

**PUGET SOUND REGIONAL COUNCIL
2002 URBAN CENTERS REPORT**

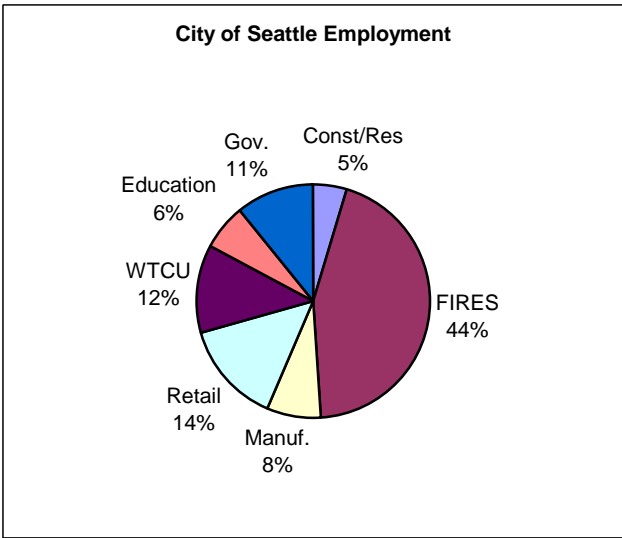
DUWAMISH MANUFACTURING/INDUSTRIAL CENTER

Community Context

Founded in 1869, the City of Seattle is located on Puget Sound in the State of Washington, 113 miles south of the U.S.-Canadian border. Seattle is the leading commercial, cultural and advanced technology center of the U.S. Pacific Northwest, and a major port city for trans-Pacific and European trade. Surrounded by mountains and water, the greater Seattle area features picture-perfect views and abundant recreational opportunities year-round. With a 2000 population of more than 563,000, and spread over 84 square miles, the city is the region’s largest and most diverse in terms of population, economic activity, and transportation options.

Seattle City-Wide Snapshot	
Area (square miles)	83.8
Population (2000)	563,374
Population per square mile	6,723
Employment (2000)	503,104
Employees per square mile	6,004
Housing units (2000):	270,524
Employees per housing unit	1.9

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



The majority of employment in the city of Seattle is devoted to Finance, Insurance, Real Estate, and Services. This sector provides 44% of all the city's employment. Retail provides 14% of the city's employment. Other major job sectors include Wholesale trade, Transportation, Communication, and Utilities (12%), and Government (11%).

Comprehensive Plan

Seattle's *Toward a Sustainable Seattle* comprehensive plan, originally adopted in 1994, was developed to accommodate 72,000 new residents, a range of 131,400 to 146,600 new jobs, and between 50,000 and 60,000 new households by the year 2014. The plan uses an "Urban Village" strategy to preserve the best qualities of the city's distinct neighborhoods. The strategy combines small changes in the city's development pattern with a more complete and competitive intermodal public transportation system. The preferred overall pattern and character of development in the city will be achieved through directing growth to Urban Villages, where conditions and infrastructure can best support increased densities. Dispersed growth along arterials and in other areas not considered conducive to pedestrian and cohesive community development and is discouraged. The overall intent of the strategy is to focus future development in Urban Village locations in order to protect existing single family areas.

As part of this strategy, the City has designated five major Urban Centers, along with a number of smaller Urban Villages, to absorb much of projected growth. The plan specifically recognizes the relationship of its designated Urban Centers and Manufacturing Industrial Centers to regional guidance contained in King County's Countywide Planning Policies, and contains a stated policy to meet the density criteria they contain. All of the Urban Center and Urban Villages are planned to be vibrant, active areas, with a mix of housing, retail, cultural, educational, and employment opportunities. The plan assigns 45 percent of future household growth (22,500 – 26,700 households) and 65 percent of job growth (85,410 – 95,500 jobs) to the five larger Urban Centers. In addition, the plan designates two Manufacturing/Industrial Centers, Ballard Interbay Northend, and Duwamish. Although the city has no housing goals for these MI Centers, they are expected to absorb approximately 10 percent of new jobs (13,140 – 14,660 jobs).

Manufacturing/Industrial Center Background

The Duwamish Manufacturing/Industrial Center is located just south of Downtown Seattle. The center is roughly bounded by South Jackson Street on the north, I-5 on the east, Boeing Access Road on the south (Seattle's south city limit), and West Margin Way on the west. The center adjoins the south margin of Elliott Bay, includes Harbor Island, and extends about 5 miles southward, along the Duwamish River. The Duwamish Waterway is an important transportation corridor with regional and national significance, and serves as a major origin and destination for trade goods to and from Alaska. Domestic and international traffic via the waterway amounts to approximately 7.2 million tons each year, valued at approximately \$7.5 billion.

At its south end the center takes in about 2/3 of King County International Airport/Boeing Field. The Duwamish manufacturing/industrial center is one of the largest and most intensely developed manufacturing/industrial areas in the Pacific Northwest. Covering nearly 5,000 acres, the Duwamish MIC represents 84 percent of the industrial lands within the city.

The regional significance of the Greater Duwamish Manufacturing and Industrial Center to the City of Seattle and the Puget Sound Region cannot be overemphasized. Comprised of some 4,138 acres of marine and industrial lands (City of Seattle, 1998), the Greater Duwamish Manufacturing and Industrial

Center (MIC) is a unique regional resource and economic engine. The Duwamish MIC provides the largest concentration of family wage jobs in the Puget Sound region, generating enormous tax and export revenues. In 1997 there were 3,300 businesses providing more than 60,000 jobs within its boundaries. The MIC is a vital international trade and transportation crossroads, receiving and distributing goods via roadway, water, rail and air. Its ability to provide multiple modes of transportation represents a unique asset to the region and an enhancement to the local business environment. The Duwamish MI Center has been in industrial use for nearly 100 years.

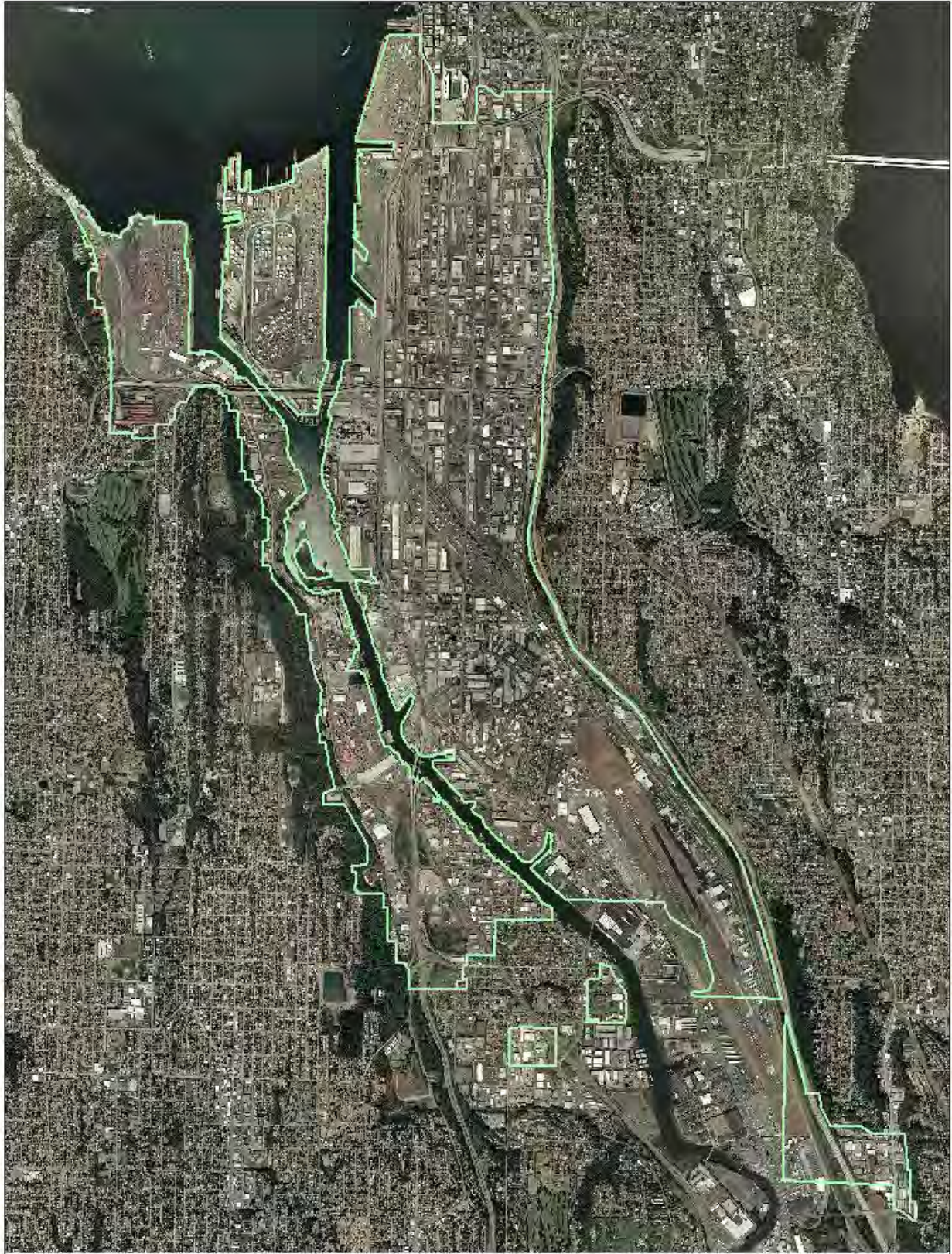
See the aerial photo on the following page for a depiction the Duwamish Manufacturing Industrial Center.

Manufacturing Industrial 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.

The city of Seattle designated the Ballard-Interbay and Duwamish manufacturing/industrial centers in 1994 through the adoption of its comprehensive plan. Since that time the city has completed more detailed neighborhood plans for these two centers. The neighborhood plan for the Ballard-Interbay-Northend Manufacturing and Industrial Center (known as "BINMIC") was completed in 1998. The neighborhood plan for the Duwamish center was completed in 1999. The city's comprehensive plan contains goals and policies to support the preservation, growth, and development of these two centers. The goals support the preservation of adequate industrial land, promote its use for industrial purposes, and encourage the retention and expansion of industrial businesses. The policies call for clearly defined geographic boundaries, buffers around industrial centers, capacity to accommodate at least 10,000 jobs, assembly of parcels suitable for industrial activity, and provision of access to regional highway, rail, air and/or waterway system for the movement of goods. The policies also promote employment growth in the centers, and maintaining land that is uniquely accessible to water, rail, and regional highways for industrial use. The boundaries of Duwamish center are mapped on Land Use Figure 1 in the city's comprehensive plan.



Unlike the region's urban growth centers, where significant effort is being expended to promote mixed use development, higher density housing, pedestrian amenities, and transit oriented development, the region's manufacturing/industrial centers require different types of support. Generally, these centers require investment in heavy infrastructure, such as highways, waterfront facilities, railroads, and utilities. Their maintenance and preservation also requires investment in updated facilities, incentives for private industry investment, land assembly, and land use planning and zoning that protects these places from neighboring incompatible development. In addition, these centers require plans and zoning that prevents the proliferation of commercial, office, and other development that could eventually displace the existing manufacturing and industrial uses. The city of Seattle's existing comprehensive plan for the two manufacturing/industrial centers provides this type of support.

The 1999 *Greater Duwamish Manufacturing and Industrial Center Plan* includes the following objectives for the center: restrict incompatible or competing land uses within the M & I Center; encourage manufacturing and industrial job retention and growth; establish a growth target of 10,860 new family wage industrial jobs; retain and improve access to, and transportation within, the M & I center; and retain existing businesses and encourage new manufacturing and industrial development within the M & I center. The plan prohibits new residential structures, but does allow artist loft style housing units within existing structures. The 1999 plan recognizes the increasing pressure on the center:

The viability of Industrial land within the M & I Center is under increasing pressure from a variety sources, including conversion to commercial and incompatible uses, the development of waterfront property for public access, and the increased acquisition of industrial land by Governmental entities, often for conversion to non industrial uses. Conversion of industrial land to incompatible uses not only removes the site from industrial use but adversely impacts the surrounding industrial users by increasing land values and lease rates. Such development generates additional vehicular and pedestrian traffic, reducing available parking, access to local business, and placing increased pressure on already congested arterials and thoroughfares vital to freight mobility.

[Greater Duwamish Manufacturing and Industrial Center Plan, April 27, 1999, page i].

In order to respond to some of these market pressure, the city has established a new overlay zone in the vicinity of the baseball and football stadia. The overlay zone allows development of higher density commercial, office, and other sports-related land uses near the sports stadia to reduce the pressure for incompatible development elsewhere in the center.

In developing the Ballard-Interbay and Duwamish center plans, the city also recognized the importance of, and future demand for, the irreplaceable marine and waterfront properties which are at the heart of these two centers:

A recent analysis completed by the Port of Seattle Marine Industrial Land Study (November 1998) identified the level and nature of demand for marine industrial lands in the City of Seattle and the potential for identifying policy objectives and actions regarding the marine industrial land base. The report concluded that there will be strong long-term growth in the freight transportation, intermodal, and construction/resource sectors as well as various water dependent uses such as passenger service. The processing/cold storage, service and supply (particularly fueling), and harbor services sectors will experience steady long term growth, and there will be limited growth in shipyard repair, and modest long term growth in equipment and repair.

[Greater Duwamish Manufacturing and Industrial Center Plan, April 27, 1999, page 40].

In order to preserve access and appropriate use of the center’s shoreline resource the neighborhood plan includes the following policy statement: “Within 200 feet of the Duwamish waterway shoreline, water dependent and industrial uses shall be the highest priority in the Land Use Code and Master Program.”

The major goals of these two neighborhood plans are to preserve these valuable land resources; provide jobs; prevent incompatible (non-industrial) development; invest in transportation and utility infrastructure improvements; and encourage appropriate growth. The neighborhood plan includes the following components, each tailored to preserve and support the overall goals for the center: jobs and economics, land use, transportation, utilities, environmental remediation, and public safety. In addition to providing guidance related to land use (which is codified in the city’s zoning code), the plan includes planned investments in the center’s transportation and utilities systems in support of continued growth in the center.

Population, Housing, and Employment

Population, housing, and household data were derived from the 1990 and 2000 census. Duwamish center lost population in the past 10 years, falling from 2,111 in 1990 to 1,773 in the year 2000 (a loss of 16%). Housing units and households also declined in number; housing units dropped 27%, from 814 in 1990 to 592, while households fell 26%, from 727 to 536.

Department of Employment Security data were used to evaluate employment trends in Duwamish center. Between 1995 and 2000 employment in Duwamish center grew from 57,349 to 67,919. Duwamish is by far the largest center in terms of employment, containing 38% of all employment in the region’s eight manufacturing centers. The next largest center is Redmond’s Overlake Advanced Technology/Manufacturing Center, with just under 20,000 jobs. Duwamish center employment is dominated by wholesale, transportation, communication, and utilities jobs (37% of the center’s total) and the manufacturing sector (24%). Four other sectors (construction, retail, services, and government) each comprise between 9 and 10%, while finance, insurance, and real estate jobs account for just 1%.

There are no established population, housing, or employment targets for the Duwamish manufacturing and 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.

Manufacturing/Industrial Center Population, Housing, and Employment		
	1990*	2000
Population	1,913	2,452
Persons per square mile	432	553
Housing units	660	862
Housing units per square mile	149	194
Households	634	822
Households per square mile	143	185
Employment	57,349	67,919
Employees per square mile	7,379	8,739
Employees per housing unit	70.45	114.73
* Employment data is for 1995		

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

Manufacturing/Industrial Center Employment by Sector	
Services	9.6 %
Retail	9.3 %
FIRE	1.2 %
WTCU	36.8 %
Manufacturing	24.4 %
Government/education	9.5 %
Construction/resources	9.2 %

Source: Washington State Department of Employment Security

Land Use, Character & Urban Form

The center includes Seattle’s industrial core from Harbor Island southward along the Duwamish River to the north portion of King County International Airport/Boeing Field. The Duwamish MIC excludes the residential section of Georgetown, which appears as an “island” on the center map. Duwamish center is the region’s largest MIC, comprising nearly 5,000 acres (or nearly 8 square miles). The center contains 367 census blocks, with an average block size of 13.6 acres. The center contains 2,157 parcels covering 3,415 acres (this area excludes rights-of-way), with an average parcel size of 1.58 acres. The center’s parcels represent 69% of the center’s total land area.

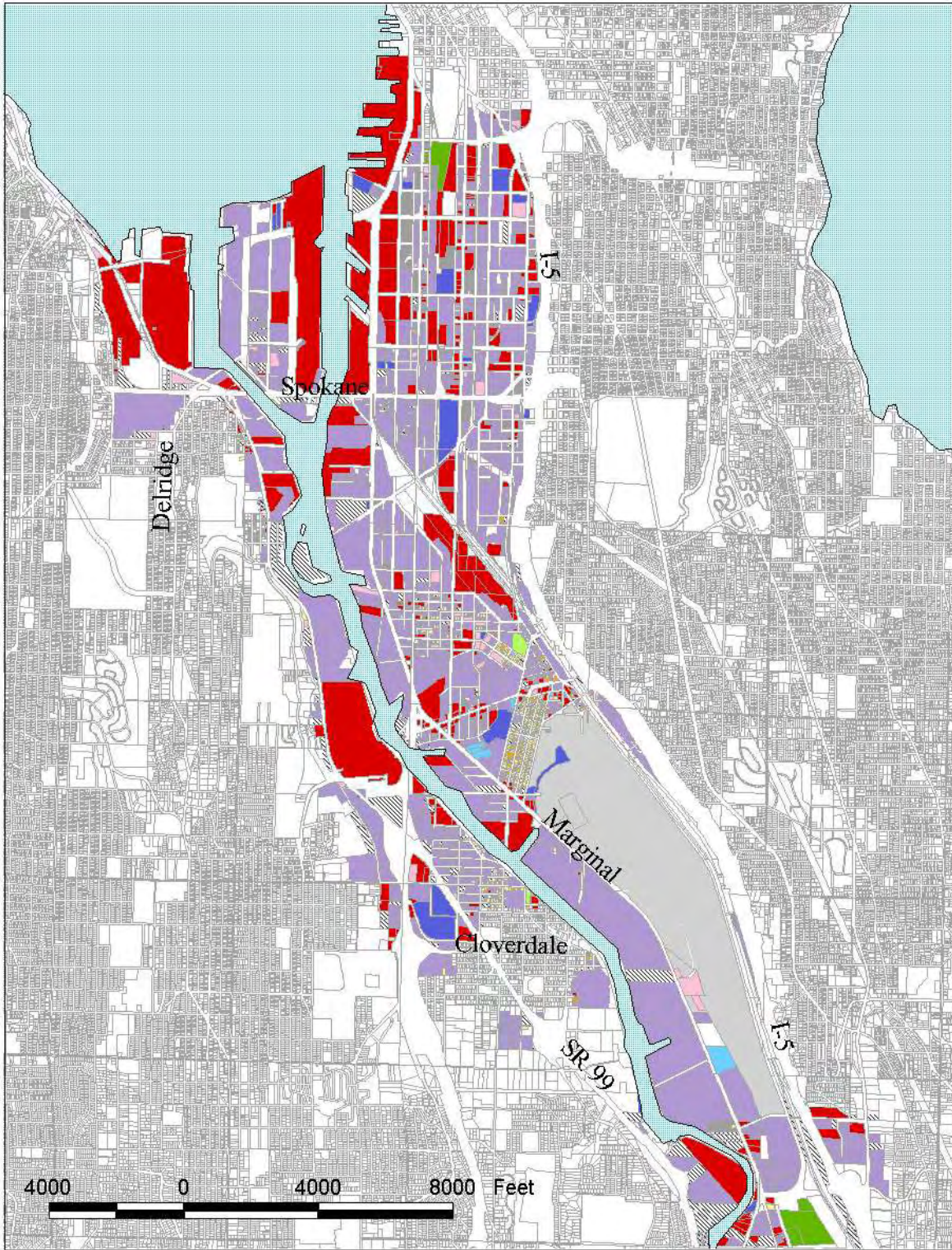
Manufacturing/Industrial Center Character and Urban Form	
Total area (acres)	4,974
Number of blocks	367
Average block size (gross acres)	13.6
Number of parcels	2,157
Average parcel size (net acres)	1.58
Road network (linear miles)	127.3
Freight railroad network (linear miles)	35.4

Source: Puget Sound Regional Council

Current land use information was obtained from the King County Assessor. The Duwamish Manufacturing/Industrial Center is dominated by three primary land uses: commercial (32%), industrial (26%), and warehousing (23%). The Center has approximately 214 acres of vacant land (7%) for further development. The center has very high intensity manufacturing and industrial land uses, and focuses on inter-modal break-bulk and container cargo terminals supporting the transfer of cargo between ship, barge, rail, and truck. The Duwamish center is the Port of Seattle’s primary marine shipping area, with deep water berths, wharfs, piers, shipyards, dry-docks, container cranes, on-dock rail, container yards, cargo distribution and warehousing, oil and petroleum storage facilities, and major railroad yards. Pier 48 (the northern end of Duwamish center) is the southern terminus of the Alaska Marine Highway System, offering passenger and freight service between Seattle and southeast Alaska. Safeco Field, the Seattle Mariners’ baseball park, is located in the center, near the north end.

See the map on the following page for a depiction of current land uses in the Duwamish Manufacturing Industrial Center.

Duwamish Manufacturing Center (Current Land Use)



Duwamish Manufacturing/Industrial Center Existing Land Use	
	Percent
Agriculture	0.02%
Civic/Quasi-Public	0.04%
Commercial	32.10%
Parks/Open Space	0.23%
Hospital	0.00%
Industrial	26.48%
Mixed Use	0.06%
Multifamily Residential	0.11%
Office	1.40%
Parking	1.79%
Recreation	0.45%
Schools	0.19%
Single family Residential	0.55%
Government/Military	3.50%
Unknown (No Data)	3.84%
Vacant	6.70%
Warehousing	22.54%
Total	100%

Source: King County Assessor, Puget Sound Regional Council

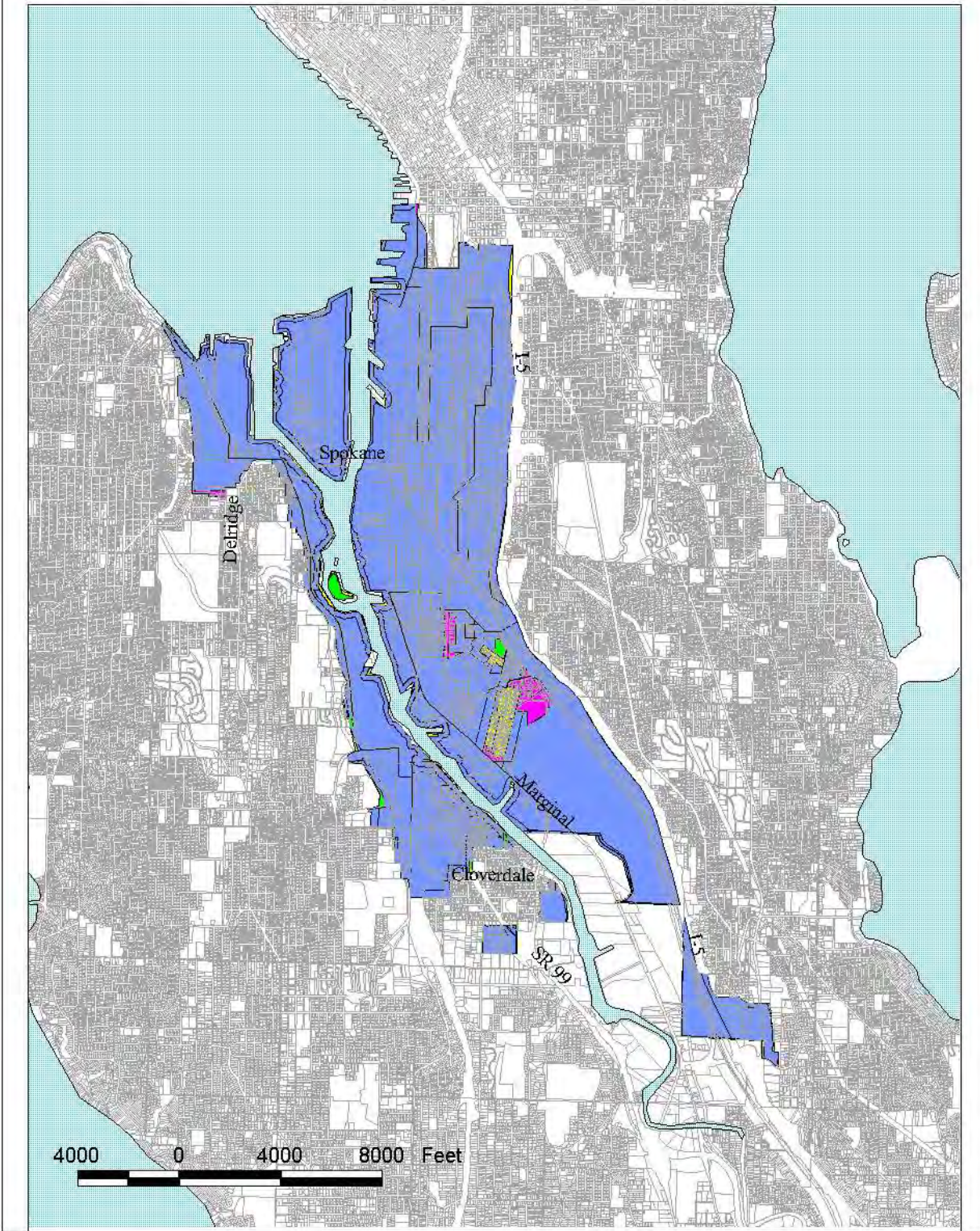
Planned future land use was derived from the land use element of Seattle’s comprehensive plan. According to the city of Seattle’s Comprehensive Plan, 96% of the Duwamish Center is designated for industrial use. The entire Duwamish center is designated for some type of manufacturing and industrial related development in the city’s comprehensive plan. The plan promotes manufacturing and industrial employment growth, including manufacturing uses, advanced technology industries, and a wide range of industrial-related commercial functions, such as warehouse and distribution activities.

Duwamish Manufacturing/Industrial Center Future Land Use	
	Percent
Commercial/Mixed Use not in Centers/Villages	1.36%
Downtown Areas	0.02%
Industrial	96.46%
Manufacturing/Industrial Center - Heavy Industrial	0.11%
Multi-Family Residential Areas	0.51%
Public Open Space	0.12%
Single Family Residential Areas	1.42%
Total	100%

Source: The City of Seattle Comprehensive Plan

See the map on the following page for a depiction of planned future land uses in the Duwamish Manufacturing Industrial Center.

Duwamish Manufacturing Center (Future Land Use)



Transportation and Access

The Duwamish MIC has excellent deep-water marine access, extensive shipping and rail facilities, and excellent highway access. Three limited access freeways provide regional access to the center: I-5, SR-99, and SR-509. In addition, numerous surface streets and highways serve the center. Altogether, there are over 127 miles of roadways in Duwamish center. Significant east-west streets serving the center include S. Royal Brougham Way, Holgate Street, Lander Street, Spokane Street, and Michigan Street. Major north-south streets include East and West Marginal Way, 1st Avenue South, 4th Avenue South, and Airport Way. The Duwamish Center has close and convenient access to air freight service via King County International Airport/Boeing Field. In addition, the center has deep-water marine access via Elliott Bay at its north end and the Duwamish River along its entire length.

The center contains 35 miles of freight railroad tracks owned by Burlington Northern Santa Fe (BNSF) Railway and Union Pacific Railroad. The center is served by the Burlington Northern main line plus many spur lines that provide access directly to marine terminals along the Duwamish, East, and West Waterways, as well as to the center's other industrial properties.

Forty-six separate bus routes serve the Duwamish center. On average, transit routes operate one bus every 29 minutes in the AM peak period. These routes include local and regional Metro Transit buses and Sound Transit express buses.

In addition to bus service, Sound Transit's Seattle-to-Tacoma Sounder Commuter Train passes through Duwamish center, using Burlington Northern railroad tracks. Sound Transit has identified a provisional Sounder station to be located near Georgetown in Duwamish center. Another Sounder commuter rail station is proposed at the Boeing Access Road. This station is planned as a combined Sounder and Link light rail station, with park and ride lot, and would be located just outside the south end of Duwamish center.

Duwamish Manufacturing Industrial Center Transit Routes and Frequencies (AM Peak Period)			
Item	Route #	Destination	Freq
**	15/18/21 22/56/57	Seattle Center-CBD-SODO	10.00
1	20	Delridge	16.68
2	21	Arbor Heights	30.00
3	22	White Center	30.00
4	35	Harbor Island	36.00
5	36x	Rainier Beach	22.40
6	37x	Alki	20.17
7	39	Seward Park or Southcenter	30.00
8	56	Alki	30.00
9	57	Genessee Hill	30.00
10	101	Seattle	11.88
*	101	Renton	20.88
11	106	Seattle	20.83
*	106	Renton	30.00
12	113	Shorewood	29.29

Duwamish Manufacturing Industrial Center Transit Routes and Frequencies (AM Peak Period)			
13	116	Fauntleroy	23.57
14	118	Vashon	60.00
15	119	Vashon	60.00
16	130	Burien	44.67
17	130x	Burien	36.60
18	132	Burien	29.31
19	132x	Burien	25.60
20	135	Burien	25.38
21	136	Burien	57.75
22	136x	Burien	31.00
23	137	Burien	40.88
24	137x	Burien	31.25
*	130x/132x/137x	Burien-CBD Express	13.19
25	150	Kent	16.00
*	150	Auburn	30.00
26	152	Enumclaw	32.00
*	152	Auburn	20.25
27	163	East Hill	30.00
28	170	Mc Micken	30.00
29	174	Seattle	25.33
*	174	Boeing, SeaTac	18.56
*	174	Federal Way	20.88
30	176	FW - Seattle	27.67
31	178	FW - Seattle	26.67
32/33	176-8/195	Seattle	7.63
34	190	Star Lake	20.20
35	191	SeaTac	25.80
36	194	Seatac-Federal Way	29.00
37	195/196	S. Federal Way	15.08
38	570	Seatac	30.00
39/40	590/594	Tacoma CBD - CBD	11.67
*	590/594	CBD - Tacoma CBD	33.75
41	592	Lakewood	10.63
42	590/591/594	TD-Seattle	5.23
*	590/591/594	Seattle-TD	31.00
43	595	Purdy	23.50
44	60	Broadway	30
45	154	BOEING-AUBURN 154	60.00
46	173	Boeing	86.00
		Total	28.60

Manufacturing/Industrial center references and contacts

Sustainable Seattle – Seattle’s Comprehensive Plan (1994)

Greater Duwamish Manufacturing and Industrial Center Plan (1999)

Ballard Interbay Northend Manufacturing and Industrial Center (BINMIC) Plan (1998)

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