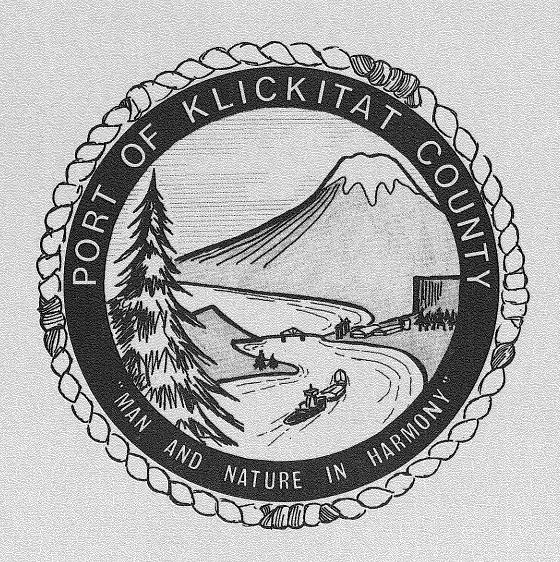


MASTER DEVELOPMENT PLAN



PORT OF KLICKITAT COUNTY

MASTER DEVELOPMENT PLAN

EDA PROJECT NO. 07-6-01800

This technical study was accomplished by professional consultants under contract with the Port of Klickitat County through an Economic Development Administration Technical Assistance Grant. Statements, findings, conclusions, recommendations, and other data in this report are solely those of the contractor and do not necessarily reflect the view of the Port of Klickitat County and the Economic Development Administration.

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INTRODUCTION

In March of 1977, the firm of Nelson/Walla/Dolle & Co. was retained by the Port of Klickitat County to undertake an Industrial Area Management Study for the Dallesport Peninsula and areas in Bingen and Lyle, Washington.

The objective of the Industrial Area Management Study is to:

- 1. Identify an Industrial Park Site or sites which have the greatest potential and feasibility for development.
- 2. Prepare a Master Plan for the development of the industrial sites.
- Develop equitable performance standards for development on the sites.
- 4. Develop a plan for providing the necessary services for industrial development.
- 5. Analyze the environmental, social and economic impacts on the area and region of industrial development.
- 6. Provide the necessary data base for the Port District and future industrial developments to meet both State and Federal environmental impact requirements.
- 7. Develop data and materials to use as "sales tools" for developing the industrial lands in Klickitat County and encouraging industry to locate in the area.

The results of this effort are contained in this report which is referred to as a Master Development Plan for the Port of Klickitat County, Washington.

Participants in the study along with Nelson/Walla/Dolle & Co., Architects and Planners. were:

David Evans & Associates, Engineers
Larry Smith & Co., Economists
James F. Fowler & Associates, Public Relations Consultants, and
Tenneson Engineering, Corp.

The study was done in cooperation with, and the assistance of, the Port of Klickitat County, the Mid-Columbia Economic Development District, the Klickitat County Planning Department, and a great number of groups and citizens of the Mid-Columbia Region.

EXECUTIVE SUMMARY

The Port of Klickitat County Master Development Plan contains two major sections corresponding to the two phases of the study. The first section, or Phase I, is a preliminary analysis which defines the study area, analyzes the economic and physical resources of the study area, analyzes potential industrial sites, reviews the types of industry most suited to the area, and analyzes the feasibility of attracting those industries to the area.

Phase II is the Master Plan, which is based on the preliminary analysis and contains the general physical development plan, recommendations for development control, an economic feasibility analysis and suggested incentives for attracting industry, and an analysis of the environmental impact of the development plan.

In the first phase, eight potential industrial sites containing approximately 3588 acres were analyzed utilizing the data from the economic and physical resources study. Six of the sites are on the Dallesport Peninsula, one site is at Lyle and one is at Bingen. It was determined that site No. 1 (see map on page 40) has the best potential for industrial development by the Port of Klickitat County. One of the factors is that this site is presently owned by the Port District, as is the site at Bingen. It was concluded that the Bingen site, because of its size, shape, access to the river and the existing park and boat basin on the site, lends itself more to public and commercial use rather than industrial.

Some specific recommendations from Phase I are as follows:

- There is a wide variety of manufacturing industries that could be attracted to Dallesport, however, Port management should concentrate on resource dependent, transportation dependent and "footloose" firms that are large land users and capital intensive, thereby reducing in-migration and consequent adverse environmental impacts.
- Through aggressive public relations, Port management should try to capture "spillover" industries from the Portland and Seattle-Tacoma areas by offering abundant lower cost land, a stable work force, and an environment free of urban pathology.
- It is recommended that Public Planning agencies in the Mid-Columbia Region continue their early measures to formulate planning and implementation strategies for the private development of additional housing stock and supportive commercial and public service facilities.

Based on past industrial development trends in the Mid-Columbia Region over the past 10 years, and an assumption that the Dallesport area can capture 80% of industrial land development of the Region, then an average of about 50 acres of land per year can be absorbed in the Dallesport Area. Obviously, this will probably not occur at a steady rate, but more likely in a progressive manner. As the industrial park starts to take hold, the demand for new sites will logically increase. By 1990, it is conceivable that some 700 acres (13 years x 50 acres/year) at Dallesport could be industrially developed. (All of this property may not necessarily be Port property. however.) Recognizing these factors, and the realities of Port capital, it is recommended that the Port initially try to encourage industry to move onto the existing 54 acres of partially-developed property, utilizing what funds are available to provide improvements that will enhance this program. Clearly, as the demand for a specific site or sites becomes obvious. (such as interest in the waterfront property or dock facilities) the Port should be prepared to shift emphasis to meet the demand. Once sufficient capital and/or revenue to support bonds becomes a reality, then a program of additional development should be undertaken, expanding from the developed area and taking maximum advantage of utilities already available first.

A major feature of the plan is the development of a barge dock and loading facility just upriver from the locks at the Dalles Dam. This part of the plan includes a floating dock assembly, extension of an access road including an overcrossing of the Burlington Northern main line and approach fills and rail spurs to service the dock area.

If all improvements were to be constructed now, at todays costs, the total cost would be \$5.7 million.

Since it is not feasible to construct the entire project all at once, it will be necessary to phase construction projects.

A major goal of the Port is to generate income from the Dallesport Industrial site as soon as possible. With this in mind, efforts should be directed initially at those projects which are most likely to result in industrial development on the site and produce income to the Port.

There are several alternatives for initial development and the choice of which alternative to use may only be able to be decided on by the Port at the time when the Port is ready to commit to a project and depending on what, if any, potential industries are ready at that time.

The alternatives are:

 Provide additional road and utility improvements at the south end of the site to open up more land for development providing a minimum of good road access and water service, both domestic supply and fire flow. Actual site preparation and rail service, if required, could be provided by the industrial user.

- 2. Allow gravel quarrying operations in the central undeveloped portions of the Port property where there are known aggregate deposits, to generate operating funds and development capital. Future development of this area could also be enhanced by these operations if reclamation is carefully planned.
- 3. Construct a railroad overcrossing to provide access to the Port's 19.1 acres on the Bonneville Pool, and develop a barge dock facility to enhance the site.
- 4. As a means of generating income, the Port could construct an industrial building for lease by one or more users. This type of facility could be built on sites that are presently ready for development. The Port should be reasonably sure that there are potential lessors before proceeding with this alternative.

Feasibility of the entire project is dependent on the Port's ability to match EDA Grant Funds for construction of improvements.

Grant funds available to the Port from EDA are approximately \$1.0 million, which would require a local match by the Port of about \$850,000, well above the \$266,000 in Port funds that could be utilized for capital improvement. It will be necessary for the Port to find other sources of funds for matching purposes.

The incentives for industry to locate at Dallesport are several. There are large tracts of land available with good access by roads, rail and water. Necessary utilities, except for sewers, are readily available. The low cost base of land at Dallesport, coupled with the available grant funds, makes the site competitive and a unique marketing opportunity.

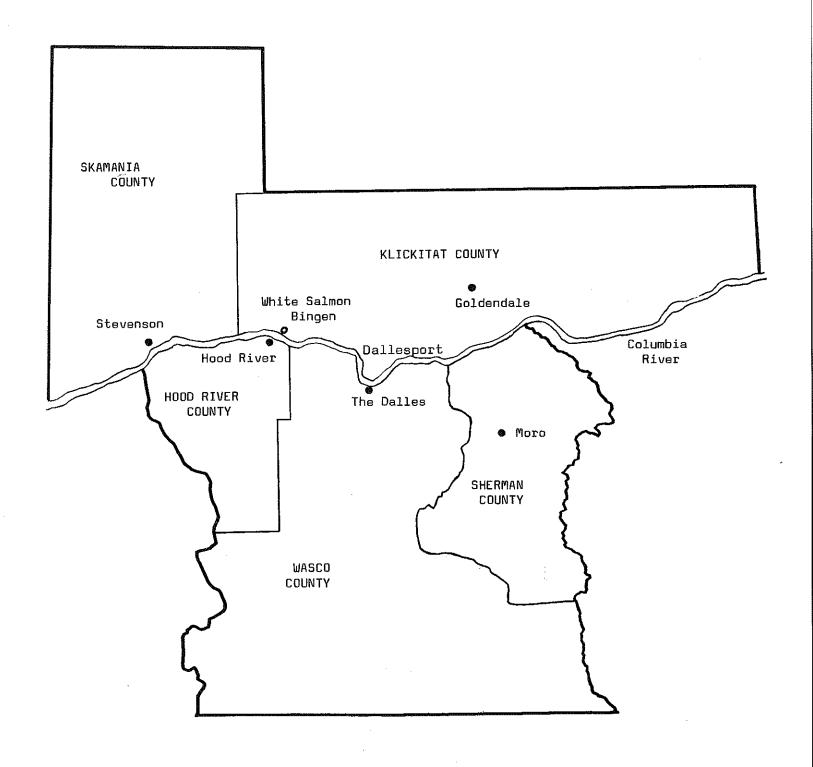
PHASE I: PRELIMINARY ANALYSIS

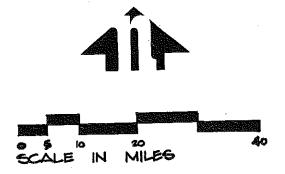
STUDY AREA

The study area for the Industrial Area Management Study and Master Plan consists of a primary study area and a secondary area. The primary study area is the area within the Klickitat County Port District boundary and generally includes the area on the north side of the Columbia River from Bingen-White Salmon to just east of the Dallesport Penninsula, all within Klickitat County, Washington

All preliminary site analysis and most of the physical resources analysis is confined to the primary study area.

The secondary area is the area that is most likely to be impacted by any development within the primary study area, and is generally the five county Mid-Columbia Economic Development District which includes Klickitat and Skamania Counties in Washington and Hood River, Wasco and Sherman Counties in Oregon. The counties that are expected to be most effected are Klickitat and Wasco Counties, and to some extent Hood River County.





MID-COLUMBIA
ECONOMIC
DEVELOPMENT
DISTRICT

ECONOMIC & PHYSICAL RESOURCES ANALYSIS

PHYSIOGRAPHY OF THE AREA AND ITS ECONOMY:

Physiography - The Mid-Columbia Area consists of three distinct regions; the Cascades, the High Columbia Plateaus, and the Mid-Columbia River Plain. The primary study area is in the Mid-Columbia River Plain.

The economy of the area generally follows these regions with forests in the Cascades, agriculture in the High Columbia Plateaus and trade, transportation and river oriented activity in the Mid-Columbia River Plain.

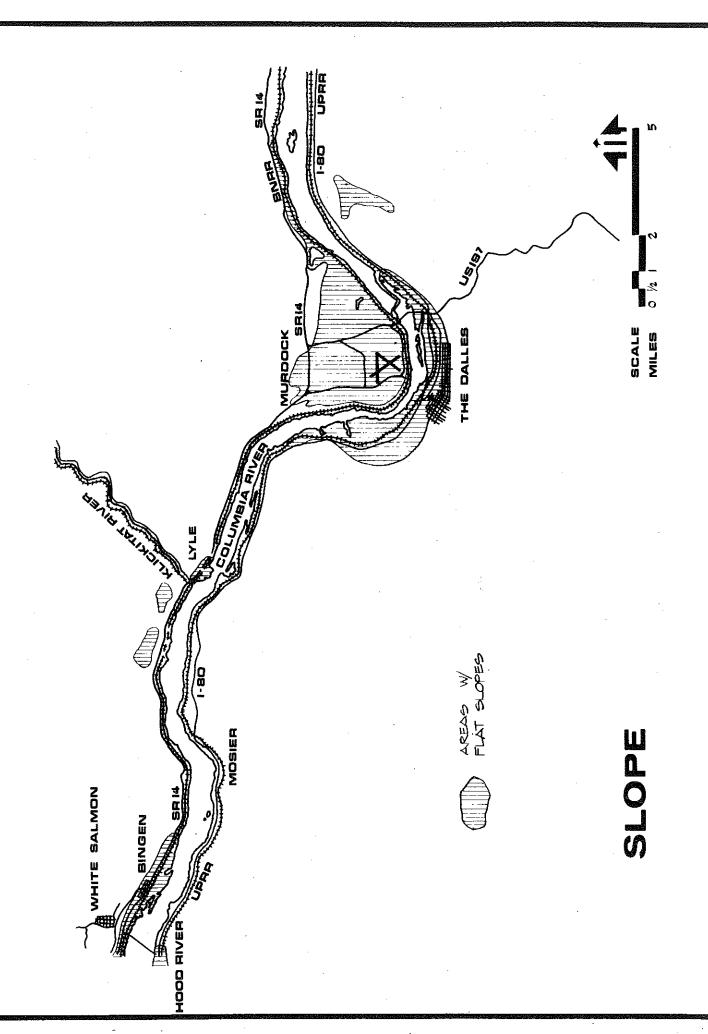
The primary study area is within the Columbia River Gorge which is one of the most unique and beautiful areas in the county.

Geology - The geology of the primary study area consists of flat to gently dipping Columbia River Basalt flows. Many outcrops of these dense, dark gray, fine grained rock are visible throughout the Dallesport area and on the Lyle Peninsula. There is a northwest/southeast tending fault about eight miles east of Dallesport, and a small inactive fault may pass through Dallesport. There is no known recent movement of these faults.

<u>Soils</u> - Soils in the Dallesport and Lyle areas are Wana-Athena Associations which are generally silty or sandy soils formed in wind deposited or wind worked sediments on hilly uplands. They are rated as Land Capability Class III and have severe limitations that reduce the choice of plants, require very careful management, or both. Class III soils are suited to cultivated crops, pasture, range, woodland, or wildlife. Soil cover is thin and sandy with considerable areas of exposed rock outcrop. There is sufficient soil cover to grow crops on the northern portion of the Dallesport Peninsula.

Bingen area soils are of the Rockland-Underwood Association which are sandy soils formed in materials mixed with volcanic ash or pumice on terraces, foothills, plateaus and mountains. They are rated as Land Capability Class VI, soils which have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture, woodland or wildlife habitat. The Port area of Bingen, which lies between the river and the Burlington Northern railroad tracks, in contrast, is filled, diked land which is very productive cultivated land for truck gardens.

Topography - The primary study area consists of steep mountains rising from 72 feet in the Bonneville Pool to elevations of over 2,000 feet within a mile of Bingen. The area is characterized by steep to very steep slopes with very little flat or gently sloping areas. Some of the few areas of relatively flat lands in the entire Columbia River Gorge are at Bingen, Dallesport and a small area at Lyle.



The Dallesport Peninsula is a fairly flat river terrace with an undulating surface broken by basalt rock outcrops and some sand dunes. The slope is generally south towards the river. There are very steep, rocky cliffs boundering all along the river except just above the Dalles Dam Locks where the land slopes gently away from the river. The land begins to rise steeply to the north along State Highway 14.

The Lyle Peninsula is a fairly flat river terrace with steep rocky cliffs along the rivers edge. Elevation is about 50 feet above the normal river level.

The Port area at Bingen is a flat, filled and diked area with an elevation about 10 feet above the river. The top of the dike is about 20 feet above the river. All of the above areas are either above the Columbia River flood plain or protected by flood dikes.

Unique Physical Features - The most unique feature of the entire study area is the Columbia Gorge itself. All future development decisions, whether for industrial, commercial, residential, recreation or some other use, should take into account the impact on this natural asset. All efforts should be made to protect and enhance the scenic resources and natural beauty of the Gorge. Other unique physical features in the study area, both natural and man made, include Horsethief Lake State Park, Spearfish Lake, the Dalles Dam, locks and fish ladders; the mouth of the Klickitat River, and the Bingen Boat Basin. These are all features that should be taken into account in any future development decisions.

Climate and Air Quality - The Dallesport to Bingen-White Salmon area can generally be described as having a mild climate most of the year, with occasional winter cold periods. Average temperatures in The Dalles range from minimum of 27.5° (°F) in January to maximums of 87° in July. Highest and lowest temperatures recorded were 115° in July, 1941 and -21° in February, 1950.

Precipitation in the study area ranges from about 29.45 inches annually in the Bingen-White Salmon area to 13.79 inches in the Dallesport area. Growing season ranges from about 160 days in the western part of the study area to over 200 days east of Dallesport.

Moderately strong northwest winds funnel up the Columbia Gorge most of the year. During July, winds will range between 13 and 31 mph about 73% of the time with calm (0-3 mph) about 13% of the time. Winter winds are light and variable with an easterly trend. Calm conditions exist about 55% of the time in January with moderately strong east winds occurring only about 14% of the time.

Suspended particulate sampling stations are operated at Bingen by the Washington Department of Ecology and at The Dalles by the Oregon Department of Environmental Quality. Records for 1972, 1973 and 1974 show that annual averages are below State and Federal standards at The Dalles, however, particulate air samples have exceeded the standards on occasions. Wind blown dust is the major and normal source of particulate material.

According to the report "Air Quality Profile and Evaluation for the Central Oregon Interstate Air Quality Control Region", air quality in The Dalles area is generally good except for occasional dust problems.

The Martin-Marietta Aluminum plant at The Dalles appears to be the major source of pollutants because of emissions of fluorides, particulates and sulfur dioxide (so_2). Ambient concentrations of so_2 in The Dalles area are at or near the detectable level of 0.015 ppm.

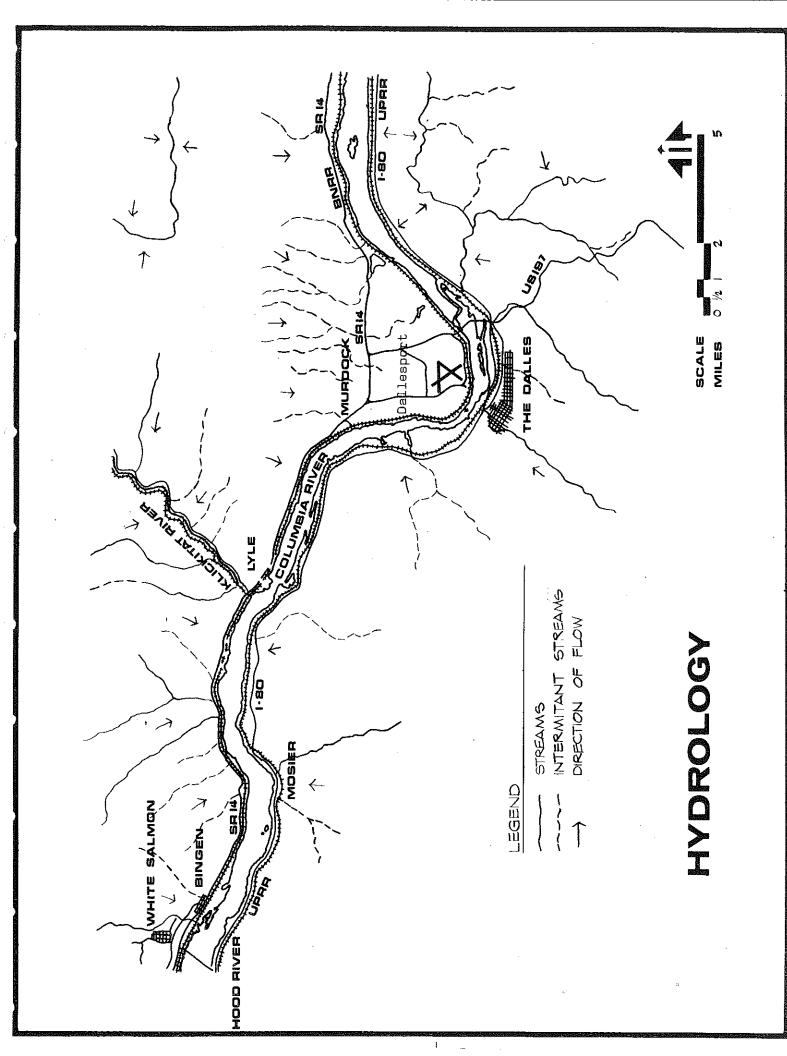
The following is from the Environmental Impact Statement for the proposed Western Zirconium Plant at Dallesport.

"As in much of Washington and Oregon, this area can experience stagnant air conditions. These are often caused by atmospheric inversions accompanied by low wind velocities." "Stagnant air conditions are most frequent in the fall and winter and are often characterized by a haze in the valley. Pollutants introduced into this stagnant air can accumulate."

A major consideration for all future industrial development proposals should be to maintain air quality by restricting future industries to those that can meet State and Federal emissions standards.

Hydrology - Surface and Subsurface - The study area is within, what is described in the Mid-Columbia Land Use Plan as the Northwide Columbia Basin which extends from the east slopes of the Cascade Mountains along the north shore of the Columbia River to Kennewick, Washington and contains 4,052 square miles. Major streams in the basin are the White Salmon and Klickitat Rivers.

		Runoff and Flow				
		White Salmon River at Underwood		Klickitat River at Pitt		
Average Annual		852,000 Ac. Fl.		1,132,000 Ac.Fl.		
Runoff	or	1,176 c.f.s.	or	1,565 c.f.s.		
Max. Momentary Flow		9,700 c.f.s.		31,000 c.f.s.		
Min. Momentary Flow		158 c.f.s.		445 c.f.s.		



The primary surface water in the area is the Columbia River which, according to the U.S. Corps of Engineers, as presently developed is no longer considered a surplus resource. Other surface water in the area is Spearfish Lake just east of the present Dallesport Industrial Site, Horsethief Lake and State Park and several intermittent streams, including Five Mile Creek in the north portion of the Dallesport Peninsula and Dry Creek through Bingen.

Ground water resources within the basin are largely unknown except along the Columbia River and around Goldendale. Water table levels vary between +60 and +70 feet above sea level which makes the water table in the Dallesport area at about 130 to 140 feet deep. Well yields of 100 to 500 gallons per minute can be expected. The major source of water in the study area is the Columbia River and the major use category of this supply, at present, is for irrigation.

Moisture retainability of the soil is of prime concern for agricultural use of an area. According to the National Cooperative Soil Survey, the Dallesport area is within the Aaha-Athena Soil Association, which has a water storage capacity of Class B or water storage in the soil profile of 10,000 to 20,000 acre-feet per township.

It appears that the only consideration for a receiving stream for effluent from future treatment plants in the Dallesport area is the Columbia River. State and Federal discharge standards will have to be met by any future treatment or disposal facilities. It also appears that water supply for normal industrial, residential or commercial activities should be adequate, but extremely large water use requirements such as for major food processing should be considered carefully.

FISH AND WILDLIFE

The Washington Environmental Atlas was used to determine the most likely species of fish and wildlife that might be found in the study area. It should be emphasized that the following discussion is only an indication of species that might be found in the area. Detailed wildlife studies would have to be carried out to determine if in fact any of these species are actually residents of a particular site. One thing that is known is that the Dallesport area is a Rattlesnake habitat, however, people who have been working in the area recently report that not many rattlers are to be seen. This is probably due to increased human activity and lack of surface water.

The various species of birds, mammals and reptiles that may inhabit an area are determined by what is called "Life Cycle Zones" and a particular species may be common, uncommon, rare or non-existent in one or more zones.

The Dallesport to Lyle area is in the Arid Transition Grassland Life Zone and the Bingen-White Salmon area is in the Arid Transition Timbered Life Zone.

Some of the most common birds in the study area are the Red-Tailed Hawk, Rough-legged Hawk, Marsh Hawk, Sparrow Hawk, the Ring-necked Pheasant, Horned Lark, Starling, and the Western Meadowlark. Some common summertime visitors in the area include the Common Nighthawk, Barn Swallow, Cliff Swallow, the Vesper Sparrow, and the Savannah Sparrow. Winter visitors include the White-crowned Sparrow and an uncommon visitor, the Northern Shrike. Considered rare in the area are the Prairie Falcon, and Merriam's Turkey.

Under these definitions, common means often seen or heard, uncommon is usually present but not seen or heard, and rare means present only in small numbers and seldom seen or heard.

The <u>Bald Eagle</u> which is common along rocky or sandy shorelines might be seen on the cliffs along the Columbia River. Some species including the <u>Prairie Falcon</u>, <u>Marsh Hawk</u>, <u>Sparrow Hawk</u> and the <u>Western Meadowlark</u> are either blue-listed by the National Audubon Society, meaning that they appear to be suffering in all or part of their range from non-cyclical decline, or they are protected by the Washington Department of Game.

Some of the common reptiles and amphibians in the study area might include the <u>Western Spade-foot Toad</u>, the <u>Western Racer</u>, <u>Gopher Snake</u>, and the <u>Western Rattlesnake</u>. The <u>Short-Horned Lizard</u> and <u>Striped Whipsnake</u> are rare in the area as is the <u>Western Skink</u> which inhabits rocky areas such as are in the study area. The common <u>Garter Snake</u> is uncommon in grassland areas but is common in wet meadowlands.

The most common mammals that might be found in the area include the Vagrant Shrew, Long-tailed Weasel, Badger, Townsend Ground Squirrel, Yellowpine Chipmunk, Deer Mouse, Mountain Mole, and the Blacktail Jack-rabbit which is the most likely mammal to actually be seen in the area.

The Northwestern Whitetail Deer is common in wooded areas but not in grassland, however, deer have been seen periodically in the Dallesport area. Other mammals that might inhabit the area are the Northern Pocket Gopher and Sage Vole which are uncommon and the Northern Grasshopper Mouse which is rare in the area.

Probably the most controversial form of wildlife in the general area is the legendary <u>Sasquatch</u> or "Big Foot" as it is known. It's very existence is the subject of great debate, however, there have been reported sightings just northwest of the Dallesport area and north of Bingen-White Salmon.

According to the Washington Environmental Atlas, the Klickitat River, Major Creek, White Salmon River and the Mount Brook area near Appleton are critical wildlife habitats. As far as is known, there are no rare or endangered species in any of the potential industrial sites.

Major aquatic habitats include the Columbia River, Klickitat River, Major Creek, White Salmon River, Horsethief Lake, Spearfish Lake, Hewett Lake and Rowland Lake. The Columbia is the major passageway for fish migration between the Pacific Ocean and spawning areas in the upper Columbia and Snake Rivers and their tributaries. The common species of fish found in the Columbia are Spring Chinook, Summer Chinook, Fall Chinook, Steelhead, Sockeye, Coho, Chum and Shad.

VEGETATION

The study area is within the western portion of the Columbia Basin Province which is a large contiguous physiographic region of steepe and shrub-steppe vegetation. The Dallesport area is predominantly steppe grassland dominated by <u>Bluebunch wheatgrass</u> and Idaho fescue. There are few, if any, trees on any of the sites being considered for possible industrial development. The Bingen industrial site contains a good deal of cultivated truck garden area with a brushey area surrounding a lake which is formed by a backwater of the Columbia River. Rows of Poplar trees form windbreaks within the cultivated areas.

The Lyle site is a grassy area much like the Dallesport area.

NATURAL HAZARDS

There are no known major natural hazards that would affect future development in the study area. Flooding of any of the identified industrial sites is almost non-existent because of either the flood control provided by the dams or the elevation above the river of the sites.

The Bingen site is flood protected by dikes.

The study area is subject to occasional cloud bursts which cause considerable runoff and some isolated flooding or erosion problems. Natural drainage ways will have to be kept free of obstructions or filling to minimize this problem.

There is a northwest-southeast trending fault about eight miles east of Dallesport, however, there is no known recent movement of this fault.

LAND USE .

Existing land use within the planning area may be divided into four broad classifications, - forest, agriculture, urban and industrial land.

Agriculture, which plays the second most important role in Klickitat Counties economy, comprises more than 60% of the counties land area. About 13% of this land is used for harvested crops with the remainder being used for pasture or woodland. The value of farm products in the county is about equally divided between farm crops and livestock.

The principal agricultural areas within the county are the White Salmon Valley, the Glenwood area, the Goldendale Plateau and the large east county plateaus. Within the study area, there are some productive agriculture areas including the truck gardens at Bingen and Dallesport and the orchards at Dallesport. An extensive irrigation operation is active on the Dallesport Peninsula just south of State Highway 14 and west of U.S. 97. This operation is on one of the sites designated by the MCEDD as having industrial potential. Other areas at Dallesport are used for cattle grazing.

There are about 537,000 acres of commercial and non-commercial forest lands in Klickitat County. Commercial forests are predominantly private, 73.8%, with only 14.6% State owned and 11.6% Federal owned. The principal species is Ponderosa Pine which covers about 65% of the commercial forest area. About 31% is Douglas Fir with about 4% other species.

There are forest lands within the study area, however, there are no forest lands within the areas designated as having industrial potential.

Urban and Urbanizing Land is defined by the MCEDD as land with high residential densities occupied by persons of non-agricultural based economic pursuits. The primary urban areas in the study area are Goldendale, Bingen-White Salmon, and Lyle. On the Oregon side of the Columbia River, The Dalles and Hood River are the major urban areas within the Columbia Gorge. These communities plus Dallesport and Murdock are the areas which will be most affected by any future industrial development in the study area.

Existing industrial areas within the Mid-Columbia area are at Golden-dale, Bingen, Dallesport, The Dalles, and Hood River.

The MCEDD Industrial Site Survey, October 1976, identified several areas with potential industrial sites. Within the study area, and also the Mid-Columbia area, the Dallesport area has the largest amount of potential industrial land with over 3,320 acres. In addition, there are 65 acres in Bingen and 44 acres in Lyle with industrial potential.

POPULATION CHARACTERISTICS

Population trends for the Five county Mid-Columbia Region are shown by County in Table 1.

TABLE 1
POPULATION - MID-COLUMBIA REGION BY COUNTY

	<u> 1950</u>	<u> 1960</u>	% Change	<u> 1970</u>	% Change
Hood River, Oregon	12,470	13,395	+ 7.4	13,187	- 1.5
Wasco, Oregon	15,552	20,205	+29.9	20,133	- 0.3
Sherman, Oregon	2,271	2,446	+ 7.7	2,139	-12.5
Klickitat, Washington	12,049	13,455	+11.7	12,138	- 9.8
Skamania, Washington	4,778	5,207	+ 8.9	5,845	+12.3
District	47,120	54,708	+16.1	53,442	- 2.3

Source: U.S. Census - 1970

from 1970 to 1975, there has been a 4% increase in population in the region, with Hood River and Klickitat Counties accounting for 91% of the increase.

TABLE 2	
POPULATION - MID-COLUMBIA	REGION
<u> 1970 - 1975</u>	

en a company of the c			Numerical	Percent
	<u> 1970</u>	<u> 1975</u>	Change	Change
Hood River	13,187	14,300 ¹	1,113	8.4
Wasco	20,133	20,230 -	97	•5
Sherman	2,139	2,190 ¹	51	2.4
Skamania	5,845	5,800 ²	5 5	•9
Klickitat	12,138	13,000 ²	862	7.1
Total	53,442	55,620	2,178	4.0

- 1. 7/1/75 estimate, Oregon Center for Population Research & Census.
- 2. OPP & FM, State of Washington Population Trends.

The four major market centers in the Mid-Columbia Region have all shown population increases between 1970-1975, with by far the largest percentage and numeric change occurring in Goldendale.

TABLE 3

COMPONENTS OF POPULATION CHANGE
MAJOR MARKET CENTERS - 1970 - 1975

	1970	1975	Numerical <u>Change</u>	Percent Change
The Dalles Hood River/Bingen/	10,423	10,800	377	4
White Salmon	6,247	6,148	567	9
Goldendale Cascade Locks/	2,484	3,275	791	32
Stevenson	1,949	2,097	148	8

Source: MCEDD - Annual Work Plan 1977 - 1978

Table 4 shows the population change by Census Tract in Klickitat County based on estimated 1976 population by the Klickitat County Planning Dept.

TABLE 4
POPULATION DISTRIBUTION - KLICKITAT COUNTY

Census Tract	<u> 1970</u>	<u> 1976</u>
01	310	337
02	191	207
03	3 , 69 7	4,021
04	7	8
05	5 51	599
06	524	5 70 `
07	4,101	4,460
08	838	911
09	1,196	1,301
10	723	<u>786</u>
Total County	12,138	13,200

Population projections for the Mid-Columbia Region have been made by several agencies including the MCEDD, BPA, Pacific Northwest Bell, Portland State University, and the individual counties.

TABLE 4
POPULATION PROJECTIONS BY COUNTY

		1975				1980		
COUNTY	A	8	С	D	А	В	С	D
Hood River	14,100	14,300	1,430	_	15,100	15,400	14,790	14,559
Wasco	20,300	20,300	20,420	-	21,550	20,400	20,730	24,363
Sherman	1,950	2,200	2,190	-	1,725	2,200	2,000	2,190
						· ·	•	(13,641)
Klickitat	13,150	13,000	-	13,000*	13,975	13,200	-	13,455
Skamania	6,100	5,900	· · · · · · · · · · · · · · · · · · ·	5,800	6,350	6,400	-	6,217
Region	55,600	55,700	-	=	58,700	57,600	_	61,073
		1985				1990		
COUNTY	Α	В	С	D	<u>A</u>	В	C	D
Hood River	16,075	16,300	14,690	-	17,025	17,200	_	-
Wasco	22,750	20,500	21,930	-	23,925	20,600	-	_
Sherman	1,525	2,200	2,000	-	1,425	2,300	-	-
Klickitat	14,900	13,400	•	14,282	15,875	13,600	-	14,923
Skamania	<u>6,350</u>	6,900	-		6,500	7,300		-
Region	61,600	59,300		_	64,750	61,000	-	-

Projections for Klickitat County are varied depending on who made them as shown in Table 5.

- A Bonneville Power Administration
- 8 Pacific Northwest Bell
- C Portland State University
- D Individual County Projections

TABLE 5
POPULATION PROJECTIONS KLICKITAT COUNTY

	1975	1980	1985	<u> 1990</u>	1995	2000
Co Straight Line Co % Increase	13,000	13,650	14,282 14,300	15,080	15,860	16,205 16,640
MCEDD	13,000	13,455	- 14 000	- 15 075	16,640	
BPA			14,900 13,400		10,507	-
Pacific N.W. Bell	13,000	10,200	10,400	10,000		

If all of the projections are extended out to the year 2000, BPA and MCEDD projections are high with the population of the county approaching 18,000. Pacific Northwest Bell is low for 1990 and continuing theirs would give the County only about 14,000, considerably lower than the counties own estimates of 16,205 to 16,640.

In July 1977, the Office of Program Planning and Fiscal Management, State of Washington, made the following population projections for Klickitat County.

<u>1975</u> <u>1980</u> <u>1985</u> <u>1990</u> <u>1995</u> <u>2000</u> <u>2005</u> 12,979 14,754 15,899 16,897 17,598 18,090 18,493

These projections, which are generally considered to be the official projections and are the official projections for current years, are considerably higher than previous projections including the counties own. These projections are in all probability based on anticipated industrial growth in the County

HOUSING SUPPLY & CHARACTERISTICS

An overview of the housing situation in a given area usually is concerned with two major characteristics, physical and social. The criteria for assessing the adequacy of the existing housing supply includes the condition of the housing supply which is the physical characteristics, and the cost of housing, vacancy rate and degree of crowding which are measures of the social characteristics.

The data contained herein is based on 1970 census data which is the latest available, but is out-of-date. The number of housing units has been updated to 1975 by BPA and Klickitat County.

MID-COLUMBIA REGION HOUSING SUMMARY 1970-1975

County	Total Units	Total Units	Numeric	Percent
	1970	1975	Change	Change
Hood River	4,760	5,300	531	11
Sherman	870	825	- 45	- 5
Wasco	7,175	7,475	300	4
	Total Single	Total Single	Numeric	Percent
	Family Units	Family Units	Change	Change
Klickitat	3,930	4,208	278	7
Skamania	1,867	NA	NA	NA

In Klickitat County, the total number of housing units in 1970 was 4,668. The county estimate for 1976 is 5,122 for an increase of 454 units or 9.7% increase. Since the announcement of the proposed Western Zirconium plant at Dallesport in 1976, there have been several proposals for new subdivisions and mobile home parks in the area, including a 50 acre mobile home park in Dallesport and a 400 lot subdivision in The Dalles.

Since the 1970 census provides data only on plumbing deficiencies, that is the only measure of housing condition. A field survey of the Oregon Counties was made by the Economic Development District staff in 1971 in which 10.9% of the housing units were found to be deteriorating, and 19.6% were considered dilapidated.

PLUMBING DEFICIENCIES

	Hood <u>River</u>	<u>Wasco</u>	Sherman	Klickitat	Skamania	District
Occupied lacking one or more plumbing facility % of Occupied Units	227 5.1%	178 2.7%	16 2.1%	175 4.4%	73 4.0%	669 3 .8%
Flush toilet for house- hold only % of Occupied Units	4,534 95.7%	6,896 97.0%	851 98.2%	4,362 95.3%	2,031 93.6%	18,674 96.0%
Flush toilet shared % of Occupied Units	47 1.0%	30 •4%	4 •5%	8 •2%	8 •4%	97 •5%
No flush toilet % of Occupied Units	155 3.3%	181 2 . 6%	12 1.3%	208 4 . 5%	132 6.0%	688 3 . 5%

Source of Housing Data: 1970 Census

According to these figures, the highest incidence of plumbing deficiencies are in Hood River, Klickitat and Skamania Counties.

Within the five county region, approximately 60% of the housing units were owner-occupied in 1970 and 33% were renter-occupied. The following tables showing value of owner-occupied and cash rent of renter-occupied housing are of interest if comparing this area to other areas of the country or the rest of the states of Washington or Oregon, but because of the high inflation experienced in the last few years, they do not reflect the cost of housing now.

VALUE OF OWNER OCCUPIED HOUSING

		Hood River	Wasco	Sherman	Klickitat	Skamania	District <u>Total</u>
1.	Less than \$ 5,000	124	178	44	177	86	609
2.	\$ 5,000 - \$ 9,999	548	757	78	526	241	2150
3.	\$10,000 - \$14,999	569	1019	47	424	213	2272
4.	\$15,000 - \$19,999	432	771	-15	262	135	1615
5.	\$20,000 - \$24,999	187	306	10	547	173	1223
6.	\$25,000 - \$34,999	1.42	160	5	89	49	445
7.	\$35,000 - \$49,999	52	47	- 2	24	15	140
8.	\$50,000 or more	6	17	0	12	7	42
	Total Owner Occupie	ed 2060	3255	201	2061	919	8496

*Value is tabulated for owner occupied and vacant-for-sale-only one-family houses which are on a place of less than ten acres and have no business or medical office on the property. Value is not tabulated for mobile homes, trailers, cooperatives or condominiums.

Source: 1970 Census

CASH RENT OF RENTER OCCUPIED HOUSING

	Hood			. ,		District
•	River	<u>Wasco</u>	Sherman	Klickitat	Skamania	<u>Total</u>
With cash rent less than \$40	102	130	25	133	100	490
With cash rent \$ 40 - \$ 59	245	367	33	412	135	1192
With cash rent \$ 60 - \$ 79	323	526	52	355	119	1375
With cash rent \$ 80 - \$ 99	140	384	18	99	53	694
With cash rent \$100 - \$119	62	195	- 8	26	`4	295
With cash rent \$120 - \$149	61	88	0	13	4	166
With cash rent \$150 - \$199	11	23	0	4	0	38
With cash rent \$200 - \$299	1	0	0	1	0	2
With cash rent \$300 or more	0	0	. 0	0	0	0
Without payment of cash rent	113	143	27	136	47	466
Total Renter Occupied	1058	1856	163	117 9	462	4718
Median Monthly Rent	\$51.70	71.33	63.84	59.22	55.04	66.32

*Contract rent is tabulated for all renter-occupied and vacant-for-rent units except one-family houses on a place of ten acres or more.

Source: 1970 Census

Vacancy rates, as shown in the following table were quite low in 1970, especially for units for sale. Generally speaking, units for sale that have been vacant for over 6 months are most likely substandard. Vacancy rates of under 5% allow little selection of housing choice - in other words, a tight housing market is reflected.

VACANCY RATE UNITS FOR SALE & FOR RENT

	Hood <u>River</u>	Wasco	Sherman	Klickitat	Skamania	District Total
Vacant for Sale	37	74	7	45	12	175
% of Units	•8%	1.0%	.8%	•98%	•55%	•89%
Vacant - less than 6 months	24	40	1	27	5	97
% of Units	•5%	•6%	•1%	•59%	•23%	•49%
Vacant for Rent	89	269	35	225	74	692
% of Rental Units	6.1%	11.3%	10 . 6%	16.08%	13.35%	13 .00 %
Vacant less than 2 mos. for rent % of Rental Units	42 2.9%	137 5.7%	4 1.2%	81 5.78%	29 5.23%	293 5.5%

Source: 1970 Census

The degrees of overcrowding in housing is a social criteria indicating an inadequate choice of housing which may be due to a shortage of adequate housing or that the cost of housing exceeds the ability of families to pay for their housing needs. An overcrowded unit is one with 1.01 or more persons per room. A severely crowded unit has 1.51 or more persons per room.

CROWDED CONDITIONS

CROWDED: Count of Persons in Units with 1.01 or more Persons per Room.

	Hood <u>River</u>	Wasco	Sherman	Klickitat	Skamania	District
Number	1656	2692	275	1989	1009	7621
% of Population	12.6%	13.4%	12.9%	16.4%	1 7. 3%	14.3%

SEVERE CROWDING: Count of Persons in Units with 1.51 or more Persons per Room.

	Hood <u>River</u>	<u>Wasco</u>	Sherman	Klickitat	Skamania	District
Number	491	810	55	456	249	2061
% of Population	3.7%	4.0%	2 . 6%	3.8%	4.3%	3.9%

Source: 1970 Census

According to the Mid-Columbia Economic Development District, the data presented above indicates a definite lack of housing either to attract or accommodate the growth of the economy of the District.

If the estimates for increased housing units from 1970 to 1975 are correct and the average family size has remained constant, then the data in the following table indicates that on a county wide basis, the supply of housing has increased faster than the increase in population. This means higher vacancy rates and therefore, in theory at least, more choice in housing.

	New Units	Potential	Actual Population
	<u>1970–1975</u>	Population	Increase 1970–1975
Klickitat County	454*	1362	1062
Hood River County	531	1593	1113
Sherman County	- 45	- 135	51
Wasco County	300	900	97

^{*}Klickitat County figures are for 1970-1976.

There are no estimates of new units in Skamania County.

At 3 persons per dwelling unit, these figures indicate that there is an excess of about 483 units in the four county areas taking into account that the number of units in Sherman County decreased.

According to the report "Housing Study for The Dalles Urban Planning Unit - September 1976", the population of The Dalles urban area is increasing at a faster rate than the supply of adequate housing.

Within Klickitat County, some housing characteristics from the 1970 Census are as follows:

and as fallower						4		
are as follows:			Klickitat County	: <u>Goldend</u>	ale	Bingen - White Salm		esport Area
Total Housing Uni Occupied Housing Vacancy Rate			4668 3970 14.9%	1424 1242 12.8%		1578 1357 14 .0 0%	43 38 11.4	19
	Klick Coun		Golder	ndale_		ngen- <u>Salmon</u>	Dalles Lyle <i>F</i>	•
Owner Occupied Renter Occupied Single Family Multi-Family Mobile Home	# 2571 1399 3930 387 261 4578	% 64.7 35.2 85.8 8.5 5.7	# 857 385 1200 140 79 1419	% 69.0 31.0 84.6 9.9 5.5	# 918 439 1300 120 88 1508	% 67.6 32.4 86.3 7.9 5.8	# 252 137 358 44 <u>37</u> 439	% 64.8 35.2 81.5 10.0 8.5

The Dallesport-Lyle area has one of the lower vacancy rates, a higher percentage of renters and a higher percentage of multi-family units and mobile homes.

COMMUNITY FACILITIES

Education: Klickitat County is served by ten school districts with nine high schools. The primary school districts serving the Dallesport area or that would be affected by development at Dallesport are the Lyle School District and The Dalles School District. Enrollments in the districts are declining . *1 In 1976, enrollments in The Dalles schools, both public and private, was 3,631 while capacity was 4,215. In the Lyle district, enrollment was 335 with a capacity of 435.

The closest junior colleges or community colleges are in Portland, Vancouver, Yakima, or Kennwick. The closest four-year accredited colleges are Portland State University and the University of Portland in Portland, Oregon and Washington State University in Pullman, Washington.

Higher education opportunities are provided in The Dalles through the Treaty Oak Education Center an Area Education District which utilizes both public and private facilities to conduct classes and provides instruction through contract with Portland Community College. Vocational training is available at The Dalles High School at their new facilities.

Average education cost per student in the five county region in 1970 was \$989 per year, while the average cost nationally was $$808 *^{2}$.

According to the State of Washington, Pocket Data Book 1976, the net cost per pupil for fiscal 1976 in Klickitat County was \$1,157. The average expenditure per pupil statewide was \$1,209.93, which is up from the 1970 figure of \$741.13. There is a potential for expansion of the Goldendale Observatory, which has the largest telescope in the world available to the general public, into a full science center for educational use of students from the area and the entire state, as well as the general public.

- *1. Preliminary E.I.S. Western Zirconium, CH2M.
- *2. U.S. Dept. of Commerce, Bureau of the Census. <u>Statistical Abstract</u> of the U.S. 1970, Washington, D.C., July 1970, p. 114.

<u>Library Facilities</u>: Libraries in the region are inadequate if compared to national standards. The Klickitat County library system is especially inadequate as shown in the following table:

LIBRARY VOLUME BY COUNTY 1969-70

	Volumes	Volumes <u>Per Capita</u>
Hood River County	28,000	2.12
Wasco County	28,000	1.39
Sherman County	330	.15
Klickitat County	14,669	1.21
Skamania County	<u>14,203</u>	<u>2.43</u>
District	85,202	1.59
National Average		2.76

Source: Compiled from State Library Statistics by the MCEDD. These figures, which are for 1969-70, have no doubt changed and hopefully have improved.

<u>Public Safety:</u> Law enforcement in the study area is provided by the County Sheriff's office. One Sheriff's Deputy covers the area from White Salmon to Goldendale, including Dallesport. Facilities for juvenile and alcohol offenders are in need of improvement. Fire protection in the study area is provided by a volunteer fire department which covers the area from Lyle to Wishram. The Port District has a 738,000 gallon water storage tank and a 3,000 gpm booster pump at the Dallesport Industrial Site which is available for fire protection.

Health Care: Within the five county region, there is a shortage of hospital and nursing home beds and generally the facilities are old and inadequate. There are two hospital districts in Klickitat County with 40 to 50 bed hospitals in Goldendale and White Salmon which also have emergency equipment available. The Dalles has one 100 bed hospital, and two long term care facilities.

If the services of specialists are required, the closest ones are in Portland or Vancouver.

Regional Income & Income Distribution: According to the following table, per capita personal income in Klickitat County is higher than the average for the Mid-Columbia Region. On a county basis, Klickitat County had the third highest per capita income in the region in 1969, the highest in 1973, and the second highest in 1975. In comparison to state and national averages, the Mid-Columbia Region in 1969 was lower than the Oregon figure and the Washington and U.S. Average for 1970. In 1975, the Klickitat County per capita personal income was higher than the region average and the Oregon average, but was lower than both the Washington and U.S. averages.

In general terms, personal income in Klickitat County tends to be lower than the State of Washington average and about even with the Regional average.

	PER CAPIT	<u> FA PERSONAL</u>	INCOME
	<u> 1969</u>	1973	<u> 1975</u>
Mid-Columbia Region	\$2820	\$4242	\$5214
Hood River County	2887	4215	5124
Wasco County	2877	4116	5358
Sherman County	2638	3326	4986
Klickitat County	2835	4809	5231
Skamania County	2508	3837	4981
Oregon	3163	4345	5157
Washington	4053 *	NA	6247
U.S. Average	3966*	NA	5902

*1970 Figures

Source: U.S. Dept. of Commerce, Survey of Current Business

ECONOMIC BASE

The economic base of the Mid-Columbia Region is primarily based on agriculture and the forest products industry. To get some idea of the relative importance of the various types of economic activity in the region, County Business Patterns for 1972 published by the U.S. Bureau of the Census was analyzed comparing the number of employees for the mid-March pay period and the taxable payrolls for January to March 1972 by industry types for each of the five counties in the region. Figures for agricultural services, forestry and fisheries are not included because in each of the counties, the figures were less than the minimum to avoid disclosure of operations of individual reporting units. The major employment is in manufacturing in Klickitat, Skamania, Hood River Counties; and in retail trade in Wasco and Sherman Counties.

Manufacturing employment is predominantly in the lumber and wood products industry, however, some other major manufacturing employment is the food and kindred products industry in Hood River County, and in primary metals - the Martin-Marietta Aluminum Plant in The Dalles, Wasco County.

Although it is not reflected in the 1972 County Business Patterns, the Martin-Marietta plant in Klickitat County is the major manufacturing employer in that county.

Wholesale and retail trades are concentrated in the major cities in the region, The Dalles and Hood River.

Major government employment centers are Wasco and Skamania Counties, no doubt due to the fact that The Dalles in Wasco County is the largest city in the region and Skamania County is predominantly U.S. Forest land.

COUNTY BUSINESS PATTERNS - 1972

EXCLUDING AGRICULTURE

Sharman Co. Taxable No. of Payrolls		7	ı	NA		AN	NA	37		11	23	33
Sharman No. of Employees	7.7.1	7	ı	NA	ı	NA	NA	52		ס	34	18
Hood River Co. Taxable No. of Payrolls	2777	74447	1	188	2049	වයි	290	764		62	200	196
Hood Riv No. of	2100	STO TO	1	120	1291	286	126	629		20	508	80
Co. Taxable Payrolls		0223	NA	232	2352	410	445	1493		320	955	1160
Wasco Co. Ta No. of Pa		3806	NA	124	908	195	332	1202		195	828	375
Taxable Payrolls	0 × 10 × 10 × 10 × 10 × 10 × 10 × 10 ×	1634	ì	68	1277	. 26	56	92		NA	32	451
Skamania Co. Taxa No. of Payi	CIII 7 10 7 6 6 6	929	ı	24	649	41	27	86		NA	69	178
Klickitat Co. Taxable No. of Payrolls		2963	15	428	1655	81	57	374		110	237	171
Klickí No. of	D D	1734	9	150	754	40	35	400		69	269	67
∳ ¿			Mining	Contract Const.	Manufacturing	Transportation & Utilities	Wholesale Trade	Retail Trade	Finance, Ins.	& Real Est.	Services	Government-Fed. Civilian

Local Government Structure

Within the Mid-Columbia Region, there are five counties in two states with seventeen incorporated cities.

Klickitat County, Washington Goldendale Bingen White Salmon

Skamania County, Washington Stevensen North Bonneville

Hood River County, Oregon Hood River Cascade Locks Wasco County, Oregon
The Dalles Maupin
Mosier Shaniko
Defur Antelope

Sherman County, Oregon
Moro Wasco
Grass Valley Rufus

The Washington Counties are governed by a three member Board of County Commissioners. The incorporated cities all have a Mayor-Council system.

The Oregon Counties have different systems. Wasco and Sherman Counties have a three member board with the Chairman being referred to as County Judge. Hood River County is a home rule county governed by a five member County Council. The cities of Hood River, Cascade Locks and The Dalles all have Mayor-Council form of government with a City Manager.

There are five Port Districts in the Region, the Port of Klickitat County, the Port of Skamania County and the Ports of The Dalles, Hood River, and Cascade Locks. Each has an elected governing board and a full time manager.

Land Ownership

Land in Klickitat County is predominantly privately owned. Only 14% of the land area is under public ownership as compared with Skamania County where 84% is in public ownership.

Within the study area, the identified industrial sites are predominantly in private ownership. The Port of Klickitat County presently owns 740 acres at Dallesport and about 110 acres at Bingen. Of the Bingen property, 45 acres (located west of Jewett Creek) is currently inundated, and at present of limited development value. The Dalles Airport, which is owned by the City of The Dalles, has about 330 acres of potential industrial land on the airport site. The remaining 2,409 acres are privately owned.

There are three other parcels of 1,000 acres, 700 acres and 250 acres each. There are 44 acres on the Lyle Peninsula of which the Burlington Northern Railroad owns the largest part with the remainder in several small ownerships.

B. REGIONAL RESOURCES

The primary resources of the Mid-Columbia Region are timber, agriculture, water and hydro-electric power, and recreation. Mineral resources, primarily sand and gravel, are of minor importance, however, as supplies are becoming scarce in the Portland area these resources are becoming more important.

<u>Timber:</u> The Mid-Columbia Region has an extensive resource in its prime soft wood reserve. The commercial timber volume is estimated at 43.367 billion board feet, which is about 5% of the Washington and Oregon total. The average annual harvest in 1971 was 601,264,000 board feet or 1.5% of the regions total volume. About 58.4% of this harvest is processed within the region, and the rest is exported as raw logs.

57.8% of the commercial firms in the Region are engaged in lumber or wood products, and about 60% of all those employed in manufacturing are lumber or related wood products processing.

Timber ownership in the region is as follows:

Private	30.9%
State & BLM	2.8%
U.S. Forest Service	62.5%
Indian	3.8%

Timber resources have been traditionally the most exploited resource within the Region.

Source: Mid-Columbia Land Use Plan, MCEDD

Agriculture: Nearly 50% of the land area of the Mid-Columbia Region is agricultural land which accounted for \$39.8 million gross income for the Region in 1968. Estimates by local agencies place this figure at well over \$60 million in 1973. Farm earnings amount to 11.4% of all earnings within the Region.

The primary agricultural products are grain, 40% of the total, fruit - 32%, cattle and calves - 22%, and vegetables, poultry and dairy produces each 2% of the total.

Source: Mid-Columbia Land Use Plan 1975, MCEDD

Water and Hydro-Electric Power: The major water resource in the Mid-Columbia Region is the Columbia River and its tributaries which include the Wind River, White Salmon and Little White Slamon Rivers, Hood River, Klickitat River, Deschutes River, and the John Day River. Primary use of these waters are for fish runs, navigation, recreation, irrigation and hydro-electric power generation. There are three dams on the Columbia River within, or on the border of, the Mid-Columbia Region.

Bonneville Dam, which was completed in 1938, impounds 47-mile long Lake Bonneville. The power house contains 10 main generating units and one station service unit, with a total capacity of 518,400 kilowatts. Construction was started in 1974 on a second powerhouse which will add eight new units with capacity of 560,000 kilowatts. All units are scheduled to be on line in 1982.

The Dalles Dam was completed in 1957 and formed 24-mile long Lake Celilo. It has 22 main generators with a total capacity of 1,807,000 kilowatts.

John Day Dam is located at the up-river end of the Region on the east border of Klickitat County. The Dam was completed in 1968 and has a capacity of 2,160,000 kilowatts from sixteen main generators. It has room for four additional generators which when installed would give an ultimate capacity of 2,700,000 kilowatts. John Day Dam, unlike the others, is also operated for flood control.

There is a potential for a nuclear and/or coal fired power plant in the east portion of Klickitat County near Rossevelt.

Recreation: The potential for recreation and tourism development is one of the great assets of the Mid-Columbia Region. There are two National Forests in the Region which maintain about 84 campgrounds and miles of scenic trails and other attractions. The states of Washington and Oregon maintain eleven roadside campgrounds and parks, plus there are many County and City parks in the areas.

There are three commercial resorts in the Region, at Bonneville Hot Springs, St. Martin Hot Springs and Kah-Nee-Ta on the Warm Springs Indian Reservation. For winter recreation, there are four ski areas - Mt. Hood Meadows, Cooper Spur, Satus Pass and Mt. Adams.

In addition to navigation, the Columbia River is also extensively used for recreation boating. There are five marinas in the Region - at Cascade Locks, Hood River, Bingen, The Dalles, and at Beacon Rock.

There are extensive recreation condominium developments occurring in the upper Hood River and Troutlake Valleys.

<u>Sand and Gravel:</u> Deposits are scattered throughout the Region, many of which are used by the Counties and a few which are private.

The Dallesport area has large quantities of excellent quality concrete aggregates and sand. These may become major export items in the future as Portland area sources become more limited.

C. LABOR FORCE CHARACTERISTICS

The data covered in this section is primarily summarized from the report entitled "Labor Force and Industry Analysis - Mid-Columbia Area, May 1977" EDA Project No. 07-6-01676. If greater detail than is provided herein is desired, the reader is referred to the above report available from the Mid-Columbia Economic Development District, The Dalles, Oregon.

The following tables cover employment by sex and county for 1975, including unemployment rates; occupations of the employed labor force; education of persons 25 and older; characteristics and occupations of job applicants.

AND COUNTY - 1975 ANNUAL AVERAGE

	Labor Force	Employed	Unemployed	Unemployment Rate
Klickitat Co. Both Sexes Female	5740 1960	4850 1570	890 390	15.5% 19.9%
Wasco Co. Both Sexes Female	8790 3093	7790 2741	1000 352	11.4%
Hood River Co. Both Sexes Female	6710 2521	5660 2025	1050 496	15.6% 19.7%
Skamania Co. Both Sexes Female	2380 760	2000 640	380 120	16.0% 15.9%
Sherman Co. Both Sexes Female	910 250	860 228	50 22	5.5% 8.8%

OCCUPATIONS OF EMPLOYED PERSONS BY SEX AND COUNTY - 1975

	Klicki Both	Klickitat Co. Both Female	Wasc	Wasco Co. h Female	Hood R Both	River Co. Female	Skamania Co. Both Femal	ia Co. Female	Sherm	Sherman Co. oth Female
All Occupations	4850	1570	7790	2741	5660	2025	2000	640	860	228
Prof. Technical	523	213	1006	430	504	229	250	16	94	41
Manager & Admin., Non-Farm	445	88	795	162	565	112	138	28	84	28
Sales	212	92	468	223	265	155	92	64	17	12
Clerical	601	482	912	725	582	492	185	150	ro D	57
Craftsmen, Former & Related	537	42	1333	44	662	99	294	25	102	
Operatives, except Transport	523	118	749	272	718	350	296	9	54	ហ
Transport Equip. Operatives	232	ហ	359	25	254	4	132	0	53	0
Labors – Non-Farm	621	39	429	25	492	29	302	28	44	0
Services except Private Household	533	314	1060	969	634	430	197	130	104	80
Private Household Workers	48	50	62	79	79	83	10	10	4	0
Farm Workers	576	127	900	9	905	75	104	54	245	ហ

From the data in these Tables, the following employment profile and labor force characteristics, for the Region, can be drawn.

Labor Force and Unemployment:	1975 Labor Force	25,080
,	Employment	21,930
	Unemployment	3,150
	Unemployment Rate	12.6%

The unemployment rate is well above the Washington State 1975 rate of 9.5%.

Wages in general are below the average weekly wage levels as compared to Oregon and Washington. Manufacturing wages are 10% below the Washington average and 5% below the Oregon average.

Employment	Compositi	ion - 197	75: Construction Manufacturing Food & Kindred Lumber & Wood Primary Metals Transportation/Utilit. Finance, Ins., Real Est. Services Government	3.9% 25.4 (2.8) (10.8) (6.2) 5.8 2.5 1.5 25.9
Education (of Adults	age 25 a	and over based on 1970 data: Completed High School Attended College Completed 4 or more years College	55.1% 10.9 7.6

<u>Labor Supply:</u> There is a lack of adequate supply of electricians, welders, salesmen, metal workers, service technicians, management, carpenters, registered nurses, medical personnel, mechanics, and fiberglass workers in the region.

Profile of Unemployed - March 1977:	Sex - Male Female	60.1% 39.9%
	Age - 20-24 25-29 30-39 40-44 45 & Over	27.3% 19.2% 18.0% 5.0% 14.7%
Education – Highest Grade	0-11 12 12+	36.1% 77.6% 22.3%

D. TRANSPORTATION - CIRCULATION

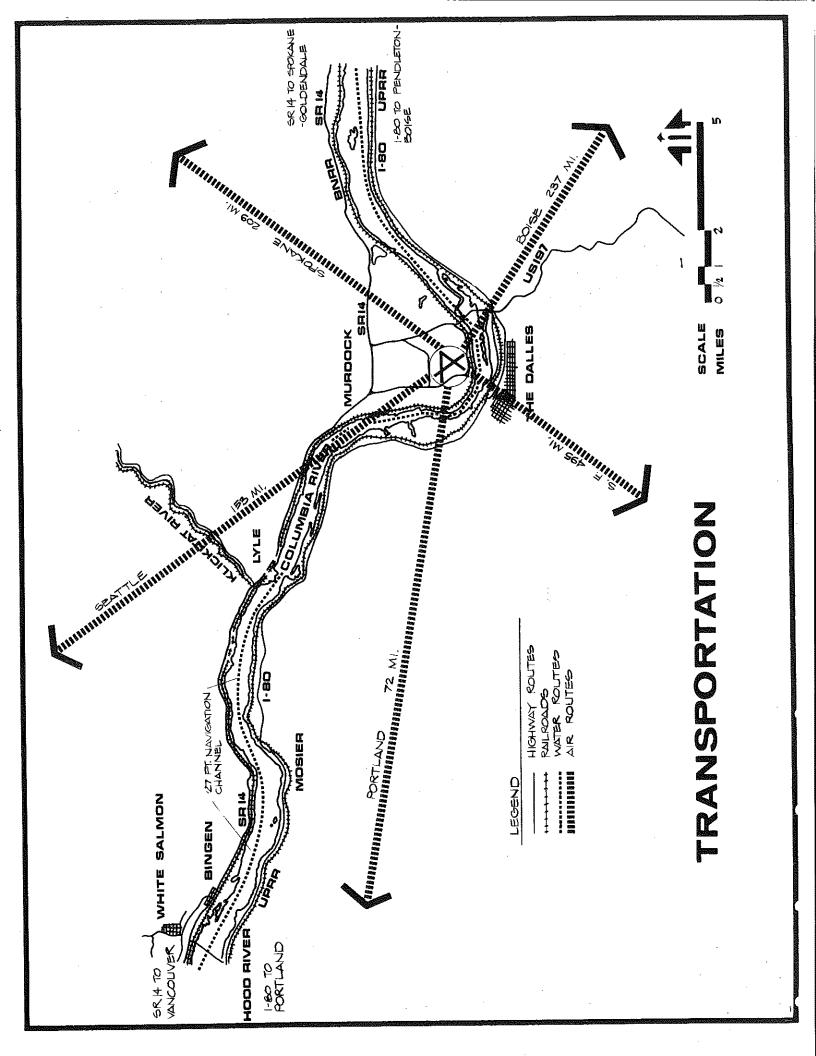
Location Relative to Major Market Areas: The Dallesport Area, which is in almost the center of the Mid-Columbia Region, is about 190 river miles east of the mouth of the Columbia River and 84 miles east of the Portland/Vancouver Metropolitan Area. Dallesport is 259 miles from Seattle via Interstate 80N and I-5.

Street and Highway System: The major east/west highways are I-80N on the Oregon side of the Columbia River and State Highway SR14 on the Washington side. Major north/south routes are US97 which goes through Goldendale, crosses the Columbia River at Biggs Junction, about 13 miles east of The Dalles, and extends south to Bend. Highway US197, which crosses the river at The Dalles, goes through the Dallesport area and connects with SR 14 on the north and with US97 south of Maupin in Wasco County. Other routes are, State Highway 35 which extends south from Hood River and connects with US26 near Mt. Hood, State Highway 141 north from Bingen/White Salmon to Trout Lake, and State Highway 142 from Lyle north to Klickitat and then east to Goldendale. Typical traffic volumes are as shown in the following table. All of the major highways in the Region are subject to seasonal increase in use with highest volumes usually in July and Auqust.

	AVERAGE ANNUAL TRAFFIC					
	Rowena ^l I-80N	Dufur ^l U.S. 197	Wasco ^l U.S. 97	Goldendale ² U.S. 97		
1965	6117	1133	1166	2850		
1969	7037	1169	1175	2750		
1970	7813	1303	1254	1 		

	AVERAGE	WEEKLY TRAF	FIC VOLUMES	BY MONTH-1970
	Rowena ^l I-80N	Dufur ^l U.S. 197	Wasco ^l U.S. 97	Goldendale ² U.S. 97
January February	4625 5601	805 983	720 904	1250 1224
March	6568	1118	1070	1485
April	6678	1150	1165	1583
May	7305	1366	1275 1490	1652 1952
June July	8816 9300	1370 1409	1490 1564	2311
August	9967	1491	1656	2507
September	8731	1355	1579	2233
October	872 9	1406	1365	1918
November	7410	1243	1137	1628
December	6497	1198	1030	1234
	% Incres	ee Retween	January & A	luouet

% Increase Between January & August
77.95% 85.22% 130.00% 100.56%



Source: ¹Oregon State Highway Commission, <u>Traffic Volume Tables</u> for 1970, June 1971, p. 225,220.

²Washington State Highway Commission, <u>Annual Traffic</u> Report 1969, Olympia, Washington, p. X1.

Traffic Generation: The major traffic generating areas within the Region are the major communities of The Dalles, Hood River, Goldendale, Bingen/White Salmon, Stevenson, and Cascade Locks. Other traffic generators are industrial plants outside of the urban area such as the Martin-Marietta Aluminum Plant near the John Day Dam, and recreation or scenic areas and attractions.

<u>Truck Service</u>: Truck service to the Region is good, with access on I-80N or SR14 from the Portland/Vancouver area. Driving time from Portland/Vancouver to The Dalles/Dallesport is about two hours.

Air Service: The Dalles Municipal Airport, which is located in the State of Washington at Dallesport, is a general aviation airport with three runways of 4406 feet, 4649 feet and 5097 feet in length. All runways and taxiways are asphaltic concrete with pavement strength estimated at 35,000 lbs. single, and 50,000 lbs, dual wheel gear configurations.

The airport has VOR/DME approach using The Dalles VOR, and a Flight Service Station. Runway 30 is lighted, however, there are no visual aids for landing.

There is no regular scheduled passenger service, however, charter service is available. Scheduled air freight service is provided by Air Pacific, Inc. Recent reports on commuter air service by the Pacific Northwest Regional Commission and the State of Oregon, indicate that The Dalles airport has the potential for service by a commuter airline system.

Rail Service: The Region is served by two major railroads, the Union Pacific on the Oregon side and the Burlington Northern on the Washington side. The Burlington Northern has two branch lines, one from Lyle to Klickitat and Goldendale, and one south along the Deschutes River to Bend. All of the lines are freight only, however, Amtrack has begun service from Portland to Salt Lake City on the U.P. line and serves The Dalles and Hood River with one train a day each way. There is presently rail access into the Dallesport Industrial Site from the BN line just above The Dalles Dam. Freight service will depend on present and future demand by industry.

Water Transportation: The Columbia River is a major water transportation route for barge traffic from the Mid-Columbia Region and upriver points to Portland and the mouth of the Columbia. The authorized channel depth from Vancouver to The Dalles is 27 feet with 14 feet above The Dalles.

Bonneville navigation locks are presently 75'x500'x27' with an extimated capacity of 10.8 million tons annually. The Dalles navigation locks and those above The Dalles are 86'x675'x15' with an estimated capacity of 22 million tons annually. Since traffic passing through the up-river locks must also pass through the Bonneville Locks, the size and capacity of the locks restricts the capacity of the entire system. The Corps of Engineers are studying the feasibility of replacement of the existing lock at Bonneville with locks compatible with those upstream.

Barge terminal facilities are presently located at Cascade Locks, Hood River, Bingen and The Dalles. A barge dock is proposed on the Dallesport Industrial Site just above The Dalles Dam Locks.

A barge loading facility has been approved below The Dalles Dam near the old ferry landing site on the Dallesport Peninsula.

Average barge time from Vancouver to The Dalles is from 14 to 16 hours including the time through the Bonneville Locks. Barge time is quite variable depending on weather and volume of traffic through the Locks.

E. UTILITIES AND COMMUNICATIONS

Water: A primary source of water in the study area is the Columbia River, however, this source is not being utilized at the time, in this area, to any great extent for industrial purposes. Domestic water supply in the Dallesport Peninsula area is through individual private wells. The Dallesport Water Association system has a single eight inch well with a capacity of approximately 100 gallons per minute. Service is provided by a 2,000 gallon pressure tank to approximately 50 users on the system. Plans are presently being developed for drilling a second well. The Klickitat County Port District has a 750,000 gallon storage tank and 3,000 gallon per minute fire booster pump servicing the Dallesport Industrial Site. The Port District is proceeding with construction of a second well and pumping station to increase capacity to delivery of 1,000 gallons per minute.

The area is presently being studied by the Klickitat County PUD for formation of a public water district serving the entire Dallesport Peninsula, however, plans have not been completed nor has sufficient funding been generated to establish the district. The Lyle area is presently served with a community water system. There are two wells and two reservoirs in the system. The industrial site on the Lyle Peninsula could be served by the system.

Potential industrial sites at Bingen are adjacent to the City of Bingen and can be served by the cities water system.

Sewage Collection & Treatment: Sewage disposal in the Dallesport area is presently all by individual septic tank. A study is presently underway by the Klickitat County PUD for formation of an area wide sanitary district.

The Lyle community has a sewage collection system and treatment plant that could serve the domestic sewer needs of potential industry on the Lyle Peninsula. The Bingen sewage treatment plant is adjacent to the industrial site at Bingen and could provide domestic sewage treatment to development on the Port property.

<u>Electric Power</u>: The Klickitat County PUD serves the entire County with electric power from the Bonneville Power Administration. The proximity of the study area to Bonneville, The Dalles and John Day Dams and interconnection with the Pacific Northwest Power Pool makes service reliability very high, however, there is a limited supply of power since the Columbia River, as presently developed, is no longer a surplus resource for hydro-electric power.

Natural Gas: The main transmission line of the Northwest Pipeline Company serving the Pacific Northwest traverses Klickitat County just north of the study area. The Bingen/White Salmon area is presently served by a line running north and connecting to the main transmission line. A 4 inch high-pressure pipeline, which provides interstate service to The Dalles runs through the Dallesport area and through a portion of the existing Dallesport Industrial Site. The Northwest Natural Gas Company holds the franchise to serve all of the study area, however, there is no service in the Dallesport area at this time. Due to recent contracts for Canadian gas, there are no restrictions on the availability of natural gas in the study area. Most industrial and domestic needs can be met, however, service will require transmission lines and pressure reducing and metering stations.

<u>Fuel Oil</u>: Fuel oil supplies are available to the study area by river barge, rail or truck transport. Storage facilities are maintained by most major oil companies in the Bingen/White Salmon area, The Dalles and Goldendale.

Telephone Service: Telephone service for the Dallesport area is provided by Pacific Northwest Bell from their office in The Dalles. The area is toll free for calls originating in The Dalles.

The Bingen/White Salmon area is served by United Telephone Company with offices in Hood River.

<u>Parcel Service</u>: Daily pickup and delivery service is available through United Parcel Service (UPS) on either an on-call basis requiring at least one day notice, or a business or company can request an automatic daily service.

F. TAX STRUCTURE

All of the following data applies only to Washington State.

Property Tax: The real estate tax rate levied by Klickitat County for the 1976/77 fiscal year for properties in the Dallesport area will average \$18.88 per \$1,000 of actual value. Inventory tax is to be phased out by 1984.

Corporate/Personal Income Tax: None

Business and Occupation Tax: Tax on all businesses is based on gross sales or gross income. Tax rates vary from .0001 to .01 of gross taxable income. Certain deductions from gross income are permitted. A selected sample of tax rates now being applied to businesses in Washington are shown below.

General Manuf. other than food processors - .004664 of gross taxes
Food Processors - fresh fruit or vegetables - .001325 of gross taxes
Manufacturing Aluminum - .00424 of gross taxes
Wholesaling of Grain Products - .000106 of gross taxes
Reservices and other activities - .0106 of gross taxes
Nuclear Fuel Assemblies - .00265 of gross taxes

Retail Sales Tax: 5.1% of selling price. There is no tax on certain food items.

Employer Taxes-Unemployment Compensation: Employers contribute 3% of the first \$6600 paid each employee. Employer may be eligible for reduced rates depending on experience with unemployment.

<u>Workmen's Compensation:</u> Rates are set and administered by Department of Labor and Industries based on degree of hazard involved in each of the jobs within a particular business.

Exemptions: Sales and use tax on new manufacturing plants, including labor, material, and equipment, can be deferred for 3 years, followed by a 5-year repayment period with no interest.

SITE ANALYSIS

An analysis of potential industrial land within the study area has identified approximately 3588 acres in 8 sites, 6 at Dallesport and one each at Lyle and Bingen. Each of these sites were identified in an "Industrial Site Survey", dated October 1976 by the Mid-Columbia Economic Development District, which merely points out sites which have some potential for industrial development. During the course of this present study, no additional sites were found in the study area.

In making a detailed site analysis and comparison of sites, seven criteria were analyzed for each site, which included:

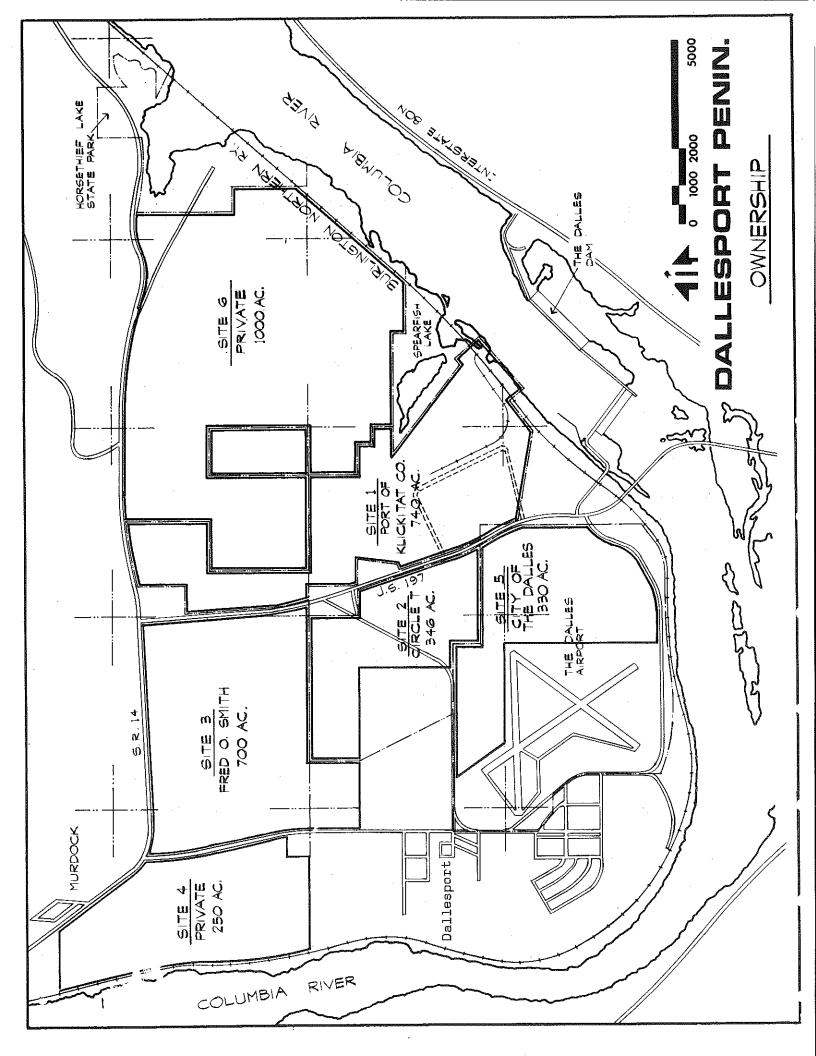
- Site size, location and physical description.
- Access to highways, railroads, water and airports.
- Access to and relationship to metropolitan areas, urban areas and rural centers.
- Topography, soils and drainage.
- Utilities on or near the site.
- Compatibility with adjacent land uses, local plans and existing zoning.
- Environmental considerations.

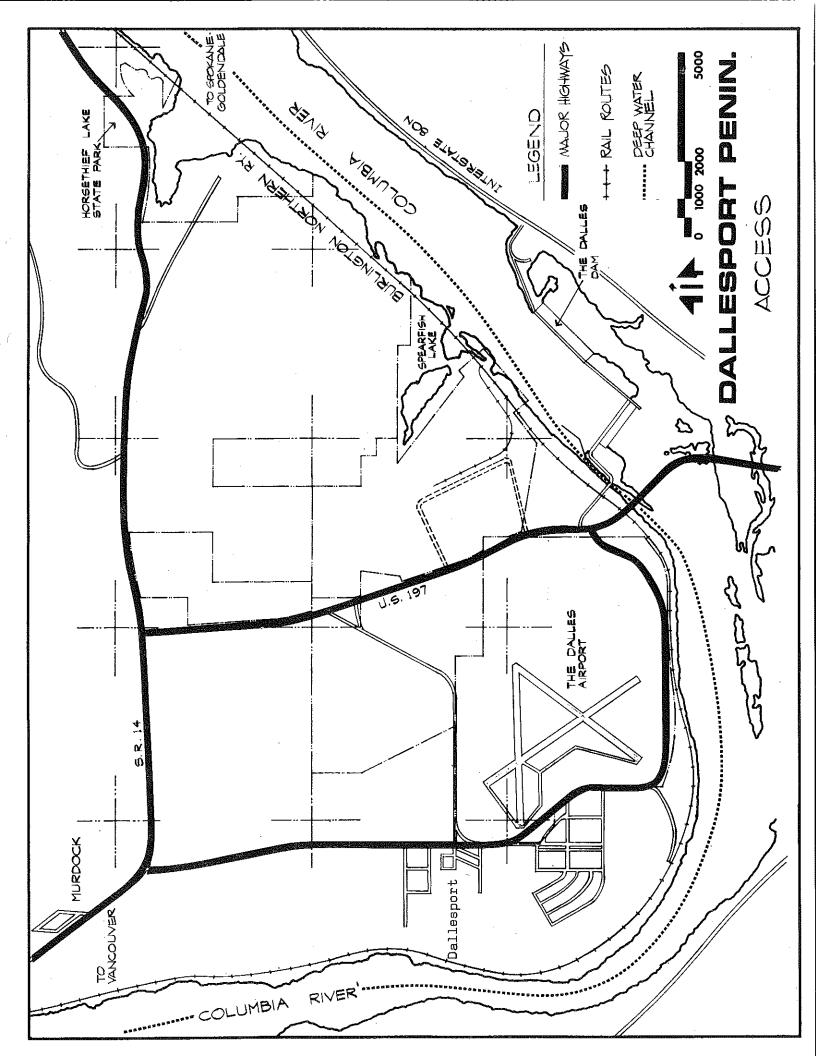
<u>Site No. 1</u> is a 740 acre site located at Dallesport and owned by the Port of Klickitat County. Dow Chemical Co. owns 43 acres of the site and had begun construction of a plant; however, their plans have changed and construction has stopped. The Dalles Cherry Growers have a warehouse leased from the Port on a 5 acre site.

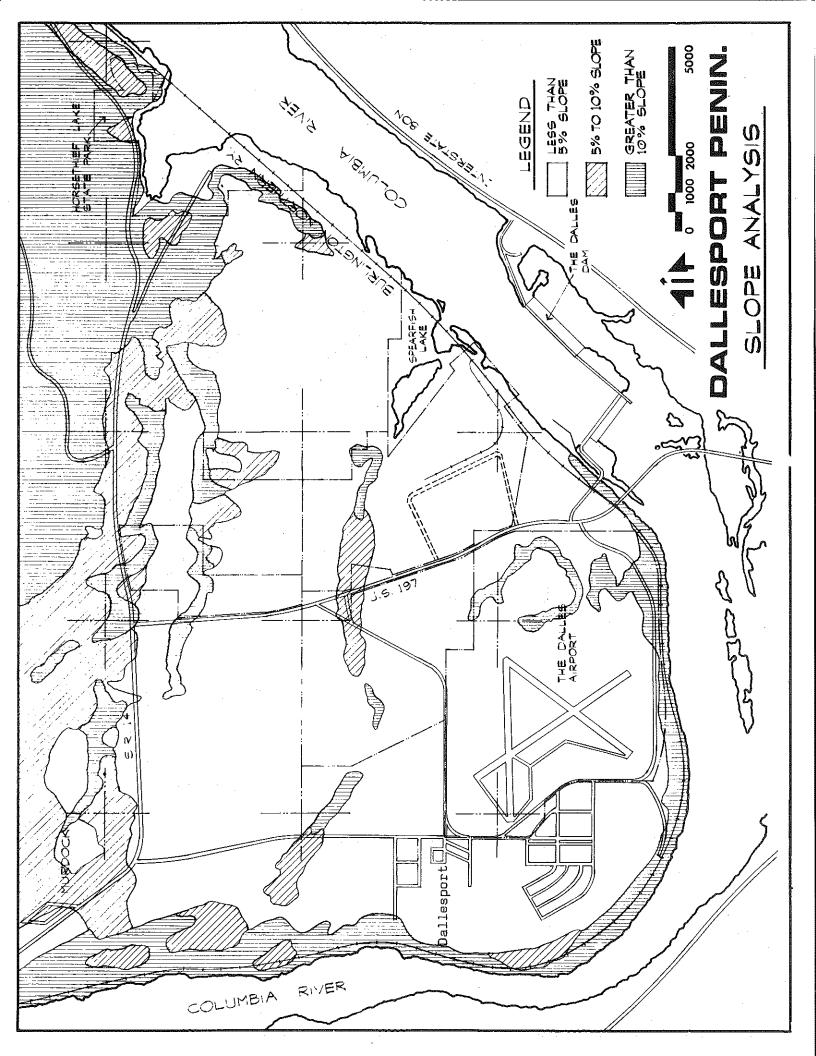
Access to the site is very good. There are two gravel access roads into the site from U.S. 197 and connected by an interior loop road. Railroad spurs connecting to the Burlington Northern's main line on the south border of the site presently serve the Cherry Growers warehouse and the Dow Chemical site. There is potential for a barge dock on the Columbia River just above the locks at The Dalles Dam. The barge dock can easily be served by a rail spur and road access. The Dalles Airport Terminal is about 2 miles by road from the main entrance to the site.

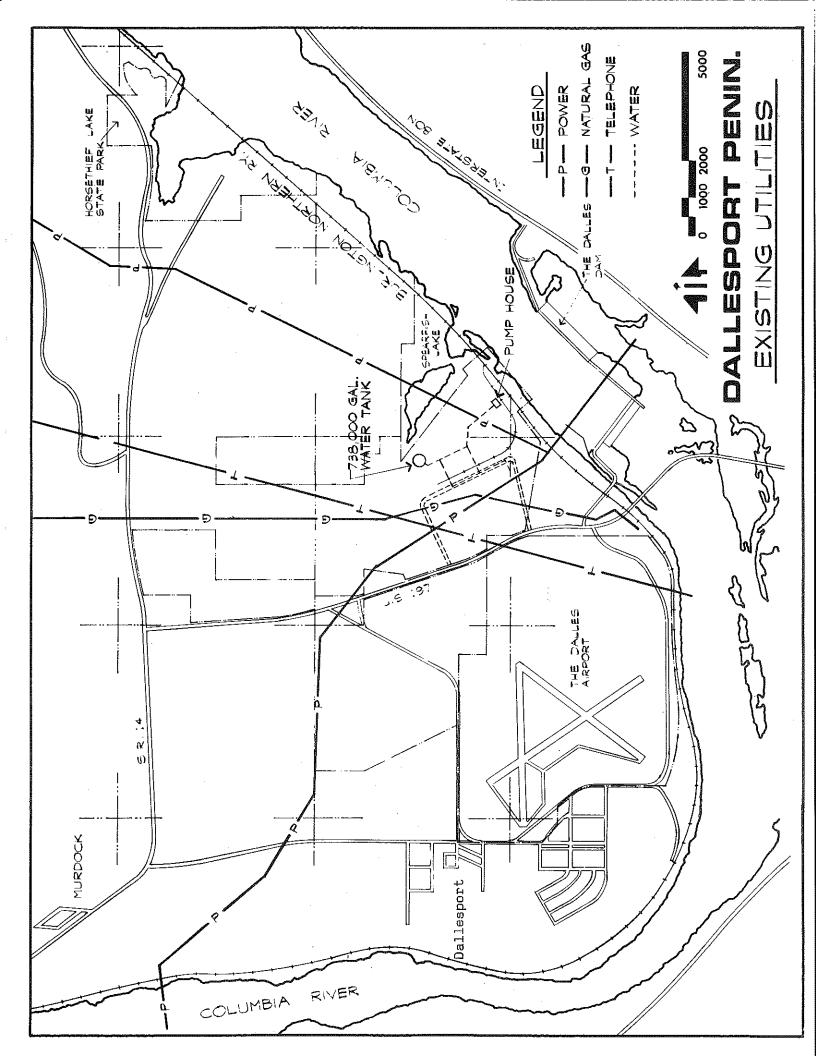
The site has good access to the Portland Metropolitan area which is about 87 miles via Interstate 80N. The city of The Dalles, Oregon is just across the bridge and about 4 miles to the center of town. Goldendale is 29 miles to the northeast via State Highway 14 and U.S. 97. The small unincorporated community of Lyle is 8 miles west on SR14 and Bingen/White Salmon are 17 miles west on SR14. All roads are good all-weather roads capable of handling heavy truck traffic.

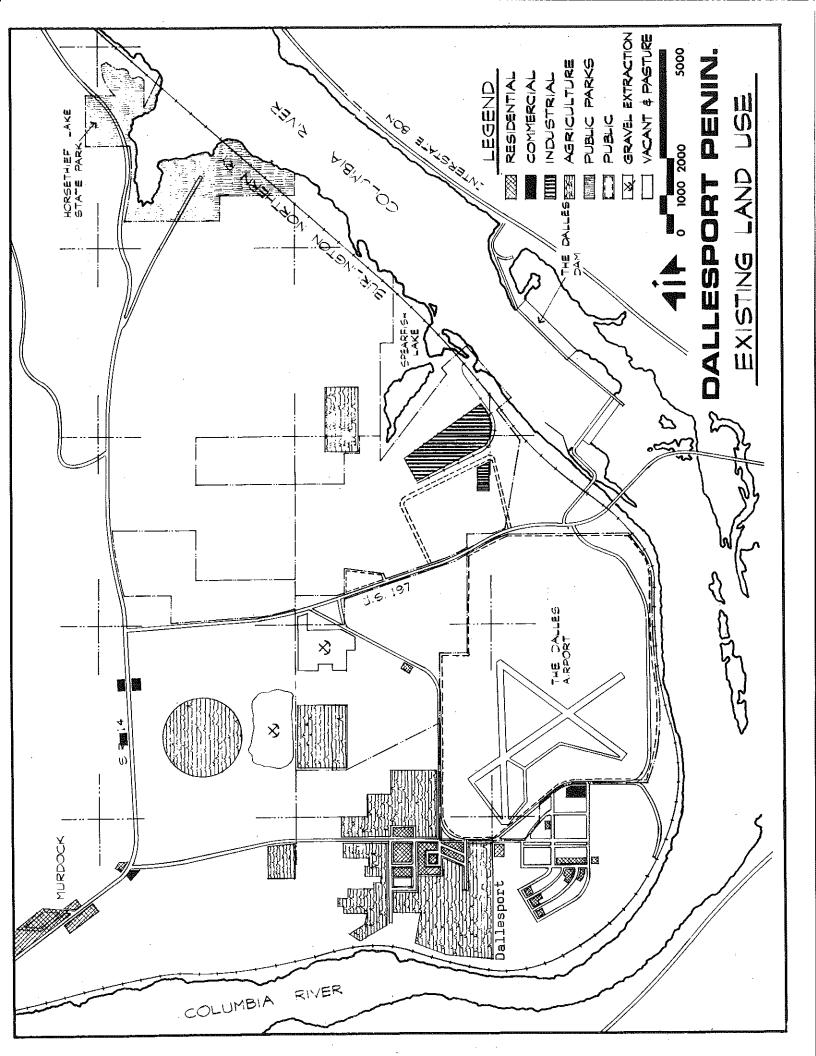
The site itself is relatively flat with a slope from north to south towards the river. There are numerous basalt rock outcrops scattered throughout the area. Soils are thin, sandy, Class III soils. Some grading will be necessary to develop the site for industrial use.

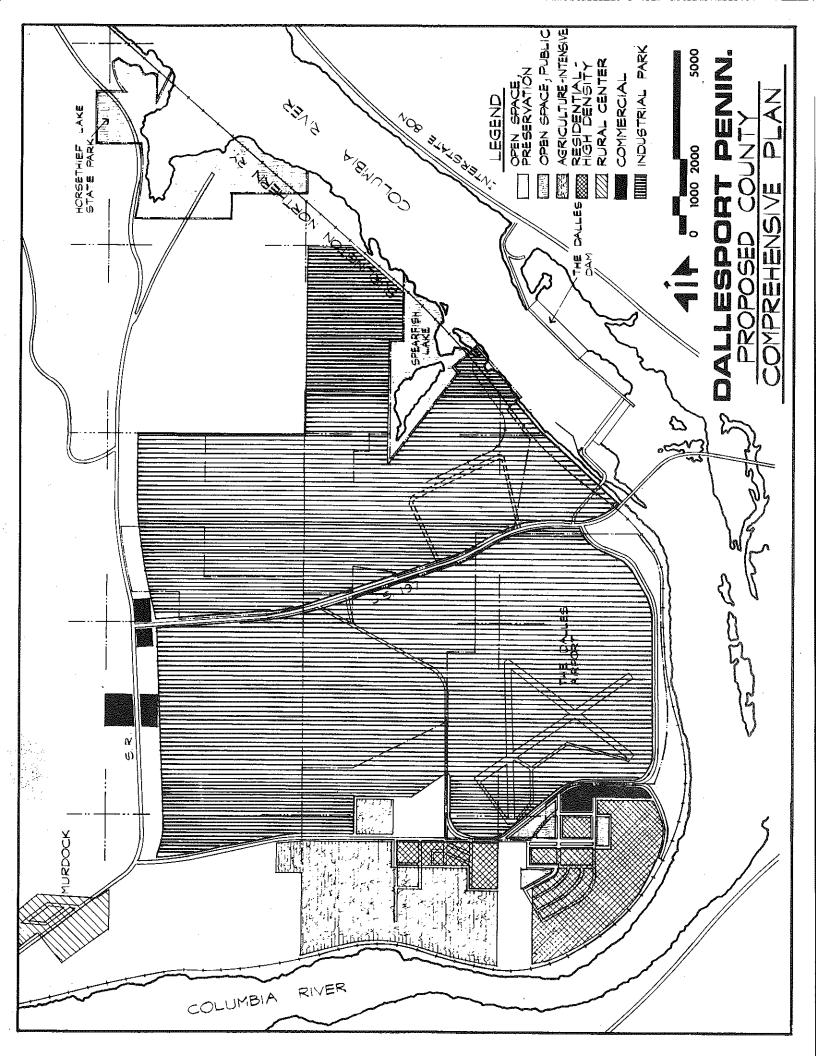


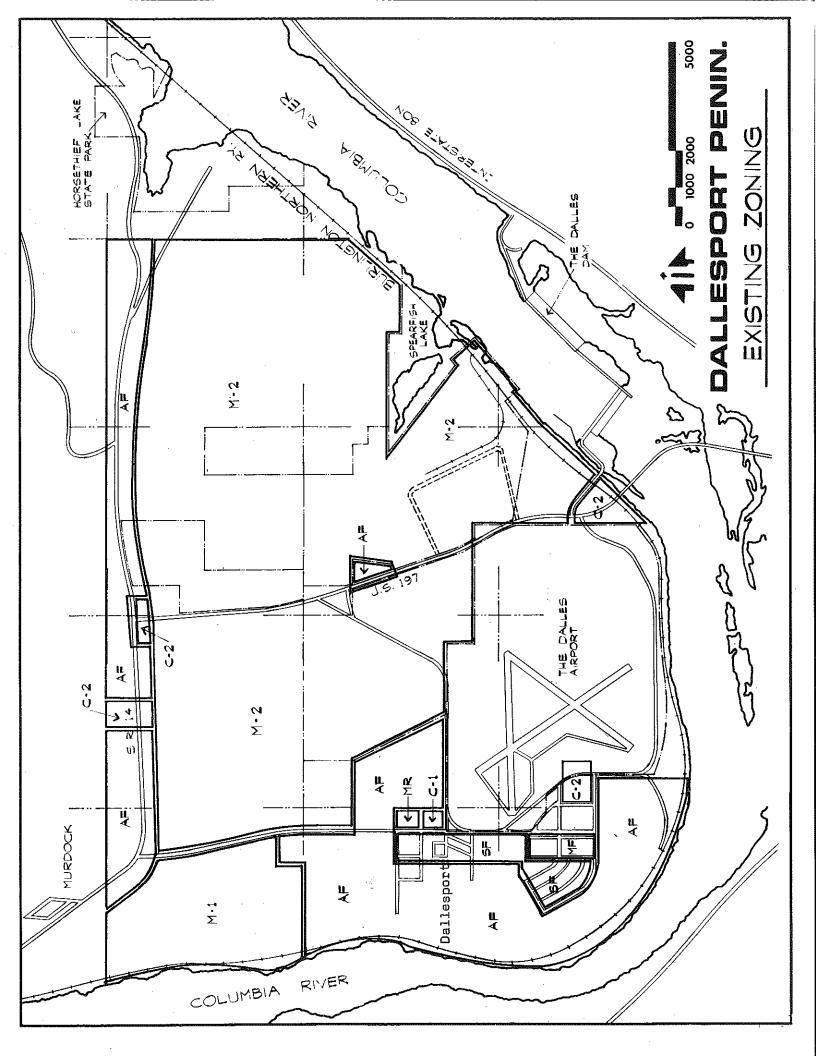












Utilities serving the site consist of a Port owned water system serving only the presently developed area. There is no sewerage system. BPA Transmission lines run through the site from The Dalles Dam to the northwest and another to the northeast. A high pressure natural gas pipeline passes through the site in a generally north/south direction. There is also a main telephone trunk line running through the site.

Adjacent existing land use consists mostly of vacant or pasture land. The Dalles Airport property is to the west just across U.S. 197. The site of the proposed Western Zirconium plant is just north of the airport. About 1 mile north of The Dalles bridge on the east side of the highway is the site of a relocated Indian Cemetery. The site is zoned M-2 Heavy Industrial, and is shown on the proposed county plan as Industrial Park.

Geologic and soil conditions are suitable for foundation and general construction. There are no prime agriculture lands on the site. Some wild-life will be displaced as a result of any development of the site, however, there are no rare or endangered species that inhabit the site. The primary mammals found in the area are rattlesnakes and jackrabbits.

Because of the somewhat isolated location of the site, with respect to the rest of the urban area, noise from industrial development should not be a major problem.

Air quality is generally good and should be maintained. Any emissions from future or present industrial uses must comply with State of Washington DOE Air Quality Regulations.

No discharges should be allowed to the Columbia River or other streams which would lower the present water quality of the area.

Conclusions

<u>Site No. 1</u> has very good potential for industrial development. It is already partially developed, has good access and a water system, and is owned by the Port. Some acquisition to the north, or land trade with adjacent property owners would provide a better overall property line in which to develop.

<u>Site No. 2</u> is also located in the Dallesport area lying just north of the airport and west of U.S. 197. The site contains 346 acres and is privately owned. The Western Zirconium plant site was originally a part of this site.

Direct access is available from U.S. 197 which runs along the east property line. An interior county road bisects the site from northeast to southwest. If a rail spur is built to serve the Western Zirconium site, it will run along the south line of the site giving rail access to the site. The airport terminal is about 1 mile by road from the site.

Access to the Portland Metropolitan area and other urban and rural centers is about the same as Site 1. Physically the site is about the same as Site 1, although, there are some low wet areas during the wet seasons. There are no water or sewer services available, however, a BPA Transmission line runs along the north property line and natural gas is fairly close by.

Part of the site is presently used for gravel extraction and there is grazing on site. Adjacent uses are the airport to the south, the Western Zirconium site and small agriculture to the west, agriculture and grazing to the north and the Port property, Site No. 1, to the east. The site is zoned M-2 Heavy Industrial and planned for Industrial Park.

Environmental considerations are the same as for Site 1.

Conclusions

Site 2 has good potential for industrial development by private interests. Rail access could be available but several grade crossings would be required. Development will be dependent on the development of community water and sewer systems in the future.

<u>Site No. 3</u> is a 700 acre privately owned parcel on the Dallesport Peninsula located just north of Site 2. The site has good access, with U.S. 197 bordering on the east, SR14 on the north and the Dallesport road on the west.

Access to metropolitan and urban areas is the same as for Site 1.

The site has fairly large areas of flat land which is now being irrigated for crops. There are basalt outcrops scattered throughout the site, especially along the north side. Slopes along SR14 are in some places relatively steep. Soils are Class III.

There are no utilities available on the site, however, the BPA Transmission line runs along the south line.

Environmental considerations are the same as for Site 1.

Surrounding land use is mostly vacant or pasture land on three sides with the Western Zirconium site to the south. There is a small area of vacant commercial buildings on the north side of SR14.

All of the site is zoned M-2 Heavy Industrial, except for about 150 feet along SR14 which is zoned AF with two small areas of C-2. The proposed county plan calls for all of the site, except the north 150 feet, to be industrial park.

Conclusions

The site has potential for industrial development because of the large areas of flat land, however, that would mean the loss of some productive agriculture land. Rail access is much further away and the grade could be a problem. It is also further away from where future utilities are likely to be built.

Site No. 4 is a privately owned parcel of 250 acres on the Dallesport Peninsula. It is just south of the small community of Murdock and is adjacent to SR14 on the north and the Dallesport road on the east. The Burlington Northern main line runs along the west side of the property below a steep bluff. Rail access from the main line would not be possible because of the difference in elevation, and access from the existing spur on Site 1 would be very costly and difficult and would require several grade crossings and right-of-way easements in order to reach the site. The airport is close, about $1\frac{1}{2}$ miles by road to the terminal.

Access to Portland, Goldendale, The Dalles and other points is about the same as Site 1.

There are fairly steep slopes toward the river, especially the west portion of the site. There are also extensive sand dunes and basalt outcrops on the site.

There are no utilities available to the site. A BPA Transmission runs diagonally through the site from southeast to northwest.

The small community of Murdock is adjacent to the site on the north along SR14, with mostly small truck farms and pasture to the east and south. Most of the site is zoned M-1 Light Industrial, except for a small portion to the north, however, the site is shown on the proposed County Plan as Open-Space, Preservation

In general, environmental considerations are the same as for Site 1 except that the site is closer to residential areas which could be a problem with such things as noise and odors.

Conclusions

Site 4 is the least desirable site at Dallesport for industrial development and the least likely to receive development pressure. The costs of development would be higher than other sites and the slope, while not severe in places, is not the best for industrial purposes.

<u>Site 5</u> is The Dalles Airport site owned by the City of The Dalles, and containing 1,000 acres total land area. About 330 acres of this site is considered to be suitable for industrial use.

The City's Airport Master Plan shows the area east of the runways as being suitable for compatible non-aeronautical use within 1000 feet from the centerlines of the runway system.

The site is adjacent to U.S. 197 and could have access also from the Dallesport Road which borders the site on the south. Rail access could be available if a spur is built to serve the Western Zirconium site just north of the airport. Access to the airport terminal area is good and the site would be good for uses which require direct access to the runways. Access to Portland and other urban areas is the same as for Site 1.

The site overall is relatively flat, however, there are some deep ravines and rock outcrops scattered throughout the site and there are sand dunes in the south portion of the site. Extensive grading would be required to prepare development sites.

There are no utilities on or near the site at present. When community water and sewer systems are constructed in the future to serve the Dallesport community, services could be available to this site. The BPA Transmission line and the natural gas pipeline are relatively close.

The primary, existing land use effecting Site 5 is the airport and its related facilities. Any future use of the land owned by the City of The Dalles would have to be uses that are compatible with aviation activities and that would not interfere with the operation of the airport. The site is presently in the Counties UMU Unmapped Use District but is shown on the proposed Comprehensive Plan as Industrial Park.

The major environmental considerations are for protection of the aircraft approach zones, and the natural drainage patterns on the site.

Conclusions

Site 5, the Airport site, has good potential for airport related, non-aviation uses. Development will require extensive site preparation and the provision of utilities. The development of the site is the responsibility of the City of The Dalles Airport Commission.

Site 6 is an approximate 1,000 acre privately owned site on the Dallesport Peninsula located to the east of Site 1, and adjacent to SR14 on the north. The Burlington Northern main line borders the site on the south along the river. It appears that rail access could be available to the south portion of the site, however, the grades required could be a problem. It is about 4 miles from the site to the airport by road.

Access to Portland, The Dalles and other urban areas is about the same as for Site 1.

The site slopes generally from north to south towards the river with steep slopes along the north property line. There are several deep ravines and basalt rock outcrops throughout the site. A BPA Transmission line runs through the site roughly parallel to the river, but there are no other utilities on or near the site.

Horsethief Lake State Park is adjacent to the site on the east, and there is another lake, Spearfish Lake, to the south.

All except a small portion of the site on the east and about 150 feet along SR14 is zoned M-2 Heavy Industrial, however, the proposed Comprehensive Plan shows only areas on the west and south as Industrial Park.

Environmental considerations are generally the same as for Site 1. Any further development should consider the impact on the adjacent State Park and the two lakes.

Conclusions

Parts of Site 6 are suitable for industrial development such as some of the area adjacent to the Port property and some just north of Spearfish Lake. The Port should consider land trade or outright purchase of parts of Site 6 in order to round out and improve Site 1 for industrial development.

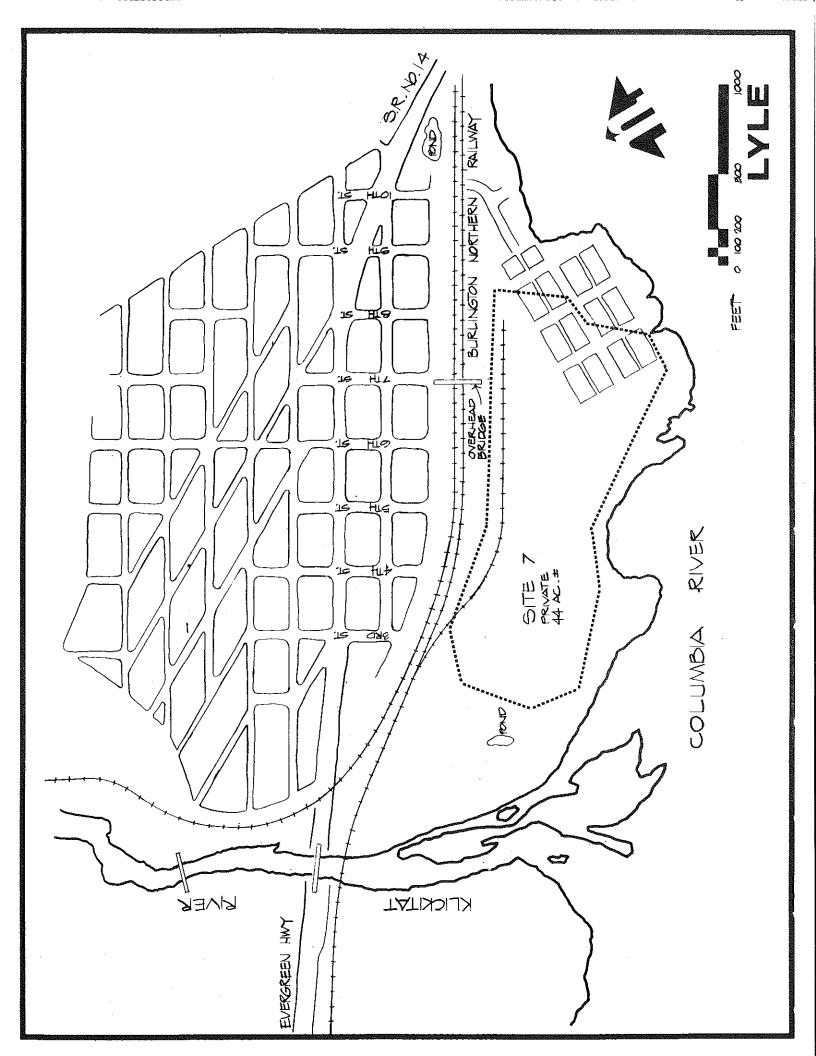
Site 7 is approximately 44 acres at Lyle, an unincorporated community 8 miles west of Dallesport. The area is in nine separate ownerships, with the largest being the Burlington Northern Railroad. It is located between the Columbia River and the Burlington Northern Railroad main line. Lyle is the junction for a BN branch line which serves the town of Klickitat and ends at Goldendale. Access to the site is from SR14 and across a railroad overpass which has an 8 ton load limit. A rail spur, which at one time served sheep sheds, is on the site and could be used. There is over 3,000 feet of river frontage but there are no docks or moorage facilities.

Lyle is 79 miles from Portland via the toll bridge at Hood River. Goldendale is 37 miles west and it is 12 miles to The Dalles via SR14 and U.S. 197. Bingen is 9 miles west on SR14.

The site is generally flat to rolling with sandy Class III soils. Grading would be necessary to prepare the site for development.

There is a 4 inch water line and an 8 inch sewer line serving the site, however, there is no natural gas in the Lyle area. The east portion of the site is platted into lots and blocks and there is some residential use, however, the platted area has not been developed to any extent. The west portion of the site along the shore line is used for recreation. There is a natural sheltered cove and boat launching area here which is extensively used.

The proposed land use plan for Lyle shows the site as a Planned District which is limited to open-space, commercial, recreation, tourist commercial, residential and light industrial use, subject to Planning Commission approval.



Soil conditions on the site appear to be suitable for foundations and heavy construction. Any future development of the site, whether for industrial or some other use, should respect and preserve the natural shoreline.

Lyle is in the lee of the hills to the northeast which gives some protection from severe east winds. The mouth of the Klickitat River has been noted as possibly being habitat for some rare species of reptiles and amphibians. Any development in this area should recognize this fact and make provisions for not disturbing this area.

Conclusions

This site does have some potential for industrial development because of such things as availability of rail service, utilities and reasonable access to SR14. The overpass over the railroad tracks would probably have to be replaced. Since the largest property owner is the Burlington Northern Railroad, the future of this site is up to their future plans for the site.

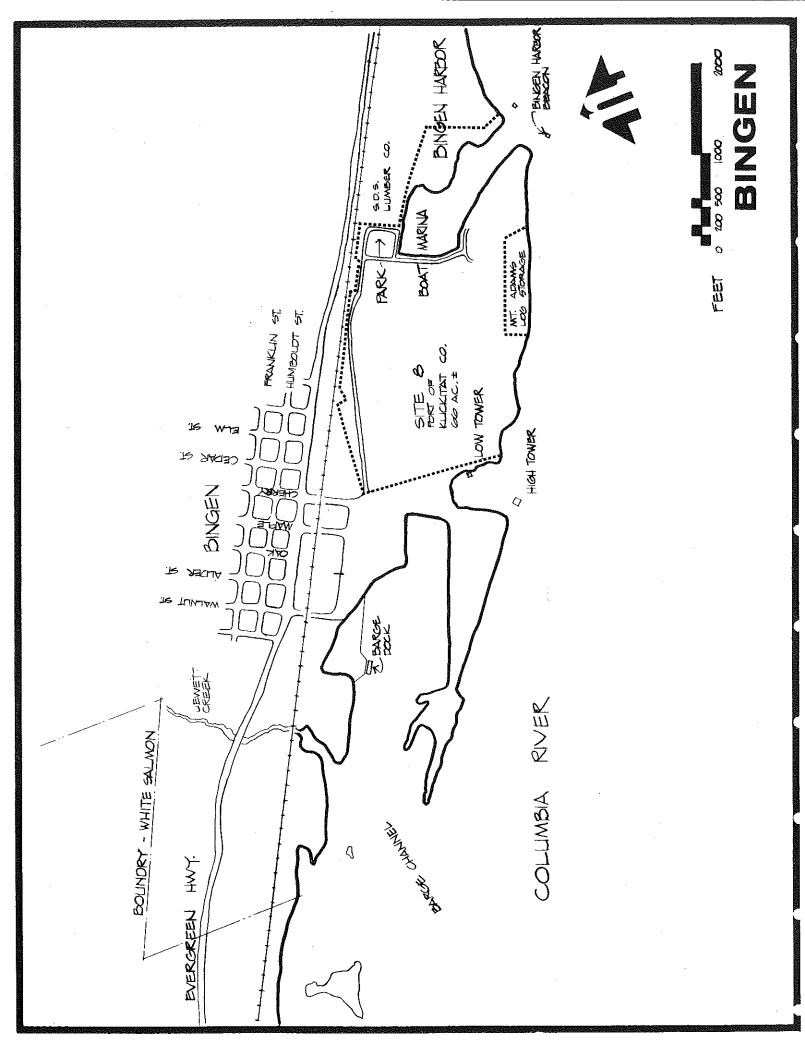
<u>Site 8</u> is approximately 65 acres owned by the Port of Klickitat County at Bingen. The site lies between the Columbia River and the Burlington Northern main line. It is less than $\frac{1}{4}$ mile to SR14 which is the main street in Bingen. The site is adjacent to the railroad and could have easy rail access. The existing boat basin could provide barge docking facilities and water access from the Columbia River.

Bingen is 70 miles, about one and a half hours drive, from the Portland Metropolitan area. To the east, Lyle is 9 miles, Dallesport 17 miles, The Dalles 21 miles, and Goldendale is 46 miles.

The site is virtually flat, low land with sandy Class VI soils. There is a lake in the west portion of the site which, if a large block of land were needed, would require filling. The entire area is flood protected by dikes.

City water is available on site. There are no sewers on site, however, the sewage treatment plant is adjacent to the site. A 3 inch natural gas line is also on site. Existing land uses include some industrial use, log decking and a lumbermill, the Port's park and marina facility, and agriculture use.

The area is zoned in part M-1 Light Industrial, M-2 Heavy Industrial and C-2 Commercial. Any further development of the site for industrial, commercial or recreation use would result in the loss of productive agriculture land. Filling of the wet lands would result in loss of some wildlife habitat.



Conclusions

This site does have potential for industrial development because of such things as Port ownership, rail access and utilities, however, individual blocks of land are fairly small because of the shape of the site and the presence of the lake in the middle of the largest area. The site size and shape plus the boat basin and access to the river and the "Bingen on the River" theme for downtown Bingen, lend this site more to public and commercial recreation use rather than industrial.

INDUSTRIAL TYPES SUITED TO THE AREA

The purpose of this section is to identify industrial types best suited to the Mid-Columbia Region in general and the Dallesport Peninsula in particular. The methodology utilized for identifying potential industrial users is based on an understanding of the locational orientation of industrial firms and the site selection process.

While the site location decision making process may depend on as many factors as there are industrial firms, five major factors tend to dominate the Process.*

- 1. Firms with a Market Dependency: These firms are most oriented toward the market for their final product. This group includes consumeroriented industries which tend to follow concentrations of population, and firms that produce for other industries which tend to follow the location of the industry on which they are dependent.
- 2. Firms with a Resource Dependency: These firms are oriented primarily toward resources required for the production of their product. This may include a specific natural resource utilized directly in the production process (e.g., lumber, magnesium) or specific types of fuel required by the production process (e.g., hydroelectric power, natural gas, thermal nuclear power).
- 3. Firms with Transportation Dependency: In some cases, the costs of transportation are so significant that they become the major orientation in a site selection decision. In these cases, the firms generally tend to locate near the type of transportation that best serves their needs.
- 4. Firms with a Labor Dependency: Some firms are primarily concerned with the availability and cost of labor. Generally, labor intensive industries tend to concentrate in areas where labor is plentiful at relatively low cost. For some firms, however, the concern is not the cost of labor but the degree of skill of the labor force. In the case of highly technical industries, for example, proximity to universities and technical schools may be important.
- 5. Non-Oriented Firms: Some firms are not particularly oriented toward any of these factors, but rather are "foot loose" in that they can locate virtually anywhere. Generally, these firms will locate in areas on the basis of lifestyle and image, rather than on production or distribution cost considerations.

^{*}American Industrial Development Council Journal, Vol. XXI, 1976.

By being cognizant of a firm's basic locational dependency/dependencies, it is possible to identify firms best suited to the Mid-Columbia Region, the type of industrial land that will be required, the site services that will be needed, and the maximum price (lease) that the firm can pay. Further, in identifying firms best suited to the Oregon-Washington area and Mid-Columbia Region in particular, it is important to distinguish between relocation and expansion. A firm relocating its activities to another region is probably responding to negative pressures - dwindling markets, higher labor and transportation costs, unionization, and so forth - in the region from which it is emigrating. Therefore, such a firm will be seeking a region where these factors seem nonexistent, or at least are reduced in intensity. This type of regional location can become so prevalent within an industry that an individual firm may be forced to relocate in order to remain competitive.

In the case of regional expansion, the decision has more to do with serving markets. As a geographic market increases in size, a firm producing in another region is increasingly tempted to open branch operations in the new market area. Often, this is accomplished in an evolutionary manner - distribution branches precede manufacturing operations. In considering regional expansion, a firm must weigh the costs of new plant and equipment against the advantages of greater market penetration, lower transportation and distribution costs, and possibly lower production costs. In many cases, regional expansion decisions are a vital component of long-term corporate planning.

With respect to identifying firms best suited to the Mid-Columbia Region in general or the Dallesport Peninsula or elsewhere within the Mid-Columbia Region in particular, it is important to consider (1) future market potential in and near the region, (2) the costs of operations, and certain "external" factors that affect the overall business and living environment. Market potential is important because it usually costs less to service a major market in and near the region of the production facility than well beyond. The market in and near the surrounding region provides a nucleus for growth, in terms of the potential purchasing power as well as the market's capacity to establish market trends for the region and vicinity. While this analysis concentrates on economic and fiscal factors, it is instructive to list all factors important in the firm and site selection process. These are:

- . Growth of population in the region,
- . Income and expenditure patterns in the area,
- Strength of competition,
- . Nature of competition (i.e., local, regional or national),
- . Channels of distribution,
- . Availability and cost of labor; skill levels of labor pool,
- . Availability and cost of land; cost of building materials,
- . Total tax loads, including property taxes, sales taxes, excise taxes, income taxes, and inventory taxes,
- . Accessibility and cost of transportation,
- Availability and cost of utilities

Most of these factors can be readily quantified. Less easily discerned are the more subtle external factors that may often affect the selection of one region over another:

- Attitude of the region toward industrial growth,
- . Degree of unionization; attitudes of union leadership.
- Availability of residential housing resources,
- Community sérvices (e.g., police, fire, schools, libraries, recreational facilities),
- . Cultural and entertainment facilities.
- . Overall "image" of the area

Factors applicable to the selection of one specific site over another specific site in a given area or community:

- . Size of parcel, including land for expansion,
- . Cost of land and building development,
- . Accessibility to transportation (e.g., water, highways, rail, air),
- . Utility availability (e.g., electricity, gas, water telephone),
- Zoning and development covenants,
- . Type of firms in the surrounding area,
- . Proximity to residential neighborhoods,
- Proximity to community facilities (e.g., vocational training schools, recreational facilities),
- Proximity to service facilities (e.g., hotels, restaurants, recreational facilities),
- Local property and other taxes (to the extent that they vary among sites within the metropolitan area),
- . Any other site factors that might influence operating costs

In many cases, the final choice may involve a trade-off between market potential, operating costs, and external factors. The emphasis in the trade-off usually will depend upon the orientation of the firm: Market-oriented firms will tend to place greater emphasis on the stronger market area; transportation-, labor-, and resource-oriented firms will lean toward those areas with lower operating costs; and "footloose" firms will settle in areas with more desirable images and life-styles. Consideration is also given to community and developer concessions at this point, such as tax moratoriums, low cost financing, expansion land banking, and other sweet-eners used to entice industry.

With the above generally in mind and with emphasis on the economic and fiscal factors, it remains to describe the study area opportunities and constraints in order to determine industrial types best suited to the study area.

Mid-Columbia Region economic and fiscal factors which may be regarded as opportunities or advantages in attracting industries are as follows:

- 1. Relatively low labor rates.
- 2. Availability of semi-skilled labor.
- 3. Absence of strong union pressures.
- 4. Agricultural, fishery and timber resources.
- 5. Relatively low electric power, nuclear power, and natural gas rates.
- 6. Availability of rail, water, highway and air transportation and good access to Pacific Basin markets.
- 7. Variety of outdoor recreational advantages.
- 8. Absence of urban blight, crime and congestion.
- Abundance of improved and partially improved industrial land.

Mid-Columbia region economic and fiscal factors which may be regarded as constraints or disadvantages are as follows:

- 1. Inadequate indigenous supply of skilled labor.
- 2. Relative isolation from eastern, midwestern and some west coast markets.
- 3. Lack of surplus housing stock.
- 4. Increasing political significance of a "no growth" philosophy among residents.

Probably the major factor which may inhibit the MCEDD's industrial growth potential, is its relative isolation from eastern and midwestern markets. However, the area does have relatively easy access to Pacific Basin markets. Isolation from eastern and midwestern markets will somewhat limit Mid-Columbia industrial expansion to growing markets in the northwest, particularly in the Portland and Seattle-Tacoma metropolitan areas. There will be exceptions, however, when a firm can serve nationwide and international markets on the Dallesport site. There are several national markets which are currently being served from the State of Oregon. These include industries such as primary metals (energy dependent), food processing (resource dependent), and lumber (resource dependent).

Given the above criteria, including specific economic and fiscal constraints and opportunities, the full range of manufacturing industry types are suited to the area with the possible exception of petroleum refining and related industries. The Oregon Employment Development Department (EDD) has given high suitability to textile, lumber, paper, primary metal, fabricated metal, electrical machinery and transportation equipment. Next highest suitability ranking by the EDD is for furniture, printing, chemicals, rubber, glass, and non-electrical machinery.

FEASIBILITY OF ATTRACTING INDUSTRY TO THE MID-COLUMBIA REGION

This section examines the feasibility of attracting suitable industry to the Mid-Columbia Region. This examination is based on the following method-ology:

- 1. An identification of industrial development trends in the Portland Metropolitan area.
- 2. A description of industrial development trends in the Mid-Columbia Region.
- A discussion of future industrial development feasibility in the Mid-Columbia area.
- 4. An estimate of industrial land absorption potential in the Mid-Columbia Region and in the Dallesport area in particular.

Industrial development patterns and trends in the Portland area are presented in the accompanying Table and Map. As indicated in the Table, industrial land absorption (excluding land inventory purchases) in these formal industrial parks since 1960, tends to be in the 150 acres per year range. Depending on definitions of industrial users, type of land absorption (land inventory purchases) and formal and informal land development, industrial land absorption has averaged from 40 acres per year to 300 acres per year over the last 15 years.

The Portland metropolitan area in general has relatively few formal industrial parks which have incorporated the high design standards, regarding setbacks, landscaping, general aesthetics, loading docks, and storage yards, such as are evident in many areas of Orange and Santa Clara County in California.

In regard to industrial users*, Portland's largest employer is an electronics firm, whose principal product is oscilloscopes. However, this firm only accounts for 2% of the total employment in the metropolitan area. Unlike some West Coast cities such as Seattle and San Diego, Portland is not dominated by a single firm or industry. Instead, it is characterized by an abundance of smaller firms representing a diversity of various industries.

This industrial diversity, along with the small average size firm, has given Portland a stable growth, free of large cyclical swings typical of many other cities.

* Portland Chamber of Commerce, Economic Development Division, 1976

COMPETITIVE INDUSTRIAL PARKS
PORTLAND METROPOLITAN AREA
1977

:	Utilities	Fully Served	Fully Served	Fully Served	· Fully Served	: Fully Served	id Fully Served	sd Fully Served	ad Fully Served	Fully Served	ad Fully Served	Fully Served	ad Fully Served	Fully Served	e Fully Served	
	Transportation	Highway, Airport	Highway, Airport	Rallroad	Railroad	Highway, Airport	Highway, Railroad	Highway, Railroad	Highway, Railroad	Railroad, Marine	Highway, Railroad	H i ghway	Highway, Railroad	Railroad	Railroad, Marine	
	Price/Acre	\$45,000	٧٧	\$37,000-\$50,000	NA	\$45,000	NA.	ď.	NA	\$35,000	\$40,000-\$50,000	A	\$35,000-\$50,000	NA V	\$65,000-\$100,000	
Avg. Annual	Absorp.	٣	7	7	9	9	4	7	თ	25	15	~	14	m	10	144
		21	20	4.	32	75	æ	23	35	100	262	E.	110	01	400	1,123
Total Planned A	Acreage Ab	34	36	94	32	150	17	30	45	3,000	288	30	200	15	004	4,324
Date	Opened	1970	1965	1975	1972	1964	1975	1974	1973	1973	1960	1973	1969	1974	1967	
	Major Tenants	Kalt, ITE, Heston Sheman Williams	Crown Zellerback, Toyota General Motors	Western Auto Supply	Holman Transfer, Mannings Sherwin Williams	System 99, Bridgestone Goodyear	Alpha Industries, Clorox	Omark Industries, Berkeley Pump, Wagner Electric	Empire Pacific, Airefco	Oregon Steel, Waterway Terminals	John Deere, Firestone	Western Dental, Diebold Coca-Cola	Georgia Pacific, General Motors, Wiliamette Industries	MPS, Lennox, Airco	Freightliner, Pacific Intermountain Express	
	Name	Skyport industrial	Airport Industrial	Barnes Yard	Benaroya Business	Heintz Industrial	Milwaukee Industrial	Omark Industrial	Oregon Industrial	Rivergate Industrial	Rockwood Industrial	Sunset Science	Sequola Business Park (Beaverton)	Swann Island Industry (Hoffman Construction)	Swann Island Industrial (Port of Portland)	TOTAL INDUSTRIAL ACREAGE
χ. 2	Key	-	2	m	. ₹	ν.	9	_	œ	6	2	=	12	13	4	

Source: Larry Smith & Company Field Compilation

PORTLAND AREA INDUSTRIAL **PARKS** VANCOLVER 9 COLUMBIA 3 ν, PORTLAND INTERNAT'L ARPORT CAMAS Wild METAL (3) (4) SANDY BLUD 0 (II)PORTLAND POWELL BEAVERTON (12)BEAVERTON MILWAUKIE LAKE OSWEGO SCHOLLS OREGON CITY SCALE IN MILES Ø

Growth for individual sectors of Portland's manufacturing generally follows national trends for those industries. The rate of growth for most of Portland's industries has been more rapid, as this area is increasing its regional share of national economic activity. Downward pressures are often resisted, however, by the fact that many Portland manufacturers have established themselves as quality leaders in their respective fields. Many of these firms produce for specialized markets which are less affected by the vagaries of national fluctuations. There's also a noticeable absence of defense industry in Portland which further helps to stabilize the metropolitan economy.

Because of the highly diversified economy, the number of products is very great. A list of the principal items manufactured in the metropolitan area follows: Oscilloscopes and electronic equipment, paper, pulp, lumber, sportswear, heavy duty trucks and trailers, alloy steel, aluminum ingots, photographic equipment, saw chains, lift trucks, ships, boats, barges, sawmill machinery, railroad cars, food products, investment castings, structural steel fabrication, steel plate, telephone equipment, furniture, hydraulic cylinders, laminated wood trusses, plywood and glass containers.

As the distribution and supply center for the Pacific Northwest, Portland also benefits from economic growth occurring in other parts of the region. Recent industrial development along the Columbia River, for example, has generated new business for Portland firms. Major new plants either built or under construction during the past decade include two aluminum reduction plants, two refineries, four chemical plants, an electronic component factory and a nuclear power generating facility.

Presently, Portland has the largest number of industrial square footage per capita on the West Coast at 82 sq. ft. per person. This compares to Los Angeles, a highly industrialized area, which has a per capita ratio of 55 sq. ft. per person. Thus Portland has about 50% more space per capita than Los Angeles.

However, there are gaps in Portland's otherwise diverse industrial base, namely, food processing, rubber, chemicals, electronics, printing and apparel. Portland is particularly strong in distribution facilities (wholesale trade), fabricated metals, and non-electrical machinery.

In addition to rates of land absorption, industrial development can be measured by two other indices: (1) The rate of employment growth within industries and (2) the proportion of total growth accounted for by individual industries. Both indices are represented below:

MANUFACTURING GROWTH INDUSTRIES BASED ON EMPLOYMENT GROWTH RATES PORTLAND METROPOLITAN AREA 1971-1976

Individual Industry	Annual Growth
Transportation Equipment Electrical Equipment & Supplies Fabricated Metal Products Printing & Publishing Lumber & Wood Products Paper and Allied Products	5.5% 4.7% 4.6% 2.4% 1.8%

Source: Coldwell Banker

MANUFACTURING GROWTH INDUSTRIES BASED ON PROPORTION OF TOTAL EMPLOYMENT GROWTH PORTLAND METROPOLITAN AREA 1971-1976

Individual Industry	Annual Growth
Transportation Equipment	23%
Electrical Equipment & Supplies	26%
Fabricated Metal Products	17%
Printing & Publishing	5%
Lumber & Wood Products	8%
Paper and Allied Products	5%

Source: Coldwell Banker

It is clear that the 6 industries listed above are growth industries by either index in the Portland metropolitan area. Transportation equipment, electronics, and fabricated metals represent the top 3 growth industries. Electronics industry growth is important, in particular, to help fill the relative gap in Portland in terms of electronics manufacturing.

Industrial land utilization per employee in the Portland area tends to approximate the national average of approximately 22 employees per acre. Typically, heavy industry ratios and capital intensive industries are below this average whereas electronics and light manufacturing and assembly are above this ratio.

Recent Portland area manufacturing studies found the following land/employee utilization densities in Portland as indicated below:

LAND UTILIZATION EMPLOYEES/ACRE PORTLAND AREA 1973

Industry Category	Density Employees/Acre
Food Processing	23
Textiles/Apparel	40
Lumber & Wood Products	4
Paper & Allied Products	15
Primary Metals	6
Fabricated Metals	15
Machinery	23
Electronics	25
Other Manufacturing	15

Industrial development patterns and trends in the MCEDD are presented in the accompanying Table. As indicated, industrial land absorption over the past 10 years has everaged about 60 acres per year (excluding land purchased for inventory).

SURVEY OF INDUSTRIAL DEVELOPMENT MID-COLUMBIA REGION 1962-1977

	1302-1311		
<u>Location</u>	<u>Firm</u>	Date <u>Utilized</u>	Acreage <u>Absorbed</u>
John Day Dam	Martin-Marietta	1970	100
The Dalles	Martin-Marietta	1962	110
Port of The Dalles	Mountain Fir	1973	40
Port of Hood River	Western Power	1975	8
Port of Hood River	Luhr-Jensen	1977	5
Port of Hood River	Hood River Distillery	1968	4
Port of Hood River	Jantzen	1972	15
Port of Hood River	United Telephone	1974	4
Port of Cascade Locks	C. L. Lumber Co.	1968	200
Port of Cascade Locks	Cascade Wood Corp.	1972	6
Port of Cascade Locks	Allied Fishery	1977	12
Port of Skamania	Cumulative	1967	25
Port of Camas/Washougal	Cumulative	1970	50
Bingen	SDS Lumber	1968	<u>25</u> 600
· · · 3			600

Source: Larry Smith & Co., Ltd., Field Compilation

Most of these firms can be classified as resource dependent. That is to say, these firms have been attracted to the Mid-Columbia Region as a result of particular resources: Timber/lumber, electric power, fish, and orchards.

The only formal industrial park development in the MCEDD is within the Port of Hood River. The Port made available a 45-acre, fully-improved site with rail, water and highway access. Since 1968, the Port of Hood River has been successful in attracting a number of light industrial users. Presently there are only about 5 acres available. Primarily two types of industrial users have been attracted to this industrial park.

- Those firms which historically have been located in Hood River, but required room for expansion. Expansion room was unavailable at their previous location.
- Those firms that are "footloose". That is, they could locate in a number of locations but chose Hood River because principals were attracted by environmental amentities and lifestyle.

In addition, one clothing manufacturer, Jantzen, has noted that the local labor force is extremely stable in comparison to the Portland area labor force which Jantzen employs in it's Portland plants.

In addition to the industrial development successes that are presented in the foregoing Table, it is instructive, at least in formulating future recruiting strategies, to know of some of the less successful local industrial recruitment efforts. Prior to Dallesport/Circle T's success in attracting Western Zirconium to the area, the Port had less success, but gained experience in the recruitment process with Hooker Chemical, National Lead, a consortium; Dow and Wacker Chemical, all medium to heavy industrial users. Hooker Chemical and National Lead (1963) chose Utah over Dallesport for a large magnesium reduction plant. In this case, the availability of sufficient long-term power inputs were in question as well as the low cost availability of several important production process inputs including magnesium.

In 1970, Dow Chemical also proposed a similar magnesium reduction plant. With the aid of revenue bonds backed by Dow Chemical and an EDA grant, Dallesport undertook site improvements. Subsequently, Dow abandoned the future private development of the project due to pessimistic market projections. Currently, Dow owns a 50-acre site in Dallesport. Several years later Dow Chemical proposed a sodium chlorate plant for Dallesport but dropped interest due to unresolved technical processing problems. Recently Wacker Chemical was interested in building a plant in Dallesport, but finally settled on a site in Illinois due to a long-term power committment at favorable rates.

Western Zirconium has also recently announced that due to a variety of reasons, it will locate in Utah instead of at Dallesport.

In regard to the feasibility of attracting industry to the MCEDD in general and to Dallesport in particular, there is an immense potential.*

* Industrial Site Survey, Mid-Columbia Economic Development District, 1976

Overall, the MCEDD has the potential to compete with any major industrial area in the Northwest and may experience significant spillover effects from Portland and Seattle given the relatively scarce and more expensive industrial land in these metropolitan areas. Clearly local developers are successfully doing so presently. Sites with the most significant and immediate heavy industrial potential are in Dallesport, The Dalles, the John Day Dam area, and Roosevelt. Of these, Dallesport and The Dalles are prepared for immediate development. Dallesport overall has 3,300 acres.

The Dallesport peninsula with the development of the Dallesport Industrial Site can expect additional development in the central portion of the peninsula. It is thought that such additional development will affect The Dalles urban area and the Dallesport community. Consequent impacts are complex as the two areas are in different states and counties and have different tax structures.*

The development potential for light industry is also great in MCEDD though the supply of such sites in Portland and Seattle is larger than sites required for heavy industry. Also among MCEDD areas, there is far more competition for light industry than for heavy industry. While Dallesport has a competitive advantage for large parcel users - nearly 80% of all prime industrial land is in Klickitat County - smaller industrial users can find space in a number of MCEDD communities: Cascade Locks, Hood River, Rufus and Avery.

In terms of MCEDD industrial land absorption potential, based on past trends of about 60 acres per year, it is reasonable to expect future absorption trends to approximate past trends. Therefore, for planning purposes, it is estimated that the MCEDD area's industrial absorption rate will approximate 60 acres per year. Given the Dallesport peninsula competitive advantage in regard to possessing most large parcels of prime industrial land, it is reasonable that Dallesport could capture approximately 80% of this absorption potential or about 50 acres per year. Based on this average yearly absorption potential and a 13 year planning perspective, Dallesport management should formulate a development strategy for approximately 700 acres. It should be noted that industrial development occurs in "lumps" such that several years may pass with little or no activity only to be followed by several years of abundant absorption, say 200-300 acres.

^{*}Impacts will be identified in Phase II of this study.

RECOMMENDATIONS

Preliminary findings and recommendations are based on the economic and physical data base presented in the previous sections. These recommendations are intended to guide the formulation of the Dallesport Master Plan in Phase II of this Industrial Development Study.

- 1. There is an abundance of prime industrial land on the Dallesport peninsula more than 3000 acres divided into 6 sites. In Site 1, one of the most ideal sites, there are about 740 acres of prime land including Dow's 50-acre holding.
- 2. There are no major economic or fiscal barriers to Industrial development in the MCEDD in general or Dallesport in particular:
 - a. While there may be a shortage of skilled and semi-skilled personnel, modest in-migration can supplement job requirements.
 - b. With the phasing out of the Inventory Taxes in Oregon & Washington in 1980 and 1984, respectively, the MCEDD and Dallesport have favorable tax structures compared to the other 11 western states.
- 3. There is a wide variety of manufacturing industries that could be attracted to Dallesport, however, Port management should concentrate on resource dependent, transportation dependent and "footloose" firms that are large land users and capital intensive, thereby reducing in-migration and consequent adverse environmental impacts.
- 4. It is recommended that Public Planning agencies in the MCEDD continue their early measures to formulate planning and implementation strategies for the private development of additional housing stock and supportive commercial and public service facilities. (Impacts of industrial development to be identified in Phase II of this study.)
- 5. Through aggressive public relations, Port management should try to capture "spillover" industries from the Portland and Seattle-Tacoma areas by offering abundant lower cost land, a stable work force, and an environment free of urban pathology.
- 6. Industrial development absorption trends over the past 10 years in the Mid-Columbia Region were about 60 acres per year net of land banking acquisitions.
- 7. Based on Dallesport's competitive advantage having large tracts of prime industrial land, it is reasonable to expect that Dallesport can capture 80% or 50 acres per year, on the average, of industrial absorption.

- 8. On this absorption rate basis, it is recommended that a Master Plan be formulated for Site 1, which comprises approximately 700 acres net of Dow's 50-acre holding. This recommendation is based on a 50-acre per year Dallesport industrial land development absorption between 1977 and 1990 (50 acres x 13 years = 650, say 700). It should be noted that industrial development comes in "lumps" such that several years may pass with little or no activity only to be followed by several years of abundant absorption, say 200-300 acres.
- 9. It is further recommended that Site 8, which is owned by the Port of Klickitat County, be planned for commercial and recreation use to further enhance the existing Port owned park and boat basin.

PHASE II: MASTER PLAN

PHASE II - MASTER PLAN

GENERAL DEVELOPMENT PLAN

The development plans described in this section are based on the data and recommendations contained in Phase I.

There are two plans described, the Dallesport Industrial Area, and the Bingen Marina. Both plans are for sites that are presently owned by the Port of Klickitat County.

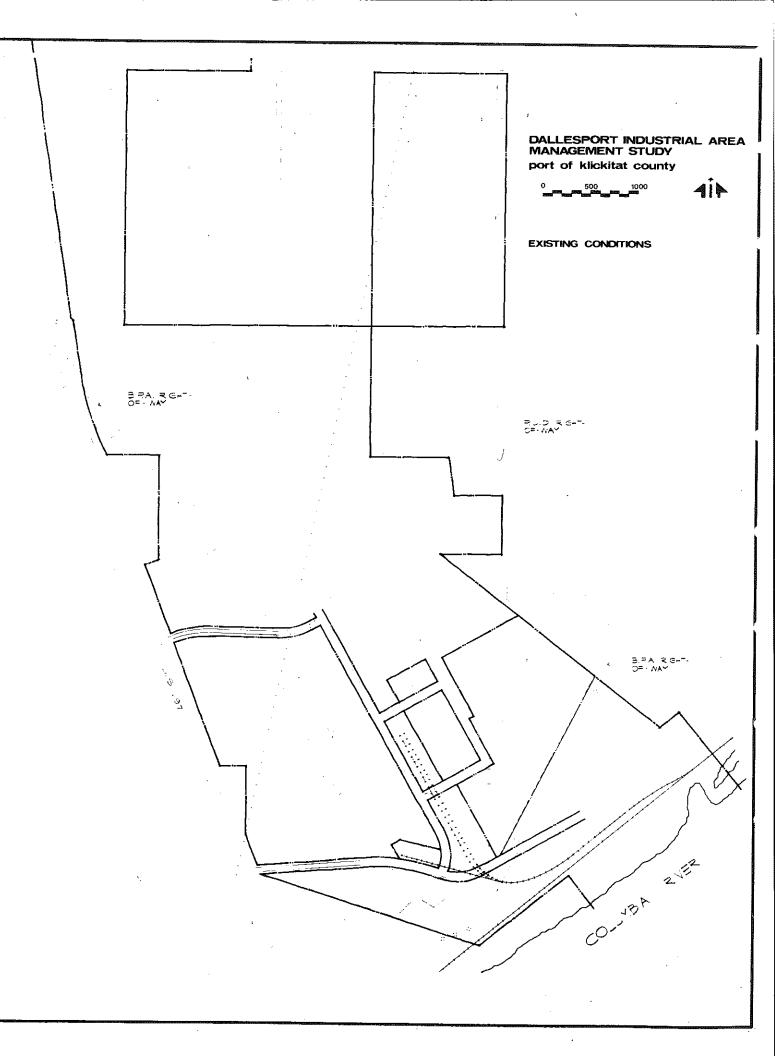
Dallesport Industrial Area

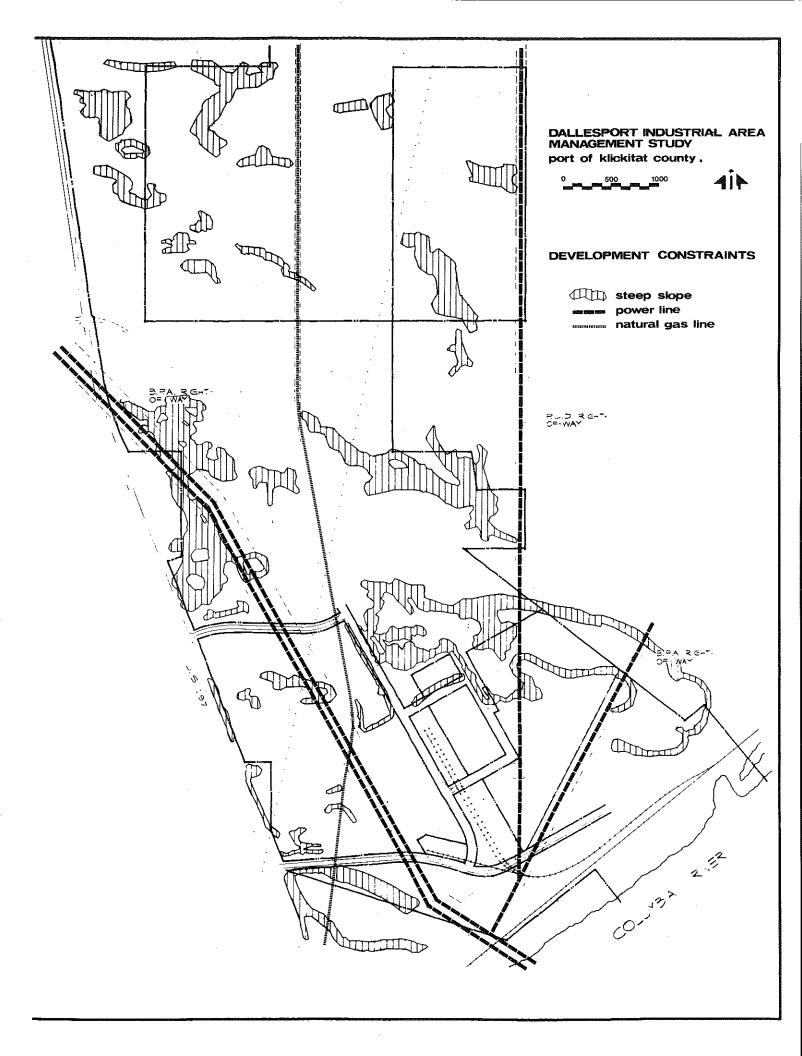
The Port of Klickitat County property at Dallesport is approximately 740 acres, including 50 acres owned by Dow Chemical. The area covered by the plan includes all of the Port property except about 98 acres on the extreme north portion of the site which has very rough topography and steep slopes. The north 500 feet along highway SR14 is also not zoned for industrial use. The plan also includes a 160 tract that is almost completely surrounded by Port property. This site should be acquired by the Port. The purpose of the land acquisition is to allow for a better design of the north end of the site and provide better access to the 80 acre parcel that is now only contiguous with the rest of the Port's property at the southwest corner.

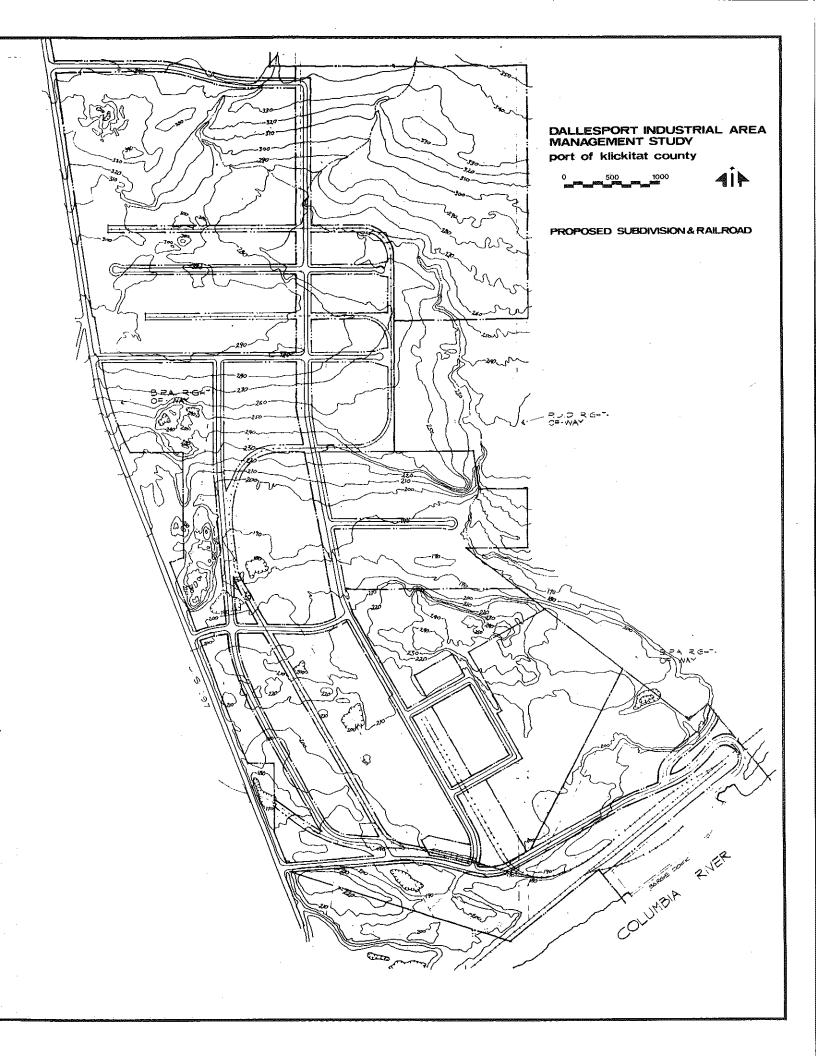
Before starting actual site design, the site was analyzed for development constraints including natural physical barriers to development such as steep slopes; and man made constraints such as existing roads, rail spurs, buildings and utility rights-of-way. The site is relatively flat in the south portion where the existing roads are located. The land then dips down to a small valley north of the existing water tank and then has a gentle slope to the north. There is a difference in elevation of about 130 feet between the flat south part and the north end. Some rugged topography exists in the form of rock outcrops, mainly to the north and south of the small valley and along the west side along the existing cemetery. These areas are proposed to be left as is, while most of the remaining rough areas can be leveled fairly easy.

The existing power line and gas line rights-of-way, and existing roads present some problems in dividing the site into usable industrial parcels. The power and gas line rights-of-way can be utilized for certain kinds of open storage or parking, but not for permanent buildings.

When development constraints and utility rights-of-way are considered, and the proposed road and railroad systems are included, there are about 450 acres of developable industrial land at the Dallesport site.







Road-Rail Plan

The road and railroad plan consists of extension of the existing north-south road along and to the east of the natural gas pipeline right-of-way to the north end of the site, then west to connect with U.S. 197. Another road will parallel the BPA right-of-way to the west, then cross the power right-of-way and connect with an east-west road.

A series of east-west roads then provided access to all potential industrial sites. A dead end access road is shown down the middle of the small valley giving access for small sites on either side. If a large land user were to need this entire site, then no access road would be necessary, however, a drainage easement would be necessary to allow storm runoff to the small stream on the east side of the site.

Rail access is provided by extending a spur next to the Cherry Growers spur west and then north adjacent to the west side of the BPA right-of-way. In order to maintain a workable grade, the rail line is swung to the east up the slope and then due north. East-west spurs then provide access to industrial sites with road access to one side and rail access to the opposite side of most sites.

The existing rail spurs adjacent to the Dow site could also be extended north, however, this will require an extensive widening of the existing cut for the road. Provision has been made for future extension of rail service to the west of U.S. 197 by extending a line along the south road, dropping down grade to provide for a grade separation under the highway. This rail line would only serve future industrial areas to the west of the Port's site.

Access to water transportation is provided by a barge dock and loading facility located just above The Dalles Dam locks. Road access to the barge dock is provided by extending the south road to the east and a fill and bridge for a grade separation on the Burlington Northern main line. A rail spur is also provided to the Barge Dock providing for barge-rail or barge-truck transfer capability.

Utilities Plan

The existing water supply system, which consists of a dual system of a domestic supply line and separate fire flow line, is expanded generally within the road rights-of-way. The major part of the system will be looped around the two north-south roads and their east-west connections. When development occurs above about elevation 250, either booster pumps will be required or a second storage tank will be required north of highway SR14.

A sewage collection and treatment system has not been shown since the expected rate of development is such that a complete system at this time is not feasible. Domestic sewage treatment will be by individual septic tanks and drain fields. Industrial treatment will be the responsibility of each industry and depending on the type of industry and treatment required. At some point in the future, a sewage collection and treatment system will be necessary, but it is very difficult to determine just when that will be. The feasibility of installing a sewage collection and treatment system will depend on such tings as the rate of development, size of industries, number of employees and the type of industrial activity. In all probability, a population equivalent of around 2000 to 3000 will have to be reached before a sewerage system would be feasible for the Dallesport Industrial Site.

When developed, the collection system can generally follow the road system within the right-of-way, with a sewage treatment plant located in the southeast corner of the site and discharge to the Columbia River. Some pumping may be required from the center of the site into a gravity system in the south portion of the site.

Power, gas and telephone services will all be located within road rights-of-way, however, the existing BPA transmission lines and natural gas lines through the site will not be altered. It is proposed to relocate the telephone transmission line along the main north-south road.

Grading Plan

The grading plan provides for roads not exceeding 7% grades and rail lines not exceeding 1.5% grades.

The areas on the south portion of the site will be leveled to around elevation 200. The sloping area to the north will generally be terraced to form a series of steps for relatively flat sites between the east-west roads and rail spurs.

Storm Drainage Plan

The main areas of concern for storm drainage is in the middle and northern portions of the site. The southern portion of the site slopes toward the river where surface runoff will flow generally along road rights-of-way in open ditches. Surface runoff further north will be picked up by a series of catch basins and storm drains channeling flow down the low part of the small valley and into the small creek that drains into Spearfish Lake. The area just north of the valley will also flow into this system. Another system of catch basins, storm drains and culverts will channel surface runoff in the extreme north portion of the site into the small stream running generally south along the east side of the site and into Spearfish Lake. The storm drainage plan generally follows the natural drainage system using the storm drain pipes and ditches to facilitate drainage from developed sites.

Because of the porous nature of the site and the low rainfall in this area, storm drainage is needed primarily only during infrequent heavy downpours.

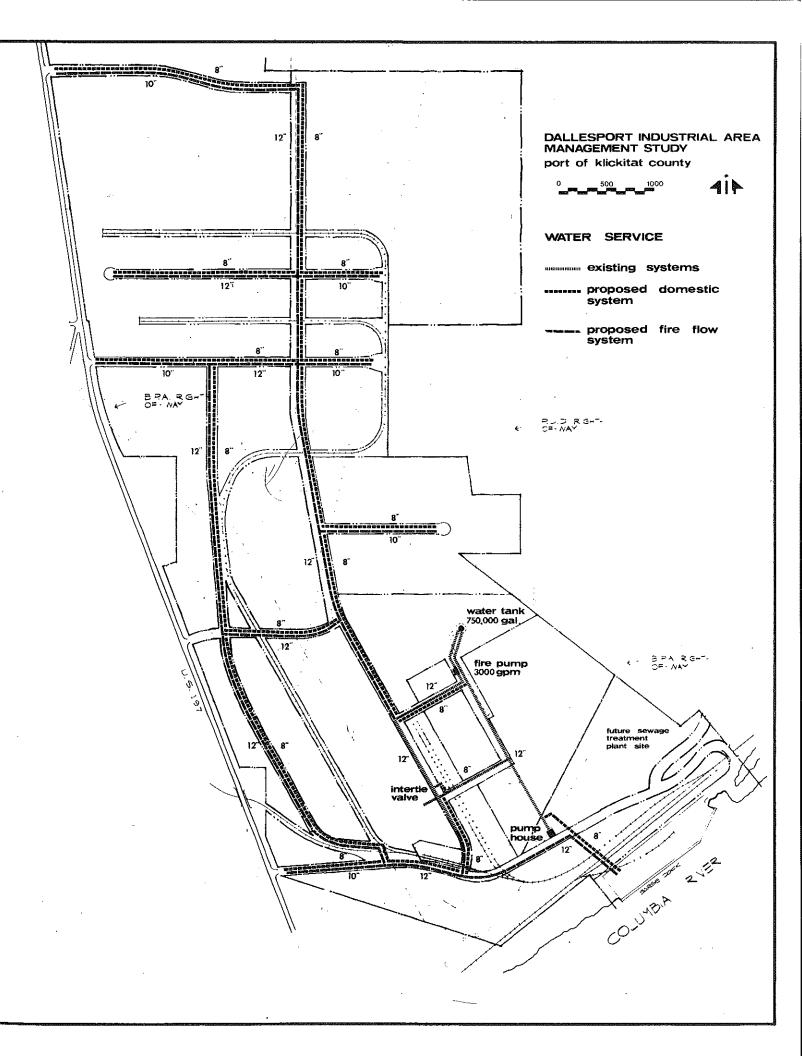
Landscaping Plan

Because of the arid nature of the Dallesport Industrial Site, large areas of formal landscaping are not practical without extensive irrigation or watering systems. All proposed industrial developments should be required to submit their plans for landscaping to the Port for approval. Industries should be encouraged to landscape the front yard areas using appropriate materials for the area.

Areas clearly visible from public roads, such as US 197, should be required to landscape and design their structures to provide an aesthetically pleasing view of the industrial site.

Building setbacks should be required along all roads within the site of at least 30 feet from the right-of-way line.

In order to maintain sufficient open space to absorb runoff from buildings and paved areas, building coverage should be limited to not more than 50% of the lot or parcel area for each individual development.



Phased Development

Since it is not economically feasible, nor even good planning for an industrial development the size of the Dallesport Industrial Area, to develop the entire project at one time, development is proposed to be phased to provide those improvements that will contribute most towards the goad of industrial development of the site.

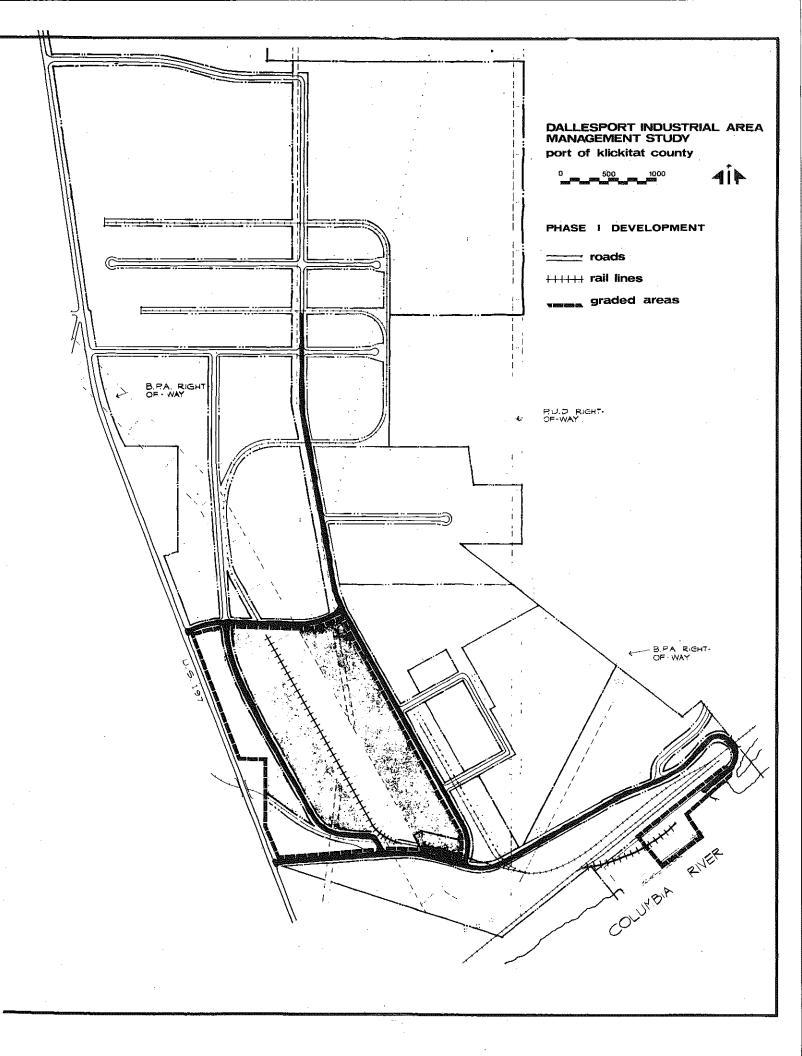
It is recommended that a first phase development program include the following:

- Surface existing roads with asphaltic concrete.
- Construct new road west of existing road between existing north and south entrance roads to open up the area between the BPA right-of-way and US 197.
- Extend domestic water and fire mains along the south road, the proposed west road, the north road and back down the existing road to form a looped water system.
- Rough grade the approximately 36 acres adjacent to the improved roads to provide a total of approximately 54 acres of prime industrial sites.
- Construct an initial 500 feet of the barge dock including a rail spur connecting road and overpass.

Cost Estimates

For purposes of preliminary cost estimating and determination of economic feasibility, the following unit costs were used based on 1979 costs:

- Site grading and leveling \$5,000/acre.
- Surfacing existing roads \$10.00/lin. foot
- New road construction \$25.00/lin. foot
- Water lines 8" \$8.00/lin. foot 10" - \$10.00/lin. foot 12" - \$15.00/lin. foot
- Railroad extensions \$35.00/lin. foot (includes balasting, ties and rail)



Based on these unit costs and estimates provided by the Port's Engineer for the barge dock, overpass, connector road and rail spur; the total cost to develop the entire site, including site preparation, road improvements, rail access, utilities and barge dock improvements at today's costs would be \$5,313,378.00 as shown in the following conceptional cost estimate:

ITEM	DESCRIPTION OF ITEM	COST
1.	Site Grading & Leveling 340 Acres @ \$5,000/acre	\$1,700,000.00
2.	Surface Existing Roads 7,650 l.f. @ \$10.00/l.f.	76,500.00
3.	Road Extensions 23,000 l.f. @ \$25.00/1.f.	575,000.00
4.	Water Main Extensions 12 inch, 19,000 1.f. @ \$15.00/1.f. 10 inch, 9,000 1.f. @ \$12.00/1.f.	285,000.00 108,000.00
5.	Storm Drainage	280,000.00
6.	Railroad Extensions 15,900 l.f. @ \$35.00/l.f.	556,500.00
7.	Dock Area improvements including roadway overcrossing and approach fills; 420 feet of dock area and water extensions.	463,436.00
	Subtotal Plus 5.1% Sales Tax Subtotal Plus 25% Engineering & Contingency	\$4,044,436.00 206,266.00 4,250,702.00 1,062,676.00
	TOTAL	\$5,313,378.00

The above represents the development costs for the entire site if it could all be done at todays costs. This total cost is well beyond the capability of the Port District at the present time. The Port does have some sources of development funding and could undertake a portion of the overall project. This subject is covered in detail in the section on Economic Feasibility.

Bingen Marina

The Port owned property at Bingen consists of approximately 65 acres on the Columbia River. The major portion of the site is leased to Dickey Farms for truck gardens, with a small piece leased to Mt. Adams Logging Co.

The site surrounds a small boat basin which is partially developed with a boat ramp and docks. A small park is located to the head of the boat ramp and dock on the north side of the boat basin.

The development plan for this site is based on the recommended use of the site for recreation and commercial development. (The plan presented is conceptual only.) Since this type of development, even though on Port property, is not the primary purpose of this report, no attempt was made to determine the economic feasibility of the development plan as presented. The plan is included only as a suggestion of how Port owned property at Bingen could be developed.

The plan includes further development of the Park site with the dock being reserved for short time use. This type of dock is referred to as a courtesy dock. A second smaller dock should be built between the boat ramp and the shore to provide a place for people to stand to load and launch their boats.

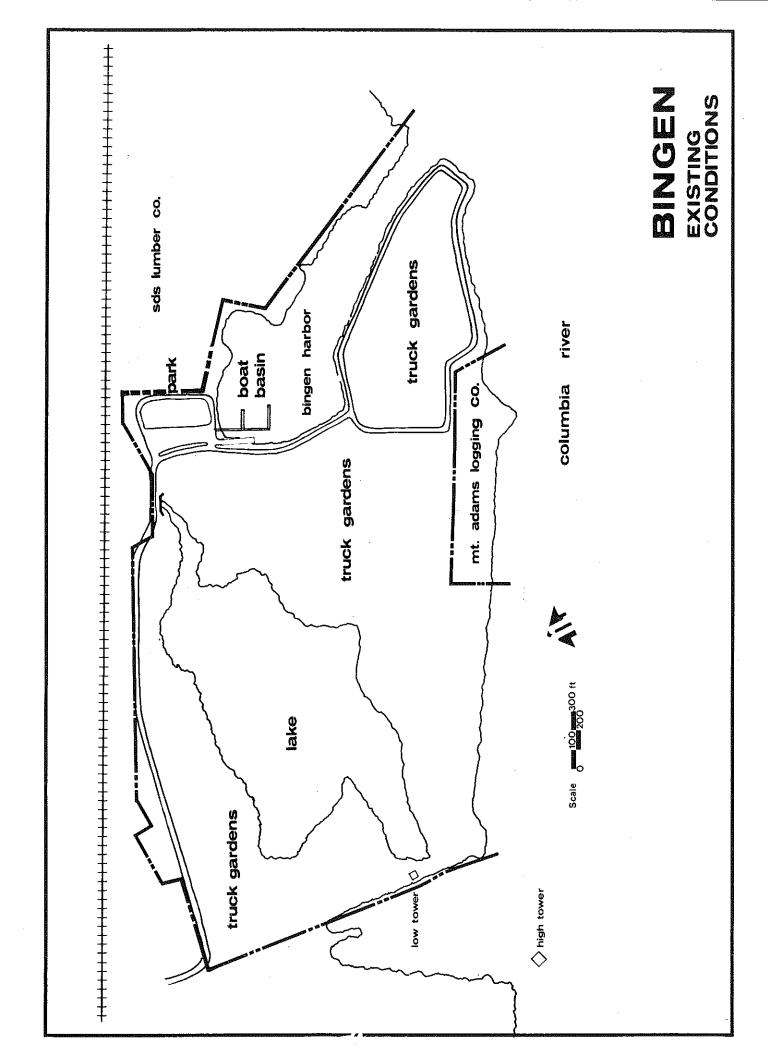
The peninsula between the main body of the river and the boat basin is shown developed for a motel of about 50 to 60 rooms with the lobby, restaurant and meeting facilities right on the point with a commanding view of the river and the entrance to the boat basin. Along the boat basin side, is a row of small shops catering to tourist traffic. This is also where a dock is provided for the proposed sternwheel excursion steamer that will operate between Bonneville Dam, Cascade Locks, Stevenson and Bingen.

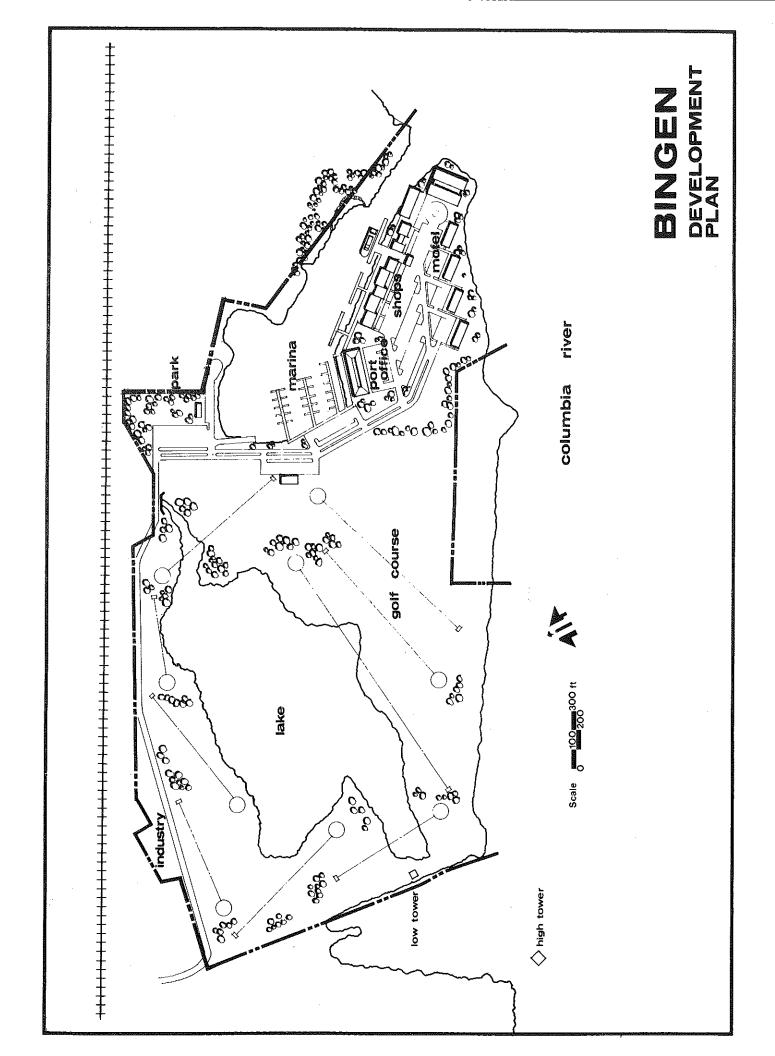
An office building is shown which would house the Port of Klickitat County offices and possibly other offices such as the State Patrol.

The Port office in this location provides good visual as well as security control over the entire site, but especially the commercial marina facility which would be leased to a private operator. The large area to the west of the boat basin surrounding the small lake is shown as a nine hole, executive type, golf course which could be developed without disturbing the lake or its shoreline.

There is a small area just north of the access road adjacent to the Burlington Northern main line which can be utilized for small light industry.

A city water service line presently serves the park area and can be extended to the motel area. A sewer line will be necessary running to the sewage treatment plant which is located near the northwest corner of the site.





DEVELOPMENT CONTROLS

The entire Dallesport Industrial Area lies within the M-2 Heavy Industrial Zone under the Klickitat County Zoning Ordinance No. 51870 adopted May 18, 1970 as amended.

The terms of the zoning ordinance are rather broad and from the standpoint of maintaining a quality industrial park development, which is the goal of the Port District, are too loose.

It is recommended that, in order to assure the proper development of the Dallesport Industrial Area in accordance with the Development Plan, Declaration of Restrictions and Covenants be adopted by the Port of Klickitat County and be administered by the Port Staff.

Restrictions and Covenants will provide the Port District with separate, or private, land use controls in the form of a legal instrument to protect future occupants of the Dallesport Industrial Site. Covenants are legally enforceable standards which are applicable to a specified property, and which supplement the County Zoning Regulations.

Declaration of Restrictions and Covenants should include the following considerations:

- Definitions Should be provided for such things as building line, lot, right-of-way line, side and front of a lot or site, sign, site, streets, or any other word or term that could lead to confusion or misinterpretation.
- Permitted Uses Although the County Zoning Ordinance will provide for limiting uses in the M-2 Heavy Industrial Zone, the Port may wish to consider further restrictions concerning uses that will be permitted on the Dallesport Industrial Site. Permitted uses may differ from one area to another. For example, the area closest to Highway 197 may be more restrictive than those areas further from the main highway or visually obscured from public view. Care must be taken that the list of permitted uses are not in conflict with the County Zoning Ordinance or with any limitations or restrictions that have been placed on property acquired from the Corps of Engineers.
- Development Standards Should specify such things as minimum setbacks, site coverage, the number of buildings per lot and the number of tenants per building, signs, parking and loading areas, landscaping, storage areas, refuse collection areas, telephone and electrical services, and nuisances. These type of standards can be utilized by the Port as guidelines for review of site designs.

- Performance Standards Are a means of assuring that any future industry or activity is not used or operated in any manner so as to create dangerous, injurious, noxious or otherwise objectionable conditions. Performance standards should cover such things as vibration. noise, air pollution, odors, electromagnetic radiation, fire and explosion. radioactive materials, glare and heat, and non-radioactive liquid or solid wastes. Many of these concerns are controlled or regulated by State or Federal agencies, however, it is still a good idea to include them in the Restriction and Covenants to assure that future industries are aware of all conditions that must be met in order to maintain their operations.
- Lot Splits Provisions should be made so that if the Port sells a piece of property, the buyer cannot further subdivide or sell a portion of the parcel. This provision is to assure that the Port District maintains control over development within the industrial site.
- Enforcement Provisions must be made for enforcement of the Restrictions and Covenants by the Port and every other owner of property covered by the Covenants.

One of the greatest difficulties is the enforcement of performance standards since the determination of compliance may require elaborate testing equipment. One way of handling this problem is through the following system which does not require the Port to maintain expensive technical equipment or personnel.

In the event that a violation of any performance standard is suspected, either through direct observation or as a result of an outside complaint, and after an investigation of the violation, the industry or owner that is causing the violation is notified by the Port of the alleged violation and given a set poriod of time to take one of three possible actions.

- 1. He can correct the violation within the specified time, or
- 2. He can acknowledge that the violation exists and request a time extension, if necessary, to correct the violation, or
- 3. He can gamble. In this case if the industry or owner does not feel that a violation exists, he can request a technical determination where the Port calls in properly qualified experts to make the determinations. If a violation is found, the industry pays the cost of such determination and must correct the violation. If no violation is found, the Port pays the cost. In other words, the loser pays.
 - Term, Termination and Modification The period of time that the Restrictions and Covenants remain in full force should be specified. A twenty-five year period is recommended. There should also be provisions for the termination, extension or modification of all or parts of the Restrictions and Covenants.

A complete set of suggested Declaration of Restrictions and Covenants is included in the Appendix and should be used as a starting point for development of Restrictions and Covenants by the Port District Commissioners and Staff.

ECONOMIC FEASIBILITY

Capital Programs

The program which has been developed for the Dallesport Industrial Area involves establishing the necessary capital improvements and setting priorities for those involvements. The objectives are to create marketable parcels at the earliest date, to establish a marketing program, and to capitalize upon the sites physical assets including, but not necessarily limited to, the availability of water transportation.

For a number of reasons, including topography, access, and water service, an area at the southwest corner of the site holds the most promise for early development. This area is crossed by power line and underground gas transmission easements, and therefore is most suitable for light industrial or distributive facilities. The improvements which are needed to bring this area to developable standards are as follows:

Surface Existing Roads 7,650 l. ft. @ \$10.00/ l. ft.	\$76,500.00
Develop new Road 2,700 l. ft. @ \$25.00/1. ft.	67,500.00
Extend Rail Road 3,200 l. ft. @ \$35.00/1. ft.	112,000.00
Fire Mains 5,500 1. ft. @ \$15.00/1. ft.	82,500.00
Potable Water Mains 6,500 1. ft. @ \$8.00/1. ft.	52,000.00
Grading & Leveling 36 acres <u>+</u> @ \$5,000/acre	180,000.00
Total Capital Expenditure	\$570,500.00
Plus Engineering & Contingency @ 25%	\$760,700.00

These improvements will create approximately 54 acres of prime industrial land at a cost of \$14,087 per acre.

Improvements can be financed through a combination of EDA funds already appropriated and available and local matching funds. The distribution would be:

EDA Funds - 54%	\$410,778.00
Local Matching Funds - 46%	349,922.00
	\$760,700.00

Since Klickitat County Port District No. 1 has only \$266,000 that could be used for capital improvements, the development of this project will depend upon:

- 1. Setting priorities for improvements and doing as much as possible to make the land available for development.
- Cutting back the size of the initial project to fit the funds which are available, and/or;
- 3. Raising additional funds.

Alternatives one and two will require additional engineering work and market analysis to determine to what extent the improvements can be cut back and how those cut backs will affect the marketability of the land. For example; even though it would be provided for in the master development plan, the railroad extension might be dropped from the initial capital expenditure program, thus reducing the total capital costs to \$611,000 and the local matching fund requirement to \$281,000. Other alternatives would appear to be to do only part of the road work and/or only part of the site grading.

While the extent of the original program can and should be studied to determine if and how its scope might be cut back, the third alternative, to seek out additional funds should also be explored. If such funds were available in sufficient quantities, the total program could be undertaken. However, again if such funds were available only in limited amounts to supplement the Port District's funds, the program could be structured to apply those funds to the proper improvement catagory. Briefly, the possible alternative funds would be:

Source of Funds	Comments				
General Obligation Bonds	Requires vote of electorate.				
Revenue Bonds	Revenue source would have to be identi- fied before funds would be available.				
Prepayment of Loans & Fees	Prospective tenants could prepay leases providing funds for capital improvements with the funds to be offset against future rent payments.				
Governmental Grants and/or Loans	Need to qualify project, highly uncertain.				
Sale of other Port Properties	Port could dispose of properties with less potential.				

In the event that Local Matching Funds could be found outside the Port District's capital account, these funds could, in all probability, be recaptured through a restructuring at a later date. For example, as each parcel is developed and leased, revenue bonds could be issued covering both the improvements and a pro-rate share of the Port District's matching funds with that portion of the funds thus raised being returned to the Port District's capital account. In this manner, the Matching Funds could not only be recaptured, but the capital account could be increased or operating funds raised by marking up the land value in each transaction to a level above the Port District's cost base. This should be the procedure regardless of whether the Land is sold or leased.

In the event of a sale, (which might be beneficial from the standpoint of the tenant), the Port District should maintain a right of first refusal or an option to buy back the land at any time it is offered for sale, either voluntarily or involuntarily, with the right of first refusal or option to run in perpetuity. Thus, failure to exercise the right would not be a waiver of such rights at future points in time. Purchasers of the land should also be required to pay all taxes and assessments and to give the Port District proper notice that they have been paid. These recommendations are made to assure that the Port District's objectives, to promote employment and enrich the local economy, are not jeopardized.

There is the possibility that a gravel quarry operation will be opened in the vicinity of, or perhaps on the Dallesport Industrial Area. In either event, a dock facility would be required for the loading of the gravel onto barges for shipment to markets down stream. A barge dock and its access facilities would be valuable assets to the total industrial site whether or not there would be a gravel quarry operation. Barge dock availability will improve the marketability of the bulk of the land in the site; and particularly that designated for heavy industrial use. A current estimate of the cost of these facilities is as follows:

Dock area - 420 feet of dock including water extension.	\$173,394.50
Roadway, approach, overpass	290,041.50
Water main extension	20,000.00
Total Capital Expenditures	\$483,436.00
Plus Engineering & Contingency @ 25%	\$644,617.00

In the event this program were financed through a combination of EDA and local matching funds, the distribution would be as follows:

EDA Funds - 54%	\$348,093.00
Local Matching Funds - 46%	296,524.00
Total	\$644.617.00

Again, the local matching funds required would be in excess of the Port District's capital account and consequently alternative sources of capital would have to be found to serve as the local matching funds. These are:

- A. Revenue bonds secured by a contract with the quarry operating company.
- B. Funds advanced by lessee to be paid back out of fees, rents, and/or royalties.

The principal factor to be explored here, as with the southwest industrial area, is that there are alternative ways to finance the Local Matching Funds without using the Port District's capital reserve.

The General Development Plan recommends that a 160 acre tract of land which is almost completely surrounded by Port property be acquired by the Port and developed as part of the overall Industrial Park. While this acquisition is very desirable, it is not critical to the development plan at this time. The cost of acquisition of this parcel is not known, and would have to be assumed entirely by the Port District since EDA funds cannot be used to acquire land.

In addition to the southwest industrial area, there is an 80 acre parcel separated from the rest of the site which could be developed for Industrial Sites. This area could be opened up for future development through the development of a paved access road. A 4,600 ft. foad at a cost of \$25.00 per lineal foot would be required. The financing of this road would be as follows:

Eastern Access Road

4,600 1. ft. @ \$25.00/1. ft.	\$115,000.00		
Plus Engineering & Contingency @ 25%	153,333.33		
EDA Funds @ 54%	82,799.99		
Local Matching Funds @ 46%	70,533.34		

In summary, the high priority improvement program which will make the Dallesport Industrial Site a viable and marketable project can be financed through a variety of sources as shown in the following table in order of recommended priority. The priority of the first two items could change if, for example, a gravel quarry operation were eminent and the barge dock were needed to make it possible.

Project	Allocation of Capital Costs					
	EDA	Port Authority	Private Capital			
Southwest Industrial Area	\$410,778	\$349,922°	-			
Barge Dock	384,093	- ·	296,528			
Eastern Access Road	82,800	70,533				
Land Acquisition		Unknown	Unknown			
Totals	\$877,671	\$420,455	\$296,528			

As this program is structured, the local matching funds to be provided by the Port District are \$420,455. However, the total funds available are only \$266,000, leaving a shortfall of approximately \$154,455. (This figure will be reduced slightly as interest is collected on the funds.) The shortfall indicates the need to examine the recommended program in detail to determine which capital expenditure items might be eliminated, reduced, or deferred; and to determine how a shift in capital expenditure priorities might be brought about without adversely affecting the marketing of the land.

From the standpoint of EDA funding, the program as recommended falls well within the approximately \$1.0 million EDA grant still available.

Operations

The Port District's operating budget, at the present time, is extremely limited and consists primarily of income from the District's tax levy, the Dickey lease, and CETA funds, which cannot be counted on in the future.

While the development of the Dallesport Industrial Site should be looked upon as a means of expanding and improving the economic base of the community, it should also be considered as a means of expanding the necessary operating income for the Port District. It is inevitable that operating expenses for the Port will increase, especially with the development of the industrial site.

Additional operating income can be generated from a number of sources, including:

- 1. An increase in the Real Estate Tax Base
- 2. Ground Leases
- 3. Financing Charges
- 4. Building Rentals
- 5. Royalties on the Quarry Operation
- 6. Dockage and Associated Charges
- Sale of other Port Properties

Taking these in order, it can be expected that the development of the Dallesport Industrial Site will create taxable real property. This process will expand the tax base to the benefit not only of the District, but also to the benefit of other taxing jurisdictions within which the Industrial Site lies. Therefore, without any increase in the tax rate, and without any increase in the assessment base in the District other than on the Industrial Site, an increase in real estate tax revenues can be anticipated.

Priority one in the capital improvement program is the improvement of the land suitable for industrial purposes in the southwest portion of the Dallesport site. As already discussed, it will cost approximately \$14,000 per acre to create 54 acres of prime industrial land. Similar land in the Mid-Columbia area currently has a sunk cost beginning at \$20,000 per acre (including land, grading, and water) and running to \$40,000 per acre for filled land. At a threshold level of \$20,000 per acre, the light industrial land could be expected to generate \$1,700 to \$2,400 rental income per year per acre; or, at full development, \$91,800 to \$129,000 per year.

The preceding deals only with land rental. It is not unusual, and in fact, the Port District already has experience in providing construction financing through revenue bonds. If, for example, a one percent per year service fee against the amount financed were charged on an annual basis, and if the industrial area were developed to the standards of a quality industrial park, such fees would effectively increase the income received from ground rent as discussed above.

The fourth possible source of additional operating income would be from the renting of buildings, presumably built on a "spec" basis. Such space is indeed an important part of the industrial development industry; and is particularly important where one of the objectives is to stimulate industrial development. The Port District should proceed with caution before considering a spec building and be sure that there is a market for the space and if possible, have tenant commitments.

The possibility of developing a quarry operation on the Industrial Site is an open question. However, such an operation could have at least two direct beneficial effects on the Industrial Site. First, in accordance with the land development plan, such an operation could be used to contour part of the site, thus creating more us able land at little, if any, cost to the District. Secondly, the District could anticipate receiving a royalty on the value of the gravel extracted from Port property.

The building of a dock facility has been assigned a high priority. Such a dock would be the property of the Port District and consequently, would be an asset for the use of industrial users brought to the Dallesport site. As such, the dock provides the opportunity to generate additional revenue through its use. While other Ports in the Columbia Basin provide elaborate material handling facilities, it is recommended, initially at least, that the Port District adopt a policy of requiring the users of the dock to provide all such facilities at their own expense and risk -- subject only to the fee schedules and operating rules adopted by the Port. The fee schedules and operating rules are to a large extent inter-related, not only to each other, but also to the manpower, equipment, and other facilities provided by the Port. For example, the handling of a relatively passive substance such as gravel, as opposed to a highly volatile or toxic substance, would not only be at a different fee, but would also require different procedures (rules) in its handling. The fees would also be affected by whether the Port or the user would provide security and whether the Port's rules would be more or less severe than those elsewhere in the area; or accepted as adequate for a specific purpose. Obviously, the Port's operating rules should be designed not only to maximize the revenue from the dock, but also to insure a safe and efficient operation.

INDUSTRIAL INCENTIVES

The programs which have been recommended, and the priorities which have been set, have as their objective, creating the most favorable marketing posture for the Dallesport Industrial Site. As illustrated in the previous section, the development program recommended will improve the Port District's cash flow for operating purposes. The program, including the availability of revenue bond financing and land with all improvements in and thus ready for development, should serve as an incentive for firms to locate at the Dallesport site. The low cost base for the light industrial land will also allow the Port, if needed, to set ground rental rates below those prevailing in the local market; thus making the Dallesport site more economically attractive.

The development of "spec" building would also serve as an incentive to firms seeking new space in the area which do not have special design requirements and/or need to move in a hurry. However, before such a program is adopted, the quantity and design characteristics of such space should be carefully studied.

The availability of water transportation is also a special site asset; particularly for heavy industrial users. The Dallesport Industrial Site is the only location in the Mid-Columbia Region which can offer the combination of large parcels and water transportation facilities.

In summary, primarily because of the low cost base in the land, coupled with the advantages of revenue bond financing, the Dallesport Industrial Site offers a unique marketing opportunity. As demonstrated in the previous section, the combination of EDA funds and local matching funds will provide the capital needed to make the site marketable without undermining the ability to meet annual operating costs. Once the necessary capital improvements have been made and an active marketing program mounted, the development program as recommended provides both for an increase in operating incomes and the opportunity to recapture the Port District's capital invested in site improvements.

Consequently, as the program matures, the Port District will be in a position to expand the range of its activities in building the economy of the Mid-Columbia Region.

Promotional Program

The promotional program to assist the Port of Klickitat County to attract industrial development to the Dallesport Industrial Area, consists of three parts.

The first part of the program was the development of a list of potential industries which might be interested in the Dallesport area. This part of the promotion program, which was done prior to the initiation of this study and is not included in the EDA Grant, was prepared by Dun & Bradstreet, Inc. through their program called Dun's Market Identifiers.

The program was developed using a selected list of industrial types, by SIC code, and a set of criteria. The list of potential industries includes over 500 industries west of the Mississippi River who are in an expanding position.

The second part of the promotion program was the design of a four page brochure, using information and maps from the Master Development Plan, which will be sent to each of the identified potential industries along with a return postcard to determine interest. The brochure itself was printed by the Port using their own funds.

The third element of the promotion program, which is for use once an industry has been identified as having a possible interest in the Dallesport Site, is the design of a visual presentation program using slides, tape and a self contained projector that can be shown to an individual or small group.

The purpose of this visual presentation will be to show, with slides, where the Dallesport Industrial Site is; what the site has to offer to an expanding industry and the amenities of the area such as good living conditions, recreation, room for growth, etc.

The intent of this program is to provide a "door opener", to stimulate interest in the Dallesport site. If there is interest on the part of an industry, then the process of direct negotiation between the Port and the industry will take place using, in part, the data and plans developed in this Master Development Plan.

ENVIRONMENTAL IMPACT

The analysis of environmental impacts of the Master Development Plan for the Dallesport Industrial Area is based on the data developed in Phase I of this study and the Master Plan as developed in Phase II. The format for the analysis is based on the Washington State Environmental Policy Act and SEPA Guidelines.

The development of the Dallesport Industrial Complex as proposed will in all probability result in the following impacts.

IMPACTS ON THE PHYSICAL ENVIRONMENT

Earth:

It is not likely that there will be any change in the geologic substructure of the area or the creation of any unstable earth conditions as long as precautions are taken with excavations and grading on the site. There will be considerable change in the existing topography as a result of grading for roads and development sites. There are certain areas, notably along U.S. 197 near the cemetery and along the east side of the site north of the existing development, where there is very rough topography and rock outcroppings which will be left undisturbed.

There will be increased chance of wind and water erosion of soils any time during construction, however, once construction in an area is completed, efforts should be made to stabilize the soils through landscaping. There will be some changes in the natural drainage patterns on the site, however, those points at which drainage leaves the site will not be disturbed. The construction of docks and barge terminal facilities on the Columbia River just above the locks at The Dalles Dam will cause some changes to the river bank at that point.

Air:

The introduction of new industrial development will increase air emissions, both from industrial activities and vehicular traffic. There also may be creation of objectionable odors, however, performance standards will be adopted by the Port which will maintain air emissions and odors within acceptable limits and State and Federal emissions standards.

The development that will occur is not likely to cause any significant alteration of the climate in the Mid-Columbia Region. There may be some increase in temperature locally as a result of new buildings and related development, especially if an industry which produces or causes a large amount of heat is located in the industrial site.

Agencies which will have authority for review and regulation of impacts to air quality that might result from development considered in this study are the Washington State Department of Ecology and Oregon State Department of Environmental Quality. As development in this area would have affects on air quality in both states even if the actual development was limited to one state, both states' agencies would have to be consulted. In the event of an irresolvable conflict between the state agencies involving a federal air quality standard, EPA's Seattle Regional Office would become involved through its Air Programs and Enforcement Branches.

This area was previously designated a non-attainment area because federal particulate standards were exceeded. EPA's revised policy on Rural Fugitive Dust has allowed the area to show that the standards were exceeded due to rural fugitive dust and regain attainment status. This does not release governmental entities in the area from responsibilities to do what they can to control fugitive dust.

Water:

There will be some alterations to existing intermittent streams running through the site as a result of grading for road construction and building sites. These streams will be relocated in drainage channels. Existing drainage patterns will change, however, those points at which drainage leaves the site will not be changed. It is expected that surface water runoff will increase as sites are developed with buildings, parking areas, drives and storage areas. This will increase surface water in the intermittent streams that flow into Spearfish Lake and into the Columbia River. As with any industrial development, there is always the potential of discharges into surface waters that could affect water quality. The development controls are designed to give the Port District control over the types of development and activities within a development in order to reduce or eliminate any possibility of water pollution.

Flora:

Existing steppe grasslands, which covers most of the site, will be replaced by development including industrial buildings, roads, rail lines, parking areas, storage areas, and landscaped areas.

Some of the area which is presently extremely rough will be left in its natural state. There areno rare or endangered species of flora on the site, nor is any of the site used for agricultural crops.

Fauna:

Existing wildlife habitat will be lost due to industrial development. Because of the nature of the surrounding area and the areas that will not be disturbed on the site, it is assumed that most existing wildlife will simply relocate to these other areas. The numbers of wildlife such as jackrabbits and rattlesnakes are not really known, but it is to be expected that their numbers will reduce in the site because of the industrial development. There are no known rare or endangered species in the industrial area.

Noise:

Existing noise levels are extremely low on the site since the site is for the most part undeveloped. Industrial development will increase noise levels, however, the amount of noise that any industry or occupant of the site will be allowed to make will be controlled by performance standards.

Light and Glare:

Industrial development of the site will result in new sources of light and possibly glare. Light sources will be from lighting of industrial plants, storage areas and parking areas. Attempts will be made to control glare by control use of materials such as large glass areas or reflective materials.

Land Use:

The land use of the industrial site itself will dramatically change from undeveloped prairie to low intensity industrial development. Full development of the Port District lands at Dallesport will have an impact on the surrounding area of Dallesport and The Dalles, Oregon and on the Mid-Columbia Region as well. Increased industrial activity will mean increased population, an improved economic base, and increased demand for housing, schools, public services, and shopping facilities. The proposed industrial development is in accordance with the Klickitat County Comprehensive Plan and the adopted zoning ordinance.

Natural Resources:

The only valuable natural resource on the site is the gravel deposits on the north portion, although the extent of this resource is not known. Development of the site for industrial sites could preclude the use of this resource, however, it may be possible to mine some of the gravel as a part of the overall grading plan for the site. Mining of this gravel will result in depletion of a nonrenewable natural resource.

It is possible that, depending on the type of industries that chose to locate at Dallesport, there may be an increase in the rate of use of some natural resources. This question will have to be addressed at the time of a specific industrial development proposal.

Risk of Upset:

Most industrial activities pose some risk from fire or explosion, however, the degree of risk at the Dallesport Industrial Site cannot be determined until specific industrial uses are considered.

Development controls and performance standards are intended to provide the means to control and reduce the risk of upset associated with industrial development of the Dallesport site.

Population and Employment:

The Dallesport Industrial Site contains about 450 acres of developable industrial sites exclusive of roads, railroad lines and open space. Using a national average of 22 employees per acre of industrial land, at full development there could be as many as 9,900 employees in the industrial site. Because of the rural location and character of the area, and the types of industry likely to be attracted to the area, the ratio is more likely to be 5 to 8 employees per acre resulting in employment within the industrial site of 2,250 to 3,600. In theory at least, the development could provide jobs for all of the 1975 unemployed labor force of 3,150 (see page 29).

The actual impact on the overall population of the Mid-Columbia Region or on Klickitat County is difficult to determine at this time since full development is expected to be long term, taking place over a fifteen year period, perhaps even longer.

Since the primary goal of the development of the Dallesport Industrial Area is to provide employment in Klickitat County and the Region, it is hoped that a good many of the jobs created will be filled from the unemployed labor pool in the area.

It should be recognized, however, that because of a lack of local skills or for a variety of other reasons, many of the new jobs will be filled by new people to the area. This, of course, will account for some of the projected population increase in the region.

Because of the unknown nature of the industry that may locate at Dallesport, it is not possible to project with any accuracy how many jobs might be filled by the available labor in the area or from outside the region.

It should be noted that the population projections (see pages 14 & 15) for the Region and Klickitat County are based, in part, on the development of the Dallesport Industrial Area.

Housing:

Full development of the site at densities mentioned above, could result in a demand for from 2,300 to 3,600 housing units. Again, the demand will not be all at once, but will be spread over many years. The greatest demand for housing to serve the Dallesport Industrial Site will occur in The Dalles and in the Dallesport community. Housing impacts will also be felt in Lyle, Bingen/White Salmon and Goldendale.

Transportation/Circulation:

Development of the industrial site will result in the generation of additional traffic on adjacent highways both from employee vehicles and truck traffic to and from the site. While it is not possible to predict with any accuracy the number of vehicle movements, it is not anticipated that the additional traffic will exceed the capacity of the existing highways.

Some of the major features that make the Dallesport site a potential industrial area are the availability of water and rail transportation. A barge docking area is proposed which will increase barge transport on the Columbia River. The site has rail service at present which will be extended and will increase rail freight through the area. It is not anticipated that any changes to the railroad mainline on to other barge facilities will be necessary as a result of the industrial site.

Reconstruction of the locks at Bonneville Dam, which are being considered by the Corpos of Engineers would help to improve barge service to Dallesport as well as on the entire river system.

Public Services:

As industrial development occurs in the Dallesport area, there will be increased requirements for fire and police protection. Since present services are inade-quate, any development will require improved services, however, the increased tax base resulting from development will enable local government to provide better police protection through the Sheriff's Office and expanded fire protection.

Other public services in the area including schools, parks and recreation facilities, and the maintenance of public facilities will be indirectly affected.

Industrial development will mean more people who will place additional demands on public facilities. This is expected to affect The Dalles and Dallesport communities mostly, but also Lyle, Bingen/White Salmon and Goldendale.

The effects will not be felt all at once, but over a long period of time.

Energy:

Industrial development at Dallesport has the potential for use of substantial amounts of fuel or energy depending on the type of industry that locates in the area. Since it is not known at this time what industries will locate at Dallesport, it is not possible to analyze energy use, however, large blocks of electric power are not available at this time, such as would be required by an aluminum plant, so it is not likely that this type of industry will locate in the area.

Utilities:

Sufficient amounts of electric power and natural gas, except as mentioned in the previous section on energy, are avilable on the site. The only requirements will be for internal distribution systems which will be provided as needed. Telephone lines are also available on site with only the need for internal distribution systems.

Additional trunk lines will be required as development occurs.

The Port maintains its own water supply and distribution system which will be expanded to accommodate development.

Sewage disposal will be handled by each individual development since no sewage collection system is presently available in the area. It is expected that at some time in the future, a sewage collection and treatment system may be required within the Dallesport Industrial Site. A storm drainage system is planned for the site, using a combination of pipe and open drainage ways. Runoff will increase as development occurs due to land area being covered by building and parking areas, however, this will not affect areas outside of the project site since drainage will be direct to the Columbia River and Spearfish Lake.

There will be a need for additional solid waste collection and disposal.

Human Health:

Since the specific industries within the industrial site are not known at this time, it is not possible to determine if there will be potential health hazards. Development controls are designed to give the Port District a means of controlling of minimizing health hazards.

Aesthetics:

Because of the topography of the industrial site and its location, it is not likely that any scenic vista or view open to the public will be obstructed. There will be industrial development on what is now mostly open space. The development plan is designed to minimize any aesthetically offensive views of industrial activities by retaining, for example, the natural topography and rock outcropping along U.S. 197 as a natural buffer to the industrial site.

Recreation:

The Dallesport Industrial Site will have no direct impact on the quality or quantity of existing recreational opportunities in the immediate area. Industrial development does mean there will be more people in the area who will utilize existing facilities, however, this will not be a sudden increase, but a gradual one over a long period of time.

Archeological/Historical:

There are no known sites of archeological or historical significance within the Dallesport Industrial Site or that would be in any way altered by development of the site.

APPENDIX

DECLARATION OF RESTRICTIONS & COVENANTS

This	Declaration,	made	this	day	of,	1978	bу	Klickitat	County
Port	District No.	1 (h	ereinafter	"Dec]	larant").	•	•		•

ARTICLE I - RECITALS

- 1.01 Declarant is the owner of certain real property in the County of Klickitat, State of Washington, described in Exhibit "A" which is attached hereto and by reference made a part hereof (hereinafter the "Property").
- 1.02 In order to establish a general plan for the improvement and development of the Property, Declarant desires to impose on it mutual, beneficial restrictions for the benefit of all the lands in the Property and for the benefit of Declarant and the future owners/lessors of those lands.
- 1.03 In order to insure the proper development and use of the Property, to protect the owner/lessor of each parcel within the Property against such improper development and use of parcels within the Property and of the Property as a whole as will depreciate the value of his parcel, to prevent haphazard and inharmonicus improvements, and in general, to provide adequately for a high type and quality of improvement and use of the Property in accordance with a general plan for the development of the Dallesport Industrial Complex as a whole, Declarant desires to subject the Property and each parcel of the Property to certain covenants for the benefit of all property within the Complex. All of the property and each parcel within the Property shall be held, improved and conveyed subject to those covenants which shall be enforceable in accordance with this Declaration by Declarant and by each Owner of a parcel or parcels of real property within the Complex.

ARTICLE II - GENERAL PROVISIONS

2.01 Establishment of Restrictions and Covenants: Declarant, owner of the Property, hereby declares that the Property is now held, and shall be transferred, sold, leased, conveyed and occupied subject to the restrictions and covenants herein set forth, each and all of which is and are for and shall inure to the benefit of and pass with each and every parcel of the Property and apply to and bind the heirs, assignees and successors in interest of each and every owner of a parcel or parcels of the Property.

- 2.02 Restrictions Operate as Covenants: Each purchaser or lessor of any parcel of the Property covenants and agrees with Declarant, its successors and assigns to use the Property only in accordance with the restrictions herein set forth and to refrain from using the Property in any way inconsistent with or prohibited by the provisions of this Declaration.
- 2.03 Purpose of Restrictions and Covenants: It is the intent and purpose of these covenants and restrictions to allow the location on the Property of general manufacturing activities, provided that such activities are confined within a building or buildings and do not contribute excessive noise, dust, smoke or vibration to the surrounding environment nor contain a high hazard potential due to the nature of the products, material or processes involved. It is the further intent and purpose of these covenants and restrictions to control the user-occupant density on the Property, to expressly prohibit certain uses of the Property and to protect the character of The Dallesport Peninsula.

2.04 Definitions:

- a. Area of Elevation: Total height and length of a building as projected to a vertical plane.
- b. Building Line: An imaginary line parallel to the street right-of-way line specifying the closest point from this street right-of-way line that a building structure may be located (except for overhangs, stairs, and sunscreens).
- c. Lot: Parcel or site allocated to any individual client or firm, either by lease description or deed of sale.
- d. Right-Of-Way Line: When reference is made to right-of-way line, it shall mean the line which is then established on either the adopted County Master Plan of Arterial Roads or the filed Tract Map for Minor Roads as the ultimate right-of-way line for roads or streets.
- e. Side & Front of Lots & Sites: The Front of a Lot or Site, except a corner Lot or Site, is the portion thereof facing on any street. (Thus a Lot or Site may have two Fronts where, for instance it faces onto two parallel streets. As to corner Lots or Sites, the narrowest frontage of a Lot or Site facing the street is the Front, and the longest side facing the intersecting street is the Side, irrespective of the direction in which the structures face.)
- f. Sign: Any structure, device or contrivance, electric or non-electric, and all parts thereof which are erected or used for advertising purposes upon or within which any poster, bill, bulletin, printing, lettering, painting, device or other advertising of any kind whatsoever is used, placed, posted, tacked, nailed, pasted, or otherwise fastened or affixed.

- g. Site: All contiguous land under one ownership and/or tenancy; provided, however, that multiple occupancy of a building in accordance with Paragraph 4.04 of this Declaration does not destroy a parcel's character as a Site.
- h. Streets: Reference to all streets or rights-of-way within this ordinance shall mean dedicated vehicular rights-of-way. In the case of private or non-dedicated streets, a minimum setback from the right-of-way line of said streets of ten (10) feet shall be required for all structures. Except for sidewalks or access drives, this area shall be landscaped according to the setback area standards from dedicated streets contained herein.

ARTICLE III - PERMITTED USES

3.01 Each and every parcel of the Property is restricted to the following permitted uses:

- a. Uses primarily engaged in research activities, including but not limited to research laboratories and facilities, developmental laboratories and facilities, and compatible light manufacturing relating to the following examples: Bio-Chemical, Chemical, Development Facilities for National Welfare on Land, Sea and Air, Film and Photography, Medical or Dental, Metallurgy, Pharmaceutical, X-Ray.
- b. Manufacture, research assembly, testing and repair of components, devices, equipment and systems and parts and components such as but not limited to the following examples: Coils, Tubes, Semi-Conductors; Communication, Navigation Control, Transmission and Reception Equipment, Control Equipment and Systems Guidance Equipment and Systems; Data Processing Equipment and Systems; Glass Edging, Beveling and Silvering; Graphics, Art Equipment; Metering Instruments; Optical Devices, Equipment & Systems; Phonographs, Audio Units, Radio Equipment and Television Equipment; Photographic Equipment; Radar, Infra-Red and Ultra-Violet Equipment and Systems; Scientific and Mechanical Instruments; Testing Equipment.
- c. Other manufacturing to include but not limited to the following examples:
 - (1) Manufacture and/or assembly of the following or similar products:
 Aircraft and Related Components; Automobiles and Parts; Boats;
 Clocks and Watches; Coffins; Ceramic Products; Concrete Products;
 Electrical Appliances; Farm Equipment; Heating & Ventilating
 Equipment; Linoleum; Machinery & Machine Tools; Musical Instruments;
 Neon Signs; Novelties; Oil Well Valves & Repairs; Optical Goods;
 Refrigeration; Screw Machine Products; Sheet Metal Products; Shoes;
 Silk Screens; Sporting Goods; Springs; Stencils; Toys; Trailers;
 Trucks.

- (2) The manufacture of products or products made from the following or similar materials: Aluminum; Bags (except Burlap Bags or Sacks); Batteries; Boxes, Paper; Brass; Cans; Copper; Glass; Grinding Wheels; Iron; Linoleum; Matches, Mattresses; Paper; Steel; Tin; Tools; Wool; Yarn.
- (3) The manufacturing, compounding, processing or treatment of the following or similar items: Acids, Non-Corrosive; Candles; Cigarettes and Cigars; Detergents; Disinfectants; Dye; Food Products; Lubricating Oil, Pharmaceutical Products; Plastics; Toiletries; Vitamin Products; Waxes and Polishes.
- (5) Distribution and Warehousing Plants.
- d. Administrative, professional and business offices associated with and accessory to a permitted use.
- e. Regional or home offices of industries which are limited to a single use and accessory to any of the above industrial developments.
- f. Blue printing, photostating, photo engraving, printing, publishing and bookbinding, provided that no on-site commercial service is associated with said uses.
- g. Cafeteria, cafe, restaurant or auditorium accessory with and incidental to any of the foregoing uses.
- h. Agriculture, as a continuation of the existing land use, and all necessary structures and appurtenances shall be permitted.
- i. General contractor and construction industries relating to the building industry, such as general contractors, electrical contractors, plumbing contractors, etc.
- j. Any other use permitted by applicable zoning ordinances and regulations of government authorities having jurisdiction over the Property, provided Declarant specifically consents to such use in writing.

3.02 All uses listed above are subject to the Development Standards listed in Article IV and Performance Standards listed in Article V of this Declaration.

ARTICLE IV - DEVELOPMENT STANDARDS

4.01 Setbacks: No building shall be located on any one or more Lots nearer to the front Lot line or nearer to the side Lot line than the minimum setback set forth below:

a. Front Yard Setback: Thirty (30) feet, except that unsupported roofs or sun screens may project six (6) feet into the setback area.

- b. Side Yard Setback: Ten (10) feet, except that unsupported roofs and sun screens may project three (3) feet into the setback area; provided that if a single building is constructed on two or more Lots, (or if a Site on which a single building was originally constructed is further subdivided into two or more Lots in accordance with the provisions of Paragraph 5.02 of this Declaration) no side yard setback is required from interior Lot lines; provided further that, in any event, there shall be at least twenty (20) feet of open space between all buildings on the Property which area shall be a Side Yard Setback Area for the purpose of this Declaration. In the case of a corner lot, the street side setback shall be thirty (30) feet, except that unsupported roofs and sun screens may project six (6) feet into the setback area. Interior Lot lines for a corner Lot shall be considered side Lot lines.
- c. Rear Yard Setback: No rear yard setback is required.
- 4.02 Site Coverage: Maximum building coverage of fifty percent (50%) of a Site is allowed. Parking structures shall not be calculated as building area; however, said structures shall be used only for the parking of company vehicles, employees' vehicles, or vehicles belonging to persons visiting the subject firm.
- 4.03 Number of Buildings per Lot: For a period of five (5) years from the date of this Declaration, only one building, other than a parking structure to be used only as set forth in Paragraph 4.02 of this Declaration, shall be erected on any one Lot, unless the erection and use of more or less than one building on any one Lot is specifically approved and consented to by Declarant in writing.
- 4.04 Number of Tenants per Building: For a period of five (5) years from the date of this Declaration, no building shall be occupied or used by more than two tenants or users simultaneously without the specific written consent of Declarant, nor shall more than two businesses be conducted simultaneously in any one building without the specific written consent of Declarant. The multiple occupancy and/or use of a building under this Paragraph does not change the character of the parcel, on which the building was constructed and the boundaries of which were used to determine compliance with this Declaration, as a Site for the purposes of this Declaration.
- $\underline{4.05}$ Signs: No sign shall be erected or maintained on the Property except in conformity with the following:
 - a. Signs visible from the exterior of any building may be lighted, but no Signs or any other contrivance shall be devised or constructed so as to rotate, gyrate, blink or move in any animated fashion.
 - b. Signs shall be restricted to advertising only the person, firm, company or corporation operating the use conducted on the Site or the products produced or sold thereon.

- c. All Signs attached to the building shall be flush mounted.
- d. Only one (1) single faced or double faced Sign shall be permitted per Street frontage. No Sign or combination of Signs shall exceed one (1) square foot in area for each six hundred (600) sq. ft. of total Site area. However, no Sign shall exceed two hundred (200) sq. ft. in area per face. An additional twenty (20) sq. ft. shall be allowed for each additional business conducted on the site.
- e. A Sign advertising the sale, lease, or hire of the Site shall be permitted in addition to the other Signs listed in this section. Said Sign shall not exceed a maximum area of thirty-two (32) sq. ft.
- f. No ground Signs shall exceed four (4) feet above grade in vertical height. Also, ground Signs in excess of one hundred (100) sq. ft. in area (single face) shall not be erected in the first twenty (20) feet, as measured from the property line, of any street side setback area. However, the above standards shall not apply to the Community Directional Sign, Special Purpose Sign, Construction Sign, or Future Tenant Identification Sign.
- g. Wall Signs shall be fixture Signs; Signs painted directly on the surface of the wall shall not be permitted.
- h. A wall Sign with the individual letters applied directly shall be measured by a rectangle around the outside of the lettering and/or the pictorial symbol and calculating the area enclosed by such line.
- i. One (1) Construction Sign denoting the architects, engineers, contractor, and other related subjects, shall be permitted upon the commencement of construction. Said Sign shall conform to applicable zoning ordinances and regulations.
- j. A Future Tenant Identification Sign listing the name of future tenants, responsible agent or realtor, and identification of the Dallesport Industrial Complex shall be permitted. Said Sign shall conform to applicable zoning ordinances and regulations.
- k. Special Purpose Signs, used to give directions to traffic or pedestrians or give instructions as to special conditions, and Community Directional and/or Identification Signs, used to give directions to and identify areas within the Dallesport Industrial Complex, shall be in conformity with applicable zoning ordinances and regulations.
- 4.06 Parking: Each owner of a Site shall provide adequate off-street parking to accommodate all parking needs for the Site. The intent is to eliminate the need for any on-street parking.

Required off-Street parking shall be provided on the Site of the use served, or on a contiguous Site or within six hundred (600) feet of the subject Site. Where parking is provided on other than the Site concerned, a recorded document shall be filed with the Declarant and signed by the owners of the alternate Site stipulating to the permanent reservation of the use of the Site for said parking.

The following guide shall be used to determine parking requirements:

Office: Three (3) spaces for each one thousand (1,000) sq. ft. of total office space (excluding such areas as pedestrian corridors, rest rooms, elevator shafts, equipment areas).

Manufacture, Research and Assembly: Two (2) parking spaces for each three (3) employees, but in no event less than two (2) spaces for each one thousand (1,000) sq. ft. of gross floor area.

Warehouse: Two (2) parking spaces for each three (3) employees, but in no event less than one (1) space for each one thousand (1,000) sq. ft. of gross floor area for the first twenty thousand (20,000) sq. ft.; one space for each two thousand (2,000) sq. ft. of gross floor area for the second twenty thousand (20,000) sq. ft.; one (1) space for each four thousand (4,000) sq. ft. of gross floor area for areas in excess of the initial forty thousand (40,000) sq. ft. of floor area of the building. If there is more than one shift, the number of employees on the largest shift shall be used in determining parking requirements.

4.07 Landscaping:

- a. The Front Yard Setback Area of each Site shall be landscaped with an effective combination of street trees, trees, ground cover and shubbery. All unpaved areas not utilized for parking shall be landscaped in a similar manner. The entire area between the curb and a point ten (10) feet in back of the front property line shall be landscaped, except for any access driveway in said area.
- Side and Rear Yard Setback Areas not used for parking or storage shall be landscaped utilizing ground cover and/or shrub and tree materials.
- c. Landscaped areas as required in a. above shall be completed within six (6) months of building completion or as determined by agreement with the Port District.
- d. Areas used for parking shall be landscaped and/or fenced in such a manner as to interrupt or screen said areas from view from access Streets, freeways, and adjacent properties. Plant materials used for this purpose shall consist of lineal or grouped masses of shrubs and/or trees.

- 4.08 Loading Areas: No loading shall be allowed which is visible from adjacent Streets. Street side loading shall be allowed provided the loading dock is set back a minimum of seventy (70) feet from the Street right-of-way line, or one hundred ten (110) feet from the street centerline, whichever is greater. Said loading area must be screened from view from adjacent Streets.
- 4.09 Storage Areas: All outdoor storage shall be visually screened from access Streets, freeways, and adjacent property. Said screening shall form a complete opaque screen up to a point eight (8) feet in vertical height but need not be opaque above that point. Outdoor storage shall be meant to include parking of all company owned and operated motor vehicles, with the exception of passenger vehicles. No storage shall be permitted between a frontage street and the Building Line.
- 4.10 Refuse Collection Areas: All outdoor refuse collection areas shall be visually screened from access Streets, freeways, and adjacent property by a complete opaque screen. No refuse collection areas shall be permitted between a frontage Street and the Building Line.
- 4.11 Telephone and Electrical Service: All "on site" electrical lines (excluding lines in excess of 12 KV) and telephone lines shall be placed underground. Transformer or terminal equipment shall be visually screened from view from Streets and adjacent properties.
- 4.12 Nuisances: No portion of the Property shall be used in such a manner as to create a nuisance to adjacent Sites, such as but not limited to, vibration, sound, electro-mechanical disturbance and radiation, electro-magnetic disturbance, radiation, air or water pollution, dust emission of odorous, toxic or noxious matter.
- 4.13 Service Stations: No service station shall be constructed or operated on the Property.

ARTICLE V - PERFORMANCE STANDARDS

5.01 It is the intent of these regulations to prevent land or buildings, including those permitted by right or special exception, from being used or occupied in any manner so as to create any dangerous, injurious, noxious or otherwise objectionable fire, explosive, radioactive or other hazardous condition; noise or vibration; smoke, dust, odor or other form of air pollution; electrical or other disturbance; glare or heat; liquid or solid refuse or wastes; condition conducive to the breeding of rodents or insects; or other substance, condition or elements (all referred to herein as "Dangerous or Objectionable Elements") in a manner or amount as to adversely affect the surrounding area. Any use permitted under Article III may be undertaken and maintained if it conforms to all district regulations including the regulations of this section referred to herein as "Performance Standards". Specifically, all uses shall operate in conformance with the limitations set forth in each subsection below:

5.02 Vibration: No vibration shall be produced which is transmitted through the ground and is discernable without the aid of instruments at or at any point beyond the lot line; nor shall any vibration produced exceed 0.002g peak measured at or beyond the lot line using either seismic or electronic vibration measuring equipment.

5.03 Noise: All noise shall be muffled so as not to be objectionable due to intermittance, beat frequency or shrillness. In no event shall the sound-pressure level of noise radiated continuously from a facility at night-time exceed at the lot line the values given in Table I (set out hereafter) in any octave band of frequency. However, where the lot line adjoins or lies within twenty-five feet of the boundary of a residence district the sound-pressure levels of noise radiated at night-time shall not exceed at the lot line the values given in Table II (set out hereafter) in any octave band of frequency. The sound-pressure level shall be measured with a Sound Level Meter and an Octave Band Analyzer that conform to specifications published by the American Standards Association. (American Standards Sound Level Meters for Measurement of Noise and Other Sounds, Z24.3-1944, American Standards Association, Inc., New York, New York, and American Standard Specification for an Octave Band Filter Set for the Analysis of Noise and Other Sounds, Z24.10-1953, American Standards, Inc., New York, New York shall be used).

TABLE I

Maximum permissible sound-pressure levels at the lot line for noise radiated continuously from a facility between the hours of 9 P.M. and 7 A.M.

Frequency Band Cycles Per Second	Sound Pressure Level Decibels re 0.0002 dyne/cm2
20-75	69
75–150	60
150-300	56
300-600	51
600-1,200	42
1,200-2,400	40
2,400-4,800	38
4,800-10,000	35

If the noise is not smooth and continuous and is not radiated between the hours of 9 P.M. and 7 A.M., one or more of the corrections in Table III below shall be added to or subtracted from each of the decibel levels given above in Table I.

TABLE II

Maximum permissible sound-pressure levels at a lot line for noise radiated continuously from a facility between the hours of 9 P.M. and 7 A.M. where the lot line adjoins or lies within twenty-five feet of the boundary of a residence district.

Frequency Band Cycles Per Second	Sound Pressure Level Decibels re 0.0002 dyne/cm2	
00.85	65	
20-75		
75–1 50	50	
150-300	43	
300-600	38	
600-1,200	33	
1,200-2,400	30	
2,400-4,800	28	
4,800-10,000	26	

If the noise is not smooth and continuous and is not radiated between the hours of 9 P.M. and 7 A.M., one or more of the corrections in Table III below shall be added to or subtracted from each of the decibel levels given above in Table II.

TABLE III

Type of Operation in Character of Noise	Correction in Decibel
CHaracter of Morse	
Daytime operation only	plus 5
Noise source operates less than 20% of any one-hour period	plus 5*
Noise source operates less than 5% of any one-hour period	plus 10*
Noise source operates less than 1% of any one-hour period	plus 15*
Noise of impulsive character (hammering, etc.)	minus 5
Noise of periodic character (hum, speech, etc.)	minus 5

^{*}Apply one of these corrections only.

5.04 Air Pollution:

- a. Definitions. The meaning of terms used in this subsection shall be the same as defined in Section 2.04.
- b. Visible emissions. There shall not be discharged into the atmosphere from any source any air pollutant in excess of the darkness limitations listed below. This shall include emissions of air pollutant of such capacity as to obscure an observer's view to a degree equal to or greater than do the visible emissions described below. Visible emissions of any kind at ground level past the lot line of the property on which the source of the emissions is located are prohibited:

No. 1 on the Ringelmann Chart at all times, except upon demonstration that the emission contains less than one tenth pound of particulate matter per thousand pounds of dry gases, adjusted to twelve per cent carbon dioxide or fifty per cent excess air.

- c. Materials handling. No person shall cause or permit any materials to be handled, transported, or stored in a manner which allows or may allow particulate matter to become airborne.
- d. Particulate matter. There shall not be discharged into the atmosphere any particulate matter in excess of the quantities shown below:
 - (1) From refuse-burning equipment, per one thousand pounds of dry gases, adjusted to twelve per cent CO2 or fifty per cent excess air, sixty-five hundredths pound for capacities of two hundred pounds per hour or less and thirty hundredths pound for capacities of over two hundred pounds per hour. In any one hour period this shall not exceed two hundred fifty pounds. Refuse shall not be burned in fuel-burning equipment.
 - (2) From fuel-burning equipment, six tenths pound per million BTU input for installation using less than ten million BTU per hour total input. For installations using more than ten million BTU per hour total input the allowable particulate emission, in pounds per million BTU, is determined by multiplying 8.58 times the input, in BTU per hour, raised to the minus 0.165 power (E=8.58 1-165).
- e. Threshold values. There shall not be discharged into the atmosphere any contaminant for which threshold limit values are listed for working atmosphere by the American Conference of Governmental Industrial Hygienists in such quantity that the concentration of the contaminant at ground level at any point beyond the boundard of the property shall at any time exceed the threshold limit.
- f. Gaseous emissions. Gaseous emissions shall be controlled by the provisions of Chapter 74, Section 5(d)(1) and (2) of this Code.

5.05 Odors: Any condition or operation which results in the creation of odors of such intensity and character as to be detrimental to the health and welfare of the public or which interferes unreasonably with the comfort of the public shall be removed, stopped or so modified as to remove the odor.

5.06 Electromagnetic Radiation: The following standards shall apply:

General. It shall be unlawful to operate, or cause to be operated, any planned or intentional source of electromagnetic radiation for such purposes as communication, experimentation, entertainment, broadcasting, heating, navigation, therapy, vehicle velocity measurement, weather survey, aircraft detection, topographical survey, personal pleasure, or any other use directly or indirectly associated with these purposes which does not comply with the then current regulations of the Federal Communications Commission regarding such sources of electromagnetic radiation, except that for all governmental communications facilities, governmental agencies and government owned plants, the regulations of the interdepartment Radio Advisory Committee shall take precedence over the regulations of the Federal Communications Commission, regarding such sources of electromagnetic radiation. Further, said operation in compliance with the Federal Communications Commission or the Interdepartment Radio Advisory Committee regulations shall be unlawful if such radiation causes an abnormal degradation in performance of other electromagnetic radiators or electromagnetic receptors of quality and proper design because of proximity, primary field, blanketing, spurious reradiation, harmonic content, modulation or enerby conducted by power or telephone lines. The determination of "abnormal degradation in performance" and "of quality and proper design" shall be made in accordance with good engineering practices as defined in the latest principles and standards of the American Institue of Electrical Engineers, the Institute of Radio Engineers, and the Electronic Industires Association. In case of any conflict between the latest standards and principles of the above groups, the following precedence in the interpretation of the standards and principles shall (1) American Institute of Electrical Engineers, (2) Institute of Radio Engineers, and (3) Electronic Industries Association.

Recognizing the special nature of many of the operations which will be conducted because of the research and educational activities, it shall be unlawful for any person, firm or corporation to operate or cause to be operated, to maintain or cause to be maintained, any planned or intentional sources of electromagnetic energy, the radiated power from which exceeds 1000 watts, without the express approval of the Director, Department of Inspection and Licenses. Further, it is required that any person, firm or corporation intending to operate or cause to be operated, to maintain or cause to be maintained any planned or intentional source of electromagnetic energy, the radiated power from which exceeds 10 watts, shall file, at least 30 days prior to such operation, a description of the radiating device and the operating characteristics thereof with the Director, Department of Inspection and Licenses.

b. Electromagnetic Interference. For the purpose of these regulations, electromagnetic interference shall be defined as electromagnetic disturbances which are generated by the use of electrical equipment other than planned and intentional sources of electromagnetic energy whice interfere with the proper operation of electromagnetic receptors of quality and proper design.

It shall be unlawful to operate or to cause to be operated any source of electromagnetic interference, the radiation or transmission from which exceeds the maximum values tabulated in tables shown below.

RADIATED

Section of Electromagnetic Spectrum (from-to)	Primary Intended Service	Maximum Field Strength at Edge of Property Containing Interference Source
10 Kilocycles100 Kc.	Communications Service	500 microvalts/meter
100 Kc 535 Kc.	Navigational Aids	300 microvolts/meter
535 Kc1605 Kc.	AM Broadcasting	200 microvolts/meter
1605 Kc 44 Megacycles	Various Communications Service	200 microvolts/meter
44 Mc 88 Mc.	VHF Television——Airport Control	150 microvolts/meter
88 Mc 174 Mc.	FM Broadcasting	200 microvolts/meter
174 Mc 216 Mc.	VHF Television	150 microvolts/meter
216 Mc 580 Mc.	Navigational Aids——Citizens Radio	250 microvolts/meter
580 Mc 920 Mc.	UHF Television	300 microvolts/meter
920 Mc 30,000 Mc.	Various	500 microvolts/meter

BY TRANSMISSION OR CONDUCTION

		Maximum Voltage Measured Line to Line or Line to Ground Where
		Power or Telephone
		Lines Cross Edge of
Section of Electromagnetic	Primary Intended	Property Containing
Spectrum (from-to)	Service	Interference Source
10 Kilocycles100 Kc.	Communications Services	2.5 Millivolts
100 Kc535 Kc.	Navigational Aids	1:5 Millivolts
535 Kc1605 Kc.	AM Broadcasting	1.0 Millivolts
1605 Kc 44 Megacycles	Various Communications Services	0.5 Millivolts
44 Mc 88 Mc.	VHF Television	0.25 Millivolts
88 Mc174 Mc.	FM BroadcastingAirport Control	1.5 Millivolts
174 Mc216 Mc.	VHF Television	0.15 Millivolts
216 Mc580 Mc.	Navigational AidsCitizens Radi	o 5.0 Millivolts
580 Mc920 Mc.	UHF Television	20.0 Millivolts
_920 Mc30,000 Mc.	Various	150.0 Millivolts

c. Method of Measurement: For the purpose of determining the level of radiated electromagnetic interference, standard field strength measuring techniques shall be employed. The maximum value of the tabulation shall be considered as having been exceeded if at any frequency in the section of the spectrum being measured, the measured field strength exceeds the maximum value tabulated for this spectrum section.

For purposes of determining the level of electromagnetic interference transmitted or conducted by power or telephone lines, a suitable, tunable, peak reading, radio frequency voltmeter shall be used. This instrument shall by means of appropriate isolation coupling, be alternately connected from line to line and from line to ground during the measurement. The maximum value of the tabulation shall be considered as having been exceeded if at any frequency in the section of the spectrum being measured, the measured peak voltage exceeds the maximum value tabulated for this spectrum section.

- 5.07 Fire and Explosion: All activities and all storage of flammable and explosive materials at any point shall be provided with adequate safety and fire fighting devices in accordance with the Fire Prevention Code of Klickitat County.
- 5.08 Radioactive Materials: The handling of radioactive materials, the discharge of such materials into air and water, and the disposal of radioactive wastes, shall be in conformance with the regulations of the Atomic Energy Commission as set forth in the Title 10, Chapter one, Part 20 Standards for Portection Against Radiation, as amended; and all applicable regulations of the State of Washington.
- 5.09 Glare and Heat: No direct or sky-reflected glare, whether from floodlights or from high temperature processes such as combustion or welding or otherwise, so as to be visible at the lot line shall be permitted. These regulations shall not apply to signs or floodlighting of parking areas otherwise permitted by this ordinance. There shall be no emission or transmission of heat or heated air so as to be discernible at the lot line.
- 5.10 Non-Radioactive Liquid or Solid Wastes: There shall be no discharge at any point into any public or private sewage disposal system or stream, or into the ground, of any liquid or solid materials except in accordance with the regulations of the Klickitat County Health Department, and the Department of Ecology of the State of Washington, as applicable.

ARTICLE VI - ADDITIONAL RESTRICTIONS

6.01 No Lot Splits: Each and every Site shall consist of at least one whole and entire Lot. No owner shall initiate action to reduce the size of any Lot or further subdivide any Lot within five (5) years from the date of this Declaration, without approval of the Port District.

ARTICLE VII - ENFORCEMENT

7.01 Abatement and Suit: Violation or breach of any restriction and covenant herein contained shall give to Declarant, and every other owner of property for whose benefit these restrictions and covenants are expressly made, the right to enter upon the property upon or as to which said violation or breach exists and to summarily abate and remove, at the expense of the owner or lessee thereof, any structure, thing or condition that may be or exist thereon contrary to the intent and meaning of the provisions hereof, or to prosecute a proceeding at law or in equity against the person or persons who have violated or are attempting to violate any of these restrictions and covenants to enjoin or prevent them from doing so, to cause said violation to be remedied or to recover damages for said violation.

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- 7.02 Deemed to Constitute a Nuisance: The result of every action or omission whereby any restriction or covenent herein contained is violated in whole or in part is hereby declared to be and to constitute a nuisance, and every remedy allowed by law or equity against an owner, either public or private, shall be applicable against every such result and may be exercised by Declarant or by any owner of property for whose benefit these restrictions and covenants are made.
- 7.03 Attorney's Fees: In any legal or equitable proceeding for the enforcement or to restrain the violation of this Declaration or any provisions hereof, the losing party or parties shall pay the attorney's fees of the prevailing party or parties, in such amount as may be fixed by the Court in such proceedings. All remedies provided herein or at law or in equity shall be cumulative and not exclusive.
- 7.04 Inspection: Declarant may from time to time at any reasonable hour or hours, enter and inspect any property subject to these restrictions to ascertain compliance therewith.
- 7.05 failure to Enforce not a Waiver of Rights: The failure of Declarant or any other property owner to enforce any restriction herein contained shall in no event be deemed to be a waiver of the right to do so thereafter nor of the right to enforce any other restriction or covenant.

ARTICLE VIII - TERM, TERMINATION AND MODIFICATION

- 8.01 Term: This Declaration, every provision hereof and every covenant and restriction contained herein shall continue in full force and effect for a period of twenty-five (25) years from the date hereof, unless otherwise specifically provided.
- 8.02 Termination and Modification: This Declaration, or any provision hereof, or any covenant or restriction contained herein, may be terminated, extended, modified or amended, as to the whole of said property or any portion thereof, with the written consent of the owners of sixty-five percent (65%) of the property specified in Exhibit "A" hereto based on the number of square feet owned as compared to the total number of square feet so specified, provided, however, that so long as Declarant owns at least twenty percent (20%) of the property specified in Exhibit "A" hereto, no such termination, extension, modification or amendment shall be effective until a proper instrument in writing has been executed and acknowledged and recorded in the office of the Recorder of Klickitat County, Washington.

ARTICLE IX - MISCELLANEOUS PROVISIONS

9.01 Constructive Notice and Acceptance: Every person who now or hereafter owns or acquires any right, title or interest in or to any portion of said property is and shall be conclusively deemed to have consented and agreed to every covenant, condition and restriction contained herein, whether or not any reference to this Declaration is contained in the instrument by which such person acquired an interest in said property.

- 9.02 Rights of Mortgagees: All restrictions and other provisions herein contained shall be deemed subject and subordinate to all mortgages and deeds of trust now or hereafter executed upon land subject to these restrictions, and none of said restrictions shall supersede or in any way reduce the security or affect the validity of any such mortgage or deed of trust; provided, however, that if any portion of said property is sold under a foreclosure of any mortgage or under the provisions of any deed of trust, any purchaser of such sale, and his successors and assigns, shall hold any and all property so purchased subject to all of the restrictions, covenants and other provisions of this Declaration.
- 9.03 Mutuality, Reciprocity; Runs with Land: All restrictions, covenants and agreements contained herein are made for the direct, mutual and reciprocal benefit of each and every part and parcel of said property; shall create mutual, equitable servitudes upon each parcel in favor of every other parcel; and shall create reciprocal rights and obligations between the respective owners of all parcels of the Property and privity of contract and estate between all grantees of said parcels, their heirs, successors and assigns.
- 9.04 Paragraph Headings: Paragraph headings, where used herein, are inserted for convenience only and are not intended to be a part of this Declaration or in any way to define, limit or describe the scope and intent of the particular paragraphs to which they refer.
- 9.05 Effect of Invalidation: If any provision of this Declaration is held to be invalid by any court, the invalidity of such provision shall not affect the validity of the remaining provisions hereof.
- 9.06 Addition of Territory: Declarant may at any time or from time to time during the pendency of these restrictions add to the Property which is covered by this Declaration, and upon the recording of a notice of addition to territory containing the provisions set forth in Section 8.07 of this Article VIII, the covenants contained in this Declaration shall apply to the added land in the same manner as if it were originally covered by this Declaration; and thereafter, the rights, powers and responsibilities of the parties to this Declaration with respect to the added land shall be the same as with respect to the original land, and the rights, privileges, duties and liabilities of the owners, lessees and occupants of parcels within the added land shall be the same as in the case of the original land.
- 9.07 The notice of addition to territory referred to in Section 8.06 of this Article VIII shall contain the following provisions:
 - a. A reference to this Declaration, which reference shall state the date of recording hereof and the book or books of the records of Klickitat County, Washington, and page numbers, where this Declaration is recorded;

- b. A statement that the provisions of this Declaration shall apply to the added territory in the manner set forth in Section 8.06 of this Article VIII; and
- c. An exact description of the added territory.

IN WITNESS WHEREOF, the undersigned has executed this ${\tt Declaration}$ on the date first hereinabove written.

KLICKITAT COUNTY PORT DISTRICT NO. 1