

# Northeast Redevelopment Area (NERA)

City of Burien

DRAFT  
Supplemental Environmental  
Impact Statement  
(DRAFT SEIS)

October 2009



Prepared for:  
City of Burien  
400 SW 152nd Street  
Suite 300  
Burien, WA 98166



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# FACT SHEET

**PROJECT NAME** Northeast Redevelopment Area (NERA) — Redevelopment Strategy

**NERA LOCATION** East of 8th Avenue South, south of 138th Street, and west of Des Moines Memorial Drive (see Figure 1.1-2).

**PROPOSED ACTION AND ALTERNATIVES** The City of Burien is considering several planning and land use alternatives for part of the northeast portion of Burien. Alternatives 1 and 2 would implement and expand upon existing comprehensive plan policies, calling for the redesignation and rezoning of SPA-4 to two land use and zoning designations specific to subareas of the NERA.

The proposed alternatives are:

- ◆ Alternative 1 (Preferred Alternative) — Change the comprehensive plan designations and zoning classifications for the entire NERA, and modify existing comprehensive plan and zoning language. The existing designation of SPA-4 would be changed to two new designations and zones, “Airport Industrial (AI)” and “Professional Residential (PR).” The AI zone would allow the flexibility to develop a mixture of land uses that are compatible with the airport in a business park setting. Potential uses include technological, light manufacturing, light industrial and office facilities. New auto sales and commercial/retail uses would be allowed in a portion of the AI designated area. The PR zone would allow existing residential and new residential uses, and new non-residential uses such as, professional office, convenience retail, art studios, and home-based businesses, and residential.
  
- ◆ Alternative 2 — Change the comprehensive plan designations and zoning classifications for the entire NERA and modify existing comprehensive plan and zoning language. The existing comprehensive plan designation and zone of SPA-4 would be changed to two new designations and zones, “Airport Industrial (AI)” and “Professional Residential (PR)”. The AI zone would allow for flexibility in use to include a mixture of uses that are compatible with the airport in a business park

## FACT SHEET

### PROPOSED ACTION AND ALTERNATIVES, CONTINUED

setting. Potential uses include technological, light manufacturing, light industrial, and office facilities. This alternative would not permit auto sales or commercial/retail uses, other than retail uses that support the business park/employment functions of the area. The PR zone would allow existing residential and new residential uses, and new non-residential uses such as, professional office, convenience retail, art studios, and home-based businesses.

- ◆ Alternative 3 (*the “No Action” Alternative*) — Leave the existing comprehensive plan and zoning classifications and language of SPA-4 in place. SPA-4 zoning regulations require any new development to have a minimum of 2 acres and to be rezoned to SPA-4. Allowed uses include: warehouse, light industrial, office and no residential use.

### PROPONENT

City of Burien

### LEAD AGENCY

City of Burien

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### LICENSES, PERMITS AND OTHER REQUIRED APPROVALS

Burien City Council approval of any Comprehensive Plan or zoning changes

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- ◆ City of Burien

### DATE OF ISSUE OF DRAFT SEIS

October 5, 2009

## FACT SHEET

END OF DRAFT SEIS COMMENT PERIOD	November 4, 2009
DATE OF FINAL ACTION	The decision on comprehensive plan and zoning amendments is expected to be made by the Burien City Council in late 2009.
TYPE AND TIMING OF SUBSEQUENT ENVIRONMENTAL REVIEW	State Environmental Policy Act (SEPA) review of the NERA is intended to be complete upon conclusion of the SEIS process. The City of Burien may consider adoption of a Planned Action Ordinance at a later date and/or may require future environmental reviews of individual development projects.
LOCATION OF COPIES OF THIS DRAFT SEIS WITH APPENDICES	Burien City Hall 400 SW 152 <sup>nd</sup> Street, Suite 300 Burien, WA 98166
COST	\$22.00 for printed document \$9.00 for document files on disk (in PDF format, which requires Acrobat Reader program for viewing)
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A Notice of DRAFT SEIS availability was sent to all parties of record and all property owners inside and within 500 feet of the NERA. The notice was also posted on the City of Burien's website ([www.burienwa.gov](http://www.burienwa.gov)) and on public notice boards in and near the NERA and in Burien City Hall.

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## Acronyms and Abbreviations

ADT	Average Daily Traffic
AI	Airport Industrial
ATZ	Approach Transition Zone
BMC	Burien Municipal Code
dnl	Day-Night Average Sound Level
EA	Environmental Assessment
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
HSS	Highway of Statewide Significance
I	Industrial
LOS	Level of Service
N/A	Not applicable
NERA	Northeast Redevelopment Area
NEST	New Economic Strategy Triangle
OFA	Runway Object Free Area
PSE	Puget Sound Energy
PSRC	Puget Sound Regional Council
PR	Professional Residential
RPZ	Runway Protection Zone
SCL	Seattle City Light
SEIS	Supplemental Environmental Impact Statement
SEPA	State Environmental Policy Act
SPA-4	Special Planning Area 4
Sea-Tac Airport	Seattle-Tacoma International Airport
SPU	Seattle Public Utilities
SWSSD	Southwest Suburban Sewer District
TDM	Transportation Demand Management
The City	City of Burien
The Port	Port of Seattle
TIF	Transportation Impact Fee
ULID	Utility Local Improvement District
vph	vehicles per hour
VVSD	Valley View Sewer District
WDFW	Washington Department of Fish and Wildlife
WDNR	Washington Department of Natural Resources
WSDOT	Washington State Department of Transportation



# Chapter 1: Description of Alternatives

## 1.1 Background

In 2008, the City of Burien and Port of Seattle began working on a strategy to assist with redevelopment of the area north and west of the Sea-Tac Airport third runway. This area—the Northeast Redevelopment Area (NERA)—is currently a mixture of single-family homes, vacant land, and a few commercial businesses. (Refer to Figure 1.1-1 Vicinity Map and Figure 1.1-2 Natural Conditions in the NERA).

The City previously studied this area in 2002. That work resulted in a new comprehensive plan and zoning classification (Special Planning Area 4, or SPA-4), a series of comprehensive plan policies to guide the desired redevelopment, new zoning regulations, and design guidelines. These policies and regulations comprise Alternative 3 (No-Action Alternative), described in Section 1.3.3.

Over the past seven years, the Sea-Tac Airport third runway opened, dozens of homes were demolished as part of the Port of Seattle buyout program, and little redevelopment occurred. The new zoning regulations required a minimum of two acres of land to redevelop into commercial uses, but also prohibited new homes from being built anywhere in the NERA.

In 2008, the City recognized that it needed to re-evaluate its NERA policies and regulations to make them more flexible and responsive to market forces. To guide the effort, the Burien City Council established the following objectives for the redevelopment strategy program:

- The NERA strategy will be realistic and implementable.
- The NERA strategy will build upon previous work, including but not limited to:
  - The City of Burien’s Comprehensive Plan, Bicycle and Pedestrian Plan, and applicable development regulations
  - The City of Burien’s 2002 Supplemental Environmental Impact Statement (SEIS) and Planned Action Ordinance for the NERA
  - The New Economic Strategy Triangle (NEST) Study
  - The Miller Creek Basin Plan
  - The Port of Seattle Airport Comprehensive Development Plan
  - The Port of Seattle’s agreements with the Federal Aviation Administration (FAA)
- The NERA strategy will recognize and be designed to respond appropriately to market forces and dynamics.

Figure 1.1-1 NERA Vicinity Map

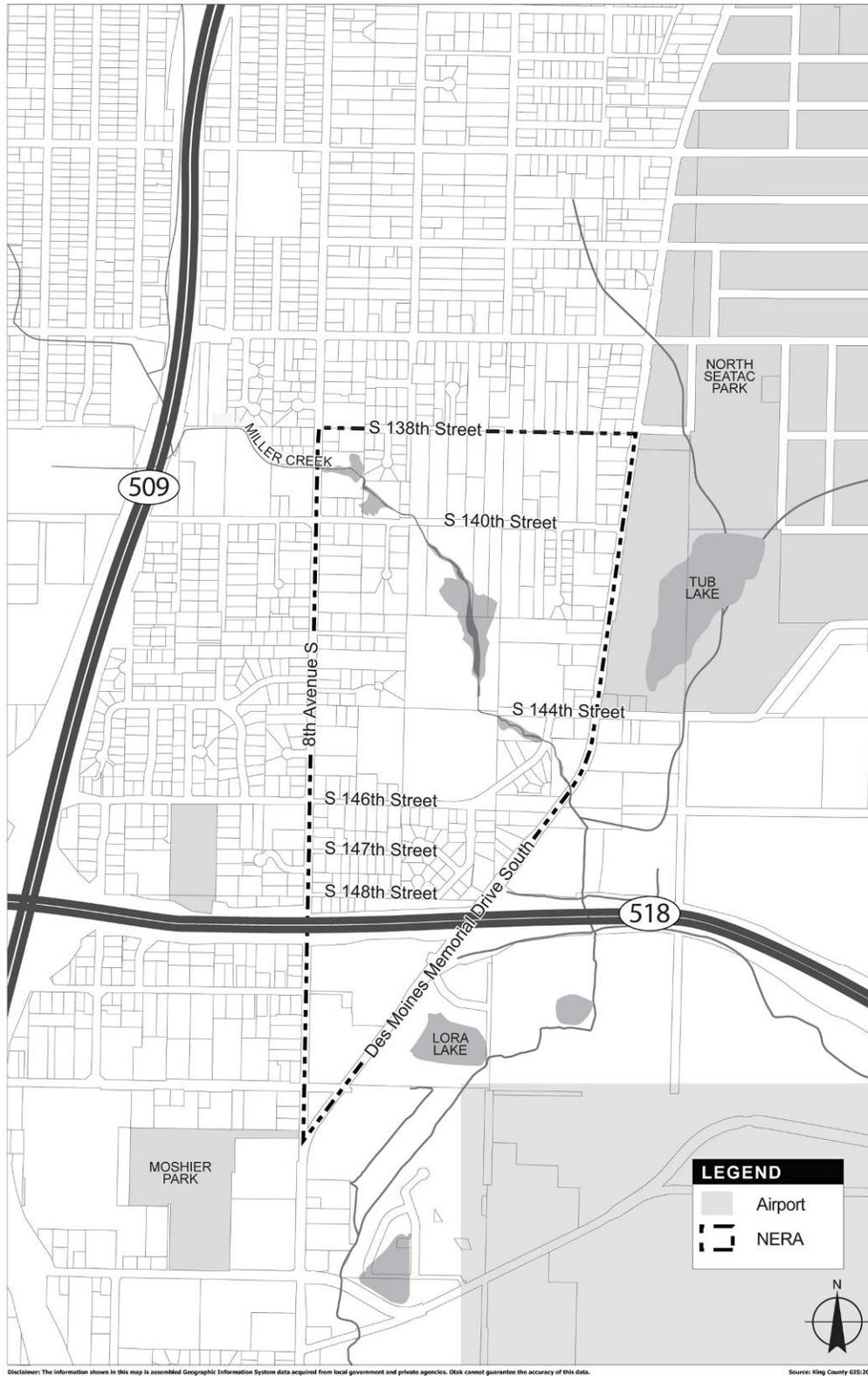
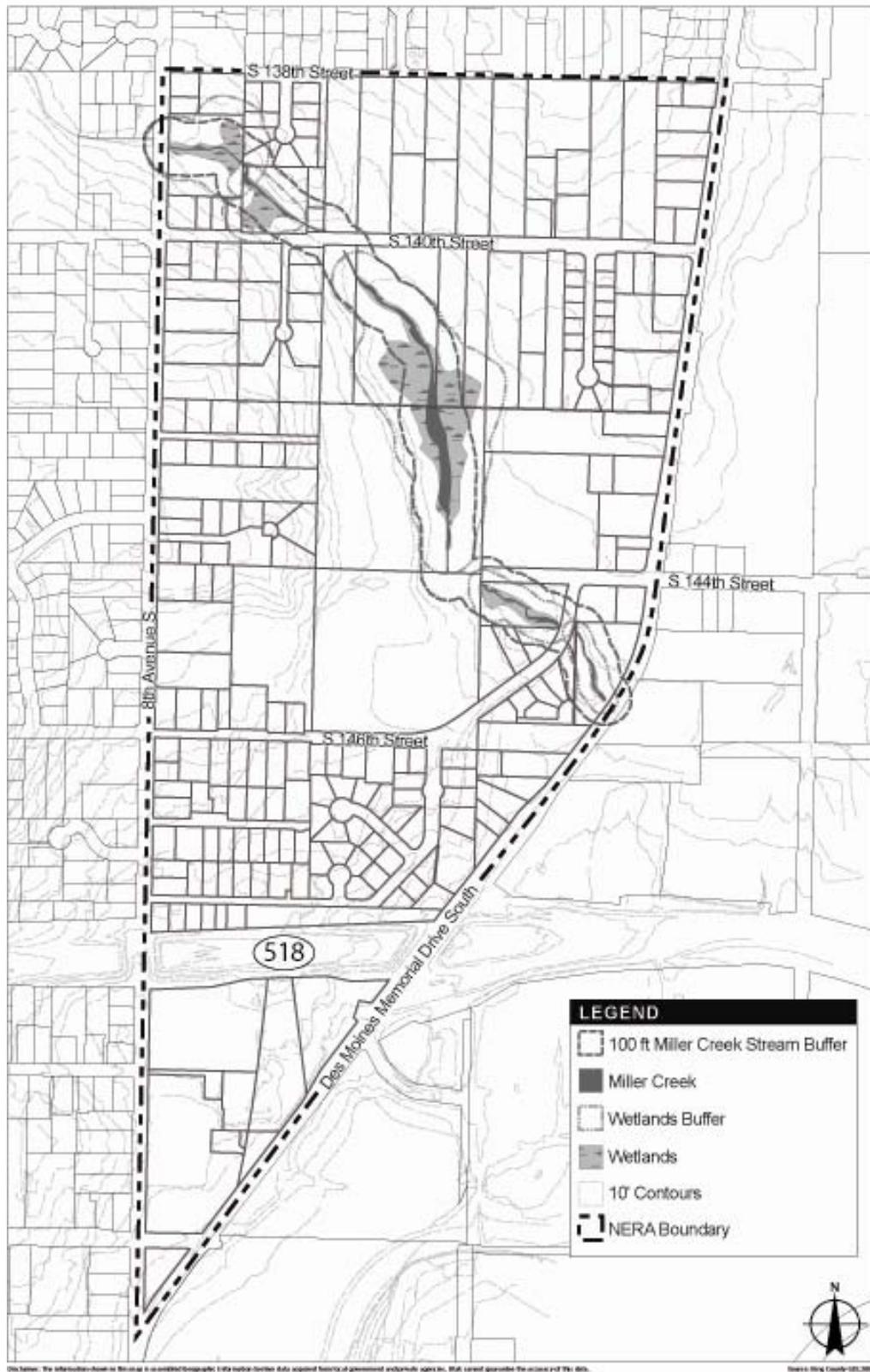


Figure 1.1-2 Natural Conditions in the NERA



- The NERA strategy will be flexible and capable of being phased to promote cost-effective and timely decision-making.
- The NERA strategy will identify specific tools and resources for implementation by the City of Burien, Port of Seattle, and individual private and public property owners.
- The NERA strategy will provide maximum possible revenues to the City of Burien and maximum possible returns to the Port of Seattle and individual property owners.
- The NERA strategy will conform to FAA and airport safety regulations, land use restrictions, and design rules and standards as provided by the Port of Seattle. These include height restriction, appropriate types of landscaping, minimization of glare, and other requirements.

### 1.1.1 Sea-Tac Airport Third Runway

In November 2008, Sea-Tac Airport completed the construction of a third runway on the west side of the airport, in close proximity to the City of Burien. Through the construction of the third runway, many homes were purchased by the Port of Seattle due to their location within FAA restriction zones and based on noise analysis. FAA restrictions apply to certain areas within the NERA due to the proximity of the third runway and airport operations. These restrictions ensure safety and compatibility of land uses and are in place due to flight path restrictions or based on funding used to purchase the property. Within the NERA, the regulated areas are located north of the third runway. The FAA regulatory zones include the Runway Protection Zone (RPZ) and the Approach Transition Zone (ATZ).

The alternatives in this document respond to and were influenced by FAA regulations.

#### 1.1.1.1 The Runway Protection Zone

The RPZ begins 200 feet north of the end of the proposed third runway at Sea-Tac Airport (Figure 1.1-3). The RPZ is a trapezoidal area that extends 2,500 feet north and is 1,750 feet in width at its northernmost and widest end. Most of the RPZ is located in the City of SeaTac, but the northwest corner enters the City of Burien. Approximately five acres of the NERA is located in the RPZ.

Because the RPZ is used to minimize potential impacts to people and property on the ground, and to prevent interference with arriving and departing aircraft, land uses within the RPZ are restricted by FAA. Land uses specifically prohibited from occurring in the RPZ include residences, places of public assembly (churches, schools, hospitals, office buildings, shopping centers, and other uses with similar concentrations of people) and

Figure 1.1-3 ATZ and RPZ Detail



golf courses. The FAA prefers that the RPZ be open space, but some uses are permitted (such as parking and stormwater facilities) if they:

- Do not attract wildlife.
- Are outside of the Runway Object Free Area (OFA). The OFA is an 800-foot wide area immediately adjacent to the runway that extends along the center line of the runway the full length of the RPZ. Structures are not permitted within the OFA and the RPZ (Figure 1.1-3). In the RPZ area outside the OFA, parking facilities are discouraged, but may be allowed, as may passive recreation uses and temporary construction laydown areas. Fuel storage facilities are not allowed in the OFA and generally are not allowed in other parts of the RPZ.
- Do not interfere with navigational aids.

#### 1.1.1.2 The Approach Transition Zone

The ATZ is a rectangular extension of the trapezoidal shape of the RPZ and extends beyond the RPZ (Figure 1.1-3). Much of the third runway's ATZ is located in the City of Burien. Approximately 80 acres of the NERA is located in the ATZ. The north boundary of the ATZ is located 2,500 feet north of the RPZ and is 1,750 feet wide. The boundaries of the ATZ were based off of estimated noise contours.

The FAA prefers that structures located in the ATZ be as far away from the extended runway centerline as practical. In addition, the FAA requires land uses within the ATZ to comply with regional policies. Regional policies require that land uses in the ATZ of the third runway:

- Are aeronautical in use or provide a noise buffer.
- Are compatible with airport operations.
- Do not attract wildlife.
- Do not interfere with navigational aids.

Two areas within the ATZ are subject to FAA land use restrictions, approximately seven acres in the north part of the NERA and along S. 140th Street and approximately nine acres in the south part of the NERA, just north of the RPZ. No structures are permitted on these sites, only infrastructure, parking and open space.

## 1.2 Purpose and Need for the Proposed Alternatives

The proposed alternatives are based on the NERA Redevelopment Plan and Implementation Strategy (Redevelopment Plan) completed in 2009. The Redevelopment Plan was completed in response to the City's acknowledgment that adopted policies and

land use requirements needed to be re-evaluated and the existing SPA-4 designation needed to be modified in order to be more market responsive.

Policy direction for SPA-4 can be found in Burien's Comprehensive Plan, Policy 1.5. This policy direction encourages development of business park and other airport related uses in areas of the NERA affected by aircraft noise from Sea-Tac Airport with requirements that help to minimize potential affects to surrounding neighborhoods. The desired character, as well as performance and design standards are described in the policy as well.

### 1.3 Description of the Alternatives

Alternatives 1 and 2 propose land uses consistent with those identified in the Redevelopment Plan. Alternatives 1 and 2 would change the comprehensive plan designation and zoning within the NERA from SPA-4 to Airport Industrial (AI) and Professional Residential (PR). Alternative 1 is the preferred alternative and would allow new auto sales and commercial uses over a portion of the NERA. Alternative 2 would not allow auto sales or commercial uses as allowed in Alternative 1.

Redevelopment under Alternatives 1 and 2 in the NERA would encourage land uses that:

- Are compatible with airport operations;
- Contribute to the economic base and stability of the City of Burien;
- Protect the built and natural environments; and
- Offer opportunities and flexibility for an existing residential area.

The AI and PR land use designations each allow different types of uses, which each have a differing set of potential impacts. The two proposed land use categories are further described in Sections 1.3.1.1 and 1.3.1.2.

Alternative 3 (the No Action Alternative) would not change the existing comprehensive plan designation or zoning, retaining the SPA-4 designation.

Each of the three alternatives is further described below.

#### 1.3.1 Alternative 1 (Preferred Alternative)

In this alternative, the comprehensive plan and zoning designations of the NERA would be changed from SPA-4 to two new zones, Airport Industrial (AI) and Professional Residential (PR). The proposed changes in land use designations would be applicable to the entire NERA, approximately 158 acres of land. Auto sales and commercial uses would be allowed over a portion of AI-designated area. Redevelopment in the AI area would create a business park-like setting. The PR designation would cover 28 acres. The AI designation would consist of approximately 130 acres, of which 71 acres of the AI

designated land would have the potential for development of into commercial retail use, including auto sales.

The Port of Seattle is in the process of purchasing 100 parcels in the NERA and plans to remove the existing houses and businesses from these parcels. As of September 2009 the Port was in the final stages of purchasing the pre-determined buy-out properties. Not all structures had been removed by that time, but the Port ultimately intends to remove the structures.

Access to and from the NERA under Alternative 1 would be primarily from several controlled access points on Des Moines Memorial Drive, 8<sup>th</sup> Avenue South, South 140th Street and a new connector (S. 146th Lane) roadway off of Des Moines Memorial Drive. A new internal street system would provide coordinated access within the NERA to these arterials. Direct access to 8th Avenue South north of SR 518 would be limited to less intensive PR uses that could not connect to the internal street system due to natural constraints such as topography.

A public trail is proposed along Miller Creek under all alternatives including Alternative 1, as proposed in the City of Burien Pedestrian & Bicycle Facilities Plan. The trail and the Miller Creek open space corridor would serve as amenities for future redevelopment projects in the NERA. The proposed trail corridor would likely be 25 feet wide (including a path with open space on either side) to accommodate pedestrian and bicycle use and adjacent open space. The proposed trail may be located inside the required wetland buffers per the City's critical area regulations. The trail corridor would provide open space and recreational benefits for properties in the NERA and the community-at-large. Location and design of the trail would be determined prior to, or as part of, approval of development proposals on lands adjacent to the creek. The cost, ownership, and maintenance of the trail would also be determined at that time.

A regional stormwater management area is proposed in Alternatives 1 and 2 based on the Redevelopment Plan. Stormwater facilities within the management area would capture flow from all areas of the NERA north of SR 518. The locations of these facilities would take advantage of restricted land within City of Burien and Port of Seattle owned properties. The design of the regional stormwater management area would incorporate open space, including Miller Creek and the adjacent public trail corridor. The exact design, ownership and maintenance of the stormwater management area would be determined in the future prior to, or as part of, approval of development proposals in the NERA.

To respond to the need for different types and intensities of land uses, the following land use categories are proposed for the NERA:

- Professional Residential (PR)—Low Development Intensity
- Airport Industrial (AI)—Moderate to High Development Intensity

- Airport Industrial (AI\*), with auto sales and commercial retail uses permitted over a portion of the AI designated area—Moderate to High Development Intensity

Figure 1.3-1 shows the proposed land use designations for Alternative 1. These categories correlate to the subareas and recommendations of the NERA Redevelopment Plan.

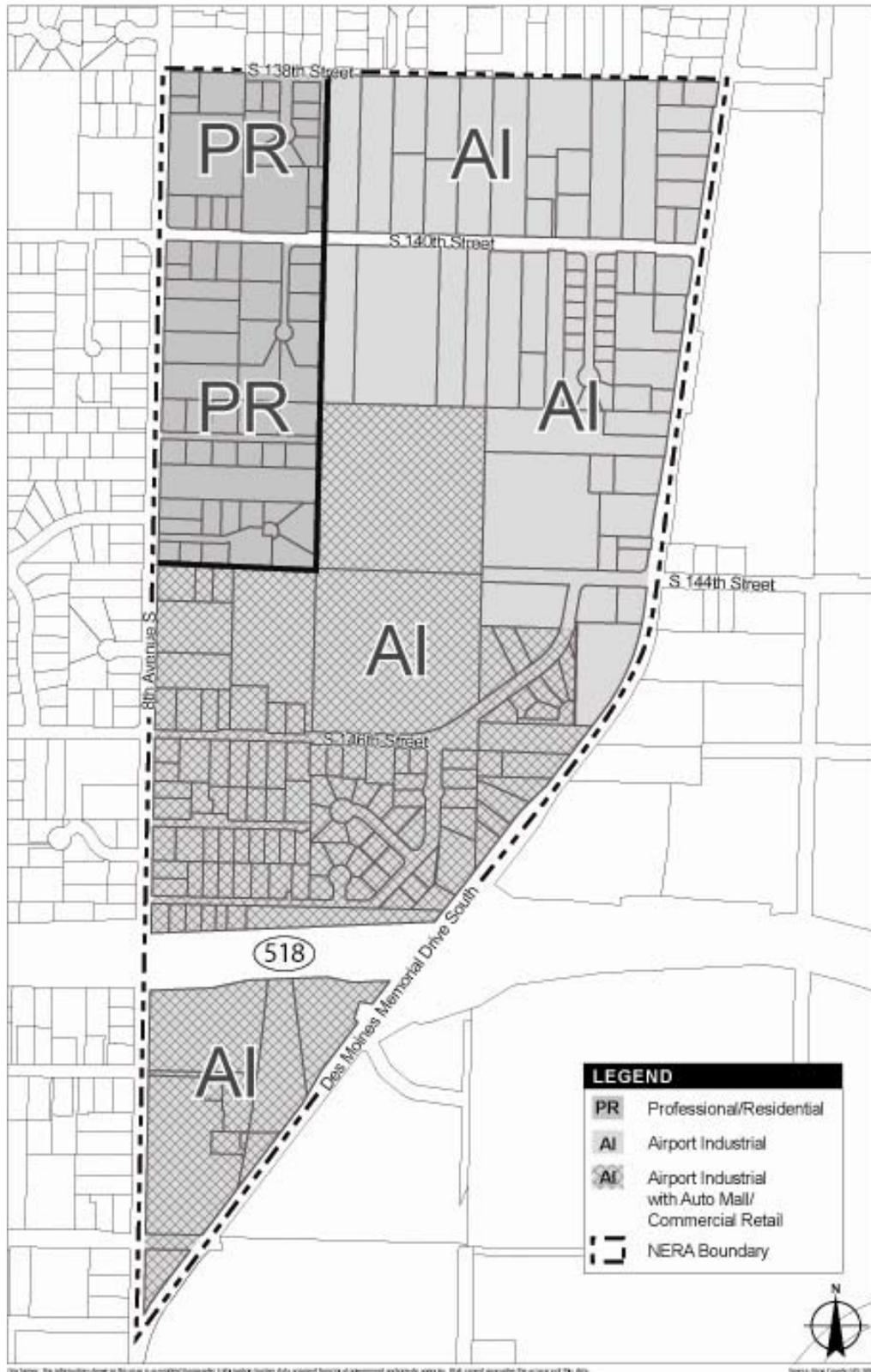
Table 1.3-1 depicts the acres of land that would be assigned to each land use category under Alternative 1. With this alternative there would be approximately 28 acres of in the land use category PR and 130 acres in the land use category AI.

**Table 1.3-1: Acres of Land Use Categories by Alternative**

	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>
Professional Residential (PR)	28 acres	28 acres	N/A*
Airport Industrial (AI)	59 acres	130 acres	N/A*
Airport Industrial with auto sales and commercial retail uses allowed (AI*)	71 acres	0 acres	N/A*
<b>Total</b>	<b>158 acres</b>	<b>158 acres</b>	<b>145 acres*</b>

*\*Alternative 3 (No Action) identifies 45.5 acres in land use Category A, 72 acres in Category B and 27.5 acres in Category C. Alternative 3, based on Alternative 1 in the 2002 FEIS calculated did not include land area within the Miller Creek critical area, and did include the SR 518 right-of-way. Therefore the total land area calculated at that time was 145 acres. Although the calculations differ slightly, the same geographical area for the NERA is considered for each alternative. Please refer to Alternative 3 descriptions for more detailed information about the types and intensities of land uses in each of these categories.*

Figure 1.3-1 Land Use Category Locations – Alternative 1



The following sections describe the proposed land use categories in more detail.

#### 1.3.1.1 Professional Residential (PR)—Low Development Intensity

The PR land use category would be the least intensive and would have the fewest potential impacts. Because land uses in PR would generate minimal noise or business-related traffic, the impacts associated with these uses would be minimal to neighbors, particularly with mitigating measures such as vegetative screening and design guidelines.

Land uses allowed under this category would include professional office, convenience retail, art studios, home-based businesses, and residential. In addition to the non-residential and existing residential uses allowed in this area, new residential uses also can be developed, including the ability to subdivide property. The PR land use category is located outside of all FAA regulatory zones. The PR includes some lands restricted by Miller Creek and associated wetlands and buffers, as well as steep slopes. Types of land uses allowed in the PR zone can be found in Appendix B.

The maximum allowable building coverage for all PR-classified land in the NERA, would be between 35 and 70 percent, depending on the use. The maximum allowable impervious surface (buildings, roads, parking lots and other paved areas) coverage would be 70 percent for single-family uses and 85 percent for other allowed uses.

#### 1.3.1.2 Airport Industrial (AI)—Moderate to High Development Intensity

The AI land use category would include uses that have moderate to high intensity and moderate to high potential impacts developed within a business park setting. Uses allowed under this category would include light manufacturing, light industrial, and office or technological research parks that may include uses such as, general office, corporate headquarters, and high-tech research, flex-tech or flex-industrial uses (see Appendix B). Although there are no real estate industry standards for defining “flex” (flexible) industrial or “flex” technology, the following definitions are provided for specific reference to the NERA.

- *Flex-Industrial* typically refers to buildings serving primarily warehousing or light-industrial manufacturing/service uses, where office space is an accessory use.
- *Flex-Technology* (sometimes referred to as “flex tech” in this document) typically refers to a building serving tenants where the primary uses are office, light-manufacturing, data center and/or laboratory spaces, with much less emphasis on warehousing and transportation of goods.

Higher intensity uses include the uses listed above, as well as air cargo facilities, light manufacturing and warehousing and limited convenience stores and retail uses that support the business park/employment functions of the AI land use category. As an additional permitted use within the AI designation, specific to Alternative 1, commercial uses including new auto sales facilities and auto-malls would be allowed in the southern portion of the AI designated area as shown in Figure 1.3-1.

Uses associated with land use category AI would attract more people, generate more traffic, and potentially have greater impacts than land use category PR uses would have. The area of AI located north of the ATZ boundary (between South 140<sup>th</sup> Street and South 138<sup>th</sup> Street) would require more mitigating measures along its north boundary than the other areas of AI because it would be closer to existing residential uses. Due to FAA restrictions, some of the areas designated as AI are undevelopable. This restricted land would be used for parking and regional stormwater management facilities.

In the AI zone there would be no maximum allowable building coverage. Maximum allowable impervious surface coverage would be 85 percent with the potential of up to 95 percent with contribution to regional stormwater management facilities.

### 1.3.2 Alternative 2

As under Alternative 1, Alternative 2 includes redesignating and rezoning the entire NERA (see Figure 1.3-2). The new land use designations would include the same two land use categories proposed under Alternative 1, PR and AI, depicted in Figure 1.3-2 and Appendix B. Alternative 2 is the same as Alternative 1, except auto sales and retail uses are not allowed under Alternative 2. Approximately 28 acres would be changed to land use category PR, and 130 acres to land use category AI.

As under Alternative 1, Alternative 2 access to and from the NERA would be primarily from several controlled access points on Des Moines Memorial Drive, 8<sup>th</sup> Avenue South, South 140<sup>th</sup> Street and a new connector (S. 146<sup>th</sup> Lane) roadway off of Des Moines Memorial Drive. A new internal street system would provide coordinated access within the NERA to these arterials. Direct access to 8<sup>th</sup> Avenue South north of SR 518 would be limited to less intensive PR uses that could not connect to the internal street system due to natural constraints such as topography.

As under Alternative 1, Alternative 2 would include a public trail along Miller Creek as proposed in the City of Burien Pedestrian & Bicycle Facilities Plan. The trail and the Miller Creek open space corridor would serve as amenities for future redevelopment projects in the NERA. The proposed trail may be located inside the required wetland buffers per the City's critical area regulations. Location and design of the trail would be determined prior to, or as part of, approval of development proposals on lands adjacent to the creek. The cost, ownership, and maintenance of the trail would also be determined at that time.

A regional stormwater management area is proposed in Alternative 2 (and also in Alternative 1), based on the Redevelopment Plan. Stormwater facilities would capture flow from all areas of the NERA north of SR 518. The locations of these facilities would take advantage of restricted land within City of Burien and Port of Seattle owned properties. The design of the regional stormwater management area would incorporate open space, including Miller Creek and the adjacent public trail corridor. The exact design, ownership and maintenance of the stormwater management area would be determined prior to, or as part of, approval of development proposals in the NERA.

### 1.3.3 Alternative 3 (No Action)

Under the No Action Alternative, the present comprehensive plan and zoning designation of SPA-4, with land use categories A, B and C would remain (see figure 1.3-3).

Therefore, requiring a contract rezone of any new development to SPA-4 and following SPA-4 zoning regulations and design standards. Please refer to Appendix C for allowed land uses.

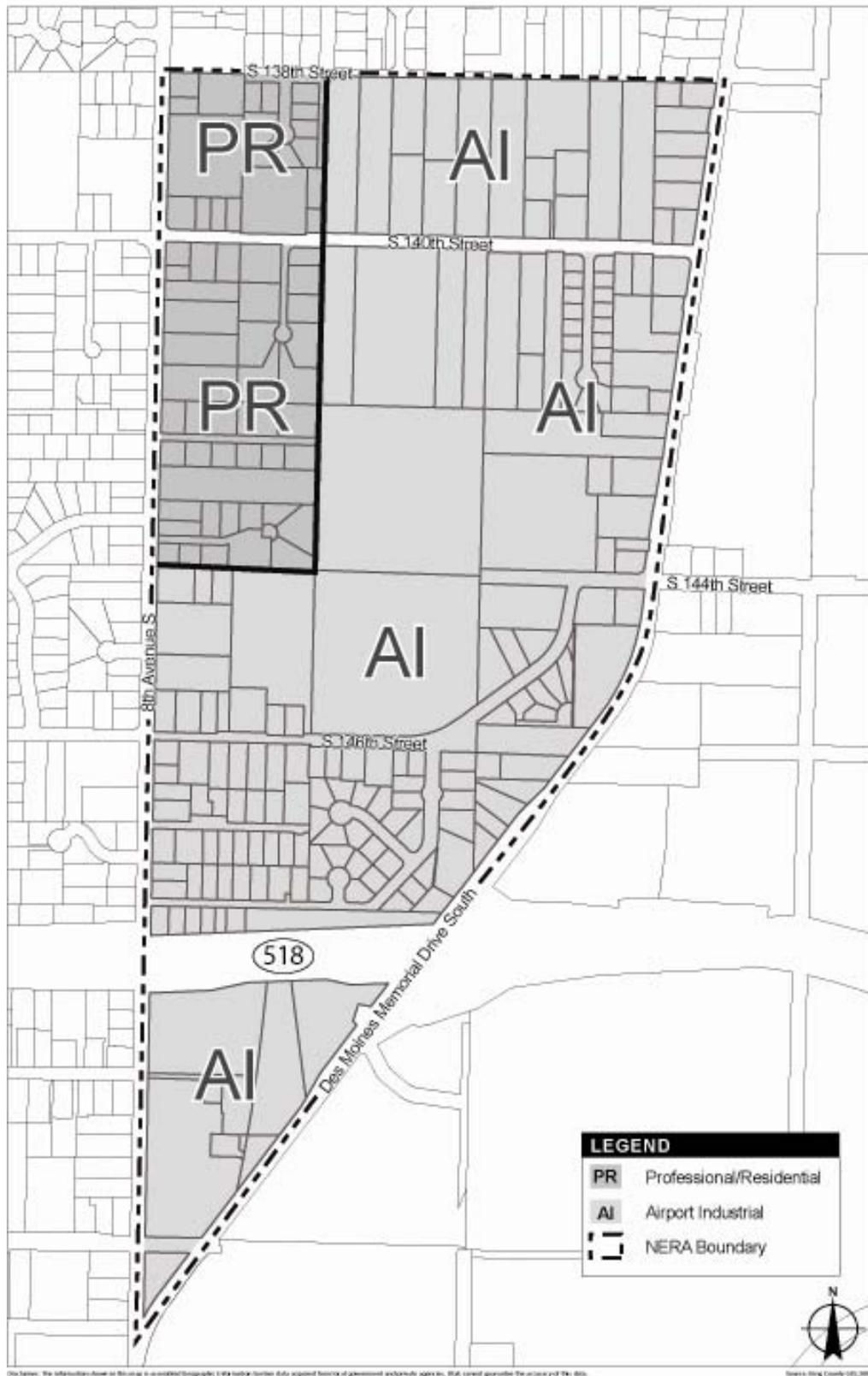
The following land use categories apply to the No Action Alternative.

- Land use category A — 45.5 acres (Low Development Intensity)
- Land use category B — 72.5 acres (Moderate Development Intensity)
- Land use category C — 27 (Highest Development Intensity)

Alternative 3, based on 2002 FEIS calculated land uses did not include area within the Miller Creek critical area, and did include the SR 518 right-of-way. Therefore the total land area calculated for the NERA at the time of the 2002 FEIS totaled 145 acres. Although the calculations differ slightly, from the land area totals in Alternative 1 and 2, the same geographical area for the NERA is considered for each alternative.

Under the No Action Alternative, the street system and public trail would be developed as envisioned under the current City of Burien Comprehensive Plan and Pedestrian and Bicycle Facilities Plan. The internal collector street system and regional stormwater management area in the NERA proposed under Alternatives 1 and 2 may not be realized under the No Action Alternative, since these were later envisioned as part of the Redevelopment Plan.

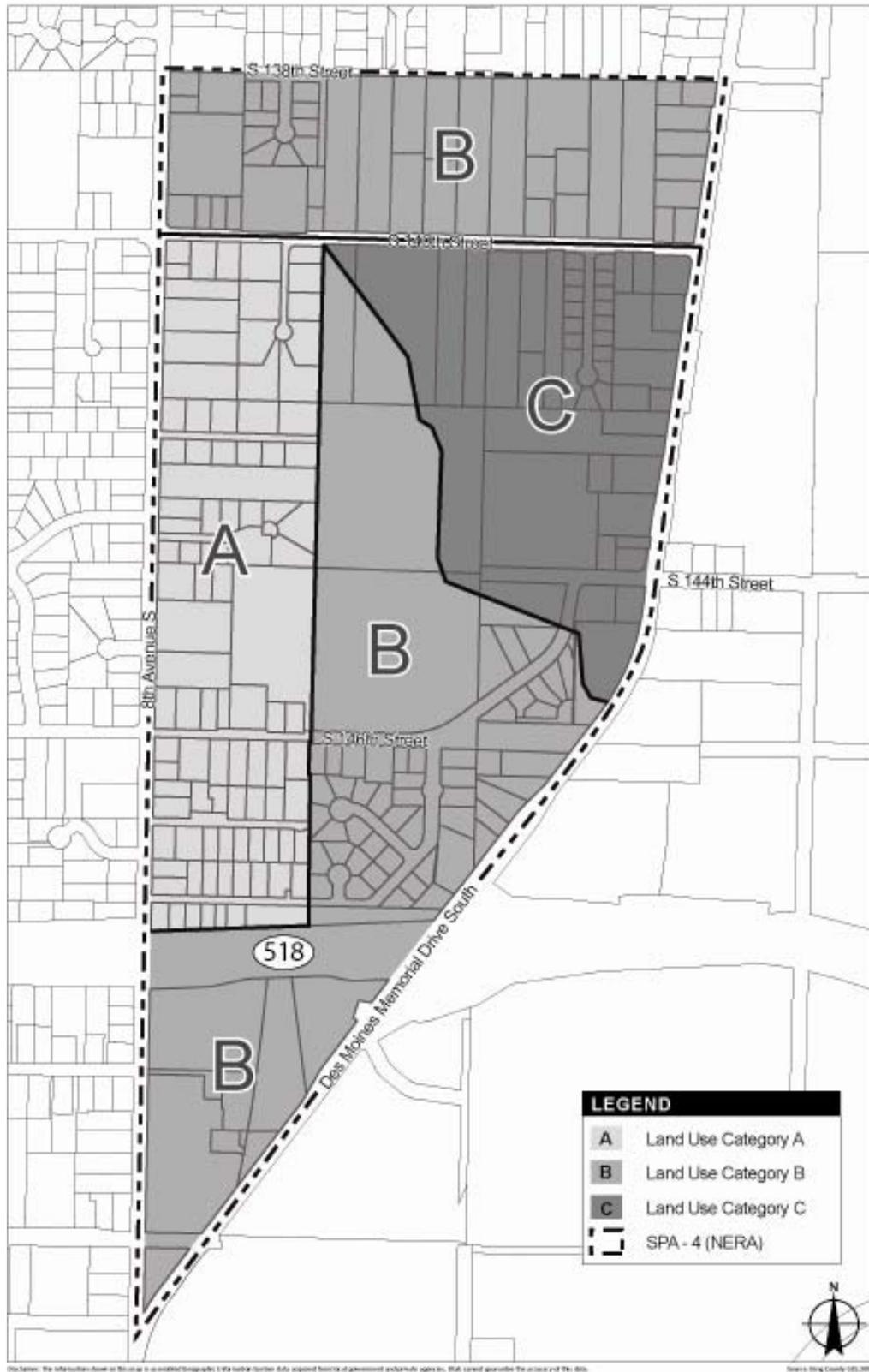
Figure 1.3-2 Land Use Category Locations – Alternative 2



The information shown on this map is provided for informational purposes only and does not constitute a guarantee, warranty, or endorsement of any product or service by the City of Burien. The City of Burien is not responsible for any errors or omissions on this map.

Source: King County GIS, 2008

Figure 1.3-3 Land Use Category Locations – Alternative 3 (No Action)



## 1.4 Environmental Impacts of the Alternatives and Mitigating Measures

The possible or probable significant adverse environmental impacts of each alternative and proposed mitigating measures are summarized in Table 1.4-1. This SEIS assumes full redevelopment of the land covered by each alternative. In reality, market forces, natural constraints (Miller Creek, wetlands and slopes) and regulatory constraints (such as FAA restrictions) could significantly reduce the projected level of development and associated environmental impacts. By analyzing highest level of potential impacts associated with full build-out, the City is anticipating that there would not be environmental impacts greater than those analyzed in this SEIS throughout all phases of future redevelopment in the NERA. This should allow for less intensive environmental review in the future.

## 1.5 Related Actions

The Washington State Department of Transportation (WSDOT) is currently studying the configuration of the SR 518/Des Moines memorial Drive interchange. WSDOT's recommendations are expected by the end of 2009.

## 1.6 Public Involvement

The NERA Redevelopment Plan and Implementation Strategy (Redevelopment Plan) included public outreach and stakeholder involvement to help shape the development of the conceptual redevelopment alternatives. Stakeholders included Burien City Council, Planning Commission, and Business & Economic Development Partnership members, as well as staff from the City of Burien, City of SeaTac and Port of Seattle.

The NERA Redevelopment Plan included two conceptual redevelopment alternatives, both proposing uses compatible with Sea-Tac Airport operations and related FAA restrictions and with the neighborhoods in the vicinity of the NERA. The two conceptual alternatives and a no-action alternative were selected for further evaluation in this SEIS.

The Redevelopment Plan included frequent public involvement activities, which began in Summer 2008, and included public State Environmental Policy Act (SEPA) scoping meeting that helped to inform the analysis of this SEIS. The City notified property owners within the NERA and within 500 feet of the NERA in a variety of ways in advance of public meetings during the study process. In addition, citizens could request to receive mailings or refer to the City's website for all report materials. The public involvement efforts included.

- Quarterly NERA Redevelopment Plan updates published in the City of Burien quarterly newspaper and posted online at the City's website, beginning in June 2008 and continuing through September 2009.
- May 2008 Stakeholders Meetings: Members of the study team met with representatives from the City of Burien and Port of Seattle to confirm goals, objectives and the general vision for the NERA, and then toured the area.

- October 23-23, 2008 Stakeholders and Public Meetings: Information gathered from workshop sessions with City of Burien and Port of Seattle staff and the general public, paired with findings from the existing conditions research, served as a framework for the draft conceptual redevelopment scenarios for sub-areas of the NERA. The results of the existing conditions analysis and the draft redevelopment scenarios were presented to stakeholder groups and the general public in workshop sessions. Input gained from the stakeholder workshop sessions will help shape both the short term and the longer term vision for the NERA. The public and stakeholders were contacted through the publication of a project information sheet and a notice of the public meeting. The project information sheet was sent to NERA property owners and owners within 500 feet of the NERA, as well as posted at City Hall and on the City of Burien website.
- April 29, 2009 SEPA Scoping Meeting: The purpose of this meeting was to obtain input to help shape the scope of this SEIS, and to obtain comments on the draft recommendations of the proposed Redevelopment Plan.

Table 1.4-1: Comparison of Environmental Impacts and Mitigating Measures

Affected Environment	Alternative 1	Alternative 2	Alternative 3 (No Action)
<b>Earth Resources</b>			
Environmental Impacts	No probable significant adverse environmental impacts are anticipated.	No probable significant adverse environmental impacts are anticipated.	No probable significant adverse environmental impacts are anticipated.
Mitigating Measures	No mitigating measures are needed.	Same as Alternative 1.	Same as Alternatives 1 and 2.
<b>Water Resources: Aquifer Recharge</b>			
Environmental Impacts	No probable significant adverse environmental impacts are anticipated.	No probable significant adverse environmental impacts are anticipated.	No probable significant adverse environmental impacts are anticipated.
Mitigating Measures	No mitigating measures are needed.	Same as Alternative 1.	Same as Alternatives 1 and 2.
<b>Water Resources: Miller Creek</b>			
Environmental Impacts	Potential temporary impacts to riparian wetland and buffer habitat could occur. Construction of regional stormwater facilities adjacent to the creek could involve vegetation clearing, minor grading, and placement of fill. No long-term probable significant adverse environmental impacts are anticipated.	Potential temporary impacts to riparian wetland and buffer habitat could occur. Construction of regional stormwater facilities adjacent to the creek could involve vegetation clearing, minor grading, and placement of fill. No long-term probable significant adverse environmental impacts are anticipated.	Same as Alternatives 1 and 2, except that potential temporary impacts related to construction of regional stormwater facilities would not occur.
Mitigating Measures	No mitigating measures are proposed; existing regulations are adequate to address potential adverse impacts. Runoff from new impervious areas would be detained and treated in regional stormwater facilities in order to reduce runoff flows and durations.	Same as Alternative 1.	Same as Alternatives 1 and 2.

Table 1.4-1: Comparison of Environmental Impacts and Mitigating Measures

Affected Environment	Alternative 1	Alternative 2	Alternative 3 (No Action)
<b>Water Resources: Wetlands</b>			
Environmental Impacts	Potential temporary impacts to riparian wetland and buffer habitat could occur. Construction of regional stormwater facilities adjacent to the creek could involve vegetation clearing, minor grading, and placement of fill. Additional stormwater runoff as a result of increased impervious surface areas with redevelopment could increase bank erosion, sedimentation, and flooding problems in the adjacent wetlands.	Potential temporary impacts to riparian wetland and buffer habitat could occur. Construction of regional stormwater facilities adjacent to the creek could involve vegetation clearing, minor grading, and placement of fill. Additional stormwater runoff as a result of increased impervious surface areas with redevelopment could increase bank erosion, sedimentation, and flooding problems in the adjacent wetlands.	Same as Alternatives 1 and 2, except that potential temporary impacts related to construction of regional stormwater facilities would not occur.
Mitigating Measures	Existing Burien regulations are adequate to address potential adverse impacts.  Runoff from new impervious areas would be detained and treated in regional stormwater facilities in order to reduce runoff flows and durations.	Same as Alternative 1.	Same as Alternatives 1 and 2, except that runoff from new impervious surface areas would be retained and treated on individual sites rather than in a regional facilities.
<b>Plants and Animals</b>			
Environmental Impacts	No sensitive species or habitats would be impacted. No probable significant adverse environmental impacts are anticipated.	No sensitive species or habitats would be impacted. No probable significant adverse environmental impacts are anticipated.	No sensitive species or habitats would be impacted. No probable significant adverse environmental impacts are anticipated.
Mitigating Measures	No mitigating measures are needed.	Same as Alternative 1	Same as Alternatives 1 and 2.

Table 1.4-1, continued: Comparison of Environmental Impacts and Mitigating Measures

Affected Environment	Alternative 1	Alternative 2	Alternative 3 (No Action)
<b>Land Use Planning and Zoning</b>			
Environmental Impacts	No probable significant adverse impacts to land use would occur.	No probable significant adverse impacts to land use would occur.	No probable significant adverse impacts to land use would occur.
Mitigating Measures	No mitigating measures are needed.	Same as Alternative 1.	Same as Alternatives 1 and 2.
<b>Economic Base, Fiscal and Employment Conditions</b>			
Environmental Impacts	No probable significant adverse impacts to land use would occur.	No probable significant adverse impacts to land use would occur.	No probable significant adverse impacts to land use would occur.
Mitigating Measures	No mitigating measures are needed.	Same as Alternative 1.	Same as Alternatives 1 and 2.
<b>Transportation</b>			
Environmental Impacts: Traffic Volumes	2,050 to 3,350 PM peak hour trips	1,860 PM peak hour trips	2,850 PM peak hour trips
Environmental Impacts: Intersections / Level of Service	All of the intersections in the NERA would operate at an acceptable level of service with proposed mitigating (see below).	All of the intersections in the NERA would operate at an acceptable level of service with proposed mitigating (see below).	All of the intersections in the NERA would operate at an acceptable level of service with proposed mitigating (see below).
Mitigating Measures	SR 518 westbound off ramp at Des Moines Memorial Drive (DMMD): Installation of a traffic signal. Intersection of DMMD at 8th Avenue South: Installation of a traffic signal.	Same as Alternative 1.	Same as Alternatives 1 and 2.

Table 1.4-1: Comparison of Environmental Impacts and Mitigating Measures

Affected Environment	Alternative 1	Alternative 2	Alternative 3 (No Action)
Mitigating Measures, cont'd.	<p>Intersection of DMMD at S 140th St: Installation of two-way left-turn lane on DMMD. Installation of a traffic signal may be required to accommodate the higher traffic volumes if the Auto Mall areas are developed as general retail land uses.</p> <p>DMMD, between S 136th and S 156th Streets: Roadway widening, including a refuge/merge lane or two-way left turn lane. Currently included in City of SeaTac's 2009-2018 Transportation Improvement Program.</p> <p>Intersection of 8th Avenue S and S 146th Street: Installation of a traffic signal, when warranted.</p> <p>8th Avenue S: Reconstruction of roadway including installation of pedestrian and bicycle improvements.</p> <p>Along S 140th St and S 144th/146th St within NERA: Installation of pedestrian and bicycle improvements.</p> <p>Develop land use and construction regulations requiring a shared internal road system built to commercial road standards, within NERA.</p> <p>In addition to the above measures for all three alternatives, installation of all-way stop control should be considered at the intersection of 8th Ave S/S 140th St under Alternative 3.</p>		

Table 1.4-1, continued: Comparison of Environmental Impacts and Mitigating Measures

Affected Environment	Alternative 1	Alternative 2	Alternative 3 (No Action)
<b>Water</b>			
Environmental Impacts	Would increase demand for water service with 1.003 to 1.227 million gsf potential development, but no probable significant adverse impacts would be expected to occur.	Would increase demand for water service with as much as 1.359 million gsf potential development, but no probable significant adverse impacts would be expected to occur.	Would also increase demand for water service due to proposed higher development intensity (approximately 1.733 million gsf of potential development), but no probable significant adverse impacts would be expected to occur.
Mitigating Measures	No mitigating measures required.	Same as Alternative 1.	Same as Alternatives 1 and 2.
<b>Sewer</b>			
Environmental Impacts	Would increase demand for sewer service with 1.003 to 1.227 million gsf potential development, but no probable significant adverse impacts would be expected to occur.	Would increase demand for sewer service with as much as 1.359 million gsf potential development, but no probable significant adverse impacts would be expected to occur.	Would also increase demand for sewer service due to proposed higher development intensity (approximately 1.733 million gsf of potential development), but no probable significant adverse impacts would be expected to occur.
Mitigating Measures	No mitigating measures required.	Same as Alternative 1.	Same as Alternatives 1 and 2.
<b>Electricity</b>			
Environmental Impacts	Would increase demand for electricity service with 1.003 to 1.227 million gsf potential development, but no probable significant adverse impacts would be expected to occur assuming Seattle	Would increase demand for electricity service with as much as 1.359 million gsf potential development, but no probable significant adverse impacts would be expected to occur assuming	Would also increase demand for electricity service due to proposed higher development intensity (approximately 1.733 million gsf of potential development), but no

Table 1.4-1: Comparison of Environmental Impacts and Mitigating Measures

Affected Environment	Alternative 1	Alternative 2	Alternative 3 (No Action)
	<p>City Light's plans for a new substation in the area are implemented.</p> <p>Without adequate electrical capacity, redevelopment of the NERA to the extent planned may not be feasible.</p>	<p>Seattle City Light's plans for a new substation in the area are implemented.</p> <p>Without adequate electrical capacity, redevelopment of the NERA to the extent planned may not be feasible.</p>	<p>probable significant adverse impacts would be expected to occur assuming Seattle City Light's plans for a new substation in the area are implemented.</p> <p>Without adequate electrical capacity, redevelopment of the NERA to the extent planned may not be feasible.</p>
Mitigating Measures	<p>Consult with Seattle City Light to coordinate power distribution capacity requirements prior to development planning activities.</p> <p>Develop construction regulations and economic incentives that encourage energy-efficient appliances, fixtures, and systems.</p> <p>Develop programs to encourage the use of energy-efficient appliances, fixtures, and systems by occupants throughout Burien, especially in areas near the NERA, to decrease electricity demand by existing customers, in order to potentially mitigate or delay costly infrastructure upgrades.</p>	Same as Alternative 1.	Same as Alternatives 1 and 2.
<b>Solid Waste, Natural Gas, Telecommunications</b>			
Environmental Impacts	Would increase demand for services with 1.003 to 1.227 million gsf potential development, but no probable significant adverse impacts would be expected since the new customers would be expected to pay for services,	Would increase demand for services with as much as 1.359 million gsf potential development, but no probable significant adverse impacts would be expected since the new customers would to pay for services,	Would also increase demand for services due to proposed higher development intensity (approximately 1.733 million gsf of potential development), but no probable significant adverse impacts would be

Table 1.4-1: Comparison of Environmental Impacts and Mitigating Measures

Affected Environment	Alternative 1	Alternative 2	Alternative 3 (No Action)
	including necessary infrastructure.	including necessary infrastructure.	expected to occur since the new customers would be expected to pay for services including necessary infrastructure.
Mitigating Measures	No mitigating measures needed.	Same as Alternative 1.	Same as Alternatives 1 and 2..
<b>Stormwater Drainage</b>			
Environmental Impacts	Increased impervious surface coverage could increase runoff into Miller Creek and the drainage basin, leading to increased flooding if not properly mitigated. New stormwater capacity would be required and would improve existing conditions. Redevelopment would be required to comply with adopted regulations, and as such no probable significant adverse impacts would be expected.	Increased impervious surface coverage could increase runoff into Miller Creek and the drainage basin, leading to increased flooding if not properly mitigated. New stormwater capacity would be required and would improve existing conditions. Redevelopment would be required to comply with adopted regulations, and as such no probable significant adverse impacts would be expected.	Same as Alternatives 1 and 2. However, the regional stormwater management area is not proposed as part of Alternative 3.
Mitigating Measures	Existing regulations would be sufficient to mitigate potential adverse impacts. The regional proposed stormwater management area would detain flow to reduce peak flows and flow durations. In addition, water quality best management practices to reduce pollutants from new impervious areas would be required. The City should consider requiring onsite low impact development	Same as Alternative 1.	Same as Alternatives 1 and 2. However, the regional stormwater management area is not proposed as part of Alternative 3. Also zoning incentives are not proposed under Alternative 3, which proposes redevelopment under already adopted SPA-4 Comprehensive Plan and zoning provisions.

Table 1.4-1: Comparison of Environmental Impacts and Mitigating Measures

Affected Environment	Alternative 1	Alternative 2	Alternative 3 (No Action)
	alternatives to reduced quantities of stormwater runoff. And the City should adopt the proposed zoning incentive allowing additional impervious surface area through participation in the regional stormwater management project.		
<b>Noise</b>			
Environmental Impacts	No probable significant adverse impacts are expected.	No probable significant adverse impacts are expected.	No probable significant adverse impacts are expected.
Mitigating Measures	No mitigating measures are required.	Same as Alternative 1.	Same as Alternatives 1 and 2.
<b>Light and Glare</b>			
Environmental Impacts	No probable significant adverse impacts are expected.	No probable significant adverse impacts are expected.	No probable significant adverse impacts are expected.
Mitigating Measures	No mitigating measures are required.	Same as Alternative 1.	Same as Alternatives 1 and 2.



## Chapter 2: Affected Environment

### 2.1 Earth Resources

Elements described under earth resources include topography, geology, soils, geologic limitations, and seismic potential.

#### 2.1.1 Topography

Elevations within the NERA range from 277 feet (at the intersection of 8th Avenue South and Des Moines Memorial Drive) to 432 feet (at the intersection of 8th Avenue South and South 144th Place). The land generally slopes from northwest to southeast; the steepest slopes (about 36 percent) are located along the alignment of 10th Avenue South between South 142nd and South 145th Streets northwest of the Mental Health Center. The highest point in the City, 462 feet, is located just west of the NERA near the intersection of 6th Avenue South and South 144th Street. There are no landslide, seismic, or erosion hazard areas shown on the City's Critical Areas Map within the NERA. However, localized areas with steep slopes could meet the City's definition of a landslide hazard area (BMC 19.10.305). In such cases, these areas would be subject to the City's critical area regulations in BMC 19.40, which include requirements related to buffers and setbacks from landslide hazard areas.

#### 2.1.2 Geology, Soils, Geologic Limitations and Seismic Potential

The glacial drift plain that lies under Burien is a composite of several different glacial depositional processes that can influence development within the NERA. Most of the surficial geology of the upland areas is glacial till. In the Miller Creek valley, surface geology largely consists of recessional outwash deposits formed by glacial meltwater streams. NERA geologic conditions and soils appear to be generally suitable for redevelopment with some limitations associated with the steeper slopes around the perimeter of the area proposed as the Professional Residential land use category and along the Miller Creek corridor. There are no mapped seismic hazard areas within the NERA.

### 2.2 Water Resources

Water resources include aquifer recharge areas, groundwater, Miller Creek, wetlands, and water quality as it relates to these topics.

#### 2.2.1 Aquifer Recharge Areas and Groundwater

Water from precipitation, lakes, streams, rivers, oceans, or wetlands seeps into the soil, where it is taken up by plant roots or infiltrates into the ground where it becomes

groundwater. As the groundwater travels, it may discharge to surface features such as lakes, streams, or rivers. The water that remains in the ground may be contained in an aquifer.

The rate and quantity of water entering the ground (or “recharging” the aquifer) depends on several factors. Natural factors include the amount of precipitation, soil type and conditions, vegetation, and topography. Non-natural (built) factors include impervious surfaces associated with development, the channeling of runoff, changes in soil condition such as compaction, and removal of vegetation.

Because aquifers can be accessed with wells to provide water for human uses, aquifer water quality is important. Aquifers can also be affected by contamination. For example, a hazardous waste spill can have severe adverse effects on an aquifer, possibly making the water unusable for years.

A series of aquifers at various depths are found in the Burien area and are collectively called the Highline Well Field. The watershed for the Highline Well Field is approximately eight square miles and is located in parts of SeaTac and Burien. The shallowest of the aquifers is recharged by infiltration from precipitation in upland areas, including areas in the NERA such as the Miller Creek watershed.

Burien Municipal Code 19.40 protects critical aquifer recharge areas as mapped by the City. The code addresses the processing, handling, treatment, and storage of hazardous materials in these recharge areas. Additionally, building and fire codes regulate the storage, use and dispensing of chemicals and hazardous materials near buildings to protect against contamination and preserve life safety.

## 2.2.2 Miller Creek

The West Fork of Miller Creek (WRIA 09-0376) is a Type 2 stream within the NERA (Otak, 2008). The stream flows southeast approximately 3,000 feet through the NERA from the northwest corner at 8th Avenue South to the east central boundary at Des Moines Memorial Drive. Downstream of the NERA, this stream flows southeast and combines with the mainstem of Miller Creek (WRIA 09-0371) flowing out of Tub Lake. The *Miller and Walker Creeks Basin Plan* (King County, 2006) identifies the West Fork of Miller Creek within the NERA as Reach 10. This plan assumes there is an impassable barrier to anadromous salmon due to a 150-foot-long culvert that is downstream of the NERA (King County, 2006). However, because resident cutthroat trout are reported to occur in the West Fork of Miller Creek within the NERA (King County, 2006), a 100-foot buffer is required for this Type 2 stream (Burien, 2009).

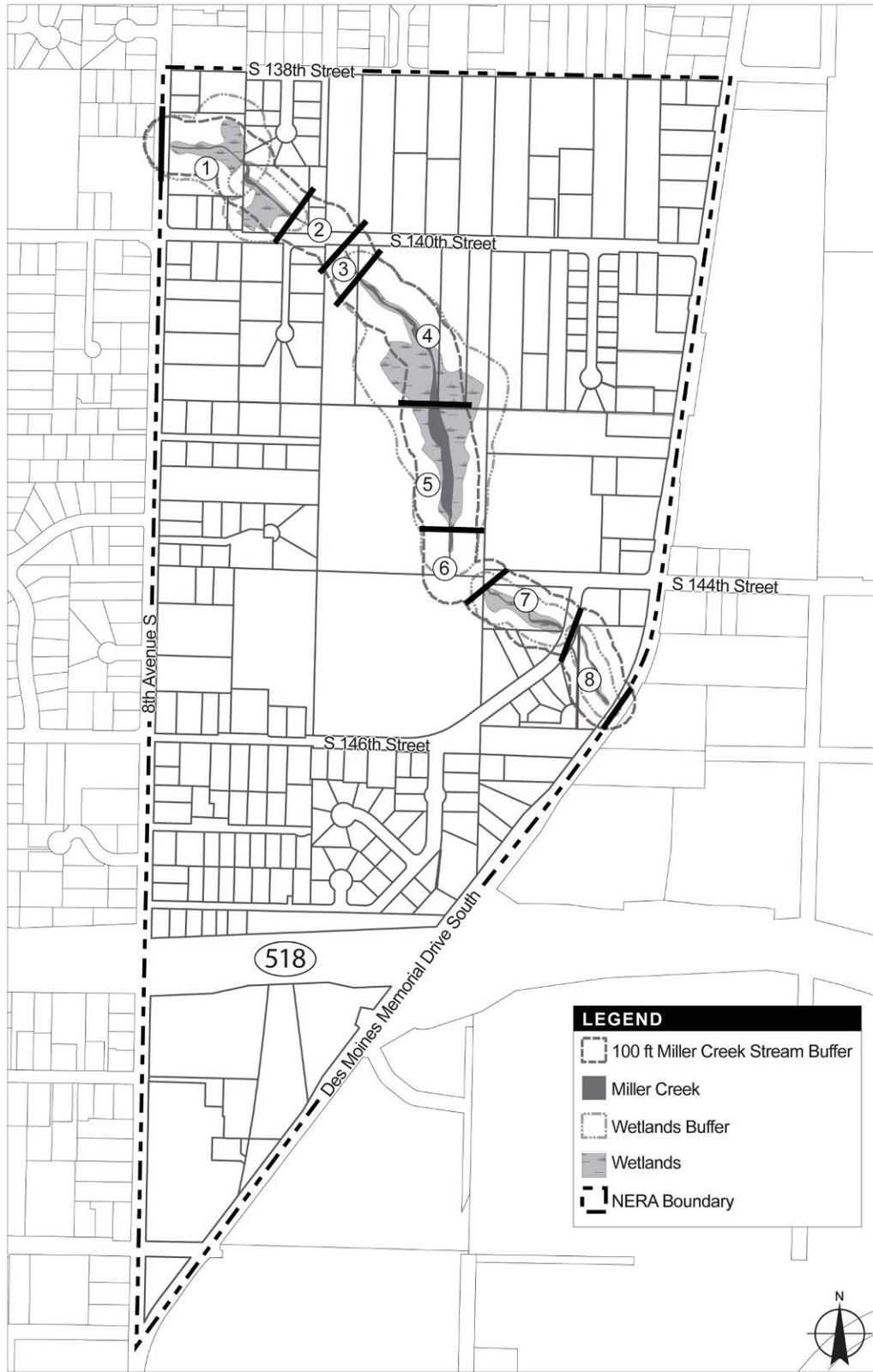
The West Fork of Miller Creek is typical of many urbanized streams in that it has been extensively degraded by channelization, undersized culverts at roadway crossings, bank armoring, and other changes. The increase in impervious surfaces (roofs, parking lots, streets) from urbanization in the surrounding watershed has resulted in a greater volume

of water draining into the creek during storms. These peak discharges during storm events flow at higher velocities and longer duration than if the creek were in a natural state. The increased volume and velocity contributes to streambed scouring, sedimentation, flooding, and habitat degradation. Increased urbanization decreases water quality because runoff carries pollutants from cars, industry, and other human activities. The pollutants include petroleum hydrocarbons, heavy metals, phosphorus, and fecal coliform bacteria.

The West Fork of Miller Creek within the NERA alternates between areas with an incised channel, broad floodplain, armored banks, culverts, and concrete-lined ditches. The channel was divided into eight reaches described below proceeding downstream from 8th Avenue South to Des Moines Memorial Drive. These reaches are mapped in Figure 2.2-1.

- The **first reach**, located between the culvert outlet at 8th Avenue South and several homes along South 140th Street, flows within a forested tract of open space. The stream has an incised channel with steep unstable banks due to erosion during storm events. There are also areas where the banks are armored with riprap, so there is no floodplain bench. The riparian zone consists of an upland deciduous forest of native and invasive species.
- The **second reach** is located in the front yards of three homes on the north side of South 140th Street. The stream alternates between open ditches, culverts underneath driveways, and a concrete-lined sluiceway. The only vegetation along the stream banks consists of ornamental shrubs and lawn grass that is regularly mowed.
- The **third reach** is located between South 140th Street and the dog kennel property within a forested tract of open space. Although access was not granted for this property, it appears that there is an incised channel, and the riparian zone consists of an upland deciduous forest of both native and invasive species.
- The **fourth reach** on the dog kennel property is divided into three segments that include an incised channel, depositional area, and artificially straightened channel. At the upstream end, there is an incised channel with steep unstable banks and some riprap armoring. The middle section contains sediment deposits at the transition between the upper and lower segments. The lower end has been artificially straightened with a backhoe, so the channel is narrow and deep and the banks are unstable. The vegetation mainly consists of a deciduous tree canopy with grasses, because livestock grazing has eliminated a shrub understory.

Figure 2.2-1 Reaches of the West Fork of Miller Creek



- The **fifth reach** on the Ajax Parking property flows through a large wetland complex where the channel loses definition. There is a broad floodplain, and the stream braids around clumps of wetland vegetation. The riparian zone consists of palustrine forested, scrub/shrub, and emergent wetland vegetation.
- The **sixth reach** between the bridge to the Ajax parking lot and South 144th Street is highly disturbed. The channel has been artificially straightened with a backhoe, so the channel is narrow and deep and the banks are unstable. The vegetation mainly consists of a deciduous tree canopy and invasive species.
- The **seventh reach**, located between South 144th Street and South 144th Way on Port of Seattle property, has recently been restored. This restoration involved clearing invasive species in the understory of deciduous trees and supplemental planting of native wetland and buffer species. Although the stream banks are slightly incised, there are some floodplain benches and a meandering channel.
- The **eighth reach** between South 144th Way and Des Moines Memorial Drive contains an incised channel and some steep unstable banks, as well as areas where the banks are armored with riprap, and minimal floodplain benches. The vegetation mainly consists of deciduous tree canopy and invasive species.

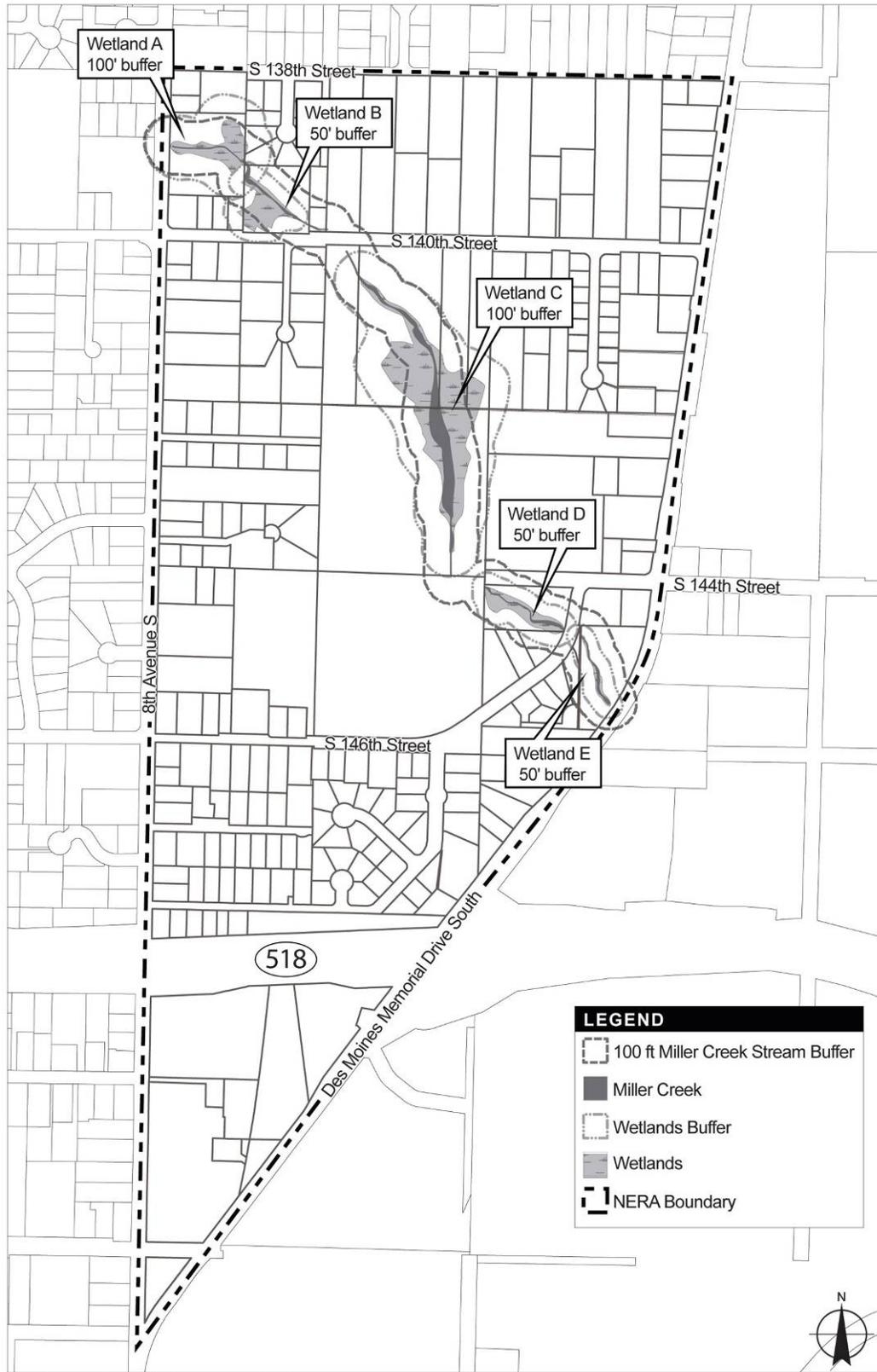
### 2.2.3 Wetlands

A total of five wetlands (Wetlands A through E) were delineated within the NERA (Otak, 2008). These wetlands are hydrologically connected to the West Fork of Miller Creek. Table 2.1 summarizes the size and classification of Wetlands A through E. The wetlands are depicted in the map in Figure 2.2-2.

Wetland A is a 0.55-acre riparian wetland associated with the West Fork of Miller Creek near 8th Avenue South. Wetland A primarily receives water from a high groundwater table with occasional overbank flooding. Indicators of wetland hydrology include flowing water in the West Fork of Miller Creek; and sediment deposits, drift lines, and scour marks in the floodplain fringe of the stream.

Wetland B is a 0.50-acre groundwater seep wetland hydrologically connected to the West Fork of Miller Creek. This wetland is formed by groundwater seeps on a slope north of South 140th Street that saturate a large area. These groundwater seeps braid around hummocks of trees and form defined channels in some locations. Other signs of wetland hydrology include flowing water in the West Fork of Miller Creek and saturated soil on the slope.

Figure 2.2-2 Delineated Wetlands in the NERA



Disclaimer: The information shown in this map is assembled Geographic Information System data acquired from local government and private agencies. Otak cannot guarantee the accuracy of this data.

Source: King County GIS/2005

Wetland C is a 3.33-acre riparian wetland associated with the West Fork of Miller Creek that is located between South 140th Street and South 144th Street. This wetland is located on the dog kennel and Ajax Parking properties. Wetland C primarily receives water from overbank flooding and a high groundwater table. Indicators of wetland hydrology include flowing water in the West Fork of Miller Creek; and sediment deposits, drift lines, and scour marks in the floodplain fringe of the stream. The WDFW Priority Habitat and Species Program identified Wetland C as a palustrine scrub/shrub wetland associated with the West Fork of Miller Creek (WDFW, 2009).

Wetland D is a 0.41-acre riparian wetland associated with the West Fork of Miller Creek on City of Burien property. This land between South 144th Street and South 144th Way was recently cleared of invasive plants and planted with native species so the plant community is a mixture of native and invasive species. Wetland D primarily receives hydrology from overbank flooding and a high groundwater table.

Wetland E is a 0.12-acre riparian wetland associated with the West Fork of Miller Creek located between South 144th Way and Des Moines Memorial Drive. Indicators of wetland hydrology include flowing water in the West Fork of Miller Creek; and sediment deposits, drift lines, and scour marks in the floodplain fringe of the stream.

**Table 2.1: Wetland Classification Summary for NERA**

Wetland	Area (ft <sup>2</sup> )	Area (acre)	Cowardin Class <sup>1</sup>	HGM Class <sup>2</sup>	Ecology Category <sup>3</sup>	Burien Category <sup>4</sup>	Buffer Width (ft) <sup>5</sup>
A	23,758	0.55	PFO/PSS	Riverine	II	2	100
B	21,733	0.50	PSS/PEM	Slope	III	3	50
C	144,857	3.33	PFO/PSS/PEM	Riverine	II	2	100
D	17,896	0.41	PSS/PEM	Riverine	III	3	50
E	5,256	0.12	PFO/PSS	Riverine	III	3	50

1–Wetland classes according to Cowardin et al. (1979) where PFO is palustrine forested, PSS is palustrine scrub/shrub, and PEM is palustrine emergent.

2–Hydrogeomorphic classes according to Brinson (1993).

3–Wetland category based on Ecology rating system (Hruby, 2004).

4–Wetland classification according to Burien Municipal Code (Burien, 2009)

5–Buffer width according to Burien Municipal Code (Burien, 2009)

### 2.3 Plants and Animals

The NERA is a mosaic of plant communities and wildlife habitat that is typical of urbanized landscapes. This habitat is fragmented by residential development, streets and highways, and commercial land uses. Plant communities in the residential areas are dominated by non-native ornamental species and lawn grass. The largest and most contiguous plant community in the NERA is associated with the West Fork of Miller Creek and its associated Wetlands A through E. This plant community includes mixed deciduous/coniferous upland forest, invasive shrub thickets, riparian forest, and emergent wetland habitat.

The mixed upland forest contains a tree canopy of bigleaf maple, red alder, Douglas fir, and western red cedar with native shrubs in the understory such as salmonberry, beaked hazelnut, Indian plum, and red elderberry. The invasive species thickets consist of Himalayan blackberry, evergreen blackberry, and scotch broom. Other invasive species within the area include holly, cherry laurel, common hawthorn, English ivy, morning glory, and Japanese knotweed. The riparian forest associated with the West Fork of Miller Creek has a tree canopy of black cottonwood, red alder, and Pacific willow with clumps of native shrubs such as Sitka willow, salmonberry, hardhack, and black twinberry. The emergent wetland areas include reed canarygrass, cattail, small-fruited bulrush, giant horsetail, skunk cabbage, and creeping buttercup.

The Washington Department of Fish and Wildlife (WDFW) and the Washington Department of Natural Resources (WDNR) databases were reviewed to determine whether any sensitive animals, plants, or habitats occur within the NERA. The WDFW map indicates that priority fish presence in Miller Creek ends near S. 156<sup>th</sup> Street, which is approximately 0.8 miles downstream of the NERA. The WDNR Natural Heritage Program does not identify any rare plants or high quality ecosystems in the NERA (WDNR, 2009).

Although Miller Creek historically supported coho salmon, barriers to upstream passage near 1st Avenue South prevent salmon from accessing the West Fork of Miller Creek within the NERA. However, it is reported that cutthroat trout and other non-game fish species occur in the portion of the creek that flows through the NERA (King County, 2006).

## 2.4 Land Use Planning and Zoning

### 2.4.1 The City of Burien's Comprehensive Plan

Comprehensive plans are developed with input from the citizens of a community to help guide and plan the way it develops. The City's comprehensive plan was originally adopted on November 17, 1997. The adoption was the culmination of an extensive public process that began with the City's incorporation in 1993. The Plan includes the formal policy recommendations of the Planning Commission as amended by the City Council, an executive summary, policies (the goals and objectives of each plan element), a Capital Improvement Plan, descriptions of existing conditions, and the issues and impacts that were evaluated in the environmental impact statement that was conducted as part of the development, review, and approval of the Plan. The elements of the Plan are the components of the City that are addressed in the Plan, which include land use, community character, housing, transportation, utilities, parks, recreation and open space, and stormwater. Figure 2.4-1 shows the existing zoning designations within the NERA, which correspond to the comprehensive plan designation for the area as SPA-4. Appendix C contains current comprehensive plan policies directly related to the NERA.

## 2.4.2 Zoning in the City of Burien

Zoning codes and maps aid in the implementation of the goals and policies set forth in the community's comprehensive plan. The zoning related to the NERA was last updated in October 1, 2002.

Current zoning in NERA is two-tiered. Existing uses must follow the zoning shown in Figure 2.4-1. Any new uses must apply for a rezone to SPA-4, and then follow the SPA-4 zoning regulations, as well as a set of design guidelines. Refer to Appendix C for the current SPA-4 regulations and design guidelines. The SPA-4 zone permits different levels of use intensities (low, moderate, and high) within the NERA, including uses such as light manufacturing, warehousing, air cargo, eating and drinking establishments, and others. The design standards document provides both mandatory design standards as well as flexibility if an alternate approach offers a better solution. The intent of the document is to provide consistency in the design of a large well designed business park development with substantial surrounding buffers, pedestrian connections, and internal street systems with "zero" stormwater runoff.

## 2.4.3 Existing Land Uses

The NERA is approximately 158 acres in size. There are a variety of existing land uses within the NERA, as shown on Figure 2.4-2, with single-family residential units and vacant land being the most common. In addition, there are some institutional and commercial uses. The NERA also has considerable open space and tree cover, particularly along the portion of Miller Creek corridor that passes through the central portion of the NERA. A portion of the land area in the NERA (and potential uses in that area) are restricted by the Federal Aviation Administration (FAA). Approximately 80 acres of the NERA is located within the FAA's designated Approach Transition Zone (ATZ), and approximately 10 acres is located within the Runway Protection Zone. Refer to Chapter 1 for a description of the ATZ and RPZ zones and the uses allowed in those zones.

Figure 2.4-1 Current Zoning in the NERA

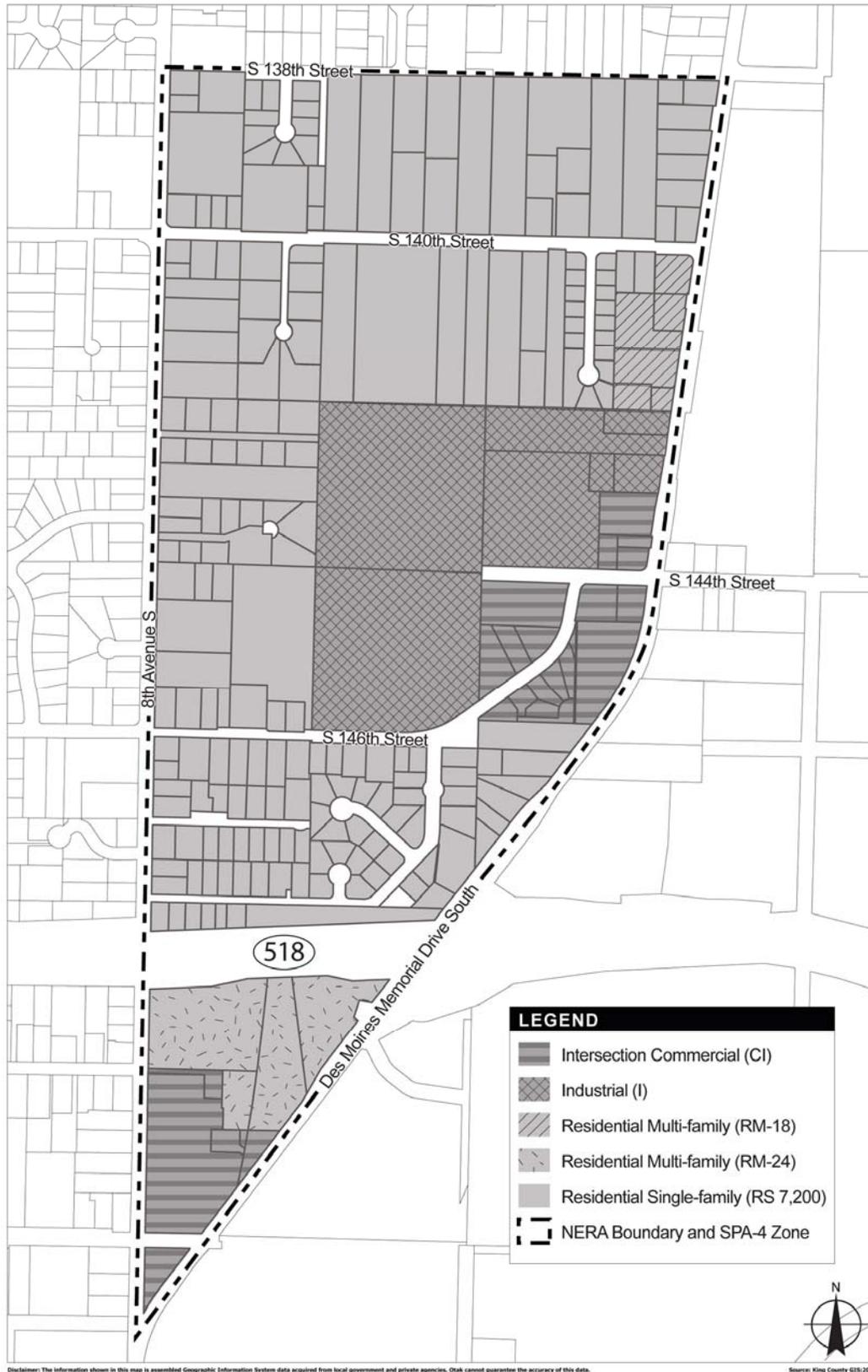


Figure 2.4-2 Existing Land Uses in the NERA



## 2.5 Economic Base, Fiscal and Employment Conditions

### 2.5.1 Economic Situation

The City, like most cities across the State of Washington, has been negatively impacted by the economic recession that officially began in December 2007. As a result, the City has seen its largest source of revenues, property taxes and sales taxes decline relative to the total revenues. As a result, the City's need for other intergovernmental sources of revenue have increased. This is particularly true of sales taxes, which declined in 2008 for the first time since 2000/2001. This sales tax trend may be slow to recover based on projections for economic recovery.

Even with the dour macroeconomic conditions noted, the City of Burien has reasons for optimism as it positions for an economic recovery. The City recently completed Phase One of the Burien Town Square development that includes the new library and city hall, a landscaped public plaza, a new street grid, multi-family residential units, and retail space. This project is the centerpiece of the downtown revitalization effort undertaken by the City and its partners, the King County Library District and Urban Partners (a real estate development firm). When completed, over 400 new residential units and 40,000 square feet of retail space will be located in proximity to a regional transit hub located between downtown Seattle and Sea-Tac airport.

The retail focus of Burien is generally to serve the convenience and auto-oriented shopping needs of a portion of the South King County market area. Burien's retail space is distributed along several main arterials in, or near, the downtown area. The retail trends in the region are focused on places like the Southcenter area and other large concentrations of modern retail (i.e., "Big Box" retail space). The current retail niche for Burien, besides serving the needs of surrounding residential areas, has been as merchant of new and used autos and parts for cars. With the introduction of the mixed-use Burien Town Square development, the City will be viewed as a more desirable location for a variety of other types of businesses, which could improve its market position and property values.

The City's location could allow it to take advantage of strong economic assets near it. These regionally important economic assets provide employment for City residents and could provide demand for commercial real estate within the City. These economic assets include:

- Proximity to major retail commercial and civic centers in Seattle, Bellevue, and Tacoma, as well as emerging sub-regional centers in Tukwila, Renton, Federal Way and Kent;
- Major multi-modal transportation terminals that include two major ports; two major airports (one international/national hub and the other a major commuter and general aviation/corporate facility); and proximity to a complex of regional and interstate

highways (connecting to international and transnational locations with major improvements planned to better connect the freeways near Burien to other freeways); and

- A state and regional land use regulatory framework that favors in-fill, redevelopment, and development near existing transportation and utility systems.

At this time in Burien, there is limited participation in two key regional economic trends: airport-related economic activity and modern flexible technical/manufacturing (“Flex-tech”) parks, which are included as aspects of all three EIS alternatives.

Table 2.5-1 summarizes and compares the economic base of Burien as measured by employment. The economic base is concentrated in retail services, finance insurance, real estate, and government employment.

**Table 2.5-1: Employment\* in Airport Communities: March 2007**

Industry	City	% of Employment in Burien	Employment in Airport Cities (SeaTac, Des Moines, Burien)	Burien's Percent of Airport Cities
Construction/Resource	566	4.85%	2.47%	46.02%
Wholesale, Transportation, Communication, Utilities	476	4.07%	32.40%	3.28%
Manufacturing	142	1.22%	1.74%	18.37%
Retail	1,829	15.66%	6.92%	59.50%
Info/Tech	556	4.76%	2.25%	55.71%
Health	3,405	29.15%	12.90%	59.41%
Other Services/FIRE	2,912	24.93%	25.32%	25.90%
Government/Education	1,796	15.37%	15.40%	26.25%
<b>Total Covered Jobs</b>	<b>11,682</b>	<b>100.00%</b>	<b>100.00%</b>	<b>25.41%</b>

*Notes: \*Employment is “Covered Employment” data collected by State Employment Security Division, which does not include: self-employed, some managerial, household workers and some utility workers.  
Source: King County Annual Growth Report, 2008*

## 2.5.2 City Revenues

The budget for the City has relied primarily on locally generated taxes. This pattern has changed slightly with an increased reliance on intergovernmental sources of revenue. Table 2.5-2 summarizes the general budget patterns between the years 2002 and 2008. The tax revenues collected and the primary component of tax revenues, assessed values, have increased faster than the combined percentage growth in persons being served in the City and the pace of inflation.

**Table 2.5-2: City Revenue Patterns and Growth 2002-2008**

	Percent of Budget 2002	Percent of Budget 2008	Percent Increase 2002-2008
Taxes	56.8%	46.7%	36.2%
Licenses/Permits	3.6	4.5	89.0
Intergovernmental	25.0	40.9	171.7
Charges for Services	9.4	6.1	8.2
Special Assessments	0.0	0.3	NA
Fines, Interest Income & Misc.	4.9	1.4	-52.1
Total	100.0%	100.0%	65.7%
<hr/>			
Assessed Value			58.13%
Property Tax Levy			43.24%
Consumers Price Index*			18.71%
Population			-0.85%
Debt Outstanding			271.87%

Source: Comprehensive Annual Financial Report, City  
 \* CPI Source BLS for Seattle-Tacoma-Bremerton area

## 2.6 Transportation

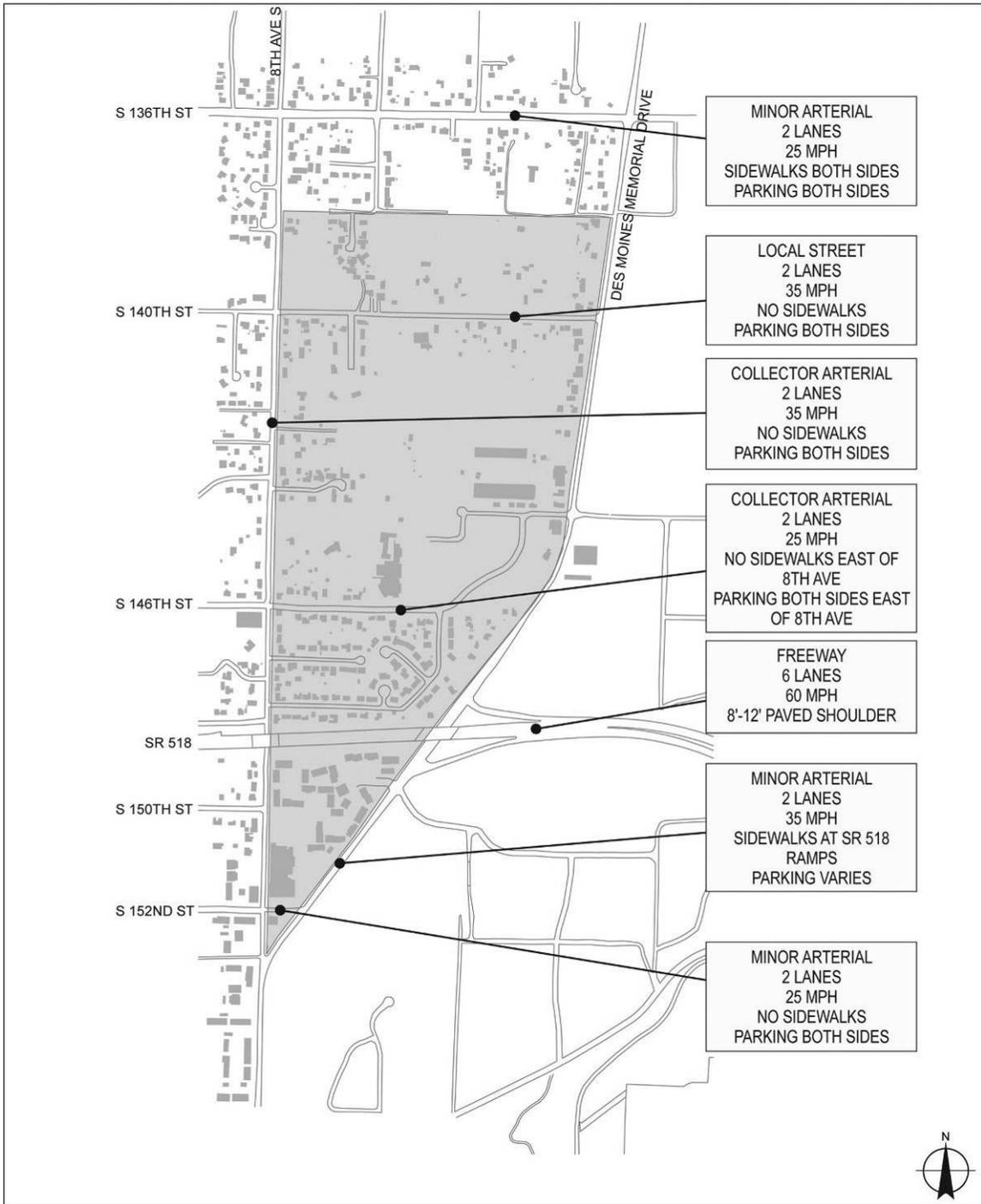
This section provides an overview of the existing transportation system in and near the NERA.

The NERA transportation system consists of a network of roadways that are classified according to function, such as freeways, arterials, collectors, and residential streets. The location and configuration of these roadways are a function of the traffic and land uses they serve. The following summarizes the NERA transportation system including the roadway system, traffic volumes, traffic operations and safety. Facilities and services for non-motorized travel, transit, and freight movement also are summarized. Planned transportation improvements are identified. These provide the framework for analyzing the impacts and potential mitigation as discussed in Section 3.6.

### 2.6.1 Existing Roadway System

The NERA is served by a number of freeways, arterials, and local access streets. Regional access to the NERA is provided by SR 509 and SR 518. In addition to the two freeways, key arterials in the NERA include Des Moines Memorial Drive and 8th Avenue South. Figure 2.6-1 summarizes the existing roadway system conditions in the NERA.

Figure 2.6-1 Existing Roadway System



Source: Transpo Group

Existing roadways in the NERA:

- SR 509 is a four lane, north-south freeway connecting the City of Burien and the NERA with Seattle and White Center to the north. The freeway terminates at South 188th Way, south of the airport. Currently the SR 509 designation follows South 188th Way northwest to 1st Avenue South where it continues south to Des Moines and SR 516 (Kent-Des Moines Road). WSDOT has plans to extend the freeway from South 188th Way to a new interchange with I-5 in the vicinity of South 210th Street. In the vicinity of the NERA, SR 509 has full interchanges at South 188th Way, South 158th Street, South 128th Street, and at SR 518. It also has a half-diamond interchange at South 146th Street.
- SR 518 is a four to six lane east-west freeway connecting the NERA to I-5 and I-405. It includes a half-diamond interchange providing access to/from the east at Des Moines Memorial Drive within NERA. It has a full interchange at SR 509 and terminates at 1st Avenue South. WSDOT recently prepared a SR 518 Route Development Plan that addresses interchange alignment options on SR 518.
- Des Moines Memorial Drive is a two-lane north-south minor arterial running along the City of Burien/City of SeaTac boundary. It is located within the City of SeaTac's jurisdictional boundaries. The posted speed limit is 35 mph, and turn channelization is provided at major intersections. In addition, paved shoulders or sidewalks are provided at major intersections. Des Moines Memorial Drive provides access to SR 518 and connects the NERA to the Duwamish Industrial Area at SR 99 to the north, and other east-west arterials. Within the NERA, signals provide traffic control at the Des Moines Memorial Drive intersections with South 128th Street, South 136th Street, South 144th Street and the eastbound on-ramp to SR 518. The off-ramp from SR 518 to Des Moines Memorial Drive is currently unsignalized.
- 8th Avenue South is a two lane collector arterial. It is located to the east of SR 509. It connects with Des Moines Memorial Drive just south of South 152nd Street. To the north it provides access to South 128th Street and other east-west arterials. Traffic signals are located at the intersections with South 128th, South 136th and South 156th Streets. Paved shoulders are provided along the roadway, with sidewalks provided at the South 156th Street intersection. The posted speed limit is 35 mph.
- South 128th Street is a four lane minor arterial between 1st Avenue South and SR 509. The posted speed limit is 35 mph. Left-turn lanes are provided at the intersections with 1st Avenue S, the SR 509 ramp intersections and at the intersection with Des Moines Memorial Drive. To the east of Des Moines Memorial Drive, South 128th Street is a two-lane minor arterial. Sidewalks provided along both sides of the street, and intermittent on-street parking is provided.
- South 136th Street is an east/west collector arterial with two travel lanes. The posted speed limit is 25 mph. Sidewalks are provided along both sides of the street, and turn

channelization is provided at the intersection with 1st Avenue South. A traffic signal is located at its intersection with 8th Avenue South.

- South 140th Street is a two lane east/west local street. South 140th Street dead ends at SR 509. The posted speed limit is 35 mph. Unpaved shoulders with intermittent sidewalks are provided.
- South 146th Street is a two lane collector arterial connecting 1st Avenue South with Des Moines Memorial Drive. It also connects to a half-diamond interchange at SR 509. Turn channelization is provided at major intersections. Both paved and unpaved shoulders are provided depending on location.
- South 152nd Street is a minor arterial running east-west with posted speed limits of 25 mph. Non-motorized travel is supported through a mix of roadway shoulders and sidewalks.
- South 156th Street is a minor arterial running east-west located south of the NERA. South 156th Street connects the Burien with the cities of SeaTac, Tukwila, and Renton. South 156th Street has four travel lanes west of Des Moines Memorial Drive with two lanes to the east. Sidewalks are provided along both sides of the street.

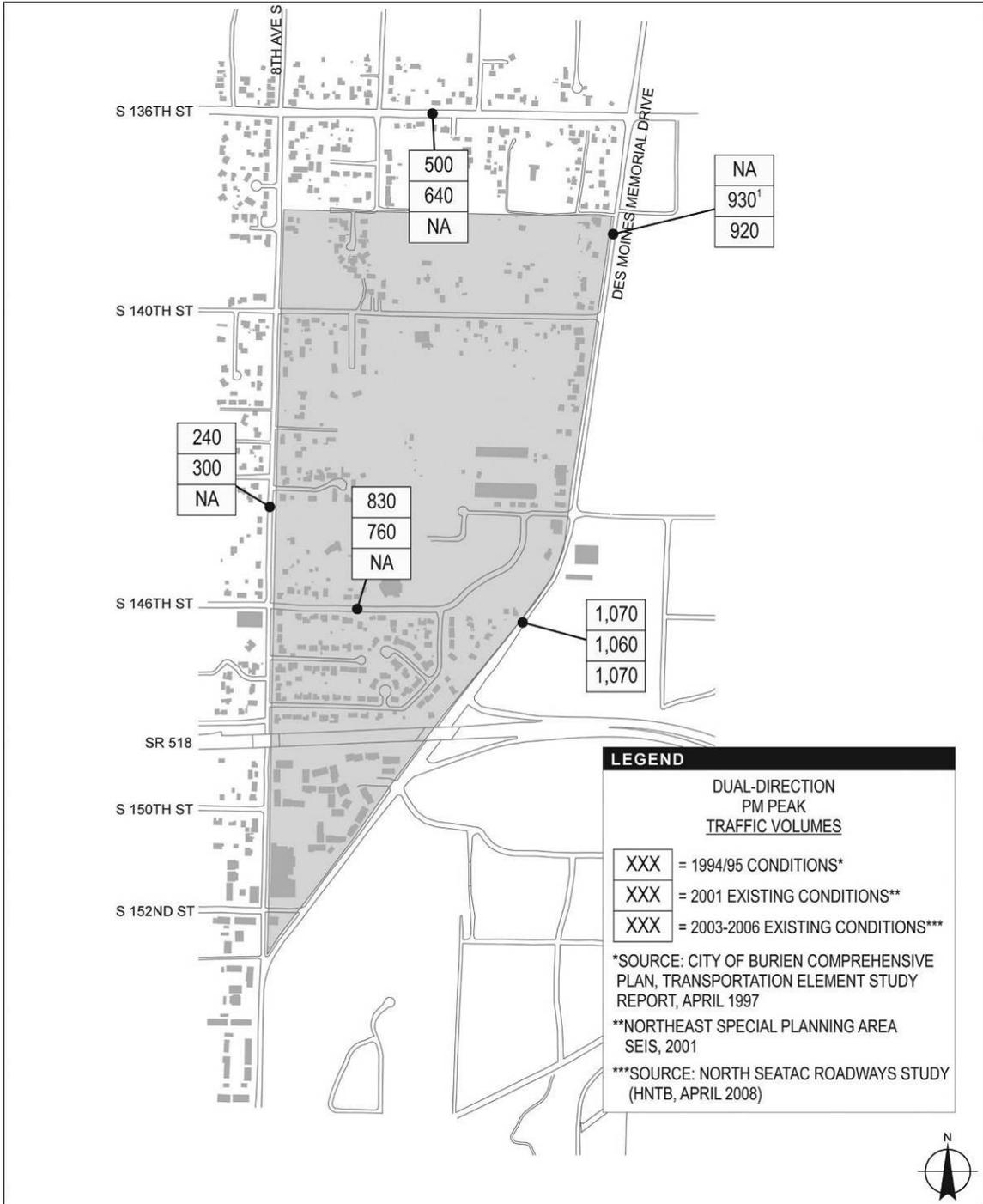
## 2.6.2 Traffic Volumes

The highest traffic volumes in the NERA are found on the freeways and minor arterials such as 8th Avenue South and Des Moines Memorial Drive. Average daily traffic (ADT) on SR 518 is currently approximately 54,000 vehicles to the east of the interchange with SR 509. To the north of the interchange with SR 518, the ADT on SR 509 is currently approximately 57,000 vehicles. 8th Avenue South currently carries about 2,800 vpd south of 143rd Street. Des Moines Memorial Drive carries about 10,000 vpd north of South 144th Street, and 10,400 vpd south of South 149th Place.

Recent weekday PM peak hour volumes on NERA streets are shown in Figure 2.6-2. For comparison purposes, the Figure includes 1994-95 existing traffic volumes from the City's Comprehensive Plan, the 2001 existing traffic volumes from the original NESPA EIS, and 2003-06 existing traffic volumes from the North SeaTac Roadways Study (North SeaTac Roadways Study, Traffic Operations Report, HNTB, April 2008). The existing weekday PM peak hour volumes were used in the evaluation of existing traffic operations at NERA intersections, and are described in the next section.

As Figure 2.6-2 shows, weekday PM peak hour traffic volumes on the major roadways serving the NERA have remained relatively unchanged between 1994 and 2006.

Figure 2.6-2 NERA Traffic Volumes (1994 to 2006)



Source: Transpo Group

### 2.6.3 Traffic Operations

The efficiency and operational quality of transportation facilities are quantified and measured using a term called “level of service” (LOS). LOS qualitatively measures the delays and stops along roadways and intersections. LOS classifications range from LOS A (free flow, little or no congestion) to LOS F (high levels of congestion and delays).

Signalized intersection LOS is defined in terms of the average total vehicle delay of all movements through an intersection. Vehicle delay is a method of quantifying several intangible factors, including driver discomfort, frustration, and lost travel time. Specifically, LOS criteria are stated in terms of average delay per vehicle during a specified time period (for example, the weekday PM peak hour). Vehicle delay is a complex measure based on many variables, including signal phasing (i.e., progression of movements through the intersection), signal cycle length, and traffic volumes with respect to intersection capacity. Table 2.6-1 shows LOS criteria for signalized intersections, as described in the *Highway Capacity Manual* (Transportation Research Board, Special Report 209, 2000).

Table 2.6-1: Level of Service Criteria for Signalized Intersections

<b>Level of Service</b>	<b>Average Delay Per Vehicle (Seconds)</b>	<b>General Description (Signalized Intersections)</b>
A	≤10	Free Flow
B	>10 - 20	Stable Flow (slight delays)
C	>20 - 35	Stable flow (acceptable delays)
D	>35 - 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>55 - 80	Unstable flow (intolerable delay)
F	≤10	Forced flow (jammed)

Source: Transportation Research Board, 2000.

Unsignalized intersection LOS criteria can be further reduced into two intersection types: all-way, stop-controlled and two-way, stop-controlled. All-way, stop-controlled intersection LOS is expressed in terms of the average vehicle delay of all of the movements, much like that of a signalized intersection. Two-way, stop-controlled intersection LOS is defined in terms of the average vehicle delay of an individual movement(s). This is because the performance of a two-way, stop-controlled intersection is more closely reflected in terms of its individual movements, rather than its performance overall. For this reason, LOS for a two-way, stop-controlled intersection is defined in terms of its individual movements. With this in mind, total average vehicle delay (i.e., average delay of all movements) for a two-way, stop-controlled intersection

should be viewed with discretion. Table 2.6-2 shows LOS criteria for unsignalized intersections (both all-way and two-way, stop-controlled).

**Table 2.6-2: Level of Service Criteria for Unsignalized Intersections**

<b>Level of Service</b>	<b>Average Total Delay (sec/veh)</b>
A	≤10
B	>10 - 15
C	>15 - 25
D	>25 - 35
E	>35 - 50
F	>50

*Source: Transportation Research Board, 2000.*

### 2.6.3.1 Adopted Level of Service Standards

The City of Burien has adopted a LOS C standard for its street system within the NERA. The City of SeaTac has established a LOS E standard for Principal or Minor arterials. LOS D or better is considered acceptable on collector arterials and lower classification streets. The WSDOT has adopted a LOS D for Highways of Statewide Significance (HSS) in urban areas.

### 2.6.3.2 NERA Levels of Service

The traffic operations analyses were conducted for 11 study intersections, including the SR 518 on and off ramps at Des Moines Memorial Drive. Three of the study intersections are within Burien City limits, including the 8th Avenue South intersections with South 136th Street, South 140th Street, and South 146th Street. The remaining study intersections are located along Des Moines Memorial Drive which is located within the jurisdictional boundaries of the City of SeaTac. The intersections of Des Moines Memorial Drive at South 128th Street, and South 136th Street are outside the boundaries of the NERA but were included in the analysis.

The existing weekday PM peak hour traffic operations for the study intersections are summarized in Table 2.6-3. As shown in the table, during the weekday PM peak hour, the three intersections located within the City of Burien currently meet adopted LOS C standard. In addition, all study intersections under City of SeaTac jurisdiction currently meet adopted LOS standards during the weekday PM peak hour (LOS E for intersections located along Des Moines Memorial Drive which is classified as a minor arterial).

The westbound off-ramp from SR 518 to Des Moines Memorial Drive currently operates at LOS E during the weekday PM peak hour, so does not meet the state’s LOS D standard for HSS facilities in urban areas. The eastbound on ramp to SR 518 currently operates at LOS A during the PM peak hour.

Table 2.6-3: Existing Weekday PM Peak Hour Intersection Operations

Intersection	Jurisdiction	Traffic Control	LOS <sup>1</sup>	Delay <sup>2</sup>	V/C <sup>3</sup> or WM <sup>4</sup>
<b>Signalized Intersections</b>					
Des Moines Memorial Dr/South 128th St	SeaTac	Signal <sup>5,6</sup>	B	14.1	-
Des Moines Memorial Dr/South 136th St	SeaTac	Signal <sup>6</sup>	A	8.1	-
Des Moines Memorial Dr/South 144th St	SeaTac	Signal <sup>6</sup>	D	36.6	-
Des Moines Memorial Dr/SR 518 On-Ramp	WSDOT	Signal <sup>6</sup>	A	2.5	-
8th Ave South/South 136th St	Burien	Signal <sup>7</sup>	A	5.3	0.29
<b>Unsignalized Intersections:</b>					
Des Moines Memorial Dr/South 140th St	SeaTac	TWSC <sup>7</sup>	B	13.4	EB
Des Moines Memorial Dr/SR 518 Off-Ramp	WSDOT	TWSC <sup>6</sup>	E	39.0	-
Des Moines Memorial Dr/South 152nd St	SeaTac	TWSC <sup>7</sup>	C	19.6	EB
Des Moines Memorial Dr/8th Ave South	SeaTac	TWSC <sup>6</sup>	D	25.5	-
8th Ave South/South 140th St	Burien	TWSC <sup>7</sup>	B	10.9	EB
8th Ave South/South 146th St	Burien	AWSC <sup>7</sup>	B	11.1	-

Source: Transpo Group

1. Level of service, based on the 2000 Highway Capacity Manual methodology
2. Average delay in seconds per vehicle
3. Volume-to-capacity ratio reported for signalized intersections
4. Worst movement reported for unsignalized intersections
5. Traffic signal location outside of the NESPA NERA
6. 2005 LOS results from NorthSeaTac Roadways Study, Traffic Operations Report (HNTB, April 2008)
7. Level of Service reported from original NESPA Final SEIS

## 2.6.4 Pedestrian and Bicycle Facilities

The pedestrian network in the NERA consists of sidewalks, paved shoulders, and unpaved shoulders depending on location, and pedestrian/bicycle paths in North SeaTac Park. Des Moines Memorial Drive South has four to five foot paved shoulders on both sides of the roadway and is signed for pedestrians in the vicinity of South 144th Street. South 136th Street has 5-foot sidewalks both sides of the street. 8th Avenue South has varying widths of paved shoulders on both sides of street and is signed for pedestrians and pedestrian crossings in the vicinity of South 136th Street (see Figure 2.6-1 for pedestrian facilities inventory).

In addition, facilities are provided for cyclists within the NERA. Along Des Moines Memorial Drive South, paved trails are provided, connecting North SeaTac Park to South 156th Street. Along South 156th Street, on-street bike lanes are provided to the west of Des Moines Memorial Drive South, to the east a paved trail is provided. In addition, 8th Avenue South, South 136th Street, and South 146th Street are identified as roadways which are commonly used by cyclists.

### 2.6.5 Transit Service

Bus service in the NERA is provided by King County Metro Transit. Three routes serve the NERA, the 122, 132, and 140. Route 122 travels on South 152nd Street, 8th Avenue South, and Des Moines Memorial Drive South, connecting Downtown Seattle to Highline Community College via the Burien Transit Center, which is located west of SR 509. Route 132 travels on South 152nd Street, 8th Avenue South, South 146th Street, South 144th Street, South 128th Street, and Des Moines Memorial Drive South, connecting Downtown Seattle to Highline Community College via the Burien Transit Center. Route 140 travels on South 156th Street, between the Burien Transit Center and the Renton Transit Center via Sea-Tac Airport.

In addition, although located to the east of the NERA, Sound Transit Link Light Rail (Central Link) service is provided. Currently, light rail service operates between Tukwila and the Westlake Transit Center, with bus service extending service between Tukwila and Sea-Tac Airport. The extension of Link Light Rail to the Airport is anticipated to be complete by December 2009.

### 2.6.6 Freight and Goods Movement

Figure 2-TR1.6 of Burien Comprehensive Plan designates primary truck routes in the City. SR 509 and SR 518 are designated truck routes. No City of Burien streets in the NERA are designated as truck routes. The City of SeaTac's Comprehensive Plan designates Des Moines Memorial Drive as a truck route. In addition, South 142nd/South 144th Street is a truck route east of Des Moines Memorial Drive.

### 2.6.7 Accident Information

Collision data was provided by the City of Burien for 2002, 2003, and 2004. A summary of the collision data is provided in Table 2.6-4.

Table 2.6-4: Collision Data – 2002 to 2004

<b>Intersection</b>	<b>Total Number of Collisions</b>	<b>Annual Average</b>
Des Moines Memorial Drive/South 128th Street	4	1.3
Des Moines Memorial Drive/South 136th Street	1	0.3
Des Moines Memorial Drive/South 140th Street	2	0.7
Des Moines Memorial Drive/South 144th Street	0	0.0
Des Moines Memorial Drive/SR 518 Off-Ramp	14	4.7
Des Moines Memorial Drive/SR 518 On-Ramp	1	0.3
Des Moines Memorial Drive/South 152nd Street	1	0.3
Des Moines Memorial Drive/8th Avenue South	2	0.7
8th Avenue South/South 136th Street	0	0.0
8th Avenue South/South 140th Street	0	0.0
8th Avenue South/South 146th Street	0	0.0

As shown in the table, none of the study intersections experienced an average of more than five collisions per year. The highest average collision rate was reported at the Des Moines Memorial Drive South/SR 518 Off-Ramp intersection which experienced approximately five collisions per year, on average. This is associated with congestion at the intersection and high vehicles delays attributed to the use of stop-control on the off-ramp approach to the intersection.

### 2.6.8 Planned Improvements

Table 2.6-5 summarizes the planned transportation improvements for the NERA which would provide additional capacity at study intersections, or along study roadways (also shown in Figure 2.6-3).

Table 2.6-5: Planned Transportation Improvement Projects

Project	Agency	Project Name and Description	Total Cost	Project Status
1	Burien <sup>1</sup>	8th Ave South (South 128th Street to South 152nd Street)  Reconstruct road to include curb and gutter, sidewalks, bicycle lanes, drainage, landscaping and illumination. Reconstruct intersections at South 128th Street, South 136th Street, South 140th Street, and South 146th Street. Add left-turn pockets at South 136th Street intersection and upgrade existing signal to add protected left-turn phasing.	\$7,602,000	Unfunded Project
2	Burien	South 152nd Street (1st Avenue South to Des Moines Memorial Drive)  Provide sidewalks and bicycle lanes on both sides of the street. Fill in gaps in sidewalk and ensure ADA standards are met.	N/A	Unfunded Project
3	SeaTac <sup>2</sup>	South 142nd/144th St (Des Moines Memorial Drive to 24th Ave South)  Improve existing arterial roads to serve planned north end development. Provide non-motorized path. Signal improvements at the South 142nd Street/Des Moines Memorial Drive intersection.	\$13,800,000	Programmed for 2012-2014 Time Frame
4	SeaTac	Construct an entrance ramp to westbound SR 518 from 24th Avenue S. Remove existing entrance ramp from westbound S 154th Street.	\$15,000,000	Programmed for 2012-2014 Time Frame
5A	SeaTac	Des Moines Memorial Drive (South 136th St to SR 518)  Reconstruct and widen roadway to 36 feet to include storm drainage, landscaping, bicycle lanes, street lighting, channelization, signal modification paving and modify the overhead utility lines. Install curb, gutter and sidewalks (one side).	\$6,266,000	Programmed for 2015-2018 Time Frame
5B	SeaTac	Des Moines Memorial Drive (South 128th St to South 136th St)  Reconstruct and widen roadway to 36 feet to include storm drainage, curb, gutter, bicycle lanes, landscaping, street lighting, channelization, signal modification paving and modify the overhead utility lines.	\$4,157,600	Programmed for 2015-2018 Time Frame
5C	SeaTac	Des Moines Memorial Drive (SR 518 to South 156th St)  Reconstruct and widen roadway to 36 feet to include storm drainage, bicycle lanes, landscaping, street lighting, channelization, signal modification paving and modify the overhead utility lines. Install curb, gutter and sidewalks (one side).	\$4,352,400	Programmed for 2015-2018 Time Frame
6	WSDOT	SR 518 – SR 509 Interchange Improvements	\$45,000,000	Safety

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Safety improvements include reconfiguration of the number of through and turn-lanes, revised signal timing, landscaping and improved signing. Also, construction of a new SR 509 southbound to SR 518 eastbound freeway-to-freeway “flyover” ramp.

Improvements is ongoing. Flyover project is under design.

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Source: *Transpo Group*

1 *City of Burien, 2009 Adopted Budget*

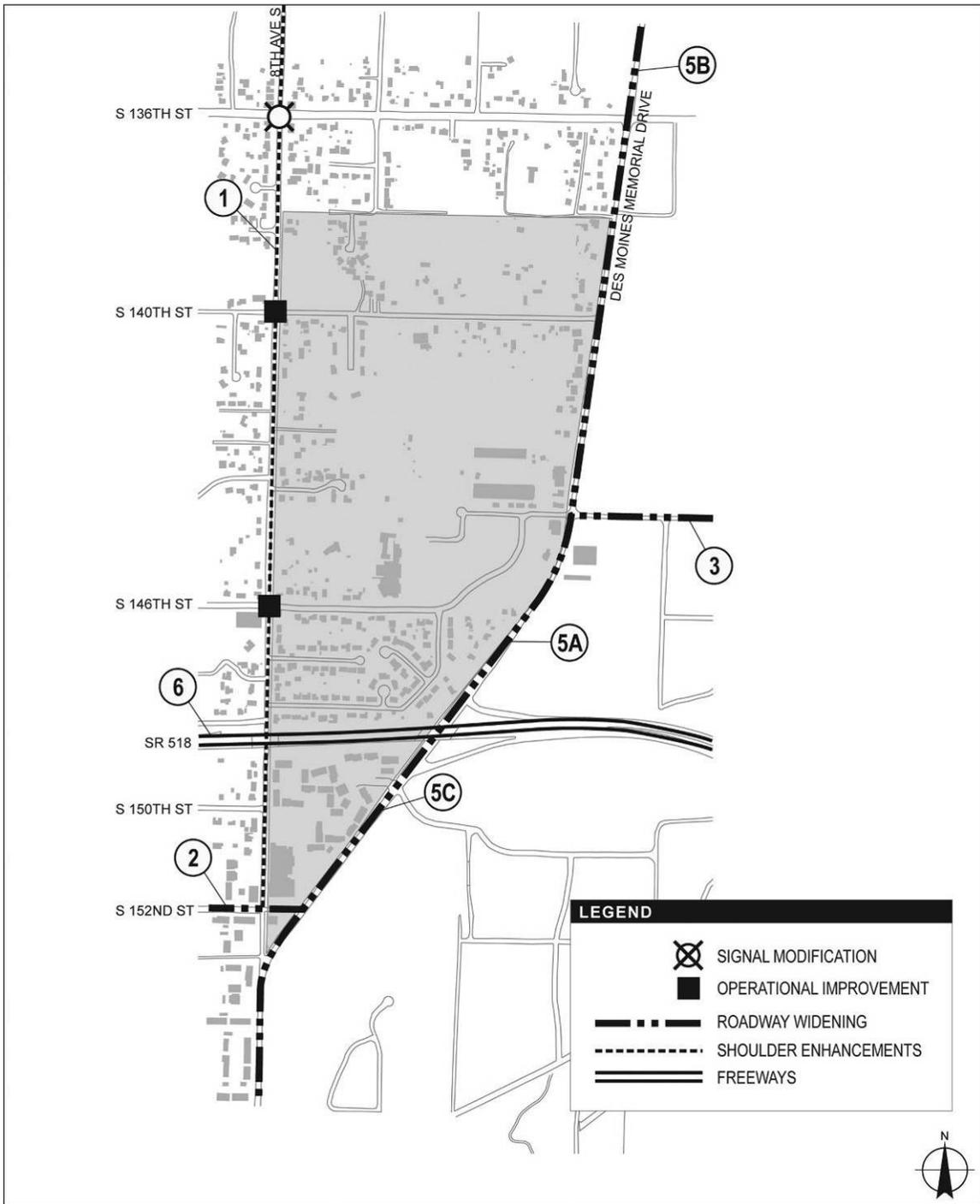
2 *City of SeaTac, 2009 –2018 Transportation Improvement Program*

3 *WSDOT Website, September 2009*

#### 2.6.8.1 City of Burien Pedestrian and Bicycle Facilities Plan

Burien completed its Pedestrian and Bicycle Facilities Plan in 2004, calling for the development of an “integrated pedestrian/bicycle trail and open space system made of trails, paths, tree-lined streets, and other travel corridors, and that connects major recreation areas to neighborhoods, schools, the City Center, regional facilities, and open space areas.” The plan identifies pedestrian and bicycle improvements on 8<sup>th</sup> Avenue South and South 146<sup>th</sup> Street as high priorities. Development of a public trail along the Miller Creek corridor as a segment of the Burien Loop Trail is also a high priority.

Figure 2.6-3 Burien Recommended Roadway Improvements



Source: Transpo Group

## 2.7 Utilities and Services

This section discusses the provision of utility services within the NERA. According to Comprehensive Plan Policy UT-1.2, utilities in Burien are divided into two categories: essential and optional. Essential utilities include water and sewer services, stormwater drainage, electrical power, and solid waste services. As defined by Comprehensive Plan Policy UT-1.3, adequate levels of essential utilities are considered a requirement for approval of developments proposed within city limits. Optional utilities include natural gas and telecommunications services.

### 2.7.1 Water

There are two separate water purveyors providing water to the NERA—King County Water District No. 20 and King County Water District No. 125. Their service areas are shown on Figure 2.7-1. Each district is an independent special-purpose district governed by an elected board that has its own staff, policies, and comprehensive plans. Seattle Public Utilities (SPU) serves as the regional water supply source for both districts.

#### 2.7.1.1 King County Water District No. 20

Water District No. 20 serves over 90 percent of the NERA. Seattle Public Utilities serves as this district's water supply source, and is contracted to provide the district with all of its supply needs through the year 2061. In addition, Water District No. 20 maintains emergency interties with Water District Nos. 45, 49 and 125. In the NERA, interties with Water District No. 125 are located at 8th Avenue South and South 146th Street, adjacent to the City of Seattle's pumping station; and Des Moines Memorial Drive at South 138th Street. Water District No. 20 also shares a reservoir with a capacity of 6 million gallons with districts 45 and 125 (at 14th Avenue South and South 120th Street, north of the NERA). Although the district has secured adequate supply, the district will need to construct an additional reservoir, as it has identified that it does not have adequate storage through the 20-year planning horizon. The district has also identified in its 2004 Comprehensive Water System Plan a number of planned water main replacements in and near the NERA. Some of the planned replacements in the adjacent neighborhoods have been completed, but projects within the Airport Runway Zone Replacement area (as named by the Water District) have been put on hold until a comprehensive plan is developed for the area.

Figure 2.7-1 King County Water Districts Numbers 20 and 125 Service Areas



### 2.7.1.2 Water District No. 125

Water District No. 125 serves a small portion of the NERA, covering the area west of Des Moines Memorial Drive between South 138th and 146th Streets. One of the District's sources for water supply is Seattle Public Utilities, which conveys water to the District via a 12-inch supply line under South 146th Street which crosses the NERA. The district shares reservoir storage capacity with Water District No. 20 to prevent summer peak demand rates from SPU; the reservoir is located in Water District No. 20. Water District No. 125 also maintains interties with Water District No. 20, two of which are within the NERA. The portion of the NERA within Water District No. 125 is served by an 8-inch ductile iron pipe along Des Moines Memorial Drive. There are no capital improvements planned for the NERA for Water District No. 125, according to the District's 2008 Comprehensive Plan.

### 2.7.1.3 Seattle Public Utilities

Seattle Public Utilities (SPU) is the largest purveyor of water in the state. SPU maintains three sources of water supply—the Cedar River watershed, the Tolt River watershed, and three wells in the Highline Well Field. The Cedar and Tolt River watersheds are located in the Cascade Mountains, while the Highline Well Field lies outside of Burien north of the airport.

The total direct and indirect service area receiving water directly from the SPU system includes the City of Seattle and portions of unincorporated King County, as well as areas in King and South Snohomish Counties that are served by more than two dozen suburban water districts, municipalities, and nonprofit water associations that purchase water from SPU. SPU's water distribution system includes multiple reservoirs and pumping stations. One of the pumping stations is located in the NERA, at the southeast corner of 8th Avenue South and South 146th Street.

To meet the future water demand of the region, SPU's Comprehensive Plan emphasizes conservation. In addition to demand management efforts, the department will also pursue improvements in system efficiencies as a way of reducing demand.

Although efforts will be taken to find conservation programs that can be implemented to decrease future demand, eventually new supply facilities will be needed. Preference will be given to new source options with minimal environmental impacts.

In the NERA, SPU maintains several lines to supply water to Water District No. 20. A 24-inch main runs along 8th Avenue South from South 158th Street to South 146th Street.

## 2.7.2 Sewer

The NERA is served by two separate sewer service providers for the collection and treatment of waste—Southwest Suburban Sewer District (SWSSD) and Valley View Sewer District (VVSD), as shown in Figure 2.7-2. A portion of the NERA is not currently served by sewer, also shown in Figure 2.7-2.

### 2.7.2.1 Southwest Suburban Sewer District

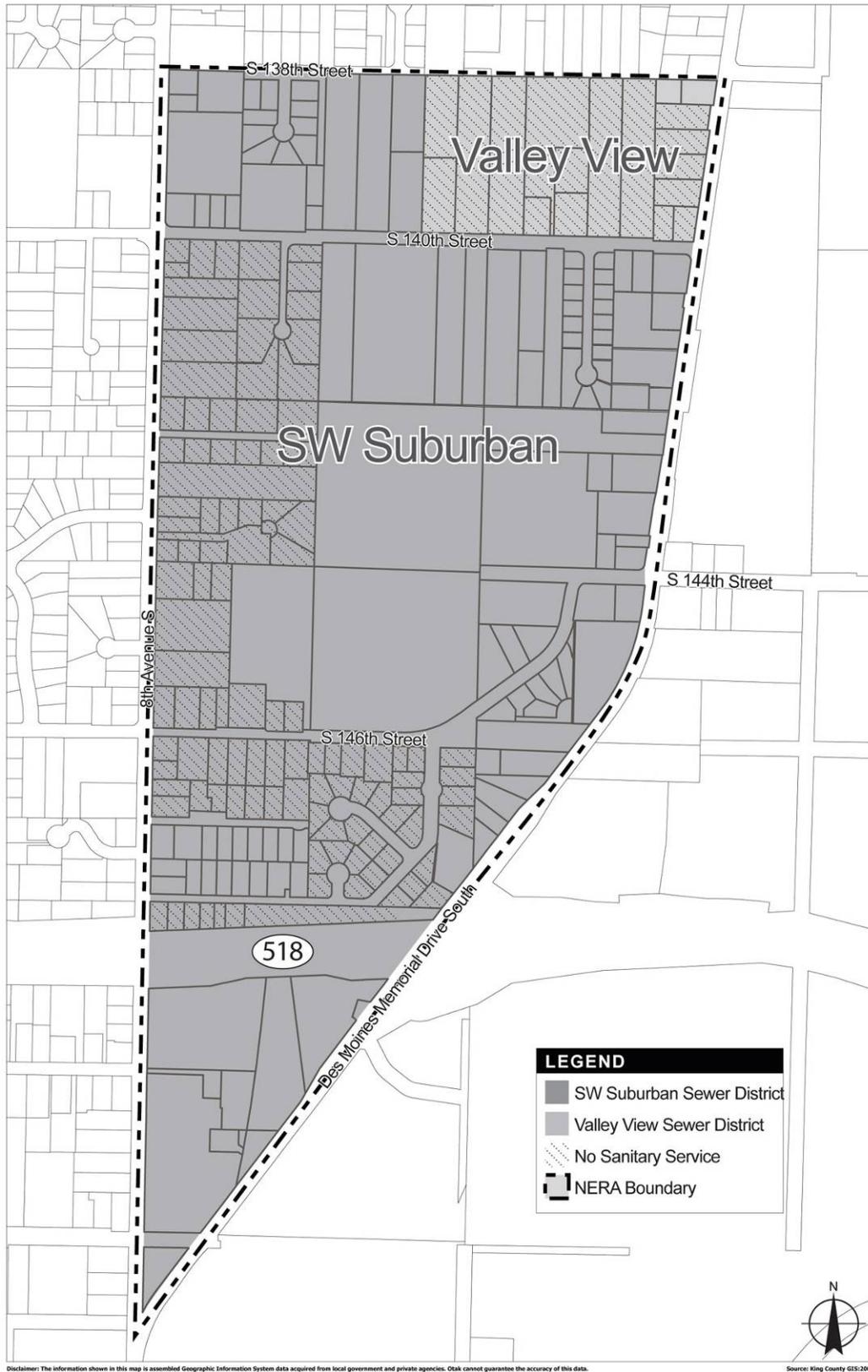
The SWSSD is the primary sewer service provider within the City. Agreements between SWSSD and VVSD allow VVSD to discharge wastewater directly into the SWSSD system for treatment. SWSSD adopted its Comprehensive Sewer Plan in 2006.

SWSSD maintains an extensive system of collector and interceptor sewers to convey wastewater to the Salmon Creek and Miller Creek wastewater treatment plants. Most of the system comprises 8-inch diameter pipes, which is standard for residential neighborhoods. The 18-inch Miller Creek sewer interceptor passes through the NERA and is partially located in the creek corridor. Sewage from the NERA flows to SWSSD's Miller Creek Treatment Plant, located in the City of Normandy Park. The Miller Creek Treatment Plant provides secondary treatment of wastewater and has a design capacity of 7.1 mgd, average monthly wastewater flow. From July 2004 to June 2005, average monthly wastewater flows ranged from 2.6 to 3.6 mgd, and actual daily flows ranged from 0.7 to 6.2 mgd. Projected average monthly flows in 2025 assuming 90 percent of the district's population is connected to public sewer by 2025, range from 4.47 to 5.35 mgd. Through the planning horizon of 2020, the flow increase anticipated at the Miller Creek Treatment Plant is within the plant's current design capacity.

Capacity—SWSSD has adequate capacity to serve the area.

Capital Improvements Program—The District has stated in its Comprehensive Plan that it does not plan to provide any sewer extensions to unsewered areas, except those funded by developer extensions and Utility Local Improvement Districts (ULIDs). Instead, the district's capital improvement plan is focused on replacing and upgrading its existing infrastructure, as needed.

Figure 2.7-2 Sewer District Service Areas



### 2.7.2.2 Valley View Sewer District

Valley View Sewer District (VVSD) serves a small portion of the NERA between approximately South 138th Street, South 140th Street, 10th Avenue South, and Des Moines Memorial Drive (see Figure 2.7-2). The district adopted its new Comprehensive Sewer Plan in 2008.

The VVSD does not operate a sewage treatment facility. Instead, VVSD's sewage within the NERA flows by gravity to SWSSD's treatment facilities, by way of the Miller Creek interceptor sewer. VVSD pays treatment rates for these customers to SWSSD.

**Unsewered Areas**—The portion of the NERA within the VVSD is mostly unsewered, except for one block of South 138th Street between Des Moines Memorial Drive and 14th Avenue South.

**Capacity**—VVSD has adequate capacity to serve the area.

**Capital Improvements Program**—The CIP adopted in 2008 by VVSD calls for installation of 8-inch lines:

- Along 12th Place South & South 140th Street, from the SWSSD manhole on 12th Place to 500 feet west of 12th Place on 140th Street.
- Along the South 138th Street alignment, from 11th Place South to 14th Avenue South.

These improvements would be made as required by development and would be funded by a ULID. Although the VVSD has listed an anticipated construction date of 2019 for these capital improvement projects, the District is flexible in its timing of projects.

### 2.7.3 Electrical System

The transmission of electricity to the NERA is delivered by Seattle City Light (SCL). SCL is regulated by the Washington Utilities and Transportation Commission. SCL is the City of Seattle-owned electric utility serving approximately 131 square miles, including the majority of the City of Burien and all of the NERA.

SCL owns and maintains approximately 649 miles of transmission lines, which carry power from the Skagit and Cedar Falls generating facilities to 14 principal substations. Power is distributed from these principal substations via high voltage feeder lines to numerous smaller distribution stations and pole transformers, which reduce voltage to required levels for customers. The capability of SCL's transmission and distribution system to serve the demands of its customers is limited by the capacity of the distribution

substations. Conversations with individuals at Seattle City Light have indicated that the power distribution system in and near the NERA may already be heavily burdened.

Within the City of Burien, SCL owns property located north of the Kennedy High School and west of SR 509. This property is reserved as a future substation site. However, the City has designated this site for a future sports field and is working with SCL to identify an alternative location for a substation site. One possibility is to locate a substation in or near the NERA.

#### 2.7.4 Solid Waste, Natural Gas, and Telecommunications

Solid waste, natural gas, and telecommunications services are critical for most urban land uses. Different municipalities provide these services in various ways. The following paragraphs discuss how the City of Burien provides these services in the NERA.

The City of Burien contracts with Waste Management to collect residential garbage and recycling, and business garbage. Waste Management has confirmed that they currently have the ability to accommodate additional customers.

Natural gas service is provided by Puget Sound Energy (PSE). The NERA is currently served by a system of 2-inch natural gas lines. Additionally, a 12-inch, high-pressure natural gas line follows the perimeter of the NERA via South 136th Street from 8th Avenue South to Des Moines Memorial Drive South and in Des Moines Memorial Drive South from South 136th Street to South 146th Street. This high-pressure gas line does not provide any direct service to the NERA.

Telecommunications services, including telephone, cable television, and high speed internet are provided by Comcast and Qwest. Comcast has confirmed that its infrastructure in the area is capable of providing up to a 50 MB connection to customers, and the current infrastructure is very lightly burdened.

## 2.8 Stormwater Drainage

Many of the river and stream systems in the Puget Sound region that convey runoff from storms have been altered by development. Land development has changed historical natural drainage patterns and, in many cases, reduced the ability of rivers, creeks, and other natural features to absorb, store, and disperse stormwater runoff. In addition, development has degraded the health of the drainage systems by greatly increasing the amount of pollution flowing to the water ways. As a result, engineered drainage systems have been developed in many areas to treat and control stormwater runoff.

Currently, there are a number of localized drainage problems that are primarily due to the numerous low and depressed areas that cause ponding of water. The area at South 136th Avenue (just north of NERA) often has water covering the road during and after storm

events. In the southeast portion of the NERA there are some minor localized drainage problems reported at the former mobile home park near South 144th Street and Des Moines Memorial Drive S. Undersized culverts at the Miller Creek crossing of South 140th Street cause local flooding during significant rain events.

## 2.9 Noise

The NERA is currently impacted by noise from SR 518, local traffic, and Sea-Tac Airport. Noise associated with airports is typically the result of three activities:

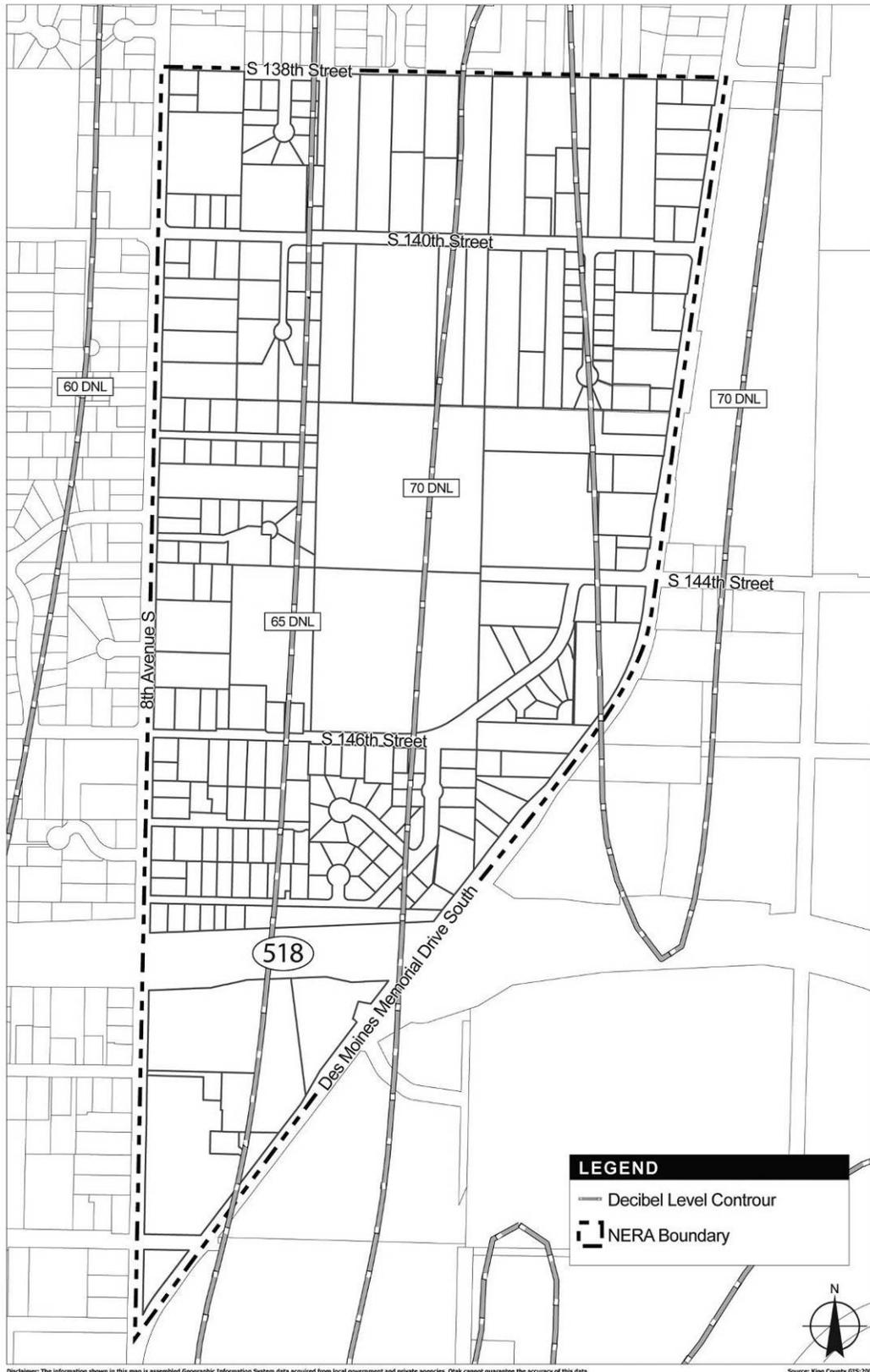
- Aircraft arrival or departure (departures are much louder than arrivals),
- Aircraft on the ground backing away from gates while under their own power, and
- Aircraft on the ground performing engine maintenance tests.

The standard descriptor used to measure noise by the FAA and the U.S. Environmental Protection Agency (EPA) is the Day-Night Average Sound Level (dnl). The dnl descriptor is often referred to as an average noise level. The dnl descriptor provides a numerical description of the weighted 24-hour cumulative noise energy level that occurs in an area over a 1-year period. It is not an accurate representation of individual noise for specific locations, but is a useful indication of the level of noise over areas. Levels of dnl can be represented with “contours.” The contours graphically show the outer edge of a particular dnl level and the areas that fall within that particular dnl level.

The FAA has established 65 dnl as the critical level for the determination of noise impacts associated with airports. The City of Burien Residential Protection Ordinance (Ordinance No. 134) has a lower threshold than the FAA for what constitutes “disturbing levels of noise.” The ordinance states that “Residential neighborhoods shall not be subject to adverse land uses, activities, or traffic which generate exterior noise levels exceeding 55 dBA dnl.”

As illustrated in Figure 2.9-1, much of the NERA is located within contours of 65 and 70 dnl. The FAA determined that neighborhoods near Sea-Tac Airport that would experience a 65 dnl or greater would be affected by noise. These neighborhoods would be exposed to what the FAA considered to be excessive noise impacts that would result in the reduction of property values, quality of life, and neighborhood stability. The FAA considers neighborhoods in which one-third of the neighborhood would be within the 65 dnl contour to be adversely affected by noise. *The Sea-Tac Airport Impact Mitigation Study, Initial Assessment and Recommendations* recommended that these neighborhoods be considered as candidates for redevelopment as non-residential uses (City of Burien et al. 1997).

Figure 2.9-1 Year 2010 Noise Contours within NERA



Disclaimer: The information shown in this map is assembled Geographic Information System data acquired from local government and private agencies. Otak cannot guarantee the accuracy of this data.

Source: King County GIS/2005

## 2.10 Light and Glare

Light and glare may interfere with expectations of a residential lifestyle if the light or glare projected from the source exceeds comfortable sensory perceptions. Indications of light and glare considered to be excessive would include conditions that interfere with normal residential living activities such as sleeping or typical activities in or around a residence. Existing light and glare in the NERA are within expected levels for typical residential development. Existing light levels are produced from street lighting and retail and institutional security lighting. Existing light sources that may interfere with residents' enjoyable use of property could be lighting installed for security purposes, which would be limited to the immediate area affected. Limited freeway lighting and vehicle spillover lighting from SR 518 affects the area immediately adjacent to the freeway within the NERA.

## Chapter 3: Environmental Impacts of the Alternatives

### 3.1 Earth

#### 3.1.1 Alternative 1

At full build-out, Alternative 1 would involve development of approximately 137 acres of the 158-acre Northeast Redevelopment Area (NERA), with the exception of the Miller Creek corridor and associated wetlands (estimated at 21 acres), and steep slopes. In some portions of the NERA, Federal Aviation Administration (FAA) regulations restrict redevelopment to parking, stormwater facilities, and other features, with no buildings or structures allowed (refer to Chapter 1 and 2 for more information).

When property owners decide to redevelop their land, existing structures would be removed and replaced with new buildings and site development. Existing utilities, roadways, and infrastructure elements would be expanded and upgraded to serve the new development.

New development would be required to follow current ordinances and regulations such as the City of Burien's critical area regulations (BMC 19.40) and the King County Surface Water Design Manual to minimize potential significant environmental impacts associated with erosion and construction activity. The proposed amendments are consistent with the overall guidance of the comprehensive Plan to support economic development in the NERA, and diversify the City's economy.

#### 3.1.2 Alternative 2

Alternative 2 would involve a similar extent of site development as Alternative 1. The same regulations related to erosion and construction that apply to Alternative 1 also apply to Alternative 2. The proposed amendments are consistent with the overall guidance of the comprehensive Plan to support economic development in the NERA, and diversify the City's economy.

#### 3.1.3 Alternative 3 (No Action)

With Alternative 3, a similar extent of site development would occur in the NERA in accordance with what is currently allowed under City of Burien Comprehensive Plan and zoning regulations. Thus, the potential impact of Alternative 3 on earth resources would be similar as described for Alternatives 1 and 2. Redevelopment activity would be required to comply with the City's current ordinances and regulations, just as it would under Alternatives 1 and 2. The proposed amendments are consistent with the overall guidance of the Comprehensive Plan to support economic development in the NERA, and diversify the City's economy.

### 3.1.4 Mitigating Measures

The proposed amendments are consistent with the overall guidance of the comprehensive Plan to support economic development in the NERA, and diversify the City's economy. No mitigating measures are required.

## 3.2 Water Resources

### 3.2.1 Aquifer Recharge Areas

The Northeast Redevelopment Areas (NERA) is not located within a designated aquifer recharge area. As such, probable significant adverse environmental impacts to aquifer recharge areas would not be expected under any of the alternatives, and no mitigating measures would be required.

### 3.2.2 Miller Creek Corridor

Regulations such as the City of Burien's critical area regulations (BMC 19.40) and the King County Surface Water Design Manual are in place to minimize impacts related to site development and construction activities.

Under all alternatives, the required 100-foot protective buffer on both sides of the creek (a total of 200 feet), compliance with the City's critical areas regulations, would help protect it from potential adverse impacts associated with site development. The buffer zone would provide an area where water flows can slow and be filtered before entering the creek.

None of the alternatives would be expected to have probable significant adverse environmental impacts on Miller Creek related to water quality, volume of water runoff, or riparian vegetation.

#### 3.2.2.1 Alternative 1

Redevelopment activities associated with Alternative 1 could potentially bring impacts related to water quality, increased stormwater volumes, and flooding if not properly mitigated. The additional impervious surface in the drainage basin could increase stormwater runoff peak flows and the flow duration in the West Fork of Miller Creek. This could increase bank erosion, sedimentation, and existing flooding problems. Although development would increase impervious surfaces in the NERA, development also provides opportunities to improve localized and general drainage conditions and the water quality of Miller Creek.

A regional stormwater facility is proposed adjacent to the creek corridor under Alternatives 1 and 2. The regional stormwater facility would provide a systematic

opportunity for managing stormwater from adjacent developments and enhancing the natural environment of the creek corridor. Construction of the facilities could cause potential temporary impacts to riparian wetland and buffer habitat if not properly mitigated. These potential impacts could involve vegetation clearing, minor grading, and placement of fill, but City ordinances and regulations would sufficiently mitigate these potential impacts.

#### 3.2.2.2 Alternative 2

Alternative 2 could have the same potential impacts as Alternative 1, but it is anticipated that these would be sufficiently mitigated by existing City regulations. As such, no probable significant adverse environmental impacts are anticipated.

#### 3.2.2.3 Alternative 3 (No Action)

Alternative 3 would include redevelopment activities and impacts similar in extent to that proposed under Alternatives 1 and 2 in the NERA. City ordinances and regulations would sufficiently mitigate any probable significant adverse environmental impacts. The regional stormwater facility is not proposed under Alternative 3.

#### 3.2.2.4 Mitigating Measures

Probable significant adverse environmental impacts on the Miller Creek corridor would be mitigated by control of stormwater flow as required by local and regional regulations, thus reducing the volume of water entering the creek during storm events and helping to protect water quality. In addition, water quality treatment facilities would reduce the amount of pollution in storm runoff released to Miller Creek. Existing City ordinances and regulations related to development and construction would be adequate for reducing potential environmental impacts related to the creek corridor. No additional mitigating measures are required.

Development of the regional stormwater facility would accommodate runoff and enhance water quality in the West Fork of Miller Creek. The proposed combined detention and water quality facilities would reduce peak flows, decrease flooding, and improve water quality. Potential temporary construction impacts from these facilities would be mitigated by revegetating the disturbed areas using dense planting of native species.

### 3.2.3 Wetlands

Wetlands in the NERA would be protected by the City's existing critical areas regulations, which require specific buffers and other treatments. Buffer requirements for the wetlands in the NERA are described in Chapter 2 (50-foot buffers for Category 3 wetlands and 100-foot buffers for Category 2 wetlands [BMC 19.40.310.2.B]). Given the

existing protective regulations and requirements, none of the alternatives would be expected to have probable significant adverse environmental impacts on wetlands.

#### 3.2.3.1 Alternative 1

Under Alternative 1, stormwater runoff entering in the West Fork of Miller Creek potentially could have negative impacts on wetlands in the NERA, including delineated Wetlands A through E, if not properly mitigated. Additional stormwater runoff as a result of increased impervious surface areas with redevelopment could increase bank erosion, sedimentation, and flooding problems in the adjacent wetlands. However, as mentioned above, City of Burien critical areas ordinance (BMC 19.40) would protect known and unknown wetlands by requiring wetland buffers. As such, no probable significant adverse impacts on wetlands would be expected under Alternative 1.

Wetland habitat may be improved due to critical area regulations, which regulate new development, and the development of the proposed regional stormwater facility along the Miller Creek corridor. The regional stormwater facility would provide a systematic opportunity to manage stormwater from adjacent developments and enhance the natural environment of the creek corridor. Construction of the facilities could cause potential temporary impacts to riparian wetland and buffer habitat if not properly mitigated. These potential impacts could involve vegetation clearing, minor grading, and placement of fill, but City ordinances and regulations would sufficiently mitigate these potential impacts by protecting wetlands from construction activities.

#### 3.2.3.2 Alternative 2

Alternative 2 could have the same potential impacts as Alternative 1, but it is anticipated that these potential impacts would be sufficiently mitigated by existing City regulations. As such, no probable significant adverse impacts are anticipated.

#### 3.2.3.3 Alternative 3 (No Action)

Alternative 3 would include redevelopment activities similar in extent to that proposed under Alternatives 1 and 2 in the NERA. As such, similar potential impacts could occur if not properly mitigated, but City ordinances and regulations would sufficiently mitigate these potential impacts. As such, no probable significant adverse impacts to wetlands would be expected under Alternative 3. The regional stormwater facility is not proposed under Alternative 3.

#### 3.2.3.4 Mitigating Measures

Existing City ordinances and regulations would be sufficient in mitigating probable significant adverse impacts. No additional mitigating would be required.

## 3.3 Plants and Animals

### 3.3.1 Alternative 1

Because, the NERA currently contains a variety of land uses, mostly of low intensity, existing vegetation, trees and associated habitats would be changing with redevelopment. As a result of this change and the redevelopment of approximately 137 acres within the NERA under Alternative 1, some wildlife species typically found in urban settings, such as raccoons, coyotes, opossums and introduced species such as black rats, Norwegian rats, rock doves (pigeons), house sparrows, and European starlings likely would be displaced. The WDNR Natural Heritage Program does not identify any rare plants or high quality ecosystems in the NERA (WDNR, 2009).

Plants and animals within the open space surrounding the West Fork of Miller Creek, Wetlands A through E, and their buffers would be protected by the City's critical area regulations (BMC 19.40). This contiguous plant community paralleling the West Fork of Miller Creek would not be significantly impacted by redevelopment. However, the FAA's requirement that wildlife not be attracted to areas within the RPZ and ATZ for the third runway would result in discouraging mitigation efforts that enhance bird habitat.

Based on these conditions, it is not anticipated that Alternative 1 would have significant adverse impacts on plants and animals.

### 3.3.2 Alternative 2

Alternative 2 proposes a consistent extent of redevelopment as Alternative 1, and the conditions discussed under Alternative 1 related to plants and animals also would be applicable under Alternative 2. As such, no probable significant adverse impacts on plants and animals would be expected under Alternative 2.

### 3.3.3 Alternative 3 (No Action)

Alternative 3 proposes a similar extent of redevelopment throughout the NERA, but with potentially more intensive uses in the west and northwest portions of the site at full build-out. The discussion above Alternative 1 is also applicable to Alternative 3, including the protection under the critical areas regulations for the West Fork of Miller Creek and its associated wetlands, therefore protecting habitat. As such no probable significant adverse impacts would be expected under Alternative 3.

### 3.3.4 Mitigating Measures

Existing City ordinances and regulations would be sufficient in mitigating potential significant adverse impacts on plants and animals, including critical areas regulations

under BMC 19.40 and other requirements for landscaping. No additional mitigating measures would be required.

## 3.4 Land Use, Planning, and Zoning

### 3.4.1 Consistency with the City of Burien's Comprehensive Plan

The Comprehensive Plan and zoning amendments proposed as part of Alternatives 1 and 2 would update and replace existing policy language in the Plan for SPA-4. Comprehensive Plan guidance and zoning requirements for Alternatives 1 and 2 have been developed to more closely align with anticipated market and economic conditions, timing of redevelopment and property owners' interests within and surrounding the NERA.

### 3.4.2 Land Use and Zoning

Sea-Tac Airport operations influence development in the NERA under all alternatives. Land uses within the RPZ and ATZ areas are restricted by FAA requirements, as previously discussed in Chapters 1 and 2. Of the 158 acres of the NERA, 67 acres are located within the RPZ and ATZ, as depicted in Figure 1.1-3. In these areas, it is anticipated that redevelopment would take the form of open space, parking areas, stormwater facilities, and other uses, since buildings are not generally allowed. On the remaining 91 acres, buildings and site improvements consistent with that allowable under the proposed zoning would be developed.

As part of the third runway project, the Port of Seattle has purchased or will be purchasing approximately 100 parcels of land, located primarily in the eastern portion of the NERA (in the AI designation). These properties are being purchased as a result of their proximity to the third runway flight path and its associated noise impacts.

#### 3.4.2.1 Alternative 1

Because proposed land uses in Alternative 1 are consistent with the City of Burien Comprehensive Plan, including planning policies and objectives specific to the NERA and recent redevelopment planning recommendations, no probable significant adverse impacts to land use would occur.

Alternative 1 would re-designate and rezone the entire 158-acre NERA. 28 acres in the northwest portion of the NERA would be designated Professional Residential (PR) and 130 acres over the remainder of the NERA would be designated Airport Industrial (AI). Commercial/retail uses, including auto sales, would be allowed on 71 acres of the 130-acre AI designated area, in the southern portion of the NERA. Alternative 1 land uses are shown in Figure 1.3-1 and Table 3.4-1.

It is anticipated that land uses throughout the NERA will transition from the current mix of residential, institutional, commercial, and other uses, to a mix of business park, light industrial, light manufacturing, retail, and other employment and commercial uses over time. In some areas of the NERA, this transition would be expected to happen much more gradually than in other areas. The northwest portion of the NERA is an area that is expected to transition and change very slowly. As such, under Alternative 1, approximately 61 existing single-family parcels would be re-designated to Professional Residential. Through the proposed Comprehensive Plan land use and the PR zoning designation, property owners could continue to use their homes for as long as they chose. They would also have the flexibility to convert their home or redevelop their property to an allowable non-residential use within the PR zone, such as professional offices, art studios, convenience retail shops, day care centers, eating and drinking establishments, and other uses (refer to Sections 1.3.1.1 through 1.3.1.3 and Appendix B). Subdividing and building new homes would also be allowed.

In the AI-designated areas of the NERA, existing residential property owners (both privately owned and Port owned) located in the AI designated land could continue to use their homes for as long as they chose as a non-conforming use, or they could sell or redevelop to non-residential uses allowed within the AI zone. These types of uses include air cargo and distribution facilities, light industrial, office, and others (refer to Sections 1.3.1.1 through 1.3.1.3 and Appendix B). Over time, it is anticipated that developers would purchase groups of existing residential lots in order to assemble parcels large enough for non-residential development. As this development proceeded, the number of residences would decrease. People could choose to remain in their residences, but over time, they would likely be surrounded by non-residential uses.

Proposed maximum percentages of building and impervious surface coverage for each of the three land use categories under Alternative 1 are:

- Professional Residential (PR) – Maximum building coverage ranging from 35 percent to 70 percent; maximum allowable impervious surface areas range from 70 percent for single family residential to 85 percent for other allowed uses in the PR zone.
- Airport Industrial (AI) – No maximum building coverage; maximum 85 percent impervious surface coverage, which could be increased to 95 percent through participation in the cost of creating regional stormwater management facilities in the NERA.
- Airport Industrial\* (AI\*with potential auto mall and/or commercial retail use) – No maximum building coverage; maximum 85 percent impervious surface coverage, which could be increased to 95 percent through participation in the cost of creating regional stormwater management facilities in the NERA.

Proposed redevelopment projects would be required to meet site development regulations, as well as other applicable requirements of the BMC. Projects in the AI area would also be subject to Design Guidelines in BMC 19.48.

**Table 3.4-1: Alternative 1 – Land Use Categories (in Acres)**

<b>Land Use Categories</b>	<b>Runway Protection Zone (RPZ)</b>	<b>Approach Transition Zone (ATZ)</b>	<b>In the NERA, But Outside of the RPZ and ATZ</b>	<b>Total</b>
Professional Residential	0	5	23	28
Airport Industrial	0	19	40	59
Airport Industrial* (with potential auto mall use and/or commercial retail use)	7	36	28	71
<b>Total</b>	<b>7</b>	<b>60</b>	<b>91</b>	<b>158</b>

Source: Otak, Inc.

Note \* The total area includes the Miller Creek corridor with buffers. The 145 acres estimated for Alternative 3 does not include the Miller Creek corridor with buffers.

Note: Not all of the acreages designated for the various land use categories would be developed due to setback and impervious surface area requirements, potential FAA restrictions and regulations, topography, internal roads, critical areas regulations (such as the 100 foot of buffer for Miller Creek) and landscaping requirements.

To anticipate the maximum level of development that could potentially occur in each land use category and to aid in determining potential impacts related to land use, stormwater modeling, traffic modeling, and economic/fiscal analysis, maximum potential building square footage assumptions were estimated. These are depicted in Table 3.4-2. The market would influence the actual mix of uses and business types that redevelop in the NERA over the long term, but these assumptions represent the maximum potential building area that would be anticipated at full build-out. This estimate of is based on conceptual site master planning that considered FAA restricted areas, critical areas, slopes, access, parking, and other features that would be part of site development.

Table 3.4-2: Alternative 1 – Maximum Potential Building Square Footage

Land Use Type	Professional Residential (28 acres)		Airport Industrial (59 acres)		Airport Industrial* (71 acres)	
	Distribution (percent)	Potential Square Feet of Building	Distribution (percent)	Potential Square Feet of Building	Distribution (percent)	Potential Square Feet of Building
Professional Residential	100%	250,000	0%	0	0%	0
Auto Mall/ Commercial Retail	0%	0	0%	0	100%	277,000 to 501,500
Flex Tech	0%	0	75%	546,000	0%	0
Airport Industrial	0%	0	25%	180,000	0%	0
<b>Total</b>	<b>100%</b>	<b>250,000</b>	<b>100%</b>	<b>726,000</b>	<b>100%</b>	<b>277,000 to 501,500</b>

**Combined total for all three categories = approximately 1,003,000 to 1,227,500 square feet**

Source: NERA Master Plan Strategy and Implementation Plan, 2009.

Note: numbers are estimated based on conceptual site master planning that considered critical areas, slopes, access, parking, and other features that would be part of site development.

\*with potential auto-mall use

### 3.4.2.2 Alternative 2

Because proposed land uses in Alternative 2 are consistent with the City of Burien Comprehensive Plan and with planning policies and objectives specific to the NERA, no probable significant adverse impacts to land use would occur.

Like Alternative 1, Alternative 2 would also re-designate and rezone the entire 158-acre NERA. The Comprehensive Plan and zoning currently designated SPA-4 would change under Alternative 2, as described under Alternative 1, with one exception. The AI designated area (130 acres) would be entirely airport related industrial uses. General commercial/retail use, including auto sales, would not be allowed, but some supporting convenience retail uses would be allowed. The airport related uses could include light industrial, distribution and warehousing facilities, light industrial, office, and other types of uses. Limiting the allowed land uses in the AI designated area of NERA to airport related and disallowing general commercial/retail does not provide the same level of flexibility as under Alternative 1. Property redevelopment in the NERA would not have as much flexibility to adapt to future market conditions under Alternative 2 as would be allowed under Alternative 1.

Conditions under the PR zone would be the same as under Alternative 1. Alternative 2 would have the same percentage impervious surface coverage requirements as described for Alternative 1.

Table 3.4-3: Alternative 2 - Land Use Categories (in Acres)

Land Use Categories	Runway Protection Zone (RPZ)	Approach Transition Zone (ATZ)	In the NERA, But Outside of the RPZ and ATZ	Total
Professional Residential	0	5	23	28
Airport Industrial	7	55	68	130
<b>Total</b>	<b>7</b>	<b>60</b>	<b>91</b>	<b>158</b>

Source: Otak, Inc.

Note \* The total area includes the Miller Creek corridor with buffers. The 145 acres estimated for Alternative 3 does not include the Miller Creek corridor with buffers.

With Alternative 2, a maximum potential building cover is greater than anticipated under Alternative 1. It is estimated that approximately 1.6 million square feet of building could occur on the 158 acres of land associated with Alternative 2 (Table 3.4-4). As discussed under Alternative 1, the market would influence the actual mix of uses and business types that redevelop in the NERA over the long term, but these assumptions represent the maximum potential building area that would be anticipated at full build-out. This estimate is based on conceptual site master planning that considered FAA restricted areas, critical areas, slopes, access, parking, and other features that would be part of site development. More building coverage is assumed under Alternative 2, because generally retail and commercial uses require more parking and use less building area than light industrial and business park uses, which require less parking and typically involve large scale buildings. This represents the maximum potential build-out anticipated for the NERA under Alternative 2. In reality, given market influences, development constraints, and other factors, the level of building development that actually occurs may be less.

Table 3.4-4: Alternative 2 – Maximum Potential Building Square Footage

Land Use Type	Professional Residential (28 acres)		Airport Industrial (130 acres)	
	Distribution (percent)	Square Feet of Building	Distribution (percent)	Square Feet of Building
Professional Residential	100%	250,000	0%	0
Auto Mall/ Commercial Retail	0%	0	0%	0
Flex Tech	0%	0	45%	606,000
Airport Industrial	0%	0	55%	753,000
<b>Total</b>	<b>100%</b>	<b>250,000</b>	<b>100%</b>	<b>1,359,000</b>
<b>Combined total for all three categories = approximately 1,359,000 square feet</b>				

Source: NERA Master Plan Strategy and Implementation Plan, 2009.

Note: numbers are estimated based on conceptual site master planning that considered critical areas, slopes, access, parking, and other features that would be part of site development.

### 3.4.2.3 Alternative 3 (No Action)

No probable significant adverse impacts to land use are anticipated under Alternative 3. However, the adopted Comprehensive Plan designation and zoning requirements under Alternative 3 are not in alignment with the more recent analysis of market and redevelopment potential completed in the NERA Redevelopment Plan and Implementation Strategy.

With Alternative 3, the NERA would remain under SPA-4 designation. Current Comprehensive Plan and zoning designations would remain unchanged. Alternative 3 would result in a similar extent of overall site development. Development would be subject to the current 75 percent maximum impervious surface area allowed by the BMC. As such less impervious surface area would be allowed under SPA-4 designation. There would not be an option for a higher amount of impervious surface area through participation in the cost of the regional stormwater management facilities in the NERA. More potential building coverage is anticipated because more of the site would be redeveloped into light industrial and commercial uses, rather than retained in residential use. (Refer to Tables 3.4-5 and 3.4-6).

Table 3.4-5: Alternative 3 – Land Use Categories (in Acres)

Land Use Categories	Runway Protection Zone (RPZ)	Approach Transition Zone (ATZ)	In the NERA, But Outside of the RPZ and ATZ	Total
A (Low Intensity)	4	0	41.5	45.5
B (Mod. Intensity)	1.5	28	42.5	72
C (High. Intensity)	0	27.5	0	27.5
<b>Total</b>	<b>5.5</b>	<b>55.5</b>	<b>84</b>	<b>145*</b>

Source: City of Burien

Note \* The total area does not include the Miller Creek corridor with buffers. The 158 acres estimated for Alternatives 1 and 2 does include the Miller Creek corridor with buffers.

Table 3.4-6: Alternative 3 – Maximum Potential Building Square Footage

Land Use Category A (45 acres)			Land Use Category B (72 acres)		Land Use Category C (27 acres)	
Land Use Type	Distribution (percent)	Potential Square Feet of Building	Distribution (percent)	Potential Square Feet of Building	Distribution (percent)	Potential Square Feet of Building
Commercial-Industrial	0	0	30	282,300	70	251,600
Office	70	416,200	65	611,600	30	107,800
Retail	5	24,700	5	39,200	0	0
Open Space-Park	25	[11 acres]	0	0	0	0
<b>Total</b>	<b>100%</b>	<b>440,900</b>	<b>100%</b>	<b>933,100</b>	<b>100%</b>	<b>359,400</b>
<b>Combined total for all three categories = 1,733,400 square feet</b>						

*Note: numbers are estimated based on conceptual site master planning that considered critical areas, slopes, access, parking, and other features that would be part of site development.*

#### 3.4.2.4 Mitigating Measures

The mitigating measures for other resource areas are being proposed as the result of proposed changes in land use. No specific mitigating measures for land use as a stand-alone resource are needed. City development standards and requirements would ensure that building heights, setbacks, impervious surfaces, and other site development complies with FAA restrictions and other provisions related to public health, safety, and welfare.

### 3.5 Economic Base, Employment and Fiscal Conditions

The economic and fiscal impacts analysis estimates the net fiscal returns to the City under each of the three alternatives being considered. The analysis also compares the relative impacts on the local economy that could result from redevelopment in the NERA.

A fiscal impacts analysis was utilized to assess the cost to support the improvements against the projected annual revenue using the discounted cash flow approach. The important emphasis is on comparison among alternatives.

The economic and fiscal impact analysis does not include estimates for capital improvements needed for the three alternatives, nor does the analysis assume the parties responsible for funding them. Typically, the responsibility for such costs is negotiated between the City, other jurisdictions, and developers initiating redevelopment. These infrastructure and other mitigation costs could be substantial, and could become a barrier to timely implementation of full build-out redevelopment in the NERA.

For this section of the SEIS, potential economic, fiscal, and employment impacts are organized by topic rather than by alternative. Comparisons of three alternatives are integrated within the discussion.

### 3.5.1 Summary of Impacts - Alternatives 1, 2 and 3

The results of the economic and fiscal analysis of the alternatives being proposed for NERA are reported in Tables 3.5-1 and 3.5-2. The full build-out stabilized year comparison shows that redevelopment of the area based on Alternatives 1 or 2 would provide substantial economic activity in the community and net revenues for the City.

The redevelopment of the NERA under Alternative 3 (“no action” alternative) would result in higher levels of development and employment than in Alternatives 1 and 2. This is because Alternative 3 assumes that the entirety of NERA could be built out as allowed under the SPA-4, with varying intensities of business park and commercial uses. As such, Alternative 3 would have more overall development capacity than Alternative 1 or Alternative 2. However, Alternatives 1 and 2 more closely align with anticipated market and economic conditions, timing of redevelopment and property owners’ in the NERA.

Both Alternative 1 and Alternative 2 place a majority of the NERA in “AI” (Airport-Industrial zoning), with the exception of a portion of the NERA east of 8th Avenue South that has been referred to as Subarea 6 throughout the redevelopment strategy process. This area would become zoned for Professional Residential uses. Refer to figure 3.5-1 for map of the redevelopment subareas.

Alternatives 1 and 2 differ because Alternative 1 allows more commercial/retail, including potential auto sales uses, than Alternative 2, as discussed in Chapters 1 and 2. (refer to Alternative 1b below). This significantly increases projected positive economic returns to the City than would be expected under Alternative 2.

Both alternatives 1 and 2 restrict the level of commercial use in the Professional Residential (PR) designation, whereas the SPA-4 designation under Alternative 3 would allow various types of commercial, office, and business park uses in this area.

While airport-related noise could have potential impacts on the types of businesses that choose to locate in the NERA, the proximity to the airport brings other business opportunities that serve to counterbalance the potential negatives. Building technology and design techniques can be used to minimize noise impacts to NERA businesses, as further discussed under 3.9.

Figure 3.5-1: NERA Redevelopment Plan Subareas



Source: NERA Redevelopment Plan and Implementation Strategy, 2009

The results of the economic and fiscal analysis of the alternatives proposed for NERA are reported in Tables 3.5-1 and 3.5-2. The full build-out stabilized year comparison shows that redevelopment of the area based on Alternatives 1 or 2 would provide substantial economic activity in the community and net revenues for the City.

Table 3.5-1: Summary of Economic Impacts

<b>Economic Variable</b>	<b>Alternative 1</b>		<b>Alternative 2</b>	<b>Alternative 3</b>
	<b>a</b> (with auto mall)	<b>b</b> (with Commercial/ Retail)		<b>“No Action”</b> (Existing Policies)
Employment	1,944	2,793	3,171	5,101
Business Income	\$222,868,740	\$268,709,950	\$362,704,988	\$540,790,448
Retail Sales	\$34,358,790	\$80,200,000	\$16,620,000	\$16,953,000
Utility Expenses	\$2,886,000	\$3,753,250	\$3,324,000	\$5,833,650
General Retail (gsf)	0	0	0	63,900
Office (gsf)	0	0	0	1,135,600
Large Comm. Retail (gsf)	114,000	501,500	0	0
Auto Mall (gsf)	163,000	0	0	0
Flex Tech (gsf)	546,000	546,000	606,000	0
Airport Industrial (gsf)	180,000	180,000	753,000	533,800
Total Building Space	1,003,000	1,227,500	1,359,000	1,733,300

Source: Heartland LLC

### 3.5.2 Fiscal Impacts - Alternatives 1, 2 and 3

The net fiscal gains come from additions to the tax base of the City through significant increases in assessed value, business and occupation tax, utility taxes, and retail sales tax. The costs to provide city services to the area were estimated to be similar for the three alternatives.

Table 3.5-2 provides comparative estimates of the net fiscal impact to the City. The estimates of the current revenues that are generated by the area indicate that the revenues do not exceed the estimated current costs to serve the area. This result is consistent with typical results for similar situations. The net revenue estimates for Alternative 1 exceed those for Alternative 2. Alternative 3 net revenue estimates exceed those for Alternative 2. As a very general rule, with many potential exceptions for specific cities, single family land uses tend not to “pay for themselves;” multifamily land uses tend to “break-even;” and commercial/industrial areas tend to be net revenue generators (i.e., tax revenues tend to exceed the City’s costs to provide services).

The long-term economic and fiscal impacts that are illustrated in the table above will be realized by the City and the other local jurisdictions once an alternative is fully implemented. The amount of development and the pace at which redevelopment occurs will respond to regional market pressures particular to the market for airport-related transportation space as well as regional flex-industrial space. This absorption process (to attain the “full build-out”) could vary from ten to twenty years depending on market, site, and location factors after the regulatory changes are made; property acquired, relocation, demolition, infrastructure construction and the start of development.

Table 3.5-2: Summary of Fiscal Impacts on City of Burien

Impact	Alternative 1		Alternative 2	Alternative 3
	a (auto mall)	b (commercial retail)		“No Action” (Existing Policies)
Employment	1,944	2,793	3,171	5,101
Annual Net Fiscal Return	\$846,143	\$918,315	\$524,756	\$676,789
Present Value of the Stream of Net Fiscal Returns (15-year time period)*	\$8,782,680	\$9,531,795	\$5,446,786	\$7,024,843

Source: Heartland LLC

Note: \*The present value is that value at the current time of the stream of annual revenue into the future. Assumptions were made that the interest rate for discounting this revenue stream back to the current time is 5%, approximately the City’s cost of borrowing funds. The fifteen-year time period was somewhat arbitrary but typical for an investment analysis in real estate. The “net fiscal return” includes annual estimates of tax revenues associated with the new economic activity to the City less the estimated costs of providing public services to the area.

### 3.5.3 Other Potential Economic Benefits and Returns

There are many other potential economic benefits and returns to the community besides those that are described and listed in the tables above. These would be expected to occur under all three of the alternatives. The non-quantitative economic benefits and returns include the following.

- Policy driven infill development and more intense development of urban land,
- Concentration of employment opportunities in areas with existing infrastructure,
- Improvement of the City’s jobs/housing balance,
- Change in, and diversification of, the City’s economic base,
- Statewide indirect effects,

- Leverage off of the airport operations and activity for local economic improvement,
- Burien's economic role in the region is enhanced,
- The local economy is more diverse, with an increase in non-retail employment and businesses, and
- Tax revenues are available for use in other parts of the City.

#### 3.5.4 Employment Impacts - Alternatives 1, 2 and 3

The employment that could be accommodated in the NERA is between 14 percent (Alternative 1) to 23 percent (Alternative 2) of employment growth forecast by the Puget Sound Regional Council (PSRC) to occur from 2010-2030 in the areas of Highline, Burien, Des Moines, and SeaTac (which includes forecast employment at the airport). Alternative 3 is estimated to comprise 37 percent of the projected new jobs in this area between 2010 and 2030. The forecasting models of the PSRC typically do not include redevelopment areas like the NERA until the conversion of this land has occurred.

No assumption is made that this is "new" employment. The indirect/induced employment that would occur, and is typically estimated by the use of employment multipliers, is also not included in these estimates of economic impact. Burien is a very small part of the regional (and Washington State's) economy. It is likely that the indirect and induced employment and other economic impacts will be experienced outside the City. This is a conservative assumption.

#### 3.5.5 Other Impacts

There are other economic impacts for the City that are not subject to quantification at the level of a programmatic EIS. These are nevertheless very important for the City, other jurisdictions, and the region. These five areas of impacts were identified in the 2002 SEIS and remain true in 2009. These include the following:

*Image* – Currently the City is not a recognized part of the regional South King County real estate market. There are no substantial commercial and industrial lands and space available for businesses in the City. Alternatives 1 and 2 would provide a substantial inventory of land and buildings to contain new economic activity – 1.0 million square feet for Alternative 1, 1.4 million square feet for Alternative 2, and 1.7 million square feet for Alternative 3.

*Diversity* – Most communities wish to have a diverse economic base so that when there are cycles and/or patterns of economic activity they are somewhat protected and their tax base is able to grow from several industries. The tax base for Burien is limited to its own area; it is developed/built out and the existing base of property is aging. Currently the tax

base rests on residential areas, and retail, especially car dealerships. The redevelopment of the NERA would diversify the tax base and provide significant additions for the City and other local jurisdictions including the school district.

*Multiplier Effects* – The economic impacts estimated in this report are somewhat understated. The indirect/induced effects from secondary rounds of economic activity (the so-called multiplier effects) have not been calculated. Much of this effect would be experienced outside of the City, in the rest of the region, State, nation, or internationally. No assumption is made that this is new economic activity. It could just as well be current economic activity that moved out of other areas to be close to the airport or for other reasons. What is analyzed here is the extent to which new economic capacity, more space for economic activity, is created within the City.

*Ownership and Financing Options* – The alternatives would set the pattern for future land use that would be allowed for landowners and developers, including the Port of Seattle or private investment firms. There are various options for ownership and financing redevelopment that could unfold over time that could affect the actual amounts of economic and fiscal returns to the community.

The fiscal impact of land ownership can have a major impact on the City and other taxing jurisdictions. Land held by public agencies is not subject to property taxes, but public services are still required – potentially at an increased level depending on land use.

*Redevelopment Timing and Roles* – The use, ownership, and utilization intentions of the landowners, as well as market factors could affect the implementation of any plan for the area. There are several combinations of ways that the redevelopment plans could be implemented. There are several roles that may be taken by the City, the Port of Seattle, current landowners, and private developers or firms once the City's Comprehensive Plan policies and zoning are in place.

The various options for the potential redevelopment of the area, including the various roles for the City (such as identifying and securing grant funding for infrastructure projects), could change the economic returns to the community and rate at which the project area redevelops. Even with new zoning in place, it is possible that portion of the NERA may lie “fallow” absent substantial “third-party” funding. This could occur depending on the actions of the property owners, including the Port of Seattle. Certain funding and airport operational considerations could occur that do not lead to redevelopment. There exists the possibility that significant portions of the redeveloped area would be left for uses that do not generate the economic and fiscal returns that have been estimated.

### 3.5.6 Potential Impacts on Land Values – Re-designation to “Airport Industrial” Zone

Alternatives 1 and 2 would change the zoning designations within the NERA from a mix of industrial and single-family zoning designations to a mix of Airport Industrial (AI) and

Professional Residential (PR). Alternative 3 (the No Action Alternative) would not change existing zoning, or the existing SPA-4 Comprehensive Plan designation, which allows rezoning to a range of airport-related industrial uses via a contract rezone process. Because the existing SPA-4 zoning designation already allows many of the uses contemplated in the AI zone (via the contract rezone process rather than as-of-right), determining the affect on land values of the changes proposed in Alternative 1 and Alternative 2 is difficult to ascertain. Assessing potential changes in land values is made even more difficult at a time when residential land values are widely declining and the impact to commercial land values are not yet transparent given a lack of transaction volume at present. That said, understanding the potential ramification of a zoning change on land values is important within the context of this planning process.

A zoning change typically has an effect on land values when the change allows more valuable uses that are not presently permitted on a site, or, conversely, if uses that are presently allowed on a site are no longer allowed in the future. While current uses in NERA vary, the vast majority of existing uses are single-family residential and the proposed future uses are commercial, both retail (auto mall) and flex-industrial (a category that allows a range of industrial transportation, light-manufacturing, and office uses). In general, the planned future commercial uses would not constitute a more valuable use of the land than the existing residential uses, and thus would not have a positive effect on land values. The reasons for this are discussed in Section (3.5.6.1). The extent to which improvements of existing residential uses are deemed non-conforming will affect the degree to which the new zoning would adversely affect residential values. If improvement of single-family uses were to be allowed regardless of improvement value, the change in zoning would likely have little to no impact on land values in the short-term, as potential buyers would be free to improve properties as desired. Analysis shows that commercial zoning would have a positive impact on the larger residential parcels in NERA (of approximately 20,000 square feet or larger), and very little or no impact on the balance of residential parcel in NERA should non-conformance standards for residential uses be eliminated.

The PR zone is assumed to have little to no affect on existing land values.

### 3.5.6.1 Residential vs. Commercial Land Values

Potential commercial users would have to be willing to pay a premium to existing home values in order to have a positive impact on land that is currently in residential use in the NERA. The degree to which this is likely depends upon the relationship of three main variables:

1. The existing price of land, as imputed by the value residential users would be willing to pay for residential homes.
2. Residual (“As is” values) that commercial users are willing to pay for land. This is determined by:

- a. The price commercial land developers are willing to pay for “finished” land.
- b. The cost needed to convert existing residential parcels to land with sufficient infrastructure to support commercial uses.

With respect to the first variable, existing land prices, the price per square foot of land can be found by dividing the sales price of a home sale by the size of the lot on which the home sits. In the table on the following page, home sales in the “NERA area” are used as a proxy for home sales in NERA because the number of home sales in the NERA over the past two years is very limited. This assumes that the lot sizes and home prices in NERA and in the “NERA area” are approximately the same. Another way to estimate the existing land values is to use the assessed values of all homes in the NERA and divide by lot size, assuming that existing market values are approximate assessed values. Based on trends seen across the region, market values are likely somewhat below current assessed values. The existing land values vary greatly by lot size and home improvement value, but, in general, homes on larger lots tend to have lower prices per square foot of land than do houses on smaller lots. For homes sold in 2009, the price per lot square foot ranged from \$8-\$25 in the “NERA Area,” with the median price per lot square foot of \$19. By contrast, the 2009 median assessed values per land square foot in NERA ranged from \$7 in Subarea 5 (north of South 140<sup>th</sup> Street) to \$15 in Subarea 7 along 8<sup>th</sup> Avenue South. The discrepancy between the two is largely attributable to lot size; the median lot size in Subarea 7 is approximately 20,000 square feet and the median lot size in Subarea 7 is approximately 10,000 square feet.

**Table 3.5-3: NERA Area Residential Sales**

<b>2009 Sales</b>	<b>Address</b>	<b>Sale Date</b>	<b>Price</b>	<b>Lot Size (SF)</b>	<b>Price/Lot SF</b>
	1004 S 136th St	1/9/2009	\$ 184,000	7,350	\$ 25
	12610 14th Ave S	6/30/2009	\$ 250,000	22,521	\$ 11
	1054 S 124	6/10/2009	\$ 210,000	8,712	\$ 24
	908 S 137 St	5/1/2009	\$ 260,000	8,906	\$ 29
	13711 8th Ave S	1/8/2009	\$ 243,000	8,160	\$ 30
	1034 S 140th	8/7/2009	\$ 360,000	41,127	\$ 9
	13415 7th Ave S	1/16/2009	\$ 140,000	6,600	\$ 21
	13603 6th Pl S	2/2/2009	\$ 280,000	7,313	\$ 38
	13210 9th Ave S	1/18/2009	\$ 225,750	11,625	\$ 19
	12611 16th Ave S	3/19/2009	\$ 112,000	7,250	\$ 15
	1435 S 129th St	5/27/2009	\$ 163,000	6,700	\$ 24
	14709 8th Ave S	8/20/2009	\$ 160,000	10,234	\$ 16
	12651 14th Pl S	7/15/2009	\$ 207,225	8,100	\$ 26
	13721 14th Ave S	6/15/2009	\$ 130,000	16,926	\$ 8

<b>2009 Sales</b>	<b>Address</b>	<b>Sale Date</b>	<b>Price</b>	<b>Lot Size (SF)</b>	<b>Price/Lot SF</b>
	12607 14th Ave S	7/8/2009	\$ 278,000	22,500	\$ 12
	12910 6 Ave S	6/29/2009	\$ 165,000	9,888	\$ 17
	850 S 143rd Pl	8/28/2009	\$ 254,920	20,909	\$ 12
	1022 S 124th Pl	8/13/2009	\$ 190,000	10,000	\$ 19
	<b>Median</b>		<b>\$ 208,613</b>		<b>\$ 19</b>
	815 S 136th St	1/10/2008	\$ 186,000	14,810	\$ 13
	13627 8th Ave S	1/22/2008	\$ 309,950	8,712	\$ 36
	13009 7th Ave S	2/7/2008	\$ 370,000	6,970	\$ 53
	13424 7th Ave S	3/17/2008	\$ 285,000	13,068	\$ 22
	12908 8th Ave S	5/2/2008	\$ 300,000	14,375	\$ 21
	14019 7th Pl S	5/15/2008	\$ 307,000	12,197	\$ 25
	13003 12th Ave S	5/20/2008	\$ 230,000	14,810	\$ 16
	14527 4th Ct S	5/29/2008	\$ 389,000	8,712	\$ 45
	13404 7th Ave S	6/25/2008	\$ 186,000	6,534	\$ 28
	14038 5th Ave S	8/22/2008	\$ 285,000	9,583	\$ 30
	648 S 143rd Pl	8/22/2008	\$ 275,000	7,841	\$ 35
	13036 6th Ave S	8/29/2008	\$ 168,174	8,712	\$ 19
	14440 5th Ave S	8/29/2008	\$ 305,950	7,841	\$ 39
<b>2008 Sales</b>	<b>Address</b>	<b>Sale Date</b>	<b>Price</b>	<b>Lot Size (SF)</b>	<b>Price/Lot SF</b>
	609 S 147th Pl	8/29/2008	\$ 455,000	16,117	\$ 28
	13225 8th Ave S	10/21/2008	\$ 238,000	6,534	\$ 36
	13127 12th Ave S	10/23/2008	\$ 229,000	16,988	\$ 13
	13004 7th Ave S	11/14/2008	\$ 232,000	6,970	\$ 33
	12819 12th Ave S	12/1/2008	\$ 226,000	7,405	\$ 31
	12825 8th Ave S	12/5/2008	\$ 209,000	6,534	\$ 32
	<b>Average</b>		<b>\$ 275,000</b>		<b>\$ 30</b>

Source: Heartland LLC

The second variable, the residual land value, is the price that users (or developers) are willing to pay for residential land that will need improvements to become commercially viable. This price is a function of the price users are willing to pay for improved land and the development costs needed to provide infrastructure needed for that use. The table below identifies assumed residual land value for assumed uses in both Alternative 1 and Alternative 2. As can be seen from the table, most areas where residential uses presently exist (Subareas 5 and 7) have residual values that are below the median prices per square

foot of land for residential uses, suggesting that the land would not be attractive to commercial developers given present prices.

**Table 3.5-4: Projected Redevelopment Values and Costs by Subarea (Per Square Foot) for Alternative 1\***

<b>Subarea</b>	<b>1</b>	<b>2a</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>7</b>
Proposed Use	Retail	Auto Mall	Auto Mall	Flex-Tech	Flex-Tech	Auto Mall
Estimated Finished Land Value	\$35.00	\$20.00	\$20.00	\$14.00	\$14.00	\$20.00
Fully Loaded Costs**	\$18.00	\$12.00	\$20.00	\$15.00	\$8.00	\$16.00
<b>Residual ("As is") Value</b>	<b>\$17.00</b>	<b>\$8.00</b>	<b>\$0.00</b>	<b>(\$1.00)</b>	<b>\$6.00</b>	<b>\$4.00</b>

\*Rounded to the nearest dollar

\*\*Development cost estimates from March 2009

**Table 3.5-5: Projected Redevelopment Values and Costs by Subarea (Per Square Foot) for Alternative 2\***

<b>Subarea</b>	<b>1</b>	<b>2a</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>7</b>
Proposed Use	Retail	Flex-Tech	Flex-Tech	Flex-Tech	Flex-Tech	Flex-Tech
Estimated Finished Land Value	\$35.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00
Fully Loaded Costs**	\$18.00	\$12.00	\$20.00	\$15.00	\$8.00	\$16.00
<b>Residual Value</b>	<b>\$17.00</b>	<b>\$2.00</b>	<b>(\$6.00)</b>	<b>(\$1.00)</b>	<b>\$6.00</b>	<b>(\$2.00)</b>

\*Rounded to the nearest dollar

\*\*Development cost estimates from March 2009

Source: Heartland LLC

However, the gap between residential prices and residual prices for commercial land would improve if development costs were to be reduced via third-party funds (government programs, grants, etc.). In developing the NERA Redevelopment Plan and Implementation Strategy, two alternative cost scenarios were examined, in which components of development cost would be paid for by “third-party” funds from yet identified sources. The baseline scenario, in which the land bears all assumed infrastructure costs, was termed the “High Developer Responsibility” scenario. In addition, the following cost scenarios were examined.

- “Medium Developer Responsibility” scenario—A third-party pays for half-street improvements, water main improvements and utilities, and the land bears the balance of the costs. Approximately \$10 million of the \$46 million in infrastructure costs is paid for by a third-party.

- “Low Developer Responsibility” scenario—Land bears only the costs of site work (i.e., demo, grading and site preparation). Approximately \$34 million of the \$46 million in infrastructure costs is paid for by a third-party.

Depending on the subarea, residual potential land values would be increased by between \$1.00 and \$6.00 per square foot in the “medium” scenario and between \$5.00 and \$13.00 in the “low” scenario, as shown in the tables on the following page.

**Table 3.5-6: Costs Reduction Through Third-Party Funding (Per SF)**

<b>Subarea</b>	<b>1</b>	<b>2a</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>7</b>
"Medium Developer Responsibility"	\$ 6.00	\$ 2.00	\$ 2.00	\$ 2.00	\$ 1.00	\$ 3.00
"Low Developer Responsibility"	\$ 13.00	\$ 8.00	\$ 11.00	\$ 9.00	\$ 5.00	\$10.00

**Table 3.5-7: Residual ("As is") Value for Third-Party Funding Scenarios - Alternative 1**

<b>Subarea</b>	<b>1</b>	<b>2a</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>7</b>
"Medium Developer Responsibility"	\$ 23.00	\$ 10.00	\$ 2.00	\$ 1.00	\$ 7.00	\$7.00
"Low Developer Responsibility"	\$ 30.00	\$ 16.00	\$ 11.00	\$ 8.00	\$11.00	\$14.00

**Table 3.5-8: Residual ("As is") Value for Third-Party Funding Scenarios - Alternative 2**

<b>Subarea</b>	<b>1</b>	<b>2a</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>7</b>
"Medium Developer Responsibility"	\$ 23.00	\$ 4.00	\$(4.00)	\$ 1.00	\$ 7.00	\$1.00
"Low Developer Responsibility"	\$ 30.00	\$ 10.00	\$ 5.00	\$ 8.00	\$11.00	\$8.00

Subarea 5 and Subarea 7 are the two subareas within NERA that are planned for AI zoning and have substantial single-family residential populations. For these areas, the *typical* parcel’s value would not be high under the new zoning than under the existing zoning unless a very substantial portion of assumed development costs were paid for by a third-party, as displayed in the table below. That said, some residential lots, particularly those that are larger than 20,000 square feet, are very likely to increase in land value under the new zoning, especially if the “medium developer responsibility” scenario plays out.

Table 3.5-9: Comparison of Existing Land Values and Residual Land Values			
Subarea	5	7	7
Existing Median Price/Lot SF	\$7	\$15	\$15
Proposed Use	Flex-Tech	Auto Mall	Flex-Tech
<b>Residual Land Value</b>			
"High Developer Responsibility"	\$ 6.00	\$ 4.00	\$ (2.00)
"Medium Developer Responsibility"	\$ 7.00	\$ 7.00	\$ 1.00
"Low Developer Responsibility"	\$ 11.00	\$ 14.00	\$ 8.00

Source: Heartland, Inc

### 3.5.6.2 Mitigating Measures

Mitigation of impacts is not required. Over the long-term redevelopment horizon for the NERA, economic and fiscal impacts to the City, other taxing jurisdictions and the community would be expected to bring positive results—public revenues that exceed public costs.

## 3.6 Transportation

This section compares the potential traffic impacts of the three alternatives. For purposes of the transportation analysis, Alternative 3 is an update of the previous Alternative 1 in the original Northeast Special Planning Area (NESPA) SEIS, which was the preferred alternative. The three alternatives include a range of land use intensities, generating different levels of traffic that would impact the street system and the traffic operations within the NERA. A comparison of the land use alternatives in terms of traffic generation, future traffic volumes, and levels of service is presented. Based on the traffic volumes and operations analyses, potential transportation system improvement needs are identified for the various alternatives.

For this section of the SEIS, potential economic, fiscal, and employment impacts are organized by topic rather than by alternative. Comparisons of the three alternatives are integrated within the discussion.

### 3.6.1 Land Use Assumptions - Alternatives 1, 2 and 3

Alternative 1 would include Professional Residential (PR) and Airport Industrial (AI) with potential commercial/retail over a portion of the AI (such as a potential mix of car dealerships, retail, airport-related business park and flex tech land uses). Alternative 2 would include the same PR and AI designated area as under Alternative 1, but only incidental commercial/retail use would be allowed in the AI designated area. Alternative 3, the No Action Alternative, would include a mix of commercial/retail, office, and

industrial land uses within the NERA, representing potential build-out with current land use policies and zoning regulations in place.

Table 3.6-1 summarizes the NERA land use assumptions for each of the three alternatives. A forecast year of 2020 was selected for the transportation forecasts to be consistent with the City’s Comprehensive Plan. The land use calculations shown include residential uses (158 dwelling units) located west of 8th Avenue South between SR 518, South 152nd Street, and SR 509. This area is outside of the NERA, but is included as part of Transportation Analysis Zone (TAZ) 281. (This is consistent with the analysis in the 2002 NESPA SEIS.)

**Table 3.6-1: 2020 Land Use Assumptions used in Transportation Analysis**

Alternative	Housing <sup>3</sup>			Employment					
	Single-Family (dus) <sup>1</sup>	Multi-Family (dus)	Total (dus)	Retail (tgsf) <sup>2</sup>	Auto Sales or Commercial/Retail (tgsf)	Office (tgsf)	Airport Industrial (tgsf)	Total (tgsf)	Park (acres)
Alternative 1 (PR and AI with Commercial/Retail)	65	100	158	114.0 <sup>5</sup> to 501.5 <sup>5</sup>	163.0 <sup>7</sup> to 387.5 <sup>7</sup>	0.0	726.0 <sup>6</sup>	1,003.0 to 1,227.5	0
Alternative 2 (PR and AI Only)	65	100	158	0.0	0.0	0.0	1,359.0 <sup>6</sup>	1,359.0	0
Alternative 3 (Existing Policies - Same as NESPA Alternative 1 <sup>4</sup> )	65	100	158	63.6	0.0	1,135.6	533.5	1,733.3	11

Source: Transpo Group

1 dus = Dwelling units

2 tgsf = 1,000 gross square feet.

3 All alternatives include 158 dwelling units that are not part of NERA.

4 Source: City of Burien Northeast Special Planning Area, Final SEIS, 2002

5 Retail land uses could include big box stores with a higher trip rate than for the retail in NESPA Alternative 1

6 Airport industrial land use categories for Alternatives 1 and 2 include a mix of development types. For purposes of the transportation analysis 30 percent of the total is assumed as office uses and 70 percent as light industrial distribution, warehousing or similar type land uses.

7 Assumes approximately 163,000 gsf in auto sales area with the remainder in commercial/retail use.

Alternative 3 includes the highest amount of development with over approximately 1.7 million gross square feet (gsf) of employment uses. The analysis assumes that over 1.1 million of this would be in office land uses. Alternative 3 also assumes over 500,000 gsf of industrial and almost 64,000 gsf of general retail development.

Alternative 1 would have the lowest amount of floor area of the three alternatives at 1.0 to 1.2 million gsf. Approximately 277,000 to 501,500 gsf of floor space is estimated to be in commercial/retail land uses. An estimated 163,000 gsf of auto sales area in a combined auto sales and 114,000 gsf of commercial/retail was assumed within the central part of

the NERA (total 277,000 gsf). If that area developed as all retail (no auto sales), gsf is estimated at 501,500 gsf. This is due to the greater building development area for retail uses compared to auto sales uses, which require less building space and more outdoor parking and display space. The commercial/retail category under Alternative 1 was assumed to have a slightly higher trip generation rate compared to the general retail category under Alternative 3.

Alternative 1 would also include an estimated 726,000 gsf of airport-related business park and flex tech land uses. The airport-related land use categories can be developed in a range of employment types. Therefore, the transportation analysis assumed 30 percent would be office space development and 70 percent would be light industrial, warehousing, distribution, or other similar employment types.

Alternative 2 would include an estimated 1.36 million gsf of airport-related business park and flex tech land uses. Similar to Alternative 1, 30 percent of this development area was assumed as office space and 70 percent as light industrial, warehousing, distribution or similar land uses in developing trip generation estimates.

### 3.6.2 Trip Generation

Each of the three alternatives would result in a different level of traffic generated within the NERA. Table 3.6-2 compares the PM peak hour trip generation estimates for each of the three alternatives.

PM peak hour trips usually represent the highest traffic volumes of the day and therefore are used to identify potential traffic impacts and improvement needs. The trip generation estimates were developed consistent with the travel forecast model used for the Transportation Element of the City of Burien Comprehensive Plan and subsequent transportation impact fee ordinance.

As shown in Table 3.6-2, Alternative 1 could potentially generate the most traffic of the three alternatives, if the entire portion of the AI area designated for commercial/retail use is developed in intensive commercial/retail use. This would generate a maximum of approximately 3,350 PM peak hour trips. However, if this area is developed as a combined auto sales and commercial/retail area, a lower trip generation rate would be assumed, and 2,050 PM peak hour trips would be expected at full build-out in 2020.

The higher commercial/retail trip rate for the proposed commercial/retail uses under Alternative 1 was based on a mix of commercial/retail land use categories that was developed as part of the 2007 evaluation of a primarily retail alternative for the NERA (Burien Northeast Redevelopment Area Retail Alternative Traffic Assessment Memorandum, Transpo Group, September 19, 2007).

Ultimately, the commercial/retail area of the AI designation likely would be developed in a blend of land uses, so the highest level of trip generation is a presumed maximum, and

the actual trip generation likely would fall somewhere in between the 2,050 to 3,350 range estimated.

Alternative 2 would generate the least amount of traffic with 1,860 PM peak hour trips. Alternative 3 would generate about 2,850 PM peak hour trips. All the alternatives also include projected trips generated by the 158 residential units in TAZ 281, located just outside the NERA.

Even though Alternative 1 would have the lowest square foot development, it would potentially generate more PM peak hour traffic than Alternative 2. This is due to the higher trip rates in Alternative 1 associated with commercial/retail development compared to the primarily industrial land uses assumed for Alternative 2.

In comparing the alternatives, Alternative 1 could generate approximately 18 percent more trips than the projected trip generation of Alternative 3 at the high end of the range (with intensive commercial/retail use). Or Alternative 1 could generate approximately 28 percent less trips than Alternative 3 at the low end of the range (auto sales use).

**Table 3.6-2: 2020 Trip Generation Estimates for NERA**

<b>Alternative</b>	<b>PM peak hour trips</b>
Alternative 1: Airport Industrial with Commercial/Retail or Auto sales	2,050 to 3,350*
Alternative 2: Airport Industrial	1,860
Alternative 3: No Action (NESPA Alternative 1)	2,850

*Source: Transpo Group*

*Note: \* If an auto sales area were developed, the lower PM peak hour trips would occur; if all commercial/retail were developed in the designated area of the AI zone, the higher PM peak hour trips would occur.*

### 3.6.3 2020 Travel Forecasts

Travel forecasts were developed for 2020 PM peak hour conditions to compare the potential traffic impacts of each alternative. The updated forecasts also are compared to the 2020 forecasts for the Alternative 1 from the original NESPA SEIS. The forecasts were prepared using the travel forecasting model which was originally developed to assist in the preparation of the City of Burien’s Transportation Element of its Comprehensive Plan. The model was subsequently updated and applied for a study analyzing traffic forecasts for downtown Burien and updates of the City’s Transportation Element. In 2007/2008 the model was refined for use in developing the City’s Transportation Impact Fee (TIF) program.

#### 3.6.3.1 Forecasting Model Assumptions

The 2020 travel forecasts for the current NERA environmental review applies the same methodologies used in the prior NESPA evaluation and subsequent use for the City’s

transportation planning efforts. However, the model has been updated to reflect changes in growth assumptions and transportation improvement plans.

For areas of Burien outside of the NERA, the model incorporates the City's 2020 land use estimates developed for the Transportation Impact Fee (TIF) program which was adopted in 2008. The land use assumptions for the TIF model reflect the City's latest Comprehensive Plan forecasts including plans for the downtown subarea and Burien Town Square.

The current NERA model forecasts also incorporate the City of SeaTac and Port of Seattle land use estimates for the area east of NERA, consistent with the travel forecasting process used in the 2006 North SeaTac Roadway Study (HNTB, April 2008). This includes development of the Port of Seattle's 55-acre parcel. The 55-acre parcel is located on the north side of South 142nd Street between 18th and 23rd Avenues South.

Land use forecasts for the NERA are presented in Table 3.7-1 for the three alternatives.

The 2020 NERA travel forecasts also assume completion of several regional transportation improvements. These include extension of the SR 509 freeway from South 188th Way to I-5, a new Airport South Access Roadway. In addition, these include major modifications to the SR 509/SR 518 interchange as previously summarized in Table 2.6-4. These assumptions are consistent with the prior NESPA environmental review.

The transportation network for the current NERA evaluation also assumes completion of the proposed North SeaTac Roadways, as adopted by the City of SeaTac and Port of Seattle. The North SeaTac Roadways calls for improving the South 142nd/144th Street corridor between Des Moines Memorial Drive and 20th/21st Avenue South to serve access to the Port of Seattle's 55-acre parcel. The South 142nd/144th Street improvements would serve truck access to/from SR 518 via Des Moines Memorial Drive.

The City of SeaTac's North SeaTac Roadways Study also assumed construction of a new westbound on-ramp to SR 518 from 24th Avenue South. This ramp would replace the existing on-ramp which connects to westbound SR 518 from South 154th Street. To provide consistency with the North SeaTac Roadways Study, the relocated ramp was also incorporated into the NERA modeling process.

The roadway system within the NERA reflects the conceptual site plans prepared for each alternative. For purposes of the transportation analyses, the internal road system for NERA Alternatives 1 and 2 are assumed to be similar to each other. These are, however, modified from the access/circulation system for Alternative 3. Alternatives 1 and 2 assume that the majority of access from development within the area north of SR 518 would be via South 140th or South 144th/146th Street. Some relatively limited access would be from 8th Avenue South between South 140th and S 146th Streets. These roads would provide connections to Des Moines Memorial Drive and other collectors and

arterials. Access to/from the NERA development south of SR 518 is assumed to be from 8th Avenue South and Des Moines Memorial Drive.

Under Alternative 3, it was assumed that there could be more direct access to/from Des Moines Memorial Drive for developments in the north and central part of the NERA, compared to the access plan for Alternatives 1 and 2.

The travel forecasting process also includes adjustments in future travel demands in the region and local area to reflect increased transit, including Sound Transit, SeaTac Airport People Mover System, Transportation Demand Management (TDM) programs, and the spreading of peak hour traffic. These adjustments were originally developed as part of the SR 509/South Access Corridor DEIS forecasts and subsequently used in developing the 2020 travel forecasts for the Transportation Element of the City of Burien Comprehensive Plan, the Downtown Burien Study, North SeaTac Roadway, and Burien's Transportation Impact Fee program.

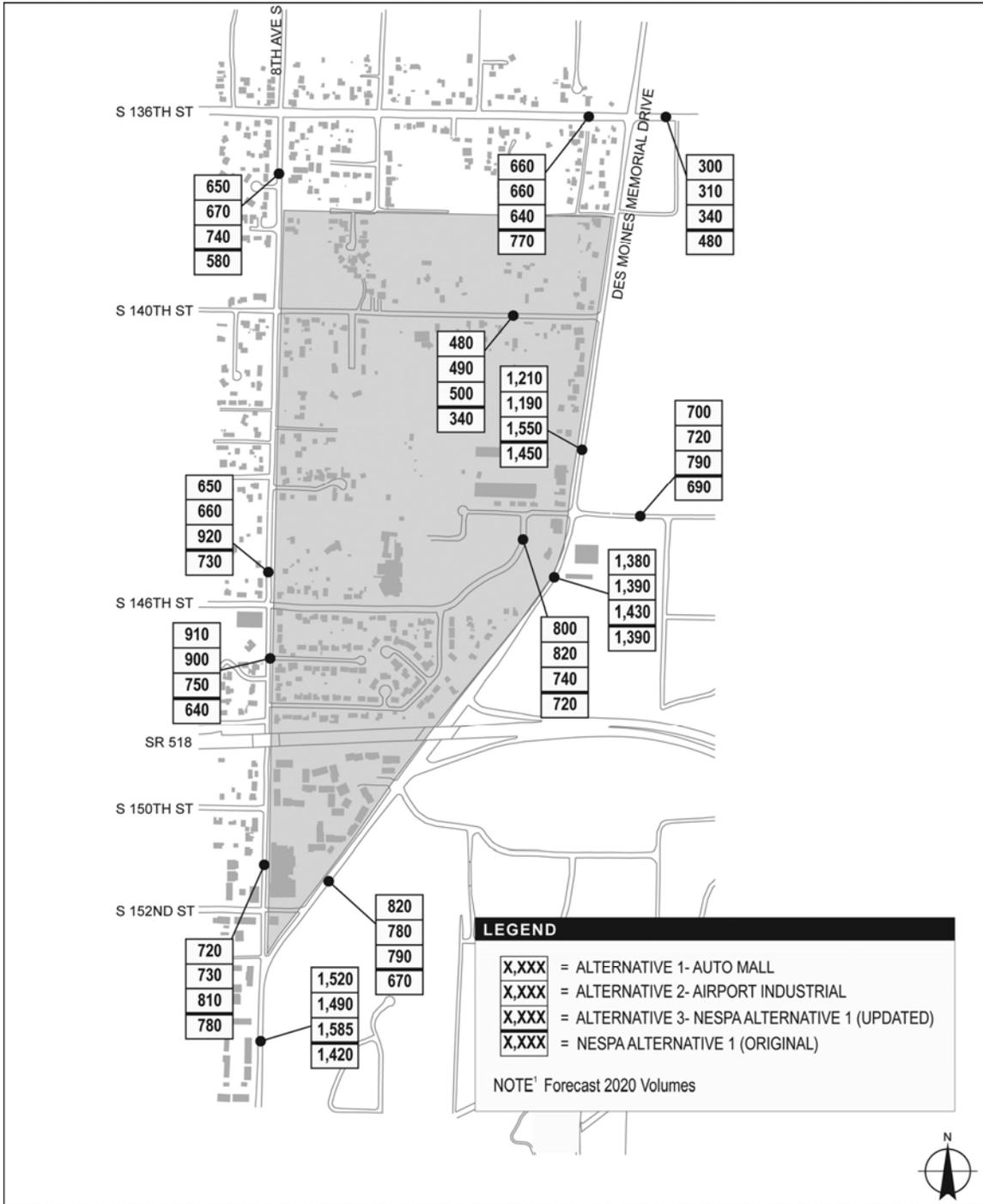
### 3.6.3.2 2020 Travel Forecast Analyses

This section estimates future traffic volumes in the NERA with each of the three land use alternatives. Figure 3.6-1 compares the 2020 PM peak hour, two-way traffic volumes for each of the three alternatives on arterials within the NERA. It also shows the 2020 PM peak hour traffic volume forecasts for the original NESPA Alternative 1 from the 2001 NESPA environmental review which was based on prior area-wide land use assumptions.

Traffic volume forecasts for Alternative 3 generally show an increase in 2020 PM peak hour traffic volumes within the NERA compared to the original NESPA environmental review. This reflects the higher overall background development including the Port of Seattle's 55-acre development. The exception is along South 136th Street which has lower forecasts for Alternative 3 compared to the original NESPA analyses. The decrease in forecast volumes on South 136th Street is related to changes in local access and circulation patterns for the areas east of Des Moines Memorial Drive, consistent with the forecasting process for the North SeaTac Roadway project.

Alternative 3 also has the highest 2020 PM peak hour traffic volume forecasts on Des Moines Memorial Drive in the vicinity of the NERA. This reflects the higher total trip generation from Alternative 3. In addition, the higher volumes result from the assumption of more direct access to Des Moines Memorial Drive under Alternative 3 compared to Alternative 1 or Alternative 2. If the Auto sales land uses were developed as higher trip generation retail land uses, Alternative 1 would result in a somewhat higher traffic volumes than Alternative 2. The higher volume would be most noticeable along streets directly serving the NERA, such as 8<sup>th</sup> Avenue South, South 136<sup>th</sup> Street, South 140<sup>th</sup> Street, and South 144<sup>th</sup>/146<sup>th</sup> Street. The relative change in traffic volumes along Des Moines Memorial Drive would not be as noticeable because of the higher forecast background traffic volumes along that corridor.

Figure 3.6-1. 2020 PM Peak Hour Traffic Forecasts



The following compares the 2020 PM peak hour traffic volume forecasts for the three NERA Alternatives.

- Forecasts for two-way traffic volumes on Des Moines Memorial Drive just north of the South 144th Street intersection range from approximately 1,200 vehicles per hour (vph) to 1,550 vph under the three alternatives. Forecasts for Alternatives 1 and 2 are approximately 250 vph lower than Alternative 3. This difference relates to higher trip generation and more direct access to Des Moines Memorial Drive under Alternative 3.
- Forecasted traffic on Des Moines Memorial Drive, just south of the South 144th Street intersection range from about 1,380 vph to 1,430 vph. The City of SeaTac Transportation Improvement Program includes a project to reconstruct and widen Des Moines Memorial Drive, between South 136th Street and South 156th Street. This would also serve as a connector route to the Port of Seattle's 55-acre development. The project includes the construction of storm drainage, landscaping, bicycle lanes, street lighting, channelization, signal modification, paving, modify the overhead utility lines, and the installation of curb, gutter, and sidewalks (one side). Based on the forecast traffic volumes of the three alternatives, the road widening project would be able to accommodate forecast traffic volumes on Des Moines Memorial Drive.
- Traffic on 8th Avenue South, north of South 146th Street is forecasted to be highest under Alternative 3, with over 900 vph (two-way). This is approximately 250 vph higher than the 2020 forecasts for Alternatives 1 and 2. Specific access drives to the development of adjacent properties could affect the specific forecast volumes. The forecast volumes would be within the capacity of the two-lane arterial which is planned to be reconstructed by the City of Burien (see Table 2.6-4).
- Just south of South 146th Street, traffic forecasts on 8th Avenue South are approximately 150 vph higher under Alternatives 1 and 2 compared to Alternative 3. The forecast volumes for all three alternatives are within the capacity of the roadway.
- Forecast traffic on South 136th Street, between Des Moines Memorial Drive and 8th Avenue South, range from 640 vph to 660 vph. There is little variation in the forecast traffic volumes on South 136th Street between the three alternatives.
- Forecast traffic on South 140th Street, just west of Des Moines Memorial Drive is approximately 500 vph under all three alternatives.
- Forecast traffic on South 144th/146th Street is forecast to be highest under Alternatives 1 and 2. South 144th/146th Street would serve as one of the primary access points that would serve the auto sales and airport industrial land uses. Forecast PM peak hour traffic volumes range from 740 vph to 820 vph.

- South of South 152nd Street, forecast 2020 PM peak hour traffic volumes on Des Moines Memorial Drive range from 1,490 to 1,585 vph. Alternative 3 has the highest traffic volumes at this location, approximately 100 vph (6 percent) higher than Alternative 2.
- Alternative 3 also has slightly higher traffic volume forecasts along 8th Avenue South, south of South 152nd Street.

### 3.6.3.3 Planned Improvements

Table 2.6-4 previously summarized local and regional transportation improvement projects that would affect the NERA. Figure 2.6-3 shows the approximate locations of these planned improvements. These are used in the discussion of the traffic operations analyses.

### 3.6.3.4 Forecast Intersection Traffic Operations

Level of service analyses were conducted for the 2020 traffic forecasts for the 11 NERA intersections. Table 3.6-3 summarizes the 2020 PM peak hour LOS for each of the three land use alternatives based on existing intersection geometry and traffic controls. The LOS for signalized and unsignalized intersections was developed based on the methodologies presented in the *Highway Capacity Manual* (Transportation Research Board, 2000). The LOS for signalized intersections and all-way stops are based on the total average control delay per vehicle for the overall intersection; levels of service for unsignalized intersections are based on the average delay per vehicle for the worst traffic movement, typically a left-turn or through movement from the side street.

The City of Burien's current Comprehensive Plan establishes level of service (LOS) standards for roadways and intersections. Study intersections along 8th Avenue South have a standard of LOS C or better. Most study intersections along Des Moines Memorial Drive are under the City of SeaTac's jurisdiction with an LOS E standard. Level of service standards for the intersections of Des Moines Memorial Drive with the SR 518 on- and off-ramps are established by the state because SR 518 is designated as a Highway of Statewide Significance (HSS). HSS facilities have an LOS D standard within urban areas.

#### Alternative 1

Under 2020 conditions, four intersections are forecast to operate below their LOS standard under Alternative 1. Within the City of Burien, the all-way stop controlled intersection of 8th Avenue South/South 146th Street is forecast to operate at LOS F without improvements, compared to the City's LOS C standard. The unsignalized westbound off-ramp from SR 518 with Des Moines Memorial Drive is also forecast to operate at LOS F, compared to the LOS D standard for HSS facilities. Two unsignalized

intersections along Des Moines Memorial Drive also are forecast to operate at LOS F. These include the intersections of South 140th Street/Des Moines Memorial Drive and 8th Avenue South/Des Moines Memorial Drive, which are under the jurisdiction of the City of SeaTac and which has established an LOS E standard for this minor arterial. The signalized intersection of Des Moines Memorial Drive/South 144th Street is forecast to operate at LOS E by 2020 under Alternative 1. Due to the floor area and trip generation, LOS F conditions could develop at the Des Moines Memorial Drive/South 144<sup>th</sup> Street intersection if all of the Auto sales were to develop as general retail, as discussed above.

#### Alternative 2

Forecast traffic operations for Alternative 2 are similar to those for Alternative 1. The same four intersections forecast to be below adopted LOS standards for Alternative 1 are also forecast to fall below standards under Alternative 2. The signalized intersection of Des Moines Memorial Drive/South 144th Street would operate at LOS E under Alternative 2, similar to Alternative 1.

The intersection of Des Moines Memorial Drive/South 152nd Street is forecast to operate at LOS C under Alternative 2 compared to LOS D under Alternative 1. This improvement is related to the lower trip generation associated with the airport industrial land uses under Alternative 2 for the NERA subarea south of SR 518 compared to the retail land uses assumed for that area under Alternative 1.

#### Alternative 3

Overall forecast 2020 PM peak hour intersection operations for Alternative 3 are also similar to those for Alternatives 1 and 2. In addition to the four intersections forecast to operate below their LOS standards under Alternatives 1 and 2, the unsignalized intersection of 8th Avenue South/South 140th Street within the NERA is also forecast to operate at LOS F under Alternative 3. The LOS F condition is for westbound traffic turning onto southbound 8th Avenue South. This compares to LOS C at this intersection for the other two alternatives. It should be noted that the original NESPA environmental review reported LOS C for this intersection for this land use scenario. The difference in forecast levels of service is related to shifts in traffic assignments for access and circulation with the revised model assumptions.

### 3.6.4 Transportation Projects

Where the forecast LOS at study intersection falls below the appropriate level of service standard, potential improvements were identified. The improvements reflect the transportation plans of the Cities of Burien and SeaTac, and WSDOT. Additional improvements were also identified, if needed, to provide an acceptable LOS. The following describes the 2020 LOS and improvements needed to provide an acceptable LOS. The resulting LOS for intersections with identified improvements are summarized on Table 3.7-4.

#### Des Moines Memorial Drive/8th Avenue South

Under all three alternatives, the intersection of Des Moines Memorial Drive/8th Avenue South is forecast to operate at LOS F conditions. This intersection is located in the City of SeaTac, which requires an LOS E standard. The installation of a traffic signal at this intersection would allow it to operate at LOS B conditions under all three alternatives. With the identified improvement, the intersection would also meet the City's LOS standard if the auto sales areas developed as general, commercial retail. This improvement was also identified as a need in the 2008 North SeaTac Roadways Study.

#### Des Moines Memorial Drive/South 140th Street

Without improvements, the intersection of Des Moines Memorial Drive/South 140th Street is forecast to operate at LOS F conditions under all three alternatives. The poor level of service primarily affects the east-to-north left-turn movement. This intersection is in the City of SeaTac, which requires an LOS E standard. The construction of a continuous two-way left-turn lane on Des Moines Memorial Drive would result in this intersection operating at an acceptable level of service (LOS E or better). This improvement would be consistent with the City of SeaTac's identified roadway improvement project for the corridor. The higher traffic volumes in the NERA generated if the Auto sales areas were to develop as general retail may result in LOS F conditions with the construction of a two-way left-turn lane. A traffic signal may be needed to provide LOS E or better under that scenario.

#### 8th Avenue South/South 146th Street

The intersection of 8th Avenue South/South 146th Street is forecast to operate at LOS F conditions under all three alternatives unless improvements are constructed. This four-way, stopped controlled intersection is located within the City of Burien, which has an LOS C standard for this intersection. The installation of a traffic signal at this intersection would allow it to operate at LOS A or B conditions. The traffic signal would also provide an acceptable level of service if the auto sales areas were to be developed as general commercial retail. Improvements to this intersection would be included in the City of Burien's project to reconstruct 8th Avenue South. As the NERA redevelops, traffic volumes and operations should be monitored to determine when a traffic signal would be warranted. Alternatively, the City could implement other strategies such as directing traffic from the redevelopment areas to the east away from 8th Avenue South, to reduce future levels of congestion at this intersection.

#### Des Moines Memorial Drive/SR 518 Off-Ramp

The intersection of the westbound SR 518 off-ramp with Des Moines Memorial Drive is forecast to operate at LOS F conditions under all three alternatives. The state has established an LOS D standard for HSS facilities in urban areas. The installation of a traffic signal at this intersection would result in LOS A conditions under all three

alternatives. The intersection also would operate at an acceptable level of service if the Auto sales were developed as general commercial retail.

#### 8th Avenue South at South 140th Street

This unsignalized intersection is forecast to operate at LOS F under Alternative 3; LOS C is forecast for Alternatives 1 and 2. Possible improvements include installation of an all-way stop which would result in a forecast LOS C. Alternatively, a two-way left-turn lane could be incorporated at this location as part of the City of Burien's planned project to reconstruct 8th Avenue South. Final decisions on traffic controls and channelization should be made as part of the design and environmental review process for the City of Burien's 8th Avenue South project.

Table 3.6-3: 2020 PM Peak Hour Levels of Service – Without Improvements

Intersection	Agency	Alternative 1 – NERA Auto sales			Alternative 2 – NERA Airport Industrial			Alternative 3 – NESPA Alternative 1 (Updated)		
		LOS <sup>1</sup>	Delay <sup>2</sup>	V/C <sup>3</sup> or WM <sup>4</sup>	LOS	Delay	V/C or WM	LOS	Delay	V/C or WM
Signalized Intersections										
Des Moines Memorial Dr/South 128th St	SeaTac	B	15.8	0.50	B	14.7	0.48	B	15.1	0.47
Des Moines Memorial Dr/South 136th St	SeaTac	A	6.3	0.49	A	6.2	0.47	A	6.3	0.46
Des Moines Memorial Dr/South 144th St	SeaTac	E	68.2	0.90	E	63.2	0.90	E	68.0	0.97
Des Moines Memorial Dr/SR 518 On-Ramp	WSDOT	A	0.1	0.32	A	0.1	0.34	A	0.1	0.40
8 <sup>th</sup> Ave South/South 136th St	Burien	A	9.9	0.61	B	10.4	0.63	B	10.1	0.62
Unsignalized Intersections										
Des Moines Memorial Dr/South 140th St	SeaTac	F	>50.0	EB	F	>50.0	EB	F	>50.0	EB
Des Moines Memorial Dr/SR 518 Off-Ramp	WSDOT	F	>50.0	WBL	F	>50.0	WBL	F	>50.0	WBL
Des Moines Memorial Dr/South 152nd St	SeaTac	D	33.0	EB	C	23.0	EB	D	25.8	EB
Des Moines Memorial Dr/8th Ave S	SeaTac	F	>50.0	SWB	F	>50.0	SWB	F	>50.0	SWB
8th Ave South/South 140th St	Burien	C	16.3	EB	C	16.7	EB	F	>50.0	WB
8th Ave South/South 146th St	Burien	F	>50.0	- <sup>5</sup>	F	>50.0	-	F	>50.0	-

Source: Transpo Group

1. Level of service, based on the 2000 Highway Capacity Manual methodology
2. Average delay in seconds per vehicle
3. Volume-to-capacity ratio reported for signalized intersections
4. Worst movement reported for two-way stop-controlled intersections
5. Not reported for all-way stop-controlled intersections

Table 3.6-4: 2020 PM Peak Hour Levels of Service – With Improvements

Intersection	Agency	Alternative 1 – NERA Auto sales			Alternative 2 – NERA Airport Industrial			Alternative 3 – NESPA Alternative 1 (Updated)		
		LOS <sup>1</sup>	Delay <sup>2</sup>	V/C <sup>3</sup> or WM <sup>4</sup>	LOS	Delay	V/C or WM	LOS	Delay	V/C or WM
Signalized Intersections										
Des Moines Memorial Dr/South 144th St <sup>6</sup>	SeaTac	D	38.1	0.75	B	38.9	0.77	D	45.6	0.87
Des Moines Memorial Dr/SR 518 Off-Ramp <sup>7</sup>	WSDOT	A	9.1	0.56	A	8.8	0.56	A	8.9	0.59
Des Moines Memorial Dr/8th Ave S <sup>8</sup>	SeaTac	B	17.0	0.79	B	15.1	0.75	B	16.2	0.76
8th Ave South/South 146th St <sup>9</sup>	Burien	B	13.6	0.75	B	16.3	0.80	A	9.3	0.60
Unsignalized Intersections										
Des Moines Memorial Dr/South 140th St <sup>10</sup>	SeaTac	D	30.2	EB	D	31.2	EB	E	48.4	EB
8th Ave South/South 140th St <sup>11</sup>	Burien	-	-	-	-	-	-	C	18.0	- <sup>5</sup>

Source: Transpo Group

1. Level of service, based on the 2000 Highway Capacity Manual methodology
2. Average delay in seconds per vehicle
3. Volume-to-capacity ratio reported for signalized intersections
4. Worst movement reported for two-way stop-controlled intersections
5. Not reported for all-way stop-controlled intersections
6. Assumes construction of a westbound left-turn lane and the use of eastbound/westbound protected left-turn phasing identified by the City of SeaTac
7. Assumes installation of a traffic signal
8. Assumes installation of a traffic signal
9. Assumes installation of a traffic signal
10. Assumes construction of a two-way left-turn lane, enabling two-stage gap acceptance
11. Assumes conversion from two-way stop-control to all-way stop-control

## Des Moines Memorial Drive/South 144th Street

This signalized intersection within the City of SeaTac is forecast to operate at LOS E under all three alternatives. This would meet the City of SeaTac's level of service standard. LOS F conditions may be triggered if all of the auto sales areas assumed for Alternative 1 were developed as general retail commercial. The 2008 North SeaTac Roadways Study recommended modifying the intersection to add a west-to-south left-turn lane. This improvement would eliminate the need for the split phasing for east-west traffic on South 144th Street. The North SeaTac Roadways Study also noted that the added turn lane would greatly reduce southbound traffic queues on Des Moines Memorial Drive. This intersection improvement is proposed for inclusion in the City of SeaTac's South 142nd/144th Street roadway project as identified in the City's 2009-2018 Transportation Improvement Program. The additional improvements identified in the North SeaTac Roadway Study should also resolve the potential for LOS F to occur if all of the Auto sales areas were to develop as general retail commercial.

### 3.6.5 Mitigating Measures

To reduce potential significant adverse environmental impacts on transportation (intersection congestion, arterial capacity, and pedestrian and bicycle safety deficiencies), the following mitigating measures should be considered for all three alternatives:

- SR 518 Westbound off-ramp at Des Moines Memorial Drive: Installation of a traffic signal.
- Intersection of Des Moines Memorial Drive at 8th Avenue South: Installation of a traffic signal.
- Intersection of Des Moines Memorial Drive at South 140th Street: Installation of capacity improvements such as a two-way left-turn lane on Des Moines Memorial Drive, which would be consistent with the City of SeaTac's planned improvement. Installation of a traffic signal may be required to accommodate the potential higher trip generation if the Auto sales converted to general retail commercial.
- Des Moines Memorial Drive, between South 136th and South 156th Streets: Roadway widening, including a refuge/merge lane or two-way left turn lane. This project is already included in the City of SeaTac's 2009-2018 Transportation Improvement Program.
- Intersection of 8th Avenue South and South 146th Street: Installation of a traffic signal, when warranted. An alternative would be to further restrict commercial traffic in the NERA from accessing 8th Avenue South. Improvements at this intersection are identified as part of the City of Burien's 8th Avenue South reconstruction project.

- 8th Avenue South: Reconstruction of roadway including installation of pedestrian and bicycle improvements to reduce the impacts of forecasted traffic volumes. This is a City of Burien planned project (see Table 2.6-4). Project also includes improvements at intersections of South 128th Street, South 136th Street, South 140th Street, and South 146th Street.
- Along South 140th Street and South 144th/146th Street within NERA: Installation of pedestrian and bicycle improvements to improve safety with higher levels of development and traffic.
- Develop land use and construction regulations requiring a shared internal road system built to commercial road standards, within NERA. The internal road system should direct traffic from NERA to a limited number of access points on Des Moines Memorial Drive, South 144th/146th Street, and South 140th Street. Direct property access to these arterials should be limited to minimize traffic operation and safety issues.

In addition to the above measures for all three alternatives, installation of all-way stop control should be considered at the intersection of 8th Avenue South/South 140th Street under Alternative 3. An alternative would be to design 8th Avenue South with a center two-way left-turn lane through this intersection. The City also could enhance local access and circulation roadways to direct more traffic to South 144th/146th Street or Des Moines Memorial Drive.

## 3.7 Utilities and Services

### 3.7.1 Water and Sewer

#### 3.7.1.1 Alternative 1

Alternative 1 would potentially result in 1.003 to 1.227 million gsf of commercial/ retail, industrial, and flex-tech businesses that would require water and sewer service. New buildings and site developments would require water hookups to meet typical needs. Some buildings, depending upon type of business housed in them, may require more water than other buildings (for example, an auto sales businesses may require more water than an office building).

Water is provided to the NERA by King County Water District 20 and Water District 125. Both districts would need to be consulted to coordinate water supply and delivery systems to the NERA. Portions of the current distribution system in the NERA may need to be replaced to increase fire flow. Those changes would need to be coordinated with the water districts, which have already identified desired upgrades within the NERA.

Sewer services are provided by the Southwest Suburban Sewer District (SWSSD) and the Valley View Sewer District (VVSD). Uses allowed under Alternative 1 would require the installation of sewage lines throughout major portions of the NERA because the area currently is not served by sewer (see Figure 2.7-3). In addition to new sewage lines, most of the existing lines are 8-inch diameter pipes, although there is an 18-inch interceptor sewer located in the Miller Creek corridor. Although 8-inch diameter pipes are standard for residential use, they likely would not be adequate for commercial and light industrial use. Sewage capacity would have to be increased under Alternative 1, and the two service providers (SWSSD and VVSD) should be consulted early in the development planning process.

The SWSSD states that its treatment plants are adequately sized to accommodate demand through the year 2020, but the district should be consulted as part of future development proposals in the NERA (early in the design process) to verify that there are no capacity problems. The SWSSD's Miller Creek Treatment Plant would treat sewage from the NERA. Based on hydraulic models developed for the SWSSD 2006 Comprehensive Plan, the Miller Creek interceptor has more than sufficient capacity to accommodate future development, based on growth projections for the larger surrounding area from the Puget Sound Regional Council.

Since it is anticipated that sufficient water and sewer capacity would be available to serve Alternative 1, no probable significant adverse impacts to sewer and water utilities would be expected to occur.

#### 3.7.1.2 Alternative 2

Alternative 2 would potentially result in a mixture of retail, industrial, and flex-tech businesses that would require utility service, cover the same general extent as Alternative 1. Alternative 2 would potentially involve as much as approximately 1.359 million gsf of building space. Development under Alternative 2 also would require close coordination with water and sewer districts to assure capacity, although as with Alternative 1, it is anticipated that there would be sufficient capacity to serve the projected use. As such, no probable significant adverse impacts would be expected to occur.

#### 3.7.1.3 Alternative 3

Alternative 3 would involve potential redevelopment to a mix of business park, light industrial, and commercial uses, resulting in approximately 1.733 million gsf of building space, therefore increasing demand on water and sewer services. The demand for service would be higher than under Alternatives 1 and 2, but it is anticipated that there would be sufficient capacity to serve the projected uses, and no probable significant adverse impacts would be expected to occur.

#### 3.7.1.4 Mitigating Measures

No specific mitigating measures are required. Water conservation measures are already present in the existing AI zone design guidelines (BMC 19.48), which encourages the use of drought-tolerant landscaping, use of grey water, and water conservation plumbing fixtures.

### 3.7.2 Electricity

#### 3.7.2.1 Alternative 1

Uses allowed under Alternative 1 would require additional electrical service. The capability of a Seattle City Light (SCL) to serve the electrical demands of an area is largely limited by the capacity of distribution substations. The capacity of the distribution network carrying power to customers from the substation is also a limiting factor. SCL owns property north of Kennedy High School west of SR 509 that it has reserved as the location for a future substation.

The existing power lines have been generally sized for residential uses. Given the limitations of the existing power distribution system, Seattle City Light must be included in the planning and design process of future development projects in the NERA. Ongoing coordination with Seattle City Light will be important so that distribution capacity can be confirmed on a specific project by project basis. Without adequate electrical capacity, redevelopment of the NERA to the extent planned may not be possible.

#### 3.7.2.2 Alternative 2

As discussed for Alternative 1, additional power would be required for development in Alternative 2. The difference between the two alternatives is that the estimated potential square footage of development with Alternative 2 would be approximately 131,000 to 356,000 square feet more than that associated with Alternative 1, thus requiring more electrical service. Without adequate electrical capacity, redevelopment of the NERA to the extent planned may not be possible.

#### 3.7.2.3 Alternative 3

Similar to Alternatives 1 and 2, Alternative 3 would include the potential redevelopment to more intensive uses than the existing uses within the NERA. This would result in an overall increase in demand for electrical service. Alternative 3 would result in the highest square footage of building space at full build-out, and thus, would require more electrical service than the other alternatives. Without adequate electrical capacity, redevelopment of the NERA to the extent planned may not be possible.

### 3.7.2.4 Mitigating Measures

Although no probable significant adverse impacts to electricity would be anticipated under any of the three alternatives, the following actions are suggested.

- Consult with Seattle City Light to coordinate power distribution capacity requirements as part of early development planning activities.
- Develop construction regulations and economic incentives that encourage the use of energy-efficient appliances, fixtures, and systems to minimize the amount of electricity used by future occupants.
- Develop programs that encourage the use of energy-efficient appliances, fixtures, and systems by occupants throughout Burien, especially in areas near the NERA, to decrease electricity demand by existing customers, in order to potentially mitigate or delay costly infrastructure upgrades.

### 3.7.3 Solid Waste, Natural Gas, Telecommunications

#### 3.7.3.1 Alternative 1

Under Alternative 1, the proposed development would require additional solid waste service. This would be provided by solid waste private sector companies. The company that currently provides this service in the vicinity of the NERA is Waste Management, Inc.

Natural gas likely would be required by some of the businesses that would locate within the NERA. The current 2-inch natural gas lines that serve the NERA would provide distribution service to future businesses. Puget Sound Energy should be consulted early during the planning and design process to determine if additional service is needed depending on the type of business proposed, and how to best serve future uses.

The telecommunications infrastructure network in the area should be adequate to serve most conventional business needs. Businesses requiring telecommunications connections that are faster than conventional high speed internet or that require a larger volume than what is currently available would need to coordinate with the relevant telecommunications providers. This may require installation of additional infrastructure. For example certain new high technology or light industrial uses may require additional fiber-optic lines or other communications services.

No probable significant adverse impacts would be expected to solid waste, natural gas, and telecommunications services.

### 3.7.3.2 Alternative 2

Alternative 2 would have a similar demand for solid waste, natural gas, and telecommunications services as Alternative 1. As with Alternative 1, no probable significant adverse impacts would be expected under Alternative 2.

### 3.7.3.3 Alternative 3

Alternative 3 would include the potential redevelopment to more intensive uses and therefore would result in an overall increase in demand for solid waste, natural gas and telecommunications services. As under the other alternatives, it is anticipated that there will be sufficient capacity to serve the new customers under Alternative 3, and as such, no probable significant adverse impacts would occur.

### 3.7.3.4 Mitigating Measures

There are no probable significant adverse environmental impacts that require mitigating measures.

## 3.8 Stormwater Drainage

### 3.8.1 Alternative 1

Development and redevelopment associated with Alternative 1 would result in an increase in impervious surface areas, which would contribute to the increase in stormwater runoff. The additional runoff would contribute to peak flows and flow durations into Miller Creek, and thus could create greater flooding problems and stream degradation if not properly mitigated through compliance with adopted City regulations. For the purposes of determining maximum impacts, it was assumed that in Alternative 1, full redevelopment and build-out of approximately 137 of the 158-acre NERA. (Critical areas such as the Miller Creek corridor, associated wetlands, and buffers are not included in the 137 acres.)

New development must comply with City storm drainage regulations, specifically the King County Surface Water Design Manual (Manual) as adopted by the City. Each individual development under Alternative 1 would trigger a full drainage review as outlined in the Manual, which includes compliance with eight core requirements and five special requirements (see Mitigating Measures below). Stormwater improvements, including water quality and detention facilities, would be required as a part of site development in compliance with adopted regulations. Although redevelopment associated with Alternative 1 would potentially have impacts on stormwater drainage that would be mitigated by proper site development, the proposed redevelopment could also provide opportunities to improve localized and general drainage conditions in the NERA.

A regional stormwater management facility is proposed adjacent to the Miller Creek corridor under Alternatives 1 and 2. The regional stormwater facility would provide a systematic opportunity for managing stormwater from adjacent developments and enhancing the natural environment of the creek corridor. Development of the regional facility would reduce the demand for onsite stormwater detention facilities in the individual developments in the NERA, thereby reducing costs of site development. The regional facility could be designed to cover flow control and water quality facilities, but it would be anticipated that each individual development project in the NERA would still be required to complete a drainage review to determine which core and special requirements of the Manual apply, as well as which flow control best management practices to provide.

To fulfill the water quality and flow control requirements (the flow control facilities portion, not flow control best management practices) for the NERA, the regional facility could be designed to provide detention and wetpool facilities. It is assumed that these facilities would also collect and treat roadway runoff from within and surrounding the NERA as necessary. A combined detention and wetpool configuration should be considered as it would allow for water quality facilities to be placed beneath the detention facility without increasing the facility surface area. It is assumed that the live storage component of the facility would be above the seasonal high water table. The detention and wetpool facility would be integrated into an open space and passive recreation area along the Miller Creek drainage system. Development of the regional facility would need to consider either avoidance of or integration of wetland areas along the creek so that these critical areas would not be impacted, but rather enhanced by the project.

The regional stormwater management facility is not yet funded for construction, but the City will be working with the Port of Seattle and other partners to pursue funding sources. The City is also proposing to adopt a zoning incentive that allows increased impervious surface area for property developers who contribute to the cost of the regional stormwater management facility. See Appendix B for AI and PR development regulations.

No probable significant adverse impacts to stormwater drainage would be anticipated under Alternative 1 since development would be required to comply with City regulations and design standards.

### 3.8.2 Alternative 2

Alternative 2 would bring a similar level of potential impacts as discussed under Alternative 1 above, which would be mitigated by existing site development regulations. Although more building square footage would occur under Alternative 2 than under Alternative 1, the overall level of site development at build-out is expected to be similar between the two alternatives. As under Alternative 1, no probable significant adverse impacts to stormwater drainage would be anticipated under Alternative 2.

### 3.8.3 Alternative 3

Alternative 3, the No Action Alternative, would also require storm drainage improvements to serve potential redevelopment. While redevelopment under Alternative 3 would involve more building square footage than under the other alternatives, the overall extent of site development would be similar. Stormwater improvements would need to be taken care of on an individual property basis as Alternative 3 does not include a regional stormwater management facility, No probable significant adverse impacts would be expected under Alternative 3.

### 3.8.4 Mitigating Measures

Adopted City regulations related to stormwater management and site development are adequate to mitigate any probable adverse significant impacts to stormwater resources as a result of any of the alternatives. The standard City review process of new developments in the NERA would ensure that properties have proper drainage controls to prevent significant impacts downstream to the Miller Creek drainage system.

With regard to the proposed regional stormwater management facility, the City of Burien should work with the Port of Seattle and other property owners in the NERA to move this project forward. The project would help to establish important infrastructure to serve future redevelopment and potentially would reduce the costs of individual site developments in the NERA.

The City of Burien should adopt the proposed zoning incentive allowing an additional 10 percent of impervious surface area in the AI zone through participation in the development of the regional stormwater management facility.

## 3.9 Noise

### 3.9.1 Alternative 1

The developments under Alternative 1 would generate both construction and operational noise to varying degrees. Construction noise could result from equipment associated with construction activities such as grading, paving and handling of materials, as well as from construction-related truck traffic, back-up alarms and pile driving. Construction noise between 10:00 P.M. and 7:00 A.M. on weekdays and between 10:00 p.m. and 9:00 a.m. on weekends is considered a public disturbance [BMC 9.105.400(2)(h)].

Operational noise would be generated by sources such as vehicles driven by employees, business related vehicles and noise associated with business activities. The potentially most disturbing operational noise impacts to neighbors would be from waste disposal trucks and delivery vehicles that would be needed for businesses such as light manufacturing, airport-related services, and to a lesser extent, office parks. Additionally,

with Alternative 1 noise may occur from new auto sales/auto-mall activities (loud speakers, etc.) However, this would be managed by development regulations and mitigated by City of Burien code regulations. With Alternative 1, the potentially noisiest businesses would be located, for the most part, away from the residential areas west and north of the NERA by either location or buffered from natural features (Miller Creek and the existing topography, which benches down in elevation from the higher elevation of the residential areas to the west and north). Proposed AI zoning regulations would require a larger landscape buffer separating non-residential from residential uses in the northern portion of the NERA.

Another factor that would help to reduce the significance of noise potentially generated from proposed uses within the NERA is the fact the NERA is already impacted by noise from Sea-Tac Airport operations. In addition, many of the residences in and near the NERA have had sound attenuation work done on their homes by the Port to reduce noise associated with the airport. The noise attenuation work and noise generated by the airport would even further reduce the likelihood that noise associated with potential businesses located in the NERA would disturb neighbors.

Given these conditions, no probable significant adverse impacts related to noise would be expected to occur as a result of Alternative 1 redevelopment activities.

### 3.9.2 Alternative 2

Alternative 2 would likely have similar conditions related to noise as those described under Alternative 1. Under Alternative 2, no primary commercial/retail uses, such as auto sales would be allowed. As in Alternative 1, the potentially noisiest businesses would be located, for the most part, away from the residential areas west and north of the NERA and buffered by natural features (Miller Creek and existing topography). Proposed AI zoning regulations would require a larger landscape buffer separating non-residential from residential uses in the northern portion of the NERA. As under Alternative 1, no probable significant adverse impacts related to noise would be expected to occur as a result of Alternative 2 redevelopment activities.

### 3.9.3 Alternative 3

With Alternative 3, more intensive development may occur in the western areas of the NERA, therefore increasing potential noise related to construction and operations adjacent to residential properties located west of 8<sup>th</sup> Avenue South. Under Alternative 3, there are City regulations in place to minimize the noise impacts of construction and operational uses. Given these regulations no probable significant adverse impacts would be expected as a result of Alternative 3 redevelopment.

### 3.9.4 Mitigating Measures

There are no new probable significant adverse environmental impacts that require mitigating measures. Additionally, existing City regulations in place regulate noise associated with construction and operational sources.

## 3.10 Light and Glare

### 3.10.1 Alternative 1

Any exterior lighting and potentially glare-producing materials associated with development inside the RPZ and ATZ would have to meet FAA regulations. New development would require exterior lights for buildings, streets, walks, parking lots and vehicle service and storage yards. Glare could be caused by reflected sunlight from windows, parked vehicles and building materials. The potential amount of light and glare produced with Alternative 1 would be more than under current conditions as a result of more building mass and the proposed auto sales use, which would bring more car parking. However, no probable significant adverse impacts would be expected because light and glare would be mitigated by City regulations requiring screening and buffering through setbacks and landscaping. Additionally the proposed area for more intensive development in the AI zone is southeast and downhill from surrounding residential areas. Much of the potential light and glare would be screened from neighbors by topography and existing trees and vegetation in the vicinity. Lastly, the City is proposing to adopt specific development standards for the AI zone that include measures to minimize light and glare with redevelopment.

### 3.10.2 Alternative 2

The potential level of light and glare that would occur under Alternative 2 would be similar to that described for Alternative 1 above. Although auto sales are not proposed, larger masses of buildings would occur under Alternative 2 that may require larger parking areas. However, no probable significant adverse impacts would be expected because light and glare would be mitigated by City regulation and development standards.

### 3.10.3 Alternative 3

The potential level of light and glare created under Alternative 3 would be similar to that described for Alternatives 1 and 2 above, but no probable significant adverse impacts would occur given adopted City regulations and development standards that are in place for the SPA-4 designation.

#### 3.10.4 Mitigating Measures

Mitigating measures related to light and glare are covered in existing City regulations, including BMC 19.48 and development standards (proposed for the AI and already adopted for the SPA-4 zoning designations).

## Chapter 4: References

- Brinson, M. M. 1993. *A hydrogeomorphic classification for wetlands*. Technical Report WRP-DE-4, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. NTIS No. AD A270 053.
- CHS Engineers, Inc. 2004. King County Water District No. 20 2004 Comprehensive Water System Plan. Prepared for King County Water District No. 20. March 2004.
- CHS Engineers, Inc. 2006. 2006 Comprehensive Sewer Plan Update. Prepared for Southwest Suburban Sewer District. October 2006.
- CHS Engineers, LLC. 2007. Southwest Suburban Sewer District System Map. October 2007.
- City of Burien. 2007. The Comprehensive Plan for the City of Burien. December 2007 (as amended through December, 2008).
- City of Burien. 2005. Pedestrian and Bicycles Facilities Plan.
- City of Burien. 2003. Burien Municipal Code Chapter 19.15.070 SPA-4 Zoning. January 2003 (as amended through December 2007).
- City of Burien. 2003. Burien Municipal Code Chapter 19.40 Critical Areas. January 2003 (as amended through October 2003).
- City of Burien. 2009 Adopted Budget
- City of SeaTac. 2009-2018 Transportation Improvement Program
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. U.S. Fish and Wildlife Service Publication FWS/OBS-79/31, Washington, D.C.
- EDAW. 2002. Northeast Special Planning Area Final Supplemental Environmental Impact Statement (Final SEIS). Prepared for City of Burien. November 2002.
- HNTB April 2008. North SeaTac Roadways Study, Traffic Operations Report.
- Hruby, T. 2004. *Washington State Wetland Rating System for Western Washington*. Washington State Department of Ecology Publication No. 04-06-025. Olympia, Washington.
- King County. 2006. *Miller and Walker Creek Basin Plan*. Prepared by King County Department of Natural Resources, City of Burien, City of Normandy Park, City of SeaTac, Port of Seattle, and Washington Department of Transportation.
- King County. 2009. King County Water and Land Services Webpage. <http://www.kingcounty.gov/environment/waterandland.aspx>. May 2009.

- King County. 2009. Surface Water Design Manual 2009. King County Department of Natural Resources and Parks.
- Otak. 2008. Burien Northeast Redevelopment Area—Critical Areas Study. Otak, Inc., Kirkland, Washington.
- Otak, Inc. 2009. *DRAFT* NERA Redevelopment Plan and Implementation Strategy. Prepared for City of Burien and Port of Seattle.
- Parsons Brinckerhoff. 2002. Route Development Plan. SR 518 RDP/EA. Prepared for Washington State Department of Transportation. June 2002.
- Pace Engineers, Inc. 2008. 2008 Comprehensive Sewer System Plan. Prepared for Valley View Sewer District. November 2007.
- Pace Engineers, Inc. 2009. E-Mail Communications from Dave Hutley on behalf of King County Water District No. 125, May 8, 2009
- Pace Engineers, Inc. 2008. As-Built Construction Plans, S 146<sup>th</sup> Street Transmission Main Replacement. September 2008.
- Seattle Public Utilities. 2009. Seattle Public Utilities Webpage. [http://www.ci.seattle.wa.us/util/About\\_SPU/Water\\_System/](http://www.ci.seattle.wa.us/util/About_SPU/Water_System/). May 2009.
- Transportation Research Board. Highway Capacity Manual, Special Report 209, 2000.
- WDNR (Washington Department of Natural Resources). Letter from Sandy Swope Moody, Environmental Review Coordinator, WDNR. September 7, 2001.
- WDNR. 2009. Washington Department of Natural Resources, Natural Heritage Program listing of rare plants and high quality plant communities in the NERA. Obtained from website: <http://www1.dnr.wa.gov/nhp/refdesk/search.html>
- WDFW. 2009. Priority habitat and species map for the project site. Washington Department of Fish and Wildlife, Olympia, Washington.

## **Appendix A – Types of Land Uses Allowed by the Federal Aviation Administration**

**Appendix A – Land Uses Permitted by FAA in the Runway Protection Zone (RPZ) and the Approach Transition Zone (ATZ) For Land Purchased by the Port of Seattle**

Land Use Type	RPZ			ATZ		Outside of RPZ & ATZ
	OFA <sup>1</sup>	XOFA <sup>2</sup>	CAA <sup>3</sup>	XXOFA <sup>4</sup>	ATZ <sup>5</sup>	
General Office Building <sup>6</sup>	□	□	□	□	■	■
Corporate Headquarters Building <sup>6</sup>	□	□	□	□	■	■
Single-Tenant Office Building <sup>6</sup>	□	□	□	□	■	■
Office Park <sup>6</sup>	□	□	□	□	■	■
Research and Development Center <sup>6</sup>	□	□	□	□	■	■
Business Park <sup>6</sup>	□	□	□	□	■	■
Park and Ride, employee & general parking	□	□	▲	□	■	■
Recreation (passive open space) <sup>7, 8</sup>	□	▲	▲	▲	■	■
Construction Laydown Area <sup>9</sup>	□	□	□	□	■	■
General Light Industrial <sup>6</sup>	□	□	□	□	■	■
Industrial Park <sup>6</sup>	□	□	□	□	■	■
Manufacturing <sup>6</sup>	□	□	□	□	■	■
General Industrial <sup>6</sup>	□	□	□	□	■	■
Warehousing <sup>6</sup>	□	□	□	□	■	■
New Car Sales	□	□	□	□	□	■
Convenience Market	□	□	□	□	□	■
Restaurant	□	□	□	□	□	■

- Not Permitted
- Permitted
- ▲ May be permitted

*Notes-see next page*

**Appendix A (cont.) – Land Uses Permitted by FAA in the Runway Protection Zone (RPZ) and the Approach Transition Zone (ATZ) For Land Purchased by the Port of Seattle—Notes**

1. OFA: Runway Object Free Area.
2. XOFA: Extended Object Free Area of RPZ. Structures not allowed in XOFA.
3. CAA: Controlled Activity Area. Structures not allowed in CAA.
4. XXOFA: Double Extended Object Free Area of ATZ. Structures not allowed in XXOFA zone if land purchased using Federal funds.
5. ATZ (outside of XXOFA): Compatible land uses related to aviation and airport needs allowed if lands purchased using Federal funds.
6. Businesses must be “Aviation related” if land purchased with Federal funds. Businesses do not need to be “Aviation related” if land purchased with non-Federal or private funds.
7. Active recreation facilities, such as ball fields are not allowed anywhere in the RPZ or XXOFA.
8. The FAA may consider trails places of public assembly and forbid them in the XOFA, CAA and XXOFA.
9. Temporary use in CAA and XXOFA allowed.

## **Appendix B – Alternatives 1 and 2: Proposed Comprehensive Plan and Zoning Amendments**

## **ALTERNATIVE 1: Proposed Comprehensive Plan Amendments**

Replace existing Policy SE 1.5 with the following:

### **Comprehensive Plan Policy SE 1.5**

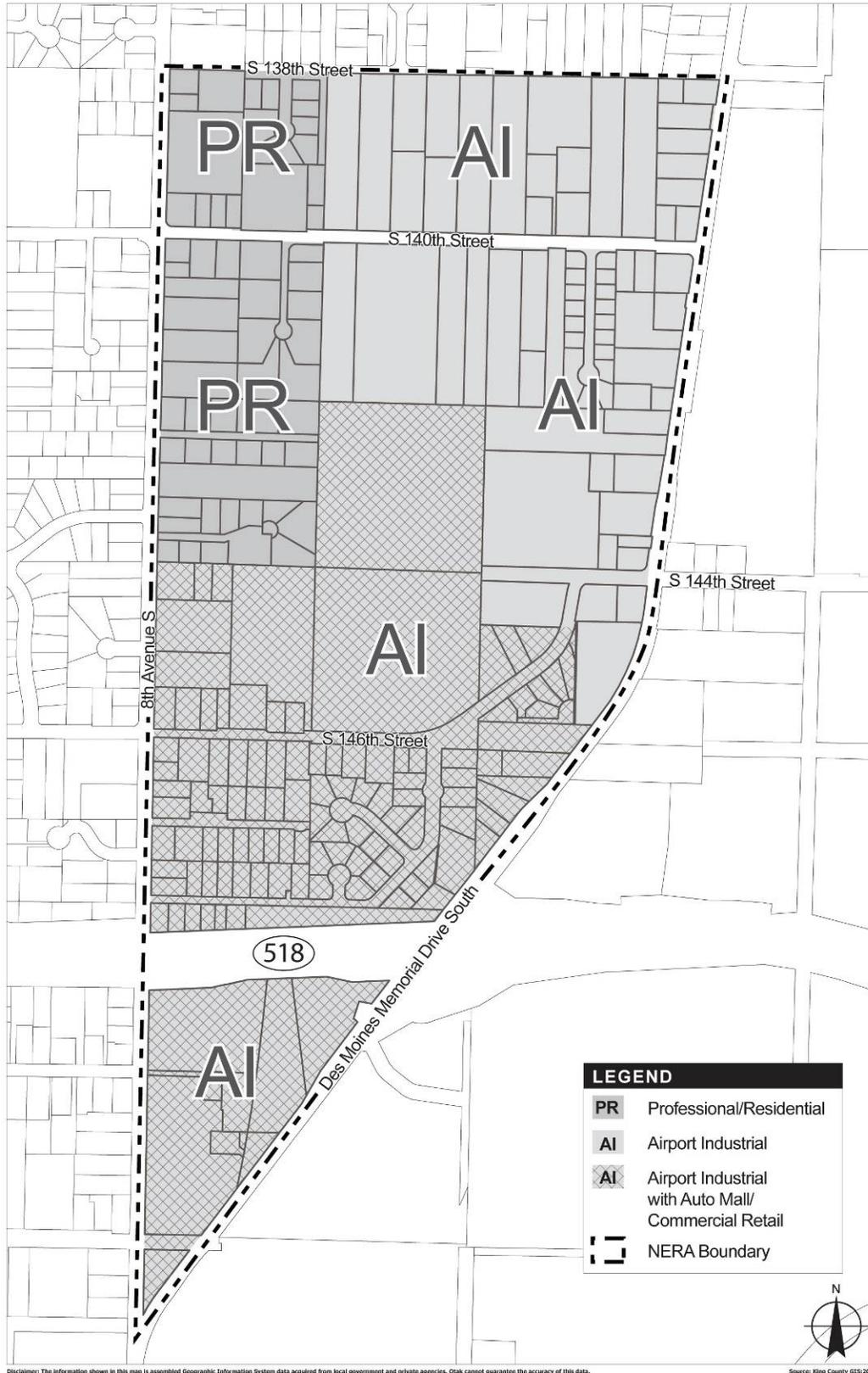
The Northeast Redevelopment Area (NERA) is an approximately 158 acre area located in the northeastern part of Burien that has been affected by SeaTac International Airport operations (see Figure 2-SE1). The NERA provides near and long term opportunities for economic development.

**Allowed Uses and Description:** The NERA has been divided into two land use designations: Airport Industrial (AI) and Professional Residential (PR).

*Airport Industrial:* The purpose of this designation is to facilitate economic development and provide flexibility for airport-compatible uses in a campus-like setting with internal circulation to minimize the number of access points to Des Moines Memorial Drive. Allowed uses include, but are not limited to flex-tech, professional offices, light manufacturing, production, processing and distribution-related businesses; warehousing, utilities, retail, and new car auto sales developed in an auto mall configuration in designated locations. New residential uses are not allowed.

*Professional Residential:* The purpose of this designation is to provide flexibility by allowing both single-family homes and small businesses in an area near but not directly under SeaTac International Airport's third runway. Allowed uses include, but are not limited to moderate density residential, small office, small scale retail, art studios, and other similar uses that would be compatible with single-family homes.

Figure 2-SE1: Northeast Redevelopment Area (NERA)



## **ALTERNATIVE 2: Proposed Comprehensive Plan Amendments**

Replace existing Policy SE 1.5 with the following:

### **Comprehensive Plan Policy SE 1.5**

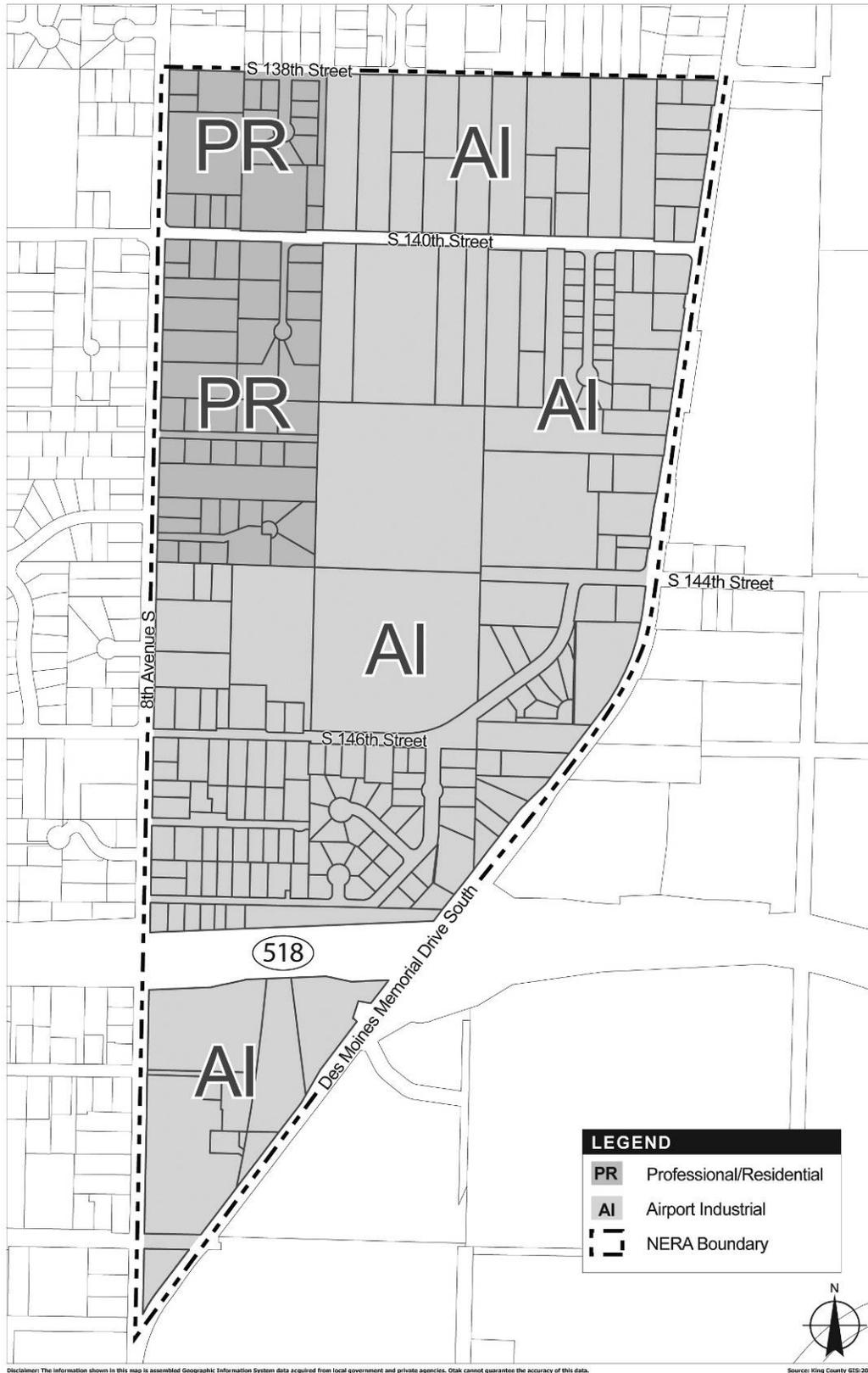
The Northeast Redevelopment Area (NERA) is an approximately 158 acre area located in the northeastern part of Burien that has been affected by SeaTac International Airport operations (see Figure 2-SE1). The NERA provides near and long term opportunities for economic development.

**Allowed Uses and Description:** The NERA has been divided into two land use designations: Airport Industrial (AI) and Professional Residential (PR).

*Airport Industrial:* The purpose of this designation is to facilitate economic development and provide flexibility for airport-compatible uses in a campus-like setting with internal circulation to minimize the number of access points to Des Moines Memorial Drive. Allowed uses include, but are not limited to flex-tech, professional offices, light manufacturing, production, processing and distribution-related businesses; warehousing, utilities and accessory retail to support the business park uses. New residential uses are not allowed.

*Professional Residential:* The purpose of this designation is to provide flexibility by allowing both single-family homes and small businesses in an area near but not directly under SeaTac International Airport's third runway. Allowed uses include, but are not limited to moderate density residential, small office, small scale retail, art studios, and other similar uses that would be compatible with single-family homes.

Figure 2-SE1: Northeast Redevelopment Area (NERA)





## Section 19.15.070—Airport Industrial—ALTERNATIVE 1

**PURPOSE AND INTENT:** The Airport Industrial (AI) zone implements the Airport Industrial Comprehensive Plan designation. The purpose and intent of this designation is to facilitate economic development and provide flexibility for airport-compatible uses in a campus-like setting with internal circulation to minimize the number of access points to Des Moines Memorial Drive.

**ONLY THOSE USES LISTED ON THE FOLLOWING USE ZONE CHARTS MAY BE ALLOWED IN THE AI ZONE, SUBJECT TO MEETING ALL APPLICABLE REQUIREMENTS OF THE ZONING CODE. THE FOLLOWING SPECIAL REGULATIONS APPLY TO ALL USES IN THE AI ZONE. BE SURE TO CHECK THE APPLICABLE USE ZONE CHART FOR ADDITIONAL REQUIREMENTS THAT PERTAIN TO SPECIFIC USES. WHERE A SPECIAL REGULATION BELOW CONFLICTS WITH A SPECIAL REGULATION IN A USE ZONE CHART FOR A SPECIFIC USE, THE USE ZONE CHART SHALL APPLY.**

### 19.15.070.1: SPECIAL REGULATIONS:

#### A. GENERAL.

- i. Use and development within this zone may be affected by *FAA* regulations associated with SeaTac Airport operations.
- ii. Uses shall conform with the following requirements (excluding reasonable construction activity):
  - a. Does not emit significant quantities of dust, dirt, cinders, smoke, gases, fumes, odors or vapors into the atmosphere.
  - b. Does not emit any liquid or solid wastes or other matter into any stream, wetland, or other waterway.
  - c. Does not emit radiation or discharges glare or heat, or emits electromagnetic, microwave, ultrasonic, laser or other radiation levels over what is considered safe by the *FCC*.
  - d. Does not emit radiation or discharges glare or heat, or emits electromagnetic, microwave, ultrasonic, laser or other radiation levels that would adversely impact electronic equipment of residences or businesses outside of the boundaries of the property the business is located.
  - e. Does not use heavy trucking as a principal use, such as truck terminals or heavy truck repair.
  - f. Does not produce excessive noise or ground vibration perceptible without instruments at any point exterior to any *lot*.
  - g. Is not considered an aviation hazard as defined in State and Federal law.

h. Does not use high intensity lighting or make it difficult for pilots to distinguish between airport lights and others; create electrical interference with navigational signals or radio communication between the airport and aircraft; result in glare in the eyes of pilots using the airport; create reflectivity that interferes with airport radar function; create smoke, dust or other particulates that would impair visibility for aircraft; allow the storage of highly flammable or explosive materials, create bird-strike hazards; or otherwise create a hazard which may in any way endanger the landing, takeoff, or maneuvering of aircraft intending to use the airport.

B. DESIGN STANDARDS. Development within the AI zone is subject to compliance with the design standards in BMC 19.48.

C. BUILDING HEIGHT. No *structure* shall be permitted to be erected, altered or maintained that would constitute a hazard to air navigation, encroach into the limits of the *FAA Part 77* imaginary surfaces, or cause an increase in minimum flight or approach procedure altitudes as determined by the *FAA*. An additional 12 feet of *height* is allowed for under-*building* or underground parking. A written certification of *height* compliance from the *FAA* may be required.

D. TRANSPORTATION IMPACT MITIGATION. In addition to providing *street* improvements on adjacent *streets* pursuant to BMC 12.05, the City may require *off-site improvements* necessary to mitigate transportation impacts of the proposal as part of the Supplemental Environmental Impact Statement for the Northeast Redevelopment Area dated \_\_\_\_\_, SEPA planned action or other SEPA review under BMC Title 14. Transportation impact fees also apply pursuant to BMC 19.35.

E. IMPERVIOUS SURFACE COVERAGE.

- i. The maximum allowable impervious surface coverage is 85%. This can be increased up to 95% through participation in the cost of creating regional storm management facilities in the NERA. The formula for cost sharing is \_\_\_\_\_. (to be determined)
- ii. Public pedestrian and non-motorized facilities are excluded from *impervious surface coverage*.
- iii. The City will give credit for low impact development techniques such as but not limited to pervious pavement and green roofs. The amount of credit shall be determined by the Public Works Director.

F. RESIDENTIAL USES. Existing residential uses may continue to exist pursuant to the standards located in BMC 19.55. New residential uses are prohibited.

**DIRECTIONS: FIRST, read down to find use...THEN, across for REGULATIONS**

<div style="border: 1px solid black; padding: 5px; text-align: center;"> <b>AI Zone</b> </div> USE ↓	↓ REGULATIONS	MINIMUMS		MAXIMUMS			Landscape Category (See Ch. 19.25)	Minimum Required Parking Spaces (See Ch. 19.20)	Special Regulations (See also Section 19.15.070.1 and Miscellaneous Use, Development and Performance Standards Ch. 19.17)		
		Special Review Process (See Ch. 19.65)	Lot Area	SETBACKS		Lot Coverage				Building Height	
				Front Setback	Interior Setback	Building Coverage					Impervious Surface Coverage
19.15.070.2 Air Cargo Facility  Distribution  <i>Eating and Drinking                      Establishment</i>  <i>Flex-Industrial</i>  <i>Flex-Tech</i>  Flight Kitchen  <i>Light Industry</i>  Office  <i>Off-Site Commercial                      Parking</i>  Plant Nursery  <i>Retail</i>  <i>Warehousing and                      Wholesale Trade</i>	None	None	10'	10'	None	See BMC 19.15.07 0.1.E.	45' See BMC 19.15.070. 1	F	See Section 19.20.030.2.		
19.15.070.3 New Car Auto Dealer  Auto Rental	None	None	10'	10'	None	See BMC 19.15.07 0.1.E.	45' See BMC 19.15.070. 1	F	See Section 19.20.030.2.	1 Sales of used vehicles and service facilities are only allowed as an accessory use.	

**DIRECTIONS: FIRST, read down to find use...THEN, across for REGULATIONS**

<div style="border: 1px solid black; padding: 5px; display: inline-block; text-align: center;"> <b>AI Zone</b> </div> USE ↓	↓ REGULATIONS	Special Review Process (See Ch. 19.65)	MINIMUMS		MAXIMUMS			Landscape Category (See Ch. 19.25)	Minimum Required Parking Spaces (See Ch. 19.20)	Special Regulations (See also Section 19.15.070.1 and Miscellaneous Use, Development and Performance Standards Ch. 19.17)	
			Lot Area	SETBACKS		Lot Coverage					Building Height
				Front Setback	Interior Setback	Building Coverage	Impervious Surface Coverage				
19.15.070.4 <i>Community Facility</i>  <i>Government Facility</i>  <i>Public Park and Recreation Facilities</i>  <i>Recreational Facility</i>  <i>Religious Facility</i>	None	None	10'	10'	None	See BMC 19.15.07 0.1.E.	45' See BMC 19.15.070. 1	F	See Section 19.20.030.2.		
19.15.070.5 <i>Public Utility</i>	Type 1	None	10'	10'	None	See BMC 19.15.07 0.1.E.	45' See BMC 19.15.070. 1	F	See Section 19.20.030.2.	1. Shall be designed, located, constructed and buffered to blend in with their surroundings and minimize adverse impacts on adjacent properties. Special attention shall be given to minimizing noise, light and glare impacts.	
19.15.070.6 On-site hazardous waste treatment and storage facility  Off-site hazardous waste treatment and storage facility	Type 2	None	10'	10'	None	See BMC 19.15.07 0.1.E.	45' See BMC 19.15.070. 1	F	See Section 19.20.030.2.	1. These uses are required to conduct an environmental review and mitigate all impacts.  2. Must comply with the state siting criteria adopted in accordance with RCW 70.105.210.	
19.15.070.7 Essential Public Facility	Type 1	None	10'	10'	None	See BMC 19.15.07 0.1.E.	45' See BMC 19.15.070. 1	F	See Section 19.20.030.2.	1. Shall be designed, located, constructed and buffered to blend in with their surroundings and minimize adverse impacts on adjacent properties. Special attention shall be given to minimizing noise, light and glare impacts.  2. Shall comply with criteria for siting found in the Burien Comprehensive Plan.	

**DIRECTIONS: FIRST, read down to find use...THEN, across for REGULATIONS**

<div style="border: 2px solid black; padding: 5px; text-align: center; width: 60px; margin: 0 auto;"> <b>AI Zone</b> </div> <p align="center">USE ↓</p>	REGULATIONS ↓	MINIMUMS		MAXIMUMS			Landscape Category (See Ch. 19.25)	Minimum Required Parking Spaces (See Ch. 19.20)	Special Regulations (See also Section 19.15.070.1 and Miscellaneous Use, Development and Performance Standards Ch. 19.17)		
		Special Review Process (See Ch. 19.65)	Lot Area	SETBACKS		Lot Coverage				Building Height	
				Front Setback	Interior Setback	Building Coverage					Impervious Surface Coverage

19.15.070.8 Any use not listed in the use column of any use zone chart	Type 2	Development standards shall be determined on a case-by-case basis through the Type 2 review process.							1. The proposed use shall be compatible with <i>adjoining</i> uses. 2. The facility shall be designed, located, constructed and buffered to blend in with its surroundings and mitigate all adverse impacts on <i>adjoining</i> properties and the community. Special attention shall be given to minimizing noise, light, and glare impacts.
19.15.070.9 <i>Adult Entertainment Facility</i>	Type 2	None	10'	10'	None	See BMC 19.15.07 0.1.E.	45' See BMC 19.15.070. 1	F	See Section 19.20.030.2.  1. See Sec. 19.17.030 for additional requirements.
19.15.070.10 <i>Secure Community Transition Facility</i>	Type 2	See Section 19.17.110							
19.15.070.11 <i>Personal Wireless Service Facility</i>	See BMC 19.50 for specific requirements.								



## Section 19.15.070—Airport Industrial—ALTERNATIVE 2

**PURPOSE AND INTENT:** The Airport Industrial (AI) zone implements the Airport Industrial Comprehensive Plan designation. The purpose and intent of this designation is to facilitate economic development and provide flexibility for airport-compatible uses in a campus-like setting with internal circulation to minimize the number of access points to Des Moines Memorial Drive.

**ONLY THOSE USES LISTED ON THE FOLLOWING USE ZONE CHARTS MAY BE ALLOWED IN THE AI ZONE, SUBJECT TO MEETING ALL APPLICABLE REQUIREMENTS OF THE ZONING CODE. THE FOLLOWING SPECIAL REGULATIONS APPLY TO ALL USES IN THE AI ZONE. BE SURE TO CHECK THE APPLICABLE USE ZONE CHART FOR ADDITIONAL REQUIREMENTS THAT PERTAIN TO SPECIFIC USES. WHERE A SPECIAL REGULATION BELOW CONFLICTS WITH A SPECIAL REGULATION IN A USE ZONE CHART FOR A SPECIFIC USE, THE USE ZONE CHART SHALL APPLY.**

### 19.15.070.1: SPECIAL REGULATIONS:

#### A. GENERAL.

- i. Use and development within this zone may be affected by *FAA* regulations associated with SeaTac Airport operations.
- ii. Uses shall conform with the following requirements (excluding reasonable construction activity):
  - a. Does not emit significant quantities of dust, dirt, cinders, smoke, gases, fumes, odors or vapors into the atmosphere.
  - b. Does not emit any liquid or solid wastes or other matter into any stream, wetland, or other waterway.
  - c. Does not emit radiation or discharges glare or heat, or emits electromagnetic, microwave, ultrasonic, laser or other radiation levels over what is considered safe by the *FCC*.
  - d. Does not emit radiation or discharges glare or heat, or emits electromagnetic, microwave, ultrasonic, laser or other radiation levels that would adversely impact electronic equipment of residences or businesses outside of the boundaries of the property the business is located.
  - e. Does not use heavy trucking as a principal use, such as truck terminals or heavy truck repair.
  - f. Does not produce excessive noise or ground vibration perceptible without instruments at any point exterior to any *lot*.
  - g. Is not considered an aviation hazard as defined in State and Federal law.

h. Does not use high intensity lighting or make it difficult for pilots to distinguish between airport lights and others; create electrical interference with navigational signals or radio communication between the airport and aircraft; result in glare in the eyes of pilots using the airport; create reflectivity that interferes with airport radar function; create smoke, dust or other particulates that would impair visibility for aircraft; allow the storage of highly flammable or explosive materials, create bird-strike hazards; or otherwise create a hazard which may in any way endanger the landing, takeoff, or maneuvering of aircraft intending to use the airport.

B. DESIGN STANDARDS. Development within the AI zone is subject to compliance with the design standards in BMC 19.48.

C. BUILDING HEIGHT. No *structure* shall be permitted to be erected, altered or maintained that would constitute a hazard to air navigation, encroach into the limits of the *FAA Part 77* imaginary surfaces, or cause an increase in minimum flight or approach procedure altitudes as determined by the *FAA*. An additional 12 feet of *height* is allowed for *under-building* or underground parking. A written certification of *height* compliance from the *FAA* may be required.

D. TRANSPORTATION IMPACT MITIGATION. In addition to providing *street* improvements on adjacent *streets* pursuant to BMC 12.05, the City may require *off-site improvements* necessary to mitigate transportation impacts of the proposal as part of the Supplemental Environmental Impact Statement for the Northeast Redevelopment Area dated \_\_\_\_\_, SEPA planned action or other SEPA review under BMC Title 14. Transportation impact fees also apply pursuant to BMC 19.35.

E. IMPERVIOUS SURFACE COVERAGE.

- i. The maximum allowable impervious surface coverage is 85%. This can be increased up to 95% through participation in the cost of creating regional storm management facilities in the NERA. The formula for cost sharing is \_\_\_\_\_. (to be determined)
- ii. Public pedestrian and non-motorized facilities are excluded from *impervious surface coverage*.
- iii. The City will give credit for low impact development techniques such as but not limited to pervious pavement and green roofs. The amount of credit shall be determined by the Public Works Director.

F. RESIDENTIAL USES. Existing residential uses may continue to exist pursuant to the standards located in BMC 19.55. New residential uses are prohibited.

**DIRECTIONS: FIRST, read down to find use...THEN, across for REGULATIONS**

<div style="border: 1px solid black; padding: 5px; text-align: center;"> <b>AI Zone</b> </div> USE ↓	↓ REGULATIONS	MINIMUMS		MAXIMUMS			Landscape Category (See Ch. 19.25)	Minimum Required Parking Spaces (See Ch. 19.20)	Special Regulations (See also Section 19.15.070.1 and Miscellaneous Use, Development and Performance Standards Ch. 19.17)		
		Special Review Process (See Ch. 19.65)	Lot Area	SETBACKS		Lot Coverage				Building Height	
				Front Setback	Interior Setback	Building Coverage					Impervious Surface Coverage
19.15.070.2 Air Cargo Facility  Distribution  <i>Flex-Industrial</i>  <i>Flex-Tech</i>  Flight Kitchen  <i>Light Industry</i>  Office  <i>Off-Site Commercial                      Parking</i>  Plant Nursery  <i>Warehousing and                      Wholesale Trade</i>	None	None	10'	10'	None	See BMC 19.15.07 0.1.E.	45' See BMC 19.15.070. 1	F	See Section 19.20.030.2.		
19.15.070.3 <i>Convenience Retail</i>  <i>Eating and Drinking                      Establishment</i>	None	None	10'	10'	None	See BMC 19.15.07 0.1.E.	45' See BMC 19.15.070. 1	F	See Section 19.20.030.2.	1. Allowed only as <i>accessory</i> use related to or supporting the <i>primary</i> use of the <i>site</i> .  2. Total <i>gross floor area</i> devoted to <i>convenience retail</i> and eating & drinking establishments shall not exceed 20% of the <i>gross floor area</i> of the <i>primary</i> use on the <i>site</i> .  3. Occupancy of an <i>eating and drinking establishment</i> is limited to the lesser of 40 people per acre or the occupancy allowed by the <i>construction code</i> .	

**DIRECTIONS: FIRST, read down to find use...THEN, across for REGULATIONS**

<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>AI Zone</b> </div> USE ↓	↓ REGULATIONS	MINIMUMS		MAXIMUMS			Landscape Category (See Ch. 19.25)	Minimum Required Parking Spaces (See Ch. 19.20)	Special Regulations (See also Section 19.15.070.1 and Miscellaneous Use, Development and Performance Standards Ch. 19.17)		
		Special Review Process (See Ch. 19.65)	Lot Area	SETBACKS		Lot Coverage				Building Height	
				Front Setback	Interior Setback	Building Coverage					Impervious Surface Coverage
19.15.070.4 <i>Community Facility</i>  <i>Government Facility</i>  <i>Public Park and                      Recreation Facilities</i>  <i>Recreational Facility</i>  <i>Religious Facility</i>	None	None	10'	10'	None	See BMC 19.15.07 0.1.E.	45' See BMC 19.15.070. 1	F	See Section 19.20.030.2.		
19.15.070.5 <i>Public Utility</i>	Type 1	None	10'	10'	None	See BMC 19.15.07 0.1.E.	45' See BMC 19.15.070. 1	F	See Section 19.20.030.2.	1. Shall be designed, located, constructed and buffered to blend in with their surroundings and minimize adverse impacts on adjacent properties. Special attention shall be given to minimizing noise, light and glare impacts.	
19.15.070.6 On-site hazardous waste treatment and storage facility  Off-site hazardous waste treatment and storage facility	Type 2	None	10'	10'	None	See BMC 19.15.07 0.1.E.	45' See BMC 19.15.070. 1	F	See Section 19.20.030.2.	1. These uses are required to conduct an environmental review and mitigate all impacts.  2. Must comply with the state siting criteria adopted in accordance with RCW 70.105.210.	
19.15.070.7 Essential Public Facility	Type 1	None	10'	10'	None	See BMC 19.15.07 0.1.E.	45' See BMC 19.15.070. 1	F	See Section 19.20.030.2.	1. Shall be designed, located, constructed and buffered to blend in with their surroundings and minimize adverse impacts on adjacent properties. Special attention shall be given to minimizing noise, light and glare impacts.  2. Shall comply with criteria for siting found in the Burien Comprehensive Plan.	

**DIRECTIONS: FIRST, read down to find use...THEN, across for REGULATIONS**

<div style="border: 2px solid black; padding: 5px; text-align: center; width: 60px; margin: 0 auto;"> <b>AI Zone</b> </div> <p align="center">USE ↓</p>	REGULATIONS ↓	MINIMUMS		MAXIMUMS			Landscape Category (See Ch. 19.25)	Minimum Required Parking Spaces (See Ch. 19.20)	Special Regulations (See also Section 19.15.070.1 and Miscellaneous Use, Development and Performance Standards Ch. 19.17)		
		Special Review Process (See Ch. 19.65)	Lot Area	SETBACKS		Lot Coverage				Building Height	
				Front Setback	Interior Setback	Building Coverage					Impervious Surface Coverage

19.15.070.8 Any use not listed in the use column of any use zone chart	Type 2	Development standards shall be determined on a case-by-case basis through the Type 2 review process.						1. The proposed use shall be compatible with <i>adjoining</i> uses. 2. The facility shall be designed, located, constructed and buffered to blend in with its surroundings and mitigate all adverse impacts on <i>adjoining</i> properties and the community. Special attention shall be given to minimizing noise, light, and glare impacts.		
19.15.070.9 <i>Adult Entertainment Facility</i>	Type 2	None	10'	10'	None	See BMC 19.15.07 0.1.E.	45' See BMC 19.15.070. 1	F	See Section 19.20.030.2.	1. See Sec. 19.17.030 for additional requirements.
19.15.070.10 <i>Secure Community Transition Facility</i>	Type 2	See Section 19.17.110								
19.15.070.11 <i>Personal Wireless Service Facility</i>	See BMC 19.50 for specific requirements.									



## Section 19.15.030—Professional Residential Zone—ALTERNATIVES 1 AND 2

**PURPOSE AND INTENT:** The Professional Residential zone implements the Northeast Redevelopment Area designation of the Comprehensive Plan. The purpose and intent of this zone is to provide land use flexibility by allowing both single-family homes and small businesses in an area near but not directly under SeaTac International Airport's third runway.

**ONLY THOSE USES LISTED ON THE FOLLOWING USE ZONE CHARTS MAY BE ALLOWED IN THE PR ZONE, SUBJECT TO MEETING ALL APPLICABLE REQUIREMENTS OF THE ZONING CODE. THE FOLLOWING SPECIAL REGULATIONS APPLY TO ALL USES IN THE PR ZONE. BE SURE TO CHECK THE APPLICABLE USE ZONE CHART FOR ADDITIONAL REQUIREMENTS THAT PERTAIN TO SPECIFIC USES. WHERE A SPECIAL REGULATION BELOW CONFLICTS WITH A SPECIAL REGULATION IN A USE ZONE CHART FOR A SPECIFIC USE, THE USE ZONE CHART SHALL APPLY.**

### 19.15.030.1: SPECIAL REGULATIONS:

#### A. GENERAL.

- i. Hours of trash pickup should be restricted to reduce potential disturbance from noise.
- ii. New and conversion of existing residential structures shall be architecturally consistent with the surrounding character of the neighborhood and include similarities in materials, color, roof pitch and detailing. The intent of this provision is for businesses to look like residential structures.

B. TRANSPORTATION MITIGATION. In addition to providing *street* improvements on adjacent *streets* pursuant to BMC 12.05, the City may require *off-site improvements* necessary to mitigate transportation impacts of the proposal as part of the Final Supplemental Environmental Impact Statement for the Northeast Redevelopment Area dated \_\_\_\_\_, SEPA planned action or other SEPA review under BMC Title 14. Transportation impact fees may also apply pursuant to BMC 19.35.

C. CONVERSION OF RESIDENTIAL STRUCTURES TO NON-RESIDENTIAL USES. In order to facilitate and encourage non-residential uses to reuse existing residential structures, the *Director* may modify landscaping and parking design requirements. The intent of this provision is to maintain the residential character of properties, reduce the amount of new paving and storm runoff, and provide landscaping and screening where it is most beneficial to buffer adjacent residential uses.

**DIRECTIONS: FIRST, read down to find use...THEN, across for REGULATIONS**

<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>PR Zone</b> </div> USE ↓	↓ REGULATIONS	MINIMUMS		MAXIMUMS			Landscape Category (See Ch. 19.25)	Minimum Required Parking Spaces (See Ch. 19.20)	Special Regulations (See also Section 19.15.030.1 and Miscellaneous Use, Development and Performance Standards Ch. 19.17)		
		Special Review Process (See Ch. 19.65)	Lot Area	SETBACKS		Lot Coverage				Building Height	
				Front Setback	Interior Setback	Building Coverage					Impervious Surface Coverage
19.15.030.1 <i>Single Detached Dwelling Unit</i>	None	7,200 s.f.	20'	5'	35%	70%	35'	A	2 spaces per unit	1. One <i>single detached dwelling unit</i> may be built on a <i>lot</i> that has less than the stated minimum <i>lot area</i> .  2. No <i>lot</i> shall be created less than the minimum <i>lot area</i> except through the application of lot averaging. <i>Lot</i> averaging is permitted through a short plat, subdivision or <i>lot</i> line adjustment. However, no <i>lot</i> shall be created with an area less than 90 percent of the stated minimum <i>lot area</i> .  3. Chapter 19.17 contains regulations regarding home occupations, and other <i>accessory uses</i> , facilities and activities associated with this use.	
19.15.030.2 <i>Professional Office</i>	None	7,200 s.f.	20'	10'	70%	85%	35'	C	See Sec. 19.20.030.2		
19.15.030.3 <i>Art Studio</i>	None	7,200 s.f.	20'	10'	70%	85%	35'	C	See Sec. 19.20.030.2	1. May include artists' lofts at a maximum density of one dwelling unit per 7,200 s.f. of lot area.	
19.15.030.4 <i>Convenience Retail Eating and Drinking Establishments</i>	None	7,200 s.f.	20'	10'	70%	85%	35'	C	See Sec. 19.20.030.2	1. <i>Convenience auto service</i> uses are not permitted.  2. Outdoor activities related to <i>eating and drinking establishments</i> are only permitted between the hours of 7:00AM and 9:00PM.  3. Outdoor retail sales or storage are not permitted.	
19.15.030.5 <i>Day Care Center</i>	None	None	20'	10'	70%	85%	35'	B	See Sec. 19.20.030.2	1. <i>Day Care Center</i> : Must provide State certification of safe passenger loading area.	

**DIRECTIONS: FIRST, read down to find use...THEN, across for REGULATIONS**

<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>PR Zone</b> </div> USE ↓	↓ REGULATIONS	DIRECTIONS: FIRST, read down to find use...THEN, across for REGULATIONS							Special Regulations (See also Section 19.15.030.1 and Miscellaneous Use, Development and Performance Standards Ch. 19.17)		
		Special Review Process (See Ch. 19.65)	MINIMUMS			MAXIMUMS				Landscape Category (See Ch. 19.25)	Minimum Required Parking Spaces (See Ch. 19.20)
			Lot Area	SETBACKS		Lot Coverage		Building Height			
		Front Setback	Interior Setback	Building Coverage	Impervious Surface Coverage						
19.15.030.6 <i>Family Day Care Home I and II</i>	None	See Special Regulation 1							1. Must comply with requirements of the <i>primary use</i> .  2. Must provide State certification of safe passenger loading area.		
19.15.030.7 <i>Public Park and Recreation Facilities</i>	None	None.	20'	10'	70%	85%	35'	A	See Sec. 19.20.030.2	1. Lighting for <i>structures</i> and fields shall be directed away from <i>dwelling units</i> .	
19.15.030.8 <i>Religious Facility</i>	Type 2	7,200 s.f.	20'	10'	70%	85%	35'	C	See Sec. 19.20.030.2	1. <i>Accessory use</i> shall comply with the requirements for that <i>use</i> listed in this use zone chart (BMC 19.15.030).	
19.15.030.9 <i>Community Residential Facility</i>	Type 2	7,200 s.f.	20'	10'	70%	85%	35'	B	1 space for every 2 bedrooms		
19.15.030.10 <i>School</i>	Type 2	7,200 s.f.	20'	10'	70%	85%	35'	C	See Sec. 19.20.030.2		
19.15.030.11 <i>Senior Citizen Assisted Dwelling Unit</i>	Type 2	7,200 s.f.	20'	10'	70%	85%	35'	B	0.5 spaces per unit	1. Minimum lot area per dwelling unit is 7,200 s.f.  2. Conversion to another use is allowed, provided that all requirements for the new use are met, including density limitations.	
19.15.030.12 <i>Essential Public Facility</i>	Type 2	Development standards shall be determined on a case-by-case basis through the Type 2 review process.							1. Shall be designed, located, constructed and buffered to blend in with their surroundings and minimize adverse impacts on adjacent properties. Special attention shall be given to minimizing noise, light and glare impacts.  2. Shall comply with criteria for siting found in the Burien Comprehensive Plan.		

**DIRECTIONS: FIRST, read down to find use...THEN, across for REGULATIONS**

<div style="border: 1px solid black; padding: 5px; text-align: center;"> <b>PR Zone</b> </div> USE ↓	↓ REGULATIONS	MINIMUMS		MAXIMUMS			Landscape Category (See Ch. 19.25)	Minimum Required Parking Spaces (See Ch. 19.20)	Special Regulations (See also Section 19.15.030.1 and Miscellaneous Use, Development and Performance Standards Ch. 19.17)		
		Special Review Process (See Ch. 19.65)	Lot Area	SETBACKS		Lot Coverage				Building Height	
				Front Setback	Interior Setback	Building Coverage					Impervious Surface Coverage
19.15.030.13 <i>Community, Cultural or Government Facility</i>	Type 2	None	20'	10'	70%	85%	35'	C	See Sec. 19.20.030.2		
19.15.030.14 <i>Public Utility</i>	Type 2	None	30'	30'	35%	70%	20' See Spec. Reg. 1	D	See Sec. 19.20.030.2	1. The Hearing Examiner may approve height no greater than 35 feet if the applicant shows that no feasible alternative is available.  2. Shall be designed, located, constructed and buffered to blend in with their surroundings and minimize adverse impacts on adjacent properties. Special attention shall be given to minimizing noise, light and glare impacts.	
19.15.030.15 <i>Personal Wireless Service Facility</i>	See Chapter 19.50										

## **19.48 Special Planning Area 4 Airport Industrial Design Standards (ALTERNATIVES 1 AND 2)**

19.48.010	User Guide
19.48.020	General
19.48.030	Site Planning and Design.
19.48.040	Pedestrian and Non-Motorized Circulation.
19.48.050	Vehicular Access and Parking.
19.48.060	Building Design.
19.48.070	Surface Water.

### **19.48.010 User Guide**

This chapter establishes design standards for ~~Special Planning Area 4 (SPA 4)~~ properties zoned Airport Industrial (AI). If you are interested in developing or making changes to property ~~within SPA 4 with an AI zone designation~~, you should read this chapter. Also, ~~you should read~~ refer to BMC 19.15.070 which contains additional regulations relating to uses and other standards for AI zoned properties. ~~SPA 4, BMC 19.65.090 relating to the rezone process for SPA 4.~~ [Ord. 479 § 1, 2007, Ord. 396 § 1, 2003]

### **19.48.020 General**

1. Purpose and Intent. These standards are intended to direct the design of *buildings* and *sites* within the Airport Industrial (AI) zone, in compliance with the City's Zoning Code and Comprehensive Plan. The standards will promote quality development and reinforce the opportunity for economic development in areas affected by aircraft noise from SeaTac International Airport. Allowed uses within the AI zone are intended to develop as a coordinated, well-landscaped business park, with substantial buffers along the perimeter where residential uses will continue to be allowed. The standards are not intended to slow or restrict development, but rather to add consistency and predictability to the permit review process.

2. Compliance with Design Standards. There are two types of design standards below. Mandatory standards contain the word "shall." All other standards must be complied with, unless the project design demonstrates a better means for achieving the standard. [Ord. 479 § 1, 2007, Ord. 396 § 1, 2003]

### **19.48.030 Site Planning and Design.**

1. Coordinate proposed *site* development with planned development on adjacent properties.

2. *Screen* activities that produce glare from adjacent rights-of-way and residential uses.

3. Landscaping.

A. *Landscaping* should comply with BMC 19.25.

B. Landscaping along the Miller Creek Corridor shall include native plants that contribute to the overall health of the creek. There shall be an emphasis on trees and shade cover for *landscaping* along Miller Creek.

C. Encourage use of drought-tolerant or indigenous plants to minimize the amount of water required for irrigation.

D. Encourage use of “gray water” for irrigation.

4 Mechanical equipment. *Screen* mechanical equipment with *landscaping* or attractive architectural features integrated into the *structure* itself.

5. Fencing. *Screen* chain link *fences* by a Type I landscape “full screen” as described in BMC 19.25, or a dark colored coating approved by the *Director*.

6. Outdoor service, storage and loading areas.

A. Loading areas shall not be oriented towards or be visible from *rights-of-way*.

B. Locate service areas, incidental outside storage, construction storage and other areas which tend to be unsightly away from residential uses, rights-of-way and vehicular tracts and easements.

C. *Screen* such areas from view by either:

i. Use of *building* design and layout to provide the required *screening*, or

ii. Installation of a minimum six foot high solid *fence* or enclosure using materials (such as wood or concrete) in the same architectural style of the *building* on the property, or

iii. Installation of a minimum ten foot wide Type I landscape buffer.

7. Biofiltration swales. Integrate bio-filtration swales into the *site* landscape concept. The *Director* may waive or modify required *landscaping* widths, types or materials to accommodate an integrated bio-filtration swale.

8. Site lighting.

A. Provide adequate lighting levels in all areas used by pedestrians and vehicles, especially at *building* entrances and walkways.

B. Use light sources, lighting levels and fixture designs that minimize spillage of light off-*site*.

C. Direct lighting toward the interior of the project and away from rights-of-way and existing or planned residential uses. [Ord. 396 § 1, 2003]

#### **19.48.040 Pedestrian and Non-Motorized Circulation.**

1. Pedestrian and non-motorized access should comply with BMC 19.20.090.

2. Provide facilities for pedestrian and non-motorized access in accordance with the Comprehensive Plan and when adopted, the non-motorized pedestrian and bicycle facilities plan. Special consideration shall be given to developing a complete non-motorized network, including development of a trail system along Miller Creek and connections to such system.

3. Provide a trail along Miller Creek. The exact location, width and design of the trail should comply with the Burien Pedestrian and Bicycle Facilities Plan.

4. Develop an internal circulation plan to facilitate pedestrian and non-motorized access between major project phases and adjacent developments. The City may require recording of cross-easements and/or *right-of-way* dedication to achieve the objective of a coordinated, internal access system within the AI zone. [Ord. 396 § 1, 2003]

**19.48.050 Vehicular Access and Parking.**

1. Vehicular access and parking should comply with BMC 19.20 and the City of Burien's adopted road standards (BMC 12.05).
2. Street system. Developments shall be designed to accommodate the planned internal *street* system shown conceptually on Figure 19.48-1.
3. Vehicle entrances and driveways.
  - A. Encourage shared vehicular access to reduce *impervious surfaces* and minimize the number of access points.
  - B. Limit vehicular access from the *right-of-way* to each property to no more than two locations. The City may allow additional access points upon review of *site* and traffic conditions, and on-*site* traffic patterns.
  - C. Design access points to direct traffic to a limited number of access points onto Des Moines Memorial Drive, So. 140<sup>th</sup> St. or So. 144<sup>th</sup>/So. 146<sup>th</sup> St., as shown conceptually on Figure 19.48-1.
  - D. Prohibit truck access onto 8<sup>th</sup> Avenue So. except for deliveries to properties accessed solely from 8<sup>th</sup> Avenue So. The City may allow truck access where necessary due to natural constraints (such as topography), or for required emergency access. [Ord. 396 § 1, 2003]

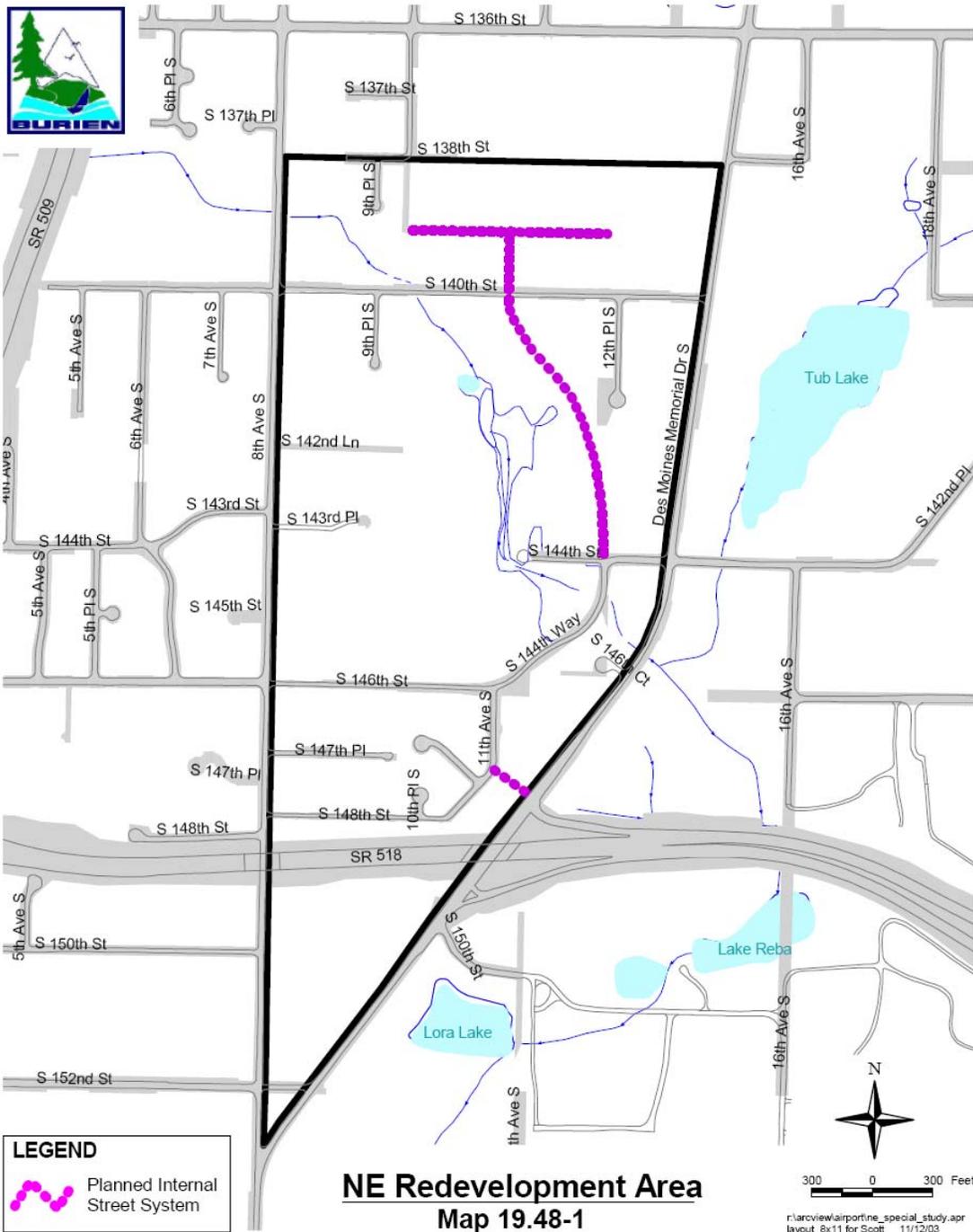
**19.48.060 Building Design.**

1. General.
  - A. Design *buildings* to provide a sense of quality and permanence.
  - B. Multiple *structures* within a development should share common design elements.
  - C. Design or *screen* rear *building* elevations to avoid or substantially minimize negative visual impacts facing Des Moines Memorial Drive or 8<sup>th</sup> Ave. South.
  - D. Photo-simulations of the completed development as viewed from adjacent hillsides, roadways and residential areas may be required.
2. Building facade. A *building facade* that exceeds 100 feet in length that is visible from a *right-of-way* or the shared internal *street* system shown conceptually on Figure 19.48-1 should be treated by one or more of the following methods:
  - A. Façade offset or modulation. The minimum offset or *modulation* depth should be 3 feet; minimum length should be 8 feet, minimum *height* should be 8 feet. The maximum wall length without offset or *modulation* should be 30 feet.

- B. Material, color and texture variation. Use variation in *building* materials, colors and/or textures to minimize the visual effect of *building* scale.
3. Building colors. Use natural and earth tones on the major portions of the *building* façade. Accent colors are permitted on the minor portions of the *facade*.
4. Building materials.
- A. Limit the percentage of wall area covered by reflective glass. The *applicant* may be required to provide documentation verifying reflective characteristics of glass proposed for *structures*. Provide awnings or other solar shading devices as needed to minimize sunlight reflection off of the glass.
  - B. The following materials shall not be used in visible locations unless an exception is granted by the City based on the integration of the material into the overall design of the *structure*.
    - i. Corrugated or beveled metal siding.
    - ii. Vinyl or plywood siding.
    - iii. Corrugated fiberglass.
    - iv. Crushed colored rock or crushed tumbled glass.
5. Building roof treatment.
- A. Design and/or *screen* rooftop vents, air conditioning units, mechanical, electrical and other rooftop equipment to avoid unsightly appearance as viewed from surrounding properties. The *building* roof design and covering/*screening* materials shall be described in detail, and it shall be demonstrated how these items will mitigate the visual impact of the equipment.
  - B. Use non-reflective roofing materials in black, natural or earth tones.
  - C. Encourage the use of green roof technology to minimize the need for engineered storm water controls.
6. Water conservation. Encourage use of water conserving plumbing fixtures and other *building* conservation measures to minimize water consumption. [Ord. 396 § 1, 2003]

**19.48.070      Surface Water.**

- 1. Review proposed developments to ensure installation of proper drainage controls to prevent significant impacts to the storm drainage system, including Miller Creek.
- 2. Retain or slow release *site*-generated runoff using detention ponds, vegetated drainage swales, etc.
- 3. Encourage “zero” off-*site* release of on-*site* storm drainage runoff. [Ord. 396 § 1, 2003]



**ADDITIONAL NERA-RELATED ZONING AMENDMENTS (ALTERNATIVES 1 AND 2)**  
**(proposed changes highlighted)**

- Property Acquisition by Public Entities--BMC 18.130: **Repeal entire section**
- User Guide--BMC 19.01.005.1. Find your property on the Zoning Map. This map is not included with this Code, but is available for review at the City of Burien Department of Community Development during regular business hours. The property will have one of the following zoning designations:

RS-A	RM-24	CR	SPA-2
RS-12,000	CN	O	SPA-3
RS-7,200	CI	I	<b>SPA 4</b>
RM-12	CC1	DC	<b>AI</b>
RM-18	CC2	SPA-1	<b>PR</b>

- General provisions—BMC 19.05.120-Zones and map designations established.

In order to accomplish the purposes of this Code the following zoning designations and zoning map symbols are established:

ZONING DESIGNATION	MAP SYMBOL	ZONING DESIGNATION	MAP SYMBOL
Residential, Single-Family	RS (followed by a designation indicating minimum <i>lot area</i> in square feet)	Regional Commercial	CR
Residential, Multi-Family	RM (followed by a designation indicating base density in <i>dwelling units</i> per acres)	Office	O
<b>Professional Residential</b>	<b>PR</b>	Downtown Commercial	DC
Neighborhood Center	CN	<b>Airport Industrial</b>	<b>AI</b>
Community Commercial	CC (followed by a designation indicating which sub-zone within the Community	Industrial	I

	Commercial Zone)		
Intersection Commercial	CI	Special Planning Area	SPA (followed by a designation indicating which Special Planning Area)

4. Definitions

19.10.369 Non-Residential Zone – The following zones: CN, CI, CC-1, CC-2, DC, CR, PR, O, AI, I, SPA-1, SPA-2, and SPA-3. ~~and SPA-4.~~

5. Use Zone Charts

Repeal the following sections that require a rezone to SPA-4 for any new use or development:

- BMC 19.15.005.1.A
- BMC 19.15.010.1.A
- BMC 19.15.020.1.C
- BMC 19.15.050.1.E

6. Adult entertainment facilities

BMC 19.17.030.4. Location and separation requirements.

A. An *adult entertainment facility* shall only be located in the I (Industrial) and Special Planning Area 4C Airport Industrial (AI) zones.

7. Cargo containers

BMC 19.17.040.3. *Cargo containers* are not allowed in the Downtown Commercial (DC), Office (O), Neighborhood Center (CN), Professional Residential (PR) and Special Planning Area 1 (SPA-1) zones, except as permitted in BMC 19.17.040.2.

BMC 19.17.040.5. *Cargo containers* are permitted as *accessory uses* in the Industrial (I), Intersection Commercial (CI), Community Commercial (CC-1 and CC-2), Regional Commercial (CR), Special Planning Area 3 (SPA-3), Special Planning Area 4 (SPA-4) Airport Industrial (AI) zones and in the SPA-2 zone as part of the master plan review (pursuant to BMC 19.15.060.1). *Cargo containers* in these zones are subject to the requirements below. *Airplane unit load devices* located in the I and SPA-4 AI zones are not regulated as *cargo containers*.

8. Bed and Breakfast establishments

BMC 19.17.080.2 Applicability. The regulations of section 19.17.080 apply to *bed and breakfast establishments* in residential zones (RS and RM), Professional Residential (PR) and the Neighborhood Center (CN) zone. *Bed and breakfast establishments* in zones that allow *lodging facilities* are subject to those regulations.

BMC 19.17.080.3.I Signs. *Signs for bed and breakfasts* are subject to the standards in BMC Chapter 18.50 Signs 19.30, as now in affect, and as may be subsequently be amended.

9. Secure Community Transition Facilities

BMC 19.17.110.4. Siting Criteria:

A. *SCTFs* shall locate in ~~an~~ the Industrial zone, Special Planning Area 4A (SPA-4A) zone, or the portion of the Special Planning Area 4B (SPA-4B) zone north of South 140<sup>th</sup> St. or Airport Industrial (AI) zone.

10. Lot area – Minimum lot area for construction.

BMC 19.17.170 Except as provided for *nonconformances* by Chapter 19.55 BMC:

In the R ~~or PR~~ zones construction may be permitted on:

1. Any legally subdivided *lot* of record created by the City of Burien; or
2. Any legally subdivided *lot* of record created prior to February 28, 1993, or created prior to any annexation into the City; or
3. Any *lot* created prior to the enactment of any applicable state subdivision statute, provided the size of the lot was not reduced by more than 50 percent through acquisition for public purposes. On such lots new homes may be built and existing houses may be expanded and remodeled. ~~{Applicable setbacks, lot coverage, critical area restrictions, design review requirements (if any), height limits and other applicable regulations in the zoning code shall be met.}~~

11. Landscaping.

BMC 19.25.010.1 User Guide: Chapter 19.15 of this Code containing the use zone charts assign a *landscaping* category to each *use* in each zone. This category is either “A”, “B”, “C”, “D” ~~or~~ “E” ~~or~~ “F”. This Chapter contains the specific requirements that pertain to each category. This Chapter also establishes certain minimum requirements for all *uses*, and minimum requirements for *landscaping* of parking lots and retention of existing trees.

Table 19.25.040-1

Landscape Category	Along <i>Property Line</i> Abutting a <i>Public Right-of-Way</i> (Except a Freeway or <i>Alley</i> )	Along <i>Property Line</i> Abutting a Freeway*	Along All Other <i>Property Lines</i> (Except Along an <i>Alley</i> )	Along <i>Building Façade</i> Greater Than 35' High or 50' Wide	Surface Parking Area <i>Landscaping</i> Required? (see BMC 19.25.070)
A	None	None	None	None	No
B	10' wide Type III	10' wide Type II	None, except in a transition area (see BMC 19.17.015)	5' wide Type IV	Yes
C	10' wide Type III	10' wide Type II	None, except in a transition area (see BMC 19.17.015)	5' wide Type IV	Yes
D	15' wide Type I	10' wide Type I	10' wide Type II, except when abutting an I zone, then none	5' wide Type IV	Yes
E	See BMC 19.47 and 19.49 for <i>landscaping</i> requirements in the DC and SPA-1 zones. The only sections of BMC 19.25 that apply to the DC and SPA-1 zones are: BMC 19.25.080, 19.25.100, 19.25.110, 19.25.170 and 19.25.180.				
F**	25' wide, Type II (along 8 <sup>th</sup> Ave. So. or Des Moines Memorial Dr.); otherwise, 15' wide, Type III	None	50' wide Type I (along northern perimeter of the SPA-4 Comp. Plan designation zone); otherwise, 10' wide Type III	5' wide Type IV	Yes

## 12. Freestanding Signs

BMC 19.30.060.4 Freestanding signs: Certain permitted *signs* in Table 19.30-1 are included in total *sign area* allowed for a *freestanding sign*. The following standards apply to *freestanding signs*:

A. Freestanding sign area allowed: The maximum *freestanding sign area* allowed is 1 s.f. of *sign area* for each linear foot of *street frontage* per *site*, subject to the limitations below. The property owner shall allocate the amount of *sign area* allowed in this section to his or her tenants. This allocation shall be made in writing as part of the tenant's sign permit application. Minimum letter height for signs identifying more than one business or tenant shall be 10 inches.

- i. DC, CN, **PR** and SPA-1 zones: Maximum 32 s.f.
- ii. CI, CC-1, O and I zones: Maximum 48 s.f.
- iii. **AI**, CC-2, CR and SPA-3 zones: 50 s.f. plus 1 additional square foot of signage for each three (3) linear feet of *street frontage* (or portion thereof) up to a maximum total of 200 s.f.

B. Maximum height allowed: The maximum allowable *height* for a *freestanding sign* is as follows:

- i. DC, CN, **PR** and SPA-1 zones: 5 feet.
- ii. CI, CC-1, O and I zones: 8 feet.
- iii. **AI**, CC-2, CR and SPA-3 zones: 20 feet plus 1 additional foot of *height* for each 25 linear feet (or portion thereof) of *street frontage*, up to a maximum total *height* of 35 feet.

C. Number of freestanding signs allowed: One (1) *freestanding sign* per *site* per *street frontage*. An additional *monument sign* is allowed on a *site's street frontage* of 400 feet or greater. On a *site* with multiple *street frontages*, each *street frontage* shall be considered independent of the other *street frontages*. Multiple *freestanding signs* shall be separated by at least 150 feet, drawn in a straight line between the closest edges of the *signs*. The additional *monument sign* shall comply with the following standards:

- i. DC, CN, **PR** and SPA-1 zones: Maximum 32 s.f. and 5 foot height.
- ii. CI, CC-1, O and I zones: Maximum 48 s.f. and 8 foot height.
- iii. **AI**, CC-2, CR and SPA-3 zones: Maximum 64 s.f. and 12 foot height.

## 13. Personal Wireless Service Facilities

BMC 19.50.020.1 Personal Wireless Service Facility Locations and Permit Process. The following table indicates the hierarchy of locations to be used in reviewing an application for a *PWSF*. The *applicant* bears the burden to show that location in a higher priority is not technically feasible. Pursuant to WAC 197-11-800(27), some *PWSF* may require a SEPA Review as part of the review processes outlined below.

Priority (highest to lowest)	Special Review Process (See Chapter 19.65)	Type of PWSF and Location
1	None	<p>A. <i>Collocation of antennas on an existing support structure in a non-residential zone.</i></p> <p>B. Attachment of <i>antennas</i> to existing <i>structures</i> in the I, CR, CC-1, CC-2, and SPA-4 AI zones.</p> <p>C. <i>Antennas</i> attached to existing or replacement ball field light standards, electrical transmission towers, water tanks or existing utility poles in any zone.</p>
2	Type 1	Attachment of <i>antennas</i> to existing <i>structures</i> (except <i>single detached dwelling units</i> and their <i>accessory structures</i> ) in the O, SPA-1, SPA-2, SPA-3, DC, CI, PR, RM and RS zones.
3	Type 2	Any <i>PWSF</i> not listed above, except for the following which are prohibited: lattice towers in all zones, new <i>monopoles</i> in the DC zone and new <i>monopoles</i> in <i>residential zones</i> .

## **Appendix C – Alternative 3: Existing Burien Comprehensive Plan Policies and Zoning Related to SPA-4**

## **BURIEN COMPREHENSIVE PLAN POLICIES RELATING TO NORTHEAST REDEVELOPMENT AREA/SPECIAL PLANNING AREA 4**

### Comprehensive Plan Policy SE 1.5:

Special Planning Area 4 recognizes a potential opportunity for economic development in the northeastern part of the City, in areas affected by aircraft noise from SeaTac International Airport. Use and development within this Special Planning Area may be affected by the FAA regulations on land use associated with SeaTac Airport's proposed third runway. Development of non-residential uses in the Special Planning Area shall be low scale, landscaped and buffered. Primary automobile and all truck access to the area should be from Des Moines Memorial Drive, So. 140<sup>th</sup> Street or So. 144<sup>th</sup>/So.146<sup>th</sup> Street. Developments and uses shall meet the performance and design standards set forth below and as established in the SPA 4 section of the Zoning Code. Any future expansion of Special Planning Area 4 shall meet the designation criteria under this policy.

***Allowed Uses and Description:*** The types of land uses that are appropriate in the Special Planning Area 4 designation include but are not limited to: light manufacturing, production, processing and distribution-related businesses; warehousing; utilities; and new car auto dealers in an auto-mall configuration (see discussion of subareas below for more information on allowed uses). Since the area is in close proximity to SeaTac International Airport, the uses in this classification could also be airport-oriented. In addition, studio space for artists is also encouraged as a part of these developments, to the extent allowed by FAA regulations. Open space and multi-purpose trails are also encouraged, especially along the Miller Creek corridor to provide non-motorized east-west linkages to areas within and outside of Burien. The specific list of permitted land uses as part of the implementation of this policy in the Zoning Code. Permitted uses should be airport-compatible, have minimal environmental and land use impacts, and support family-wage jobs.

***Character:*** Uses in Special Planning Area 4 should be contained entirely within a structure, except for well-screened vehicle parking, vehicle storage areas or construction storage areas. Only limited outside storage, or other external activity is appropriate.

Developments should be clustered together and sited so that they have internal circulation, minimizing the number of access points to Des Moines Memorial Drive. Sites should be designed and located in a way that minimizes traffic, visual, noise or other impacts on adjacent residential uses or environmentally critical areas. SPA 4 should develop as a coordinated, well-landscaped business park, with substantial buffers along the perimeter of the area. Site planning for the area should protect yet take advantage of the location of Miller Creek, which slices through the area, through buffers and provision of a public trail along the creek corridor. Development standards will be established as part of the implementation of this policy in the Zoning Code.

***Subareas:*** Special Planning Area 4 is divided into three subareas reflecting constraints and opportunities related to natural features, transportation, and adjacent land uses (see Map LU-1). Subarea boundaries are intended to identify areas where different intensities of land use and

development would be allowed. However, the Zoning Code regulations for SPA 4 should allow for flexibility within the subareas if development standards can be met. For example, a use only allowed in Subarea C could be allowed in Subareas A or B if impacts are fully mitigated.

Subarea A would allow the least intensive land uses, including office or research parks that would contain low density buildings a maximum of two stories high. These buildings could contain uses such as general office, corporate headquarters, and high-tech research and development. Other potential appropriate uses for Subarea A include plant nurseries, cemeteries, parking, artist studios and recreation (passive open space, ball fields, etc.).

Subarea B would include land uses that have moderate intensity and moderate potential impacts. Allowable uses in this subarea could include the uses allowed in Subarea A plus, light manufacturing and office or research parks. Developments within this subarea would be more dense and buildings could be higher than those in Subarea A. In general, these uses would attract more people, generate more traffic, and potentially have greater impacts of other types (such as noise, light and glare) than Subarea A uses would have. The area of Subarea B located between South 140th Street and South 138th Street would require increased mitigation along its north boundary (such as increased landscape buffers and/or building setbacks) due to its proximity to adjacent residential properties.

Subarea C would include the most intensive land uses within Special Planning Area 4. Allowable uses in this subarea could include the uses allowed in Subareas A and B, plus air cargo facilities, light manufacturing, warehousing, new car sales and limited convenience stores. Developments within this subarea could be more intensive than Subareas A and B and the buildings could be higher. These uses would potentially generate the most impacts from noise and traffic and thus, would be located the greatest distance from the residents to the north and west of Special Planning Area 4. Subareas A and B would be located between Subarea C and residential properties to the north and west, and thus would help screen or buffer potential impacts to the neighbors.

***Designation Criteria:*** Land proposed to be designated Special Planning Area 4 shall meet the following criteria:

1. The area to be designated SPA 4 must be located within the Northeast Special Planning Area shown on map LU-1; is currently or anticipated to be subjected to high levels of noise from airport-related activities, and therefore, the land is either less suitable for residential development, or, residential use is not allowed by FAA requirements.
2. The area to be designated SPA 4 must be a minimum of 2 acres in size. Smaller lots may be aggregated to meet this requirement.
3. The area to be designated SPA 4 shall be located near major transportation corridors with adequate highway access.

4. The area to be designated SPA 4 should be free of or able to appropriately accommodate significant amounts of environmentally critical areas, including required buffers.
5. The existing or planned public facilities are or will be adequate to support the level and intensity of proposed development.

***Performance and Design Standards:*** The City shall develop performance and design standards for uses and development within Special Planning Area 4. These standards shall include the following:

1. Aquifer Recharge: Develop land use and construction regulations that will help protect the Highline Aquifer. These regulations should include at least the following elements:
  - A. Notification to the Water District of any proposed land uses that could pollute the aquifer, of any hazardous substance spills, and of any proposed large scale developments that involve major excavations or increases in impervious surfaces.
  - B. Allowing alternatives to tightlining of drainage controls, such as berms and control facilities that optimize recharge. This action would decrease the impacts of additional impervious surfaces on recharging of the aquifer.
  - C. Hazardous substance containment requirements that consider both ground water and surface water contamination.
  - D. Maximizing use of pervious surface to increase aquifer recharge.
  - E. Require commercial and industrial users to develop spill prevention and cleanup plans.
2. Streams and Wetlands:
  - A. Onsite storm water drainage and containment should be regulated, to help protect water quality and quantity at Miller Creek.
  - B. An additional 25 feet of buffer along one side of Miller Creek should be required to serve as additional building setback and as a trail corridor.
  - C. Prior to development activities, the City may require a wetland survey be conducted by a wetlands specialist.
3. Plants and Animals:

- A. Native plants should be used for landscaping near the Miller Creek corridor.
4. Air Quality:
- A. Uses that emit excessive unpleasant odors, dust, or other air pollutants should be prohibited.
  - B. During construction and demolition activities, prolonged idling of vehicles and engine-powered equipment should be avoided.
  - C. During construction and demolition, related traffic should be monitored and directed during non-peak travel hours to minimize reduction in travel speeds.
5. Scenic Resources:
- A. Landscaped buffers should be provided to adequately screen development from adjacent non-business properties and from adjacent roadways. Buffer widths between 25 feet and 100 feet may be appropriate based on the specific location of the property and development proposal.
  - B. Landscaped buffers should be provided between properties within SPA 4.
  - C. Site landscaping should be provided for structures and parking areas and screening should be provided for service areas.
  - D. External mechanical equipment should be placed in screened enclosures on the ground, or screened if on the rooftop.
  - E. Nonreflective roofing materials in neutral colors should be used.
6. Housing
- A. The City should request Federal or Port assistance in replacing low and very low-income housing units (and developing a relocation plan) to help the City comply with the Growth Management Act, Countywide Planning Policies and the City's Comprehensive Plan.
  - B. The City should encourage the Port to offer incentives to residents and property owners bought out by the Port to relocate within the City of Burien.
7. Transportation and Access: Adequate and safe motorized and non-motorized access to the site shall be provided. The following transportation improvements should be installed to help mitigate impacts of redevelopment of SPA 4:

- A. SR-518 off-ramp at Des Moines Memorial Drive: Installation of a traffic signal.
  - B. Intersection of Des Moines Memorial Drive at 8<sup>th</sup> Avenue S: Installation of a traffic signal.
  - C. Intersection of Des Moines Memorial Drive at S 140<sup>th</sup> Street: Installation of capacity improvements.
  - D. Des Moines Memorial Drive, between S 136th and S 156th Streets: Roadway widening, including a refuge/merge lane or two-way left turn lane. This project is already planned by the City of SeaTac.
  - E. Intersection of 8th Avenue S and S 146th Street: Installation of a traffic signal, when future traffic volumes warrant a traffic signal at this intersection. An alternative would be to further restrict commercial traffic in the Study Area from accessing 8th Avenue S.
  - F. Along 8th Avenue S.: Installation of pedestrian and bicycle improvements to reduce the impacts of forecasted traffic volumes. This is a City of Burien planned project.
  - G. Along S 140th Street and S 144th/146th Street: Installation of pedestrian and bicycle improvements to reduce the impacts of forecasted traffic volumes.
  - H. A shared internal road system built to commercial road standards within SPA 4 should be constructed. The internal road system should direct traffic from SPA 4 to a limited number of access points on Des Moines Memorial Drive, S 144th/146th Street, and S 140th Street. Direct property access to these arterials should be limited to minimize traffic operation and safety issues. Only limited access to SPA 4 should be allowed to/from 8th Avenue S, except where necessary due to natural constraints (such as topography) or for emergency access or fire lanes required by the City of Burien.
8. Utilities:
- A. Use of drought-tolerant or native plants should be encouraged to minimize the amount of water required for irrigation.
  - B. Use of “gray water” for irrigation should be encouraged.

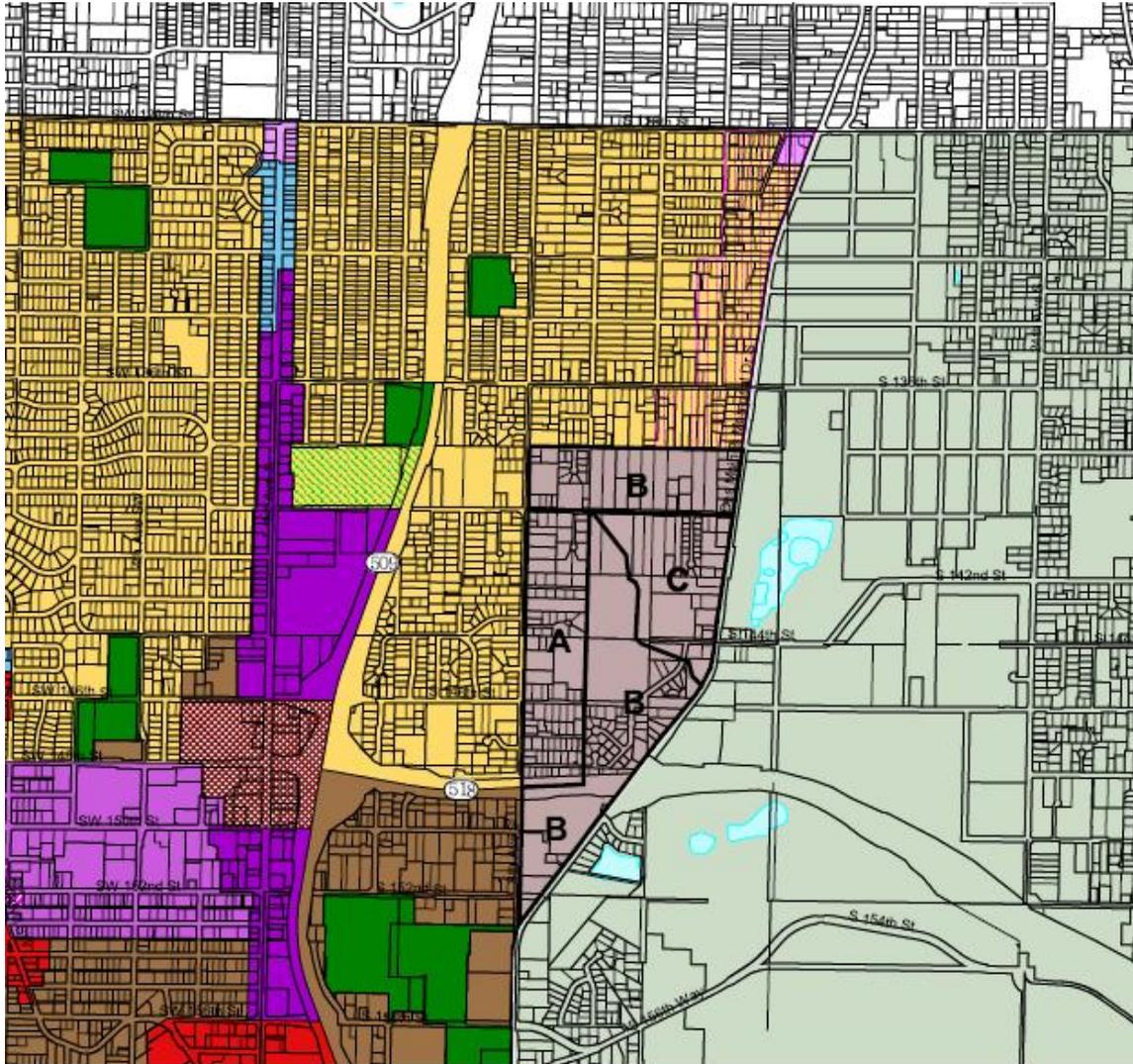
- C. Use of water conserving plumbing fixtures and other building conservation measures to minimize water consumption should be encouraged.
9. Storm Drainage:
- A. Review proposed developments to ensure installation of proper drainage controls to prevent significant impacts to the storm drainage system, including Miller Creek.
  - B. New developments should be required to slow or retain site-generated runoff using detention ponds, vegetated drainage swales, etc.
  - C. Consider requiring onsite “zero” or reduced quantities of storm water runoff for new developments. The cost of onsite runoff retention should be compared to the costs of building storm water drainage systems.
10. Noise:
- A. Auger-cast piling should be used (if piling is needed).
  - B. During construction, mufflers should be properly maintained.
  - C. During construction, equipment should be turned off when not in use.
  - D. During construction, portable noise barriers should be used in locations near residences.
  - E. During construction, ambient sensing backup alarms should be used, if possible.
  - F. Noise-minimizing site layout strategies such as locating buildings between loading and trash storage areas and residences to help block noise, should be used.
  - G. Hours of deliveries or trash pickup should be restricted to reduce potential disturbance from noise.
  - H. Planted buffers, earthen beams and walls should be used to block or reduce noise generated from businesses within SPA 4.
11. Light and Glare:
- A. Light and glare-producing activities such as arc welding should be screened from residences and streets.

- B. Lights such as security lighting should be shielded from casting light upward.
  - C. Light sources, lighting levels and fixture designs that minimize the amount of light that could be visible off-site should be used.
  - D. The percentage of wall area covered by reflective windows should be limited. Awnings or other solar shading devices should be provided as needed to minimize sunlight reflection off of the windows.
12. Standards for development and land use within the ATZ and RPZ of the proposed third runway for SeaTac International Airport shall comply with applicable FAA and WSDOT Aviation Division aircraft safety requirements relating to land use, development density, height hazards, performance standards, lighting, glare, electronic interference with aircraft navigation equipment, and bird attraction.
  13. A development proposal site should be a minimum of 2 acres in size. Smaller lots may be aggregated to meet this requirement.
  14. Building coverage should be limited as follows: Subarea A (least coverage), Subarea C (greatest coverage), and Subarea B (in between A & C).
  15. The City should work with potential purchasers of properties within SPA-4 to find ways in which the gap between the lower vacant land value and higher improved land value can be mitigated.
  16. The City should work with the Port to identify ways to mitigate lost property tax revenues due to the Port's existing and proposed land purchases within SPA-4.

**Implementation:** Review and approval of specific development plans shall be through a combination Development Agreement/Rezone process negotiated with the proponent and approved by the City. Any development or redevelopment proposal within SPA 4 shall be reviewed as a rezone through the Type 4 land use review process established in the Zoning code and shall comply with Policy (SE 1.5). This process does not apply to: a) the remodel of addition to existing residential units for residential purposes, or b) the remodel or addition to existing non-residential uses for the same use or another use allowed by the property's zoning.

The City should also consider adoption of a "Planned Action" ordinance as allowed under the State Environmental Policy Act to encourage redevelopment within SPA-4.

The following map is a portion of the adopted Comprehensive Plan map showing Special Planning Area 4 and its subareas:



SPA-4  
Zone



## Section 19.15.070—SPECIAL PLANNING AREA 4: NORTHEAST REDEVELOPMENT AREA

**PURPOSE AND INTENT:** The Special Planning Area 4 (SPA-4) zone implements the Special Planning Area 4 Comprehensive Plan designation. The purpose of this zone is to facilitate economic development in the northeast part of Burien in areas affected by aircraft noise from SeaTac International Airport. The intent is to provide for a high level of family-wage employment in airport-related uses concentrated in a coordinated, well-landscaped business park setting with substantial buffers along the perimeter of the area. [Ord. 396 §1, 2003]

**ONLY THOSE USES LISTED ON THE FOLLOWING USE ZONE CHARTS MAY BE ALLOWED IN THE SPA-4 ZONE, SUBJECT TO MEETING ALL APPLICABLE REQUIREMENTS OF THE ZONING CODE. THE FOLLOWING SPECIAL REGULATIONS APPLY TO ALL USES IN THE SPA-4 ZONE. BE SURE TO CHECK THE APPLICABLE USE ZONE CHART FOR ADDITIONAL REQUIREMENTS THAT PERTAIN TO SPECIFIC USES. WHERE A SPECIAL REGULATION BELOW CONFLICTS WITH A SPECIAL REGULATION IN A USE ZONE CHART FOR A SPECIFIC USE, THE USE ZONE CHART SHALL APPLY.**

### 19.15.070.1: SPECIAL REGULATIONS:

#### A. GENERAL.

- i. Use and development within this zone may be affected by *FAA* regulations associated with SeaTac Airport operations.
- ii. The minimum *site* required for a new *use* or development is 2 acres.
- iii. Uses shall be contained entirely within a *building*, except for the following uses, *screened* pursuant to BMC 19.48: vehicle parking, construction storage areas, incidental outside storage, and on-*site* vehicle sales or rental areas.
- iv. Uses shall conform with the following requirements (excluding reasonable construction activity):
  - a. Does not emit significant quantities of dust, dirt, cinders, smoke, gases, fumes, odors or vapors into the atmosphere.
  - b. Does not emit any liquid or solid wastes or other matter into any stream, wetland, or other waterway.
  - c. Does not emit radiation or discharges glare or heat, or emits electromagnetic, microwave, ultrasonic, laser or other radiation levels over what is considered safe by the *FCC*.
  - d. Does not emit radiation or discharges glare or heat, or emits electromagnetic, microwave, ultrasonic, laser or other radiation levels that would adversely impact electronic equipment of residences or businesses outside of the boundaries of the property the business is located.
  - e. Does not use heavy trucking as a principal use, such as truck terminals or heavy truck repair.

f. Does not produce excessive noise or ground vibration perceptible without instruments at any point exterior to any *lot*.

g. Is not considered an aviation hazard as defined in State and Federal law.

h. Does not use high intensity lighting or make it difficult for pilots to distinguish between airport lights and others; create electrical interference with navigational signals or radio communication between the airport and aircraft; result in glare in the eyes of pilots using the airport; create reflectivity that interferes with airport radar function; create smoke, dust or other particulates that would impair visibility for aircraft; allow the storage of highly flammable or explosive materials, create bird-strike hazards; or otherwise create a hazard which may in any way endanger the landing, takeoff, or maneuvering of aircraft intending to use the airport.

v. Hours of trash pickup should be restricted to reduce potential disturbance from noise.

[Ord. 479 §1, 2007]

B. REVIEW PROCESS. The uses allowed in the SPA-4 zone are shown in the following use zone charts. [Ord. 479 §1, 2007]

C. DESIGN STANDARDS. Development within SPA-4 is subject to compliance with the design standards in BMC 19.48.

D. SETBACKS. No *setbacks* are required except where landscape areas are required. [Ord. 479 §1, 2007]

E. BUILDING HEIGHT. No *structure* shall be permitted to be erected, altered or maintained that would constitute a hazard to air navigation, encroach into the limits of the *FAA* Part 77 imaginary surfaces, or cause an increase in minimum flight or approach procedure altitudes as determined by the *FAA*. The maximum *building height* allowed in SPA-4A shall be the lesser of 30 feet or the *height* allowed under *FAA* regulations. The maximum *building height* allowed in SPA-4B and SPA-4C shall be the lesser of 45 feet or the *height* allowed under *FAA* regulations. In SPA-4B and 4C, an additional 12 feet of *height* is allowed for under-*building* or underground parking. A written certification of *height* compliance from the *FAA* may be required.

F. TRANSPORTATION MITIGATION. In addition to providing *street* improvements on adjacent *streets* pursuant to BMC 12.05, the City may require *off-site improvements* necessary to mitigate transportation impacts of the proposal as part of the SEPA planned action or other SEPA review under BMC Title 14. Such improvements include, but are not limited to those listed in Comprehensive Plan policy SE 1.5, Performance and Design Standard 7. [Ord. 479 §1, 2007]

G. PUBLICLY-OWNED PROPERTY. Pursuant to BMC 18.130, property acquired for public purposes by public entities shall be initially designated for use as parks and recreation land or for community facilities designed to benefit the city and its residents. These community facilities may include public trails, natural open space, infrastructure and utility uses that support private commercial re-development. The preferred long-term use of these lands is redevelopment in public or private ownership with commercial uses that are of value to the city pursuant to BMC 18.130.020. The uses listed in BMC 19.15.070.2 through 19.15.070.12 comply with BMC 18.130.020.

H. MAXIMUM IMPERVIOUS SURFACE COVERAGE. Public pedestrian and non-motorized facilities are excluded from *impervious surface* coverage.

**DIRECTIONS: FIRST, read down to find use...THEN, across for REGULATIONS**

<div style="border: 1px solid black; padding: 5px; display: inline-block;">SPA-4 Zone</div> USE 	REGULATIONS 	MINIMUMS		MAXIMUMS			Landscape Category (See Ch. 19.25)	Minimum Required Parking Spaces (See Ch. 19.20)	Special Regulations (See also Section 19.15.070.1 and Miscellaneous Use, Development and Performance Standards Ch. 19.17)		
		Special Review Process (See Ch. 19.65)	Lot Area	SETBACKS		Lot Coverage				Building Height	
				Front Setback	Interior Setback	Building Coverage					Impervious Surface Coverage
19.15.070.2 High Technology Industry  Office	See BMC 19.15.070.1	See BMC 19.15.0 70.1.A	See BMC 19.15.070.1	None	75% See BMC 19.15. 070.1.G	See BMC 19.15.070.1	F	3 spaces per 1,000 s.f. of <i>net floor area.</i>	None		
19.15.070.3 Light Industry	See BMC 19.15.070.1	See BMC 19.15.0 70.1.A	See BMC 19.15.070.1	None	75% See BMC 19.15. 070.1.G	See BMC 19.15.070.1	F	1 space per 1,000 s.f. of <i>net floor area.</i>	1. This use is allowed in SPA 4B and SPA 4C.  2. This use may be allowed in SPA 4A if environmental review is completed and all impacts are fully mitigated.		
19.15.070.4 Air Cargo Facility  Distribution  Flight Kitchen  Warehousing and Wholesale Trade	See BMC 19.15.070.1	See BMC 19.15.0 70.1.A	See BMC 19.15.070.1	None	75% See BMC 19.15. 070.1.G	See BMC 19.15.070.1	F	3 spaces per 1,000 s.f. of <i>net floor area for office area, plus 0.5 space per 1,000 s.f. of net floor area for non- office area</i>	1. These uses are allowed in SPA 4C.  2. These uses may be allowed in SPA 4A and SPA 4B if environmental review is completed and all impacts are fully mitigated.		
19.15.070.5 New Car Auto Dealer  Auto Rental	See BMC 19.15.070.1	See Spec. Reg. 3	See BMC 19.15.070.1	None	75% See BMC 19.15. 070.1.G	See BMC 19.15.070.1	F	See Section 19.20.030.2.	1. This use is allowed in SPA 4C.  2. This use may be allowed in SPA 4A and SPA 4B if environmental review is completed and all impacts are fully mitigated.  3. A new car auto dealer is allowed only in a planned auto mall configuration with at least three dealers. Sale of used vehicles may be allowed as an <i>accessory use</i> . The minimum <i>lot area</i> for an auto mall is 15 acres.		

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<div style="border: 1px solid black; padding: 5px; display: inline-block;">SPA-4 Zone</div> USE 	REGULATIONS	MINIMUMS		MAXIMUMS			Landscape Category (See Ch. 19.25)	Minimum Required Parking Spaces (See Ch. 19.20)	Special Regulations (See also Section 19.15.070.1 and Miscellaneous Use, Development and Performance Standards Ch. 19.17)	
		Lot Area	SETBACKS		Lot Coverage					Building Height
			Front Setback	Interior Setback	Building Coverage	Impervious Surface Coverage				
19.15.070.6 Artist Studio	See BMC 19.15.070.1	See BMC 19.15.0 70.1.A	See BMC 19.15.070.1	None	75% See BMC 19.15. 070.1.G	See BMC 19.15.070.1	F	1 space per 1,000 s.f. of <i>net floor area</i> plus an additional 1 space per 1,000 s.f. of <i>net floor area</i> if sales is allowed.	1. May include one <i>dwelling unit</i> occupied by the artist, subject to <i>FAA</i> regulations. 2. <i>Retail</i> sales of art produced on-site is allowed.	
19.15.070.7 Plant Nursery	See BMC 19.15.070.1	See BMC 19.15.0 70.1.A	See BMC 19.15.070.1	None	75% See BMC 19.15. 070.1.G	See BMC 19.15.070.1	F	3 spaces per 1,000 s.f. of <i>net floor area</i> .	None	
19.15.070.8 Off-Site Parking	See BMC 19.15.070.1	See BMC 19.15.0 70.1.A	See BMC 19.15.070.1	None	75% See BMC 19.15. 070.1.G	See BMC 19.15.070.1	F	None	None	

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<div style="border: 1px solid black; padding: 5px; display: inline-block;">SPA-4 Zone</div> USE 	REGULATIONS 	MINIMUMS		MAXIMUMS			Landscape Category (See Ch. 19.25)	Minimum Required Parking Spaces (See Ch. 19.20)	Special Regulations (See also Section 19.15.070.1 and Miscellaneous Use, Development and Performance Standards Ch. 19.17)		
		Special Review Process (See Ch. 19.65)	Lot Area	SETBACKS		Lot Coverage				Building Height	
				Front Setback	Interior Setback	Building Coverage					Impervious Surface Coverage
19.15.070.9 <i>Convenience Retail</i>  <i>Eating and Drinking                      Establishment</i>	See BMC 19.15.070.1	See BMC 19.15.0 70.1.A	See BMC 19.15.070.1	None	75% See BMC 19.15. 070.1.G	See BMC 19.15.070.1	F	<i>Convenience                      retail:</i> 3 spaces per 1,000 s.f. of <i>net floor                      area.</i> Eating & Drinking: 13 spaces per 1,000 s.f. of <i>net floor                      area.</i>	1. These uses are allowed in SPA 4C.  2. These uses may be allowed in SPA 4A and SPA 4B if environmental review is completed and all impacts are fully mitigated.  3. Allowed only as <i>accessory</i> use related to or supporting the <i>primary use</i> of the <i>site</i> .  4. Total <i>gross floor area</i> devoted to <i>convenience retail</i> and eating & drinking establishments shall not exceed 20% of the <i>gross floor area</i> of the <i>primary use</i> on the <i>site</i> .  5. Occupancy of an <i>eating and drinking establishment</i> is limited to the lesser of 40 people per acre or the occupancy allowed by the <i>construction code</i> .		
19.15.070.10: <i>Community Facility</i>  <i>Government Facility</i>	See BMC 19.15.070.1	See BMC 19.15.0 70.1.A	See BMC 19.15.070.1	None	75% See BMC 19.15. 070.1.G	See BMC 19.15.070.1	F	See Section 19.20.030.2.	None		
19.15.070.11 <i>Public Park and                      Recreation Facilities</i>  <i>Recreational Facility</i>	See BMC 19.15.070.1	See BMC 19.15.0 70.1.A	See BMC 19.15.070.1	None	75% See BMC 19.15. 070.1.G	See BMC 19.15.070.1	F	See Section 19.20.030.2.	1. Lighting for <i>structures</i> and fields shall be directed away from residential areas.		
19.15.070.12 <i>Public Utility</i>	See BMC 19.15.070.1	See BMC 19.15.0 70.1.A	See BMC 19.15.070.1	None	75% See BMC 19.15. 070.1.G	See BMC 19.15.070.1	F	See Section 19.20.030.2.	1. Shall be designed, located, constructed and buffered to blend in with their surroundings and minimize adverse impacts on adjacent properties. Special attention shall be given to minimizing noise, light and glare impacts.		

**DIRECTIONS: FIRST, read down to find use...THEN, across for REGULATIONS**

<div style="border: 1px solid black; padding: 5px; display: inline-block;">SPA-4 Zone</div> USE 	○ REGULATIONS	MINIMUMS		MAXIMUMS			Landscape Category (See Ch. 19.25)	Minimum Required Parking Spaces (See Ch. 19.20)	Special Regulations (See also Section 19.15.070.1 and Miscellaneous Use, Development and Performance Standards Ch. 19.17)		
		Special Review Process (See Ch. 19.65)	Lot Area	SETBACKS		Lot Coverage				Building Height	
				Front Setback	Interior Setback	Building Coverage					Impervious Surface Coverage
19.15.070.13: <i>Religious Facility</i>	See BMC 19.15.070.1	See BMC 19.15.0 70.1.A	See BMC 19.15.070.1	None	75% See BMC 19.15. 070.1.G	See BMC 19.15.070.1	F	See Section 19.20.030.2.	None		
19.15.070.14 <i>On-site hazardous waste treatment and storage facility</i>  <i>Off-site hazardous waste treatment and storage facility</i>	See BMC 19.15.070.1	See BMC 19.15.0 70.1.A	See BMC 19.15.070.1	None	75% See BMC 19.15. 070.1.G	See BMC 19.15.070.1	F	See Section 19.20.030.2.	1. These uses are allowed in SPA 4C. 2. These uses may be allowed in SPA 4B if environmental review is completed and all impacts are fully mitigated. 3. Must comply with the state siting criteria adopted in accordance with RCW 70.105.210.		
19.15.070.15 <i>Essential Public Facility</i>	See BMC 19.15.070.1	See BMC 19.15.0 70.1.A	See BMC 19.15.070.1	None	75% See BMC 19.15. 070.1.G	See BMC 19.15.070.1	F	See Section 19.20.030.2.	1. Shall be designed, located, constructed and buffered to blend in with their surroundings and minimize adverse impacts on adjacent properties. Special attention shall be given to minimizing noise, light and glare impacts. 2. Shall comply with criteria for siting found in the Burien Comprehensive Plan.		
19.15.070.16 <i>Adult Entertainment Facility</i>	See BMC 19.15.070.1	See BMC 19.15.0 70.1.A	See BMC 19.15.070.1	None	75% See BMC 19.15. 070.1.G	See BMC 19.15.070.1	F	See Section 19.20.030.2.	1. See Sec. 19.17.030 for additional requirements. 2. Allowed only in SPA-4C. 3. Occupancy is limited to the lesser of 40 people per acre or the occupancy allowed by the <i>construction code</i> .		
19.15.070.17 <i>Secure Community Transition Facility</i>	See BMC 19.15.070.1	See Section 19.17.110									
19.15.070.18 <i>Personal Wireless Service Facility</i>	See BMC 19.50 for specific requirements. [Ord. 479 §1, 2007]										