FIGURES 1-7

~~(Attached Under Separate Cover)~~

APPENDIX A

Stakeholders Interview List
(Stakeholders Interviewed)

Urban Renewal Agency Board Members:		
Todd Goergen	Chair	541-290-0463
Joe Benetti	Vice Chair	541-297-6066
Roger Gould		541-269-5566
Janet Rubin		541-269-5127
Howard Graham		541-756-6216
Caddy McKeown		541-888-7385
Dan Smith		541-269-8124
Nikki Whitty		541-396-3121 x 247
John Griffith		541-396-3121 x 248
Ed "Doc" Stevenson		541-396-2008
Non Board Member Contacts		
FONSI		
Doug Fletcher, President		541-266-0550
South Coast Development Council		
Ron Opitz, Exec. Director		541-266-9753
Roseburg Forest Products		
Bob Rogers		541-756-4307
Central Oregon & Pacific RR		
John Bouyon		541-957-2504
Jordon Cove Energy Project		
Robert Braddock, Project Mgr		541-266-7510
NW Natural Gas		
Cal Grimmer – Manager		541-267-5655 x 6500
Coos Bay/North Bend Water Board		
Rob Schab, Director		541-267-3128 x 236
Confederated Tribes of Coos, Lower Umpqua & Siuslaw Indians		
Howard Crombie		541-888-7511
Menasha Corporation		
Bill Lansing, Pres.		541-756-1193

US Army Corps of Engineers John Craig	541-269-2556
North Bay Rural Fire Protection Steve Main	541-756-3501x1823
Weyerhaeuser Corp Tom Scheideman, Site Mgr.	541-756-9488
Dept. of Land Conservation and Development Dave Perry, South Coast Rep.	541-563-2056
Coos County Planning Patty Evernden, Planning Director	541-396-3121x213
Audubon Society Tim Rodenkirk	541-269-4696
Oregon International Port of Coos Bay Michael Gaul	541-267-7678

Interview Attempts

Attempts were made to contact the following groups but were not interviewed as of the date of this memo.

Oregon Institute of Marine Biology

South Slough National Estuarine Research Reserve

Southport Lumber Company

North Bend Municipal Airport

DB Western

APPENDIX B

Stakeholder Interview Questions

1. What is your vision for the North Spit?

2. What do you see as the biggest opportunity for development on the North Spit?

3. What do you see as the biggest limitation for development on the North Spit?

4. At this time a Liquefied Natural Gas (LNG) facility is planning on locating on the North Spit. Where do you see this potential development influencing additional development on the North Spit?

5. If the LNG facility does not locate on the North Spit, what type of business do you believe should come to the North Spit?

APPENDIX C

Cost Estimates

Sewer Improvements

Engineer's Estimate (KKV)

Job Number: PCB-01

Long Term Improvements

South Sewer Extension with Pump Station and Regional Treatment

Item	Description	Unit	Quantity	Unit Price	Total
1	Mobilization	LS	1	$23,000	$23,000.00
2	Temporary Protection and Direction of Traffic	LS	1	$10,000	$10,000.00
3	Erosion Control	LS	1	$5,000	$5,000.00
4	Clearing, Grubbing and Removal of Structures	LS	1	$10,000	$10,000.00
5	Sawcutting	LF	16000	$2	$32,000.00
6	Pavement Restoration	SY	2700	$15	$40,500.00
7	4" Pressure Sanitary Sewer Pipe	LF	9000	$15	$135,000.00
8	Standard Manholes	EA	22	$2,500	$55,000.00
9	Pump Station	LS	1	$160,000	$160,000.00
10	Regional Treatment Facitlity	LS	1	$800,000	$800,000.00
11	Consulting and Fees	LS	33%		$419,265.00
11	15% Contingency	LS	1		$46,575.00

Total Preliminary Estimate **$1,736,340.00**

North Sewer Extension

Item	Description	Unit	Quantity	Unit Price	Total
1	Mobilization	LS	1	$44,080	$44,080.00
2	Temporary Protection and Direction of Traffic	LS	1	$10,000	$10,000.00
3	Erosion Control	LS	1	$5,000	$5,000.00
4	Clearing, Grubbing and Removal of Structures	LS	1	$10,000	$10,000.00
5	Sawcutting	LF	32000	$2	$64,000.00
6	Pavement Restoration	SY	5000	$15	$75,000.00
7	3" Pressure Sanitary Sewer Pipe	LF	18800	$15	$282,000.00
8	Standard Manholes	EA	42	$2,500	$105,000.00
9	Bay Crossing	LS	1	$600,000	$600,000.00
10	Consulting and Fees	LS	35%		$418,278.00
11	15% Contingency	LS	1		$242,003.70

Total Preliminary Estimate **$1,855,361.70**

Short Term Improvements

Step System

Item	Description	Unit	Quantity	Unit Price	Total
1	Mobilization	LS	1	$56,480	$56,480.00
2	Temporary Protection and Direction of Traffic	LS	1	$10,000	$10,000.00
3	Erosion Control	LS	1	$5,000	$5,000.00
4	Clearing, Grubbing and Removal of Structures	LS	1	$10,000	$10,000.00
5	Sawcutting	LF	52000	$2	$104,000.00
6	Pavement Restoration	SY	8000	$15	$120,000.00
7	3" Pressure Sanitary Sewer Pipe	LF	26800	$15	$402,000.00
8	Standard Manholes	EA	22	$2,500	$55,000.00
9	1000 Gal Septic Tank	EA	5	$1,500	$7,500.00
10	1500 Gal Septic Tank	EA	15	$2,750	$41,250.00
11	2000 Gal Septic Tank	EA	7	$3,500	$24,500.00
12	2500 Gal Septic Tank	EA	3	$3,800	$11,400.00
13	3000 Gal Septic Tank	EA	4	$5,500	$22,000.00
14	Pump Station	LS	1	$180,000	$180,000.00
15	Bay Crossing	LS	1	$600,000	$600,000.00
16	Consulting and Fees	LS	35%		$367,195.50
17	15% Contingency	LS	1		$302,448.83

Total Preliminary Estimate **$2,318,774.33**

Water Improvements

***Engineer's Estimate** (KKV)*

Job Number: PCB-01

Water Line

Item	Description	Unit	Quantity	Unit Price	Total
1	Mobilization	LS	1	200,784	$200,784.00
2	Temporary Protection and Direction of Traffic	LS	1	2,000	$2,000.00
3	Erosion Control	LS	1	5,000	$5,000.00
4	Seeding, Fertilization, and Mulching	SY	7000	2	$14,000.00
5	Clearing, Grubbing and Removal of Structures	LS	1	5,000	$5,000.00
6	Asphalt Grinding	SY	1000	18	$18,000.00
7	Sawcutting	LF	1500	2	$3,000.00
8	18" D.I.P. Water line	LF	18000	125	$2,250,000.00
9	18" Tee	EA	16	1,800	$28,800.00
10	18" Butterfly Valve	EA	36	4,000	$144,000.00
11	Fire Hydrant	EA	16	2,500	$40,000.00
12	Consulting and Permits	LS	25%		$677,646.00
13	15% Contingency	LS	1		$508,234.50

Total Preliminary Estimate **$3,896,464.50**

Road Improvements

Preliminary Engineer's Estimate *(KKV)*

Job Number: PCB-01

Transpacific Parkway

Item	Description	Unit	Quantity	Unit Price	Total
1	Mobilization	LS	1	$122,800.00	$122,800.00
2	Clearing and Grubbing	LS	1	$40,000.00	$40,000.00
3	Fill	CY	28000	$10.00	$280,000.00
4	Base Rock	CY	6700	$30.00	$201,000.00
5	Leveling Rock	CY	2700	$30.00	$81,000.00
6	Temporary Protection and Direction of Traffic	LS	1	$2,000.00	$2,000.00
7	Tacking	SY	100000	$0.80	$80,000.00
8	Level 3 Asphalt Paving	TN	17000	$50.00	$850,000.00
9	Road Striping	LS	1	$1,000.00	$1,000.00
10	Consulting and Permits	LS	25%		$414,450.00
11	Contingency 15%	LS	1	$310,837.50	$310,837.50
	TOTAL				$2,383,087.50

Stormwater Detention Facility

Preliminary Engineer's Estimate *(KKV)*

Job Number: PCB-01

5000' Railroad Spur

Item	Description	Unit	Quantity	Unit Price	Total
1	Mobilization	LS	1	$245,552.00	$245,552.00
2	Clearing and Grubbing	LS	1	$50,000.00	$50,000.00
3	Earthwork	CY	300000	$10.00	$3,000,000.00
4	Outlet Structure	EA	1	$4,000.00	$4,000.00
5	Fencing	LF	440	$35.00	$15,400.00
6	Permiting	LS	1	$10,000.00	$10,000.00
7	Consulting and Permitting	LS	30%		$997,485.60
8	Contingency 15%	LS	1	$648,365.64	$648,365.64

TOTAL $4,970,803.24

Railroad Spur

Preliminary Engineer's Estimate *(KKV)*

Job Number: PCB-01

5000' Railroad Spur

Item	Description	Unit	Quantity	Unit Price	Total
1	Mobilization	LS	1	$90,320.00	$90,320.00
2	Clearing and Grubbing	LS	1	$50,000.00	$50,000.00
3	Earthwork	CY	3000	$10.00	$30,000.00
4	Railroad Balast	CY	8000	$35.00	$280,000.00
5	Track Installation	MI	0.95	$700,000.00	$665,000.00
6	Track Switch	LS	1	$100,000.00	$100,000.00
7	Signing	LS	1	$4,000.00	$4,000.00
	Permiting	LS	1	$40,000.00	$40,000.00
8	Consulting and Permitting	LS	25%		$314,830.00
9	Contingency 15%	LS	1	$236,122.50	$236,122.50

TOTAL **$1,810,272.50**

APPENDIX D

Economic And Market Analysis

HHPR

FISCAL RESEARCH INSTITUTE

MEMORANDUM

TO: Scott Keillor, AICP and Keith Jones, AICP

FROM: Todd Chase and Matthew Ransom

DATE: February 15, 2006

RE: **Technical Memorandum #2, Economic and Market Analysis (Task 1); Long Range Property Land Acquisition and Financial Plan for the North Spit of Coos Bay**

Introduction

Contents

This memorandum is intended to document market trends and forecasts to identify future industrial land requirements on the North Spit of Coos Bay. The results of this work shall be utilized by the project team and Technical Advisory Committee to ascertain two options for developing Port-owned portions of the North Spit.

The purpose of this memorandum is to:

- Consider regional trends in industrial development;
- Evaluate potential development scenarios with site uses and their land requirements;
- Identify special considerations related to market demand, development program elements, and other factors that impact future industrial operations.

Market Overview

Community economic growth rarely occurs as a result of random events. Communities need to evaluate their resource strengths (physical and human) and assess potential economic market opportunities and then implement strategies aimed at aligning resources with markets to achieve economic growth.

As an example: communities rich with marketable natural resources must develop systems of extraction, production and shipping in order to realize the economic returns of abundant natural resources. Similarly, communities rich with labor resources must develop institutions to educate and train these resources and create policies which support new and existing business expansion as well as business recruitment strategies aimed at maximizing the human resource capacities.

Indicators of a community's commitment to grow the economy are manifest in a couple different ways. A useful indicator is to evaluate a community's relative level of investments in physical

infrastructure and development of institutions which could support economic expansion. In response, a useful indicator of the private sector's reaction to the community's investments are manifest in the trend (positive or negative) and relative level and pace of general business activity and private investment.

The reason for assessing the business expansion and investment trends within the greater regional economy is generally meant to gauge the extent to which insiders and outsiders perceive real economic expansion potential within the local economy. An obvious signal of perceived economic growth potential is when a community is attracting both internal and outside investment as manifest through business expansion and employment growth. Direct investment in infrastructure and other physical or institutional structures that could facilitate or accommodate future economic growth is also generally a positive signal that a community perceives future market growth potential at the local economic level.

The remainder of this section documents development and economic indicators as measured by recent investments in the greater Coos Bay regional economy within the following categories:

- Business Development
- Infrastructure
- Institutional Structures

The reporting of the following information within the target categories is intended to offer a snapshot of the micro trends of investment and business activity within the community. It is not intended to be a complete accounting of events and investments within the regional economy. Instead, the information comprises a snapshot of event sufficient is scope to highlight the categorical specific trends and major events. These micro trends are informative for gauging whether the trends point towards public and private investment or dis-investment within the Coos Bay regional economy.

Information compiled in this report was gleaned from readily available resources and interviews, including non proprietary information from the following sources: Oregon Employment Department; Oregon Economic Development Department; Oregon International Port of Coos Bay; local newspapers; and literature resources among other non-proprietary sources.

South Coast Business Developments *(YR 2004 through 2005 highlights)*

- The Oregon International Port of Coos Bay executed a letter of intent to purchase roughly 1,300 acres of land on the North Spit, which is currently owned by Weyerhaeuser. The letter of intent to purchase this land was signed in anticipation of securing a tenant agreement with Jordan Cove Energy Project L.P. in relation to a development proposal for construction of a Liquefied Natural Gas (LNG) marine offloading and distribution facility. The LNG proposal would utilize roughly 200 acres of the 1,300 acres; and the remainder of the North Spit land would be used both for additional light industrial and marine development as well as for environmental mitigation.

- The Northwest Pipeline/PG&E/Fort Chicago Energy Partners announced plans in February to construct a 250 mile natural gas trunkline from the proposed Jordan Cove LNG terminal

facility at Coos Bay North Spit to connect with two major north/south transmission lines near Malin, OR. The pipeline would deliver gas from the North Spit to Northwest markets and also into Nevada and California. The construction of the proposed trunkline connection is typically associated with construction of LNG terminal facilities, and the proposed investment would provide west coast users increased competition within the natural gas market. The proposed facility could be online as early as 2010.

- Affiliated Computer Services (ACS) moved facility from North Bend and opened a 5,000 square foot facility in Coos Bay. Greater Coos Bay/North Bend ACS operations include employment of greater than 500 people.

- The Oregon International Port of Coos Bay has initiated feasibility planning studies and permitting for a 50-acre moorage slip and 1,600-foot turning basin in the deep draft portion of Coos Bay. The slip and turning basin would form the backbone of harbor improvements which are necessary to potentially accommodate the potential Liquefied Natural Gas offloading facility project. The marine improvements will also serve to develop a modernized multi purpose cargo terminal within the North Marine Park / North Spit, enabling further development.

- Expansion of the Sutter Creek Correctional Institution will result in roughly $5.3 million dollars in construction spending and will add 34 new permanent jobs to the community.

- Plans for a Home Depot store and other retail buildings and waterfront improvements are planned in North Bend in support of the waterfront redevelopment and planning efforts. The Home Depot is projected to employ 150 permanent employees, and is scheduled to open in the fall of 2007.

- The Mill Casino in North Bend continues to add permanent and seasonal employment. The Mill Casino is one of the largest employers within the region. Plans for development of a 100 space destination RV Park on approximately 12 acres of the former lumber mill site will serve as a roughly $2.8 million dollar catalyst project along the North Bend waterfront. The facility is expected to provide over 50 permanent jobs and stimulate additional tourism and local spending.

- Ocean Air Aviation plans to open an expanded 4,000-square-foot terminal for private/charter flights at the North Bend airport. The target clientele for the expanded facility as well as charter van transportation services that will operate on-site are corporate travelers; specifically golf related travelers.

- Continued investment in facility expansion projects at the Southwestern Oregon Community College is a signal towards expanded service offerings for the community. Construction was recently initiated for a $7.1 million dollar student recreational center and track development.

- American Bridge will add employees as a result of major transportation projects which require pre-fabricated steel bridge structures. Generally, there has been an upward trend in investment in business development in the Winchester Bay area.

- National and regional retailers and service businesses such as Ross Dress for Less, Goodwill Industries, Primerica Financial Services, Rent-a-Center, and Grocery Outlet have established operations in the greater Coos Bay / North Bend area. Emergence of regional and national retailers is often interpreted as a signal of market opportunity and positive underlying economic conditions.

- Southport Forest Products completed a relocation and expansion of operations at a new site in the Port's North Bay Marine Industrial Park in August 2005. Expansion and relocation was contingent upon extension of a new rail spur to their site in the marine park from the Central Oregon Railroad system, which was completed in October 2005. New permanent employment is expected as a result of the operational expansion.

- Bandon Dunes golf course opened a third 18-hole professional golf course. The additional course is receiving top billing in golf publications. The combined three courses are becoming world renown for their top design and professional class ratings. The top ratings have attracted significant attention for the elite class golfers as well as corporate executive clientele. The resulting spill over affects of attracting such clientele on the local community is emerging. With the addition of the third course, permanent and seasonal employment at the combined Bandon Dunes golf courses is over 450. At a statewide level, golf related industry employment for Oregon is estimated at over $74 million dollars in annual payroll.

- Investments in research and development and implementation of the Oregon State University wave energy project continues to be a promising business development opportunity.

Infrastructure

Railroad

- The Oregon International Port of Coos Bay recently completed a major investment in the North Spit Rail Spur, to service the Port's North Bay Marine Industrial Park. The greater than $4 million dollar investment in rail trackage and signal equipment has provided a much needed link of the Industrial Park to the Central Oregon & Pacific Railroad (CORP). The spur linkage to the CORP now provides a seamless rail connection from the Port through the CORP system with ultimate connection to the Union Pacific's international north/south railroad mainline through Eugene. The investment in rail has provided relocation and expansion opportunities for existing tenants such as Southport Forest Products and the spur will provide additional distribution channels for existing and future Park tenants including possible marine terminal intermodal service connections in the future.

- Future investment in the Coos Bay Railroad Bridge rehabilitation project will provide much needed investment in the existing rail system to support future rail service growth. Receipt of the federal transportation spending bill (SAFETEA-LU) authorization of $8 million towards this project will move the implementation schedule forward. This funding will be supplemented by Oregon Senate Bill 71 "Connect Oregon" program funding to help provide the local/state match for approximately the planned roadway realignment, rail bridge improvements during Phase 2.

Airport

- The North Bend Municipal Airport is expanding its passenger terminal and hangar/apron facilities. In anticipation of projected growth over the next decade in each of the commercial passenger, private/charter, and freight aviation market segments, plans and financing strategies have been prepared to expand the carrying capacity of the airport. Expansion of the passenger terminal in addition to upgraded hangar/apron spaces provides for additional space to support future operations and expansion of passenger amenities. Some initial funding for the expansion plans has been provided in conjunction with the Year 2005 State Legislative session.

Highways / Streets

- Both the Cities of Coos Bay and North Bend have adopted TSP's to guide the development of needed local transportation system capacity and safety improvements. Having these policy and investment documents in place and supported by the local community will more readily assist in the implementation of identified capacity expansion projects to support economic development. Specific projects noted include:

- ODOT's 2006-2009 STIP includes several bridge rehabilitation projects within the Coos Bay market area that are integral maintenance projects which will ensure the immediate service integrity of the vital bridge connections along US101. In particular, ODOT has programmed major bridge work on the US101 McCullough Bridge and several bridge replacement and passing lane projects along US42 and US38 which are all vital linkages for the greater Coos County economy. Additional funding has been identified for more localized projects like the environmental and right-of-way work on the US101 Isthmus Slough/Bunkerhill Road bridge crossing and the North Bend waterfront pedestrian improvement project.

- The Oregon International Port of Coos Bay is investing in The TransPacific Parkway intersection improvement project. The project will rebuild the major intersections of Horsefall Beach Road and the Weyerhaeuser access road which will provide more efficient access to the North Spit. The Parkway improvement project will support future development of the North Marine Industrial Park land at a more intense level of development compared to current conditions.

Marine / Port

- A master planning update for the Charleston Marina Complex is underway. An underlying goal of the master planning process is to identify a series of facility improvement projects to expand the services and facilities at the marina complex. Future improvements will likely yield increased activity in pleasure boaters, commercial tenants as well as day-use recreational activity. Possible facility improvements/expansions of both the recreational

(boat and RV) components of the marina combined with additional commercial fleet services are important considerations. Investment in the marina complex should boost future spillover economic impacts to the greater Charleston area.

Utilities

- A 60-mile extension of the Coos County Pipeline natural gas project was completed. The new gas pipeline brings a new energy service provider into the local market. The addition of a new utility provider will likely foster price competition among utility service providers. Local service extensions and hook-ups into the network will be managed and operated by Northwest Natural Gas.

- The Northwest Pipeline/PG&E/Fort Chicago Energy Partners announced plans in February to construct a 250 mile natural gas trunkline from the proposed Jordan Cove LNG terminal facility at Coos Bay North Spit to connect with two major north/south transmission lines near Malin, OR.

- Utility work related to a methane gas drilling operation has been announced. Methane Energy Corporation has been identified as a principal partner in this initiative.

Institutional Partners

- The Coos Curry Douglas Business Development Corporation (CCD) is the federally recognized Economic Development District agency for Coos, Curry and Douglas counties. The CCD's mission is to foster partnerships and provide access to funding to create employment growth and private business expansion within the three county area. Through the CCD's resources and contacts, the CCD can arrange capital loans, industrial development revenue bonds, and federally guaranteed loans for qualifying purchases of land, buildings and equipment for qualifying start-up or expanding businesses. The CCD also provides business expansion/retention recruiting services; administers state and federal grant funds for local governmental agencies, and provides staff support to the Lottery funded Regional Investment Board for the region.

- The South Coast Development Council (SCDC) also provides employment retention and attraction/marketing services for the Coos and western Douglas County Region. These types of partnerships are integral to the economic expansion within Coos County and greater southern coastal region.

Enterprise Zones

- The Bay Area Chamber of Commerce (BACC) manages the state approved Enterprise Zones within the regional economy. Enterprise zones are designed to provide economic incentives and tax abatement privileges to qualifying business investments in order to spur business investment and create economic expansion within designed geographic areas. The Bay Area

Enterprise Zone is located in a geographic area that lies within and adjacent to the cities of Coos Bay and North Bend. This area includes the North Spit Industrial Park as well as the North Bend Airport Industrial Park among other industrial areas. Utilization of the Enterprise Zone's incentives recently occurred in conjunction with development of the financing package, including use of new market tax credits, which has supported the partial financing collateral for the Weyerhaeuser land purchase that the Oregon International Port of Coos Bay has initiated.

Foreign Trade Zone

- The Oregon International Port of Coos Bay has one of four Foreign Trade Zones (FTZ No. 132) within the State of Oregon. The FTZ provide numerous import and export trade duty and tariff relief mechanisms for industrial manufacturers and distributors that operate within the trade zones. The goals of the zones are to reduce or defer costs for manufactures to allow reinvestment in business activities, employment expansion and generally offer a competitive advantage for products of international trade.

- FTZ No. 132 includes several hundred acres of industrial zoned land spread over several sites, including land within the North Spit, North Bend Municipal Airport, and several sites along the inner marine channel.

Urban Renewal Districts

- An important financing tool for major economic development related infrastructure improvements is the existing of established urban renewal districts within the affected taxing districts. Several Urban Renewal Agencies do exist within Coos County and they may be able to serve an important financing function for future economic development projects. The urban renewal agencies include: Coos County North Bay Urban Renewal Agency; North Bend Urban Renewal Agency; and, Coos Bay Urban Renewal Agency.

- The Coos County North Bay Urban Renewal Agency was a key participant in the financing package underlying the Oregon International Port of Coos Bay intent to purchase the Weyerhaeuser property. The urban renewal agency has committed future tax increment financing of a $15 million dollar collateral loan with the State of Oregon to support the proposed land purchase agreement.

It is apparent that the Port of Coos Bay and the greater Coos Bay Region is adjusting to declining natural resource-based industries, which once made the Port is the largest source of wood products exports in the United States with 71 lumber mills operating in the Coos Bay Region during peak times. Despite its status as the seventh largest Port in the western United States, current challenges to economic growth include increased global and competition, and declining regional forest and fishing industry production.

Market Trends and Projections

Population and employment, two fundamental measures of economic activity are now holding steady or expanding in Oregon's South Coast region. As indicated in **Table 1**, an estimated 83,885 people live in the Coos-Curry County Region 7, up 4,285 from 1990. Population and demographic projections indicate that the South Coast's share of retirees will continue to grow in the coming decade. As the South Coast becomes a destination for more retirees and an expected impact is housing prices are expected to rise faster than experienced over the past several years. The Oregon Office of Economic Analysis projects population to rise by another 2,124 people by 2015, which reflects in-migration levels but still understates housing demand since it does not reflect seasonal residents.

Table 1 Population Trends and Forecasts

	1990	2000	2005	2015 Forecast
State of Oregon	2,842,381	3,436,750	3,631,440	4,095,708
Change from prior period		*594,369*	*194,690*	*464,268*
Avg. annual change		*2.1%*	*1.1%*	*1.3%*
Coos County	60,273	62,788	62,695	63,897
Change from prior period		*2,515*	*-93*	*1,202*
Avg. annual change		*0.4%*	*0.0%*	*0.2%*
Curry County	19,327	21,137	21,190	22,112
Change from prior period		*1,810*	*53*	*922*
Avg. annual change		*0.9%*	*0.1%*	*0.4%*
Region 7	79,600	83,925	83,885	86,009
Change from prior period		*4,325*	*-40*	*2,124*
Avg. annual change		*0.5%*	*0.0%*	*0.3%*
Region 7 Share of State	2.8%	2.4%	2.3%	2.1%
City of Coos Bay	15,076	15,380	15,851	--
City of North Bend	9,614	9,540	9,640	--
Coos Bay/North Bend	**24,690**	**24,920**	**25,491**	**26,663**
Change from prior period		*230*	*571*	*1,172*
Avg. annual change		*0.1%*	*0.5%*	*0.5%*
Cities' Share of Region 7	*31.0%*	*29.7%*	*30.4%*	*31.0%*

Source: Oregon Office of Economic Analysis, Long-term Population Forecasts; and Portland State University Center for Population Research.

Table 2 Employment Trends in South Coast Region (Coos and Curry Counties), 1985 to 2004

					Annual Average Change			
					1985 to 2000		2000 to 2004	
Employment Sector	**1985**	**1995**	**2000**	**2004**	Number	AAGR%	Number	AAGR%
Ag., Forest & Fishing	693	657	795	800	7	1.0%	1	0.2%
Manufacturing	5,170	3,717	3,296	2,220	-125	-2.4%	-269	-8.2%
Construction & Mining	685	1,097	1,188	2,100	34	4.9%	228	19.2%
Transportation & Public Utilities	1,437	1,632	1,428	1,510	-1	0.0%	21	1.4%
Wholesale Trade	632	593	720	530	6	0.9%	-48	-6.6%
Retail Trade	4,364	6,094	6,026	3,410	111	2.5%	-654	-10.9%
Finance, Ins., Real Est., Info.	788	1,072	1,007	2,320	15	1.9%	328	32.6%
Services	3,308	5,307	6,605	11,240	220	6.6%	1,159	17.5%
Government	4,993	5,901	6,394	5,840	93	1.9%	-139	-2.2%
Total Regional Employment	**22,070**	**26,070**	**27,459**	**29,970**	359	1.6%	628	2.3%
Coos County Share of Region	81.0%	77.9%	77.1%	73.5%			0	-1.2%
Total State Employment	1,003,946	1,411,687	1,607,911	1,593,700	40,264	4.0%	-3,553	-0.2%
Regional Share of State	2.2%	1.8%	1.7%	1.9%	0.9%			

Source: Oregon Employment Department

Notes:

1/ Includes finance, insurance, real estate & information job sectors. Information sector added in 2004.

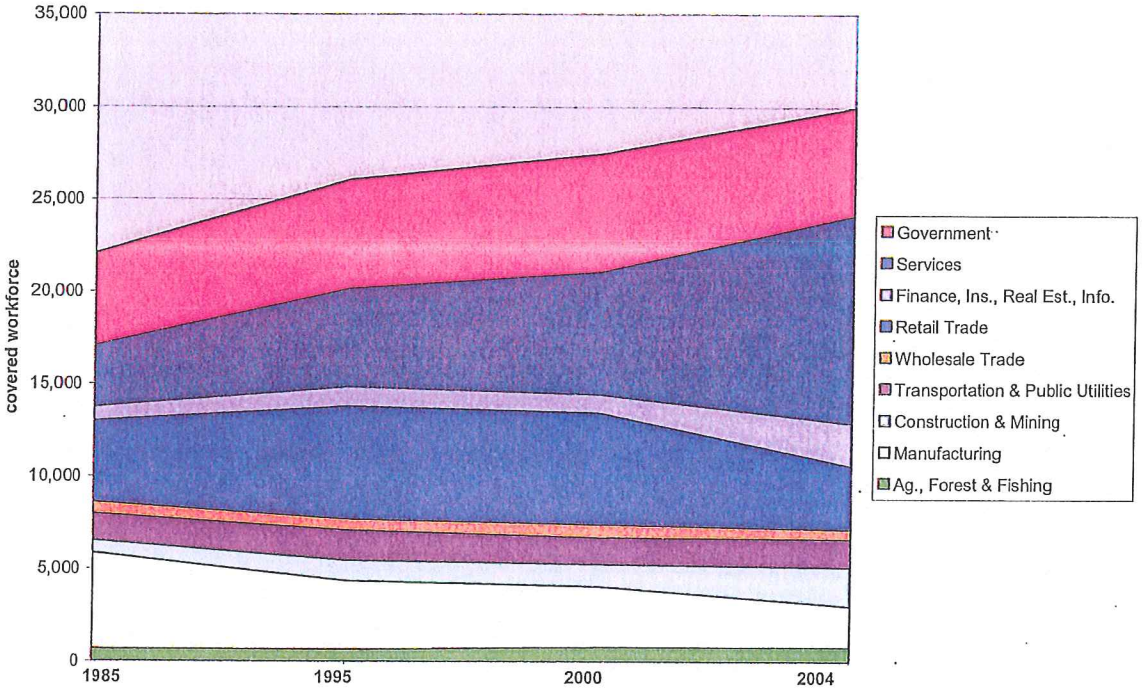
2/ Based on at-place-of-work "covered employment" counts by Oregon Employment Department.

Employment gains have been even more impressive than population gains in the South Coast Region. Comparatively, the South Coast's employment base has been resilient over the last couple of years in spite minor shifts in the local employer base and in the midst of a minor statewide recession. **Table 2** documents that recent trends which find that employment actually dipped state-wide after the 2001 recession, falling from 1,607,911 jobs in 2000 to 1,593,700 jobs in 2004. During this same time period, employment actually increased in the South Coast region from 27,459 to 29,970 jobs. Employment trends and anecdotal feedback from stakeholders indicate an increased trend of small business creation and small businesses looking to expand today versus past years.

Figure 1 tracks employment change over time by industry sector. Most job gains within Coos and Curry Counties were realized in the following sectors:

- Services;
- Finance, insurance, real estate and information; and,
- Construction and mining.

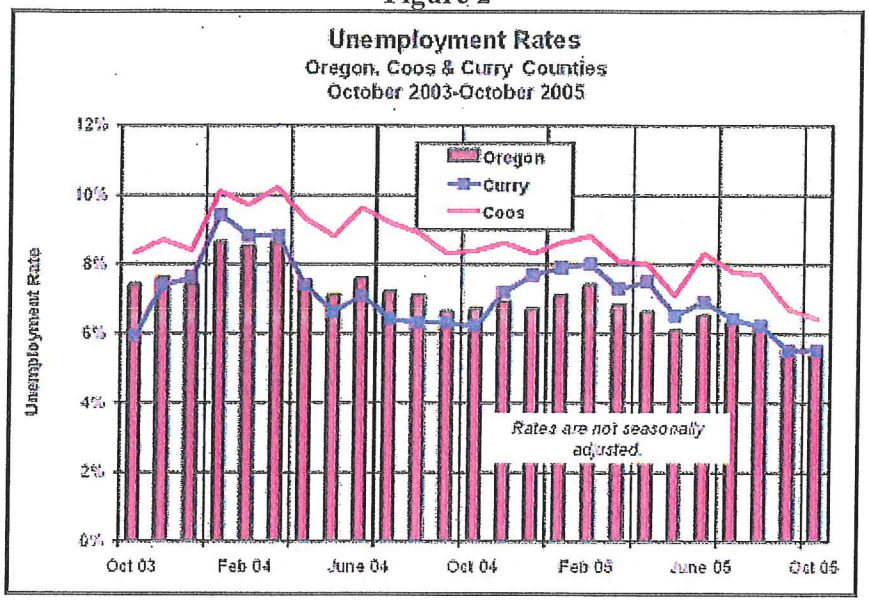
Figure 1 Industry Employment Trends
Coos and Curry Counties, 1985-2004



Source: Oregon Employment Department

Coos County is poised to record its fourth consecutive year of growth in employment. As shown in **Table 3**, the county added 1,410 jobs between 2001 and 2004. All job sectors recorded positive growth with the exception of: food product manufacturing, food and beverage stores, information, state and federal government, and local education. With gains in employment, the county's unemployment rate dipped to 6.4 percent, down two percentage points from October 2004 and the lowest level in a decade (**Figure 2**).

Figure 2



Source: Oregon Employment Department

Taking into account the diversification of the employment base combined with the gradual demographic shift and aging of the workforce, the Coos/Curry county region should in some regard experience some degree of stabilization of the employment rates (seasonal employment notwithstanding). However the aging of the workforce may present a unique set of issues to consider in development of a long term economic expansion plan. Current estimates indicate that a major swing in workforce population age has occurred over the past decade and a half. In the early 90's, the South Coast's workforce in the 25-44 age bracket represented 52 % of the total workforce which has declined to roughly 40% as of the early 2000's. Similarly, for the 45-64 age brackets, the workforce has increase roughly 10% from 27% in the early 90's to 37% in the early 2000's.

Workforce average age combined with educational levels are factors which affect business recruitment and expansion activities. The 2000 census for Coos County found that roughly 81% of the persons age 25+ have a high school or equivalent education and 15% with a bachelor degree or higher educational attainment. Comparatively, the state of Oregon averages for the same categories are 85% of the age 25+ persons with a high school or equivalent education and roughly 25% with a bachelor degree or higher education. Coos County college education attainment is roughly 10% percentage points below the state average with similar but somewhat lower averages for the high school or equivalency.

Considering the age and educational attainment of the local workforce, it is useful to compare those factors against the projected educational and training requirements for future occupational categories that demonstrate high employment and growth potential within the Coos/Curry employment market. Oregon Employment Department estimates that roughly 51% of the future jobs will require relevant work experience as the minimum qualification, 16% of jobs will require post secondary training, approximately 26% of jobs will require college training ranging

from associates to a bachelor degree to include also work related experience, and that 8% of future jobs will require an advanced degree.

Employment Clusters

It is a widely accepted belief among economic development professionals that "employment clusters" are the primary force driving local economic currents and business location decisions. Clusters occur when unique private businesses producing like or related products locate (cluster) near one another, and this location arrangement allows for sharing of technologies, information, and draw on similar worker skills. A cluster of like businesses can create competitive economic advantages where firms, suppliers and labor force reach a critical mass to foster strong industry relationships.

Clusters of economic activity go well beyond mere concentrations of industry or employment types. They represent unique competitive market advantages with regard to employment, work force, creativity, business costs, and supporting natural resources. To better understand, the unique attributes of Coos Bay/North Bend, FRI conducted an employment clusters analysis. The process used to identify potential industry sector candidates for subsequent interviews entailed:

- Obtaining ES202 wage and salary employment data from the Oregon Employment Department for Coos County and the State of Oregon for the year of 2003.
- Conducting a location-quotient (LQ) analysis to evaluate business and industrial clusters in Coos County relative to the State of Oregon.
- Evaluating business clusters within Coos County with regard to LQ, projected growth rates, economic size of each cluster, and average wage rates.
- Classifying each business cluster with regard to one of four classifications, including:
  - I. Businesses with high LQ (propensity to locate in Coos County) and higher than average projected growth rate compared to other sectors in the Oregon South Coast Region.
  - II. Businesses with low LQ and high average growth rate (possible pent up demand or competitive market disadvantage relative to other locations).
  - III. Businesses with high LQ but lower than average growth rate.
  - IV. Businesses with low LQ and lower than average growth rate.

FRI identified potential target sectors based on the above mentioned LQ analysis and business sector evaluation, and indicated existing business contacts that fall into these target market categories.

Market Findings

The employment cluster analysis summarized in Figure 3 identifies the business and industrial sectors within Coos County by their LQ, size and growth potential. Each sector has been analyzed by their North American Industrial Classification System (NAICS) code. The data was derived from the OEA ES202 wage and salary employment statistics for the year ending in 2003.

In Figure 3, the bubbles represent current NAICS codes (business sectors) in Coos County as of 2003. The bubbles in Figure 3 represent only business sectors that pay higher than average wage rates, while all business sectors are presented in Table 4. The size of the bubble represents the size of that sector in total wages. The horizontal axis represents location quotients (sector employment in the county divided by the corresponding state-sector employment), and the vertical axis represents 10-year employment sector growth rates, prepared by the Oregon Employment Department.

The result is a business clusters analysis that classifies sectors in 4 quadrants, as indicated on Table 4. A preliminary list of target market sectors includes:

- Health Care and Social Services (Sector I);
- Administrative/Waste Management Services (Sector I);
- Professional and Technical Services (Sector II)
- Construction (Sector II)
- Transportation & Pipelines (Sector III)
- Utilities & Energy (Sector III);
- Agriculture/Forestry/Fishing (Sector III);
- Wood Product Manufacturing (Sector III); and
- Miscellaneous Manufacturing (Sector IV);

It should be noted that not all of these "target market sectors" would be appropriate for the North Spit property. Most sectors including admin./waste management, professional and technical services, construction, transportation & pipelines, utilities & energy, agriculture/forestry, wood product manufacturing, and miscellaneous manufacturing are appropriate for the North Spit. However, sectors such as health care and social services are more appropriate for other portions of North Bend and Coos Bay. A detailed regional marketing and recruitment strategy for these sectors is beyond the scope of this study, but is recommended for the Port and other regional economic development partners, including CCD, SCDC, and OECDD.

Figure 3 Coos County Industry Clusters Location Quotients (LQ)

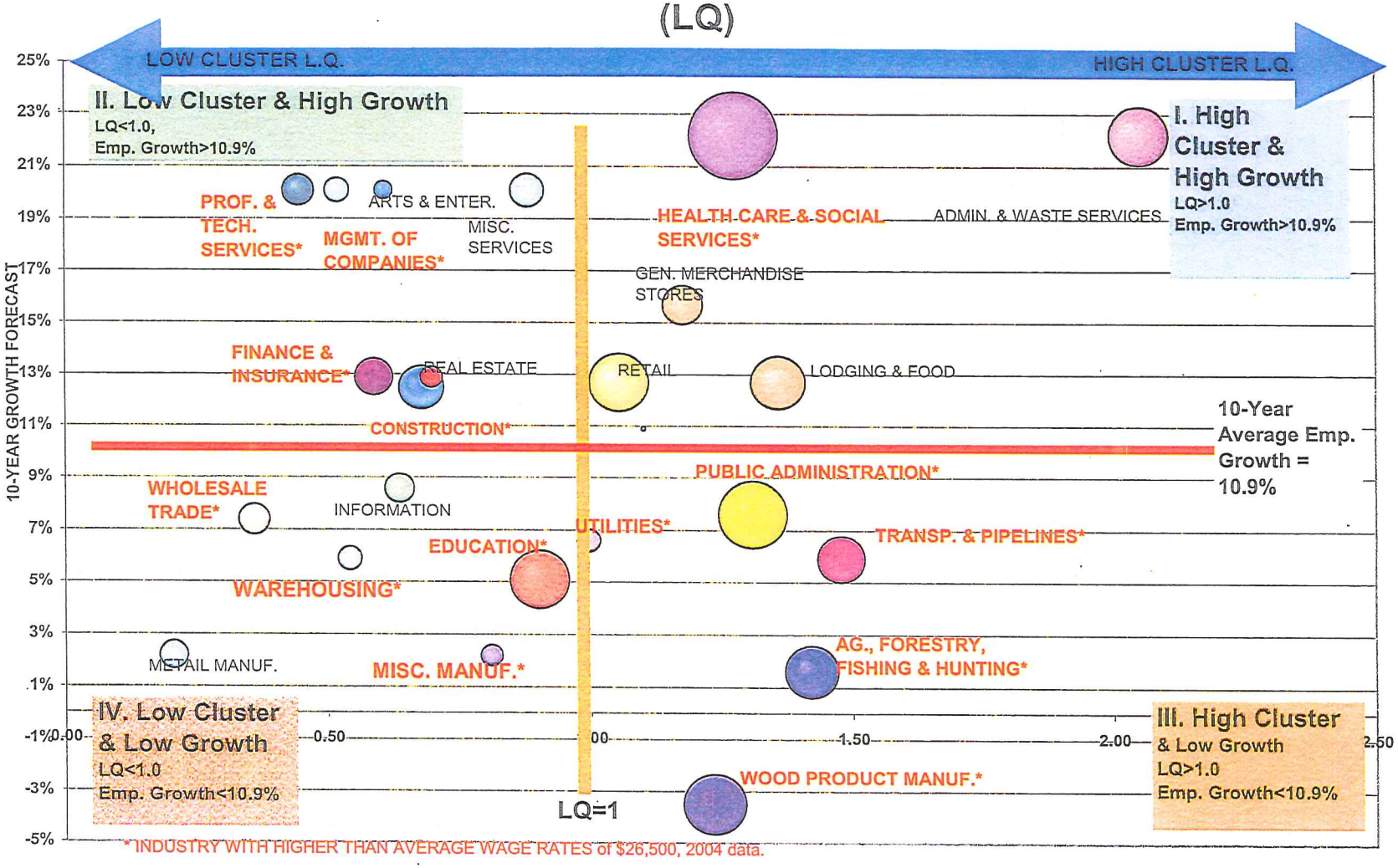


Table 4 Coos County Employment Clusters Analysis*

Description (Industry Classification)	10-year Growth Projection	Location Quotient	Total Annual Wages	Average Wage	Sector**
31-33 Manufacturing (other)	2.2%	0.81	$5,676,522	$ 18,078	4
332 Fabricated metal product manufacturing	*2.2%*	*0.21*	*$ 9,762,448*	*$31,357*	*4*
42 Wholesale Trade	*7.4%*	*0.36*	*$12,012,922*	*$31,413*	*4*
49 Warehousing	*5.9%*	*0.54*	*$6,856,872*	*$39,332*	*4*
51 Information	*8.6%*	*0.64*	*$10,263,467*	*$33,188*	*4*
61 Educational Services	*5.1%*	*0.90*	*$42,769,943*	*$26,909*	*4*
11 Ag, Forestry, Fishing and Hunting	*1.6%*	*1.42*	*$34,623,938*	*$33,662*	*3*
22 Utilities	*6.6%*	*1.00*	*$6,675,062*	*$52,907*	*3*
321 Wood product manufacturing	*-3.5%*	*1.23*	*$47,485,519*	*$44,203*	*3*
48 Transportation & Pipelines	*5.9%*	*1.48*	*$27,375,064*	*$33,095*	*3*
92 Public Administration	*7.6%*	*1.31*	*$57,807,159*	*$34,360*	*3*
23 Construction	*12.5%*	*0.68*	*$24,511,254*	*$31,033*	*2*
52 Finance and Insurance	*12.9%*	*0.59*	*$17,483,694*	*$34,405*	*2*
53 Real estate, rental and leasing	12.9%	0.70	$5,924,661	$20,770	2
54 Professional and Technical Services	*20.1%*	*0.45*	*$11,907,608*	*$29,856*	*2*
55 Management of Companies and Enterprises	*20.1%*	*0.52*	*$7,234,949*	*$38,365*	*2*
71 Arts, entertainment and recreation	20.1%	0.61	$3,908,770	$18,770	2
81 Other services, except public administration	20.1%	0.88	$13,781,247	$18,573	2
21 Mining	*12.5%*	*5.91*	*$6,305,532*	*$41,758*	*1*
44-45 Retail Trade	12.7%	1.05	$43,390,943	$23,775	1
45 General merchandise stores	15.7%	1.18	$19,667,557	$18,658	1
56 Administrative and waste services	22.2%	2.05	$43,320,029	$17,055	1
62 Health care and social assistance	*22.2%*	*1.27*	*$96,186,126*	*$30,410*	*1*
72 Lodging and Food Services	12.7%	1.36	$36,200,487	$13,844	1
99 Unclassified	10.9%	1.10	$204,819	$13,143	1

** Industries with above average wage rates are shown in black italics; average annual wage = $26,000*

*** Location Quotient sectors reflect:*

1 = higher than average growth and relatively high existing cluster

2 = lower than average growth and relatively high existing cluster

3 = lower than average growth but relatively high existing cluster

4 = lower than average growth and relatively low existing cluster

Source: Oregon Employment Department, 2003, and Fiscal Research Institute, LLC.

Future Growth Outlook

It is apparent that the South Coast Region is beginning to show promising signs of growth and economic expansion. The recent expansion in tourism and second home investment within the region are helping the retail, services, and hospitality sectors. This growth is in part fueled by the aging of the national population which manifest in strong n-migration of retirees from all parts of the Western United States. Other signs of growth are showing up in the health care sector, business services, construction, and trade, transportation, and utilities. Even the manufacturing economy is beginning to show some promising signs of growth and expansion. The recent relocation of South Port in 2005 creates development and further expansion of the transportation and utility services within the industrial park and ultimately to the North Spit. These developments point towards further potential growth within manufacturing, transportation and utilities sectors.

Employment projections by the Oregon Employment Department paint a positive and perhaps somewhat conservative picture of anticipated growth in Coos and Curry Counties. As indicated in Table 5, total non-farm job growth is expected to increase by 3,360 jobs over the 10 year period between 2004 and 2014. Most of the growth is expected to occur in the following sectors:

- Professional and business services (810 jobs);
- Educational and health services (580 jobs);
- Local government (570 jobs);
- Leisure and hospitality (550 jobs);
- Trade, transportation and utilities (540 jobs); and
- Construction (160 jobs).

Table 5 Projected Non-farm Employment, Coos & Curry Counties, 2004-2014

	2004	2014	% Change	Total Change
Total Non-farm Employment	**28,860**	**32,220**	**11.6%**	**3,360**
Natural Resources and Mining	820	800	-2.4%	(20)
Construction	1,240	1,400	12.9%	160
Manufacturing	2,250	2,200	-2.2%	(50)
Trade, Transportation and Utilities	5,720	6,260	9.4%	540
Information	390	410	5.1%	20
Financial Activities	1,240	1,340	8.1%	100
Professional and Business Services	3,220	4,030	25.2%	810
Educational and Health Services	2,690	3,270	21.6%	580
Leisure and Hospitality	3,490	4,040	15.8%	550
Other Services	860	960	11.6%	100
Government	6,940	7,510	8.2%	570
Federal Government	490	470	-4.1%	(20)
State Government	650	670	3.1%	20
Local Government	5,800	6,370	9.8%	570

Source: Oregon Employment Department for Coos and Curry Counties (Region 7)

Table 6 Projected Employment Growth, Coos & Curry Counties, 2004-2024

Employment Sector	Total Projected 20-Year Job Growth	Potential North Spit Regional Capture Rate			Potential North Spit Capture in Jobs		
		Option A1 (with LNG & private land ownership)	Option A2 (with LNG and Port land ownership)	Option B (without LNG)	Option A1 (with LNG & private land ownership	Option A2 (with LNG and Port land ownership)	Option B (without LNG
Natural Resources/Mining	20	30%	60%	50%	6	12	10
Manufacturing	70	40%	70%	60%	28	49	42
Construction	360	15%	25%	15%	54	90	54
Transportation & Public Utilities	150	70%	75%	30%	105	113	45
Wholesale Trade	70	10%	50%	30%	7	35	21
Retail Trade	960	0%	5%	5%	0	48	48
Information, Financial, Business	1,930	0%	2%	5%	0	39	97
Educational & Health Services	1,220	0%	5%	5%	0	61	61
Leisure & Hospitality	1,250	0%	10%	10%	0	125	125
Other Services	300	10%	10%	20%	30	30	60
Government	1,170	5%	5%	5%	59	59	59
Total	**7,410**	**4%**	**9%**	**8%**	**289**	**660**	**621**

Notes:

2002-2012 projections based on projections from Oregon Employment Department for Coos and Curry Counties (Region 7); 2012 to 2022 job forecast by Fiscal Research Institute, LLC.

Long-term growth employment growth forecasts for the South Coast Region are summarized in Table 6. Using the 20-year forecasted employment growth assumptions, FRI has calculated land demand for the North Spit. These estimates are calculated assuming a relatively high baseline employment forecast, which assumes 7,410 jobs are added to the region over the 20-year forecast period.

The ability for the North Spit to compete within the region for this job growth depends on several factors, including land and infrastructure availability, cost, access, zoning, and compatibility of adjacent uses. This analysis is based on the existing Industrial zoning designations for North Spit properties, and does not assume significant levels of speculative development. In light of the proposed Jordan Cove LNG facility for a portion of the North Spit properties, a demand capture estimate is made for two development scenarios with the LNG facility: Scenario A1 with the private ownership of Weyerhaeuser property, and Scenario A2 with Port ownership of the Weyerhaeuser property. The analysis assumes higher levels of "land banking" with private ownership than with Port ownership. Scenario B is included to reflect potential demand without the LNG facility (with Port ownership of Weyerhaeuser property).

Table 7 Projected North Spit Capture of Base Line Employment Growth

Employment Sector	Potential North Spit Capture of Regional Jobs: Option A1 (with LNG & private land ownership)	Option A2 (with LNG and Port land ownership)	Option B (without LNG)	Jobs Per Acre	Land Needs (net acres): Option A1 (with LNG & private land ownership)	Option A2 (with LNG and Port land ownership)	Option B (without LNG)	Base Line Land Needs (gross acres): Option A1 (with LNG & private land ownership)	Option A2 (with LNG and Port land ownership)	Option B (without LNG)
Natural Resources/Mining	6	12	10	2	3	6	5	4	9	7
Manufacturing	28	49	42	8	4	6	5	5	9	8
Construction	54	90	54	8	7	11	7	10	16	10
Transportation & Public Utilities	105	113	45	2	53	56	23	75	80	32
Wholesale Trade	7	35	21	6	1	6	4	2	8	5
Retail Trade	0	48	48	18	0	3	3	0	4	4
Information, Financial, Business	0	39	97	12	0	3	8	0	5	11
Educational & Health Services	0	61	61	12	0	5	5	0	7	7
Leisure & Hospitality	0	125	125	12	0	10	10	0	15	15
Other Services	30	30	60	12	3	3	5	4	4	7
Government	59	59	59	8	7	7	7	10	10	10
Total	**289**	**660**	**621**		**70**	**117**	**71**	**100**	**167**	**102**

** Derived from Table 6, assume high-end growth forecast. Capture rate estimates by Fiscal Research Institute. Net to gross conversion assumes 30% of site is devoted to streets, open space, and utilities.*

It is assumed that with the LNG facility, the North Spit would take on a new market focus with potential attraction to synergistic industries engaged in energy production, pipeline distribution, and power consumptive manufacturing operations. In Scenario A1 it is assumed that the LNG facility would occupy the majority of land area within a 500+/- meter zone around the LNG storage tanks.

The land demand analysis finds that the type and mix of industrial development likely to occur on the North Spit is expected to change significantly depending on the ownership of the siting of the Jordan Cove LNG facility (Table 7). With the LNG facility, the baseline employment forecast assumes 289 to 660 jobs. Without the LNG facility it is assumed that the North Spit could attract approximately 621 jobs on 102 gross acres. Additional jobs and land would likely occur on the North Spit related to "special users" that are not reflected in the baseline forecasts. Special users include industrial tenants that require either large or unique site locations or configurations. An assessment of special user attributes of the energy market is provided below.

Special Requirements for Energy and Related Markets

In addition to the baseline job and land demand forecasts summarized above, it is also likely that additional jobs could be added to the region if unique sites are made available to prospective tenants. In accordance with the recently adopted Goal 9 land use rule (adopted by LCDC and put into effect January 2007), jurisdictions may plan for the designation of lands for industrial and other employment uses that require special siting characteristics (OAR 660-009-0020 (8). This special site ruling is a characteristic of Oregon land use planning Goal 9 can apply to users that require "large acreage sites, special site configurations, direct access to transportation facilities,

prime industrial lands, sensitivity to adjacent land uses, or coastal shore land sites designated as suited for water-dependent use under Goal 17."

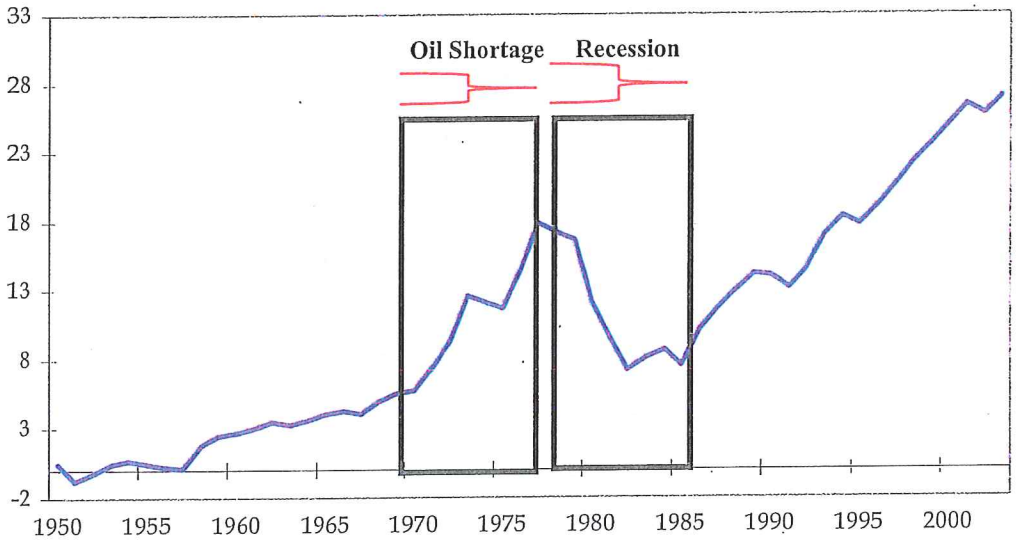
Hence, it is very likely that the North Spit can compete within the larger Western United States and internationally for special industrial users that require large acre configurations, with industrial zoning, multimodal rail/highway access, and deep water shipping.

Energy Market Trends

The most obvious examples of special siting requirements are major energy uses, such as the Jordan Cove LNG facility. There may also be additional energy providers that are attracted to the North Spit.

The US is a net importer of energy. Energy imports to the US have increased by 5.5% annually over the last 43 years and now account for 27% of total US energy consumption. Based on US Department of Energy forecasts, net imports are expected to account for 38% of consumption by 2026.

Figure 4
US Net Imports, Quadrillion British Thermal Units (BTU)



Source: Energy Information Administration

Most energy imported to the US comes as crude oil and much of it comes from the Middle East. The instability of this region has been a major threat to the US economy. In fact, spikes in the price of oil caused by supply disruptions have been the principal cause of three of the last four recessions in the US:

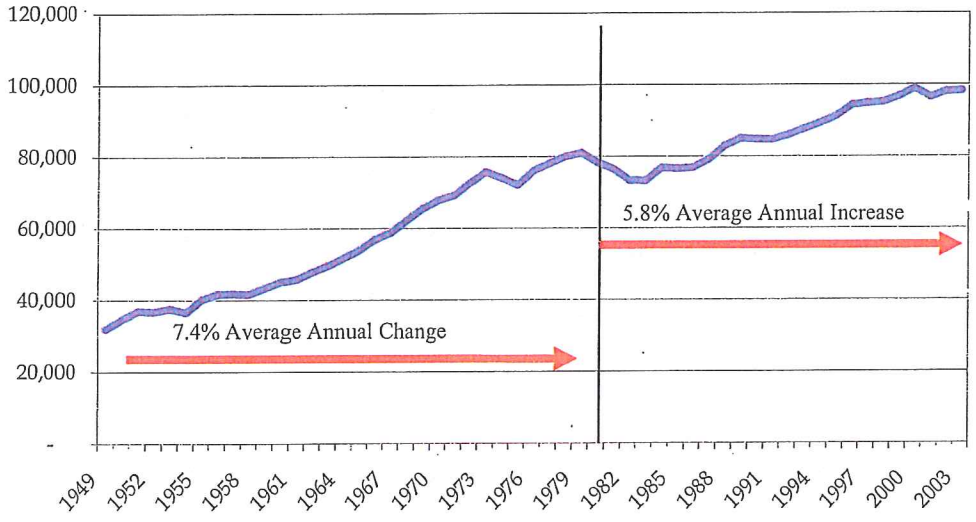
- In 1973, the Organization of Petroleum Exporting Countries (OPEC) initiated an embargo on supplies from Arab countries, causing a severe world recession;
- The Iranian Revolution in 1979 and subsequent Iran-Iraq war in the early 1980s reduced Middle Eastern oil production, causing a recession in the US; and

- In 1990, Iraq invaded Kuwait, disrupting oil supplies and ultimately causing a recession.

High oil prices continue to hurt the US economy. On July 19, 2005, Federal Reserve chairman Alan Greenspan stated high oil prices have slowed economic growth in the US, increased inflation, and decreased the amount of discretionary income households have to buy other goods and services.[1]

Since the 1973 oil embargo, the US has slowly transitioned to other sources of energy to help insulate it from unstable energy prices and to keep pace with growing demand. Energy consumption in the US increased by 5.8% annually from 1980 to 2003 and experts forecast it will continue to increase for the foreseeable future. Energy conservation efforts have made a difference, but these efforts have not reversed the overall upward trend of energy use. Only recessions have temporarily reduced the amount of energy Americans consume.

Figure 5
US Energy Consumption, Before and After Energy Crisis
(Quadrillion BTU)



Source: Energy Information Administration

Coal is the main alternatives to oil are coal and natural gas. These two fuels are gaining market share and now account for nearly half of all energy produced in the US. The downside to the use of coal is the increase in pollution, as indicated in Table 8 below.

[1] "Greenspan expects high oil prices to slow growth." *The Oregonian*, July 19, 2005.

Table 8
Natural Gas, Coal and Oil Emission Levels
(Pounds per billion BTU)

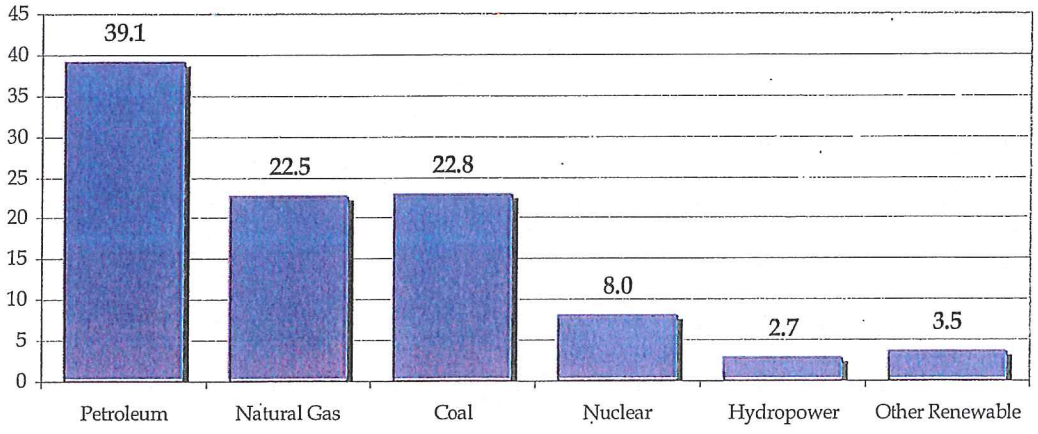
Fuel	Natural Gas	Oil	Coal
Carbon Dioxide	117,000	164,000	208,000
Carbon Monoxide	40	33	208
Nitrogen Oxides	92	448	457
Sulfur Dioxide	1	1,122	2,591
Particulates	7	84	2,744
Mercury	0	0.007	0.016

Source: Energy Information Administration

At this time the only other significant alternative energy sources include nuclear, hydropower, solar, geothermal, and wind power. However, none of these alternatives are producing enough of the nation's energy needs to significantly reduce the dependence on coal, oil or natural gas now or in the near future for the following reasons:

- Expanding nuclear facilities has not been a politically or economically viable alternative. No new nuclear facility has been licensed in the US since 1978.
- Sources of hydropower are at capacity and have recently begun to produce less power as efforts to protect salmon have impacted the way in which dams function.
- Non-hydro renewable energy sources (solar, geothermal, and wind) are attractive, environmentally-friendly alternatives, but can be expensive and are currently capable of producing only a limited amount of power. These technologies are a generation or two of development away from becoming a major energy contributor.

Figure 6
US Energy Consumption by Source, 2003
(Quadrillion BTU's)



Source: Energy Information Administration

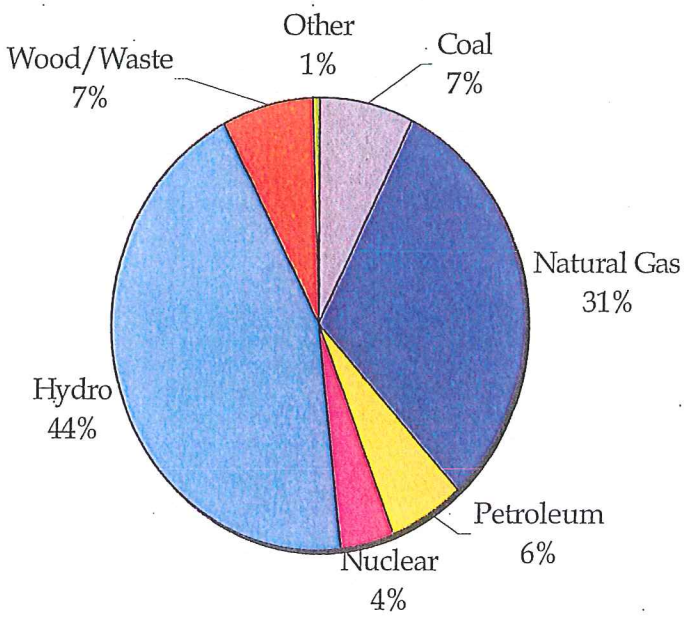
Regional Trends

The issues facing the energy market in Oregon and the Pacific Northwest (Oregon, Washington, Idaho) mirror those facing the nation as a whole. Demand in the region has increased as the population and economic bases have grown, and will continue to do so for the foreseeable future. At the same time, traditional sources of energy have not kept pace. For the purpose of this analysis, the energy supply in the Pacific Northwest is divided into three periods:

- Prior to the 1970's the Pacific Northwest was almost entirely self-sufficient, with nearly all non-transportation energy produced by hydroelectric dams.

- From the 1970s to the early part of the 21st century, the region began to use additional sources of power to augment the hydroelectric system.[2] Natural gas has been the main source of new power.

Figure 7
Pacific Northwest Non-Transportation Energy Consumption, 2001



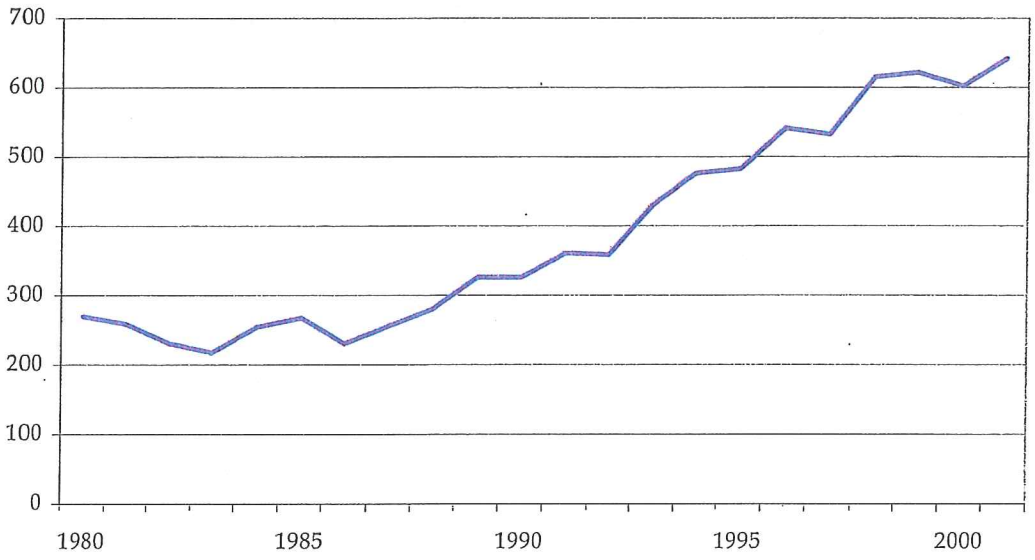
Source: Energy Information Administration

- Since the early part of the 21st century, the region is once again reaching the limit of its existing supply of energy. This time the constraint is on the supply of natural gas.

[2] The potential to expand hydroelectric power in the Northwest has been curtailed by federal regulations protecting salmon migration.

Over the past two decades, demand for natural gas has increased 124% in the Pacific Northwest[3] reflecting increased use of natural gas to heat homes and generate electricity.[4] As a result, approximately 31% of the energy consumed in this region for non-transportation related uses comes from natural gas.[5] This source of energy has become more popular because it is relatively inexpensive and clean-burning.

Figure 8
Pacific Northwest Natural Gas Consumption
(Trillion BTU's)



Source: Energy Information Administration

While demand has been increasing, the supply of natural gas in the Pacific Northwest has started to diminish. This region obtains natural gas mainly from Canada and also from the Rocky Mountain States of Wyoming, New Mexico, and Colorado. Gas production from both sources began to decline in 2000:

- Gas from US sources has declined by almost 3 percent; while
- Gas from Canada has dropped by approximately 8 percent.

Exacerbating the problem is the fact there is more competition from outside the region for the supply of natural gas that was once dedicated to the Pacific Northwest. In 2001 the Alliance Pipeline was constructed to deliver Canadian natural gas to the American Midwest. It is the longest natural gas pipeline in North America and is designed to deliver 1.3 billion cubic feet of natural gas to the Chicago area per day. Energy companies in Canada have also begun to use more natural gas domestically as an input to obtain more oil.

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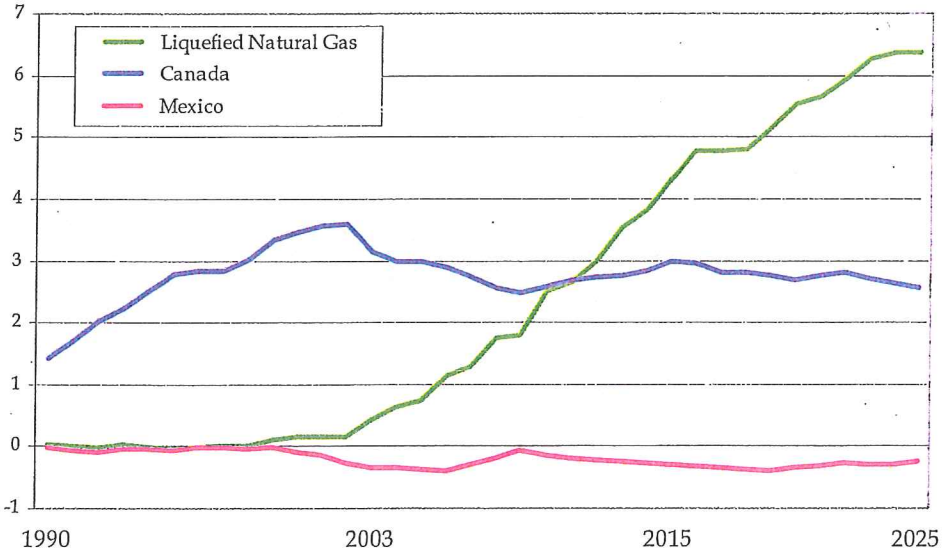
[3] Demand has increased most in Oregon, which used 180% more natural gas than it did in 1980.
[4] According to a July 2005 analysis by the Edison Electric Institute, 70% of all new homes use natural gas for heating and 22% of the nation's natural gas is used to generate electricity.
[5] Non-transportation energy includes fuel to generate electricity, home heating, and energy used in manufacturing.

The consequence of increasing demand for natural gas, combined with a declining supply, has been higher prices. The price of natural gas has increased by approximately 100% in the last five years. The higher prices are passed directly on to individual consumers and businesses, making the regional economy less competitive. In 2001 more than 10,000 jobs were lost in aluminum manufacturing when energy prices increased to the point that this industry could no longer operate profitably in this region. Much of that production capacity has since moved overseas.

Natural gas will continue to become more costly since the consumption of natural gas is forecasted to grow at a faster rate than it has historically. Current forecasts anticipate demand will increase from 6.3 to 7.3 percent annually through 2012. Over the last twenty years gas consumption has increased by 5.9 percent annually.

The only way for supply to meet the demand is to import natural gas in terminals like the one proposed. The Federal Department of Energy forecasts the supply of liquid natural gas (LNG) coming from overseas will increase steadily in the next twenty years to make up the difference between US production and consumption.

Figure 9
Projected Supply of Natural Gas by Source, Forecasted to 2025
(Trillion Cubic Feet)



Source: Energy Information Administration

Energy companies have already responded to the need. Currently, there are 50 LNG facilities planned in the US, five of which are in the Pacific Northwest (all in Oregon). If some of these proposals come to fruition the cost of natural gas will decrease and benefit consumers and businesses. However, the likelihood that many of these will be completed is low. The Energy Information Administration estimates only eight percent of the fifty facilities proposed nationally (4) will be on line by 2010. The low success rate reflects the political, technical and financial complexities associated with siting one of these facilities.

If the Jordan Cove LNG facility is not constructed, the South Coast region will undoubtedly lose more jobs and consumers will pay higher and higher energy prices. Furthermore energy forecasts indicate the larger Pacific Northwest region needs multiple LNG terminals to close the gap between the existing supply of natural gas and the forecasted need.

An assessment of land demand for potential special industrial users, including LNG, was completed. The estimate of future special siting requirements for the North Spit includes allocation for energy, water dependent shipping, research and development, and miscellaneous industrial manufacturing operations. As indicated in Table 9, given the unique attributes of the North Spit property, it is reasonable to conclude that over time; the site can be expected to attract 6-10 special users, which require approximately 360 to 580 additional acres of developable land.

Table 9 Potential Special Industrial Siting Requirements, North Spit Absorption, 20 year forecast

	Option A1 (with LNG & private land ownership)		
Special Industrial Users	Users	Avg. Site Size	Total Acres
Energy *	3	80	240
Misc. Water Dependent Industrial	1	40	40
Misc. Research & Development	1	10	10
Misc. Large Industrial Users	1	80	80
Total	**6**		**370**
	Option A2 (with LNG & Port land ownership)		
Special Industrial Users	Users	Avg. Site Size	Total Acres
Energy *	4	80	320
Misc. Water Dependent Industrial	2	40	80
Misc. Research & Development	2	10	20
Misc. Large Industrial Users	2	80	160
Total	**10**		**580**
	Option B (without LNG)		
Special Industrial Users	Users	Avg. Site Size	Total Acres
Energy	1	80	80
Misc. Water Dependent Industrial	2	40	80
Misc. Research & Development	4	10	40
Misc. Large Industrial Users	2	80	160
Total	**9**		**360**

* *includes Jordan Cove LNG facility.*

Preliminary Development Program

Now that natural gas and rail are available to the North Spit, it is expected that future development will consist of several industrial operations. However, there are significant factors that can hinder development potential, such as ability to obtain environmental permits and level of public support for each proposed use. Other factors such as cost of electrical power, wage

rates, labor force education and availability, and access to markets and production inputs will also play an important role in the type and pace of industrial absorption at the North Spit.

For strategic development planning purposes, FRI has identified three preliminary development program scenarios for the North Spit land holdings. Table 10 indicates that that optimal development scenario is Scenarios A2 (LNG facility with Port land ownership). This scenario would likely result in the greatest level of economic development, and require more land to be served with adequate water, sewer and power than the other two scenarios. In Scenario A1, there would likely be fewer larger industrial operations, as land is "banked" in hopes of expanding LNG operations with synergistic relationships to the Jordan Cove LNG facility. Scenarios A1 and A2 would both result in new market opportunities with lower-price power supplies and co-generation potential that attracts spin-off industries to the North Spit.

In Scenario B without the LNG facility, we would expect a slower rate of site absorption, and more reliance on smaller industrial manufacturing operations, and retail/showroom, and flex industrial developments that cater to a wide mix of employers.

Table 10 North Spit Preliminary Development Program Scenarios

User Type	Parcel Size	Baseline Demand (acres)	Special Siting Demand (acres)	Total New Land Demand (acres)	Number of Net New Tenants	Avg. Parcel Size	Market Absorption	Subjective Probability of Occurring
Option A1 (with LNG & private land ownership)								
Small	1 to 5 acres	19	0	19	7	2.7		
Medium	6 to 40 acres	91	50	141	6	23.5		
Large	41 to 100 acres	0	110	110	2	55		
Very Large	101+ acres	0	210	210	2	105		
	Total/Avg.	**110**	**370**	**480**	**17**	**28**	**15-25Years**	**Medium**
Option A2 (with LNG & Port land ownership)								
Small	1 to 5 acres	32	0	32	9	3.6		
Medium	6 to 40 acres	135	100	235	13	18.1		
Large	41 to 100 acres	0	270	270	3	90		
Very Large	101+ acres	0	210	210	2	105		
	Total/Avg.	**167**	**580**	**747**	**27**	**28**	**15-30 Years**	**Medium**
Option B (without LNG)								
Small	1 to 5 acres	47	0	47	13	3.6		
Medium	6 to 40 acres	70	280	350	17	20.6		
Large	41 to 100 acres	0	80	80	1	80		
Very Large	101+	0	0	0	0	0		
	Total/Avg.	**117**	**360**	**477**	**31**	**15**	**20-40 Years**	**Low**

Note: derived from Tables 7 and 9.

Next Steps

These preliminary findings shall be presented and discussed with the Technical Advisory Committee in late February. Based on the input from the TAC, we will make appropriate refinements to the development program and proceed with cost estimating, and related urban renewal plan updates.