# Welcome.

Thank you for coming to the public hearing on the Draft Environmental Impact Statement for citywide implementation of Mandatory Housing Affordability (MHA).

5:30 p.m. Open House

6:30 p.m. Public Hearing







# What is an EIS?



An EIS analyzes how a proposal could affect various elements of the environment like air quality, building height, and housing, among others.

ISSUE DETERMINATION OF SIGNIFICANCE & SCOPING NOTICE

Determination of Significance and Scoping noting for the MHA EIS was issued on July 28, 2016.

CONDUCT SEPA SCOPING Scoping comment period closed on September 9, 2016. Two scoping events were held in August.

PREPARE DRAFT EIS

We prepared the Draft EIS.

ISSUE DRAFT EIS

We issued the Draft EIS on June 8, 2017.



DRAFT EIS PUBLIC COMMENT PERIOD

A 45-day period following issuance of the Draft EIS. This includes tonight's public hearing. Comments are due July 23, 2017.

PREPARE FINAL EIS

This includes preparing responses to public comments after the close of the public comment period.

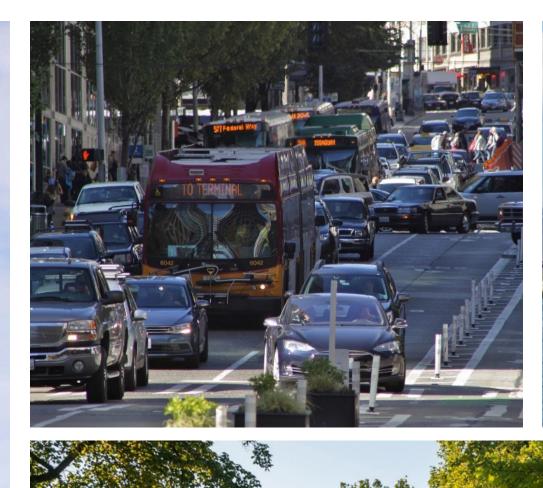
ISSUE FINAL EIS

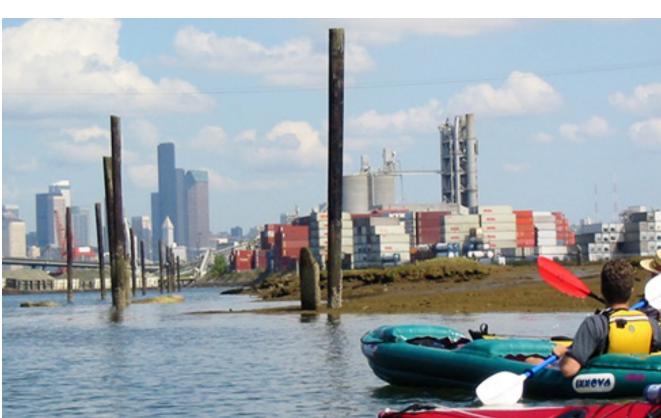
Tentatively scheduled to be issued in fall 2017. Includes a preferred alternative and response to comments.

CITY ACTION

City Council is expected to review legislation and take public comment for about 6 months. Council vote expected in late spring 2018.











# What is HALA?

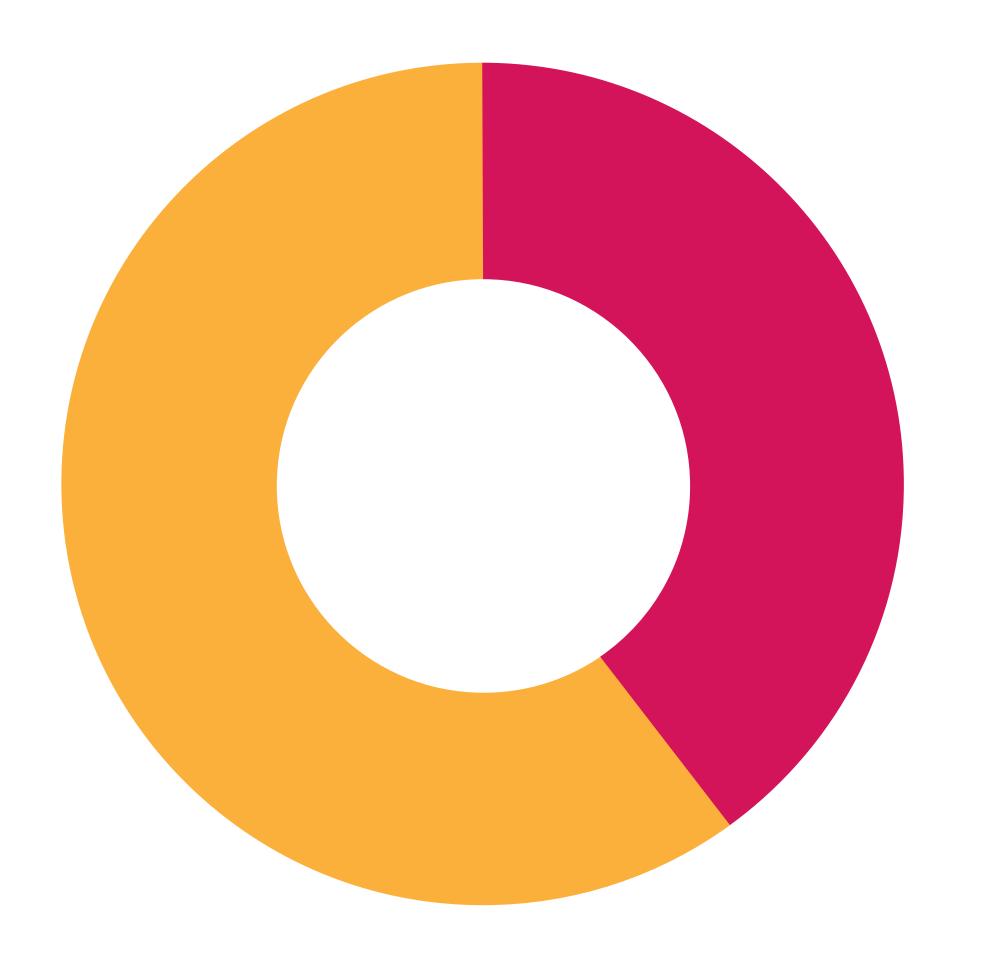


# HALA Goal: 50,000 homes over the next 10 years

This plan calls for a tripling of affordable housing production and contributions to affordability from new development.

# 30,000 new market-rate homes

- Critical new housing options to meet growing demand
- Continue growth in urban centers
- Reduce permitting barriers
- Maximize efficient construction methods
- Provide incentives for family-sized housing



# 20,000 affordable homes

- Net new rent- and income-restricted homes
- Includes new construction and acquisition rehab
- About 3x current production
- New and expanded public and private resources
- Funding programs primarily serve ≤ 60% AMI households
- Incentive programs primarily serve 60% to 80% AMI households



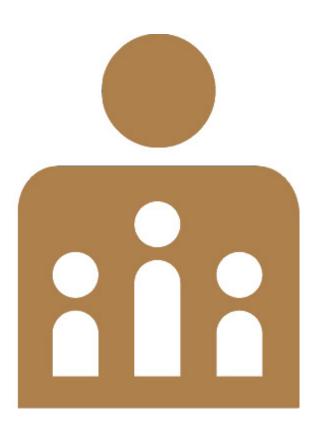
# Invest in housing for those most in need

- Doubling the voter approved Housing Levy
- Maximizing City-owned surplus property



# Create more affordable housing as we grow

- Requiring new development to contribute affordable housing
- Expanding successful incentive programs
- Increasing housing choices throughout Seattle



# Prevent displacement and foster equitable communities

- Strengthening renter protections
- Preserving existing affordable housing



# Promote efficient and innovative development

- Reviewing planning and development process and focusing on what works
  - Promoting quality development and design



# What is MHA?



# Mandatory Housing Affordability (MHA) requires new development to contribute to affordable housing in Seattle.

With MHA, new buildings will either include homes for low-income people or provide funding to create and preserve affordable housing throughout the city.

#### Why do we need it?

Seattle faces a big challenge with housing affordability. Average one-bedroom rent has increased 35% in the last 5 years. 46,000 households in Seattle pay more than half of their income on housing costs, living little left over for basic needs such as food, health care, and transportation.

#### Whom does MHA serve?

The affordable housing created through MHA will be reserved for individuals with incomes up to \$38,000 or a family of four with an annual income of \$54,000.

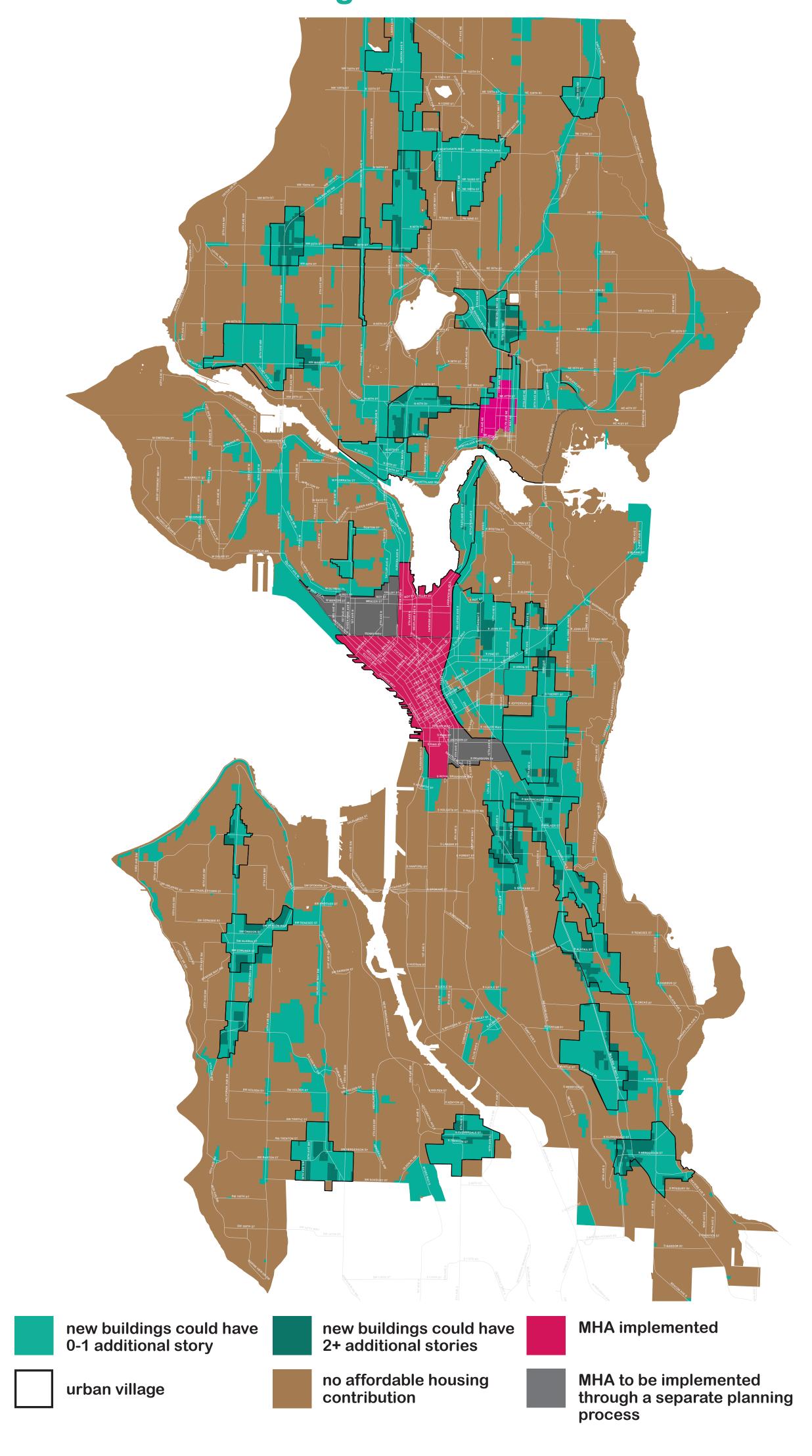
#### How does MHA work?

Under MHA, anyone building a multifamily or commercial building must contribute to affordable housing. They can include affordable housing in their building or they can pay into a fund the City uses to create and preserve affordable housing throughout Seattle.

#### Why is zoning involved?

To put MHA into effect, we must make zoning changes to add development capacity where MHA requirements will apply. This approach is consistent with state law and will increase our affordable and market-rate housing options.

In areas with MHA, new development contributes to affordable housing:

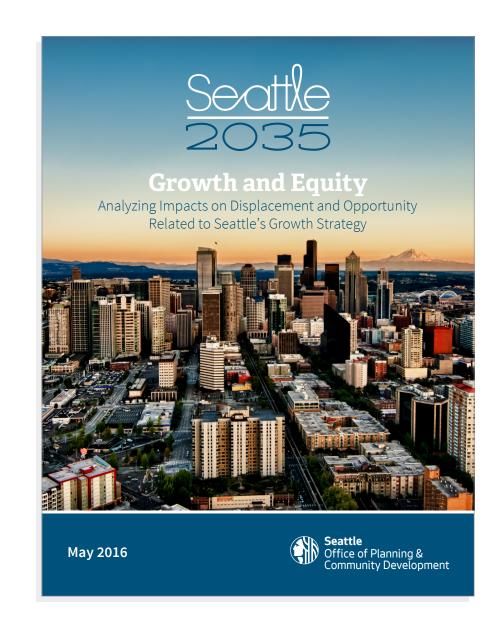




# Growth & Equity Analysis



As a companion document to the Seattle 2035 EIS, the City prepared a Growth and Equity Analysis to identify how growth could benefit or burden marginalized populations. The Growth and Equity Analysis examined demographic, economic, and physical factors to evaluate the risk of displacement and access to opportunity for marginalized populations across Seattle neighborhoods



The MHA EIS integrates aspects of the Growth and Equity Analysis directly into the formation and environmental analysis of the alternatives studied.

The Growth and Equity Analysis considered people and places. The findings are expressed as the Displacement Risk Index and the Access to Opportunity Index.

#### The Displacement Risk Index

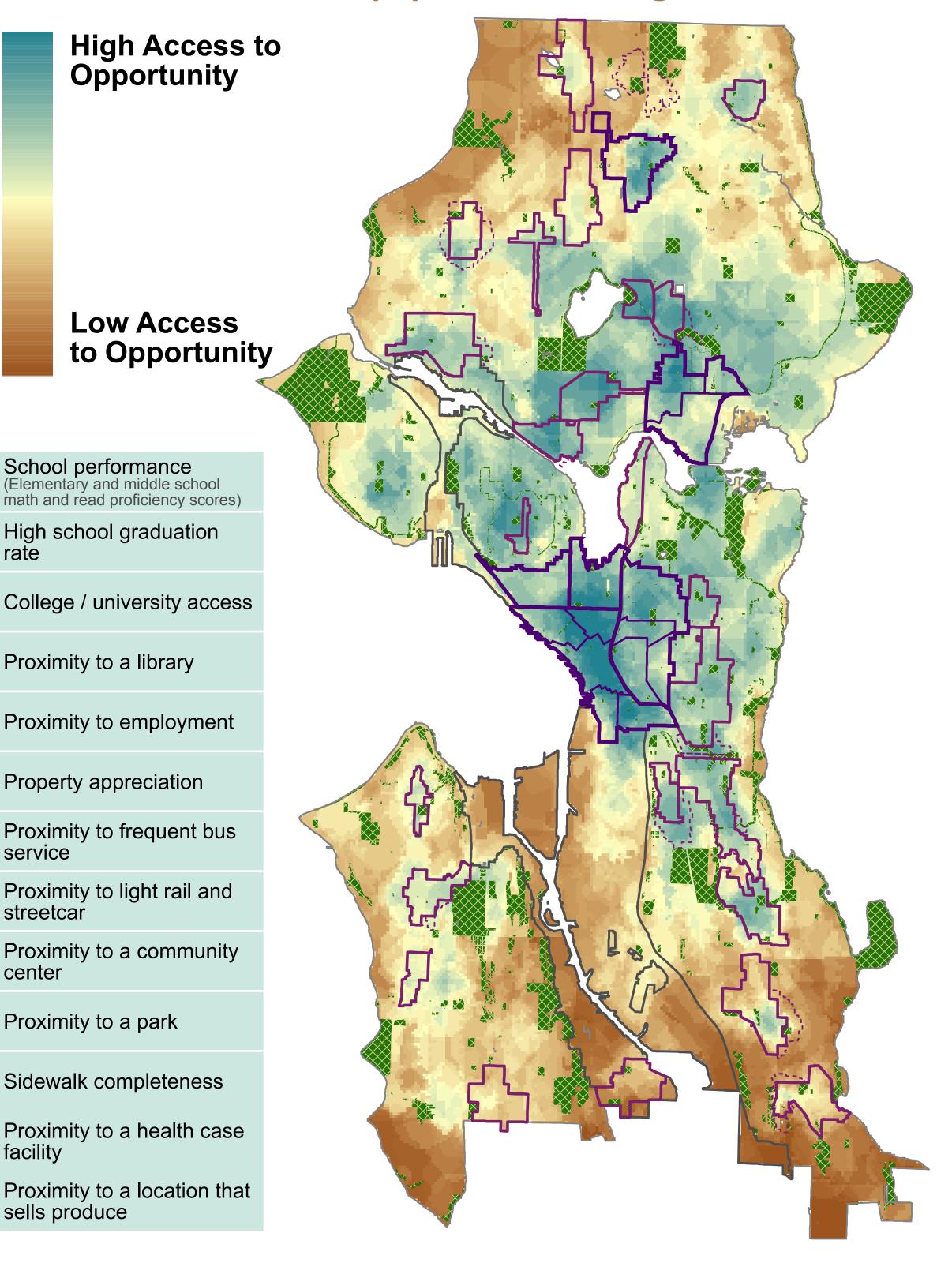
combines data about demographics, economic conditions, and the built environment into a composite index of displacement risk. It focuses on displacement that affects marginalized populations, defined in Seattle 2035 as people of color, low-income people, English-language learners, and people with disabilities.

The Access to Opportunity Index identifies disparities in access to key determinants of social, economic, and physical well-being. It includes measures related to education, economic opportunity, transit, public services, and public health.

Together, these indices show that displacement risk varies across Seattle neighborhoods, and key determinants of well-being are not equitably distributed, leaving many marginalized populations without access to factors necessary to succeed and thrive in life.

# Displacement Risk Index High Displacement Low **Displacement** People of color Linguistic Isolation Renter households Housing cost-burdened households Household income Proximity to frequent bus Proximity to light rail and Proximity to core businesses Proximity to civic infrastructure **Development capacity** Median rent

# Access to Opportunity Index



High Displacement Risk and Low Access to Opportunity

Low Displacement Risk and

**High Access to Opportunity** 

Rainier Beach
Othello
Westwood-Highland P

Westwood-Highland Park
Green Lake

Roosevelt
Wallingford
Upper Queen Anne

Fremont

Columbia City

High Displacement Risk and Lake City
High Access to Opportunity
Northgate

First Hill-Capitol Hill

Low Displacement Risk and Low Access to Opportunity

Aurora-Licton Springs Morgan Junction South Park
Bitter Lake Village

Madison-Miller
Greenwood-Phinney Ridge

Eastlake Admiral

West Seattle Junction

North Beacon Hill North Rainier

23rd & Union-Jackson



# Draft EIS Overview



# Mandatory Housing Affordability (MHA)

Mandatory Housing Affordability (MHA) is a new policy to ensure that growth brings affordability. MHA will require new development to include affordable homes or contribute to a City fund for affordable housing. To put MHA into effect, we need to make zoning changes that add development capacity and expand housing choices. To date, MHA has been implemented in several neighborhoods including the University District, and the Downtown / South Lake Union areas.

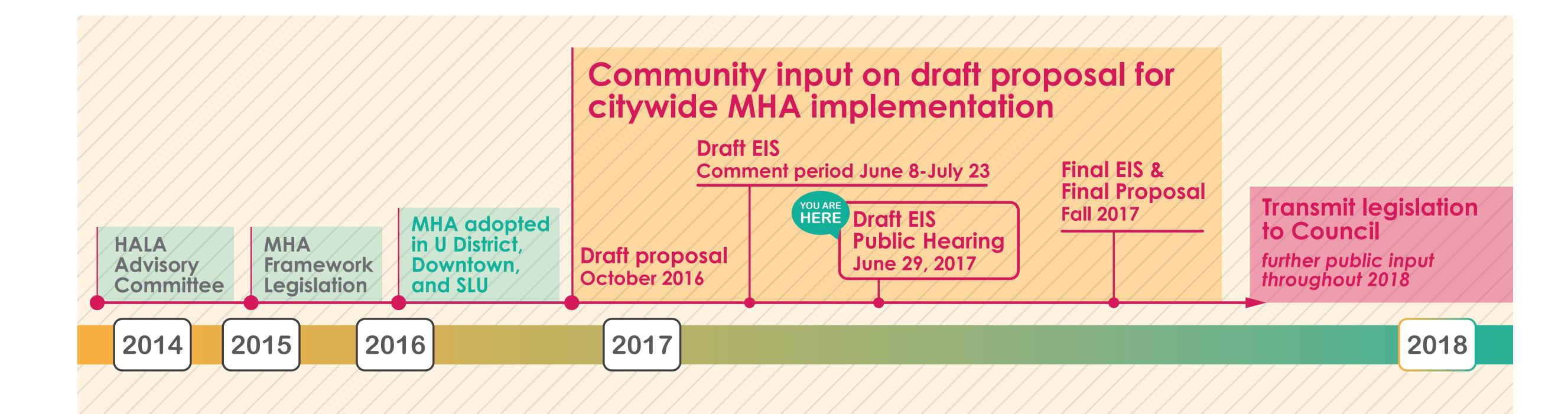
# Objectives

- Address the pressing need for housing affordable and available to a broad range of households.
- Increase overall production of housing to help meet current and projected high demand.
- Leverage development to create at least 6,200 net new rentand income-restricted housing units serving households at 60 percent of the area median income (AMI) built in the study area over a 20-year period.
- Distribute the benefits and burdens of growth equitably.

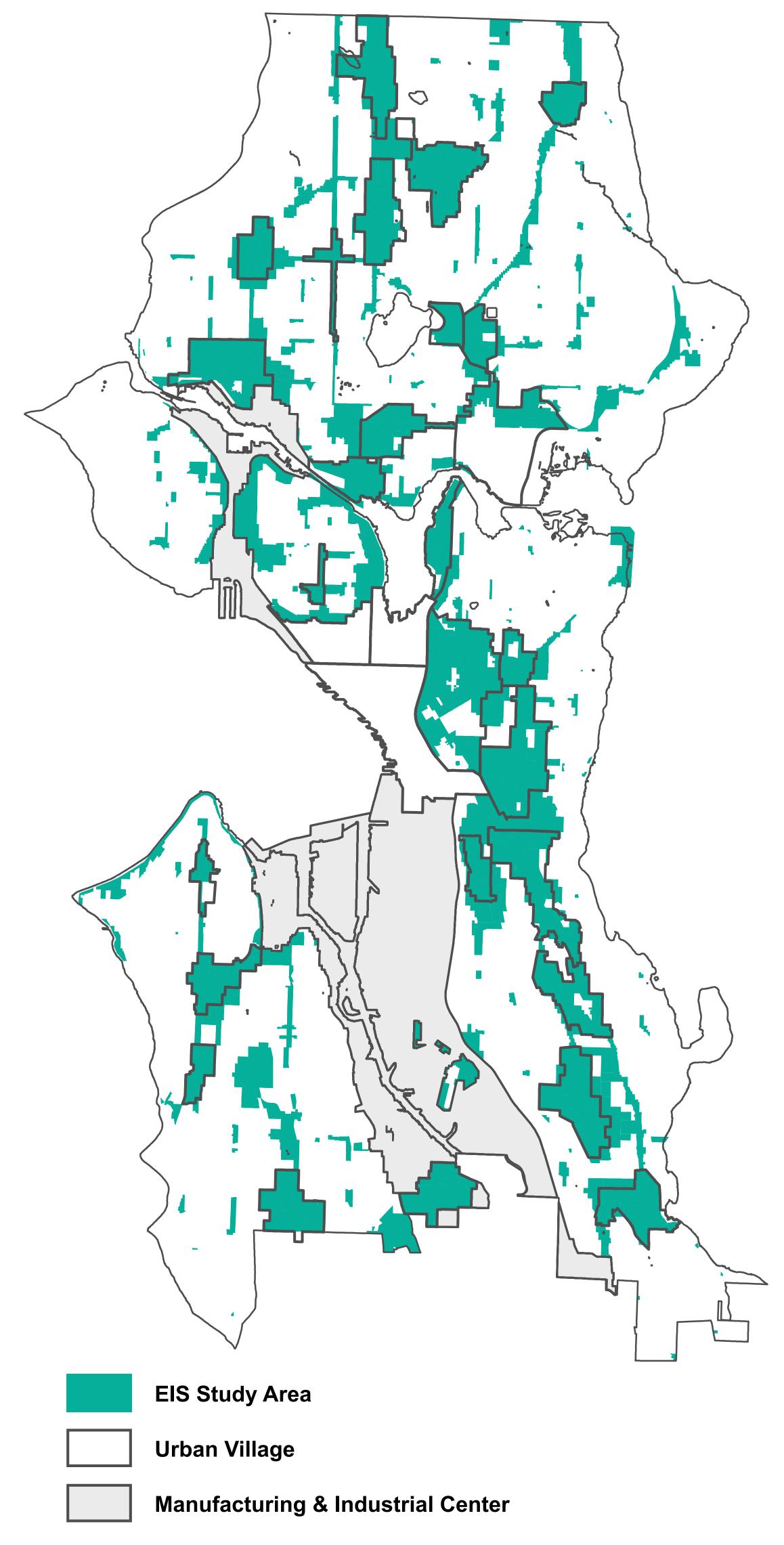
### Proposal

The proposal addressed in this Draft EIS is to implement MHA requirements for multifamily residential and commercial development in certain areas of Seattle. To put MHA in place, the City would grant additional development capacity through area-wide zoning changes and modifications to the Land Use Code. The proposed action includes several related components:

- Adopt requirements in the Land Use Code for developers either to build affordable housing on-site or to make an in-lieu payment to support the development of rentand income-restricted housing when constructing new development meeting certain thresholds.
- Modify development standards in the Land Use Code to provide additional development capacity, such as increases in maximum height and floor area ratio (FAR) limits.
- Make area-wide zoning map changes.
- Expand the boundaries of certain urban villages on the Comprehensive Plan's Future Land Use Map (FLUM) near high-frequency transit, as studied in the Seattle 2035 Comprehensive Plan.
- Modify certain rezone criteria in the Land Use Code and policies in the Neighborhood Plans section of the Comprehensive Plan, concerning single family zoning in urban villages.



### MHA Draft EIS Study Area





# Draft EIS Alternatives



#### Draft EIS Alternatives

The Draft EIS evaluates three alternatives. None is formally proposed or preferred at this time. Modified alternatives and/or a preferred alternative may be identified in the Final EIS. The alternatives are analyzed as a way to compare approaches to implementing MHA in the study area, and to compare with the option of not implementing MHA.

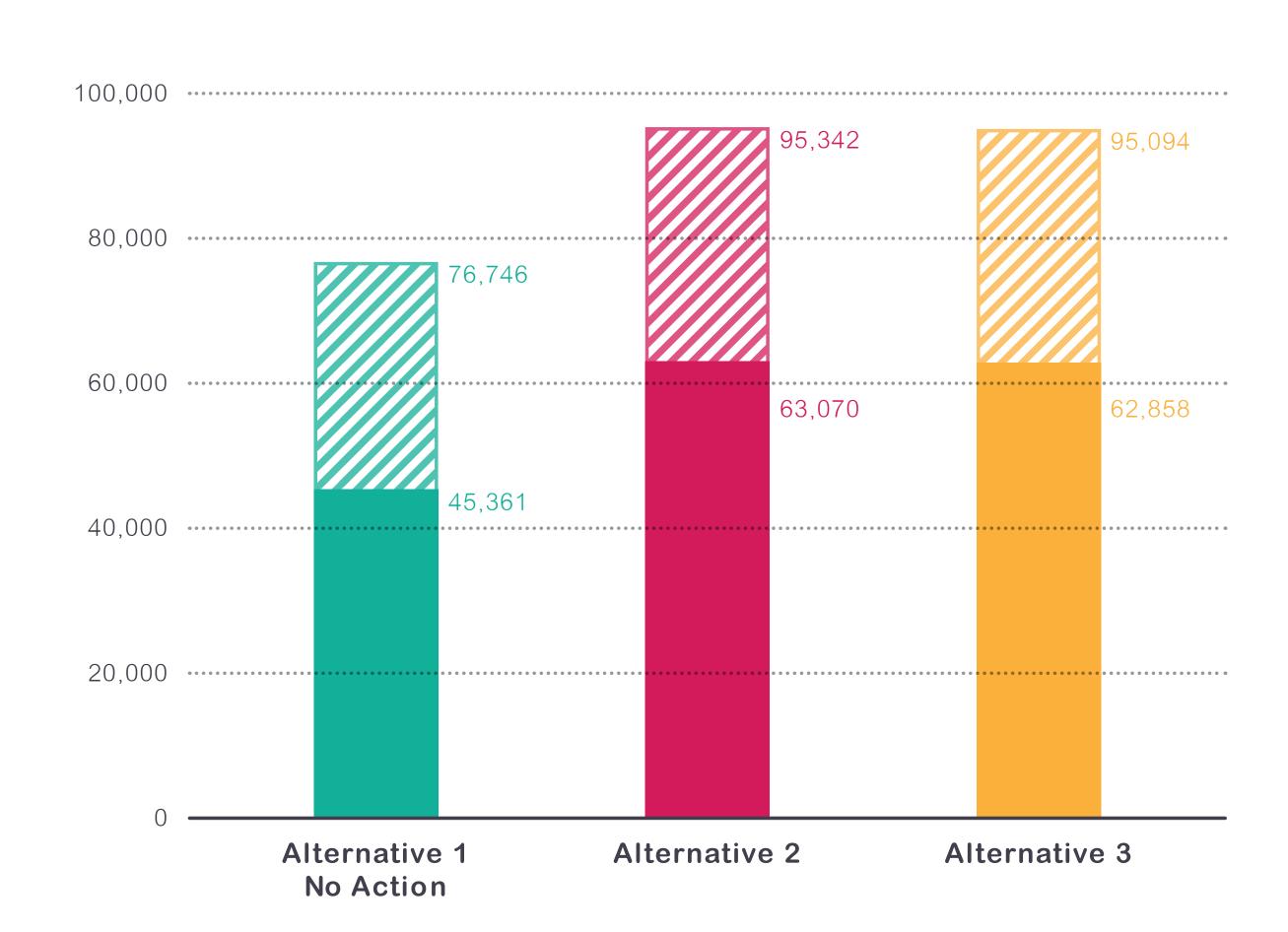
Alternative 1 No Action assumes that MHA is not implemented in the study area; no development capacity increases or area-wide rezones would be adopted.

**Alternatives 2 and 3** both assume implementation of MHA to achieve the objective of at least 6,200 affordable housing units built in the study area by the year 2035.

Additional development capacity would allow for the construction of more floor area, more housing units, or greater building height and scale compared to what existing regulations allow. In turn, this additional capacity may lead to additional household or job growth compared to the growth that would otherwise occur.

Alternatives 2 and 3 differ in the intensity and location of development capacity increases and the patterns and amounts of housing growth across the city that could result.

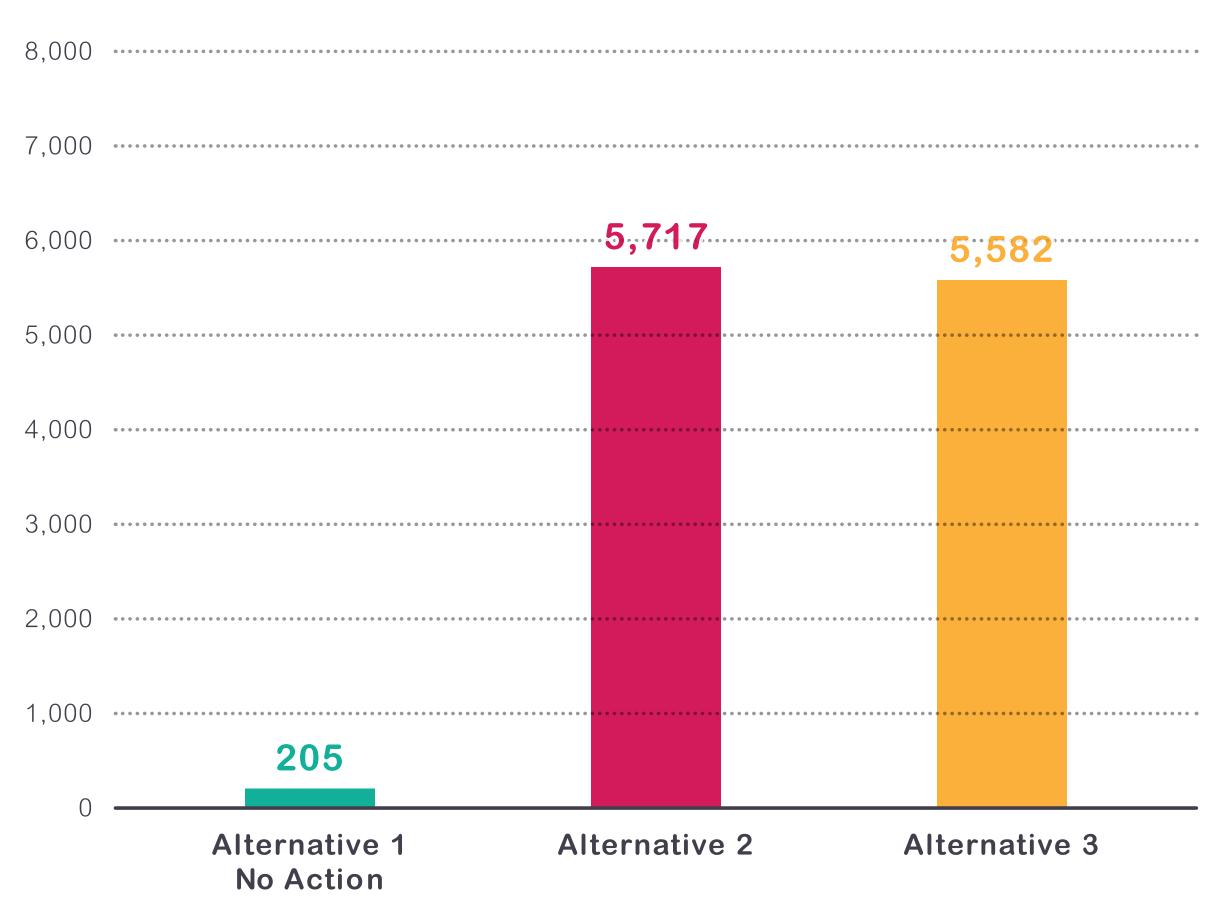
# Total Household Growth 20 Years



Alternative 1 assumes that overall houshold growth would be 76,745 households, an amount very similar to the adopted Seattle 2035 Comprehensive Plan. The timeframe of study is the same 20-year planning period as the Seattle 2035 Comprehensive Plan to provide a comparison for how the City would be expected to grow over the next 20 years with and without MHA.

With MHA implementation, Alternatives 2 and 3 both assume greater total amounts of houshold growth over the 20-year period, 95,342 additional households, and 95,094 households respectively. Although, similar total amounts of household growth, Alternatives 2 and 3 differ in the intensity and location of development capacity increases and the patterns and amounts of housing and job growth across the city that could result. The size of urban village boundary expansions for different urban villages also varies between Alternative 2 and 3.

# Rent and Income-Restricted Affordable Housing 20 Years



The number of new income-restricted affordable housing units that would be generated by development in the study area under each alternative study is estimated. Alternatives 2 and 3 generate substantially more rent and income-restricted units from the study area because MHA is implemented. Under Alterantive 1 existing Incentive Zoning (IZ) is in place in a few portions of the study area and would generate a smaller amount of rent and income-restricted units.

"Generated" describes MHA or IZ performance units and units funded with MHA or IZ payments from new development in the study area. A greater number of rent and income-restricted units would be "built" in the study area becuase MHA in other areas of the city (outside the study area) could fund construction of some affordable housing in the study area.



# Alternatives 2 and 3



# Approach to Displacement Risk and Access to Opportunity

The location and intensity of zone changes, and the urban village boundary expansions varies between Alternative 2 and Alternative 3 based on different approaches to the urban village displacement risk and access opportunity types.

The intent is to test whether and how the policy objective of growing equitably is achieved by directing more growth to areas of opportunity, and moderating growth in areas at high risk of displacement, as well as measuring other potential environmental impacts associated with the amount and location of additional growth.

#### **Approach to MHA Development Capacity Increases, Alternative 2**

Displacement Risk and Access to Opportunity	Development Capacity Increases and Expansion of Urban Village Boundaries		
Not used explicitly to influence the location and amount of additional growth	Apply development capacity increases using basic planning concepts, Comprehensive Plan policies and Land Use Code criteria, and MHA implementation principles, resulting in a mix of (M), (M1), and (M2) designations.		
	Apply urban village boundary expansions to a full 10-minute walkshed from the frequent transit station.		

#### Approach to MHA Development Capacity Increases, Alternative 3

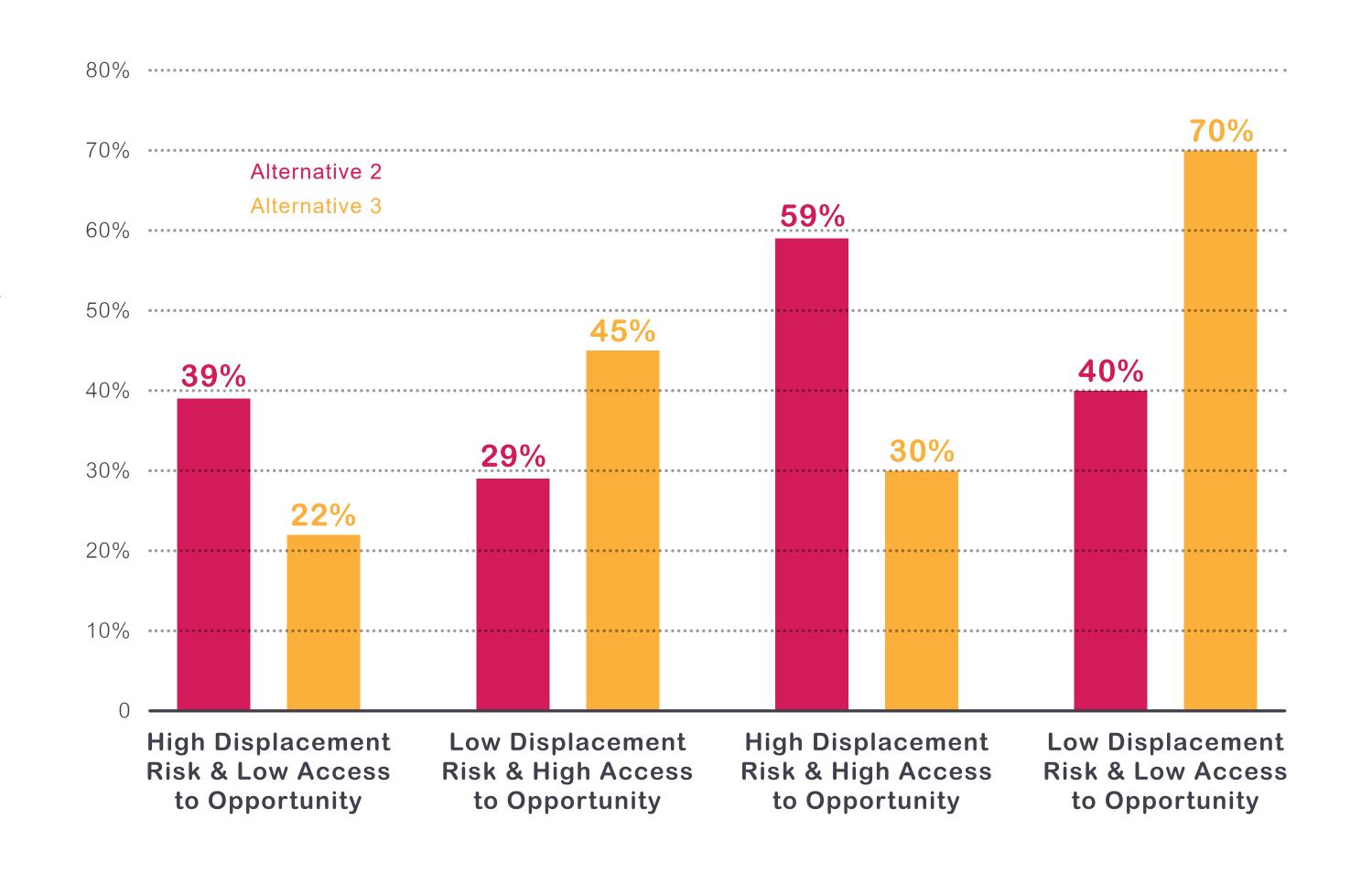
Displacement Risk and Access to Opportunity	Intensity of Development Capacity Increases and Expansion of Urban Village Boundaries		
High Displacement Risk and Low Access to Opportunity	Apply small development capacity increases resulting in a high proportion of MHA (M) designations, with limited instances of (M1), and no (M2) designations.		
	Apply smaller urban village boundary expansions to a 5-minute walkshed or less from the frequent transit station.		
Low Displacement Risk and High Access to Opportunity	Apply large development capacity increases, resulting in a high proportion of MHA (M1) and (M2) designations, along with some (M) designations.		
	Apply full urban village boundary expansions to a 10-minute walkshed from the frequent transit station.		
High Displacement Risk and High Access to Opportunity	Apply medium development capacity increases, resulting in a substantial proportion of (M) zoning changes, but also resulting in some (M1) designations and limited instances of (M2) designations.		
	Apply smaller urban village boundary expansions to a 5-minute walkshed or less from the frequent transit station.		
Low Displacement Risk and Low Access to Opportunity	Apply medium development capacity increases, resulting in a substantial proportion of (M) zoning changes but also some (M1) designations and limited instances of (M2) designations.		
	Apply full urban village boundary expansions to a 10-minute walkshed from the frequent transit station.		



# Alternative 2 and 3

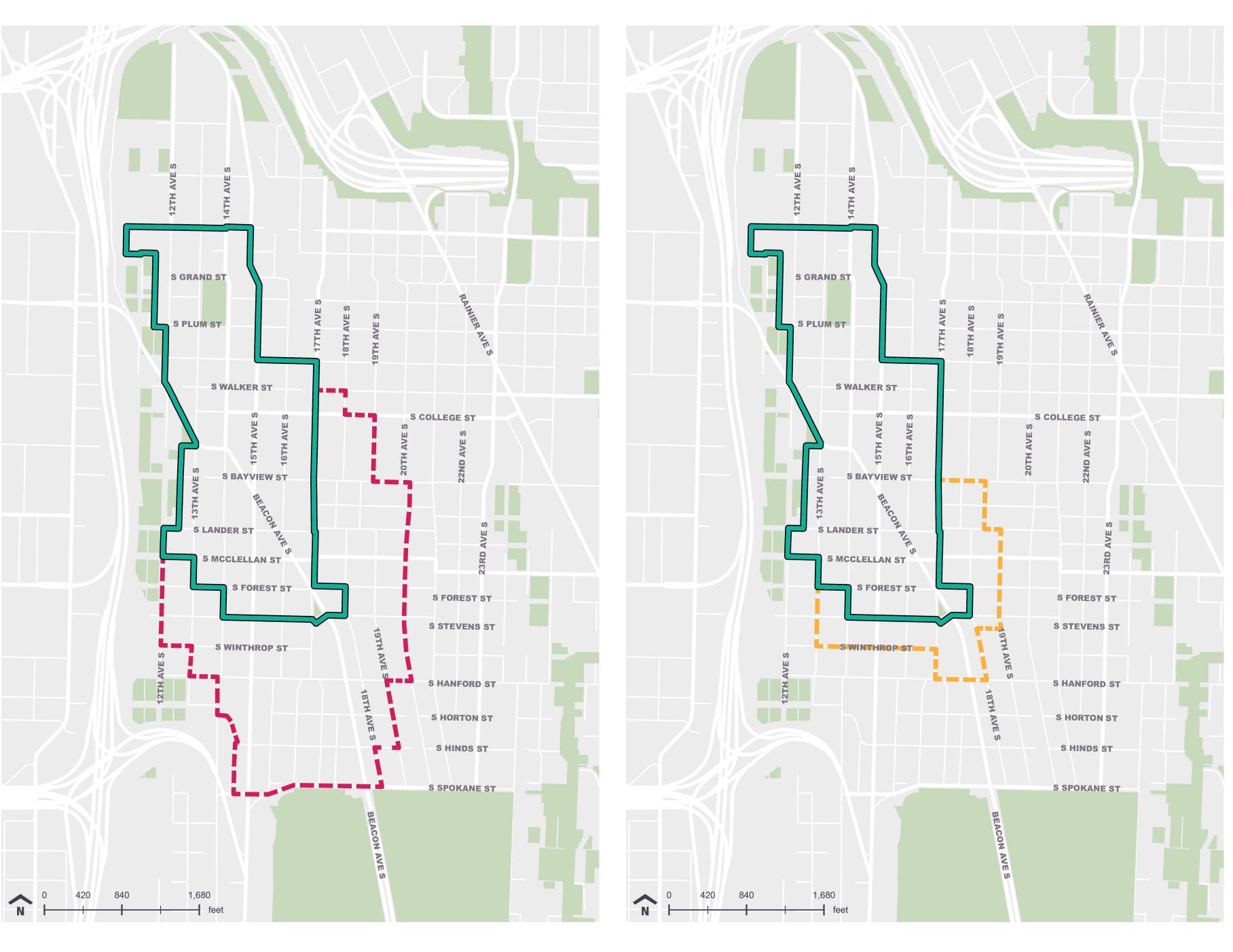
### Different Amounts of Growth

The proposed zoning and Land Use Code changes would generally continue the overall pattern and distribution of growth anticipated in the Seattle 2035 Comprehensive Plan. However, the different approaches to the location and intensity of MHA zoning changes according to the Displacement Risk and Access to Opportunity would result in different amounts of growth. Alternative 2 considers more housing growth in areas with high displacement risk, and Alternative 3 considers more housing growth in high opportunity areas.



# Different Zoning and Urban Village Boundary Changes

The location and intensity of zone changes and the urban village boundary expansions both vary between Alternatives 2 and 3 based on different approaches to the urban village displacement risk and access opportunity types.



Proposed Urban Village Boundary Expansions Action Alternatives: North Beacon Hill (High Displacement Risk and High Access to Opportunity)

The North Beacon Hill Urban Village boundary would expand by 83 acres in Alternative 2 and 22 acres in Alternative 3. The expansion area is near the light rail station at S Lander St. In Alternative 2 the expansion approximates a 10-minute walkshed, and in Alternative 3 the expansion approximates a 5-minute walkshed.

Alternative 2 Alternative 3



# **Environmental Elements**



Current and future housing conditions, racial and income demographic patterns, relationship of development and low-ioncomoe housholds, affect of rent and income-restricted housing, and displacement analysis.

#### Land Use

Development pattern, development compatibility and scale, applicable plans and policies.

### Aesthetics (Height, Bulk, & Scale)

Visual modelling of capacity increases, character and exterior appearance impacts.

#### Transportation

Vehicle trip generation, transit, bicycling and waling, parking and safety.

#### **Historic Resources**

Historic and cultural resources context, historic inventories and protection policies.

### **Biological Resources**

Environmentally critical areas (i.e. wetlands, priority habitats), and tree canopy coverage.

### Open Space & Recreation

Plans and policies, level of service of and access to park and open space amenities.

#### Public Services & Utilities

Utilities, police, fire/emergency services and schools.

# Air Quality & Greenhouse Gas Emissions

Air quallity assessment and green house gas emissions.



# Housing & Socioeconomics MHA Draft EIS HELA

# Background

#### Race and Ethnicity

As the city has grown, its racial and ethnic make-up has changed. While the share of people who identify as White has remained steady at around 70 percent since the year 2000, the share of Asian persons increased from 13 percent to 14 percent of the population between 2000 and the latest ACS estimates. During the same period, the share of Black or African American persons decreased from about eight percent to seven percent. The share of population who identified as Hispanic or Latino grew from about five percent in 2000 to 6.5 percent in the latest ACS.

Seattle has also become a more international city, as about 18 percent of Seattle's population in the latest ACS was foreign born, an increase from 17 percent in 2000.

Overall, people of color living in Seattle increased from 32 percent of the population in 2000 to 34 percent in the latest ACS estimates but in the remainder of King County grew even faster.

An analysis of demographic change from 1990 to 2010 at the neighborhood level (City of Seattle 2017b) revealed the following findings:

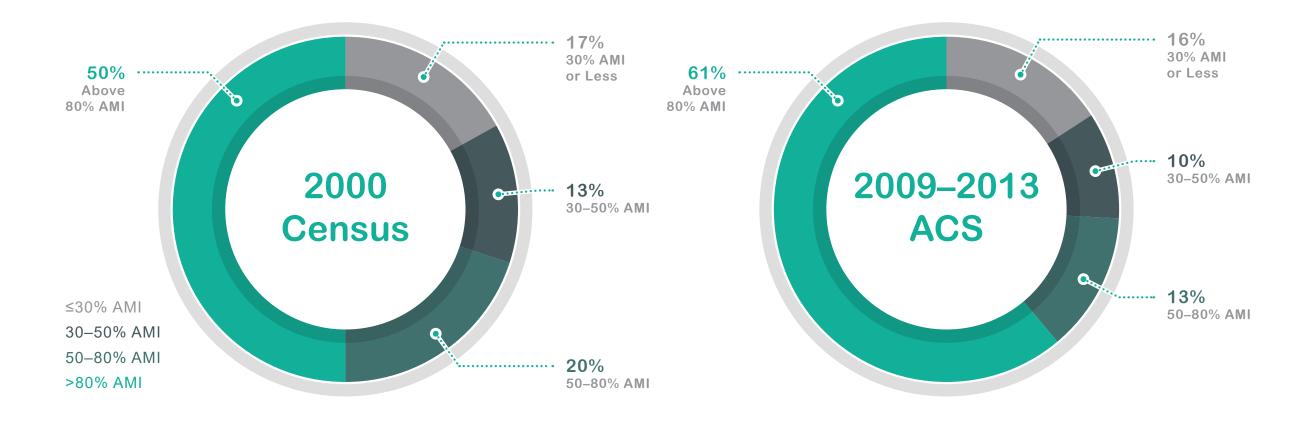
- Loss of Black population in and around the Central District and in much of Southeast Seattle
- Increasing diversity where people of color have historically been a small share of population
- Increasing Black population shares in and around north Seattle neighborhoods and in parts of West Seattle
- Widespread increase in Hispanic/Latino population, with increasing concentrations in South Park and nearby southwest Seattle neighborhoods.

#### Household Size, Tenure, and Income

Seattle had about 325,000 households in 2016. Between 2010 and 2016, the city gained about 41,500 households, a nearly 15 percent increase. The average household in Seattle has 2.12 persons. 40 percent of households are composed of a person living alone. 34 percent of households include two people. Only a quarter of all households in Seattle have three or more people.

From 2000 to 2010, the share of households citywide that are renter-occupied remained steady at around 52 percent. In the latest ACS estimates, 54 percent of households in Seattle are renter occupied. This recent trend is likely related to the rapid growth in multifamily housing during recent years.

The median household income in Seattle to be \$70,600. Per capita income in Seattle was \$45,700, compared to \$36,900 for the region. This is due to the higher number of single-

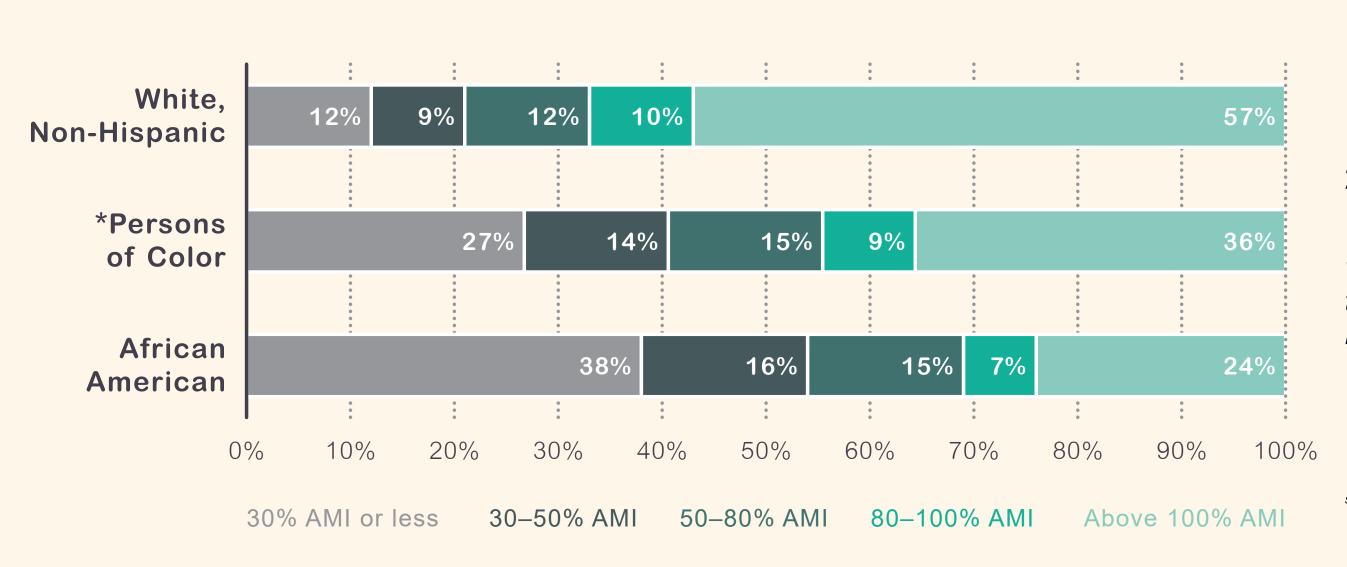


person households in Seattle compared to the region.

For the year 2016, the Seattle-Bellevue metropolitan area's AMI is \$90,300. A quarter of all renter households had incomes at or below 30 percent of AMI. Fourteen percent of renter households had incomes between 30 and 60 percent of AMI during this period. Owner-occupied households were much more likely to have incomes above 100 percent of AMI.

#### Key Findings—Population and **Household Characteristics**

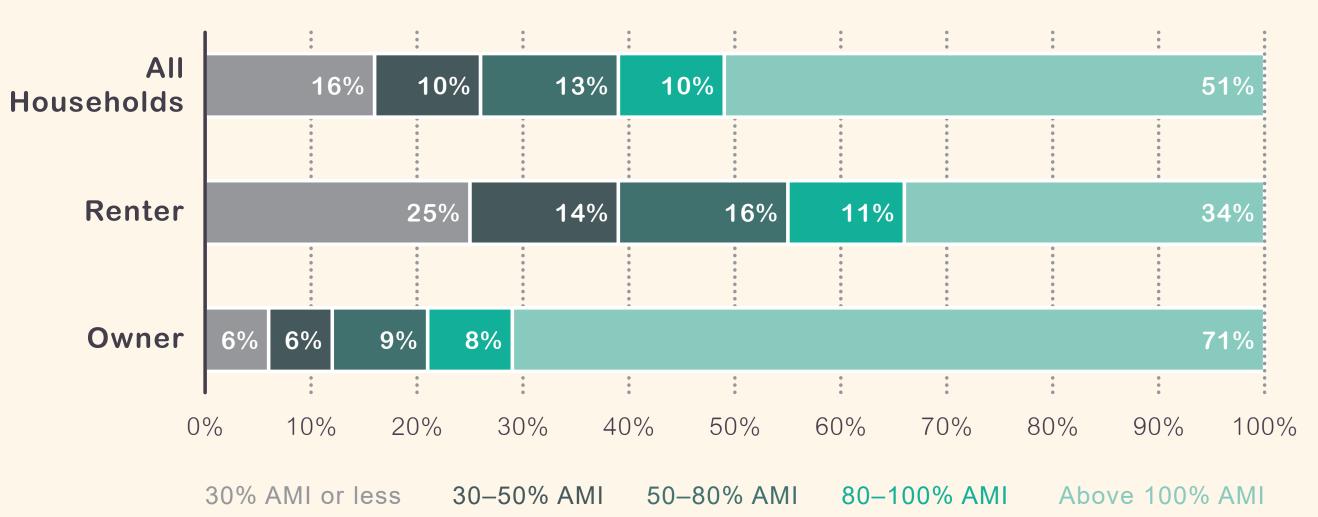
- Seattle is growing rapidly due primarily to strong job growth and in-migration.
- Seattle's demographic composition is changing. More people of color are moving to neighborhoods that were once predominantly White, while areas with historically the highest shares of non-whites are losing people of color.
- In Seattle, young adults in their 20s and 30s are a greater share of the population than this age group in the county as a whole. In Seattle's urban centers, young adults are even more prevalent than in the city as a whole.
- More than a quarter of all renter households have incomes of 30 percent of AMI or below.
- Compared to renters, owner-occupied households are much more likely to have high incomes.
- Since 2000, Seattle has lost low-income households earning between 30 and 80 percent of AMI as a share of total households citywide.
- Households with a householder of color, particularly one who is African American, are much more likely than other households to have low and very low incomes.



Household Income by Race/ Ethnicity of Householder, 2009–2013

\*Persons of color includes households with householder who is Hispanic or Latino of any race and households with a householder who is any race other than White alone.

Source: HUD CHAS (based on ACS Five-Year Estimates, 2009–2013); BERK, 201



Household Income Breakdown by Housing Tenure, 2009–2013 ACS

Source: U.S. Department of Housing and Urban Development (HUD), Consolidated Housing Affordability Strategy (CHAS) based on ACS Five-Year Estimates; BERK, 2017.



# Housing & Socioeconomics MHA Draft EIS HELA

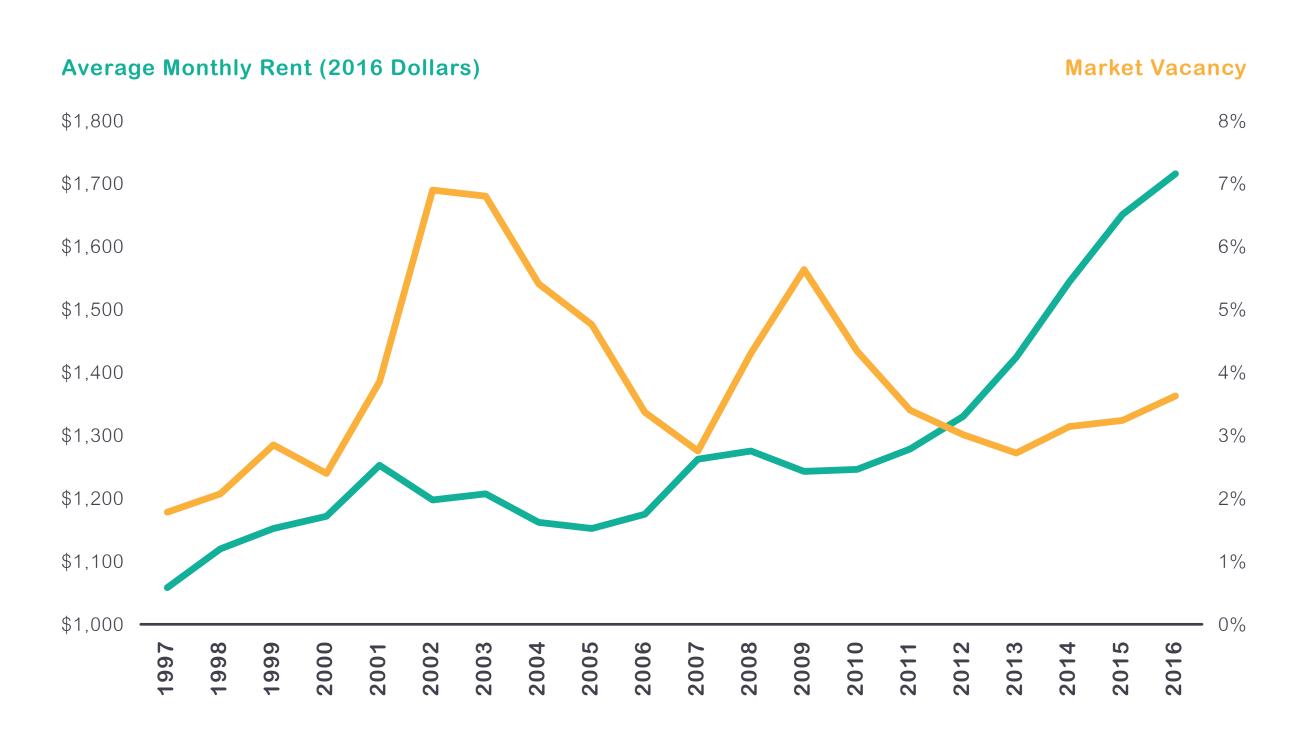
# Housing Affordability

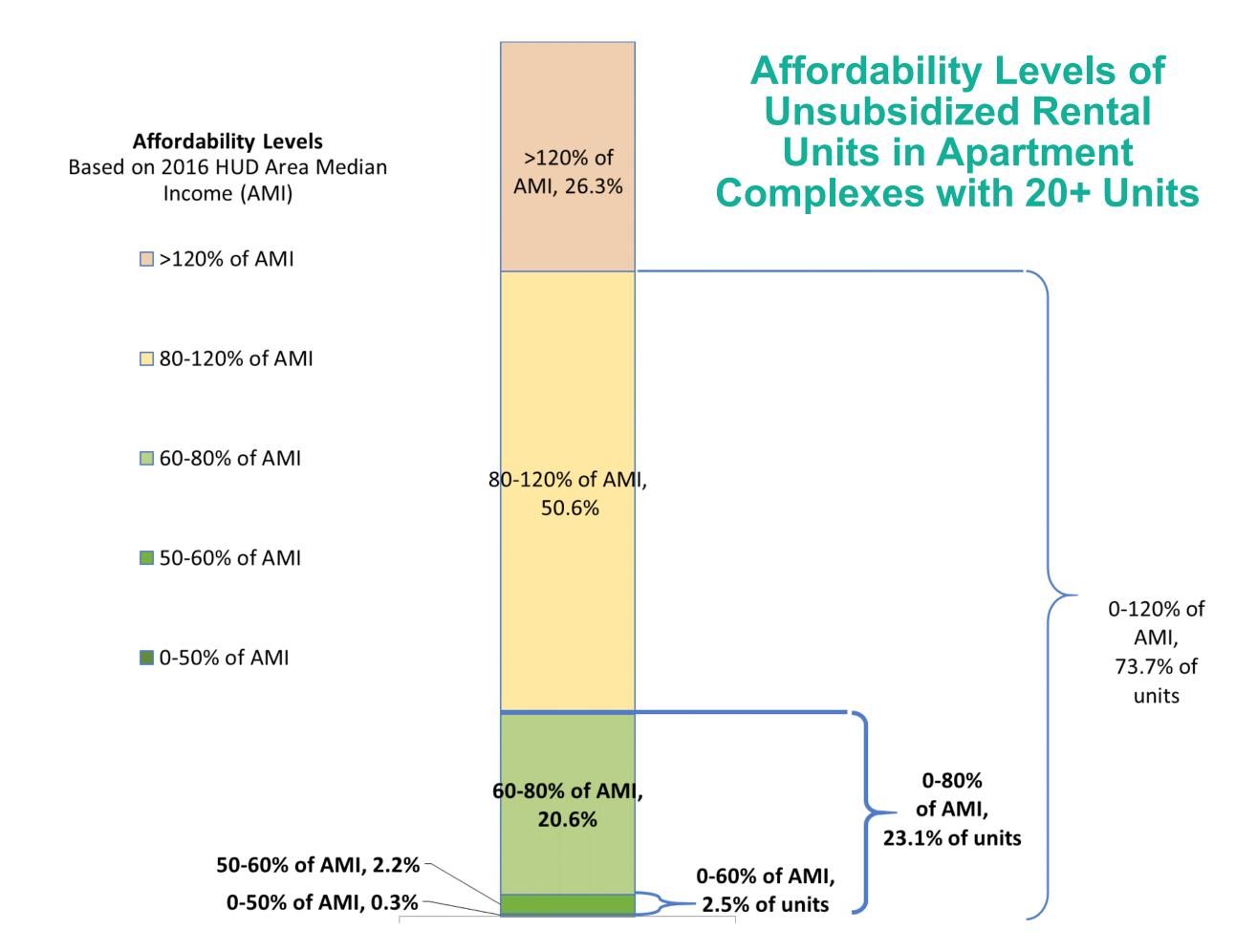
Between fall 2010 and fall 2016, average monthly rents rose by 55 percent after adjusting for inflation, from \$1,104 to \$1,715. Rents rise when housing supply is insufficient to meet high demand.

The chart below shows rents and the rate of apartment vacancy. The relationship between housing supply and housing demand is reflected in that, whenever the vacancy rate rose above five percent, inflation-adjusted rents either stabilized or declined. When vacancy rates fell below five percent, rents increased.

Rent for units in new apartment buildings tend to be higher than in older buildings. A rapid influx of new buildings, in aggregate, can distort the apartment market by pushing up the average of all apartment rents. At the same time, the new supply reduces upward pressure on rents in the remaining housing stock.

Research indicates that new housing production can prevent or reduce negative impacts on housing affordability citywide. Without newly constructed housing, more highincome households compete with low- and moderate-income households for the remaining older housing stock in the market, increasing upward pressure on all housing costs. Research suggests that housing costs in high-demand markets increase more rapidly when constraints slow the production of new housing supply.





Additional housing supply will not fully solve the fundamental problem of insufficient affordable housing to meet the need for low-income households. While the cost of market-rate rental housing varies by age of housing stock, currently very little market-rate rental housing, whether new or old, is affordable to low- or very-low-income households.

The chart above categorizes the rental housing stock in apartment complexes by level of affordability. Only three percent of housing units in these market-rate rental buildings are affordable to households with incomes of 60 percent of AMI. Yet, nearly half of all renter households have incomes at or below 60 percent of AMI.

# Displacement

Physical displacement is the result of eviction, acquisition, rehabilitation, or demolition of property, or the expiration of covenants on rent- or income-restricted housing. Economic displacement occurs when residents can no longer afford rising rents or costs of homeownership like property taxes. Cultural displacement occurs when residents are compelled to move because the people and institutions that make up their cultural community have left the area.

#### Physical Displacement

Rental and owner-occupied housing units are demolished each year in Seattle as older homes are replaced by newer buildings. Most future growth, under any of the alternatives including Alternative 1 (No Action), will involve redevelopment of sites with existing housing and commercial buildings; existing residents and businesses in these buildings will be displaced.

Predicting exactly where and when redevelopment will occur is impossible. We used two methods to estimate the number of demolitions expected in each alternative: a detailed parcelscale analysis and historical trends. Drawing upon the data from the Tenant Relocation Assistance Ordinance (TRAO), we estimate the number of low-income households who could be displaced due to demolitions compared with the affordable housing that would be generated through MHA in each alternative.

#### **Economic Displacement**

Market-rate housing costs are largely driven by the interaction of supply and demand in the regional housing market. Lowerincome households living in market-rate housing are at greater risk of economic displacement when housing costs increase. This vulnerability disproportionately impacts communities of color.

- Between 2000 and 2013, the number of high income households (above 120 percent of AMI) and very low income households (below 30 percent of AMI) grew fastest.
- Seattle lost households with low- to middle-incomes (60-80) percent of AMI, 80-100 percent of AMI, and 100-120 percent of AMI).
- Loss of low-income households does not correlate with areas of rapid housing development, although this data does not reflect the most recent development boom. Census tracts that experienced more net housing production were more likely to gain low-income households.



# Housing & Socioeconomics MHA Draft EIS HELA



### Summary of Impacts

The affordability of market-rate housing would continue to be a concern and a burden for many residents under all three alternatives, notwithstanding the significant contribution from implementation of MHA. This is a result of economic forces beyond the reach of MHA.

#### Housing Supply

Alternative 2 and Alternative 3 are better able to accommodate strong housing growth than Alternative 1 (No Action) because they increase total capacity for housing. Alternatives 2 and 3 provide greater housing capacity and supply in lowrise, midrise and residential small lot housing, which have the potential to diversify the supply of new housing.

#### Housing Affordability

- Alternatives 2 and 3 would provide increased market-rate housing supply, which is likely to reduce upward pressure on market-rate housing costs compared to Alternative 1 No Action.
- For low-income households, the most significant positive impact on housing affordability will be the production of new income-restricted affordable units.
- Alternatives 2 and 3 generate about 28 times more rent- and income-restricted units than Alternative 1 No Action.
- Increased production of rent- and income-restricted units would disproportionally serve people of color because lowincome households are more likely to be households of color and because subsidized housing programs have historically served high percentages of non-white households.

- Alternatives 2 and 3 could result in more total demolished units than Alternative 1 No Action.
- Alternatives 2 and 3 would produce more new housing in the study area for every demolished unit—about 14 new units for every demolition compared to 10 under Alternative 1 No Action.
- In Alternatives 2 and 3, about 10 rent- and income-restricted units would be generated from growth in the study area for every low-income household (under 50 percent of

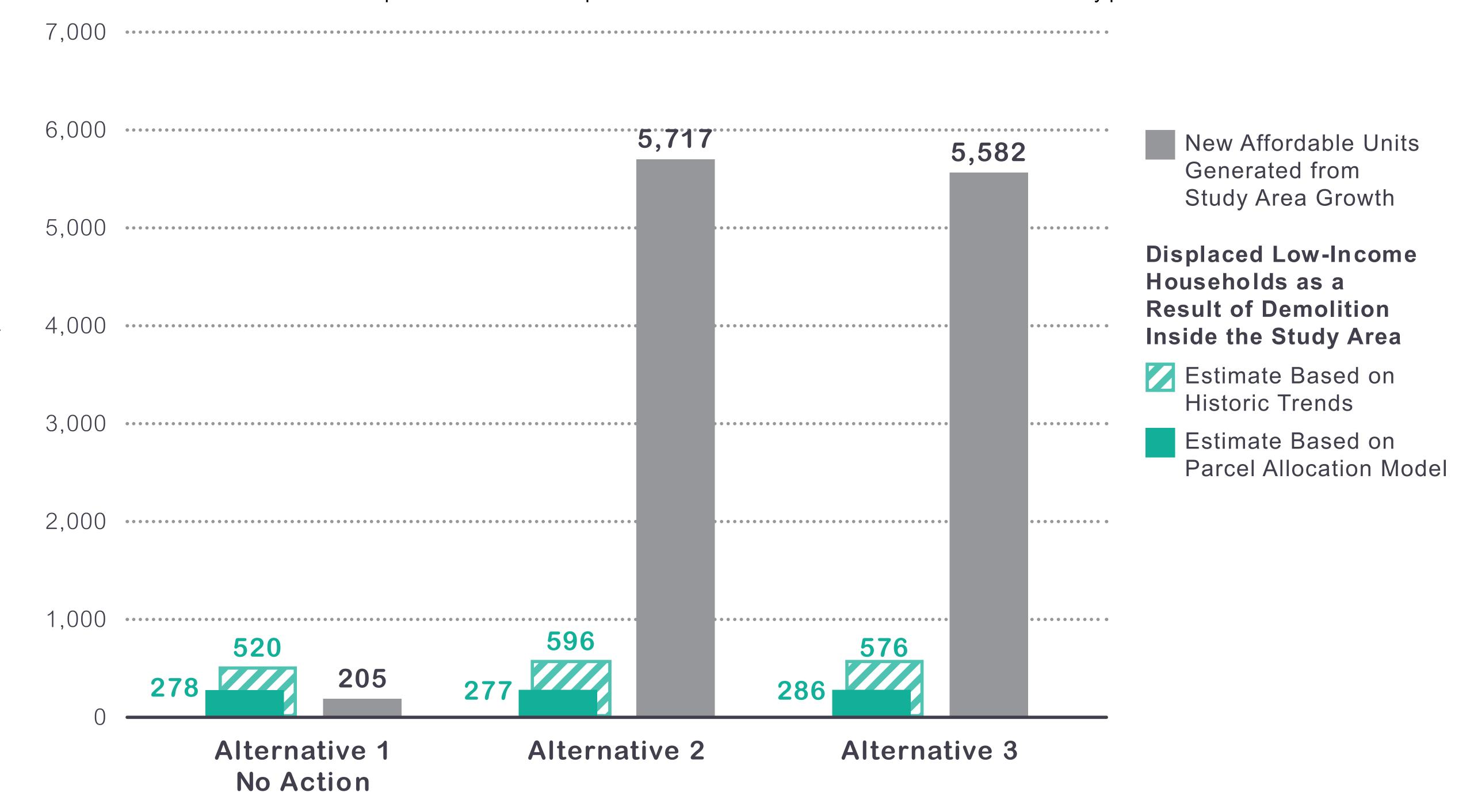
- AMI) physically displaced due to demolition. Alternative 1 No Action would generate far fewer affordable units than Alternatives 2 and 3—and fewer affordable units than lowincome households physically displaced due to demolition.
- Based on assumptions about the distribution of affordable units funded using citywide MHA payments, including from development outside the study area, about 13 new affordable units would be built in the study area in Alternatives 2 and 3, for every low-income household (under 50 percent of AMI) physically displaced due to demolition, compared to six under Alternative 1 No Action.
- Additional housing supply provided in Alternatives 2 and 3 would reduce economic displacement pressures compared to Alternative 1 No Action. However, impacts could vary by neighborhood.

### Mitigation Measures

- Affirmatively Further Fair Housing
- Affordable Housing Funding Programs
- Seattle Equitable Development Initiative
- Multifamily Tax Exemption Program (MFTE)
- Local Voluntary Employers Fund
- Real Estate Excise Tax for Affordable Housing
- Strengthened Tenant Protections
- Strengthen Tenant Relocation Assistance Ordinance

#### New MHA and IZ Affordable Units Generated Compared to Displaced Low-Income Households due to Demolition in the Study Area

All estimates are for the period 2017–2035. Displacement estimates exclude those related to units already permitted for demolition.





# LandUse



# Summary of Impacts

The following summarizes overall land use impacts of Alternative 2 and Alternative 3:

- Denser and more intensive housing and commercial development primarily in existing and expanded urban villages.
- Gradual shifts from single-family to multifamily or mixed uses, primarily in urban villages and urban village expansion areas
- Gradual intensification of density, use, and scale in rezoned areas over time.
- Most land use changes would be minor or moderate in level of impact, with significant impacts occurring in particular locations.
- Significant impacts are most likely near frequent transit stations, at transitions between existing commercial areas and existing single-family zones, and in areas changing from existing single-family zoning in urban villages and urban village expansion areas.
- A greater variety of housing types would occur in Seattle's residential areas, as Residential Small Lot zoning is applied to some current single-family areas and the amount of land zoned multifamily increases, while the current high percentage of land zoned Single Family would decrease incrementally.
- In general the severity of land use impacts would tend to increase as the degree of change allowed by rezoning increases, but impacts would also vary depending on the specific zoning change and location.
- Some land use patterns would rise to the level of a significant land use impact, and would be an unavoidable consequence of MHA, which uses the availability of increased development capacity as an incentive to generate needed affordable housing.

### Alternative 2

Compared to Alternative 3, Alternative 2 would have the following relative land use impacts:

- High Displacement Risk and Low Opportunity urban villages (e.g., Rainier Beach, Othello, Westwood–Highland Park) would have a higher percentage of lands in the (M1) and (M2) tiers and more instances of moderate and significant land use impact.
- Low Displacement Risk and High Opportunity urban villages (e.g., Wallingford, Green Lake, Madison–Miller) would have a much lower percentage of lands in the (M1) and (M2) tiers and fewer instances of moderate and significant land use impact.
- High Displacement Risk and High Opportunity urban villages (e.g., First Hill-Capitol Hill, 23rd & Union-Jackson) would have a higher percentage of lands in the (M1) and (M2) tiers and more instances of moderate and significant land use impact.
- Low Displacement Risk and Low Opportunity urban villages (e.g., Morgan Junction) would have a lower percentages of lands in the (M1) and (M2) tiers and fewer instances of moderate and significant land use impact.

#### Alternative 3

Compared to Alternative 3, Alternative 2 would have the following relative land use impacts:

- High Displacement Risk and Low Opportunity urban villages (e.g., Rainier Beach, Othello, Westwood-Highland Park) would have a lower percentage of lands in the (M1) and (M2) tiers and fewer instances of moderate, and significant land use impact.
- Low Displacement Risk and High Opportunity urban villages (e.g., Wallingford, Green Lake, Madison–Miller) would have a much higher percentage of lands in the (M1) and (M2) tiers and more instances of moderate and significant land use impact.
- High Displacement Risk and High Opportunity urban villages (e.g., First Hill—Capitol Hill, 23rd & Union—Jackson) would have a lower percentage of lands in the (M1) and (M2) tiers and fewer instances of moderate and significant land use impact.
- Low Displacement Risk and Low Opportunity urban villages (e.g., Morgan Junction) would have a higher percentages of land in the (M1) and (M2) tiers and more instances of moderate and significant land use impact.



# LandUse



### Principles

A series of community-generated principles were used to guide MHA implementation choices in all alternatives. Principles include: locating **more housing near assets and infrastrucutre** such as parks, schools and plan for **transitions** between higher and lower-sclaes zones.

# (M), (M1), and (M2) Zoning Changes

In general, the potential for land use impacts tends to increase as the MHA tier increases, but the degree of impact varies depending on the specific zoning change, as well as on the surrounding zoning and uses. Higher MHA tiers have higher affordable housing requirements. Most (M) tier capacity increases have minor land use impacts, and only one or fewer type of land use impact (density, use, or scale). Most (M1) tier capacity increases have moderate land use impacts, and more than one type of land use impact. Most (M2) tier capacity increases have significant land use impacts, and two or more types of land use impact (density, use, scale).

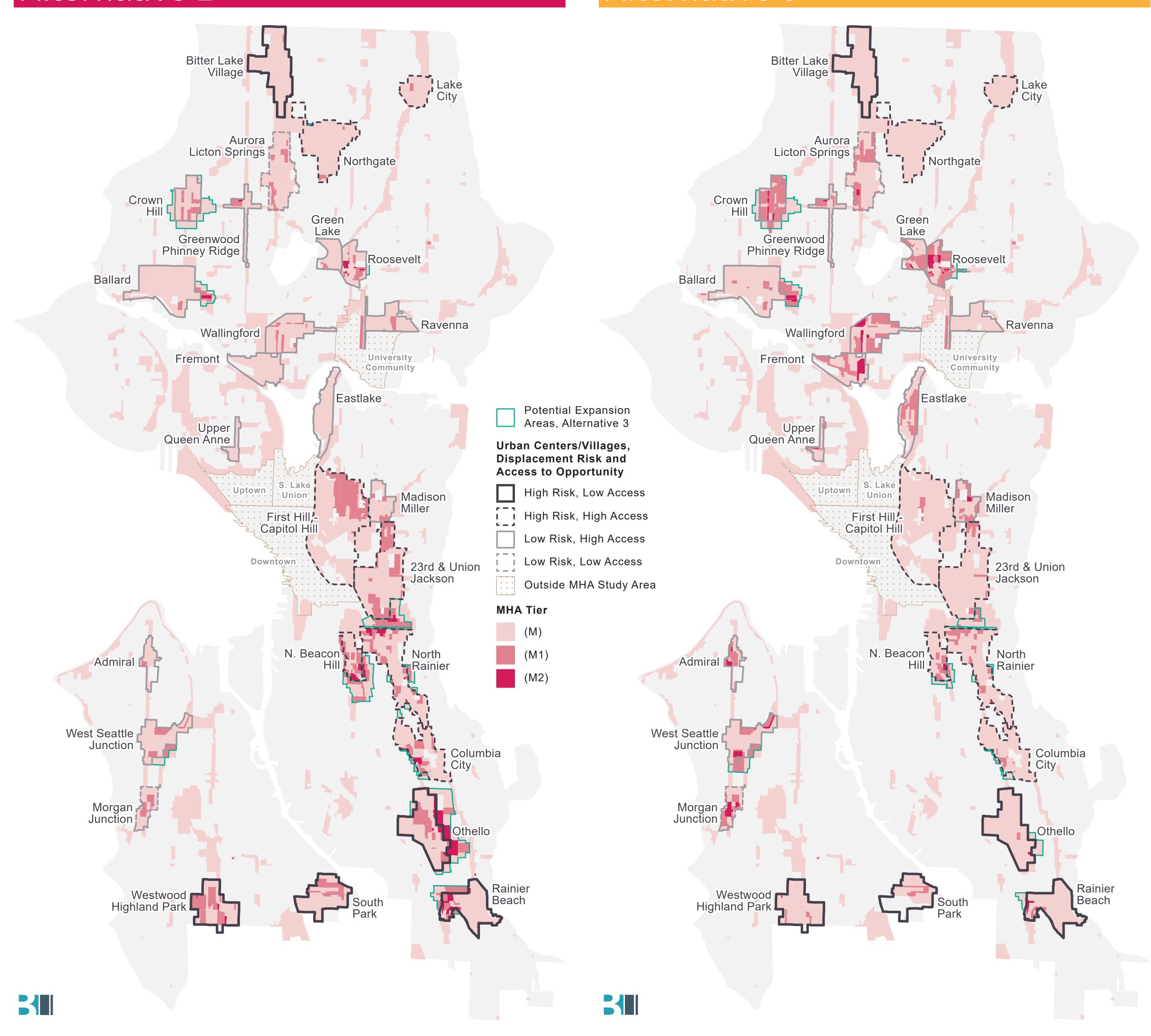
# Mitigation Measures

In addition to features incoporated in the proposal several potential mitigations measures identified include:

- Explicitly address transitions to single family and residential small lot surrounding areas
- Specific regulations for infill development in urban village expansion areas
- Specialized development standards to address (M2)
   Tier Rezones
- Neighborhood-level planning efforts
- Reduce the proposed degree of land use change, or select a lesser intensive alternative, in specific locations where topography could exacerbate impacts
- Reduce the degree of land use change, or select a lesser intensive alternative, in specific locations with constraints

Locations of (M), (M1), and (M2) Zoning Changes

Alternative 2 Alternative 3





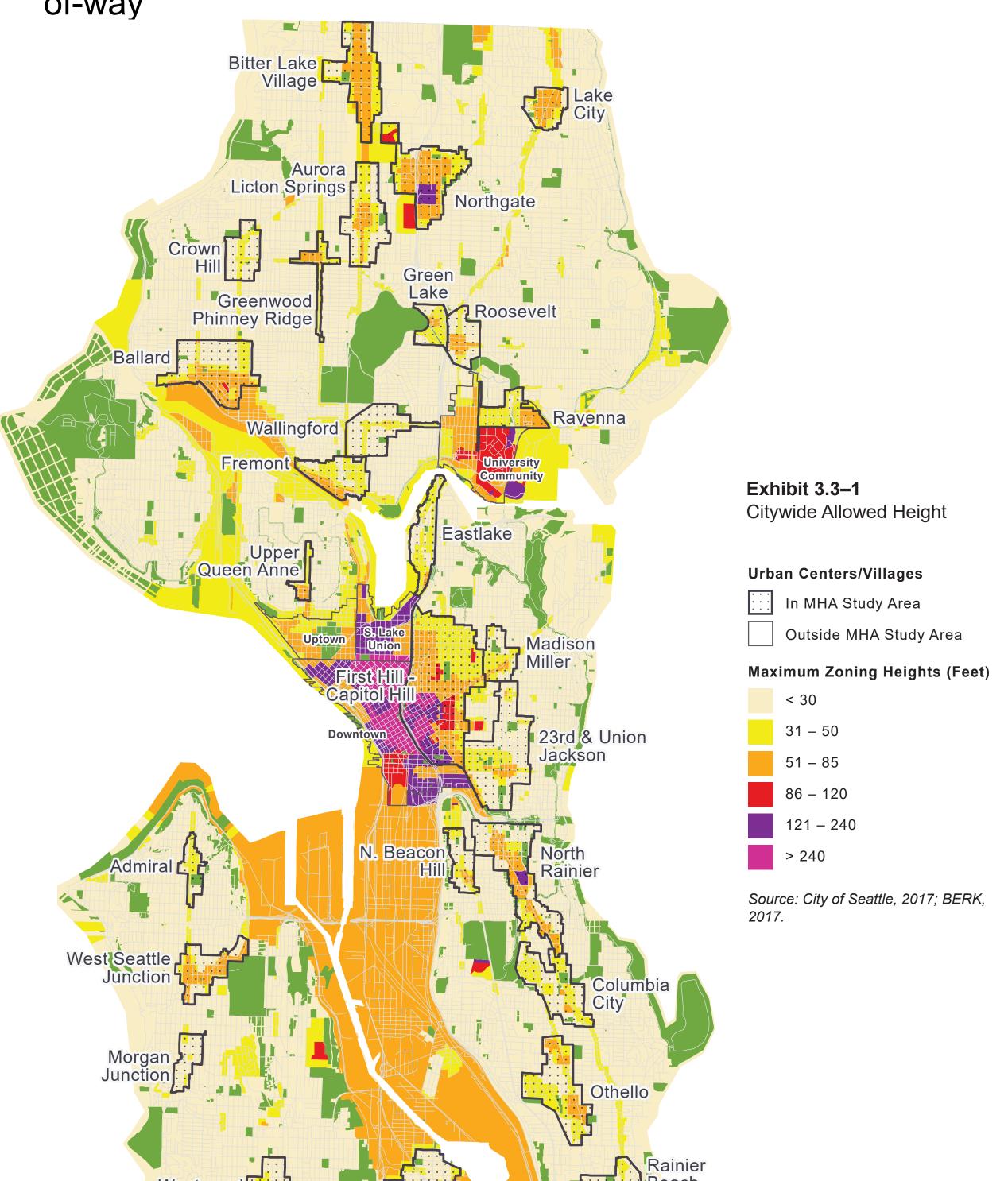
# Aesthetics



### Principles

A series of community-generated principles were used to guide MHA implementation choices in all alternatives. Principles include:

- Ensuring **Urban Design Quality**, by facilitating high-quality design of new buildings and landscaping that acknowledge Seattle's context and architectural style; providing transitions between higher- and lower-scale zones; tailoring building setback requirements for less abrubt zone edges; and incorporating local urban design priorities where appropriate.
- Understanding and responding to Unique Conditions such as documented view corridors from a public space or rightof-way



### Summary of Impacts

All the alternatives would result in a general increase in the level of development in the study area compared to existing conditions.

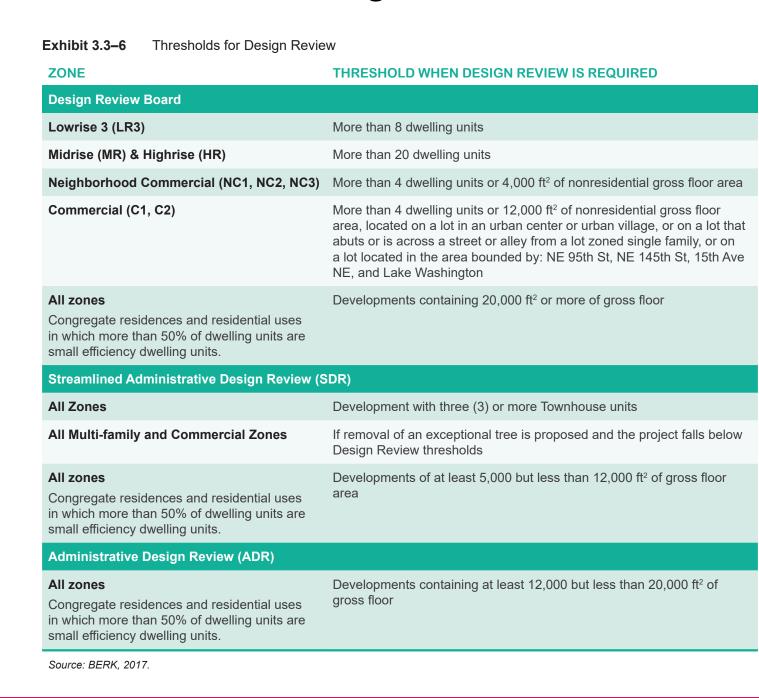
The following summarizes overall aesthetic impacts of Alternative 2 and Alternative 3:

- MHA zoning changes would increase maximum height limits and allow larger, more visually prominent building forms and greater development intensity.
- Each alternative would distribute capacity for future residential and commercial growth to different areas of the city, though all alternatives would locate most future growth in urban villages.
- The increase in development capacity in the study area could result in an incremental increase in the scale and intensity of development, which would vary by urban village
- The aesthetic impact taller and larger buildings can vary substantially depending on an area's existing character, the magnitude of change compared to existing limits, and location relative to other development and sensitive resources, such as parks and public open space.
- There could be gradual shifts from single-family to multifamily or mixed uses, primarily in urban villages and urban village expansion areas and gradual intensification of density, use, and scale in rezoned areas over time.
- Significant impacts are most likely near frequent transit stations, at transitions between existing commercial areas and existing single-family zones, and in areas changing from existing single-family zoning in urban villages and urban village expansion areas.
- A greater variety of housing types would occur in Seattle's residential areas, as Residential Small Lot zoning is applied to some current single-family areas and the amount of land zoned multifamily increases, while the current high percentage of land zoned Single Family would decrease incrementally.
- In general the severity of land use impacts would tend to increase as the degree of change allowed by rezoning increases, but impacts would also vary depending on the specific zoning change and location.

# Mitigation Measures

In addition to features incoporated in the proposal several potential mitigations measures identified include:

- For high-rise tower-style development, locate the tallest portions of the building to reduce scale impacts relative to the most sensitive edges of the property. Applying lower height limits for the "pedestal" or "podium" portion of the building could maintain a lower-intensity appearance at street level and reduce bulk and scale impacts on the pedestrian environment;
- Modify Design Review: incorporate ground-level open space or mid-block pedestrian connections to break up the bulk of buildings and reduce the occurrence of monolithic building forms; promote slimmer building forms that minimize blockage of light and views; and include streetscape improvements to create a streetscape with universal design that is welcoming to pedestrians, cyclists, and all users of the public realm
- Neightborhood Design Guidelines: some but not all urban villages that the proposal would affect have neighborhood design guidelines. Working with neighborhood groups to create and codify neighborhood design guidelines could mitigate localized aesthetic impacts for urban villages that do not currently have them.
- View Obstruction and Shading Effects: Citywide, require preservation or replacement of existing streetscape vegetation along designated scenic routes to preserve and/ or improve visual character; and through the design review or site-level SEPA review process, require detailed shading/ shadow and view studies for new development in areas where the proposed MHA height limit increase is 30 feet or more to protect streetscapes and public open spaces from excessive shading.

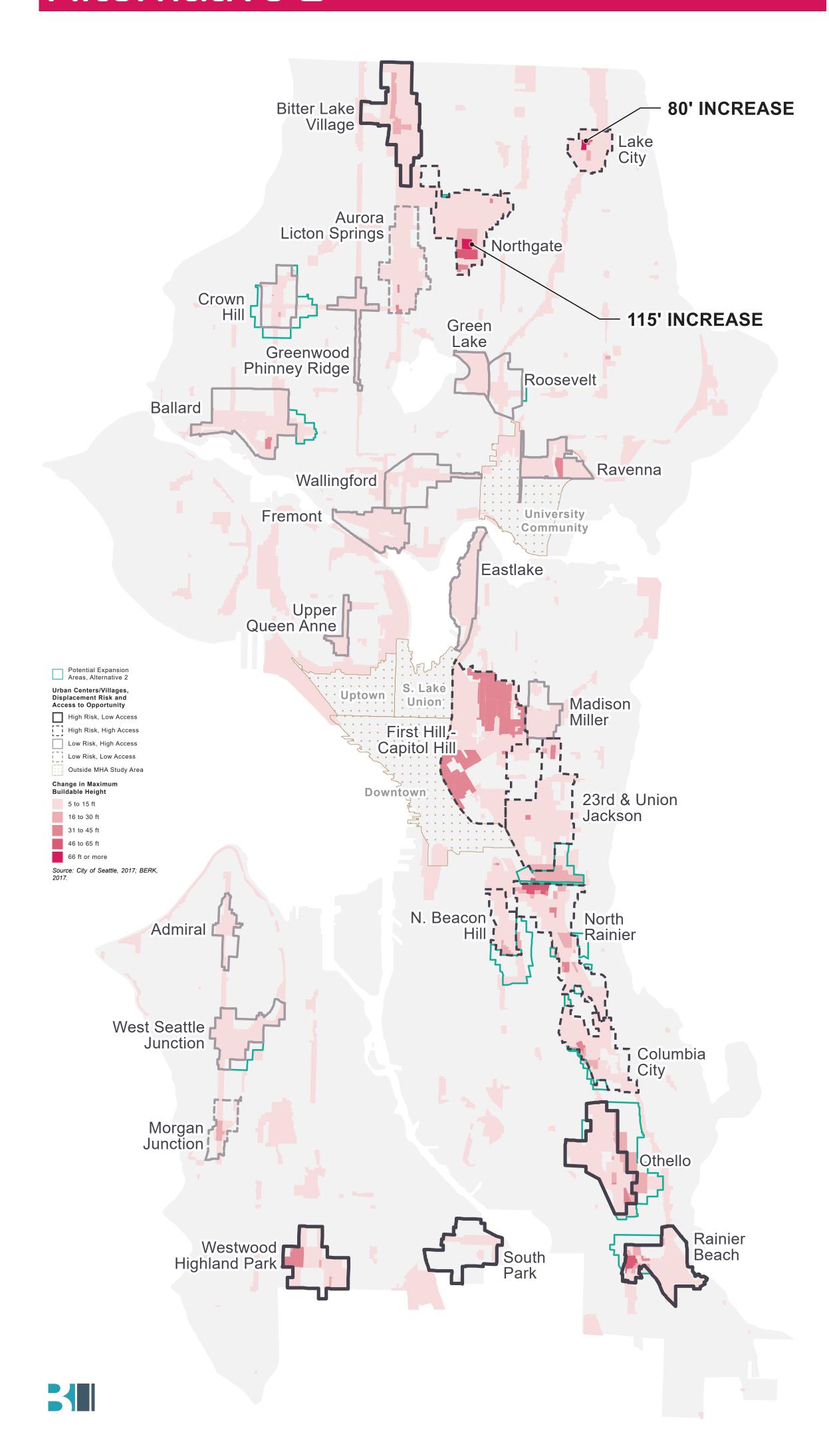




# Aesthetics



# MHA Height Limit Changes Alternative 2



### Alternative 2 Impacts

Compared to Alternative 3, Alternative 2 would have the following relative aesthetic impacts:

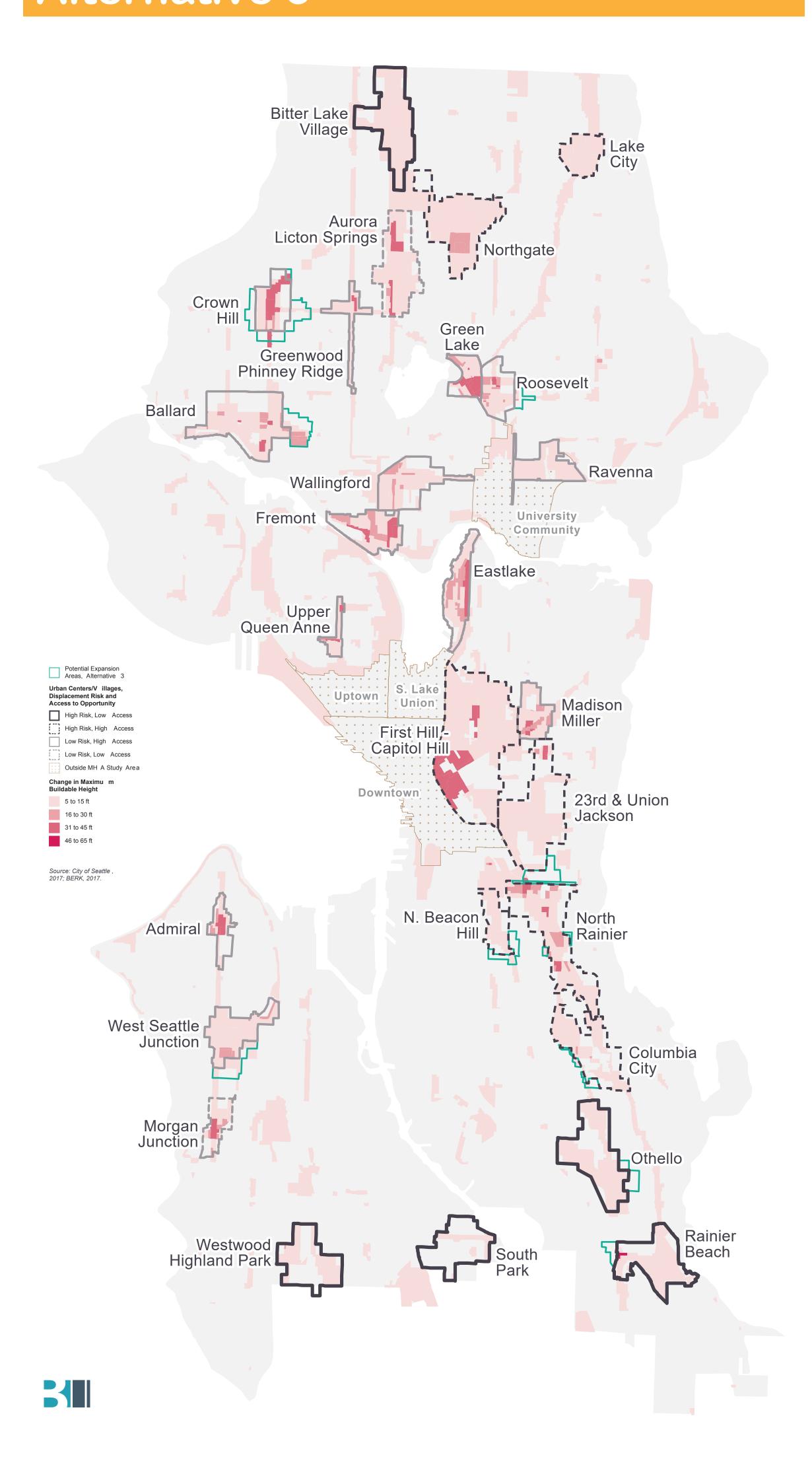
- In Alternative 2, 73% have (M) zoning, 23% of lands proposed for MHA have (M1) zoning and 4% (M2)
- (M1) and (M2) tiers generally represent greater changes to building character and bulk than (M) zoning changes due to changes in allowed building types.
- The largest areas of (M1) zoning are located in urban villages near the center of the city (shown at left).
- The largest areas of (M2) zoning occur in several urban villages in southeast Seattle near existing light rail stations, near the future light rail station between North Rainier and 23rd & Union–Jackson, and near future light rail stations in Roosevelt and Ballard.
- Many of the larger areas of both (M1) and (M2) increases have high displacement risk and low access to opportunity resulting in more I ocalized aesthetic impacts in areas with high displacement risk and low access to opportunity.

# Alternative 3 Impacts

Compared to Alternative 2, Alternative 3 would have the following relative land use impacts:

- In Alternative 3, 77% have (M) zoning, 20% of lands proposed for MHA have (M1) zoning and 3% (M2)
- Many of the larger areas of (M2) zoning occur where displacement risk is low and access to opportunity is high, and most aesthetic impacts would occur in these areas.
- Many (M1) areas are instances where Single Family zones in urban villages or expansion areas that would change to allow multifamily housing.
- Alternative 3 features substantial (M1) and (M2) areas in the study area's urban villages with low displacement risk and low access to opportunity
- Lower height limit increases: 65 feet in Alternative 3 vs 115 feet in Alternative 2
- Urban villages receiving greatest height increases have generally lower risk of displacement than those affected under Alternative 2
- Extend the aesthetic impacts of urban village expansion to a smaller area than Alternative 2

# MHA Height Limit Changes Alternative 3





# Aesthetics





# EACTION Alternatives (both alternatives would bring about a mix of the scenarios shown here)











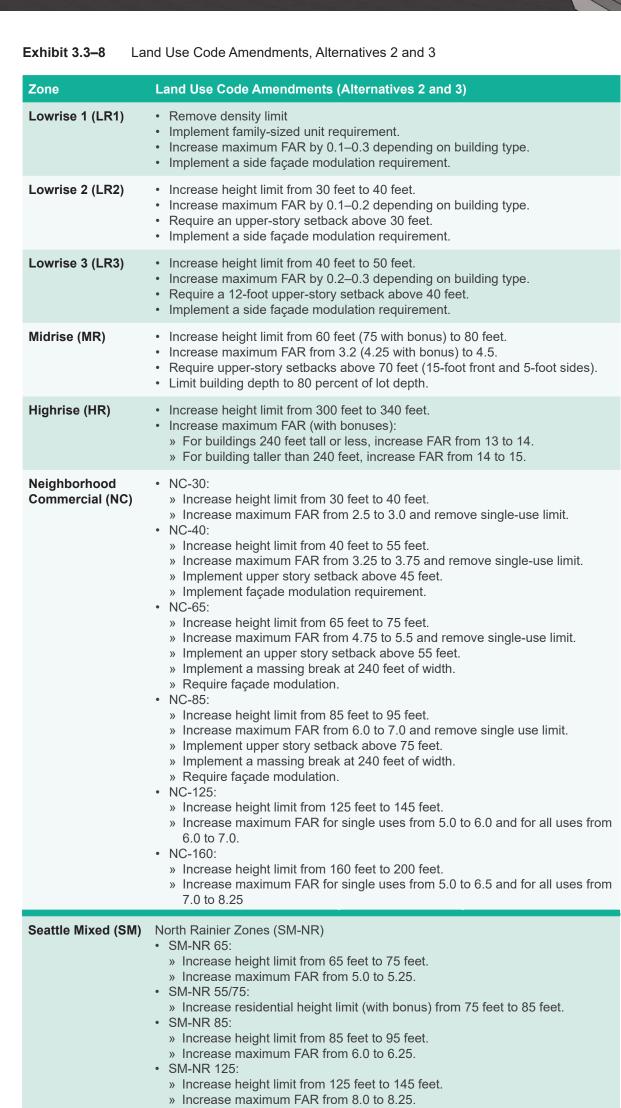












Dravus Zone (SM-D) • SM-D 40-85:

Source: City of Seattle, 2017; BERK, 2017.

» Increase maximum height (with bonus) from 85 feet to 95 feet.



# Transportation



### **Auto and Transit**

Three screenlines are expected to exceed their thresholds in the PM peak hour in 2035 in all alternatives:

South City Limit–Martin Luther King Jr. Way to Rainier Ave S

Ship Canal–Ballard Bridge

South of S Jackson St–12th Ave S to Lakeside Ave S

- In Alternatives 2 and 3 there would be a potentially significant adverse impact to automobile traffic, freight, and transit for these locations.
- Action alternatives result in roughly two percent more vehicle trips than no action.
- Mode share, a measure of the percentage of travelers using alternative to Single Occupancy Vehicles (SOV) is expected to decrease (a positive trend), in all alternatives.
- All of the sectors are expected to meet the 2035 SOV target under the three alternatives.

# Pedestrian and Bicycle

- Improvements through the Pedestrian Master Plan, Bicycle Master Plan and subarea planning, are expected regardless of the alternatives.
- Alternatives 2 and 3 would increase numbers of pedestrian and bicycle trips, but capacity constraints on non-motorized facilities are not expected.
- The pedestrian and bicycle environment is expected to become more robust regardless of alternative.
- No significant impacts are expected to the pedestrian and bicycle system under any of the alternatives.

### Safety

- The City's goal of zero traffic fatalities and serious injuries by 2030 will be pursued regardless of the alternative.
- Traffic increases could potentially lead to an increase in the number of citywide collisions.
- Travel speeds throughout the network would be slightly lower under the action alternatives, which could have a beneficial effect on safety.
- No significant impacts are expected under the alternatives.

### Parking

- On-street parking demand exceeds parking supply in some locations under existing conditions.
- Supply of on-street parking is unlikely to increase by 2035.
- Increased growth under Alternatives 2 and 3 in urban villages which already have high on-street parking utilization will increase demand compared to Alternative 1 (No Action).
- Significant adverse parking impacts are expected under Alternatives 2 and 3 but can be mitigated.

### Mitigation Measures

- Mitigation measures identified in the Seattle 2035 Comprehensive Plan EIS.
- Purchase additional bus service from King County Metro
- Increase the screenline threshold from 1.0 to 1.2 to acknowledge the City is willing to accept higher congestion levels in certain areas.
- Ongoing monitoring of volumes across the Ballard Bridge and complete a feasibility study of a bridge replacement (or new Ship Canal crossing) with increased non-auto capacity.
- Strengthen Transportation Demand Management (TDM) requirements for new development to reduce SOV trips.
- Implement parking maximums that would limit the number of parking spaces which can be built with new development.
- Increase parking taxes/fees.
- Review and revise transit pass provision programs for employees.
- Encourage or require transit pass provision programs for residents.

2035 PM Peak Period Mode Share by Sector (Percentage)

Sector	SOV Target (2035)	Alternative 1 No Action (2035)	Alternative 2 (2035)	Alternative 3 (2035)
Northwest Seattle	37	36	36	36
Northeast Seattle	35	34	34	34
Queen Anne/Magnolia	38	37	37	37
Downtown/Lake Union	18	17	17	17
Capitol Hill/Central District	28	28	28	28
West Seattle	35	35	35	35
Duwamish	51	51	51	51
Southeast Seattle	38	38	38	38

Note: Fehr & Peers, 2017.



# Historic Resources



# Summary of Impacts

- Redevelopment, demolition, and new construction could occur in the study area under all alternatives; these projects could impact historic resources.
- For development projects that would be subject to SEPA, potential impacts to historic and cultural resources would still be considered during project-level SEPA review.
- None of the alternatives proposes zoning changes within the eight designated Seattle historic districts or within the seven National Register historic districts that are located within and are abutting the study area.
- Potential decreases to the historic fabric of a neighborhood are likely to occur if historic buildings are redeveloped or demolished and new buildings are constructed that are not architecturally sympathetic to the existing historic characteristics of a neighborhood.
- Areas with a higher growth rate have the potential for more redevelopment than areas with lower projected growth rates.
- Systematic historic resource surveys have been completed for 11 neighborhoods in the study area, which can assist in the identification and protection of historic resources.
- At the programmatic level of this analysis, no significant unavoidable impacts to historic and cultural resources are anticipated under any of the proposed alternatives.

#### Alternative 2

Alternative 2 estimates ten urban villages with high housing growth rates, where there could be a greater likelihood of greater impacts to historic resources due to development: 23rd & Union—Jackson, Columbia City, Crown Hill, First Hill—Capitol Hill, Morgan Junction, North Beacon Hill, Northgate, Othello, South Park, and Westwood-Highland Park. Of these, the oldest urban villages are 23rd & Union—Jackson and First Hill—Capitol Hill. These are likely to contain the oldest buildings. Systematic inventories have been conducted for four of the 10 urban villages.

#### Alternative 3

Alternative 3 includes eight urban villages with high housing growth rates, where greater impacts to historic resources due to development may occur: Admiral, Crown Hill, Eastlake, Fremont, Green Lake, Madison–Miller, Morgan Junction, and Wallingford. Of these, the oldest urban villages are Eastlake and Madison–Miller. These are likely to contain a higher number of older buildings than the others which were incorporated in 1891 or later. Systematic inventories have been conducted for three of the eight urban villages.

### Mitigation Measures

Mitigation measures to reduce potential impacts to historic and cultural resources include:

- City regulations including the Seattle City Landmark process and archaeological surveys.
- Funding continuation of the comprehensive survey and inventory work that was begun in 2000.

Other mitigation measures that the city could elect to pursue could include:

- Establishing new historic districts or new conservation districts such as the City's Pike/Pine Conservation District.
- Establishing Transfer of Development Rights (TDR)
   programs within new conservation districts to provide
   incentives for property owners to keep existing character
   structures;
- Requiring any structure over 25 years in age that is subject to demolition, including those undergoing SEPA-exempt development, to be assessed for Landmark eligibility.
- If seismic retrofitting is required for Unreinforced Masonry Buildings (URM), adherence to the Secretary of the Interior's Standards for the Treatment of Historic Properties.



# Biological Resources



# Summary of Impacts

- MHA would not directly impact any biological resources, but development allowed by the MHA program could affect these resources by affecting decisions to redevelop or expand properties containing trees or ECAs.
- All anticipated growth would be required to comply with the existing regulations for protection of ECAs and trees.
- Development and redevelopment is expected to occur under all of the alternatives, although at different projected rates.
   In general, development of any kind has the potential to affect ECAs and tree canopy cover through site disturbance during construction and through land use activities after construction.
- No significant unavoidable adverse impacts to ECAs or tree canopy cover have been identified.

### Alternative 1

Redevelopment, demolition, and new construction projects could occur in the study area under existing zoning. Changes in tree canopy coverage would still be expected, but under current zoning and tree protection policies, codes, and development standards.

#### Alternative 2

- An additional 142 acres of mapped ECAs would occur within the boundaries of Urban Villages compared to No Action, and could potentially be impacted by development.
- There is the potential for additional loss of between 5 and 11 acres of tree canopy cover within the study area compared to No Action.
- For every displacement risk and access to opportunity urban village type, there is less than one-half of one percent (<0.5 percent) difference between the existing tree canopy cover and the Alternative 2 scenario.

### Alternative 3

- An additional 102 acres of mapped ECAs would occur within the boundaries of Urban Villages compared to No Action, and could potentially be impacted by development.
- There is the potential for additional loss of between 8 and 16 acres of tree canopy cover within the study area compared to No Action.
- For every every displacement risk and access to opportunity urban village type, there is less than one-half of one percent (<0.5 percent) difference between the existing tree canopy cover and the Alternative 3 scenario.

### Mitigation Measures

The continued application of the City's existing policies, review practices and regulations, would help to avoid and minimize the potential for significant adverse impacts to critical areas.

For tree canopy, the City is evaluating a range of urban forestry policies and programs in preparation for the 2018 update of the Urban Forest Stewardship Plan (UFSP). Current options the City is exploring include:

- Improve enforcement of regulations and penalties.
- Improve and/or expand tree protections.
- Expand incentives and development standards to grow trees as development occurs, specifically in single and multifamily residential areas.
- Expand and enhance trees on public lands and in the right-of-way.
- Partner with the community to expand trees in low canopy areas to advance environmental justice and racial equity.
- Preserve and enhance tree groves to maximize environmental benefits.
- Strategically plant and care for trees to mitigate heat island effect and promote greater community resilience.



# Open Space & Recreation



# Summary of Impacts

- Indirect impacts to parks and open space accessibility or availability could occur due to additional population growth.
- The primary impact under all alternatives would be a decrease in availability, i.e., greater crowding in parks, a need to wait to use facilities, or unavailable programs.
- The quality or level of services available within parks is a factor, but because measures of quality are difficult and subjective the analys focuses on the amount, walkability to, and distribution of parks and open space.
- A Draft 2017 Parks and Open Space Plan was released in May 2017. Although the 2017 Plan has not been finalized, it is likely to be adopted in fall 2017, and the analysis for this Seattle MHA EIS uses the metrics from this plan to identify impacts.
- Development under all alternatives would have significant adverse impacts to parks and open space. However, impacts can be avoided through mitigation measures.

# Mitigation Measures

- Consider MHA growth projections in the next open space gap analysis to address future potential impacts through the next Development Plan.
- Acquire additional parks and open space in urban villages with substantial walkability gaps.
- Enact mitigation strategies outlined in the Seattle 2035 Comprehensive Plan EIS.
- Incorporate incentives and other regulatory tools to encourage and enforce developers to set aside publicly accessible usable open space, such as impact fees for open space, or a transfer of development rights (TDR) for open space.

### Alternative 1

- Impacts would be the same as those evaluated for the Seattle 2035 Comprehensive Plan.
- Alternative 1 would not meet the 2017 citywide LOS in the year 2035, unless 40 additional acres of park and open space land is acquired, as expected pursuant to the 2017 Draft Parks and Open Space Plan.
- Gaps in the geographic availability or shortfalls from optimal location, size, or number of parks could remain long-term.

#### Alternative 2

- Similar impacts to Alternative 1, but to a larger degree.
- The City would have to add more open space during the 20-year period to meet the 2017 citywide LOS, 434 acres.
- Gaps in geographic availability or shortfalls from optimal location or size, in different urban villages could occur. (See tables)
- Impacts would be greatest in urban villages with the largest increases in growth under Alternative 2 compared to Alternative 1, such as Ballard, Northgate, First Hill-Capitol Hill, North Beacon Hill, North Rainier, and Aurora-Licton Springs.

#### Alternative 3

- Similar impacts to the Alternative 1 but to a larger degree.
- The City would have to add more open space during the 20-year period to meet the 2017 citywide LOS, 434 acres.
- Gaps in geographic availability or shortfalls from optimal location or size, in different urban villages could occur. (See tables)
- Impacts would be greatest in urban villages with the largest increases in growth under Alternative 3 compared to Alternative 1.
- Under Alternative 3, copared to Alterantive 2, there would be less of a decrease in availability in First Hill—Capitol Hill and North Beacon Hill.

Changes in Park Availability in Urban Villages with Open Space and/or Walkability Gaps, Alternative 2

URBAN VILLAGE PARKS AND OPEN SPACE AVAILABILITY

#### (ACRES OF PARKS AND OPEN SPACE PER 100 RESIDENTS)

	Baseline (2015)	Alternative 2	Open Space Gap (2011)	Walkability Gap (2017)		
High Displacement Risk & Low Access to Opportunity						
Othello	0.23	0.33 (+43%)		X		
Bitter Lake Village	0.18	0.12 (33%)	X	X		
Low Displacement Risk &	High Access to O	pportunity				
Fremont	0.07	0.05 (29%)	X			
Ballard	0.07	0.04 (43%)	X			
West Seattle Junction	0.02	0.01 (50%)	X			
Ravenna (2)	0.10	0.05 (50%)	X			
High Displacement Risk & High Access to Opportunity						
Northgate	0.25	0.06 (76%)		X		
First Hill-Capitol Hill	0.03	0.02 (33%)	X			
North Beacon Hill	0.24	0.08 (67%)		X		
North Rainier	1.53	0.64 (58%)	X			
Low Displacement Risk & Low Access to Opportunity						
Aurora-Licton Springs	0.12	0.09 (25%)		X		
Morgan Junction	0.03	0.02 (33%)	X	X		

Note: The acres of parks and open space within the urban villages were calculated using 2014 Seattle Parks GIS data and the urban village boundaries used for the alternatives. The number of residents residing within urban villages was calculated using housing data provided in Chapter <?>, with an average household of 1.78 residents per housing unit applied for urban villages and 2.06 residents per housing unit applied for areas outside urban villages (City of Seattle, 2016).

Changes in Park Availability in Urban Villages with Open Space and/or Walkability Gaps, Alternative 3

URBAN VILLAGE PARKS AND OPEN SPACE AVAILABILITY

#### (ACRES OF PARKS AND OPEN SPACE PER 100 RESIDENTS)

	(ACRES O	(ACRES OF PARKS AND OPEN SPACE PER 100 RESIDENTS)				
	Baseline (2015)	Alternative 3	Open Space Gap (2011)	Walkability Gap (2017)		
High Displacement Risk & Low Access to Opportunity						
Othello	0.23	0.19 (17%)		X		
Bitter Lake Village	0.18	0.12 (33%)	X	X		
Low Displacement Risk 8	k High Access to O	pportunity				
Fremont	0.07	0.05 (29%)	X			
Ballard	0.07	0.04 (43%)	X			
West Seattle Junction	0.02	0.01 (50%)	X			
Ravenna (2)	0.10	0.05 (50%)	X			
High Displacement Risk & High Access to Opportunity						
Northgate	0.25	0.06 (76%)		X		
North Beacon Hill	0.24	0.09 (63%)		X		
North Rainier	1.53	0.65 (58%)	X			
Low Displacement Risk & Low Access to Opportunity						
Aurora-Licton Springs	0.12	0.09 (25%)		X		
Morgan Junction	0.03	0.02 (33%)	X	X		

Note: The acres of parks and open space within the urban villages were calculated using 2014 Seattle Parks GIS data and the urban village boundaries used for the alternatives. The number of residents residing within urban villages was calculated using housing data provided in Chapter <?>, with an average household of 1.78 residents per housing unit applied for urban villages and 2.06 residents per housing unit applied for areas outside urban villages (City of Seattle, 2016).



# Public Services & Utilities



# Summary of Impacts

- Public services and utilities analyzed: Police Services, Fire and Emergency Medical, Public Schools, Water, Sewer, and Drainage and Electricity.
- Development resulting from implementation of proposed MHA zoning changes could cause population increases in some areas, whi generally increases demand for public services.
- Compact patterns of growth can also reduce the distances that emergency vehicles need to travel to respond to service calls.
- Population growth increases demand on utilities, regardless of density, but higher density can concentrate demand and cause local capacity problems.
- Existing local or statewide regulatory framework would apply at the time of development that would identify project-level impacts to address on a project-by-project analysis.
- No significant unavoidable impacts to public services or utilities are anticipated at this time for any alternative.

#### Water, Sewer, Drainage, City Light

SPU and SPL have methods in place that ensure development is not approved without identification of demand and availability of utilities.

Development in areas of informal drainage could have an impact on localized stormwater drainage. Urban villages in areas with a large amount of informal drainage are:

- Crown Hill
- Aurora–Licton Springs
- Northgate
- Bitter Lake
- Lake City

Of these, Bitter Lake and Aurora–Licton Springs overlap capacity constrained areas, and all of these urban villages have portions served by ditch/culvert systems which are inherently capacity constrained. Crown Hill is the only urban village boundary expansion area of these villages.

#### Police

The South Precinct is currently at capacity; any future growth would result in an impact to the South Precinct. If the planned North Precinct is built, it would provide adequate capacity for future growth. In other precincts, impacts would vary, depending on the distribution of growth under the alternatives. The pattern of growth under Alternatives 2 and 3 would be denser in some areas, resulting in a greater concentration of people within a precinct that the police department would have to serve.

#### Fire and Emergency Medical Services

The pattern of growth would result in a greater concentration of people within an area (Battalion) that fire and emergency would have to serve in the Action Alternatives. Existing growth trends in South Lake Union (Fire Station 2) and portions of Bitter Lake, Aurora—Licton Springs, Crown Hill, and Greenwood—Phinney Ridge (Fire Station 31) could contribute to increased service call volumes and potential slower average response times in these areas. Implementation of the proposed project under Alternative 2 and 3 would result in a higher number of housing units that would need fire and emergency services and therefore could result in additional impacts to Fire Station 31.

#### **Public Schools**

For Seattle Public Schools (SPS), growth is expected to be most evident in:

- Northwest Seattle,
- Northeast Seattle,
- Downtown/South Lake Union and
- Capitol Hill/Central District

The northwest Seattle, northeast Seattle and Capitol Hill/Central Districts currently have capacity to serve potential growth. SPS would respond to the exceedance of capacity as it has done in the past, by adjusting school boundaries and/or geographic zones, adding/removing portables, adding/removating buildings, reopening closed buildings or schools, and/or pursuing future capital programs. If the MHA program is adopted, SPS would adjust their enrollment projections accordingly for the next planning cycle.

# Mitigation Measures

Mitigation recommendations proposed in Section 3.8.3 of the Seattle 2035 Comprehensive Plan EIS would also apply to the potential impacts identified for this project, including prioritizing identified needs in areas that currently experience deficiencies and are anticipated to grow in number of residences.

#### Stormwater Drainage

The City could consider additional mitigation measures to address stormwater drainage impacts in areas of informal drainage including:

- Strengthen tools and regulations to ensure that systematic stormwater drainage improvements are made at the time of small scale infill developments in areas of informal drainage.
- Incorporate drainage design techniques in the low-cost sidewalk improvements section of the Right-of-Way Improvements Manual.
- Explore establishing a latecomer agreement mechanism for sidewalk / drainage improvements, to allow homeowners and builders of small scale development to sign an agreement to contribute to future block-scale sidewalk / drainage improvements at the time the City is prepared to construct a block-scale improvement in the area. The tool could be combined with low-cost loan financing assistance from the city.



# Air Quality & GHG Emissions MHA Draft EIS HELA

# Air Quality

#### **Construction-Related Emissions**

Future growth under any alternative would generate construction phase air emissions, such as exhaust emissions from heavy duty construction equipment and trucks, as well as fugitive dust emissions associated with earth-disturbing activities. Construction related emissions associated with all alternatives are identified as a minor adverse air quality impact.

Land Use Compatibility and Public Health Considerations. Future growth could result in more people living near mobile and staionary sources of air toxics and particulate matter PM<sub>2.5</sub>. Portions of Seattle located within 200 meters of major highways, rail lines, and major industrial areas are exposed to relatively high cancer risk values of up to 800 in one million fourteen urban villages are within this 200 meter buffer. The action alternatives would increase the potential number of people or other "sensitive receptors" (i.e. hospitals, schools, daycare facilities, senior housing) located near these existing sources of harmful air pollutants.

The following urban villages are within the 200 meter buffers:

First Hill-Capitol Hill	Aurora-Licton Springs
Ravenna Urban Center Village	Eastlake
Northgate	Green Lake
Bitter Lake	North Beacon Hill
Fremont	Roosevelt
Lake City	South Park
23rd & Union-Jackson	Wallingford

### Greenhouse Gas Emissions

Construction-Related Greenhouse Gas Emissions. Greenhouse gas emissions (GHGs) would be emitted during construction activities from demolition and construction equipment, trucks used to haul construction materials to and from sites, and from vehicle emissions generated during worker travel to and from construction sites. However, because of the combination of regulatory improvements and Climate Plan Actions under way, construction related GHG emissions associated with all three alternatives would be considered a minor adverse air quality impact.

Transportation-related Greenhouse Gas Emissions. Under all alternatives, projected improvements in fuel economy and a cleaner vehicle fleet outweigh the projected increase in vehicle miles traveled. For this reason, all of the alternatives are expected to generate lower GHG emissions than current emissions in 2015 and all would generate roughly the same annual GHG emissions.

# Mitigation Measures

Mitigation recommendations proposed in Section 3.2.3 of the Seattle 2035 Comprehensive Plan EIS would also apply to the potential impacts identified for this project.

Consider setbacks to separate residences and other "sensitive" receptors" (e.g., hospitals, schools, daycare facilities, senior housing) from freeways, railways, and port facilities. Where separation by a buffer is not feasible, consider filtration systems for such uses.

Road Transportation GHG Emissions in Metric Tons of CO<sub>2</sub>e per Year

Vehicle Type	2015 Existing	2035 Alternative 1 No Action	2035 Alternative 2	2035 Alternative 3
Cars and Light Trucks	1,653,000	1,426,000	1,447,000	1,447,000
Heavy Trucks	563,000	694,000	701,000	701,000
Buses	65,000	43,000	43,000	43,000
Vanpools	2,000	2,000	2,000	2,000
Total	2,283,000	2,165,000	2,193,000	2,193,000

Source: ESA, 2017; Appendix <?>.

Road Transportation and Energy-Related Pollutant Emissions in Tons per Year

Source	2015 Existing	2035 Alternative 1 No Action	2035 Alternative 2	2035 Alternative 3
Carbon monoxide (CO)	130.63	36.66	38.68	38.78
Oxides of nitrogen (NO <sub>x</sub> )	134.76	18.07	22.55	22.69
Fine Particulate Matter (PM <sub>2.5</sub> )	9.30	2.90	3.18	3.19
voc	9.73	1.53	1.80	1.80

Source: ESA, 2017.

