

4.15 LAND USE

Where people live, work, shop, and participate in community activities are guided by a community's land use designations, plans and policies. Local governments plan for land use based on the community's long-range vision and goals to accommodate growth in conformity with state law. This section of this EA helps decision-makers understand existing land use conditions within the Land Use study area and potential effects that could result from the Build Alternative. Any conflicts between the Build Alternative and adopted land use or transportation plans and development regulations, and any potential mitigation measures for addressing those effects, are evaluated in this analysis. Indirect and cumulative impacts on land use are discussed in Section 4.18 (Indirect and Cumulative Effects).

The North Study Area contains substantial development adjacent to I-5, including a mix of urbanizing residential and commercial land uses, as well as extensive military lands associated with Joint Base Lewis-McChord (JBLM) and Camp Murray. The proposed improvements to I-5 pass through several jurisdictions in southern Pierce County. These include the city of Lakewood and its Tillicum and Woodbrook neighborhoods, JBLM, Camp Murray, and the city of DuPont (See Figure 4.15-1).

4.15.1 What Methods, Assumptions and Resources Were Considered in the Evaluation of Land Use?

The land use study area extends between the Gravelly Lake Drive interchange (Exit 124) on the north and the Center Drive interchange (Exit 118) on the south. The study area encompasses the Build Alternative footprint and a ½ mile beyond in all directions. Study area boundaries were adjusted outward slightly in a few locations to include the entirety of potentially affected neighborhoods in Lakewood and DuPont (See Figure 4.15-1).

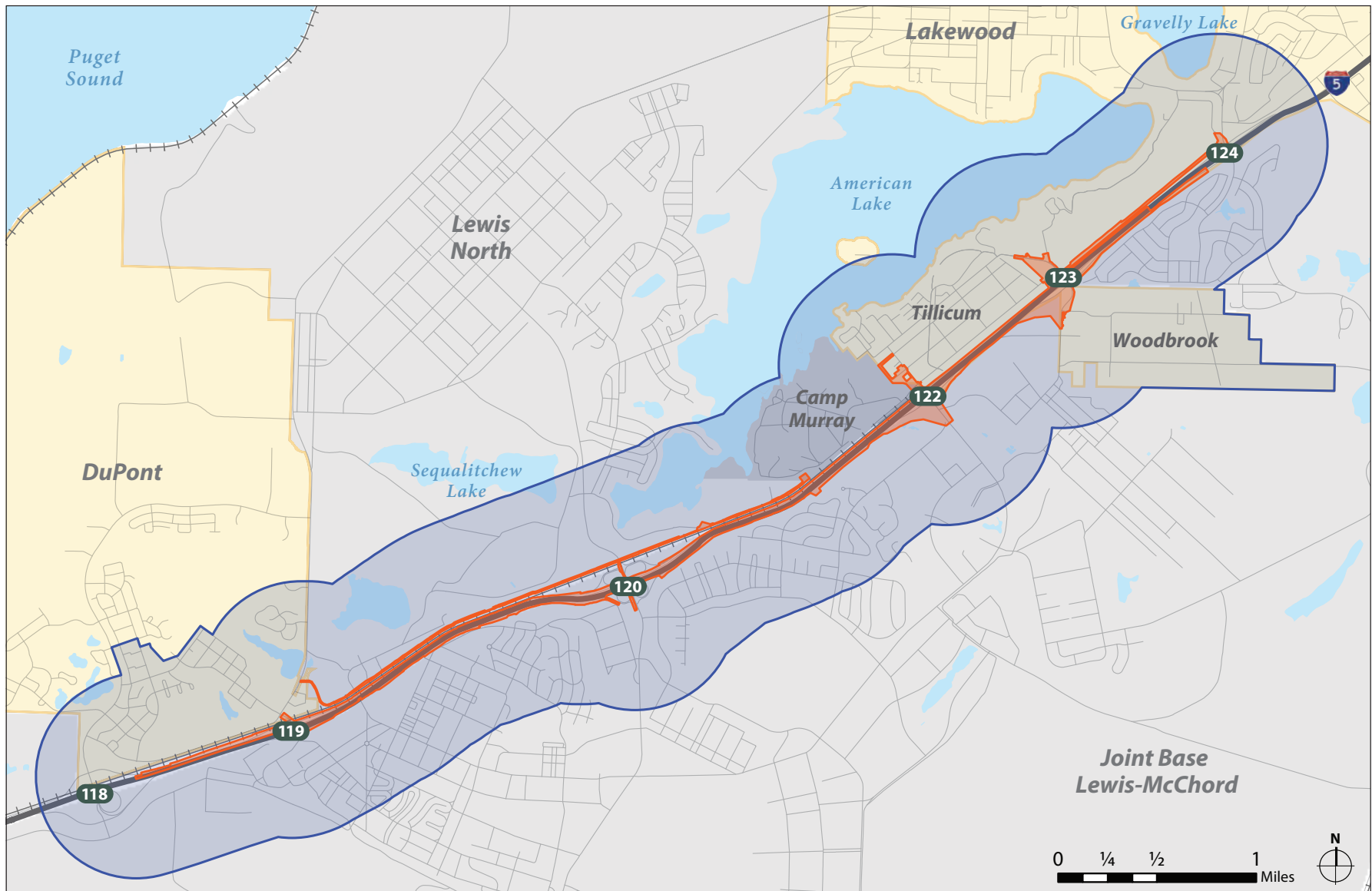
This geography allows consideration of the entire Tillicum and Woodbrook neighborhoods in Lakewood. These neighborhoods are unique in that they rely completely on I-5 and the interchanges at Thorne Lane and Berkeley Street for access to and from non-neighborhood destinations. At the south end of the land use study area, there is overlap between the North Study Area and the South Study Area. This overlap occurs in the vicinity of the Steilacoom-DuPont Road interchange and would include improvements under both the North Study Area Build Alternative and the South Study Area.

Land uses were identified by reviewing published information from the cities of Lakewood and DuPont, as well as Pierce County GIS data, and then verified through field survey of the area. Information regarding future land uses was gathered from comprehensive plans and zoning codes for the affected jurisdictions.

4.15.2 What Types of Land Uses Currently Exist in the Study Area?

The study area is characterized by a mix of urbanizing residential and commercial land uses, as well as extensive military lands. This subsection describes the character of each community affected by the Build Alternative including the city of Lakewood, JBLM, Camp Murray, and the city of DuPont, and general land uses within the

NOTE TO READER: This EA provides a tiered environmental review. Chapter 4 evaluates the project specific environmental impacts associated with construction of the North Study Area Build Alternative (See Section 3.4 for description). Chapter 5 provides a corridor level discussion of the South Study Area (See Section 3.5). Specific project footprint improvements are not currently defined for the South Study Area.



Land Use Study Area
Build Alternative Footprint

- INTERCHANGES**
- 118 Center Drive interchange
 - 119 Steilacoom-DuPont Road interchange
 - 120 Main Gate interchange
 - 122 Berkeley Street interchange
 - 123 Thorne Lane interchange
 - 124 Gravelly Lake Drive interchange

Figure 4.15-1
Land Use Study Area

study area. Details on future land use and zoning are included later in this subsection.

By enlarging the land use study area to encompass a greater area than just the highway corridor and immediately adjacent land uses, analysis can address the potential effects of the Build Alternative on a larger geographical area that reflects the close relationship between land use and the transportation system. By including at least a ½ mile in all directions from the Build Alternative footprint, this analysis captures the potential land use impacts associated with shifts in vehicular traffic and compatibility of the Build Alternative with adopted plans.

Lakewood

Lakewood was incorporated in 1996 and is the second largest city in Pierce County. It has an estimated population of about 60,000 residents, as well as 25,000 jobs and 3,500 businesses (www.cityoflakewood.us/live/about). It is recognized by the Puget Sound Regional Council (PSRC) as one of 14 “core cities” in the region’s *Vision 2040* growth strategy. Lakewood is the host community to JBLM.

Through the study area I-5 physically runs in an east/west direction. However, in this EA travel on I-5 is referred to as northbound and southbound consistent with its ultimate spatial orientation. Directionality of adjacent land is referred to as east of I-5 or west of I-5.

Within the Lakewood portion of the study area, land uses consist of a mix of single family and multi-family residential uses, various commercial uses, industrial uses, and some open space and recreational uses. There are also large swaths of land designated as clear zones and air corridor zones related to military activities in the area. The Lakewood Transit Station is located just outside the northern extent of the study area at the

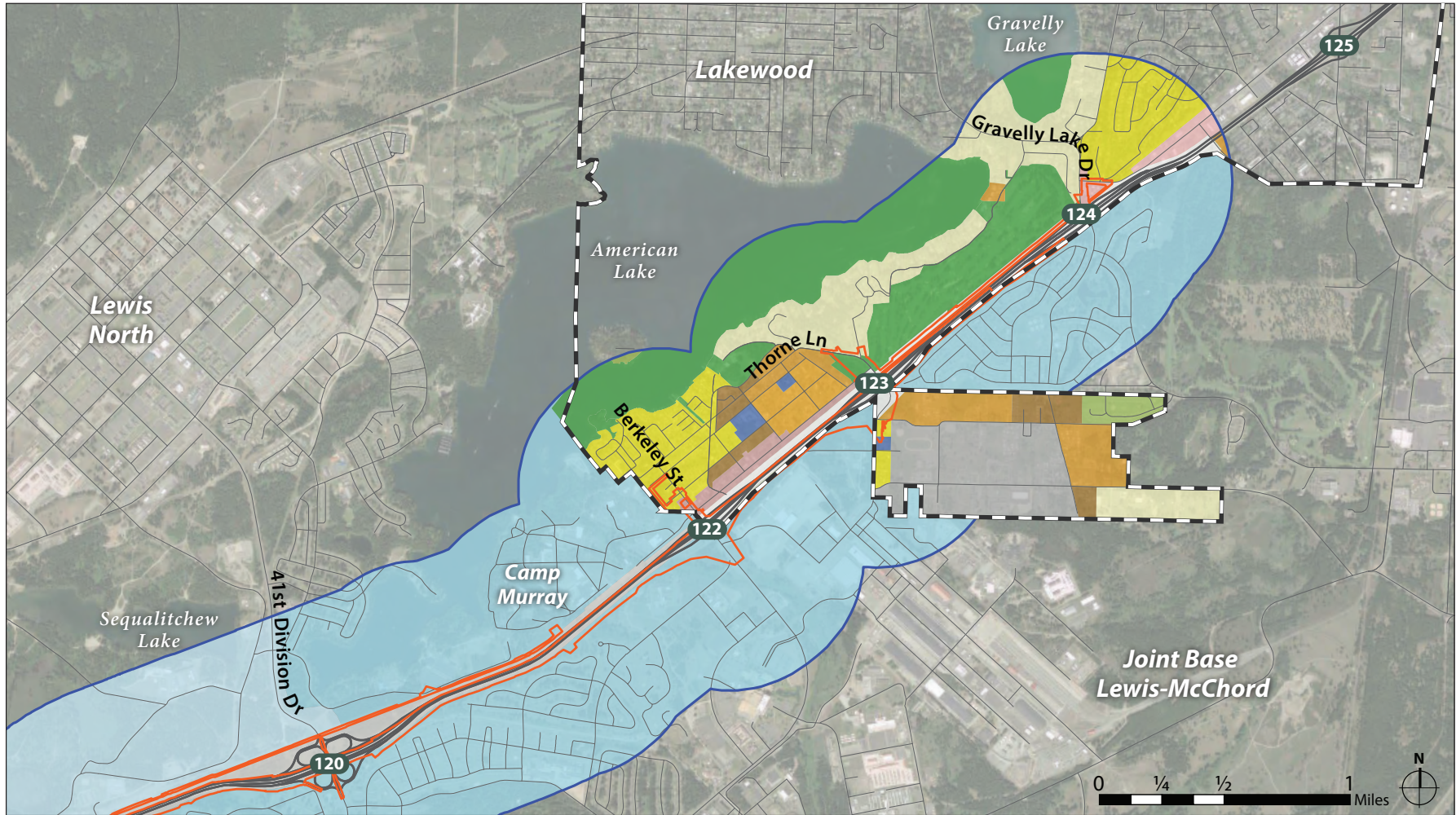
Bridgeport Way interchange (Exit 125). Although it lies outside the study area, it serves the entire corridor within the study area as a major transfer point for connections between Sound Transit, Pierce Transit, and Intercity Transit and includes a large regional park-and-ride facility.

The Tillicum neighborhood of Lakewood is located wholly within the land use study area, on the west side of I-5 (see Figure 4.15-1). The Tillicum neighborhood is geographically isolated from the rest of the city; the only way into or out of the neighborhood is via I-5 using exits 122 or 123. Tillicum has a mix of single family and multi-family residential with a small commercial area adjacent to I-5. Development and redevelopment within Tillicum has historically been constrained by the lack of sewer service. This constraint was removed when the city extended sewer to the area in 2011. Much of the commercial frontage is considered under-utilized. A popular recreational access to American Lake is located in Tillicum at Harry Todd Park.

The Woodbrook neighborhood of Lakewood, also wholly within the land use study area, is located east of I-5. It currently has a mix of residential, commercial, and industrial uses. Sewers have been extended into the neighborhood and roadway improvements have been made to accommodate its eventual redevelopment into an industrial business park. Much of the land in Woodbrook is currently vacant or under-utilized.

Three interchanges within the study area provide access to and from Lakewood:

- ◆ Gravelly Lake Drive (Exit 124).
- ◆ Thorne Lane (Exit 123).
- ◆ Berkeley Street (Exit 122).



- Land Use Study Area
- Build Alternative Footprint
- City Limits

- LAKESWOOD LAND USE**
- Corridor Commercial
 - Industrial
 - Mixed Residential
 - High-Density Multi-Family
 - Multi-Family
 - Military Lands
 - Neighborhood Business District
 - Open Space & Recreation
 - Public & Semi-Public Institutional
 - Residential Estate
 - Single Family

- PIERCE COUNTY LAND USE**
- Rural Military Land
 - Urban Military Lands
- INTERCHANGES**
- Main Gate interchange
 - Berkeley Street interchange
 - Thorne Lane interchange
 - Gravelly Lake Drive interchange
 - Bridgeport Way interchange

Figure 4.15-2
*Land Use: City of Lakewood
and Pierce County*

JBLM

Much of the study area on either side of I-5 is bounded by JBLM. At over 90,000 acres in size, JBLM is the largest military installation and the only Power Projection Platform on the West Coast. It hosts more than 40,000 active duty military service members, 14,000 civilian employees, and 60,000 military family members (<http://www.lewis-mcchord.army.mil/about.html>). Nearly 30,000 military retirees live within 50 miles of JBLM. Roughly 27 percent of active duty military service members live on base; the remainder lives in surrounding communities and commute to work. JBLM is the largest employer in Pierce County and the largest single-site employer in the state of Washington.

The size, population, and services offered on JBLM make it comparable to a fully-functioning city. While most of JBLM is composed of open range lands for military maneuvers and training, an extensive network of urban services such as military offices, residential areas, schools, Madigan Army Medical Center, fire stations, and other operational support features are located in close proximity to I-5.

All five interchanges within the study area provide access to and from JBLM:

- ◆ Gravelly Lake Drive (Exit 124).
- ◆ Thorne Lane (Exit 123).
- ◆ Berkeley Street (Exit 122).
- ◆ Main Gate/41st Division Drive (Exit 120).
- ◆ Steilacoom-DuPont Road (Exit 119).

Camp Murray

Camp Murray is located west of I-5, adjacent to JBLM and the Tillicum neighborhood. Camp Murray is owned by the state of Washington and operated by the Washington Military Department. It is home to the Washington Army National Guard, the Washington State Guard, and the Washington Air National Guard. The state's Emergency Management Division and Emergency Operations Center are housed at Camp Murray. Its land uses include numerous offices, training facilities, and a military museum.

Camp Murray is accessed by commercial vehicles via one interchange, and by passenger vehicles via another:

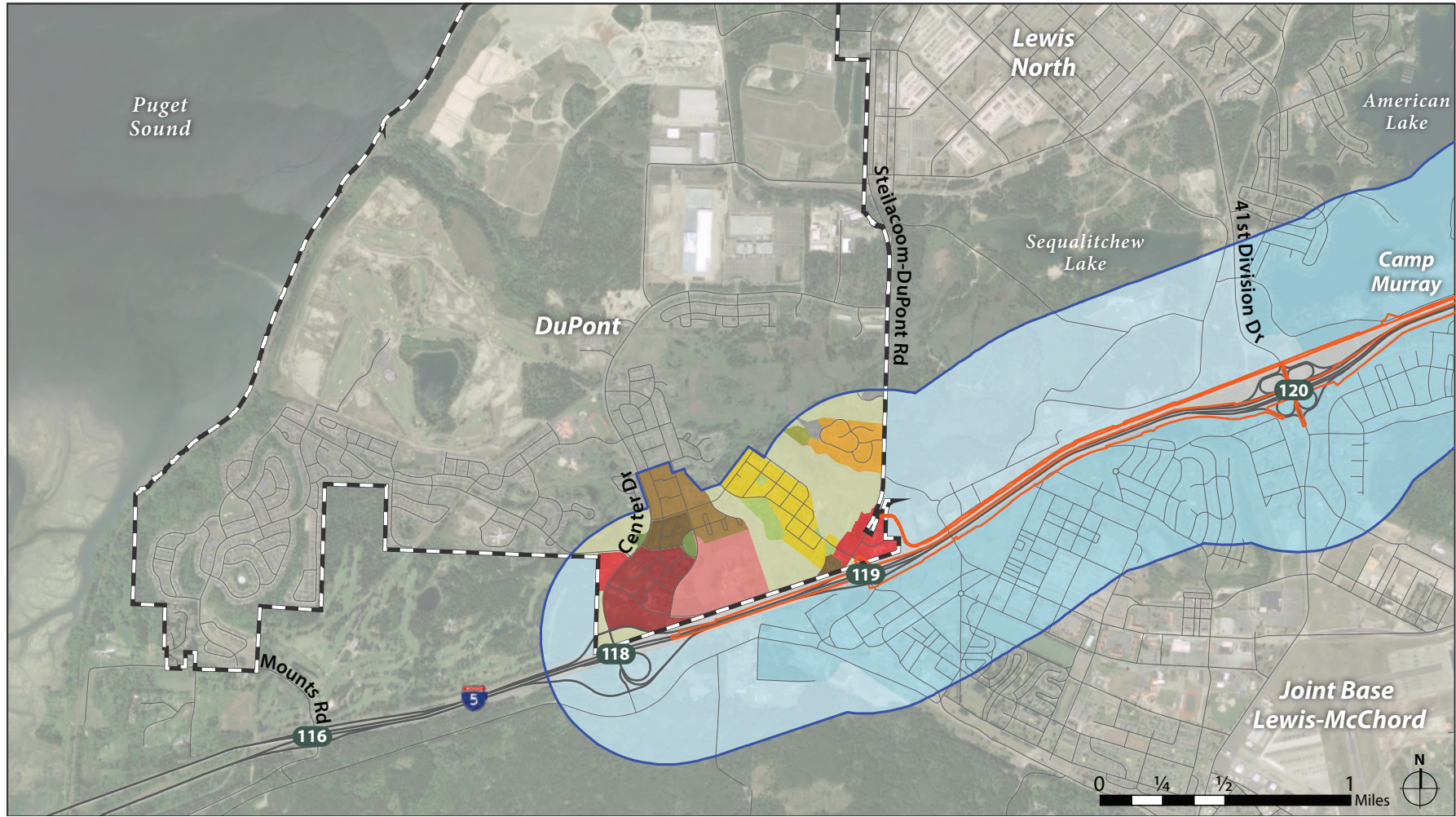
- ◆ Thorne Lane (Exit 123) – commercial vehicles only.
- ◆ Berkeley Street (Exit 122) – passenger vehicles only.

DuPont

The southern part of the land use study area contains a small portion of the city of DuPont. This historic community was incorporated in 1951. A six-square-mile planned community, Northwest Landing, was approved in 1989 and added significant residential, commercial, and industrial development to the original city. The city currently has a population of about 9,250 and roughly 3,100 jobs.

The land area in DuPont is evenly distributed between residential areas, business/industrial areas, and open space. While residential areas currently make up the majority of the developed areas, the city has large land areas designated for future commercial and business/industrial development.

The Steilacoom-DuPont Road interchange (Exit 119) is within the land use study area and provides access to and from the northern portions of DuPont.



- Land Use Study Area
- Build Alternative Footprint
- City Limits

- DUPONT LAND USE**
- Commercial
 - Office
 - Mixed Use
 - Open Space / Sensitive Areas
 - Neighborhood Park
 - Community Park
 - Manufacturing & Research
 - Residential 12
 - Residential 5
 - Residential 4
 - Residential 3

- PIERCE COUNTY LAND USE**
- Rural Military Land
 - Urban Military Lands

- INTERCHANGES**
- Mounts Road interchange
 - Center Drive interchange
 - Steilacoom-DuPont Road interchange
 - Main Gate interchange

Figure 4.15-3
Land Use: City of DuPont and Pierce County

What Areas Are Served by Each Interchange?

The areas to which each interchange provides access are characterized below.

- ◆ Gravelly Lake Drive (Exit 124) is the northern extent of the study area and provides access into Lakewood’s commercial and residential neighborhoods on the west side of I-5. East of I-5, the Gravelly Lake Drive interchange provides access to the JBLM Military Housing Gate.
- ◆ Thorne Lane (Exit 123) provides access into the Tillicum neighborhood west of I-5 and to the Woodbrook neighborhood east of I-5. It also provides access to the Logistics and Commercial Gates of JBLM.
- ◆ Berkeley Street (Exit 122) provides access to the Tillicum neighborhood and to the Washington National Guard facility at Camp Murray on the west side of I-5 and to the Madigan Gate of JBLM on the east side of I-5. This gate is heavily used by traffic traveling to Madigan Army Medical Center.
- ◆ Main Gate/41st Division Drive (Exit 120) provides access to the area of JBLM known as Lewis North on the west side of I-5 and to the central part of JBLM (Lewis Main) east of I-5. At this location, I-5 spans 41st Division Drive.
- ◆ Steilacoom-DuPont Road (Exit 119) provides access to the city of DuPont and the town of Steilacoom to the west of I-5, and to the DuPont Gate of JBLM on the east side of I-5. This gate is used heavily by service members and civilian employees destined for the employment and operations areas of JBLM clustered in close proximity to I-5 near this location.

4.15.3 What Would Be the Impact of the No Build Alternative?

Would the No Build Alternative Be Consistent with Adopted Plans?

The No Build Alternative would not be consistent with adopted plans, especially with regards to what is envisioned over time for transportation and land use in the study area. The No Build Alternative is not consistent with policies regarding urban growth and transportation system development contained within the *Washington Transportation Plan*, *Highway System Plan*, the *PSRC Transportation 2040 Plan*, the *City of Lakewood TIP*, or the *City of DuPont TIP*, *PSRC Multicounty Planning Policies*, the *JBLM Growth Coordination Plan*, *Pierce County Countywide Planning Policies*, *Lakewood’s Comprehensive Plan*, the *Tillicum Neighborhood Plan*, or the *DuPont Comprehensive Plan*.

What Effects to Land Use Would Result with the No Build Alternative?

With the No Build Alternative, no improvements would be made to I-5 in the JBLM vicinity, no property would be acquired for right of way, and there would be no temporary impacts due to construction. Existing land uses would persist. The No Build Alternative would result in continued worsening of congestion on I-5 and degraded regional mobility. In addition to having negative impacts on interstate and regional movement of freight, congestion on I-5 would make access to and from commercial, residential and military land use within the study area increasingly difficult.

4.15.4 What Would Be the Long-Term Impact of the Build Alternative?

Would the Build Alternative Be Consistent with Adopted Plans?

The Build Alternative would be consistent with currently adopted plans and policies at local, regional, and state levels. As detailed earlier, adopted plans underscore the importance of improving mobility for freight, transit, cars, and non-motorized transportation modes in the study area. They recognize I-5 as a corridor of statewide importance in terms of mobility, support for the state's economy, and access to JBLM, as well as adjacent communities.

As proposed, the Build Alternative would provide relief to worsening congestion problems on I-5 via new lanes and introduce grade-separation between cars and passenger trains at the Thorne Lane and Berkeley Street interchanges. The Build Alternative would relieve the geographic isolation of the Tillicum neighborhood and establish a new bicycle/pedestrian facility along I-5. Individual elements of the Build Alternative have been evaluated to ensure their consistency with regionally-adopted policies and priorities and are included on the financially-constrained project list in PSRC's *Transportation 2040 Plan*. They are also included in the *Highway System Plan* and the six-year TIPs of Lakewood and DuPont.

How Would Land Use Be Affected by the Build Alternative?

The Build Alternative was evaluated for its effect on existing and future land uses to determine if it would have more than a moderate land use impact. Potential impacts were judged based on compatibility with adjacent land uses and adopted land use plans. The Build Alternative would be compatible with existing and proposed land uses, and would likely help some of the transformation envisioned in adopted plans to be realized by improving system

reliability, access, and circulation. It has been designed to minimize impacts to both private property and military lands adjacent to I-5 and the proposed reconstructed interchanges.

4.15.5 What Would Be the Short-Term or Construction Impacts of the Build Alternative?

The Build Alternative would have temporary effects on adjacent land uses during construction. Effort has been taken to avoid and minimize disruption during construction. The design of new interchanges at Thorne Lane and Berkeley Street are offset from the existing interchanges. This enables the existing interchanges to continue being used while the new ones are built, minimizing undue traffic disruptions during major construction phases. Additionally, the Build Alternative would slightly realign I-5 in conjunction with the new interchanges which also enables traffic to continue to flow on the existing freeway during construction of the new portions of I-5.

All applicable regulations would be adhered to during the construction process to offset the impacts to surrounding land uses. As required under WSDOT contract provisions, the scheduling of road closures and detour routes would be coordinated with police, fire and emergency services, school districts, and businesses dependent on delivery routes in the active construction area to minimize impacts. Maintaining ongoing communications would keep local residents informed of development phases, areas where construction is occurring, and possible travel alternatives.

The greatest potential for disruption is in the Tillicum neighborhood, which would be impacted during construction of both the Thorne Lane and Berkeley Street interchanges. The two interchange reconstructions would result in more traffic routed onto local streets for three to six months each. Coordination with local businesses during that time would be done in an effort to identify strategies

for minimizing negative effects on access and circulation, while maximizing opportunities associated with increased business exposure.

4.15.6 How Can the Impacts of the Build Alternative Be Minimized or Mitigated?

The Build Alternative would not result in impacts to land use and therefore minimization or mitigation measures are not necessary. Revisions to the Berkeley Street interchange will result in minor modifications to travel patterns into and out of Tillicum and to the Camp Murray commercial access gate that could be addressed through enhanced signing in the area.

4.15.7 Would the Build Alternative Have Unavoidable Adverse Effects on Land Use That Could Not Be Mitigated?

The Build Alternative would not have any unavoidable adverse effects on land use. Because the land uses in the study area are already oriented to the existing interstate, no other immediate or long-term adverse effects to land use are anticipated.