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Industrial Land Supply and Demand in the Central Puget Sound Region

The nature of industrial development has changed significantly during the past 150 years. The evolution has included multi-story lofts on compact urban sites, one-story manufacturing plants extended over large sites, and suburban business parks with a mix of light manufacturing and office uses.

This issue of *Puget Sound Trends* provides information from a recently completed study of long-term industrial land supply and demand by the Regional Council and the Center for Community Development and Real Estate at the University of Washington (UW Real Estate Center).

For all industrial land, information was collected on number of acres designated and net supply. For major industrial areas, additional data were collected regarding parcel sizes and prices, infrastructure adequacy, development activity and other characteristics. The data were collected between March 1996 and August 1997.

The study defined "industrial land" as urban land designated in comprehensive plans for manufacturing, heavy and light industry, research and development, wholesale trade, warehousing and distribution, and business parks. The region has 64,000 acres of industrial land, approximately 10 percent of the total urban growth area. This total includes developed and undeveloped areas, critical areas, street and utility right-of-ways, and other public purpose lands designated industrial.

Net industrial land supply is the amount of land potentially available for future development. Net supply was calculated by eliminating already developed areas, designated critical areas such as wetlands or steep slopes, certain public purpose lands, and future road right-of-way needs. This analysis did not determine whether land was for sale or lease. Estimated net industrial land supply for the region is 21,500 acres. Approximately 84 percent of net supply is from vacant land and 16 percent is from potentially redevelopable land.

Two-thirds of the region's net industrial land supply is located in Pierce (36 percent) and Snohomish (28 percent) counties. King County includes 21 percent of the region's net supply and Kitsap County includes 15 percent. Figure 1 provides acres of designated and net industrial land by county.

Projected employment growth was converted to industrial land needs using building square feet per employee ratios from a 1997 survey conducted by the UW Real Estate Center of industrial land users and managers. The survey results indicate that building space needs per employee range from 577 to 1,121 square feet across four traditional industrial sectors.

Projected demand for industrial land through the year 2020 is between 5,600 and 7,100 acres. The demand model was applied twice to estimate industrial land needs under two future land use patterns: 1) industrial lands are used only for industrial employment and 2) industrial lands are used to accommodate a mix of employment categories similar to current patterns.

The first application of the model used 100 percent of the forecasted employment growth to 2020 in four industrial sectors: construction, manufacturing, transportation/communication/utilities, and wholesale trade. Under this application, estimated demand through the year 2020 is an additional 7,117 acres of industrial land (Table 1).

The second application of the model used a projected employment mix based on the broader mix of employment found on industrial land. To estimate this mix, the Puget Sound Regional Council conducted a geographic analysis of 1995 employment data from the Washington State Employment Securities Department.¹ Estimated demand to the year 2020 under this application is an additional 5,625 acres of industrial land (Table 2). The amount of employment growth is similar under the two model runs, but because of lower square feet per employee ratios for nonindustrial employment, projected land needs are lower using a mix of employment.

The data presented here are from a soon-to-be released Regional Council/UW Real Estate Center report entitled *Industrial Land Supply and Demand in the Central Puget Sound Region*. Copies of the report may be obtained in April by contacting the Regional Council's Information Center at (206) 464-7532. The report is free to member jurisdictions; non-members will be charged. For further information about the study, contact Lori Peckol at the Regional Council (lpeckol@psrc.org or 206/587-5062) or Bob Filley at the University of Washington (206/616-2090.)

¹

Washington State Employment Securities Department data include employment information for firms, organizations, and individuals whose employees are covered by the Washington State Employment Security Act. Most wage and salary jobs are included in Employment Security data, but some jobs are not: proprietors, self-employed, railroad workers, enrolled students, employees of many religious institutions, uniformed military personnel, and a few others.

FIGURE 1: Designated and Net Industrial Land Supply by County, 1996

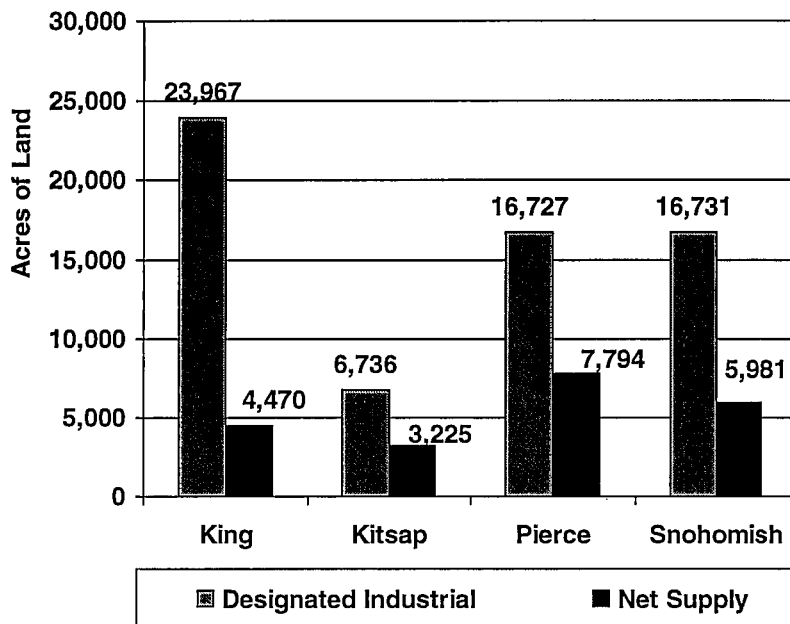


TABLE 1: Estimated Demand for Industrial Land Using Only Industrial Employment, 1997

Industrial Sector	Mean Building Square Feet/Employee	Employment Growth 1996-2020	Additional Industrial Land Needed, 1996 to 2020 (acres)
Construction	577	42,387	1,447
Manufacturing	587	43,698	1,556
Transportation, Communications, Utilities	625	22,798	1,189
Wholesale Trade	1121	43,673	2,925
Total		152,556	7,117

TABLE 2: Estimated Demand for Industrial Land Using a Mix of Employment, 1997

Employment Sector	Mean Building Square Feet/ Employee	% of 1995 Employment on Industrial Land	Estimated Employment Growth on Industrial Land 1996-2020	Additional Industrial Land Needed, 1996-2020 (acres)
Construction	577	31%	13,140	449
Manufacturing	587	73%	32,079	1,142
Transportation, Communications, and Utilities	625	45%	10,350	731
Wholesale Trade	1121	51%	22,273	1,492
Industrial Total			77,842	3,814
Finance, Insurance, Real Estate	325	7%	4,031	50
Producer Services	325	22%	37,621	468
Consumer Services	325	6%	4,320	54
Health Services	500	2%	1,313	25
Services (Proprietors)	325	10%	4,065	51
Retail	1742	9%	10,963	1,096
Government/Education	325	8%	5,393	67
Non-Industrial Total			67,706	1,811
Grand Total			145,548	5,625