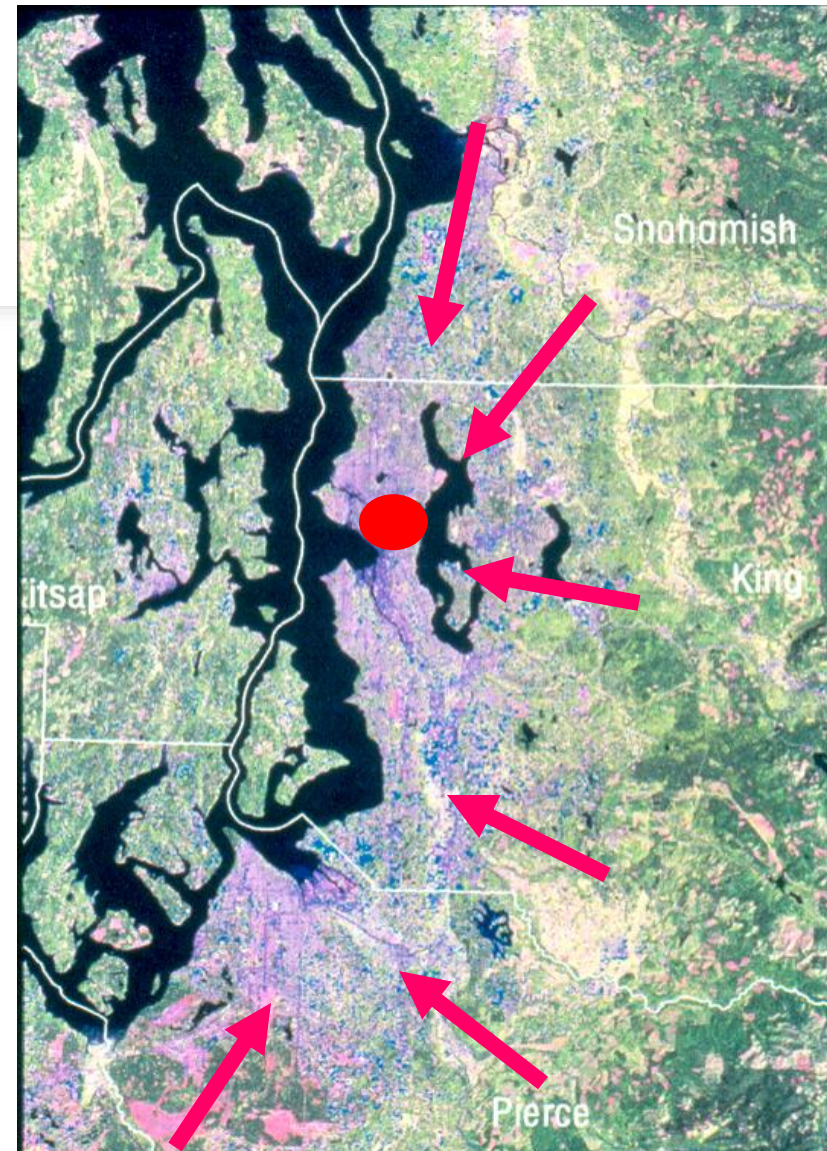
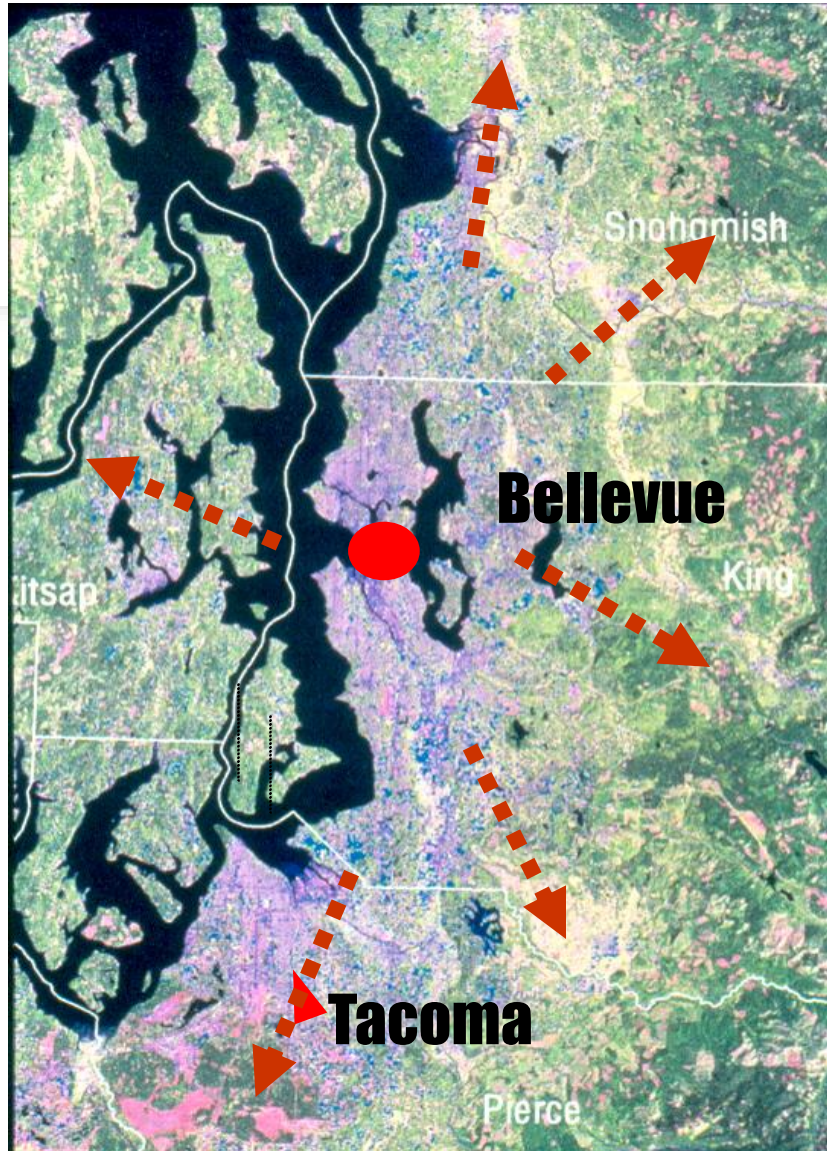
Where growth could go?

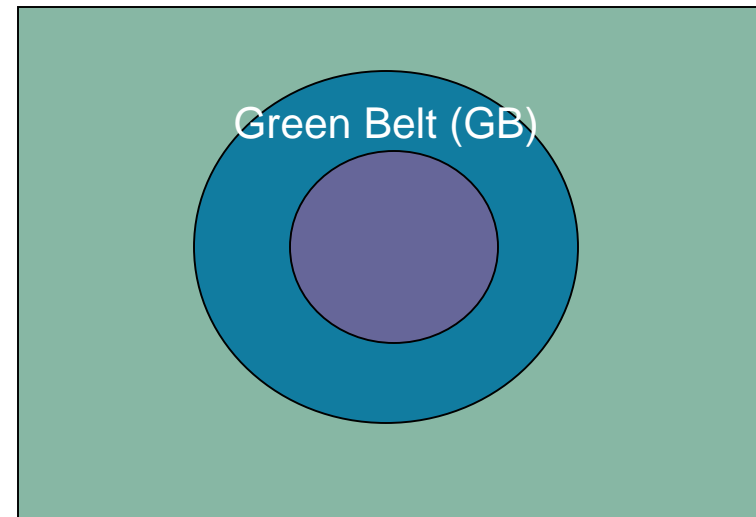
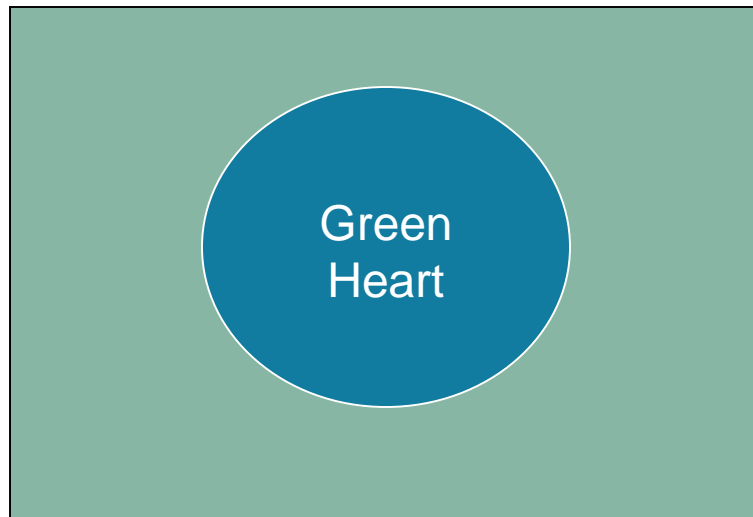
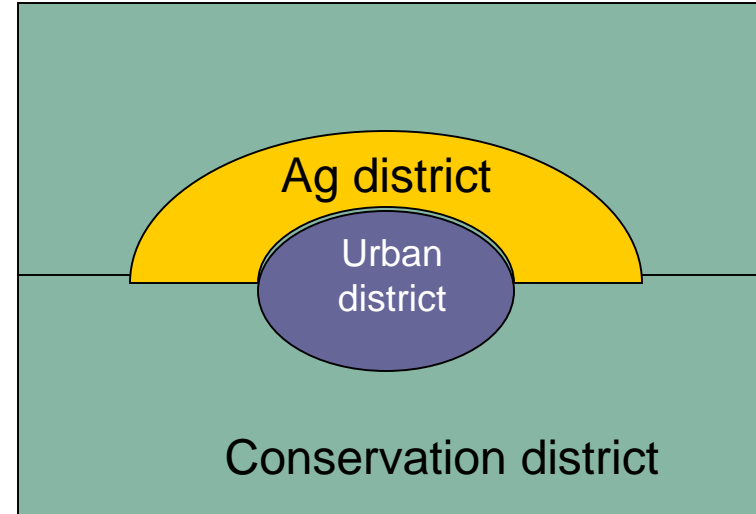
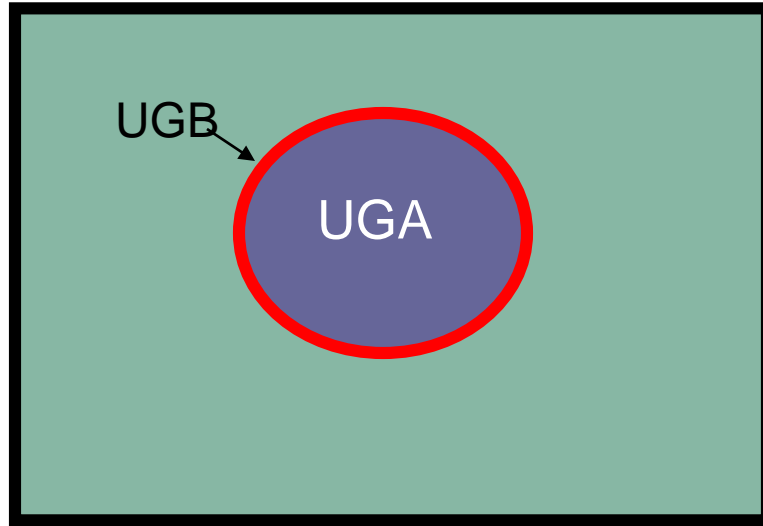


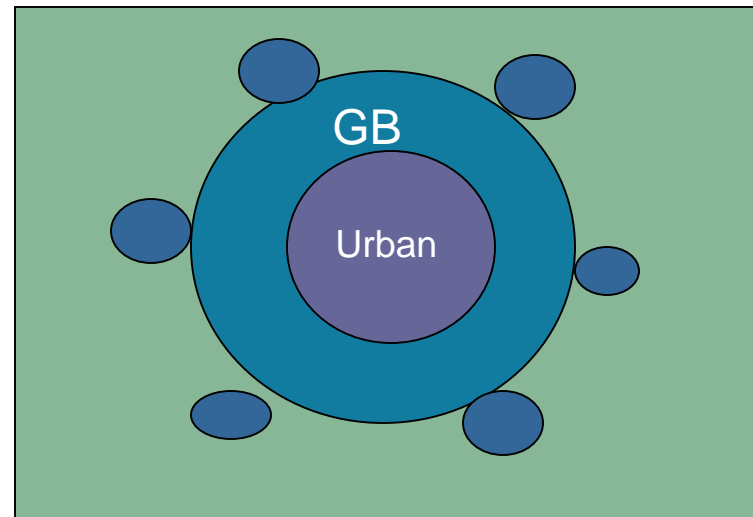
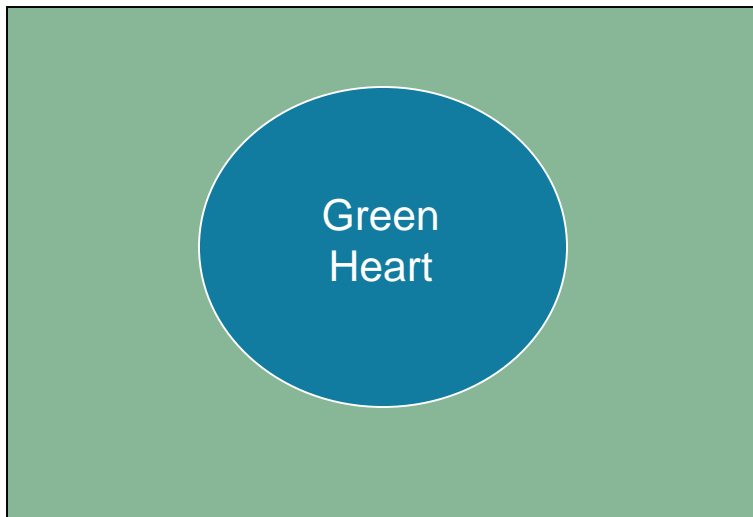
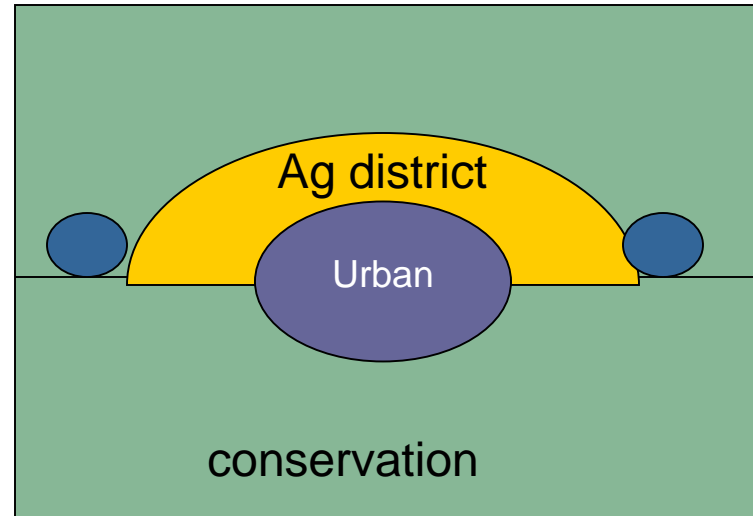
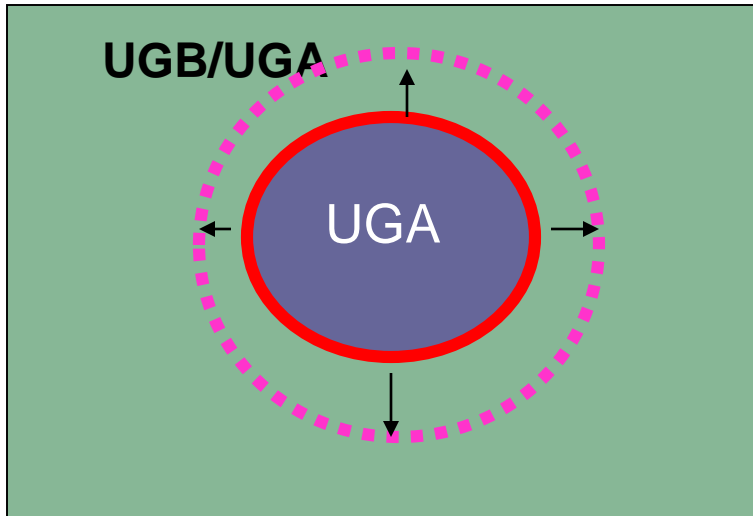
American Urban Growth

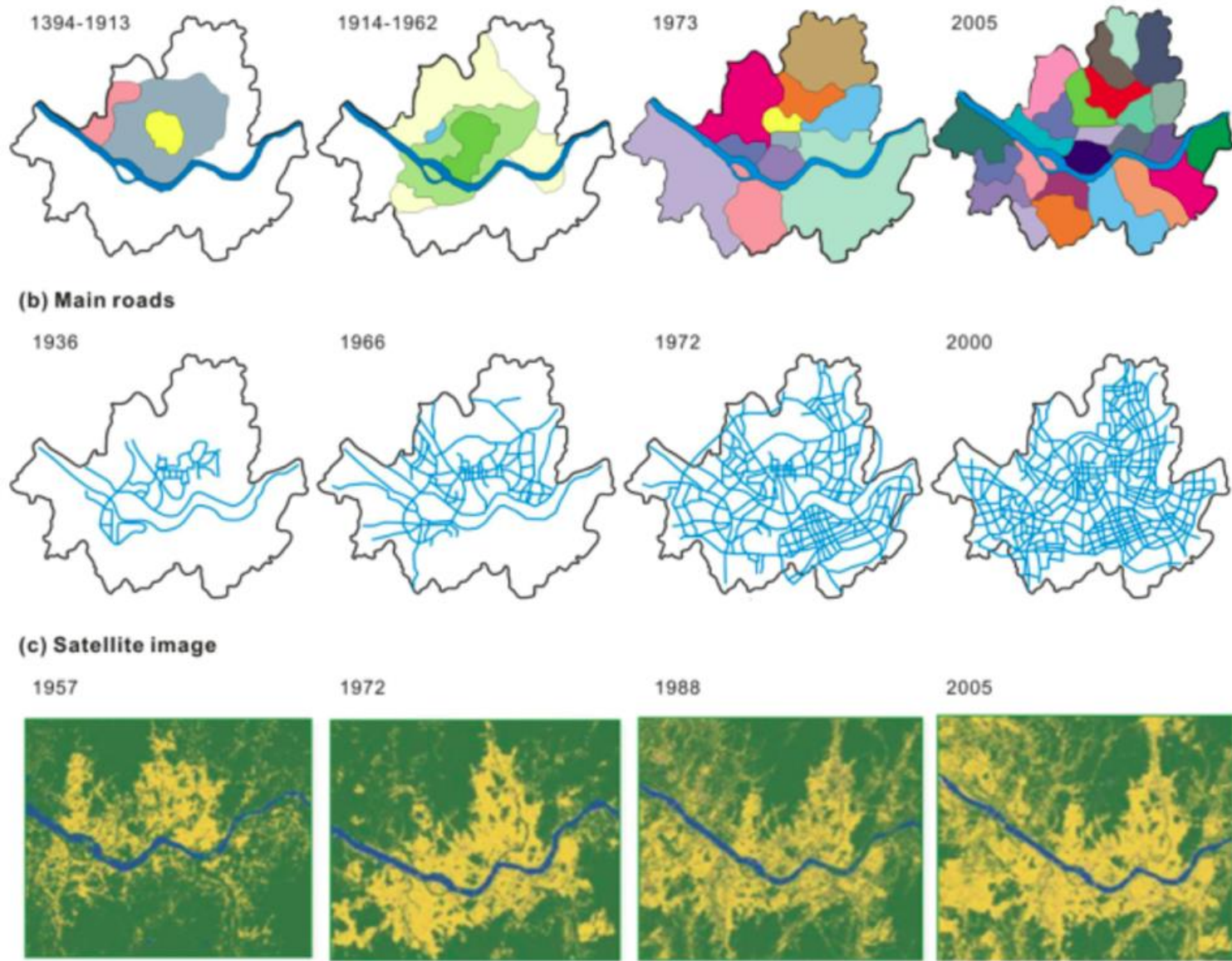
Centrifugal Forces

Centripetal









Figure

Caption

Fig. 2 Changes in (a) administrative districts, (b) transportation roads and (c) satellite images of Seoul (SMG 2016)

This figure was uploaded by [Maimoona Raza](#)

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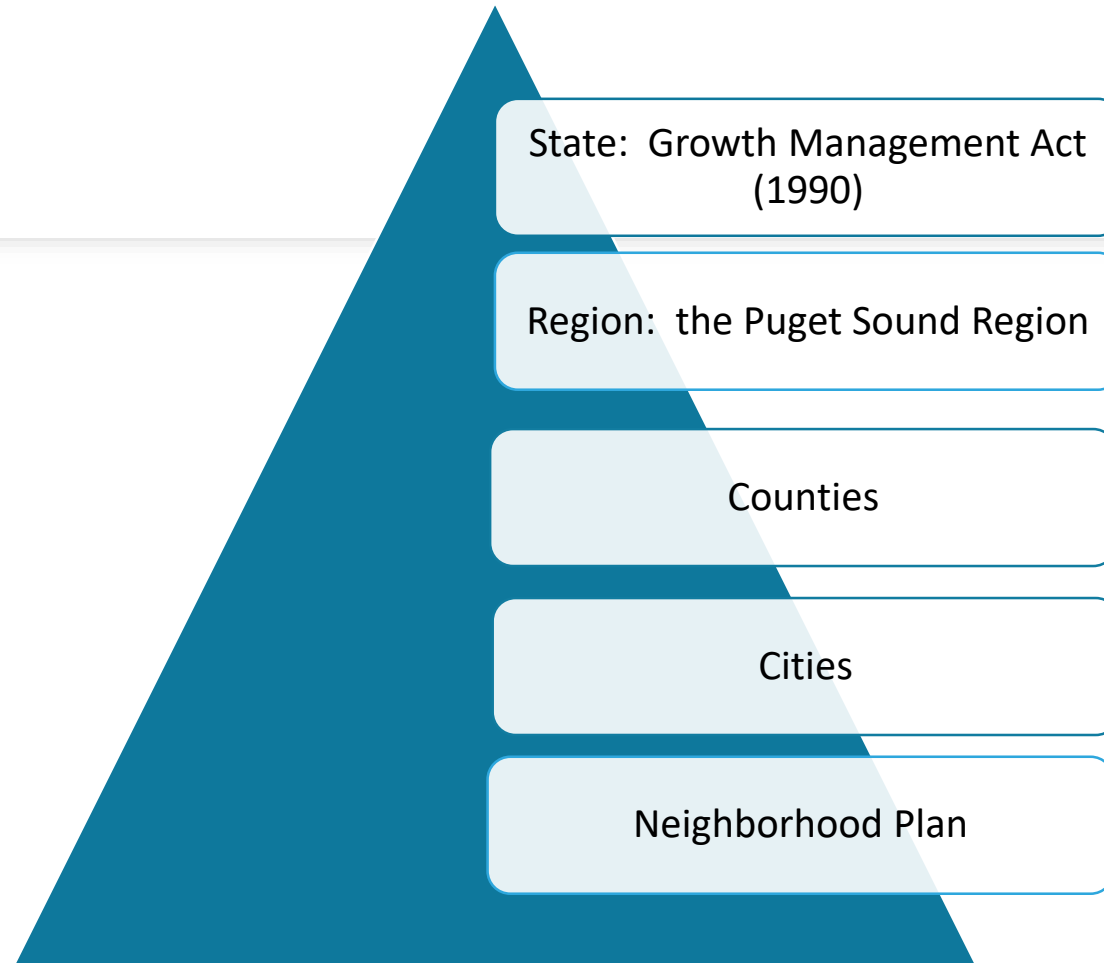
Seattleites concerned about urban sprawl very seriously from the late 1980s.
Developer-led, unchecked growth, aka Los Angeles-Style sprawl, could ruin
the state's natural beauty, environmental quality.

Washington state passed the Statewide Growth Management Act, 1990

Region: Vision 2020, 2030, 2040, 2050



Geographical urban hierarchy



GMA Planning Goals (RCW 36.70A.020)

1. Encourage urban development in urban areas
2. Reduce sprawl, reduce low-density development
3. Encourage multimodal transportation systems
4. Encourage affordable housing
5. Encourage economic development
6. Provide just compensation for private property
7. Process permit applications timely and fairly
8. Maintain and enhance natural resource-based industries
9. Encourage the retention of open space & development of recreational opportunities
10. Protect the environment and enhance the state's quality of life
11. Encourage citizen participation in planning process
12. Encourage the availability of public facilities & services
13. Identify and encourage historic preservation
14. Shoreline management act*

http://www.ecy.wa.gov/programs/sea/sma/st_guide/intro.html



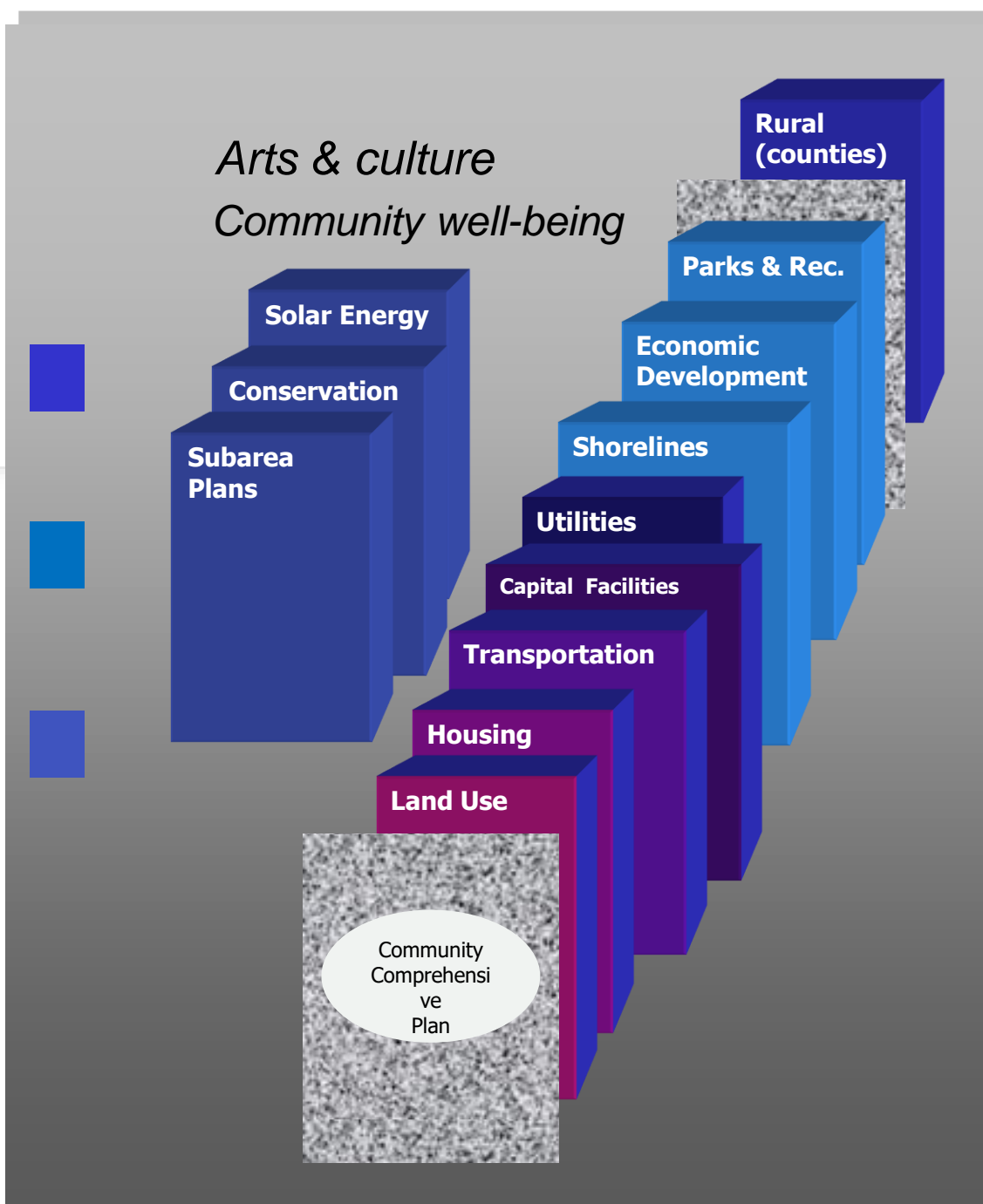
GMA

Comprehensive Plan Elements

1990
Mandatory Elements
RCW 36.70A.070

Mandatory Elements
added in 1995/2002

Optional Elements
RCW 36.70A.080



Hierarchical GM PS Regional Approach

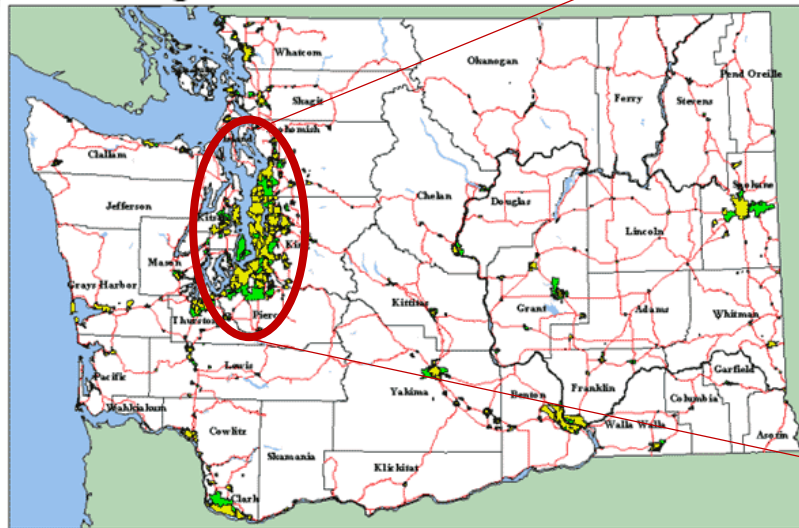


Central Puget Sound Region



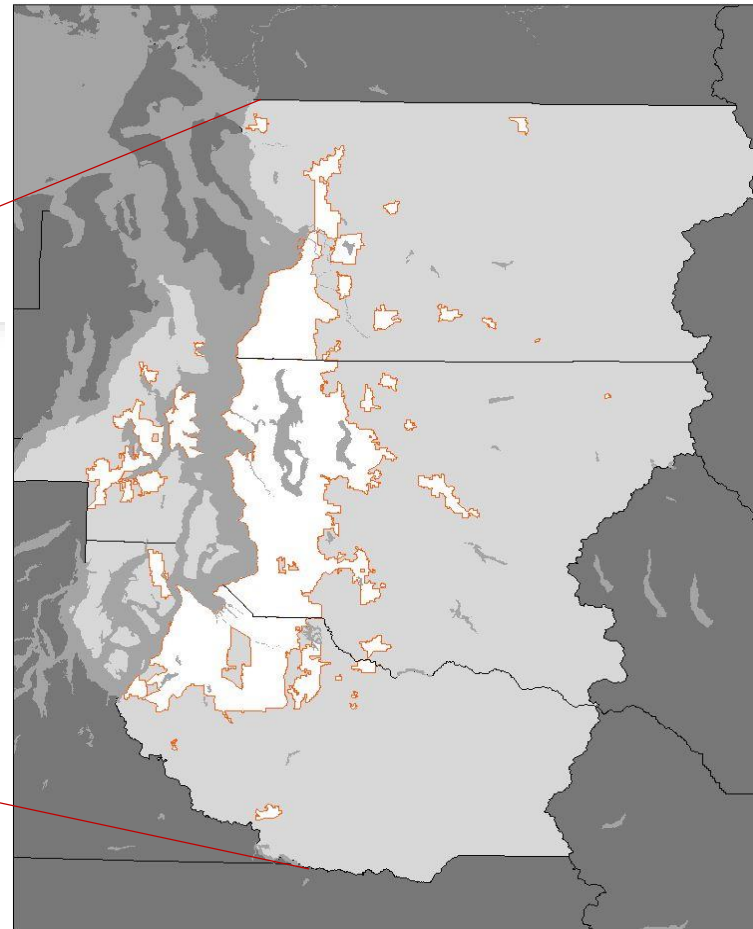
- 4.3 million people
- 2.3 million jobs
- 4 counties
- 82 cities and towns
- Urban and rural
- 6400 square miles
- 1000 square miles urbanized





■ Incorporated UGA
 ■ Unincorporated UGA

Washington State

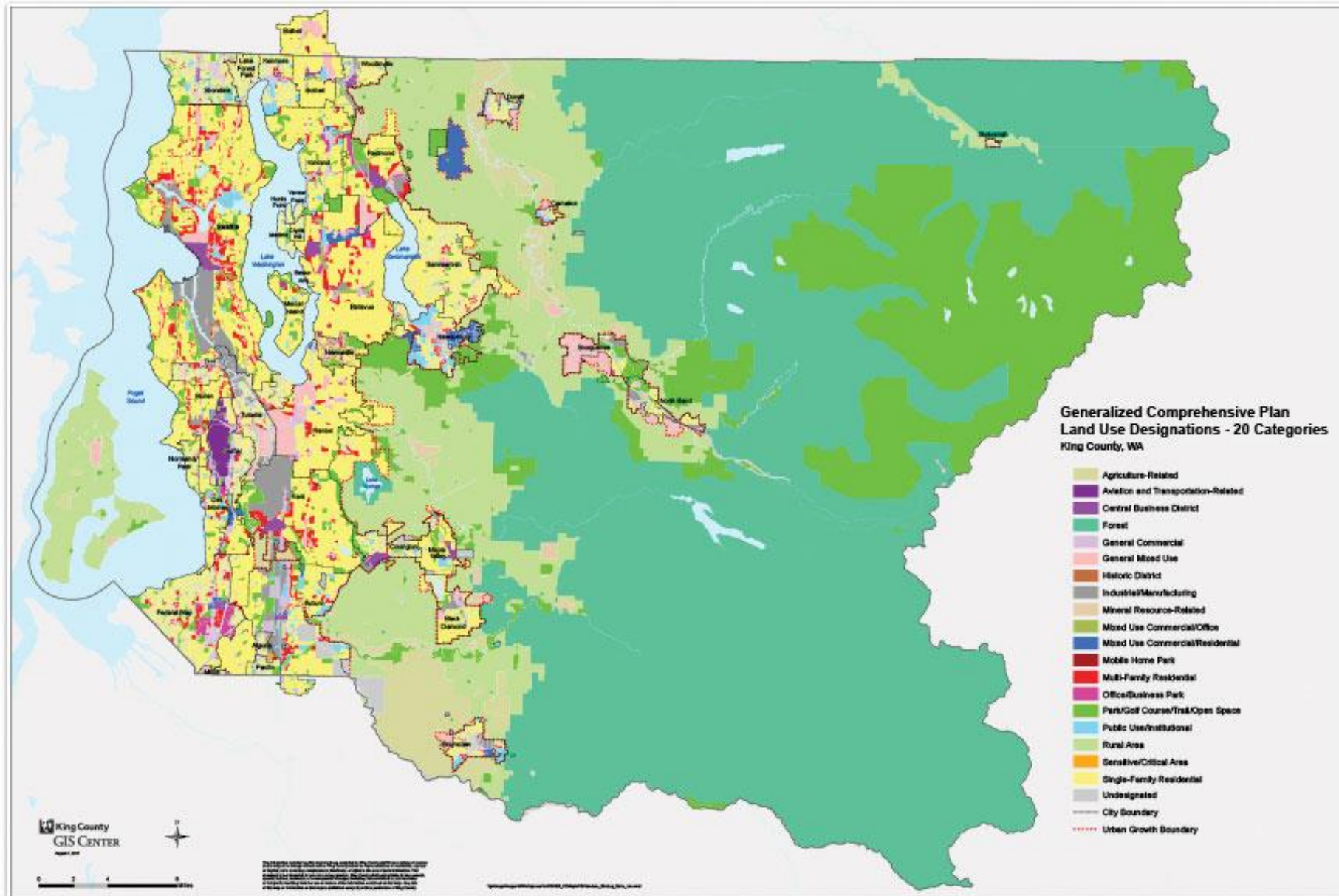


Puget Sound Region and Urban Growth Areas

UGAs:
60% of WA
population

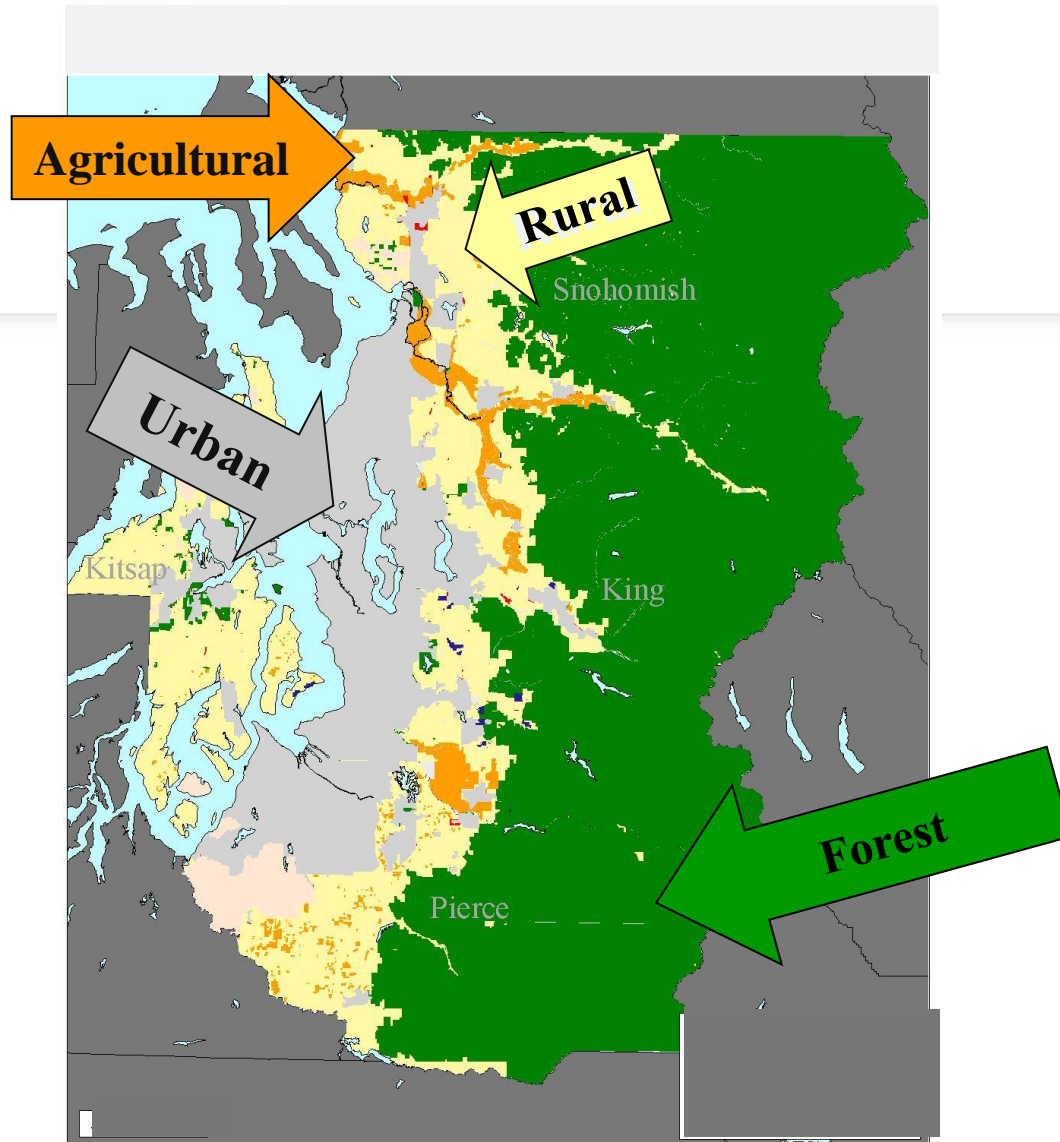
WA Total land
areas: 71,362
mi²





Map of Urban Growth Areas, King County, WA <https://www.kingcounty.gov/services/gis/Maps/vmc/Planning.aspx>

Regional Land Uses



Three (3) land uses designated by the GMA:

- **Urban Lands**
- **Rural Lands**
- **Resource Lands**
 - agriculture
 - forestry
 - fisheries
 - mining



Hierarchy of plans and infrastructure investment

Plans

Long range plans (PS Region)

- Vision 2050 (Vision 2020, 2040)
- Regional Transportation Plan
- Regional Economic Strategy

Comprehensive plans (Counties and cities)

Neighborhood plans (*optional)

Transportation Infrastructure

High capacity transit

Bus rapid transit

Transit electrification (Metro King)

Non-motorized transportation

- Pedestrian
- Bicycling



REGIONAL POLICY DIRECTION

VISION 2050

—Multicounty Planning Policies—
—Regional Growth Strategy—

DETAILED FUNCTIONAL IMPLEMENTATION PLANS

Regional Transportation Plan

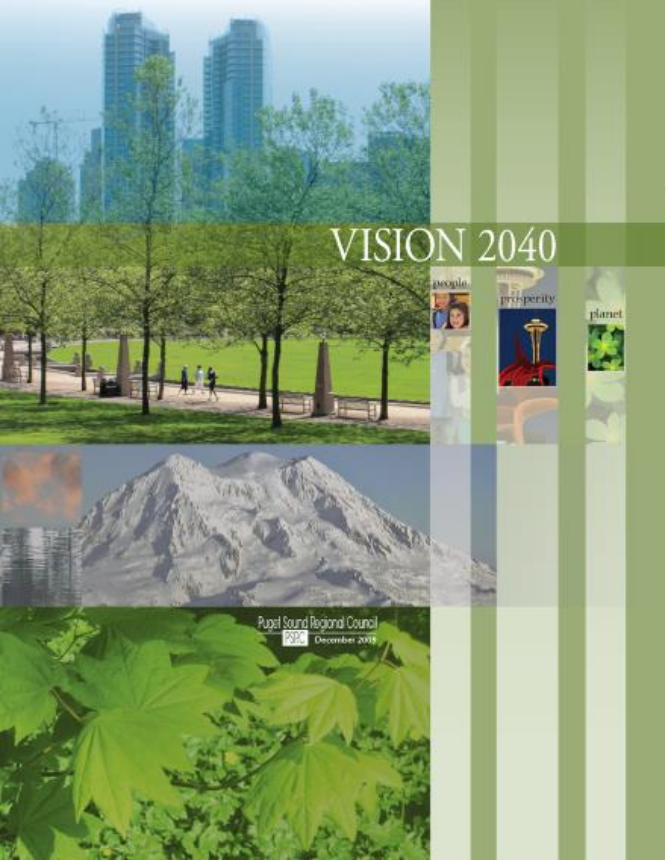
—Metropolitan Transportation Plan—

Regional Economic Strategy

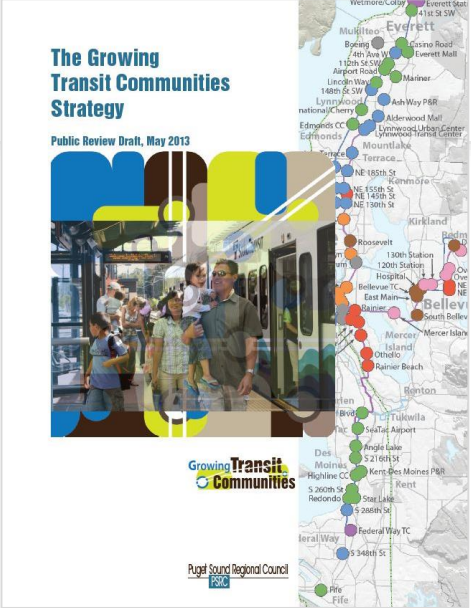
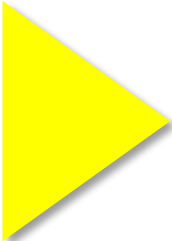
—Comprehensive Economic Development Strategy—



Post VISION 2040: A Decade of Planning

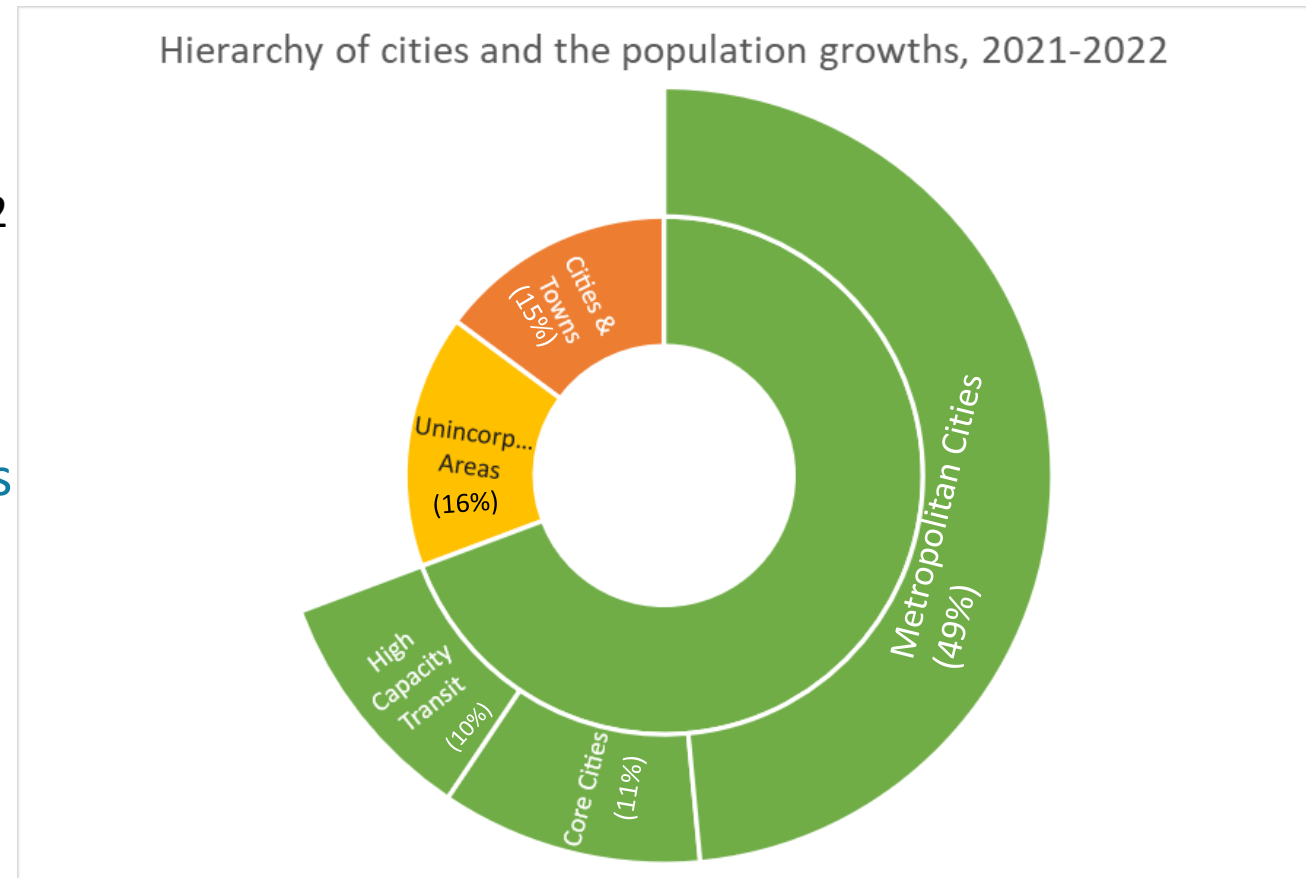


2008



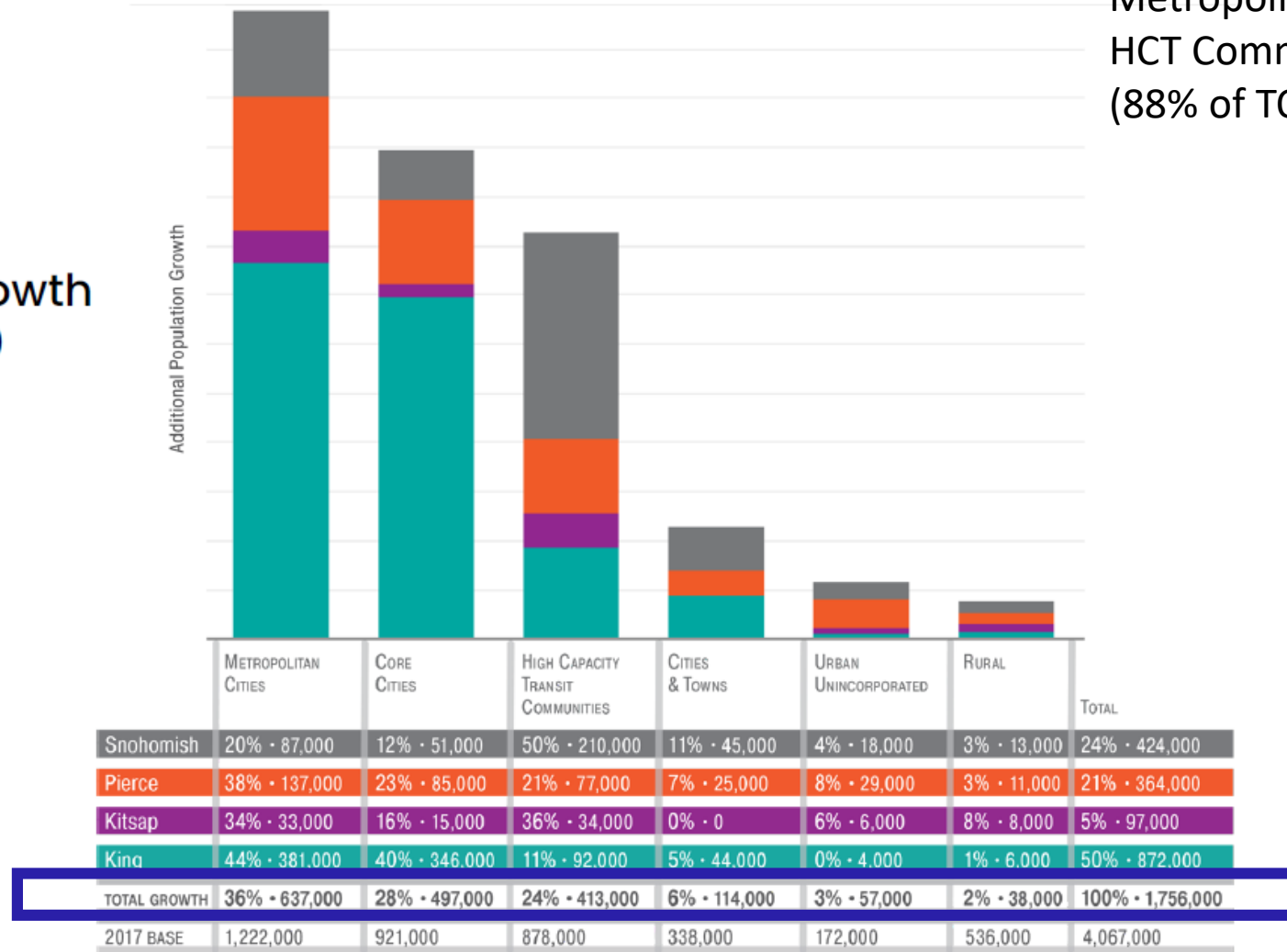
Hierarchy of cities

- **Metropolitan Cities**
 - 34% of regional pop growth, 2011-2022 (220,000 people)
- **Core Cities**
- **High Capacity Transit Communities**
- **Cities and Towns**
- **Unincorporated Cities**

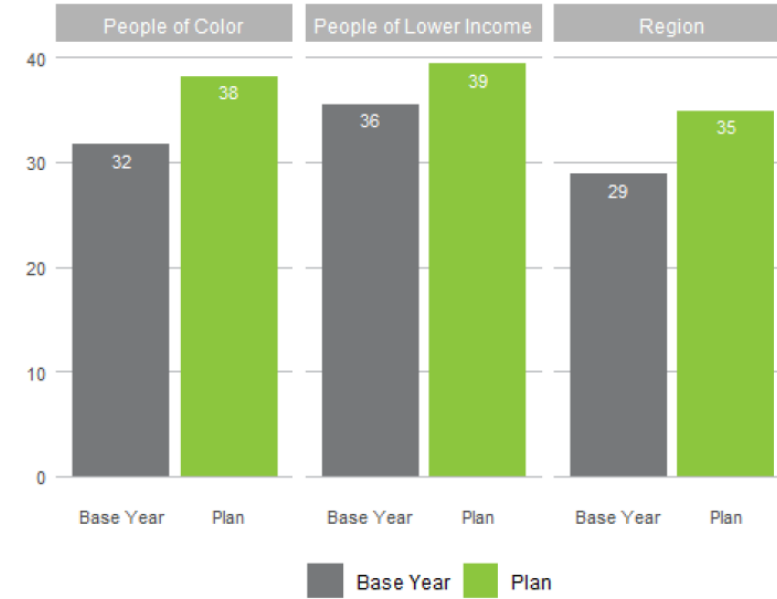
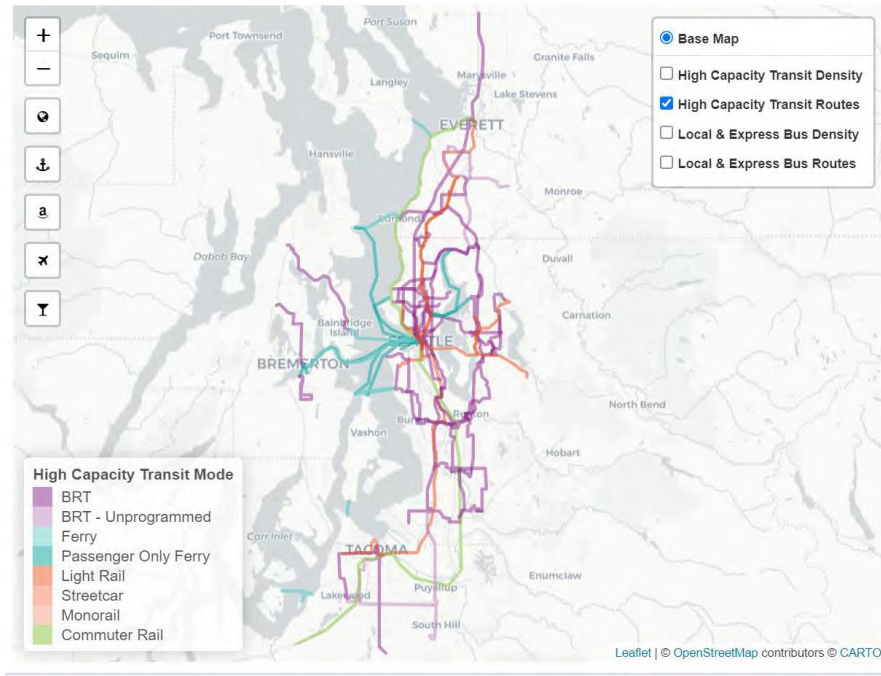


Population Growth 2017–2050

Aggressive growth is planned for Metropolitan/Core Cities and HCT Communities by 2050 (88% of TOT growth)



Transit Routes and Density: 2050



Centers/cities are connected via high capacity transit services

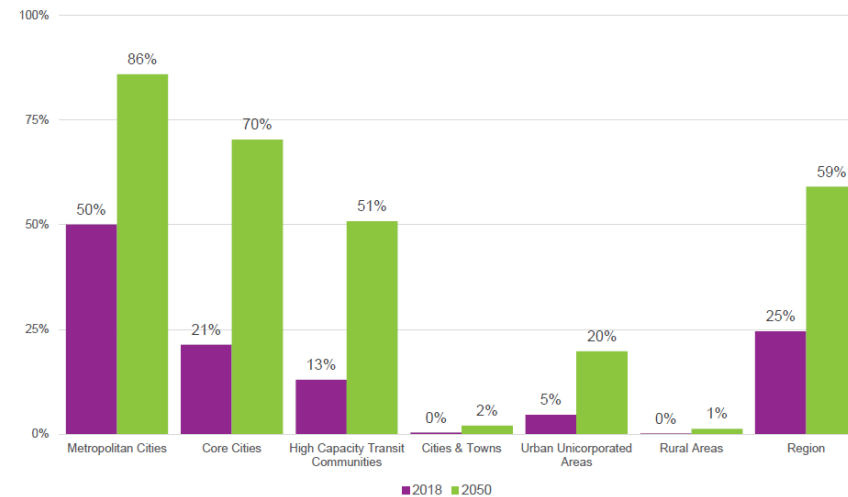
Moving people near transit stations

Higher population densities within ½ mile (800 m) transit sheds

- 2050 Target: 59% of pop live within ½ mile of high capacity transit service

More walking and biking share

- 2050 Target: >15% increase



Hierarchy of centers

-strong land use policies to accommodate growth

Puget Sound Region

Regional Growth Centers

Manufacturing Industrial Centers

High Capacity Transit Communities

City of Seattle

Urban Centers

Hub Urban Villages

Urban Villages



Regional Growth Centers and Manufacturing/Industrial Centers



Regional Growth Centers

29 Regional Growth Centers

- 2.6% of urban growth area (26 mi²)
- 5% of population (260,000)
- **30% of jobs (500,000)**

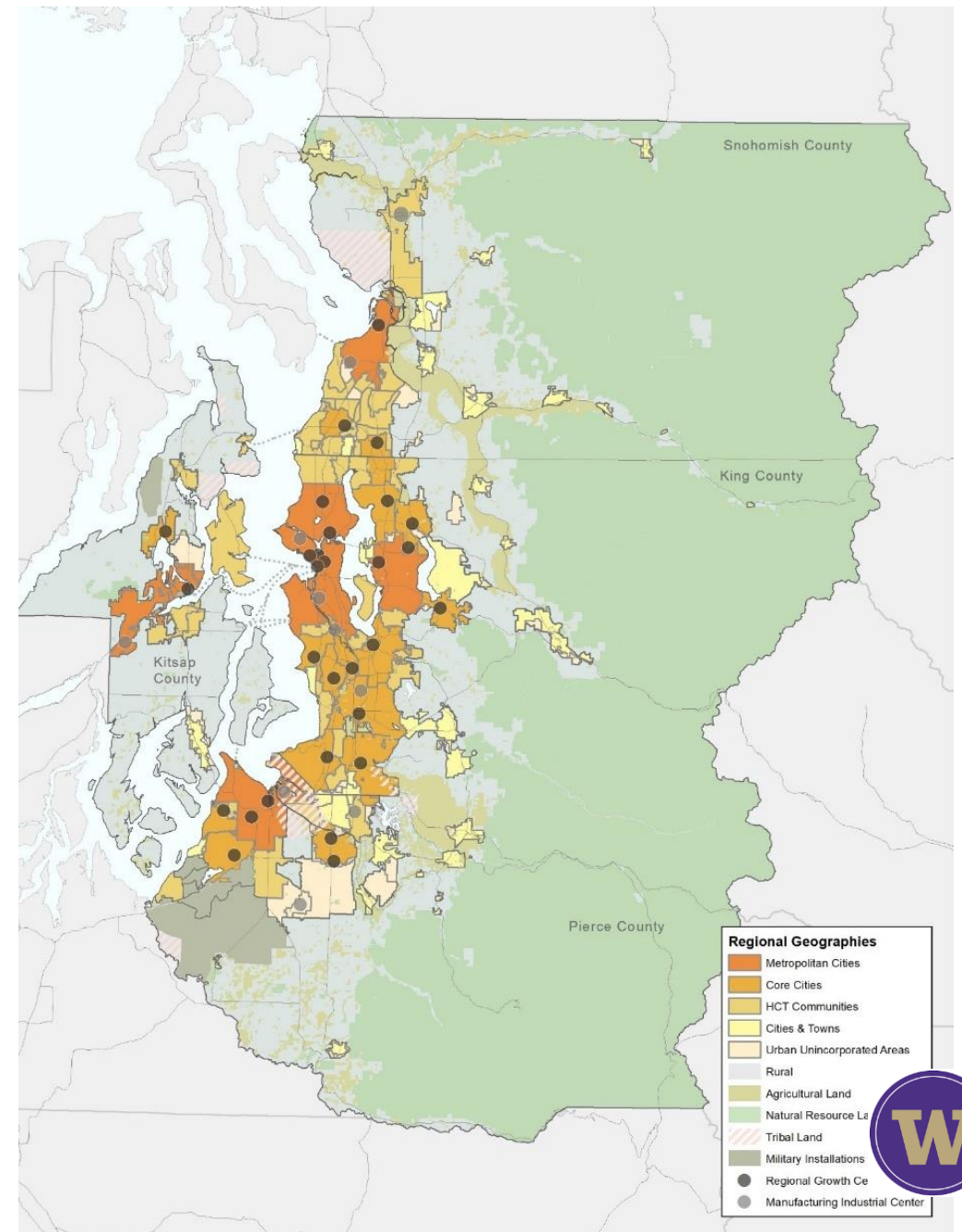
10 Manufacturing Industrial Centers

- 4% of region's land area (41 mi²)
- 0.3% of population (11,000)
- **9.5% of jobs (160,000)**



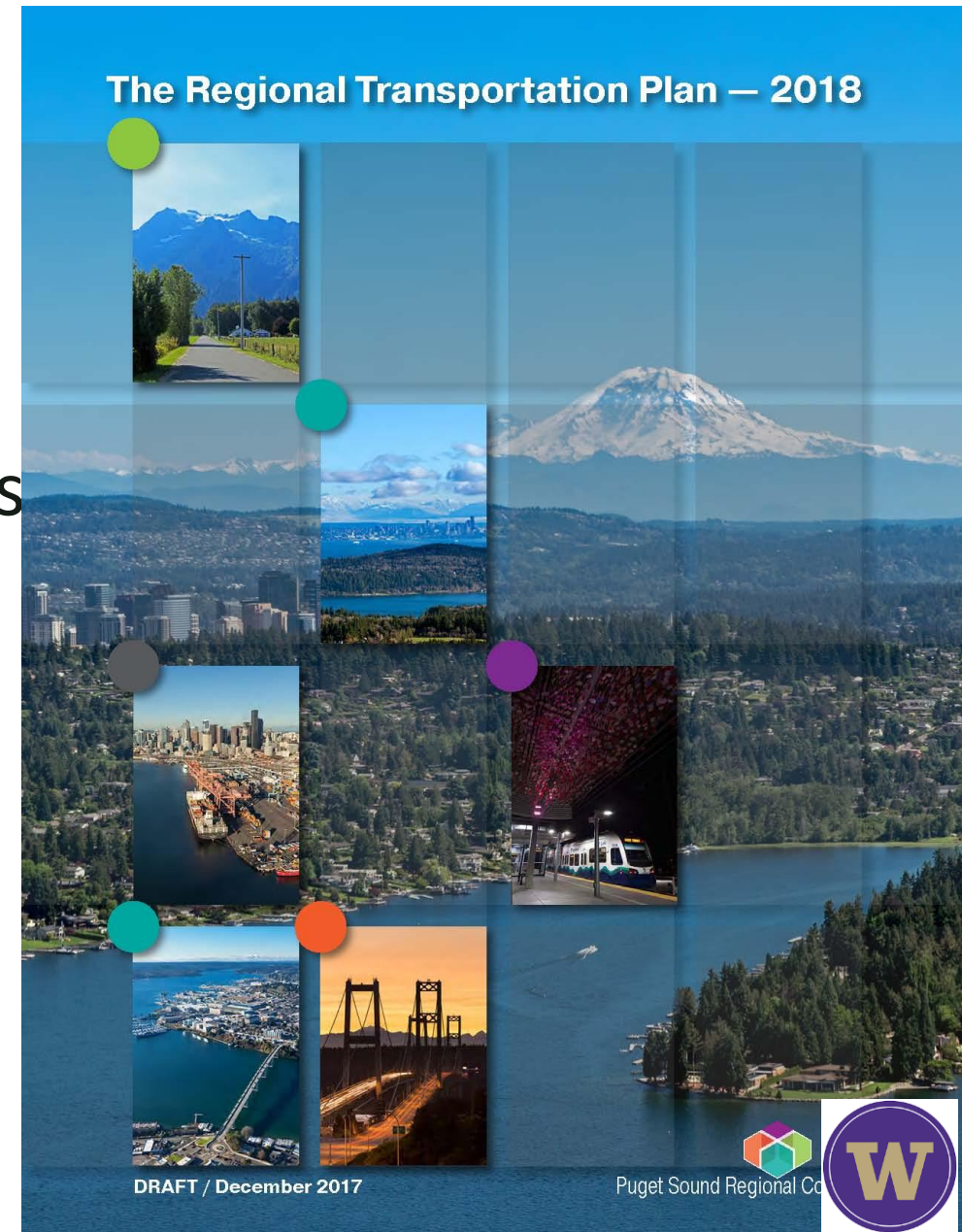
Regional Growth Strategy

- Direct future urban growth to designated Regional Growth Centers via *land use policies*
- density mixed use development. Infrastructure priority areas.
- More growth allocations to a higher rank in the hierarchy of cities.
- Region's key employment centers with higher Metropolitan and Core Cities are served as High-Capacity Transit Communities
 - Transit stations with mixed use (commercial, residential) development



Regional Transportation Plan

- Strategy for mobility and choice
- Meets all state and federal requirements
- \$197 Billion
- Integrated Regional Transit Network
- Get ahead on key issues: environment, innovation & technology, finance, performance measurement

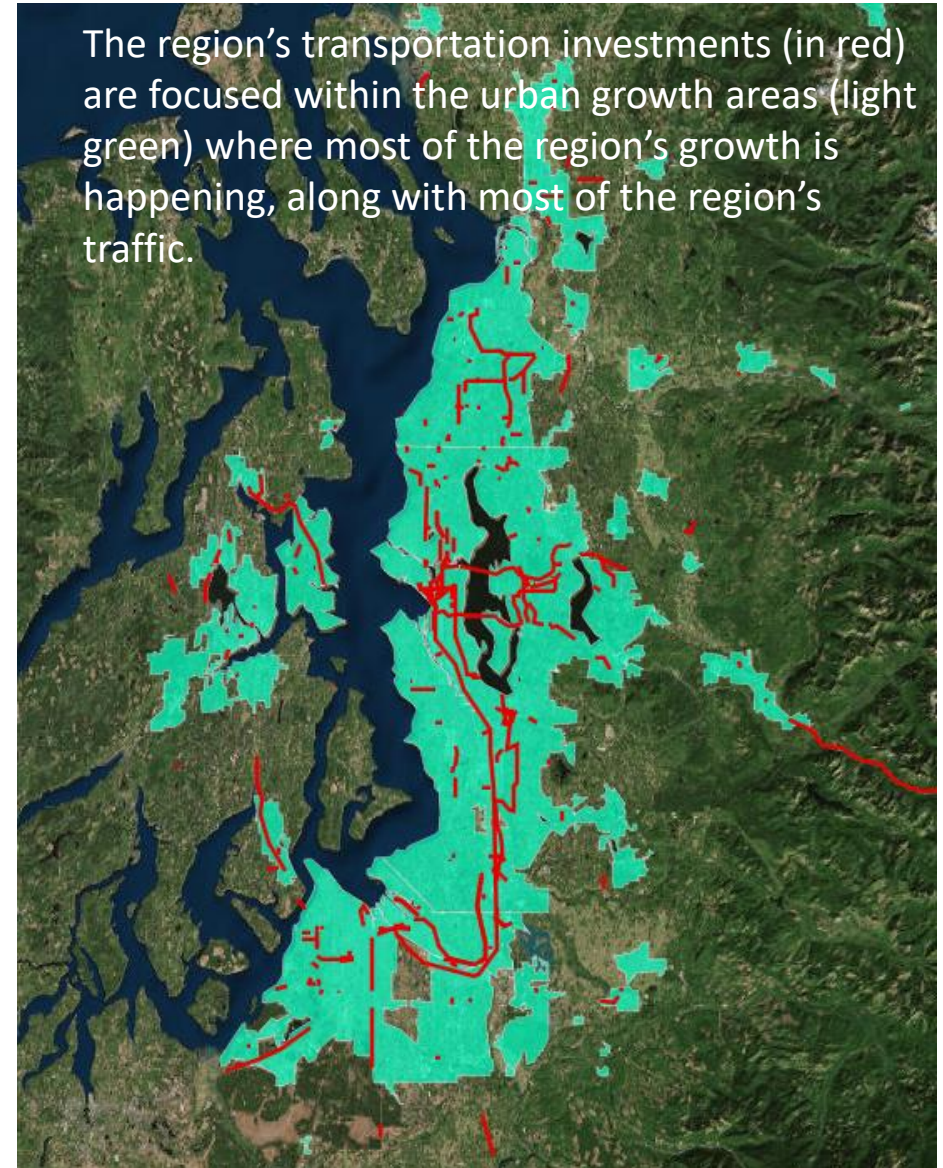


Regional transportation policy: implementation

Give regional funding priority – both for *transportation infrastructure* and *economic development* – to support designated **regional growth centers** and **manufacturing/industrial centers**, consistent with the regional vision. Regional funds are prioritized to regional centers.

draft VISION 2050, p. 19 (2019)

MPP-RC-7



Aggressive transit program



- \$100 billion+ high-capacity transit
- Centers and station areas



Hierarchical GM Seattle Approach



Seattle Comprehensive Plan

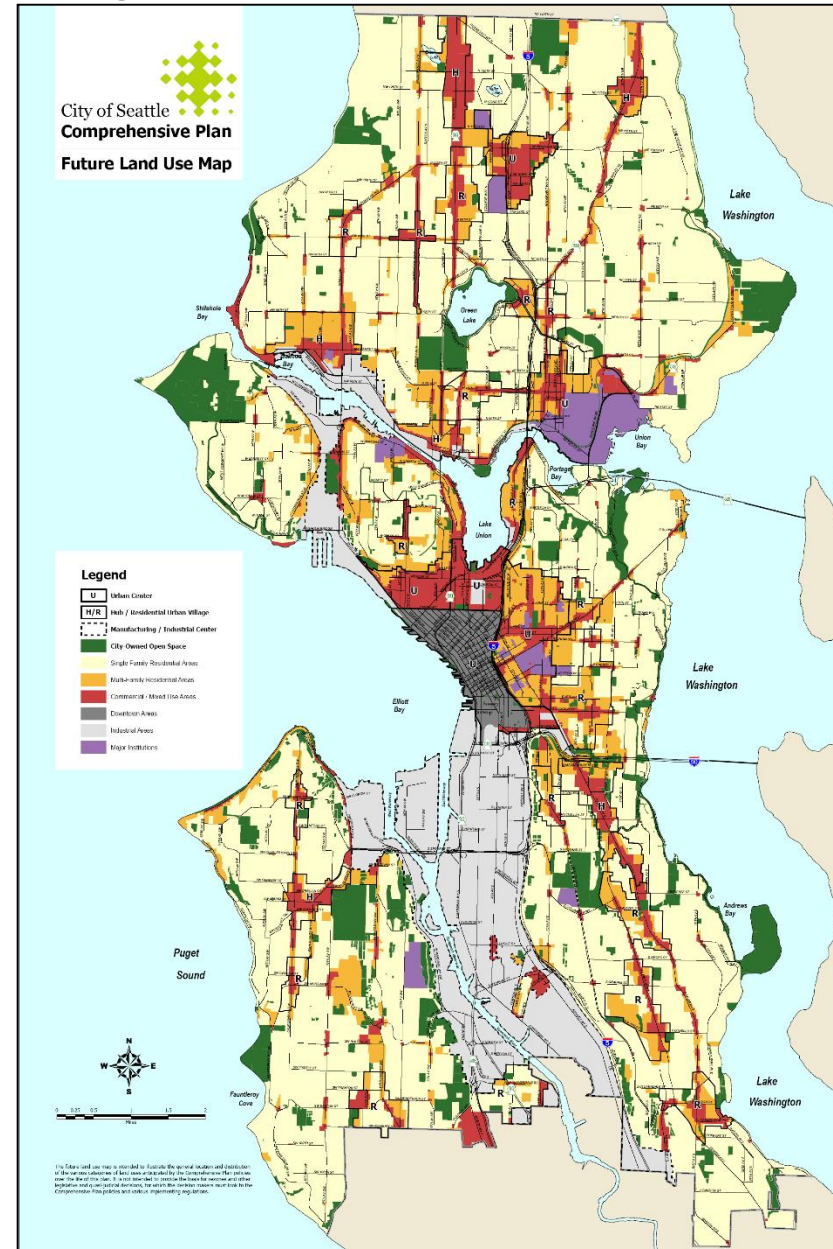
Toward a Sustainable Seattle (1994) → Seattle 2035

- Environmental stewardship
- Social equity
- Economic opportunity and security

20-year plan for residential and employment growth

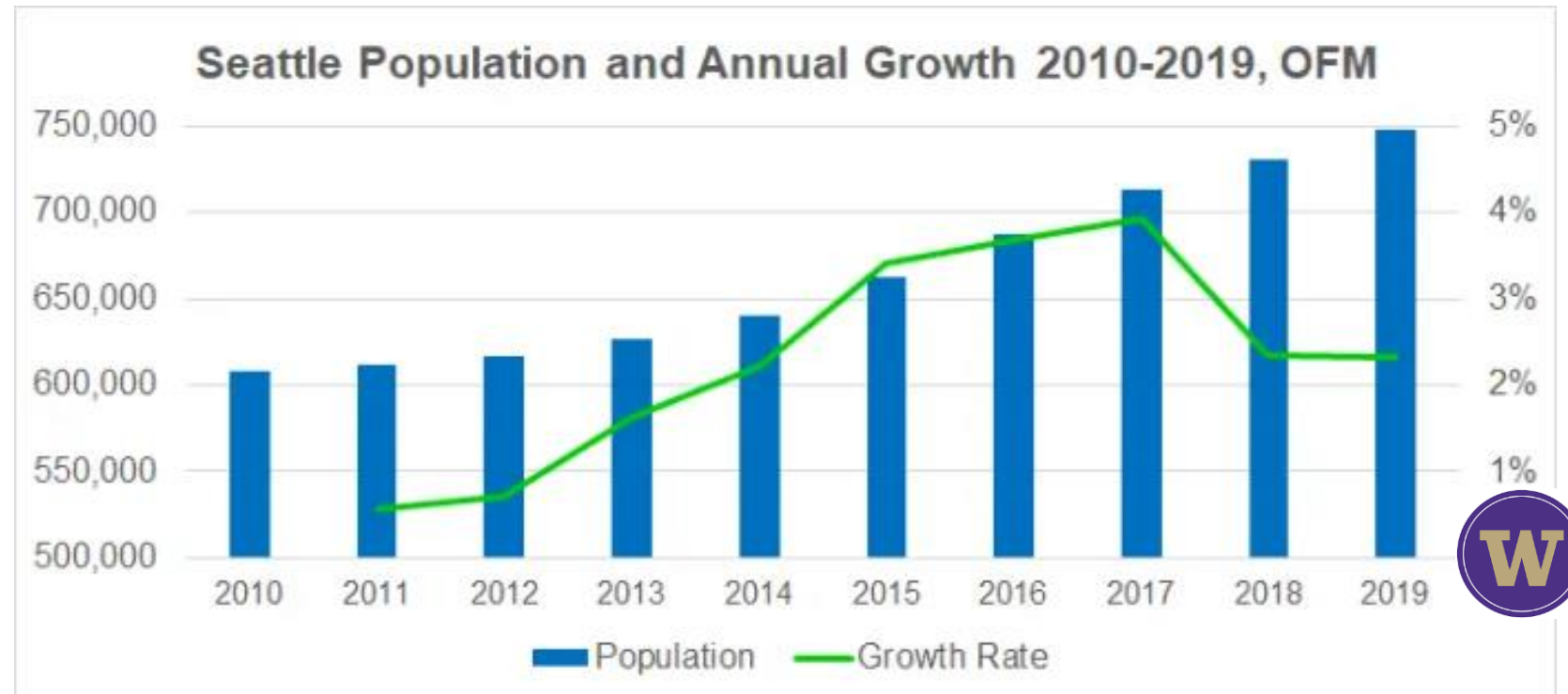
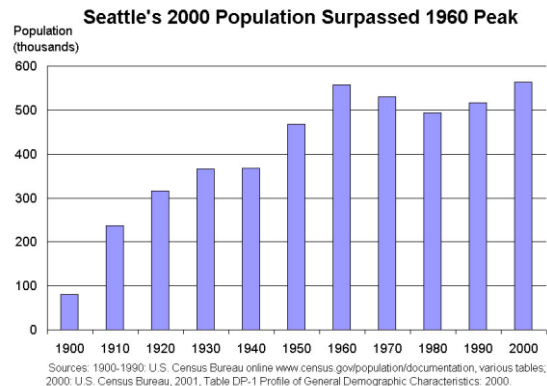
Growth encouraged in *urban centers* and *urban villages*

Includes plans created by individual neighborhoods



Seattle, rapidly growing city since 1990

2021: 769,000
2015-2021: 107,000



The Urban Village strategy in Seattle

- Seattle's vision is to be vibrant and healthy place
- Spirit of the future growth management to build:
 - Stronger communities
 - Environmental stewardship
 - Economic opportunity and security for all
 - Greater social equity
- Means/Tools
 - **Housing diversity** and **employment growth**
 - **TOD** (Transit Oriented Development) & walkable communities
 - **Provision of service & infrastructure** to accommodate the growth
 - Enhance the natural environment & cultural resources
 - **Land use code changes to accommodate higher density and mixed use (Upzoning)**



The Urban Village strategy in Seattle

- Urban Village definition is
 - “a comprehensive approach to planning for a sustainable future. This approach is intended to maximize the benefit of public investment in infrastructure and services and promote collaboration with private interests and the community, to achieve mutual benefits.” (*Seattle’s Comprehensive Plan, Urban Village Element, p.1.3*)
- Identified as a strategy in Seattle’s 1994 Comprehensive Plan, *Urban Village* boundaries formalized in 1995
 - WA GMA, 1990, established Urban Growth Areas (=UGBs)
 - It requires cities to prepare their comprehensive plans to accommodate future growth for 20 years



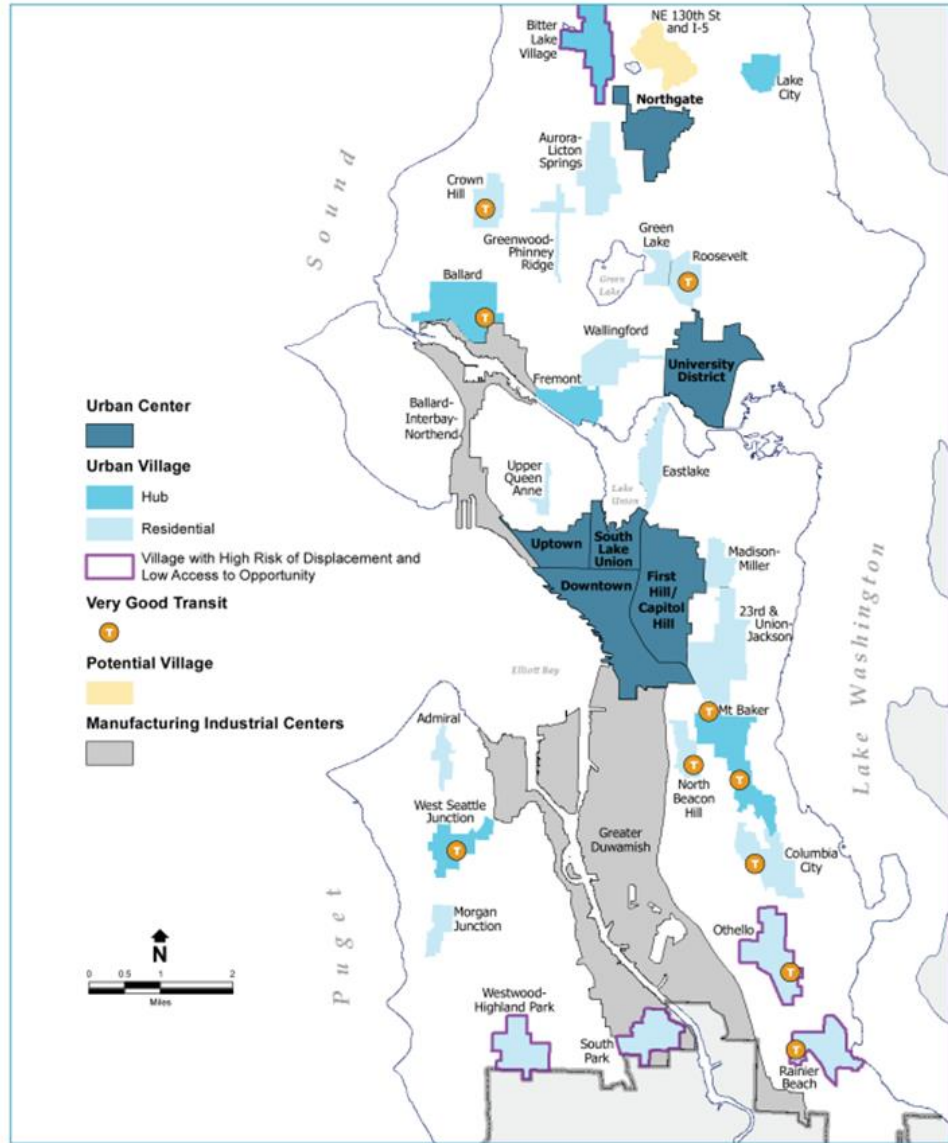
UV: where the future growth goes

- **Three LU elements** are tied together with/without upzoning
 - Increase density
 - Mixed uses
 - Proximity to transit and employment
- **UV boundaries**: Considered the existing neighborhood characteristics to foster UVs rather than drastic changes
- **Hierarchical structure** of 31 UVs with the three types of UV



Growth Strategy Figure 4

Urban Centers, Urban Villages, Manufacturing/Industrial Centers



Seattle: Urban Center/Village Strategy

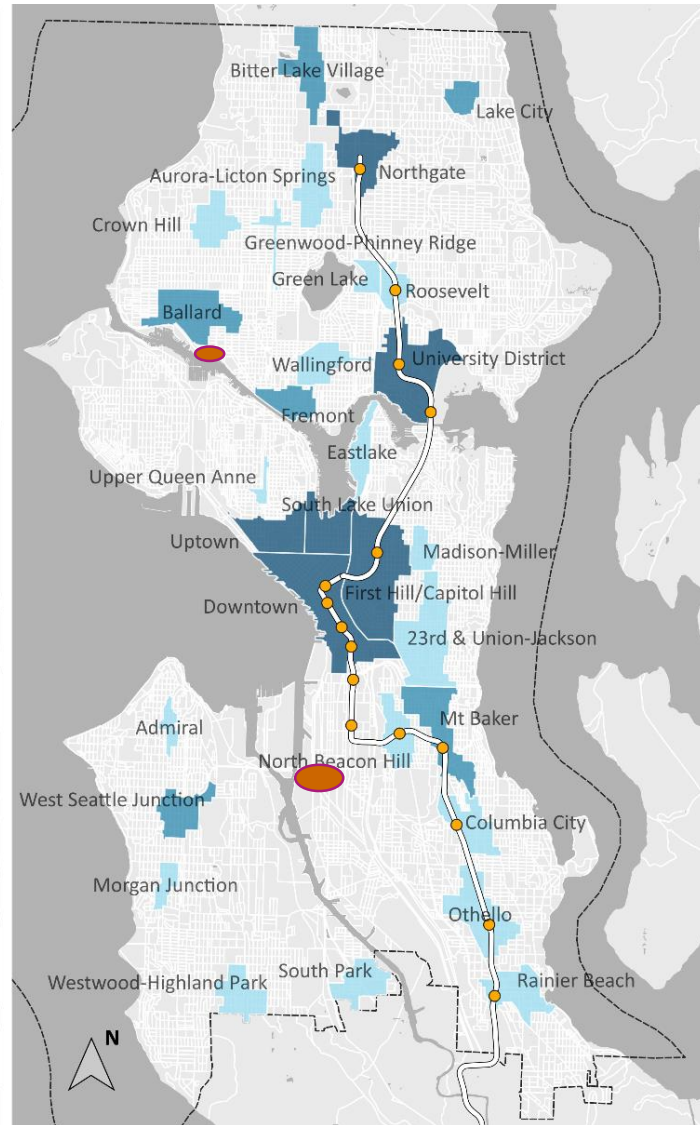
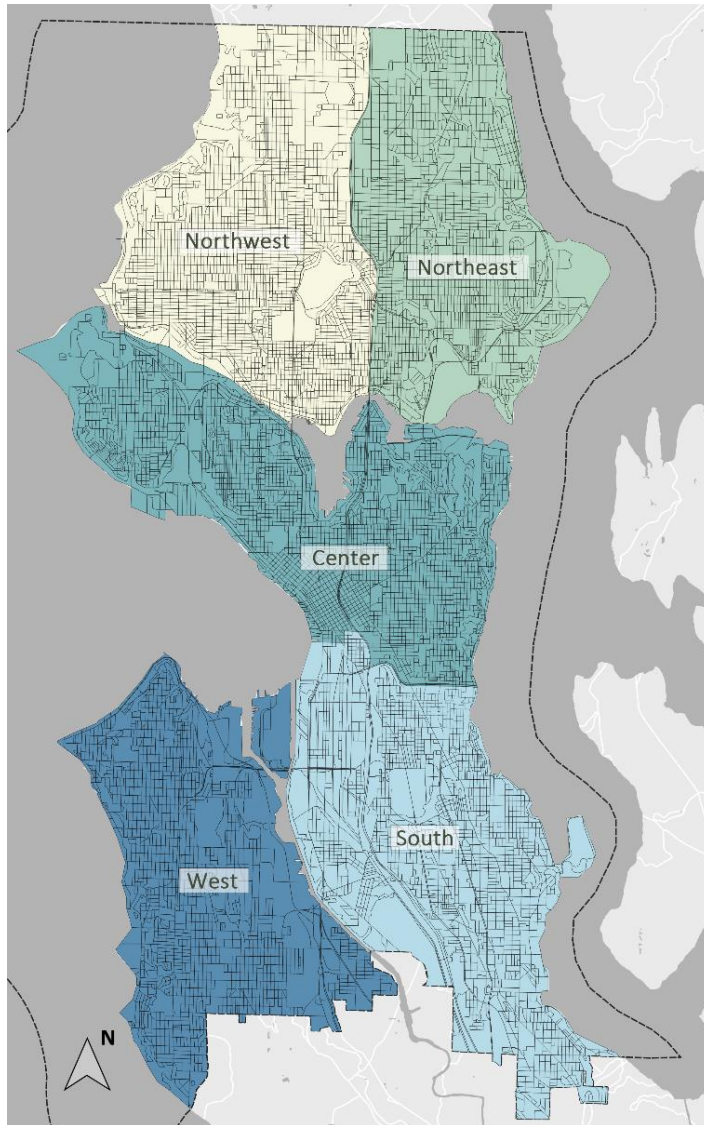
- Designate specific areas to promote **jobs/housing growths** and to provide **public services/infrastructure/amenities**
- Strong land use approach to **absorb 80%** of future growth via compact, mixed use development
 - 6 urban centers (=Regional Growth Centers)
Downtown and the five others (First Hill/Capitol Hill, South Lake Union, Uptown, University District, and Northgate)
 - 6 hub urban villages
 - 18 residential villages



The Urban Village strategy in Seattle

- an orderly and predictable way to accommodate growth
- strengthens existing business districts
- promotes the most efficient use of public investments
- walking, bicycling, and transit use
- denser than the outside of urban villages





Goal: 70% of housing unit accommodation within UVs has been accomplished as of 2019

Seattle's Urban Villages

- Urban Center
- Hub Urban Village
- Residential Urban Village
- Light Rail Stations
- Light Rail Line
- Municipal Boundaries of the City of Seattle
- Open Water



Types of Urban Villages

UV Types	Scale	Housing	Employment
Urban centers (6)	Regional & Neighborhood	Housing mix Breakdown to Urban center villages	Employment opportunities
Hub urban villages (6)	City	Housing/Emp balance lower densities than Urban Centers Goods, services, employment	Balance with Housing
Residential urban villages (19)	Neighborhoods	Local goods & services	Less emphasis

Manufacturing UVs are excluded in our analysis



Selective Statistics of Seattle's Urban Villages and the City		2000	2020
UV/City Proportion	UV land area	18.9%	Unchanged
	UV population	48.8%	62.2%
	UV household	55.0%	74.2%
Total housing units		56.1%	73.7%
	SFH (UV)	20.8%	14.8%
	SFH (City)	57.1%	42.4%
	MFH (UV)	79.1%	85.2%
	MFH (City)	42.9%	57.6%
Total Residential BLDG area	UV	25.6%	30.1%
	City	55.4%	60.0%
Medium Income	UV/City	75.2%	78.8%
% White	UV	59.6%	55.5%
	City	72.2%	64.5%



Essence of Seattle Style GM

New growths are directed to “Centers” mostly

Reduce land conversion for urban development

Built environment transformation

Invest in public transit infrastructure

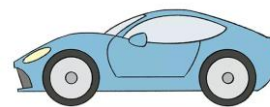
Reduce average drive time

Reduce Greenhouse Gas emissions

Single Family Home → Diverse housing type



Love affairs with automobiles → transit/walking/biking



Conclusions

Seattle and the Puget Sound have hierarchical GM strategies.

Hierarchical cities, centers, land use policies reshape the region more compact, mixed use environment. It shows measurable differences in built environments.

It is repositioning to promote high capacity transit, walking, biking for commute, neighborhood scale trips. Walking and biking are very popular, but the success of public transit has been dampened by COVID.

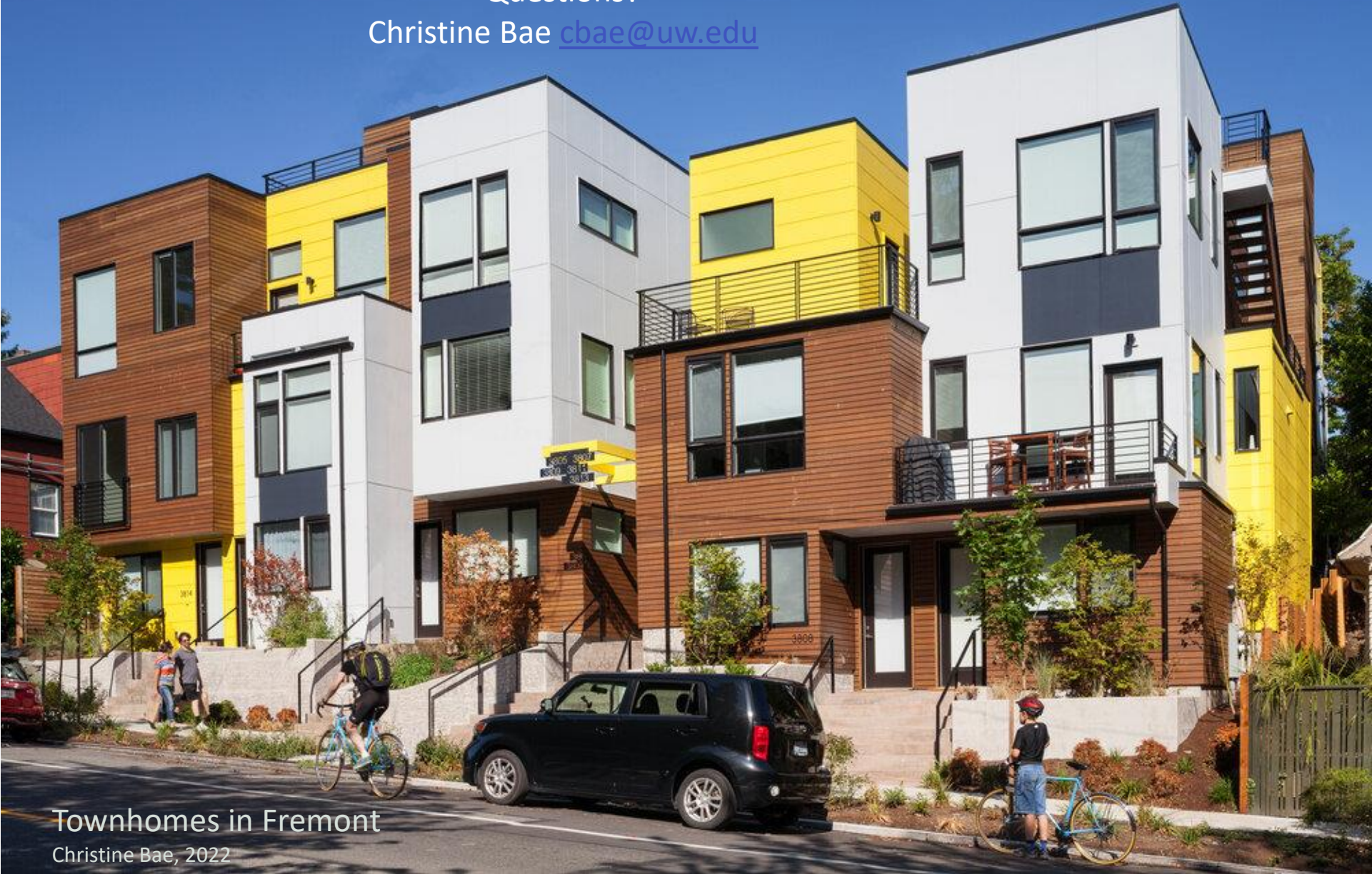
Limit urban sprawl that we know it. End of developer led sub/urbanization.

More economic growth in the central areas could lead spatio-economic inequality.

If commuters do not use alternative transportation, congestion could be worse.



Thank you!
Questions?
Christine Bae cbae@uw.edu



Townhomes in Fremont
Christine Bae, 2022