

Puget Sound Regional Council
2002 Manufacturing/Industrial Centers Report

**PAINE FIELD/BOEING EVERETT
 MANUFACTURING/INDUSTRIAL CENTER**

Community Context

The City of Everett can trace its modern roots to the fall of 1891 when work crews began clearing land to build an industrial boomtown supported, planned and built by investors who expected it to be the western terminus of the Great Northern Railroad. Although Everett was incorporated in the spring of 1893, it took the economic boom of 1900 to solidify Everett's future as an industrial city. By design, Everett set aside most of its waterfront for industry, which at the beginning of the 20th century included lumber and shingle mills, wood products manufacturers, iron works, shipbuilders, fisheries, canneries, a brewery and a shoe factory. By the 1920s the city's importance as a leader in the lumber-shingle trade and as an international waterfront port was well established. Lumber-shingle predominance eventually gave way to the papermaking era, and as the timber economy began to wane regionally, the city welcomed a shift to the arrival of Boeing and aerospace in the 1960s. The city has continued to try to diversify its economy to be less dependent upon the cyclical fluctuations of single industries, as can be seen in the arrival of electronics corporations and increasing numbers of service industries.

Today, with an estimated year 2000 population of 91,488 residents, Everett is the largest city in Snohomish County. The city contains approximately 33 square miles of territory, including a large historic central business district, a major port, and one of the state's largest industrial centers, the Paine Field airport area, which contains a major Boeing aircraft manufacturing facility. The city supports a healthy economy, composed of a variety of economic sectors, such as aerospace, telecommunications, computer technology, electronics, health care, tourism, education and government, the paper products industry and numerous small businesses. In the 1990s, government plans for a Navy homeport came to fruition; it now commands a prominent place on the city's waterfront. The city is also physically the largest in comparison to others in the County, and has a generous supply of vacant and industrial land. The city as a whole has one of the regions larger employment base with about 73,455 covered jobs.

City-Wide Snapshot		
	Everett	Mukilteo
Area (square miles)	32.97	6.14
Population (2000)	91,488	18,019
Population per square mile	2,775	2,935
Employment (2000)	73,455	6,916
Employees per square mile	2,228	1,126
Housing units (2000):	38,512	7,146
Employees per housing unit	1.91	.97

*Source: 2000 Census; Washington Department of Employment Security;
 Puget Sound Regional Council*

Manufacturing/Industrial Center Background

The Paine Field/Boeing Everett area was selected as a manufacturing/industrial center because of the large scale manufacturing and industrial activities which occur there, and because the area had already been identified as an important manufacturing and employment center in several major Snohomish County planning documents. With approximately 33,000 jobs, the world's largest manufacturing building, and Snohomish County's major airport, the center is a powerful economic engine for the central Puget Sound Region. The Boeing Company's major aircraft production capability is focused at Paine Field, Boeing Field, and Renton Airport.

Paine Field began in as one of five WPA projects designed to employ people and construct new airports in the U.S. In 1941, the partially completed facility was taken over by the Army Air Corps and developed as an interceptor base during World War II. In 1946 the Air Corps deactivated Paine Field, and the property and buildings were deeded to Snohomish County. Since the end of WWII Paine Field has been Snohomish County's largest general aviation airport. Indeed, the airport is among the state's largest in terms of the number of based aircraft. In 1966 the Boeing Company negotiated an agreement with Snohomish County to use the airport, and constructed the Everett 747 plant. Boeing's facilities were expanded in 1978 with the addition of the 767 production line, and again in 1992 with the expansions to accommodate the company's overall growth and the new 777 aircraft production line.

Paine Field/Boeing Everett manufacturing/industrial center is a major regional employment complex. The center includes Snohomish County Airport/Paine Field and the Boeing Company's Everett plant. The 2002 Airport Master Plan for Snohomish County Airport/Paine Field states:

“...Snohomish County Airport/Paine Field is the major general aviation/industrial aviation airport serving Snohomish County and several communities located in the northern portion of the Seattle Metropolitan Area. The airport had been a catalyst that has brought The Boeing Company, BF Goodrich, and other major aerospace companies to the County, providing a quite notable and prestigious employment base.”

Paine Field is one of the region's largest and busiest airports, and serves as home base for the Boeing Company's 747 and 777 wide body jet aircraft production center. The airport is home to nearly 500 based aircraft, and in 2000 the airport served over 200,000 aircraft takeoffs and landings. An important component of this activity is the flight testing, FAA aircraft certification, and customer delivery of large passenger and air cargo jet aircraft which are built at the adjoining Boeing plant. Much of the development and activity the occurs in the center is related to aviation; aircraft production, maintenance, testing, flight training, business and corporate aviation, and military aviation activities.

The center is generally bounded by Mukilteo Speedway (SR-525) on the west and Beverly Park Road on the south, and takes in the properties of Paine Field and the Boeing Company. Overall, the center comprises 4,241 acres, or 6.6 square miles. Of this total, the airport comprises 1,284 acres while Boeing Company holdings comprise the majority of the remaining land in the center. In addition to the Boeing Company, B.F. Goodrich is a major employer in the center. B.F. Goodrich is the largest third party commercial aircraft repair and maintenance company in the nation. It performs major maintenance on large passenger and air cargo jet aircraft for dozens of airlines and aircraft holding companies. One of the airports' largest tenants, Goodrich occupies a significant amount of ramp, office, hangar, and aircraft maintenance space at the airport.

See the aerial photo on the following page for a depiction of the Paine Field Boeing Everett Manufacturing Industrial Center.



Center Planning and Implementation

VISION 2020 includes policy support for coordinated planning in the region's manufacturing/industrial centers. Appendix 1 ("Center Characteristics and Descriptions") of the plan includes the following language addressing these centers:

Manufacturing/industrial centers are major, existing regional employment areas of intense, concentrated manufacturing and industrial land uses which cannot be easily mixed at higher densities with other uses. To preserve land at these centers for manufacturing, industry and related uses, large retail uses or non-related offices are discouraged. Provision of adequate public facilities and services, including good access to the region's transportation system, is very important to the success of manufacturing/industrial centers.

Several adopted planning documents provide explicit support for the Paine Field/Boeing Everett manufacturing/industrial center. These include Snohomish County's county-wide planning policies, the Snohomish County General Policy Plan, the city of Everett Comprehensive Plan (Land Use element), and the city of Mukilteo Comprehensive Plan.

Snohomish County's countywide planning policies instruct local agencies to develop plans for economic development and employment in their planning documents, explicitly identify areas where future economic activity and growth is desired, designate locations for commerce and industry in the land use element and in urban growth areas; adopt measures which help to preserve designated industrial and commercial land base for long-term regional economic benefit; include economic development policies consistent with existing and planned capital and utility plans; and coordinate economic plans with transportation, housing, and land use policies that support economic development and predictability for future growth.

Snohomish County's Comprehensive plan contains objectives and policies that support manufacturing and Industrial centers. Objective LU 4.C states: Plan for Manufacturing and Industrial Centers within the unincorporated UGA in the Paine Field and Smoky Point vicinities. Policies which implement this objective include LU Policy 4.C.1: "Designations for manufacturing and industrial centers shall be at least ½ square mile in size and allow a mix of nonresidential uses that support the center and its employees' and LU Policy 4.C.2: "The manufacturing and industrial centers shall be sized to ultimately allow 10,000 at a minimum employment density of 20 employees per employment acre for new growth." While the Regional Council has not established guidelines for total employment or employment density for manufacturing and industrial centers, the guidelines for urban centers are a goal of 15,000 jobs per center at a density of 25 jobs per acre.

The City of Everett's comprehensive plan's industrial land use policies emphasize the preservation of most of Everett's industrial land base for future job growth and the industrial and service needs of the region; and encourage the establishment and expansion of industrial uses which strengthen and diversify the local economy. The plan establishes the Boeing assembly plant as a heavy manufacturing area. The plan's Economic Development Element includes the following description of the Paine Field/Southwest Everett/and unincorporated areas near Paine Field airport: "This area has both developed and vacant industrial sites, including large parcels of undeveloped lands currently zoned for industrial development. As further development occurs, the area has potential regional implications. The Southwest area of Everett will continue to emerge as a major employment center led by Boeing and a diverse group of businesses. Paine Field and the surrounding area could provide more industrial space related to aircraft and aviation and, if it is chosen as the site for a future commercial airport, other types of transportation development will be attracted to the area. Infrastructure, utilities, plans, and zoning are already in place to respond to the heavy and light industrial market for space north of Seattle. Existing high employment

concentrations in parts of this area, along with the potential for significant job growth, make it a candidate for service by the regional high capacity transit system.”

The city of Mukilteo’s comprehensive plan recognizes Paine Field Airport as an “...industrial center where industrial activities are encouraged and will provide a land bank for industrial land into the future.” Still, the city of Mukilteo’s plan contains policies that discourage any growth in the level of aviation activities at Paine Field.

Population, Housing, and Employment

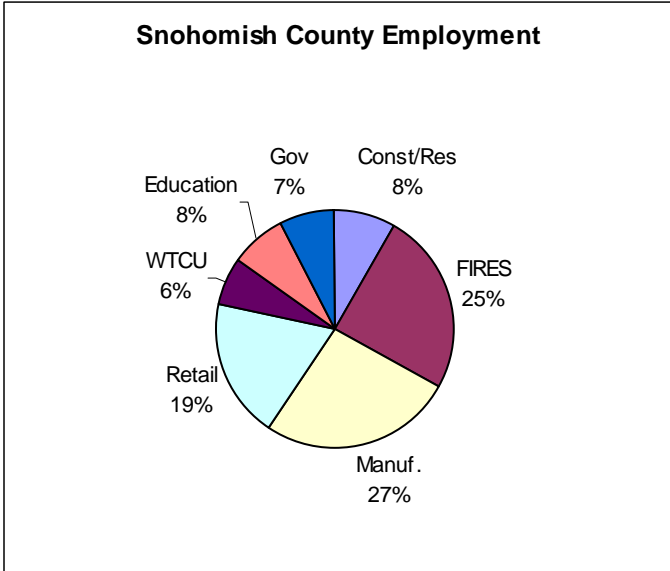
Of the region’s eight manufacturing/industrial centers, Paine Field/Boeing Everett has the largest population, the most housing units, and the greatest number of households. Between 1990 and 2000 the population grew from 3,780 to 4,459 (18%), while housing units increased by 15% (from 1,502 to 1,725), and the number of households increased from 1,433 to 1,589 (11%). Population, housing, and household densities increased by similar proportions. Nevertheless, the Paine Field center has a relatively small population for its size, and is developed primarily for manufacturing and industrial activity, including the Snohomish County Airport/Paine Field and the Boeing Company’s 747 and 777 production facilities.

Employment in the center increased by 9% between 1995 and 2000, from 31,057 to 33,814. The distribution of jobs among the major employment sectors reflects the character of the center. Over 86% of all jobs are devoted to manufacturing (see table below). A large share of these jobs is in the aerospace industry at Boeing Company, BF Goodrich, and other airport businesses.

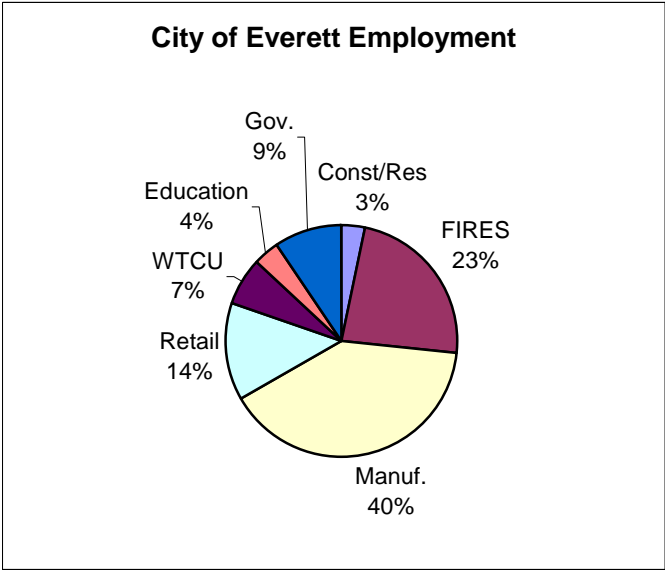
There are no established population, housing, or employment targets for the Paine Field/Boeing Everett manufacturing/industrial center, and the Regional Council has not establish employment guidelines for the manufacturing/industrial centers, as it has for the region’s urban centers.

Paine Field/Boeing Everett Manufacturing/Industrial Center Population, Housing, and Employment		
	1990*	2000
Population	3,780	4,459
Persons per square mile	570	673
Housing units	1,502	1,725
Housing units per square mile	227	260
Households	1,433	1,589
Households per square mile	216	240
Employment*	31,057	33,814
Employees per square mile	4,687	5,103
Employees per housing unit	20.68	19.60
* Employment data is for 1995		

Source: 2000 U.S. Census, Washington State Department of Employment Security, Puget Sound Regional Council



Snohomish County employment is fairly evenly divided between manufacturing (27%), Finance, Insurance, Real Estate, and Services (25%), and Retail (19%). Education comprises an additional 8%, Construction/Resources 8%, Government 7%, and Wholesale trade, Transportation, Communication, and Utilities 6%.



The majority of the City of Everett employment comes from Manufacturing (40%). Finance, Insurance, Real Estate, and Services provides 23% of the City’s employment. The Retail sector employs 14% of workforce in the City.

Paine Field/Boeing Everett Manufacturing/Industrial Center Employment by Sector	
Retail	0.9%
FIRE/Services	3.2%
WTCU	3.7%
Manufacturing	86.5%
Government/education	3.4%
Construction/resources	2.3%

Source: Washington State Department of Employment Security

Land Use, Character & Urban Form

The Paine Field/Boeing Everett manufacturing/industrial center is largely developed. There are scattered residential developments to the southeast of the main airport terminal area on the east side of Airport Road, along Beverly Park Road, and north of the Boeing facilities. The vast majority of the center's land use is devoted to airport and aerospace-related activities. Boeing's 777/767 plant and related office and support uses are located north of SR-526, with access from Seaway Boulevard. Boeing also maintains a large aircraft apron and related facilities directly adjoining the airport to the south of SR-526 and west of Airport Road. Other manufacturing/industrial activity is located at the Bomarc Business Park south of SR-525 on the east side of Airport Road.

Paine Field's 1,284 acres comprise the remainder of the center, with a mix of aviation-related land uses supporting aerospace activity, corporate and business aviation, general aviation, and the military. These uses include aircraft parking (tie-downs), aircraft hangars, aircraft maintenance facilities, flight training, aircraft charter service, BF Goodrich facilities, airport terminal and administration area, FAA air traffic control tower, vehicle parking, scattered aviation-related commercial and industrial activity, and the former U.S. Navy facilities at the south end of the airport.

Paine Field/Boeing Everett Manufacturing/Industrial Center Character and Urban Form	
Total area (acres)	4,241
Number of blocks	42
Average block size (gross acres)	101.0
Number of parcels	426
Average parcel size (net acres)	9.53
Road network (linear miles)	33.7
Freight railroad network(linear miles)	0.0

Source: Puget Sound Regional Council

The entire manufacturing/industrial center comprises 4,241 acres (6.6 square miles). The center contains 42 blocks which average 101 acres. This is primarily due to the large single blocks occupied by the airport itself and Boeing’s 747/767 plant. The center contains 426 total parcels averaging just under 10 acres each. A total of 33.7 linear miles of roads provide internal access within the center. The Boeing railroad spur extends about 1-1/2 miles from the 747 plant to the center’s north boundary, thence to the north to connect with the BN mainline in Mukilteo.

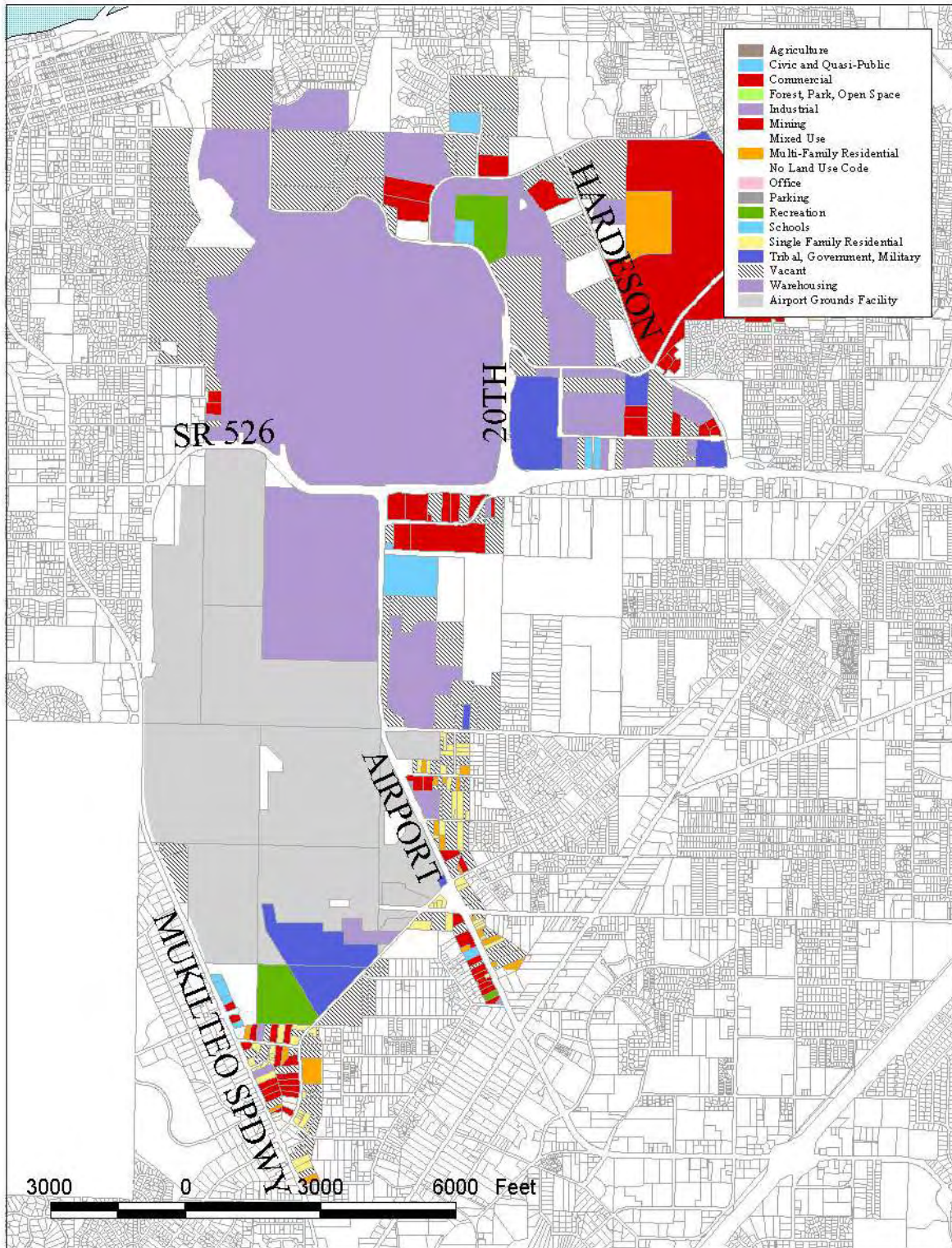
See the map on the following page for a depiction of current land uses in the Paine Field/Boeing Everett Manufacturing Industrial Center.

Paine Field/Boeing Everett Manufacturing/Industrial Existing Land Use	
	Percentage
Civic/Quasi-Public	0.47%
Commercial	2.18%
Industrial	1.69%
Mining	7.01%
Residential – Multi Family	0.97%
Recreation	1.52%
Schools	0.75%
Residential – Single Family	0.97%
Government/Military	3.43%
Unknown (No Data)	62.73%
Vacant	18.28%
Total	100%

Source: Snohomish County Assessor, Puget Sound Regional Council

Snohomish County Assessor’s land use data for the Paine Field/Boeing Everett center is incomplete. Published data shows that mining comprises 7% of the center, while 18 % is vacant land, and nearly 63% is classified as “unknown.” Most of this land is devoted to the airport, the Boeing Company’s 747/777 assembly plant, and other commercial and industrial activities.

Paine Field / Boeing Manufacturing Center (Current Land Use)



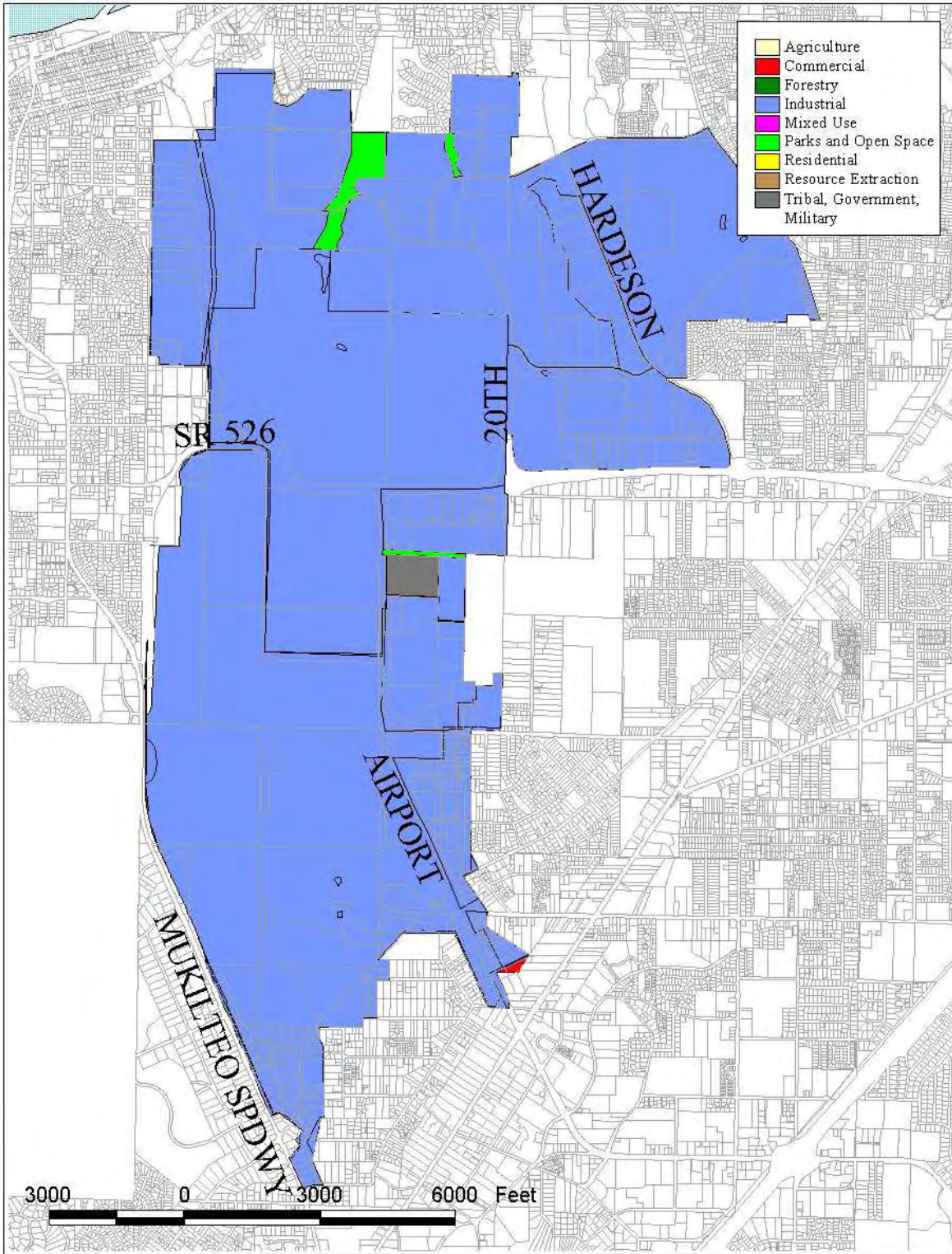
According to adopted Plans, Paine Field/Boeing Everett Center is planned almost exclusively for industrial use.

Paine Field/Boeing Everett Manufacturing/Industrial Future Land Use	
	Percentage
Commercial	0.02%
Industrial	98.86%
Mixed Use	0.01%
Public Facility	0.58%
Residential	0.27%
Rural Residential - RD (1du/2.3ac)	0.01%
Single Family Medium Density	0.02%
Urban Industrial	0.07%
Unknown (No Data)	0.16%
Total	100%

Source: City of Everett Comprehensive Plan, City of Mukilteo Comprehensive Plan, Snohomish County, Puget Sound Regional Council

See the map on the following page for a depiction of planned future land uses in the Paine Field/Boeing Everett Manufacturing Industrial Center.

Paine Field / Boeing Manufacturing Center (Future Land Use)



Transportation and Access

Paine Field/Boeing Everett center has excellent connections to the regional highway and airport system. The center contains a major reliever airport (Paine Field/Snohomish County Airport) and has direct access to SR-526 via interchanges at Seaway Boulevard (providing access the Boeing plant), Airport Road (serving the airport), and Mukilteo Boulevard (which connects to SR-525 in the city of Mukilteo). SR-526 is a 4-6 lane limited access freeway (sometimes referred to as the Boeing Access Freeway), which links to Interstate 5 about 3 miles to the east. SR-526 has HOV lanes as well as HOV by-pass ramps onto I-5.

Other major arterials serving the center include SR-525 (Mukilteo Speedway) along the center's western boundary, Mukilteo Boulevard, Airport Road, Casino Road, Seaway Boulevard, Beverly Park Road, and SR-99 (Pacific Highway) just southeast of the center. Airport Road is a seven-lane major arterial street, with four general purpose travel lanes, two high occupancy vehicle (HOV) lanes, and center left turn lanes. SR-525 is a three lane arterial serving the west side of the airport, and provides a major access route to downtown Mukilteo and the Whidbey Island ferry. Mukilteo Boulevard, a new four-lane connection from SR-525 to SR-526, will provide access to future airport-related development at the northwest corner of the center, including the proposed future Museum of Flight and planned west side development at the airport.

The closest marine and ferry access is at Possession Sound in Mukilteo, approximately 1-2 mile from the north boundary of the center, and about 3 roadway miles from the Boeing assembly plant via SR-526 and SR-525. The center's only rail connection is the Boeing railroad spur, which connects the Boeing assembly plant to the Burlington Northern main line to the north via Japanese Gulch. The BN tracks may also provide future passenger rail connections to the center via Sound Transit's Sounder Commuter Rail service, which would also have intermodal connections at the Mukilteo Ferry Terminal.

Snohomish County Airport/Paine Field is a major reliever airport in the regional airport system, and provides the center and Snohomish County with excellent access to the regional, national, and worldwide air travel market. Paine Field serves the general aviation, business aviation, and corporate aviation markets. In addition, the airfield provides the Boeing Company with a major airport facility that is critical for the company's flight testing, FAA certification, and customer delivery of large, wide-body passenger and air cargo jets.

Community Transit and Everett Transit provide local and regional bus transit service to the Paine Field center. These transit agencies provide 18 bus routes serving the center, with an average morning peak hour frequency of one bus every 44 minutes. Community Transit provides service connecting Boeing facilities with Everett, Canyon Park, Lynnwood, Mountlake Terrace, Marysville, Smoky Point, Arlington, Stanwood, Lake Stevens, and Snohomish. Everett Transit provides bus service to the Boeing plant and Paine Field. King County Metro provides express bus service to the Boeing Everett plant from Federal Way, Auburn, Kent, and Seattle.

Paine Field / Boeing Everett Manufacturing/Industrial Center Transit Routes and Frequencies (AM Peak Period)			
Item #	Route #	Destination	Frequency
1	950	W Seattle - Boeing Everett	30
2	952	Auburn- Boeing Everett	60
3	965	Overlake- Boeing Everett	60
4	2	Beverly Lane	36
5	8	Glenwood - Seahurst	60
6	170	Lynnwood - Mukilteo	23.87
7	880	Mukilteo – UW	30
8	417	Mukilteo - Seattle	27.25
9	167	Montlake Terrace - Boeing Everett	60
10	107	Canyon Park- Boeing Everett	60
11	217	Arlington - Boeing Everett	60
12	247	Stanwood - Boeing Everett	22.67
13	727	Gold Bar - Boeing Everett	30
14	3	Silver Lake - Boeing Everett	60
15	25	Mukilteo - Boeing Everett	60
16	190	Edmonds - Mukilteo	30
17	207	Smokey Point – Boeing Everett	25
18	227	Boeing Everett - Arlington	60
		Average	44.15

Source: Puget Sound Regional Council, Community Transit, Everett Transit, Sound Transit

Manufacturing/Industrial center references and contacts

City of Everett Comprehensive Plan (1994)

Snohomish County Comprehensive Plan (1995)

City of Mukilteo Comprehensive Plan (2002)

Peter Hahn (Snohomish County)	425-388-6441
Judith Stolof (Snohomish County)	425-388-3311
Paul Roberts (City of Everett)	425-257-8769
Paul Kaftanski (City of Everett)	425-257-8793
Heather McCartney (City of Mukilteo)	425-355-4141 ext. 226