



October 27, 2012

GPT/Custer Spur-EIS
c/o CH2M Hill
1100-112th Avenue NE, Suite 400
Bellevue, WA 98004
via email to: www.eisgatewaypacificwa.gov

RE: Scoping

To Whom It May Concern:

The NW Jobs Alliance was formed by local labor, business, and community leaders to promote the growth of family-wage jobs in the context of sound environmental practice. A specific focus of our interest is the Gateway Pacific Terminal (GPT) project. We encourage a timely, thorough review of the potential environmental impacts of the project based upon facts, science, and law.

Your informational materials focus much attention on the potential negative impacts of the project and very little on the benefits. We hope that this does not imply a biased or lop-sided approach to your review of this project. The purpose of and need for this project are of great importance and worthy of careful consideration.

Specifically, we draw your attention to economic data which point to an affordability gap facing the citizens of the region, when considering sub-average wage levels in relation to the high costs of living (see attachment #1).

The beneficial employment impacts of this project have been well-documented by highly qualified experts in the Martin (attachment #2) and FRMC (attachment #3) studies. The attempts by some project opponents to discount the economic benefits of the project are based upon unsupported assertions and hypotheticals built upon hypotheticals (see FRMC analysis-attachment #4).

The GPT project will also generate badly-needed tax revenues, as documented in the recent study by the FCS Group (attachment #5).

We request that the matters described above be an important part of your examination of this project.

Sincerely,

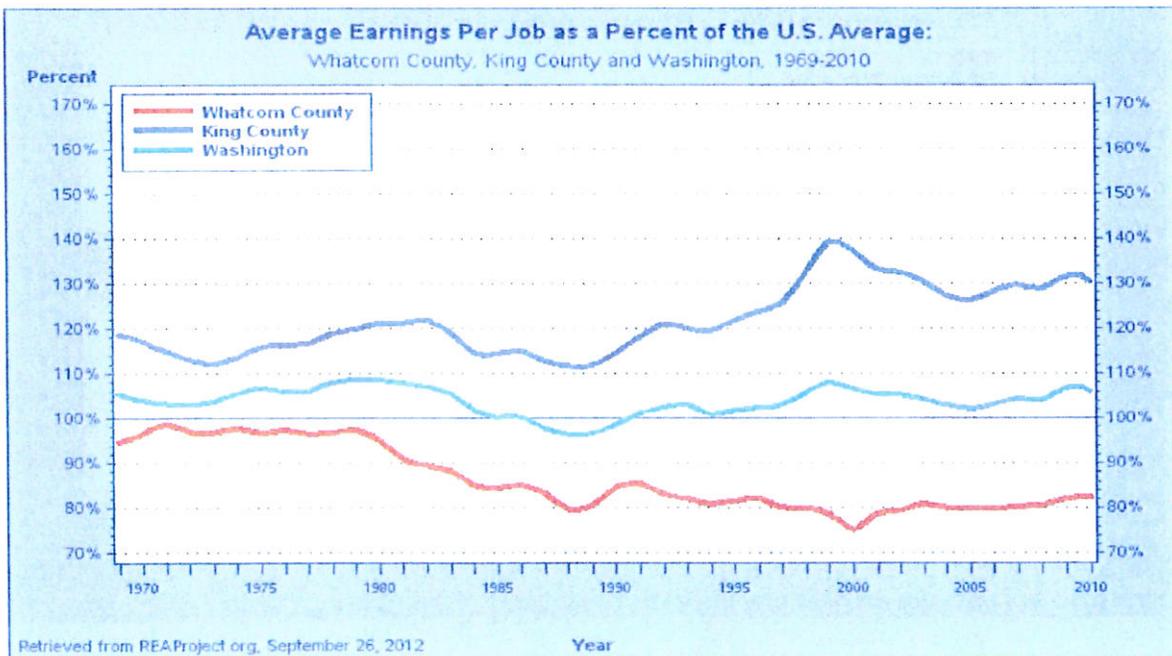
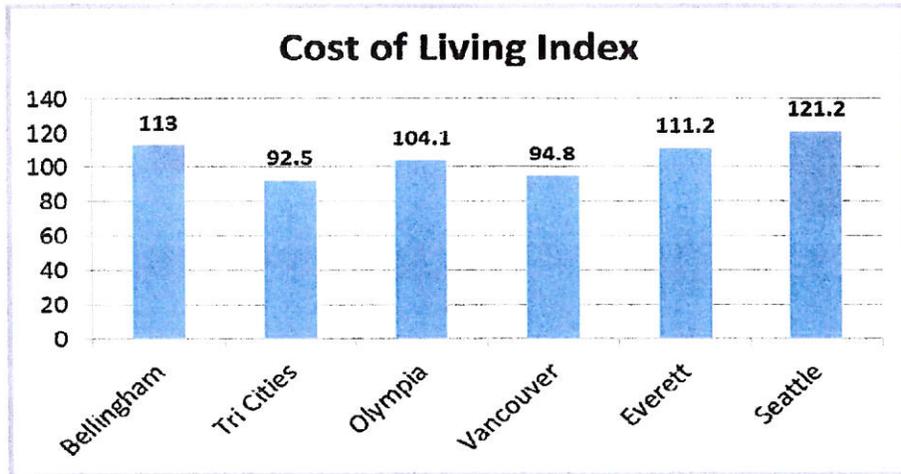
Ken Oplinger and
Chris Johnson, NWJA Co-Chairs

Attachment #1

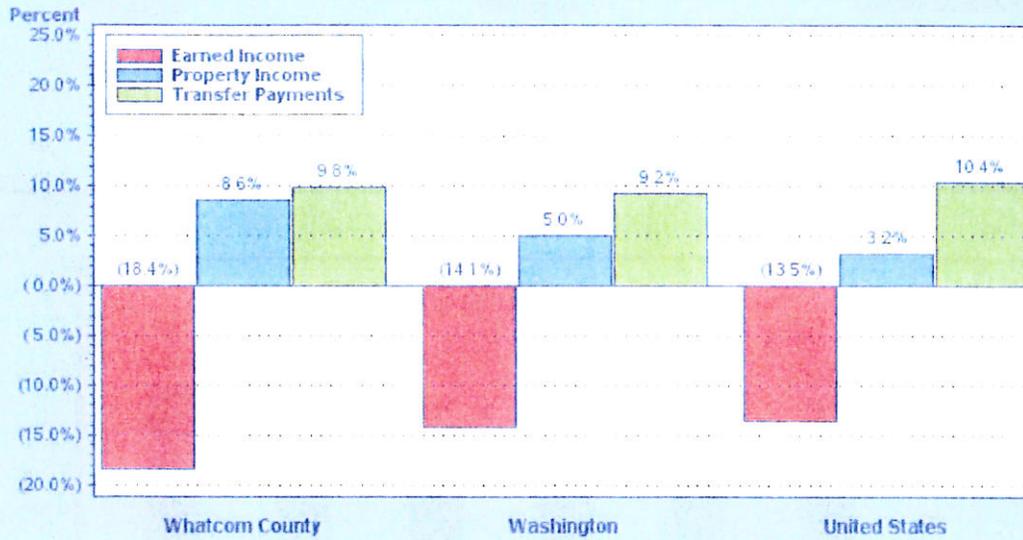
*Source: Dr. Hart Hodges Director of CEBR and Associate
Professor for the Center for Economic and Business
Research Department of Economics Western MBA
Program*

October 1, 2012

Item	Whatcom County	Washington State
Population (est. for 2011)	203,633	6.8 million
Home ownership rate	62.3%	64.8%
Median value of owner occupied home (2006-2010)	\$293,500	\$285,400
Per capita income	\$25,407	\$29,733
Persons below poverty level	15%	12.1%
Nonfarm employment	67,421 jobs	
Median age	36.9	37.5

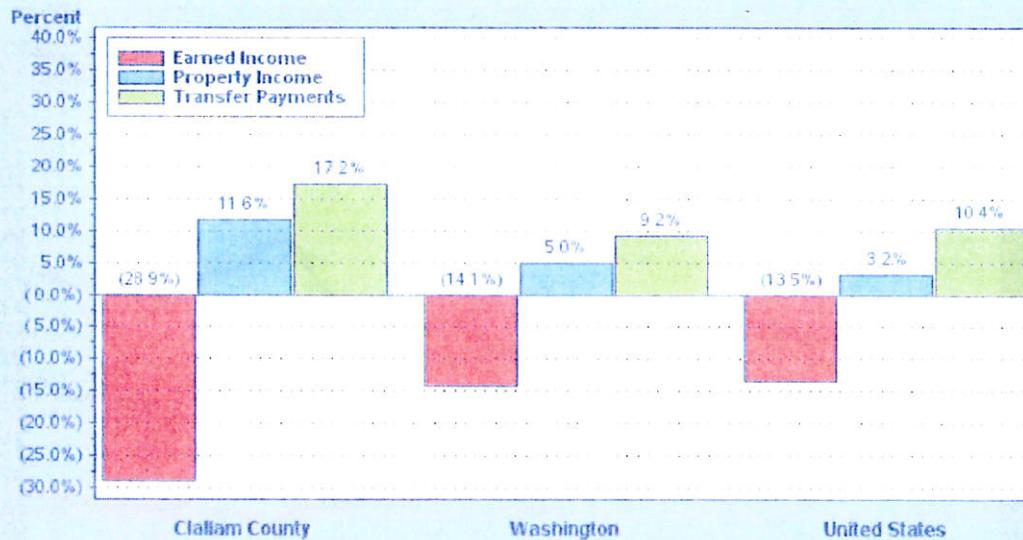


Shifts in Share of Total Personal Income Among Major Income Components:
Whatcom County, Washington and the U.S. between 1969 and 2010



Retrieved from REAProject.org, September 26, 2012

Shifts in Share of Total Personal Income Among Major Income Components:
Clallam County, Washington and the U.S. between 1969 and 2010

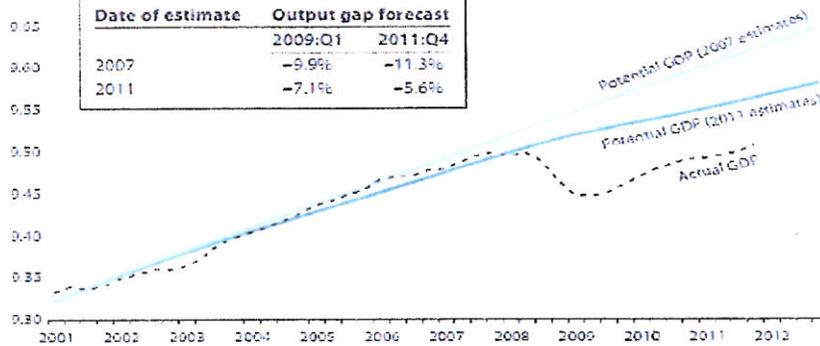


Retrieved from REAProject.org, September 26, 2012

Actual and Potential GDP (measured in constant 2005 dollars)

Log of GDP (US Billions, 2005)

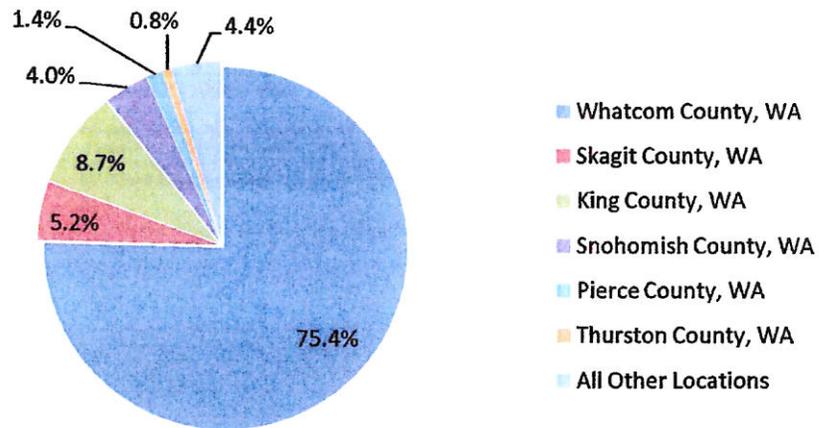
0.70



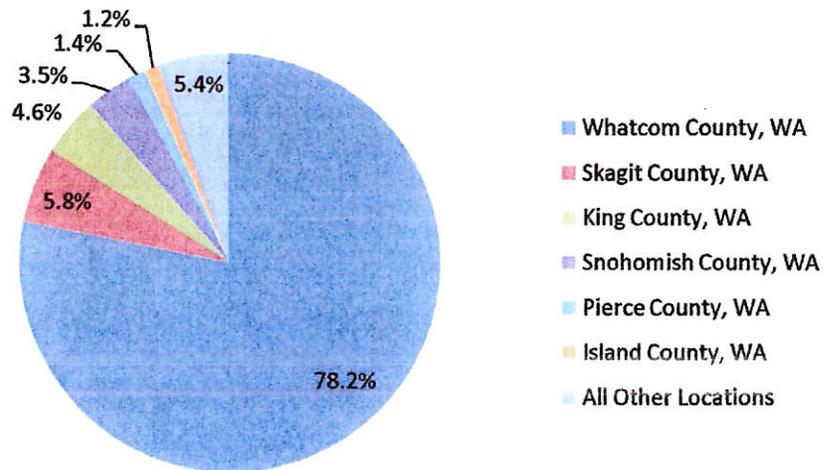
NOTE: The vertical scale is in natural logarithms of GDP measured in billions of 2005 U.S. dollars
 SOURCE: The source for the current vintage of potential GDP and actual GDP is Haver Analytics.
 The 2007 version can be found on the Federal Reserve Bank of St. Louis Archival Federal Reserve Economic Data (ALFRED); website (<http://alfred.stlouisfed.org/series/seldevGDPFOT>) and is shifted so that the level in 1995:Q1 is equal to the value in the current vintage.

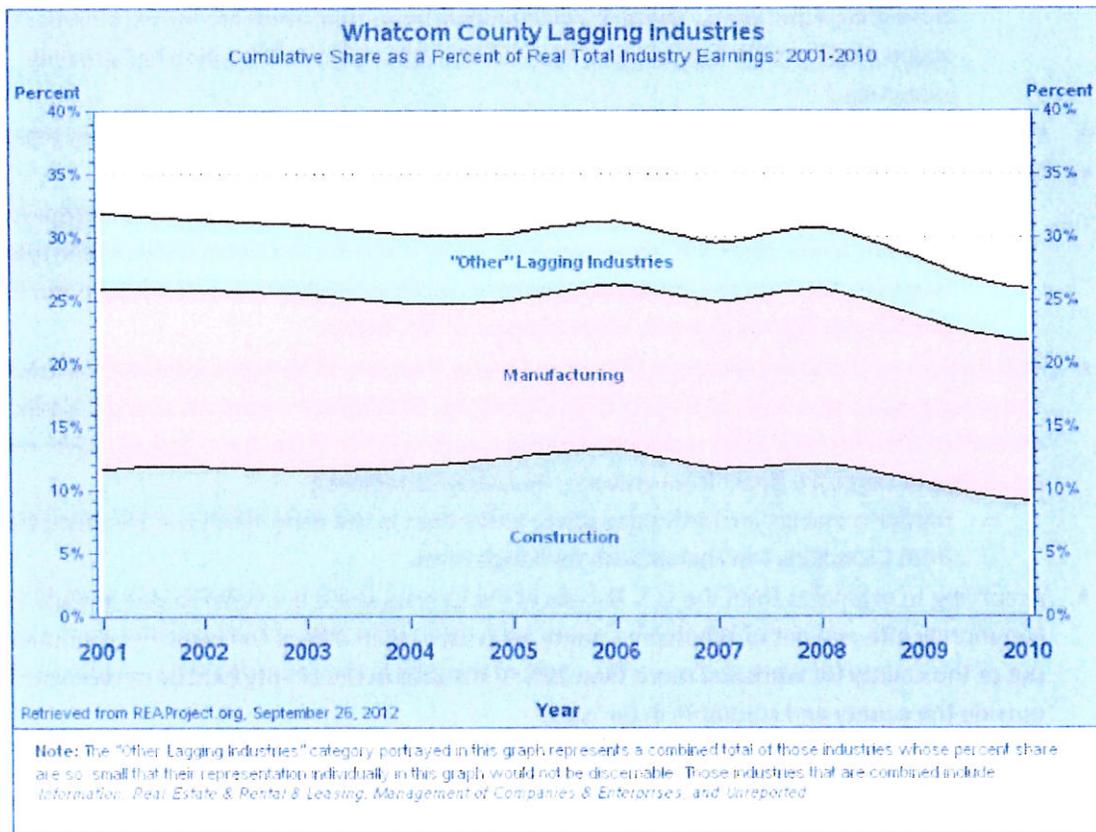
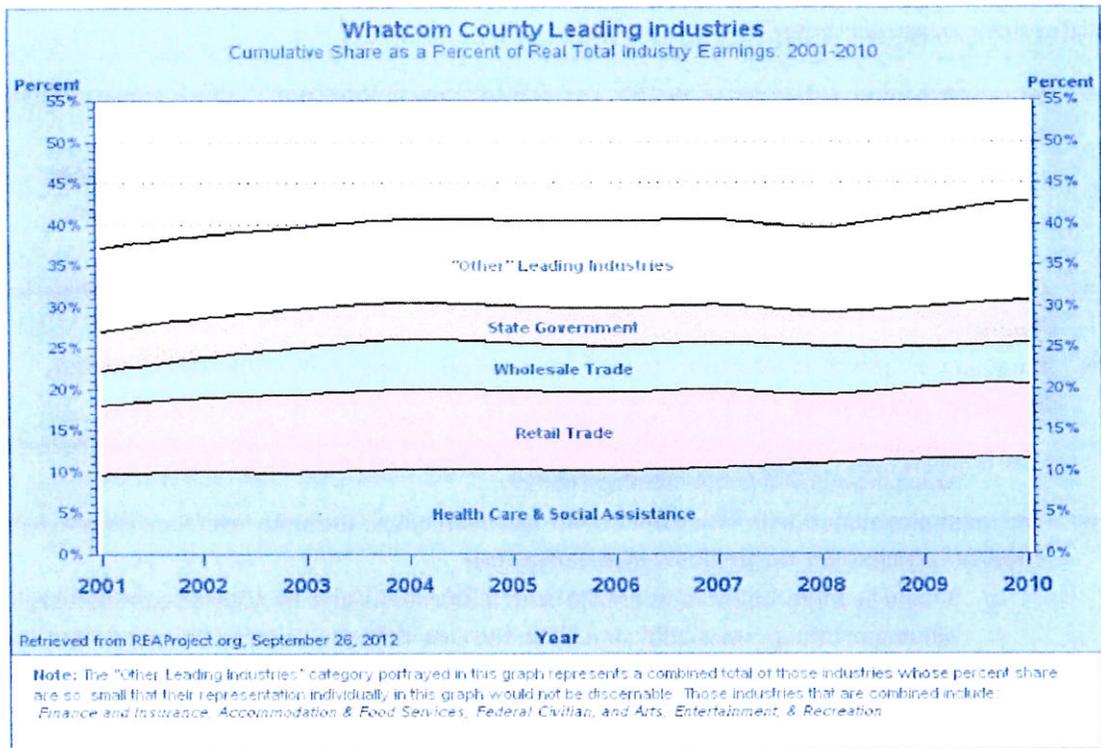
Area	% Change in Labor Force 2000-2007	% Change in Labor Force 2008-2012
WA State	12.3	5.8
Whatcom	21.3	5.4
	% Change in Population 2000-2007	% Change in Population 2008-2011
WA State	10.2	5.3
Whatcom	15.9	6.2

Where Workers are Employed who Live in Whatcom County (2008)



Where Workers Live who are Employed in Whatcom County (2008)





Highlights (in no particular order):

- Per capita income and earnings per job are relatively low in Whatcom County (compared to the state or U.S. average)
 - Various income measures have increased slightly faster or fallen less in Whatcom County than in many other areas in recent years, but remain well below the U.S. average
- Cost of living in Bellingham is well above the national average, and only slightly lower than in Seattle
- Employment growth in Whatcom County was relatively strong in the early 2000's, but has slipped in recent years
 - Two of the leading sectors for employment growth are health care and retail, both of which have low average earnings per job
- The unemployment rate in Whatcom County has been below the state level for a decade (where it had been higher for the previous several decades)
 - It may be important to note that growth in the labor force has slowed considerably in Whatcom County since 2007. It may be the case that people leave the area if they lose their job
 - The changes in employment growth and labor force dynamics could suggest that the area is feeling the effects of the recession and/or structural changes in the economy more than other areas. (Note: it could be that more rural areas are having a harder time recovering from the recession as they lack the drivers for in-migration and growing industries.)
- Population growth is expected to slow noticeably in Whatcom County in the coming decades
- The county is aging, but not significantly faster than the state or U.S. as a whole
 - There appears to have been an influx of people with unearned income (e.g., property income), which gives the impression that we've had a lot of retirees move to the area. However, the increase in transfer payments (such as Medicare and Social Security) and median age figures give only weak support to this theory
- Retail sales per capita are higher in Whatcom County than would be expected based on income. There appears to be a positive impact from Canadians. (If Whatcom residents spend a similar amount of their income as do residents of other counties in the state, then the higher per capita retail figures suggest a boost from visitors – including Canadians.)
 - Border crossings are noticeably lower today than in the early 1990s and this retail boost from Canadians can change with exchange rates.
- According to estimates from the U.S. Bureau of the Census, there is a considerable amount of commuting into and out of Whatcom County, with more than 20% of the residents commuting out of the county for work and more than 20% of the jobs in the county held by people who live outside the county and commute in for work.



October 27, 2012

GPT/Custer Spur-EIS
c/o CH2M Hill
1100-112th Avenue NE, Suite 400
Bellevue, WA 98004
via email to: www.eisgatewaypacificwa.gov

RE: Scoping

To Whom It May Concern:

The NW Jobs Alliance was formed by local labor, business, and community leaders to promote the growth of family-wage jobs in the context of sound environmental practice. A specific focus of our interest is the Gateway Pacific Terminal (GPT) project. We encourage a timely, thorough review of the potential environmental impacts of the project based upon facts, science, and law.

Your informational materials focus much attention on the potential negative impacts of the project and very little on the benefits. We hope that this does not imply a biased or lop-sided approach to your review of this project. The purpose of and need for this project are of great importance and worthy of careful consideration.

Specifically, we draw your attention to economic data which point to an affordability gap facing the citizens of the region, when considering sub-average wage levels in relation to the high costs of living (see attachment #1).

The beneficial employment impacts of this project have been well-documented by highly qualified experts in the Martin (attachment #2) and FRMC (attachment #3) studies. The attempts by some project opponents to discount the economic benefits of the project are based upon unsupported assertions and hypotheticals built upon hypotheticals (see FRMC analysis-attachment #4).

The GPT project will also generate badly-needed tax revenues, as documented in the recent study by the FCS Group (attachment #5).

We request that the matters described above be an important part of your examination of this project.

Sincerely,

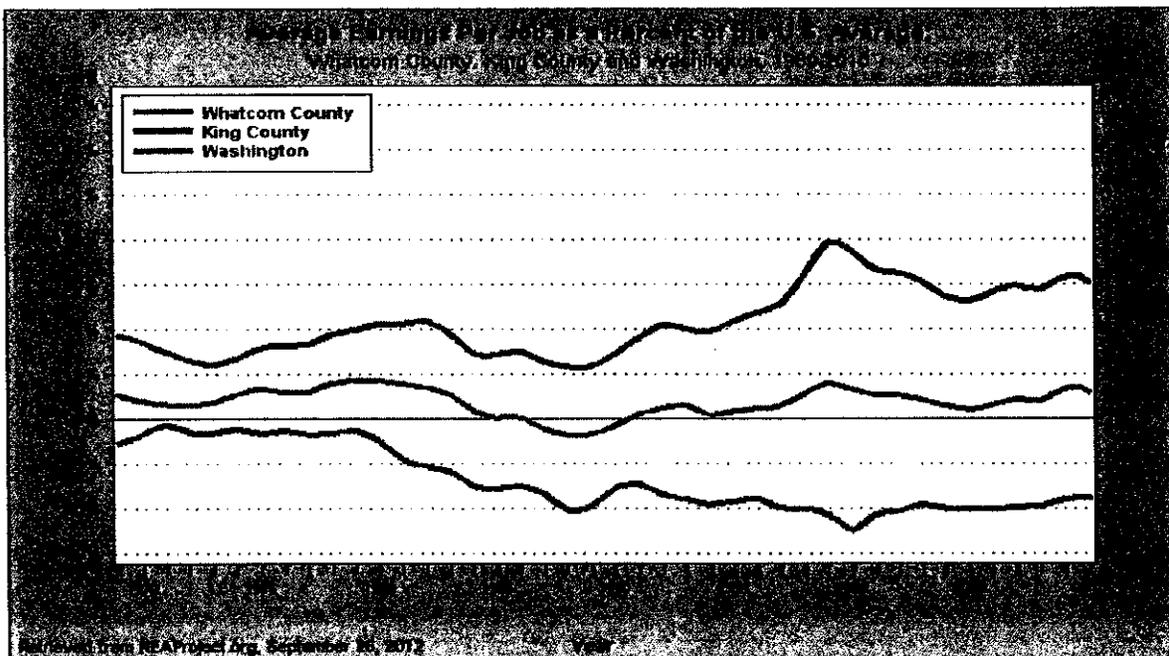
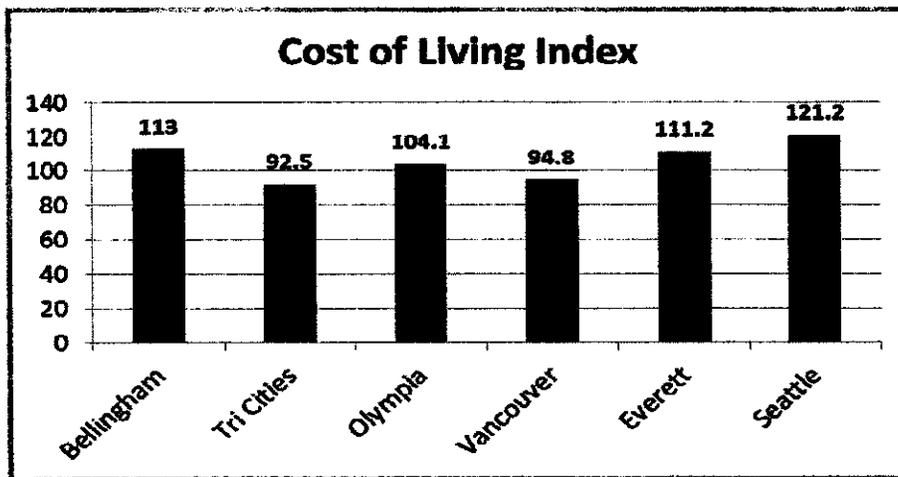
Ken Oplinger and
Chris Johnson, NWJA Co-Chairs

Attachment #1

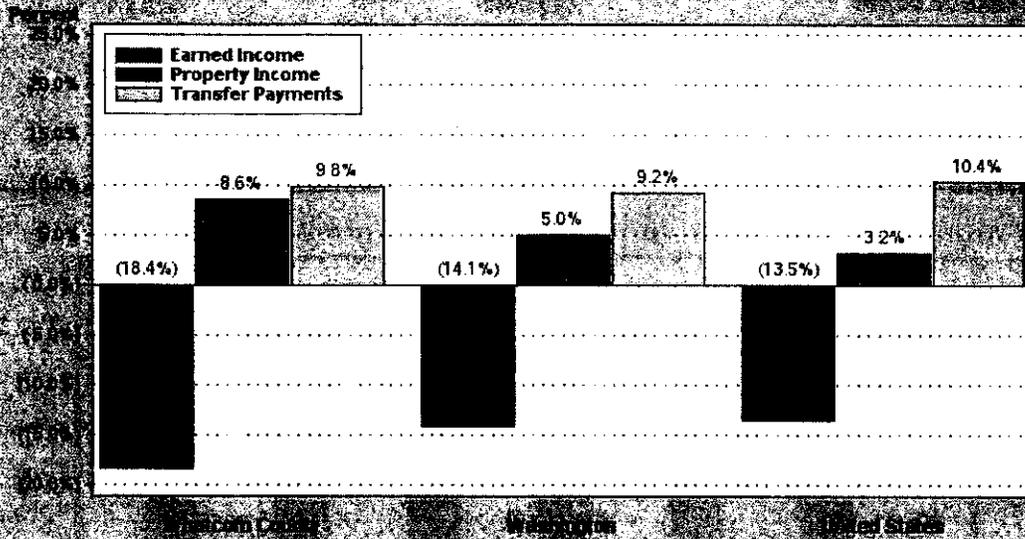
*Source: Dr. Hart Hodges Director of CEBR and Associate
Professor for the Center for Economic and Business
Research Department of Economics Western MBA
Program*

October 1, 2012

Item	Whatcom County	Washington State
Population (est. for 2011)	203,633	6.8 million
Home ownership rate	62.3%	64.8%
Median value of owner occupied home (2006-2010)	\$293,500	\$285,400
Per capita income	\$25,407	\$29,733
Persons below poverty level	15%	12.1%
Nonfarm employment	67,421 jobs	
Median age	36.9	37.5

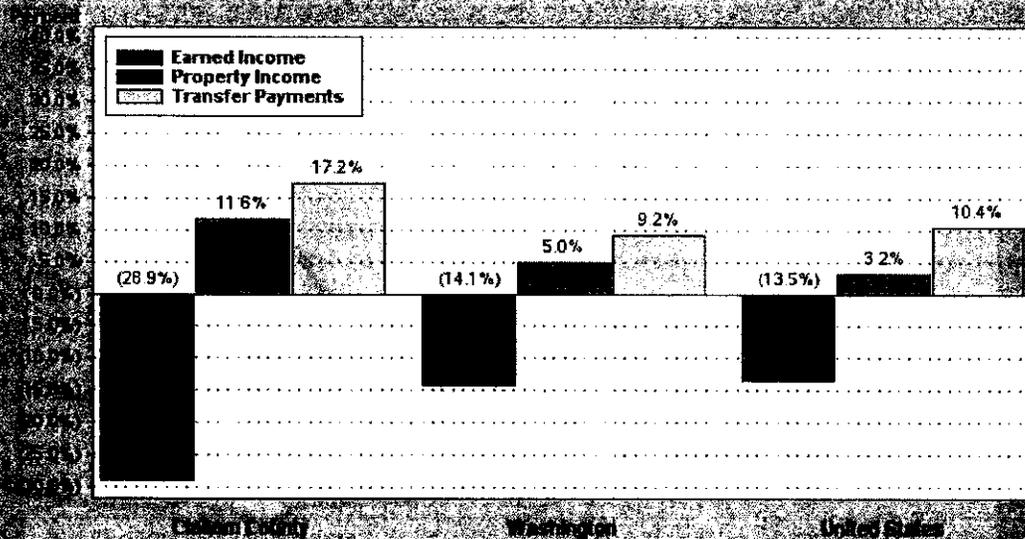


Shifts in Share of Total Personal Income Among Major Income Components
 Skagit County, Washington and the U.S. between 1988 and 2010



Retrieved from REAP Research, September 26, 2012

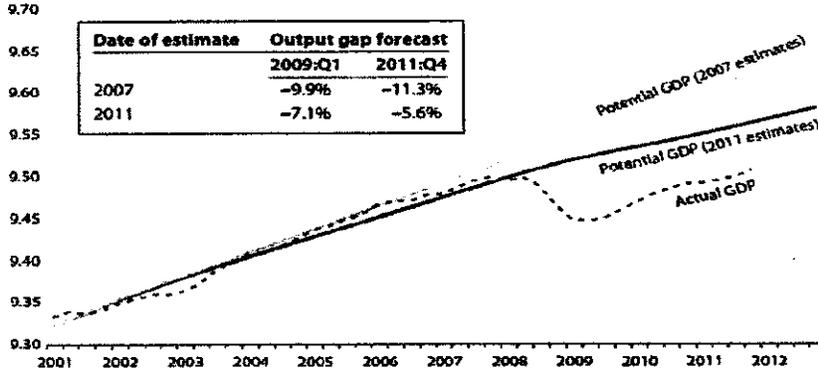
Shifts in Share of Total Personal Income Among Major Income Components
 Clallam County, Washington and the U.S. between 1989 and 2010



Retrieved from REAP Research, September 26, 2012

Actual and Potential GDP (measured in constant 2005 dollars)

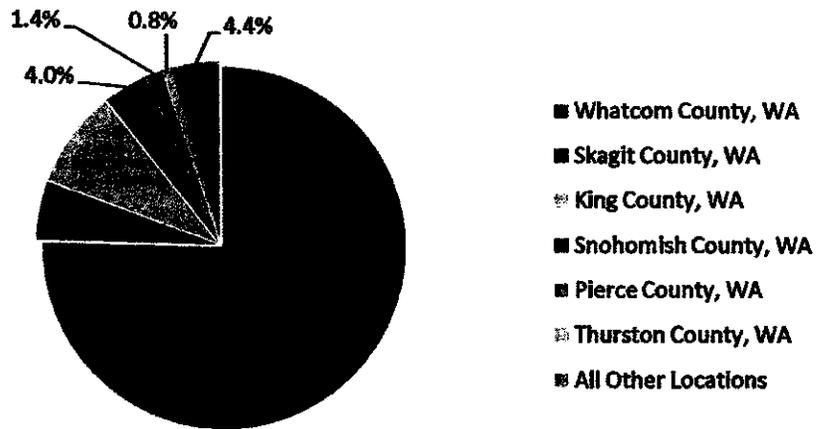
Log of GDP (\$US Billions, 2005)



NOTE: The vertical scale is in natural logarithms of GDP measured in billions of 2005 U.S. dollars.
 SOURCE: The source for the current vintage of potential GDP and actual GDP is Haver Analytics.
 The 2007 version can be found on the Federal Reserve Bank of St. Louis Archival, Federal Reserve Economic Data (ALFRED) website (<http://alfred.stlouisfed.org/series?seid=GDPPOT>) and is shifted so that the level in 1995:Q1 is equal to the value in the current vintage.

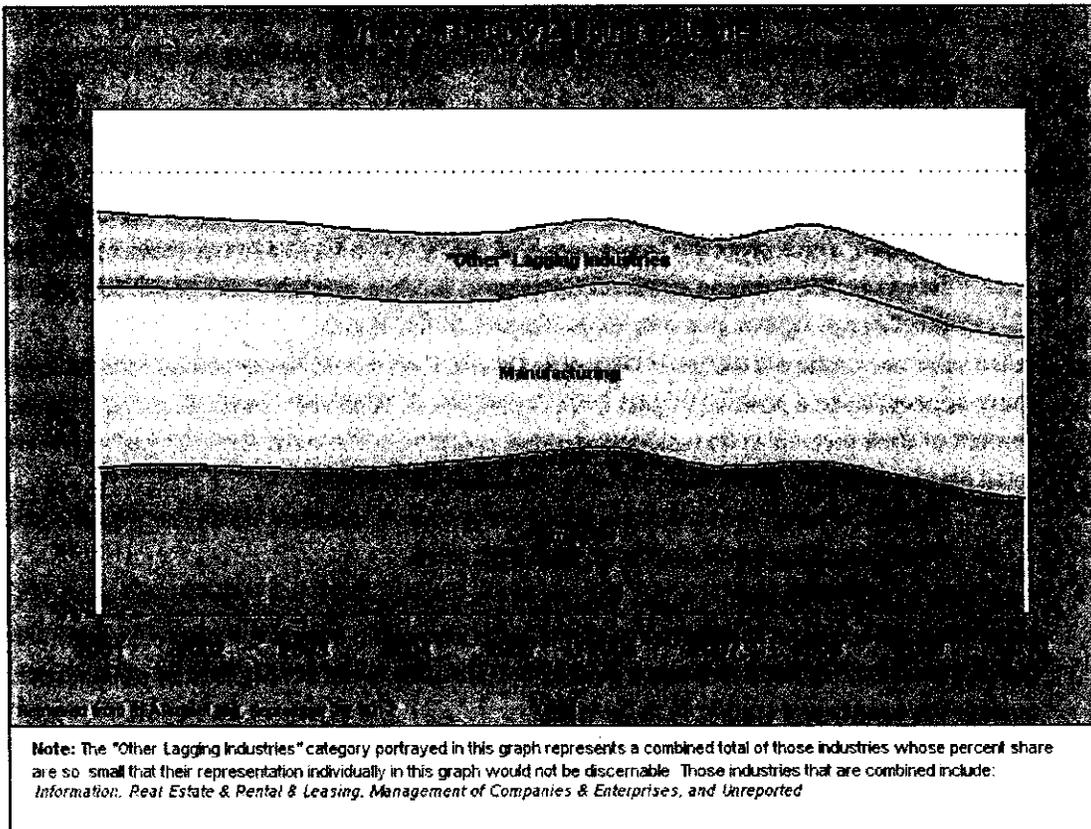
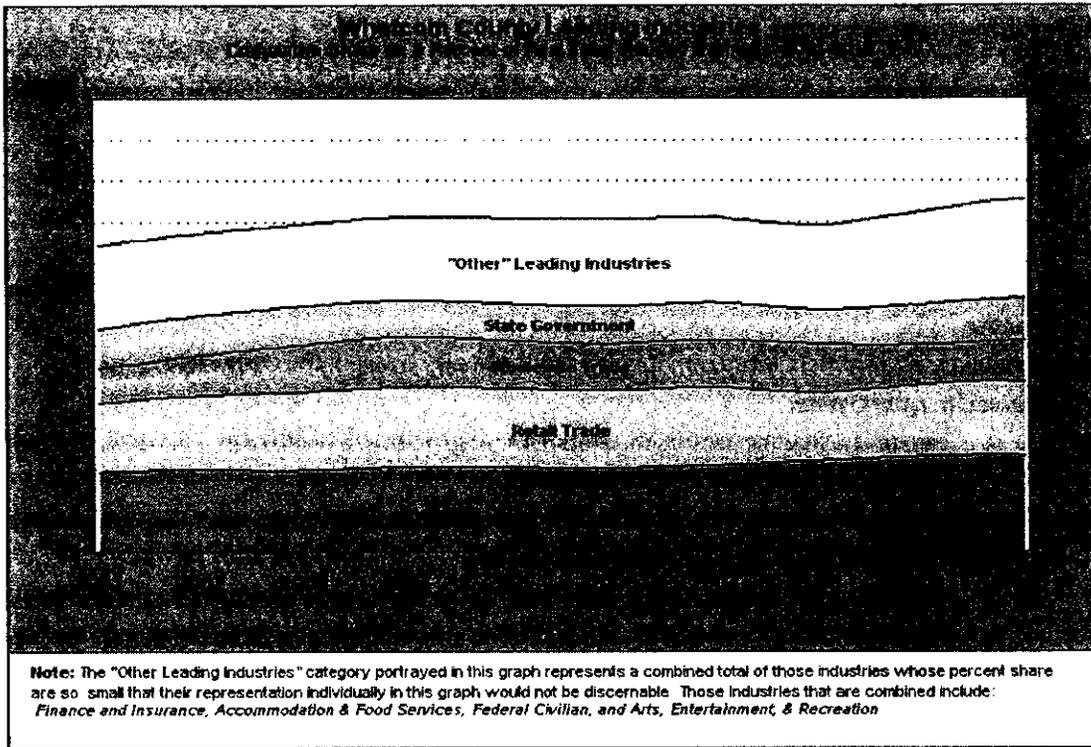
Area	2009:Q1	2011:Q4
WA State	12.3	5.8
Whatcom	21.3	5.4
Area	% of total population	% of total population
WA State	10.2	5.3
Whatcom	15.9	6.2

Where Workers are Employed who Live in Whatcom County (2008)



Where Workers Live who are Employed in Whatcom County (2008)





Highlights (in no particular order):

- Per capita income and earnings per job are relatively low in Whatcom County (compared to the state or U.S. average)
 - Various income measures have increased slightly faster or fallen less in Whatcom County than in many other areas in recent years, but remain well below the U.S. average
- Cost of living in Bellingham is well above the national average, and only slightly lower than in Seattle
- Employment growth in Whatcom County was relatively strong in the early 2000's, but has slipped in recent years
 - Two of the leading sectors for employment growth are health care and retail, both of which have low average earnings per job
- The unemployment rate in Whatcom County has been below the state level for a decade (where it had been higher for the previous several decades)
 - It may be important to note that growth in the labor force has slowed considerably in Whatcom County since 2007. It may be the case that people leave the area if they lose their job
 - The changes in employment growth and labor force dynamics could suggest that the area is feeling the effects of the recession and/or structural changes in the economy more than other areas. (Note: it could be that more rural areas are having a harder time recovering from the recession as they lack the drivers for in-migration and growing industries.)
- Population growth is expected to slow noticeably in Whatcom County in the coming decades
- The county is aging, but not significantly faster than the state or U.S. as a whole
 - There appears to have been an influx of people with unearned income (e.g., property income), which gives the impression that we've had a lot of retirees move to the area. However, the increase in transfer payments (such as Medicare and Social Security) and median age figures give only weak support to this theory
- Retail sales per capita are higher in Whatcom County than would be expected based on income. There appears to be a positive impact from Canadians. (If Whatcom residents spend a similar amount of their income as do residents of other counties in the state, then the higher per capita retail figures suggest a boost from visitors – including Canadians.)
 - Border crossings are noticeably lower today than in the early 1990s and this retail boost from Canadians can change with exchange rates.
- According to estimates from the U.S. Bureau of the Census, there is a considerable amount of commuting into and out of Whatcom County, with more than 20% of the residents commuting out of the county for work and more than 20% of the jobs in the county held by people who live outside the county and commute in for work.

Attachment #2

**THE PROJECTED ECONOMIC IMPACTS
FOR THE DEVELOPMENT OF A BULK TERMINAL AT
CHERRY POINT**

July 2011

**Martin Associates
(John C. Martin Associates, LLC)
941 Wheatland Avenue, Suite 203
Lancaster, PA 17603
WWW.MARTINASSOC.NET**

THE PROJECTED ECONOMIC IMPACTS OF THE DEVELOPMENT OF A BULK TERMINAL AT CHERRY POINT

The purpose of this report is to measure the potential economic impacts for the development of a new bulk terminal located in Whatcom County, Washington State at Cherry Point. The analysis is based on the projected bulk throughput tonnage potential to be moved via a new bulk marine terminal and associated upland facilities on 1,092 acres of heavy impact industrial land located at Cherry Point, WA. The projected annual bulk cargo throughput was provided to Martin Associates by SSA Marine (SSA). The contemplated terminal is assumed to begin operations in 2015, with permitting to be completed in 2012 and construction to begin in 2013. A second phase will begin construction at operational start up and is projected to be completed within the first 5-7 years after the completion of the first phase, if favorable market conditions merit the capital investment. In the first phase, the terminal is projected to handle 25 million metric tons per year. The second phase will take the terminal capacity up to 54 million metric tons per year. The bulk tonnage will be moved to the terminal via unit trains from the Midwest and Canada. The economic impact of the projected bulk cargo throughput was evaluated using the Martin Associates' economic impact model developed as part of our recent study for the Ports of Seattle and Bellingham, as well as economic relationships between bulk throughput and maritime services (terminal operational levels, longshoremen productivity, freight forwarders, steamship agents, chandlers, etc.) developed from economic impact studies conducted by Martin Associates for major bulk ports such as Lake Charles, New Orleans, and Houston.

1. IMPACT METHODOLOGY

The movement of tonnage via the new terminal will contribute to the local and regional economies by generating business revenue to local and national firms providing vessel and cargo handling services. These firms, in turn, provide employment and income to individuals, and pay taxes to state and local governments. The impact of the port operations is not reduced to a single number, but instead, the operations of the Cherry Point bulk terminal will create several impacts. These are the revenue impact, employment impact, personal income impact, and tax impact. These impacts are non-additive. For example, the income impact is a part of the revenue impact, and adding these impacts together would result in double counting.

1.1 Business Revenue Impact

At the outset, activity at the new bulk terminal will generate business revenue for firms which provide handling and vessel services. This business revenue impact is dispersed throughout the economy in several ways. It is used to hire people to provide the services, to purchase goods and services, and to make Federal, state and local tax payments. The remainder is used to pay stockholders, retire debt, make investments or held as retained earnings. It is to be emphasized that the only portions of the revenue impact that can be definitely identified as remaining in the local economy are those portions paid out in salaries to local employees, for local purchases by individuals and businesses directly dependent on the seaport, in contributions to state and local taxes, and in lease payments and wharfage, dockage and handling fees.

1.2 Employment Impact

The employment impact of the current port operations and the proposed terminal consists of three levels of job impacts:

- Direct employment impact - jobs directly generated by the movement of the bulk cargo via the terminal, as well as the current levels of business at the terminal. Direct jobs include jobs with the railroads moving cargo between inland origins and destinations and the marine terminal; members of the International Longshore and Warehouse Union (ILWU), tug assist operators; steamship agents; freight forwarders; surveyors; chandlers.
- Induced employment impact - jobs that are created throughout the local economy because individuals directly employed by the activity at the port and proposed terminal will spend their wages locally on goods and services such as food, housing and clothing. These jobs are held by residents located throughout the region, since they are estimated based on local and regional purchases. Martin Associates has developed a Whatcom County specific induced model using data supplied by the US Bureau of Economic Analysis Regional Input-Output Modeling System (RIMS II), and US Bureau of Census data for the Bellingham Metropolitan Area.
- Indirect jobs - jobs that are created locally due to purchases of goods and services by firms, not individuals. These jobs include jobs with local office supply firms, maintenance and repair firms, parts and equipment suppliers, etc. The local purchases likely to be made by a major bulk terminal are based on relationships developed by Martin Associates for economic impact studies for the Ports of Seattle, Tacoma, Lake Charles, Portland, Vancouver, and New Orleans.

1.3 Personal Earnings Impact

The personal earnings impact is the measure of employee wages and salaries (excluding benefits) received by individuals directly employed due to handling the marine cargo. Re-spending of these earnings throughout the regional economy for purchases of goods and services is also estimated. This, in turn, generates additional jobs -- the induced employment impact. This re-spending throughout the region is estimated using a regional personal earnings multiplier, which reflects the percentage of purchases by individuals that are made within the Whatcom County area. The direct earnings are a measure of the local impact since they are received by those directly employed by seaport activity.

1.4 Tax Impact

Federal, state and local tax impacts are tax payments to the state and local governments by firms and by individuals whose jobs are directly dependent upon and supported by (induced jobs) activity at the bulk terminal.

2. KEY IMPACT ASSUMPTIONS

As part of the development of the baseline economic impact model for the Port of Seattle (2008), the Port of Bellingham (2009) and the Port of Tacoma (2005), Martin Associates interviewed 1,610 local maritime service providers, including tug operations, pilots, freight forwarders and customs brokers, agents, surveyors, chandlers, and railroad.¹ Based on the data gathered during those interviews, as well as an updated induced impact model and local re-sponding multiplier developed for this current terminal study, Martin Associates developed the baseline economic impact model used in this analysis. To model expected employment for the ILWU, freight forwarders/customhouse brokers, chandlers, ship repair operations, surveyors, environmental support firms, bunkering firms, etc., Martin Associates developed employment, revenue and income relationships from our previous economic impact studies conducted for key bulk operations at other ports throughout the United States. SSA provided the estimated terminal employment anticipated at the two phases were provided to Martin Associates at each phase of throughput. The ILWU category includes jobs generated by the loading and offloading of vessels at the terminal, mechanics, maintenance, and labor involved in loading and off-loading rail cars at the terminal.

Job impacts with rail are based on the data provided to Martin Associates by the BNSF railroad, and include crew jobs within Whatcom County, yard employees at the terminal, and maintenance and administrative overhead factors (also provided by BNSF). Rail revenue is estimated based on the portion of the rail rate allocated to the movements within Whatcom County.

3. POTENTIAL ECONOMIC IMPACTS OF THE PROPOSED BULK TERMINAL

Exhibit 1 summarizes the annual economic impacts of the bulk terminal in Phase I and Phase II, which is the completion of the terminal. The throughput assumptions were provided to Martin Associates by SSA. It is estimated that with a 25 million ton throughput per year during Phase I of the terminal development, the proposed terminal would support 863 total jobs to the Whatcom County economy annually. The 294 direct job holders are projected to earn \$29.5 million of direct wages for an annual salary of about \$100,300, in 2011 dollars. A total of \$91.1 million of direct wages and salaries, local consumption expenditures, and indirect wages and salaries are estimated to be generated annually with a 25 million ton bulk throughput. Businesses (railroads, terminal operations, agents, freight forwarders, tug operators, pilots, etc.) are projected to receive \$666.6 million of annual revenue, and make \$12.0 million of local purchases annually (supporting the 116 indirect jobs annually). A total of \$8.1 million of state and local taxes are projected to be generated annually with the 25 million ton terminal throughput.

¹ The 2007 Economic Impact of the Port of Seattle, Prepared by Martin Associates, February 10, 2009; The Economic Impact of the Port of Tacoma, Prepared by Martin Associates, May, 2005; The Economic Impact of the Port of Bellingham, Prepared by Martin Associates, October 3, 2008.

Exhibit 1
Annual Economic Impact of Bulk Exports

Jobs	Phase	Full Build Out
Direct	294	430
Induced	453	634
Indirect	<u>116</u>	<u>165</u>
Total	863	1,229
Personal Income (millions)		
Direct	\$29.5	\$40.8
Re-Spending and Local Consumption	\$56.5	\$78.2
Indirect	<u>\$5.1</u>	<u>\$7.3</u>
Total	\$91.1	\$126.3
Business Revenue (millions)	\$666.6	\$1,437.8
Local Purchases (millions)	\$12.0	\$17.1
State and Local Taxes (millions)	\$8.1	\$11.2

With the completion of Phase II and full-build-out, the terminal is projected to handle 54 million tons of bulk cargo. With this throughput, it is estimated that 430 direct jobs will be supported annually, with an average salary of \$94,900. The slightly lower average income at full build out reflects the change in the distribution of direct jobs at the build out of the terminal. At full build out with a 54 million ton throughput, the share of maritime service jobs and rail jobs increase at a greater rate than jobs with the terminal employees and members of the ILWU, as productivity at the terminal improves over time. In phase II, a total of 1,229 direct, induced and indirect jobs are projected to be generated within Whatcom County on an annual basis, and total (direct, induced and indirect) annual personal wage and salary income and local consumption expenditures are projected at \$126.3 million annually. With a 54 million ton throughput, businesses providing the services to the terminal are projected to earn \$1.4 billion annually, and make \$17.1 million of local purchases within Whatcom County annually. Finally, with the 54 million ton throughput, \$11.2 million of state and local tax revenue are projected annually.

The breakdown of the direct jobs by job category, by phase, is presented in Exhibit 2. As this exhibit shows, the largest employment impact within Whatcom County is projected to be with the members of the ILWU. At full build out, jobs with maritime services such as steamship agents, freight forwarders, surveyors, and handlers show the next largest impact.

Exhibit 2
Distribution of Projected Direct Jobs by Category

Categories	Direct Jobs/Phase	Direct Jobs/Full Build-Out
Railroads	46	66
Terminal Operators	29	44
ILWU	170	213
Pilots/Tugs	17	36
Maritime Services	32	71
Total	294	430

In addition to the projected annual impacts generated by the throughput of the proposed terminal, SSA estimates that the Phase I construction cost of the terminal is \$536 million excluding cost of equipment. These purchases will be made in Whatcom County. Using data from the US Bureau of Economic Analysis, Regional Input-Output Modeling System for Bellingham/Whatcom County, it is estimated that the \$536 million of direct construction expenditures (excluding capital expenditures) will support 7.4 million personhours of direct construction employment over the period of construction. In addition, 10.1 million personhours of indirect and induced labor will also be supported over the construction period, as the result of purchases by the construction industry to local suppliers and supporting industries within Whatcom County. Associated with these direct, induced and indirect construction jobs are a payroll of \$331.0 million and an additional \$503 million of local purchases for construction supplies and support services. In addition to the jobs, income and local purchases impacts associated with the Phase I construction program, a state and local tax impact of \$74.4 million is projected. This includes the application of the sales tax on the initial construction expenditures. It is to be emphasized that the timing of the construction expenditures on an annual basis will result in varying levels of job, income, local purchases and tax impacts created annually over the construction period.

In phase II of the construction period, an additional \$121 million of construction and material expenditures will be made in Whatcom County. These additional expenditures will support 1.8 million direct personhours during the Phase II construction, and an additional 2.4 million of induced and indirect jobs in the County. The construction activity will also generate \$80 million of direct, induced and indirect wages and salaries over the Phase II construction period, along with an additional \$121 million of local purchases. Finally, the Phase II construction is projected to generate \$18.0 million of state and local taxes over the Phase II construction phase.

In total, the \$665 construction expenditures over the two phases of the project will support 21.7 million direct, induced and indirect personhours, \$411 million of direct, induced and indirect wages and salaries, and additional \$624 million of intermediate local purchases and \$92.4 million of state and local tax revenue. The timing of these impacts occur only during the construction period and will not be ongoing as will the impacts created by the operation of the marine terminal.

These impacts are summarized in Exhibit III.

Exhibit III
Economic Impacts to Whatcom County
of the Construction of the Marine Terminal

	Phase I	Phase II	Total
Jobs (personhours)			
Direct	7,406,880	1,782,560	9,189,440
Induced/Indirect	<u>10,096,320</u>	<u>2,429,440</u>	<u>12,525,760</u>
Total	17,503,200	4,212,000	21,715,200
Personal Income (millions)			
Direct	\$140.0	\$34.0	\$174.0
Re-spending/Indirect	<u>\$191.0</u>	<u>\$46.0</u>	<u>\$237.0</u>
Total	\$331.0	\$80.0	\$411.0
Revenue (millions)	\$536.0	\$129.0	\$665.0
Local Purchases (millions)	\$503.0	\$121.0	\$624.0
State/Local Taxes (millions)	\$74.4	\$18.0	\$92.4

KEY ASSUMPTIONS

The baseline impact model used in this analysis of a bulk terminal development at Cherry Point is based on interviews with 1,610 marine services providers, developed from Martin Associates' economic impact studies for the Port of Seattle, the Port of Tacoma and the Port of Bellingham. These interviews were used to form the basic model used in this study. The key assumptions used to calibrate the economic impact model are as follows:

- Throughput of 25 and 54 million metric tons of dry bulk cargo;
- The average ship load is 130,000 tons per vessel call;
- 2 pilots will be assigned each vessel one way transit;
- 2 tugs will be assigned each vessel one way transit;
- Terminal employment was provided by SSA for each cargo throughput level;
- Agency fees are estimated from interviews for each vessel call, as part of the Port of Seattle and Port of Tacoma impact studies;
- Charges and fees per ton for various maritime services have been derived from our Port of Seattle and Port of Tacoma impact models, which are based on the results of surveys of the 1,610 marine services providers;
- Average salary for each job category included in the model have been developed from the interviews with the marine services firms conducted as part of the Port of Seattle, Port of Tacoma, and Port of Bellingham economic impact studies. Specific salary ranges were provided for terminal employees and the ILWU by SSA;
- Rail will be used to move the bulk to the Cherry Point Terminal. Rail yard employment, crew size, average revenue per ton and rail distance traveled within Whatcom County was provided by BNSF.
- Appropriate terminal charges, rail rates, and tug and pilot charges were developed from interviews and are confidential, but included in the model analysis.

Martin Associates (John C. Martin Associates, LLC) was founded in 1986 by Dr. John Martin to provide personalized consulting services to the port and maritime industries. These services include:

- Economic Impact Analyses –seaports, airports, shipyards, waterfront real estate development;
- Economic and Financial Feasibility Analyses of Capital Intensive Projects;
- Market Analysis;
- Port Master Planning/Strategic Planning;
- Litigation Support and Expert Witness Testimony;
- Ocean Carrier Cost Analysis and Fleet Deployment Strategies;
- Commodity Flow Analyses and Forecasting;
- Surface Transportation Cost Analysis;
- Intermodal Analysis and Rail/Port Interface Planning; and
- Facilities Planning and Analyses.

Martin Associates has conducted more than 500 port planning, economic and market studies for nearly every port in the United States. Martin Associates also provides economic and planning studies for private marine terminals, ocean carriers, state and federal government agencies, and ports in Europe, Asia and the Caribbean.

Martin Associates has developed more than 300 economic impact studies for ports and port systems throughout the United States and Canada, including:

Boston
Bellingham
Baltimore
Philadelphia
Virginia Port Authority
Richmond, VA
Wilmington, NC
Morehead City, NC
Port Everglades
Tampa
Jacksonville
Palm Beach
New Orleans
Baton Rouge

Pittsburgh
Montreal
Providence, RI
Quonset Point, RI
Houston
Beaumont/Port
Arthur/Orange
Brownsville
Freeport, TX
Victoria, TX
Los Angeles
Long Beach
San Francisco
Corpus Christi

Portland, OR
Brunswick, GA
Seattle
Oakland
Tacoma
Portland, OR
Everett, WA
San Diego
Vancouver, WA
Vancouver, BC
Windsor, ON
Thunder Bay, ON
Saint John, NF
Prince Rupert, BC

These port impact studies have become integral as planning tools, in addition to the traditional public relations use of impact studies. The major reason that these impact models have become planning tools is the fact that the underlying analysis is based on a detailed assessment of each port's operations, and no macro port impact models are used. Each port is unique and our models reflect the uniqueness of each port. Hence, the results of the models are highly defensible and the direct economic impacts estimated can be traced to the individual firm level of detail.

The following examples highlight how the Martin Associates economic impact models have been used for port planning and the justification of capital development projects:

- ***Assess the impact of new marine facilities construction*** - The Port of Seattle impact model was used to justify the purchase of additional land to expand American President Lines' Terminal, and to further estimate the future economic impacts that will be generated by this state-of-the-art marine terminal. The Port of Seattle model was also used to assess the impact of future breakbulk and container tonnage forecasts and the associated need for new breakbulk warehouse space at Seattle. For the Maryland Port Administration, we used the impact model to assess the impacts of a new state-of-the-art automobile terminal -- the Masonville Terminal. For the Port of Houston, we completed the economic impact analysis of the Bayport Container Terminal for use by the Corps of Engineers in assessing the economic benefits and costs of that project.
- ***Measure the economic impacts of channel dredging*** - The Port of Oakland Economic Impact Model was used to assess the impacts of dredging the Inner Harbor area of the San Francisco Bay. For the US Army Corps of Engineers, Martin Associates used our Port of Richmond (VA) economic impact model to measure the economic impact of widening and deepening the James River. For the Maryland Port Administration we identified the potential lost cargoes if maintenance dredging is not continued, and using our Port of Baltimore Economic Impact Model, we translated the potential "at risk" cargo and ocean carriers into potential economic impact losses to the region. The potential negative impacts of not continuing the maintenance dredging were then allocated to state legislative districts to be used in lobbying efforts by the Maryland Port Administration.
- ***Assess the impact of intermodal facilities development*** - The Martin Associates' Port of Philadelphia's impact model was used to measure the impact of increased use of rail at the Port's new intermodal rail yard for container moves to and from the port. The Martin Associates' Port of Oakland model was recently used to assess the potential impact of the loss of intermodal traffic and transload traffic.
- ***Allocate port investments*** - For the Port of Portland (OR), Martin Associates developed separate impact models for each of the Port's lines of business: seaport, airport, shipyard and real estate development. The impact models are then used to assess the impact of alternative capital investment in airport vs. seaport vs. shipyard vs. real estate development. The Port of Portland is now using the impact models to identify the jobs, income and revenue impacts

associated with each Port investment. The results are used in the Port's annual report to describe the economic importance of the investments made by the Port over the fiscal year.

A similar set of models of seaport and airport operations and real estate development on port-owned land was developed by Martin Associates for the Port of Seattle and the Port of Oakland. These models are used on a continual basis to assess the relative economic impacts of various types of seaport, airport and real estate projects all competing for limited port funds. The Port of Seattle has incorporated the use of the impact models in its overall planning process, and will, as part of their long-term business plan, use the models to evaluate the economic benefits of each proposed capital project.

- ***Rank facilities investment plans*** - The Port of Philadelphia impact model was used in Martin Associates' Marine Facilities Development Strategy Study for the Commonwealth of Pennsylvania. The model was used to rank recommended facilities investment projects in terms of job and income generation. A similar approach was used to assess each recommended master plan strategy and investment in our Port Everglades Master Plan Study, the North Carolina State Ports Authority Capital Development Master Plan and our completed Master Plan for the Port of Baltimore.
- ***Assess alternative waterfront land development*** - The Martin Associates' real estate and maritime models are being used by the Port of Portland (OR), the Port of Vancouver (WA), the Port of Seattle, the Port of Oakland, the Port of San Francisco, and the Port of Longview to assess alternative development of waterfront land. For example, the models are used to assess the impact of future marine terminal development vs. industrial or commercial development of the waterfront land. In Oakland, the impact model was used to assess the impact of developing a resort hotel vs. reserving the land for future maritime uses. In Seattle, the impact models have been used to assess the impact of developing a parcel of land as a container facility or a ship repair yard, as well as the development of the Central City Waterfront, including a museum, hotel, restaurant, world trade center and condominium development.

We completed an analysis of riverboat gambling for the Port of Philadelphia, and the impact models were used to assess the relative economic benefits of marine terminal operations vs. riverboat gaming and hotel development.

- ***Justify investments in cruise terminal development*** - The Martin Associates' cruise service impact methodology was used at the Port of Baltimore to evaluate the economic impacts of cruise service on the local and regional economies. Impacts of passengers and crew in the local and regional tourism industry were also estimated, as part of this study. We also developed a detailed cruise industry model for Port Everglades which is used with our seaport impact model for Port Everglades to assess the relative economic benefits of cruise operations vs. cargo operations. This is of critical importance to Port Everglades since the Port is both land and berth constrained. We also developed a cruise impact model as part of our overall impact study for the Port of Houston Authority, as well as for the Port of Seattle, Port of San Francisco, Port of Los Angeles, and the Port of Philadelphia.

- ***Evaluate alternative marine terminal designs*** - The Martin Associates' seaport impact models are also used to assess alternative designs of marine terminals. We develop the economic impacts of a terminal based on dedicated uses of the terminal. For example, for a given terminal we can compare the jobs, income and port revenue that would be created under full-utilization if the terminal were used for a mixed use terminal (containers, breakbulk, RO/RO), or a dedicated auto terminal or bulk terminal or cruise terminal. Given the fact that the demand exists for each of the terminal uses, it is possible to use the impact models to assess the economic development benefits of each terminal alternative and to further lobby for port development financing.
- ***Measure the economic impacts of shipbuilding and ship repair activity*** - Martin Associates has developed detailed ship building and repair economic impact models that are used to measure the jobs, revenue, income and tax impacts of shipyard activity, by type of activity – new building, ship and barge repair, modular construction, military versus cargo versus passenger ships, etc. These models have been developed for shipyards at the Port of Portland, Port of Seattle, Port of San Francisco, Port of Erie and the Port of Philadelphia. We have used the shipyard model to estimate the economic impacts of the opening of a new shipyard (Meyer Werft Yard) in Philadelphia, as well as to monitor the ongoing dry-docking activities at the Port of San Francisco owned shipyards.
- ***Assess the impacts of a work shutdown at West Coast Ports*** - For the Pacific Maritime Association (PMA), Martin Associates conducted an assessment of the economic impact of containerized cargo at West Coast Ports. The models developed for Seattle, Tacoma, Portland, Oakland, Los Angeles, and Long Beach were then used in a detailed analysis of the potential impacts of a work slowdown or strike (in July of 1999) by the International Longshore and Warehouse Union (ILWU). The results of the analysis were used by the Governor of California, the Council of Economic Advisors and the White House to evaluate the impact on the national economy of the possible strikes, and to formulate a plan to resume normal working practices.
- ***Assess the economic impacts of the Marine Transportation System*** - Martin Associates recently completed an evaluation of the economic impacts created by the nation's coastal ports, inland waterways, cruise industry, commercial fishing, passenger ferry service, and recreational boating. The report, which was prepared as an issue paper on behalf of the National Advisory Council, Marine Transportation System, was submitted to Vice President Richard Cheney. The issue paper sets out the economic benefits of the Marine Transportation System, and further identifies key investment needs of both coastal ports as well as inland river ports that will be needed over the presidential term. This report served as the basis for the Secretary of Transportation's address to the AAPA Spring Conference on March 20, 2001.
- ***Impact of Section 201 Steel Import Quota*** - Martin Associates completed the economic impact assessment of steel import restrictions as part of the maritime industry's response to the Section 201 steel import hearings. The results of the study were presented before the

International Trade Commission and the report served as the key document describing the importance of the steel imports on the US Maritime Transportation System. The report was presented to the Council of Economic Advisors and President Bush.

- ***Impact of 2002 West Coast Port Shutdown*** - Our impact analysis of the West Coast port shutdown in September, 2002 was a key input into the decision by the President to enact the Taft Hartley Act. As part of this process, Martin Associate's impact models and methodology was reviewed by the Council of Economic Advisors and the Board of Governors of the Federal Reserve. Currently, Martin Associates is measuring the actual economic impacts of the recent port closure on all aspects of the logistics supply chain of the port closure.
- ***Impact of Port Systems*** - With respect to the impact of port systems, Martin Associates has developed the Great Lakes Economic Model of the St. Lawrence Seaway Development Corporation. This model, last updated in 2002, consists of 13 individual port impact models. Using these models, it is possible to assess the comparative economic impact of specific investments and changes in operational characteristics at each port as well as at the port system level.

Martin Associates developed a similar set of port system models for the Canadian Ports Corporation, which was used by Ports Canada to assess and compare investments at each of the ports within the Canada Ports Corporation System.

- ***Pacific Maritime Association*** - Martin Associates has developed container terminal-specific models to assess the economic impacts of the West Coast container operations. These models, being terminal specific, allow the PMA to assess future ILWU labor demands based on forecasts developed by Martin Associates for each terminal, to assess the impacts of grounded vs. stacked operations at each terminal, and to assess the impacts of work slowdowns and port shutdowns.
- ***Port of New Orleans*** - Martin Associates completed the economic impact analysis of the Port two days before the Port was devastated by Hurricane Katrina. The resulting impact model was used to demonstrate the economic importance of New Orleans and the Lower Mississippi River Ports to the nation's economy, and was instrumental in securing the initial FEMA funding to assist the Port's recovery.
- ***Economic Impact of the US Ports Industry, 2006-2007*** – For the American Association of Port Authorities, Martin Associates prepared an economic impact analysis of international cargo activity at the US ports. This study has provided the foundation for the AAPA for responses to specific policy issues.
- ***Economic Impact of the Containerized Shipping Industry, 2007*** - For the World Shipping Council, Martin Associates has just completed an economic impact analysis of containerized cargo activity handled at US ports in calendar year 2007. This report will form the basis for the WSC responses to policy issues impacting international container shipping.

With respect to **cruise impact analysis**, Martin Associates has developed cruise impact models for the Ports of Los Angeles, San Francisco, Seattle, Port Everglades, Jacksonville, Tampa, Baltimore, Norfolk and Philadelphia. These models are used to show the impact of current cruise service operations, as well as to provide a tool by which changes in vessel deployment, vessel size and market demographics can be measured. The cruise models are also used with the cargo models to evaluate alternative uses of waterfront land for cargo or cruise terminal development. Such an analysis was recently conducted by Martin Associates at the Port of Jacksonville to assist the Commissioners in making strategic decisions as to the development of a cruise terminal that could impact both containerized cargo and auto operations.

We also use a derivation of this model to assess the impacts of ferry operations, including the Washington State Ferry operations, as well as San Francisco Bay ferry operations and the impact of potential ferry operations on the Great Lakes.

Martin Associates has developed a detailed model of **commercial fishing activity** at the Port of Seattle's Fishermen's Terminal and Elliott Bay, and a similar commercial fishing and fish processing economic impact model for the Port of San Francisco and the Port of Los Angeles. The models are used to assess the impacts of changes in the composition of the commercial fishing fleet. We have also measured the economic impacts of commercial fishing activity at the Port of Boston, the Port of Victoria, TX and the Port of Port Lavaca, TX.

As part of our economic impact study of the Marine Transportation System conducted for the National Advisory Council of the Marine Transportation System (MARAD) (which was presented to the Bush Administration in 2000), Martin Associates developed a more refined model to measure **the impacts of recreational boating**. The model not only addresses the local employment at marinas and support services at the marinas, but also the impact of local purchases to support the recreational boating operations. These include repairs and supplies, retail purchases as well as storage. We used a similar model of recreational boating on our economic impact studies for the Port of San Francisco marinas, as well as for the Port of Los Angeles marinas, the Port of Tacoma marinas, the Port of Seattle marinas and the Port of Everett marinas.

With respect to channel **deepening and the justification of continued maintenance dredging**, Martin Associates has developed the economic benefits analysis of maintenance dredging of the Texas City Ship Channel, the maintenance dredging benefits of Port Freeport, the economic benefits of channel widening for an LNG facility at the Port of Freeport, and the economic benefits of maintaining the Houston Ship Channel. We also developed the economic benefits analysis of the Matagorda Ship Channel at Port Lavaca, as well as an economic impact study of the cargo activities at Port Lavaca –Point Comfort. For the Port of Brownsville, we recently conducted an economic impact study of the Port as well as an economic benefits analysis of maintaining the shipping channel and deepening the channel to accommodate not only Panamax size vessels for steel slab, but also to accommodate large oil rigs that are maintained and repaired by one of the Ports tenants. With respect to other economic studies evaluating the economic benefits of channel maintenance dredging, we have recently developed

the economic benefits of maintaining the C&D Canal at its current depth and developed a similar economic benefit cost analysis of maintaining the Port of Baltimore's main shipping channel at 50 ft.

Martin Associates has also developed a similar methodology to evaluate the economic impacts associated with *industrial and commercial real estate development*. This methodology has recently been used to measure the economic impacts of industrial and economic development at numerous seaports throughout the United States. The real estate impact methodology has been used to quantify the economic impacts of real estate development by the Ports of Portland, Seattle, Los Angeles, San Diego, Tampa and San Francisco. The resulting real estate impact model developed for these Ports allows for the estimation of the potential economic impacts of alternative waterfront and non-waterfront land developments and compares these developments with cargo and passenger uses.

Martin Associates has developed a similar approach to measure the economic *impacts of shipyard activity*. The methodology measures the jobs, income, revenue and tax impacts generated by new construction and repair work at shipyards. The impacts are estimated by industry segment (i.e., tankers, cargo ships, barges, Navy/Coast Guard, MARAD, oil modules, etc.) and by type of work (i.e., new construction, repair, dry dock, topside, etc.). The model allows the direct comparison of shipyard activity with the impacts of seaport, airport and other industrial activity. The shipyard model has been used to assess the economic impacts of shipyard activity in Seattle, Portland (Oregon), and Port Angeles, to assess the potential for locating a barge and tug construction yard in Pittsburgh, and to assess the economic impacts of a proposed shipyard (by Meyer Werft) specializing in cruise ship construction at the site of the Philadelphia Naval Yard. Within the last year, we have recently used this analysis to estimate the economic impacts of ship repair and new construction activity at the shipyards in Tampa and Mobile.

Finally, Martin Associates provides similar economic impact services to the majority of the *nation's airports*, including the Van Nuys Airport (current), San Francisco International Airport, Oakland International Airport, Sacramento International Airport, San Jose International Airport, Sea-Tac International Airport, Portland International Airport, Miami International Airport, Washington-Dulles and Washington Reagan National Airport, Baltimore-Washington International Airport, Hartsfield-Atlanta International Airport, Minneapolis-St. Paul International Airport, and the Milwaukee International Airport.

Attachment #3

Finance & Resource Management Consultants, Inc.

Facilitators for Study Groups

www.studygroups.com

David M. Nelson, Ph.D.
President and Founder

Jedidiah W. Brewer, Ph.D.
Vice President

October 24, 2011

Review of Martin Associates Economic Impact Study

Prepared by: Jedidiah W. Brewer, Ph.D., Hart Hodges, Ph.D., and David M. Nelson, Ph.D.

We have been asked by the management at SSA Marine to review the Economic Impact Study for the Gateway Pacific Terminal in Whatcom County, Washington state at Cherry Point prepared by Martin Associates in Lancaster, PA. The Martin Associates impact study is titled *The Projected Economic Impacts for the Development of a Bulk Terminal at Cherry Point* and was prepared on February 16, 2011 (revised July 2011). Table 1 contains an executive summary of our findings compared to Martin Associates'. Our respective findings and methodologies are then discussed in detail.

In brief, we find Martin Associates' estimates of the economic impact of the Gateway Pacific Terminal to be reasonable. Our analysis projects qualitatively similar direct employment impacts for the Construction of Phase I of the terminal and for total employment resulting from the Operation of Phase I of the terminal; however, we do diverge some on the induced and indirect employment impacts generated by the Construction of Phase I of the project. This difference most likely is attributable to different input-output models used by Martin Associates and us. Martin Associates and we both used nationally recognized and respected input-output models to estimate indirect and induced impacts. Input-output models are known to yield different results at times. Accordingly, the conservative reader could use our indirect and induced estimates as his or her preferred impact projections. The more optimistic reader could use Martin Associates'.

We want to emphasize that we have only been asked by SSA Marine management to corroborate and verify Martin Associates' findings of the employment impacts of the project. We make no attempt to determine the project's overall net benefits.

Executive Summary -- Table 1
Comparison of Our Analysis to Martin Associates' for the Construction of Phase I

Jobs*	Martin Associates	Our Analysis
Direct	1,781	1,648
<i>Variance from Martin Associates</i>	--	-7.5%
Employ. Multiplier	2.36	1.80
Induced/Indirect	2,427	1,318
<i>Variance from Martin Associates</i>	--	-45.7%
Total	4,208	2,966
<i>Variance from Martin Associates</i>	--	-29.5%

*Jobs are workers hired per year, assuming a 2-year construction period and that labor is smoothed out so that the number of workers utilized in the first year is the same as the second.

Comparison of Our Analysis to Martin Associates' for the Operation of Phase I

	Martin Associates	Our Analysis -- BEA	Our Analysis -- IMPLAN
Employment Multipliers	2.93	~2.8	2.96

Summary of Martin Associates Report

Martin Associates was provided by SSA Marine management key project specifications regarding the Gateway Pacific Terminal. In particular, Martin Associates was informed the Gateway Pacific Terminal project would be broken down into 2 main parts:

1. The Construction Phase. The construction phase, itself, would be broken down into two parts: Phase I provides for terminal throughput capacity of 25 million metric tons per year. Phase II, to be completed after Phase I is up and operational, will provide an *additional* 29 million metric tons per year. Phase II, when completed, will bring the total terminal capacity up to 54 million metric tons.

SSA Marine management estimates Phase I will cost \$536 million in direct construction expenditures (these expenditures do not include the purchase of equipment from areas outside Whatcom County). The \$536 million, therefore, represents the amount of expenditures expected to take place in the local community.¹ Martin Associates was asked by SSA Marine management to focus on local economic impacts only.

¹ The \$536 million in expenditures can equivalently be thought of as revenue since every transaction has both a buyer and a seller.

Based on the \$536 million SSA Marine construction expenditure assumption, Martin Associates used a proprietary model to find the number of person-hours of employment (direct, indirect, and induced) Phase I will support.

Martin Associates abstained from converting person-hours into "jobs" because the length of the construction project is uncertain. We agree with Martin Associates' decision to leave employment impacts in person-hours since one generally measures jobs on an annual basis and in this case the number of years has not been clarified. It is thought, however, by SSA Marine management that construction of Phase I would likely last about two years, but is nonetheless unknown. The person-hours number, while more difficult for a typical person to interpret, does more accurately specify the employment impact. Martin Associates could convert person-hours directly into worker-years (i.e. the number of workers it would take to build the project in one year), which can be used as well in place of the number of "jobs" and would make the findings generally more interpretable.

SSA Marine management further estimates Phase II of the project will cost \$129 million in direct construction expenditures. Martin Associates again used its proprietary model based on this assumption to find the number of person-hours of employment Phase II of the project will support.

Table 2 below lists the relevant Martin Associates findings.

Table 2
Martin Associates Findings of Economic Impacts
from Construction of Gateway Pacific Terminal

Jobs (personhours)	Phase I	Phase II	Total
Direct	7,406,880	1,782,560	9,189,440
Induced/Indirect	<u>10,096,320</u>	<u>2,429,440</u>	<u>12,525,760</u>
Total	17,503,200	4,212,000	21,715,200
Personal Income (millions)			
Direct	\$140.0	\$34.0	\$174.0
Re-spending/Indirect	<u>\$191.0</u>	<u>\$46.0</u>	<u>\$237.0</u>
Total	\$331.0	\$80.0	\$411.0
Revenue (millions)	\$536.0	\$129.0	\$665.0
Local Purchases (millions)	\$503.0	\$121.0	\$624.0
State/Local Taxes (millions)	\$57.0	\$13.8	\$70.8

2. **The Operating Phase.** Martin Associates secondly estimated the employment impacts of the operation phase of the Gateway Pacific Terminal. Table 3 contains the estimated number of jobs (direct, induced, and indirect) created in the operating phase on an annual basis. The operating phase is broken into two parts itself (Phase I and Phase II) representing the respective throughput capacities.

Table 3
Martin Associates Findings of Economic Impacts
From Operation of Gateway Pacific Terminal

Jobs	Phase I	Phase II
Direct	294	430
Induced	453	634
Indirect	<u>116</u>	<u>165</u>
Total	863	1,229
Personal Income (millions)		
Direct	\$29.5	\$40.8
Re-Spending and Local Consumption	\$56.5	\$78.2
Indirect	<u>\$5.1</u>	<u>\$7.3</u>
Total	\$91.1	\$126.3
Business Revenue (millions)	\$666.6	\$1,437.8
Local Purchases (millions)	\$12.0	\$17.1
State and Local Taxes (millions)	\$8.1	\$11.2

Table 4 details the direct jobs created by job-type found by Martin Associates.

Table 4
Martin Associates Findings of Direct Jobs Created
by Job-Type from Operating the Gateway Pacific Terminal

Categories	Direct Jobs/Phase I	Direct Jobs/Phase II
Railroads	46	66
Terminal Operators	29	44
ILWU	170	213
Pilots/Tugs	17	36
Maritime Services	<u>32</u>	<u>71</u>
Total	294	430

Our Thoughts on Martin Associates' Findings

Our objective was to explore the Martin findings and either add assurance by corroborating the findings' reasonableness or refute them. Since the project is divided up into two parts – construction and operation – we will focus our analysis accordingly. In short, we find Martin Associates' estimates of the economic impact of the Gateway Pacific Terminal to be reasonable.

1. Construction Phase. As depicted in Table 2 and discussed above, Martin Associates offers that there will be 7.4 million person-hours of direct activity during Phase I of the construction phase, based on the \$536 million in local construction spending assumption. Table 2 also implies an *employment multiplier* (how many induced and indirect person-hours of employment are created from each direct person-hour of employment) of 2.36. Martin Associates used the RIMS II² multiplier for construction activity in Whatcom County that is prepared by the Bureau of Economic Analysis. Martin Associates found the total multiplier for construction to be about 16 per million of construction sales. It then multiplied this by the respective construction expenditures reported by SSA Marine's management. Induced and indirect jobs were backed into using the final demand job multipliers used by RIMS II for all of Washington State. The Whatcom county multiplier is what produced the total construction jobs.

We used IMPLAN³, an economic impact modeling system, in an attempt to replicate Martin Associates' findings. IMPLAN, among other things, allows the researcher to choose the appropriate project classification and predict the number of direct, induced, and indirect jobs that will be created. One advantage of IMPLAN over the BEA's RIMS II multipliers is that it has a production function built into the model that allows the researcher to completely calculate the direct employment impact from a given dollar of expenditure. Martin Associates, using the RIMS II multipliers, needed to back into this number.

We entered \$536 million (the assumption of construction expenditures provided by SSA Marine management) into IMPLAN and used the category "construction of new nonresidential structures." The program yielded 3,295 average worker-years of direct employment (note: IMPLAN shows the average worker-years rather than person-hours). If we assume 2,080 hours worked per year on average,⁴ our 3,295 average worker-years equates to 6.9 million person-hours of direct employment created. This is about 0.5 million person-hours lower than Martin Associates' finding of 7.4 million person-hours or about 7.5 percent. So our findings are reasonably similar. Our employment multiplier, however, is only 1.80 compared to Martin Associates' implied employment multiplier of 2.36. We, thus, find total employment created from the construction of Phase I of the terminal to be lower than Martin Associates' findings. So

² RIMS is a Regional Input-Output Modeling System produced by the Bureau of Economic Analysis, a division of the US Department of Commerce. The Bureau of Economic Analysis is the department that calculates US Gross Domestic Product numbers, among other national and regional estimates.

³ IMPLAN (IMpact analysis for PLANning) is an economic impact modeling system. It can be used to create complete, detailed Social Accounting Matrices and Multiplier Models of local economies. IMPLAN was developed in 1993 by Scott Lindall and Doug Olson as part of their work with the University of Minnesota. Today it is a nationally recognized input-output model used by many researchers.

⁴ If a person works on average 40 hours a week over a 52 week year (the equivalent of a full-time job) it equals 2,080 hours worked in one year.

it is possible that the induced/indirect employment estimates obtained by Martin Associates are a bit high. However, we need to emphasize that the IMPLAN category we used may not exactly fit the project at hand. The construction of a shipping terminal, in particular, may involve more workers than the construction of typical non-residential structures, may include higher paying jobs, and possibly more business-to-business expenditures (thereby giving it a larger multiplier).

As a robustness check, we modified the IMPLAN category to “construction of nonresidential manufacturing structures.” This yielded qualitatively similar results to when we used the “construction of new nonresidential structures” described above.

We should emphasize that differences between our estimates and Martin Associates’ could persist, even if our category selections are similar, because of the different input-output models used to find the induced and indirect employment impacts. Martin Associates used the RIMS II input-output model produced by the Bureau of Economic Analysis. We used IMPLAN’s input-output model. There are underlying differences in how these two models are constructed that could explain the discrepancies in our respective findings of the magnitude of the employment multiplier for construction of Phase I. IMPLAN relies on coefficients calculated with national data when describing the interdependencies in a region’s economy. BEA uses a slightly different approach to calculate the coefficients and multipliers. In short, the different models tend to provide similar multipliers but differences can and do arise. We should say, though, that both BEA RIMS II and IMPLAN are nationally recognized and respected input-output models. Researchers across the country use both of these models to estimate economic impacts for a variety of projects on a regular basis. We feel both models are valid.

Table 5 lists our findings for the economic impacts of the construction phase derived from IMPLAN and places them next to those of Martin Associates derived from BEA’s RIMS II. The table also shows the percentage difference between our findings and Martin Associates’. Overall, our direct employment impacts for the construction phase are reasonably similar to Martin Associates’ but our induced and indirect impacts are smaller. The conservative reader could view our results as a lower bound on the projected employment impacts to be generated from the construction of Phase I of the terminal. Even if a lower bound, our analysis still suggests that the construction of Phase I of the terminal would create about 3,295 worker-years of *direct* employment and approximately 5,931 worker-years of *total* employment in the local area. If the project were to take two years to complete, as expected by SSA Marine management, it would equate to the creation of 2,966 annual, local jobs for two years. To put this number in local context, at the end of February 2011, Whatcom County had 9,990 unemployed persons according to the Washington State Employment Security. The temporary jobs created by the construction of the terminal, therefore, are equivalent to roughly 30 percent of the total unemployed capacity in our county.

Table 5
Comparison of Our Analysis to Martin Associates' for the Construction of Phase I

Jobs (person-hours)	Martin Associates	Our Analysis
Direct	7,406,880	6,853,600*
<i>Variance from Martin Associates</i>	--	-7.5%
Employ. Multiplier	2.36	1.80
Induced/Indirect	10,096,320	5,482,880
<i>Variance from Martin Associates</i>	--	-45.7%
Total	17,503,200	12,336,480
<i>Variance from Martin Associates</i>	--	-29.5%

*Assumes 2,080 hours worked per year on average. This is the total hours an individual would work in one year when averaging 40 hours per week over 52 weeks.

2. Operating Phase. We also attempted to replicate Martin Associates economic impact estimates for the operation of Phase I of the Gateway Pacific Terminal. Martin Associates used a proprietary model based on its experience with other port projects throughout the world and based on inputs obtained from SSA Marine and Burlington Northern Railroad management. In general, we find Martin Associates' findings of the direct employment and personal income generated from the operation of the terminal to be well-done. Martin Associates used inputs about terminal capacity, rail rates, number of cars per train, number of rail crew at the terminal, number of rail miles per train cycle, expected worker salaries, etc. to "add up" how many workers are needed to operate and support the terminal at a given capacity and calculate these workers' total salaries. Its proprietary model for calculating the direct effects, therefore, is fairly straightforward and formulaic. Martin Associates then used these direct impacts to calculate the induced and indirect employment impacts and personal income effects.

We took Martin Associates' direct impacts as given and focused on replicating the induced and indirect jobs or employment multiplier. Martin Associates shows direct employment from the operation of Phase 1 to be 294 jobs with an implied employment multiplier of 2.93 (see Table 3).

We called the Bureau of Economic Analysis (BEA) to ask what category they would use for the operation of something like a marine terminal. They said "48A000." Unfortunately, we did not have a recent set of RIMS II multipliers from the BEA for Whatcom County. We did, however, have them for other counties in the west. The employment multipliers tended to be around 2.8 and slightly above – similar in magnitude to what Martin Associates reported.

We also used IMPLAN and tried different categories to estimate the impacts. IMPLAN, unfortunately, does not have a category that matches exactly to 48A000 at the BEA. However, they had categories like "transport by water" and "transport by rail." Therefore, we placed the 294 direct jobs found by Martin Associates in Table 4 in the transport by water category. In doing so, we arrived at an employment multiplier of 2.96, quite similar to Martin Associates' multiplier of 2.93. We did not prepare a scenario in IMPLAN that had some jobs in the transport by rail category and some in transport by water, but are quite confident doing so would give us figures almost identical to those in the Martin Associates report.

Table 6 lists and compares Martin Associates' analysis of the terminal, based on the direct employment impacts. These findings support the veracity of the direct employment impacts of Phase I.

Comparison of Our Analysis

	Martin Associates
Employment Multipliers	2.93

Conclusion

On the whole, our analysis supports the Gateway Pacific Terminal are reasonable employment multipliers for the induced impacts of Phase I of the terminal. We also find that the direct impacts of construction of Phase I of the project and induced impacts arising from the construction are approximately 45 percent lower than those reported by Martin Associates. This is due to our inability to find a strong classification for the construction impacts using a more general and less precise classification because we are using different input-output coefficients (IMPLAN (us)).

As a final note, in performance of our analysis we find similar results to those reported by Martin Associates. Taking Martin Associates' findings as given, the project's construction has the potential to have a sizable impact on local purchases (see Table 2). If we assume constant purchases in each year, this effect would last for two years. According to the Bureau of Economic Analysis, total state and local purchases in Whatcom County were \$7.01 billion in 2008. As a result, the project could augment local purchases by as much as \$1.5 billion over the two-year period.

Additionally, the operation of Phase I of the terminal has the potential to create 1,229 long-term jobs. According to the Washington State Department of Labor & Industries, there were 9,990 long-term jobs in Whatcom County in 2011. The long-term jobs created by the operation of the Gateway Pacific Terminal would represent about 12 percent of the currently unemployed workforce.

On the whole, our analysis supports the Gateway Pacific Terminal are reasonable employment multipliers for the induced impacts of Phase I of the terminal. We also find that the direct impacts of construction of Phase I of the project and induced impacts arising from the construction are approximately 45 percent lower than those reported by Martin Associates. This is due to our inability to find a strong classification for the construction impacts using a more general and less precise classification because we are using different input-output coefficients (IMPLAN (us)).

As a final note, in performance of our analysis we find similar results to those reported by Martin Associates. Taking Martin Associates' findings as given, the project's construction has the potential to have a sizable impact on local purchases (see Table 2). If we assume constant purchases in each year, this effect would last for two years. According to the Bureau of Economic Analysis, total state and local purchases in Whatcom County were \$7.01 billion in 2008. As a result, the project could augment local purchases by as much as \$1.5 billion over the two-year period.

Additionally, the operation of Phase I of the terminal has the potential to create 1,229 long-term jobs. According to the Washington State Department of Labor & Industries, there were 9,990 long-term jobs in Whatcom County in 2011. The long-term jobs created by the operation of the Gateway Pacific Terminal would represent about 12 percent of the currently unemployed workforce.

Appendix of Additional Comparison Tables

Construction of Phase I

Jobs*	Martin Associates	Our Analysis	Average
Direct	1,781	1,648	1,715
Employ. Multiplier	2.36	1.80	2.08
Induced/Indirect	2,427	1,318	1,873
Total	4,208	2,966	3,587

*Jobs are workers hired per year, assuming a 2-year construction period and that labor is smoothed out so that the number of workers utilized in the first year is the same as the second.

Construction of Phase II

Jobs*	Martin Associates	Our Analysis	Average
Direct	429	372	401
Employ. Multiplier	2.36	1.80	2.08
Induced/Indirect	584	298	441
Total	1,013	670	842

*Jobs are workers hired per year, assuming a 2-year construction period and that labor is smoothed out so that the number of workers utilized in the first year is the same as the second.

Total Jobs Created from Construction of Phase I and Phase II

Jobs*	Martin Associates	Our Analysis	Average
Direct	2,210	2,020	2,115
Employ. Multiplier	2.36	1.80	2.08
Induced/Indirect	3,011	1,616	2,314
Total	5,221	3,636	4,429

*Jobs are workers hired per year, assuming a 2-year construction period and that labor is smoothed out so that the number of workers utilized in the first year is the same as the second.

Total Annual Jobs Created from the Operation of Phase I

Jobs	Martin Associates	Our Analysis	Average
Direct**	294	294	294
Employ. Multiplier	2.93	2.96	2.95
Induced/Indirect	569	576	573
Total	863	870	867

**We took Martin Associates' estimate of Direct Jobs Created as given and estimated the Employment Multiplier and the number of Induced and Indirect Jobs Created from the Operation of the Terminal.

Total Annual Jobs Created from the Operation of Phase II

Jobs	Martin Associates	Our Analysis	Average
Direct**	136	136	136
Employ. Multiplier	2.69	2.96	2.83
Induced/Indirect	230	267	249
Total	366	403	385

**We took Martin Associates' estimate of Direct Jobs Created as given and estimated the Employment Multiplier and the number of Induced and Indirect Jobs Created from the Operation of the Terminal.

Total Annual Jobs Created from the Operation of Phase I and Phase II

Jobs	Martin Associates	Our Analysis	Average
Direct**	430	430	430
Employ. Multiplier	2.86	2.96	2.91
Induced/Indirect	799	843	821
Total	1,229	1,273	1,251

**We took Martin Associates' estimate of Direct Jobs Created as given and estimated the Employment Multiplier and the number of Induced and Indirect Jobs Created from the Operation of the Terminal.

Economic Analysis Comparison Summary

Gateway Pacific Terminal

October 27, 2011

Local Economic Impacts¹

Construction Impacts²

CONSTRUCTION JOBS*

	25 Million Metric Tons	54 Million Metric Tons	Source
Direct Jobs	1,715	2,115	Average of Martin & FRMC
Indirect & Induced Jobs	1,873	2,314	Average of Martin & FRMC
Total Jobs*	3,587	4,429	Average of Martin & FRMC

* Job Impacts are reported as annual FTEs (full-time equivalents), over an estimated 2-year construction period.

PERSONAL INCOME (millions)

	25 Million Metric Tons	54 Million Metric Tons	Source
Direct Personal Income	\$134.8	\$166.5	Martin, adjusted to averages
Indirect & Induced Pers. Income	\$147.4	\$182.1	Martin, adjusted to averages
Total Personal Income*	\$282.2	\$348.7	Martin, adjusted to averages

* Personal Income Impacts are for the total estimated 2-year construction period.

TOTAL ECONOMIC BENEFIT (millions)

	25 Million Metric Tons	54 Million Metric Tons	Source
Local Construction Expenditures*	\$536.0	\$665.0	GPT
State/Local Taxes	\$74.4	\$92.4	Martin
Total Personal Income	\$282.2	\$348.7	Martin, adjusted to averages

* SSA Marine estimate of construction cost. Impacts are for the total estimated 2-year construction period.

¹ Based on Martin Associates, "The Projected Economic Impacts for the Development of a Bulk Terminal at Cherry Point", July 2011 using RIMS and a proprietary input-output economic impact modeling system. Job impacts were further reviewed and verified by Finance & Resource Management Consultants, Inc., "Review of Martin Associates Economic Impact Study", October 24, 2011 using the IMPLAN economic impact modeling system; job impacts represent averages of the job impacts from both studies and personal income data was adjusted accordingly.

² Direct Jobs=Jobs directly involved in the construction of the Terminal; Indirect Jobs=Jobs that are created locally due to purchases of goods and services by firms for the construction of the Terminal; Induced Jobs=Jobs that are created throughout the local economy because individuals directly employed by the activity at the terminal will spend their wages locally on goods and services (i.e. food, housing and clothing); Direct Personal Income=Employee wages and salaries (excluding benefits) for direct FTEs; Re-spending/Indirect & Induced Income=Local consumption expenditures and wages and salaries by Indirect/induced employees; Local Construction Expenditures=SSA estimate of construction cost (excluding cost of equipment); State/Local Taxes=Taxation paid to State and Local government by terminal and construction companies involved in project (includes sales tax on the initial construction expenditures)

Operation Impacts³

OPERATIONS JOBS

	25 Million Metric Tons	54 Million Metric Tons	Source
Direct Ongoing Jobs	294	430	Martin
Indirect/Induced Ongoing Jobs	573	821	Average of Martin & FRMC
Total Ongoing Jobs*	867	1,251	Average of Martin & FRMC

*Jobs are Full-time Equivalents (FTEs)

PERSONAL INCOME (millions)

	25 Million Metric Tons	54 Million Metric Tons	Source
Direct Annual Income	\$29.5	\$40.8	Martin
Indirect & Induced Annual Income	\$62.0	\$87.8	Martin, adjusted to averages
Total Annual Personal Income	\$91.5	\$128.6	Martin, adjusted to averages

ANNUAL ECONOMIC BENEFIT (millions)

	25 Million Metric Tons	54 Million Metric Tons	Source
Local Purchases	\$12.0	\$17.1	Martin
State and Local Taxes	\$8.1	\$11.2	Martin
Personal Income	\$91.5	\$128.6	Martin, adjusted to averages

³ Direct Jobs=Jobs directly generated by the movement of the bulk cargo via the terminal; Indirect Jobs=Jobs that are created locally due to purchases of goods and services by firms for the construction of the Terminal; Induced Jobs=Jobs that are created throughout the local economy because individuals directly employed by the activity at the terminal will spend their wages locally on goods and services (i.e. food, housing and clothing); Direct Income=Employee wages and salaries (excluding benefits) for direct FTEs; Re-spending/Indirect & Induced Income=Local consumption expenditures and wages and salaries by indirect/induced employees; Local Purchases= Purchases made by firms which provide handling and vessel services at the Terminal; State and Local Taxes=Tax payments made to the state and local governments by firms and by individuals whose jobs are directly dependent upon and supported by (induced Jobs) activity at the bulk terminal.



GPT
Gateway Pacific Terminal

P.O. Box 3170
Bellingham Washington
98227-3170
360/738-7229 tel
www.gatewaypacificterminal.com

TO: Ken Oplinger, Co-Chair - Northwest Jobs Alliance

FROM: Craig Cole, Senior Consultant – Gateway Pacific Terminal (GPT)

Date: April 10, 2012

RE: Clarification of Chapter 4, Section 4.5.1 Employment of the Revised Project Information Document (PID) (March 2012) for the Gateway Pacific Terminal, Whatcom County, Washington

As you mentioned to me last week, the voluminous required permit filings are complex and require very careful reading in order to be fully understood. You have heard suggestions that the manner in which a section of the PID was written may cause confusion about the projected employment that would result from the Terminal’s operations. The information as submitted is correct, but can be made clearer. Here is a summary of what is contained in the PID, along with some clarifying information, to make the information easier to understand.

Explanation of Data Contained in PID Section 4.5.1-Employment

The foundational projections of direct, indirect, and induced employment are from a study done by Martin Associates: *The Projected Economic Impacts for the Development of a Bulk Terminal at Cherry Point, Martin Associates, July 2011.* Martin is an internationally recognized expert in port economics.

The PID provides estimates for possible scenarios involving the growth of cargo handling at the Terminal, post-construction. At lower capacity utilization, the jobs would be less, as would the impacts of the operation. For clarification in this memorandum, we have retitled Table 4-3 of the PID as “Estimated Number of ILWU Employees by Shift for Each Operational Phase”. *Table 4-3 does not reflect all direct jobs created by the Terminal.*

Phase	Approximate Year (estimated)	Operational Capacity (Mtpa)	Number of ILWU Employees by Shift			Total
			7 AM-4 PM	3 PM-12 AM	11 PM-8 AM	
1	2016	25	39	26	24	89
2	2018	31	67	48	45	160
3	2021	45	83	61	57	201
4	2026	54	88	65	60	213

During Phase 1 of Terminal operation, the total *direct* employment (all types of jobs, including ILWU, rail, terminal operations and maritime workers) is estimated at 294.



GPT
Gateway Pacific Terminal

P.O. Box 3170
Bellingham Washington
98227-3170
360/738-7229 tel
www.gatewaypacificterminal.com

Page 2- Employment

The Terminal is estimated by Martin to create 430 FTE *direct* jobs at *full capacity* (Phase 4). The breakdown of the direct jobs by job category is estimated as follows: 213 ILWU employees, 71 maritime services, 66 railroad, 44 terminal operators, and 36 pilots/tugs. Operating hours for the Terminal are anticipated to be 24 hours a day, 365 days a year.

Like other industries at Cherry Point and elsewhere, some of the above would be employed by the primary industry involved (GPT) and some would be on the payroll of regular service providers. All such personnel are required for the day-to-day operations of the facility.

Total Job Creation of Direct, Indirect, and Induced Employment

As you know, *direct* employment from an industrial project like GPT has a significant economic “multiplier affect” in the generation of *indirect* and *induced* employment. Economists use different methodologies to predict such affects. Martin used a well-accepted model called RIMS. His estimates were then vetted by a team of respected economists from this region (Drs. Brewer, Nelson, and Hodges) using another widely-accepted economic model called IMPLAN. **(Finance & Resource Management Consultants, Inc., “Review of Martin Associates Economic Impact Study”, October 24, 2011.) A summary of the project’s economic impacts estimated from these studies can be found attached (“Economic Analysis Comparison Summary, Gateway Pacific Terminal, October 27, 2011”).**

I hope this information is useful to you as you seek to inform the community about the project. Please let me know how I can be of further assistance.

cc: Chris Johnson, Co-Chair – NW Jobs Alliance

Economic Analysis Summary

Gateway Pacific Terminal

October 27, 2011

Local Economic Impacts¹

Construction Impacts²

CONSTRUCTION JOBS*

	25 Million Metric Tons	54 Million Metric Tons	Source
Direct Jobs	1,715	2,115	Average of Martin & FRMC
Indirect & Induced Jobs	1,873	2,314	Average of Martin & FRMC
Total Jobs*	3,587	4,429	Average of Martin & FRMC

* Job impacts are reported as annual FTEs (full-time equivalents), over an estimated 2-year construction period.

PERSONAL INCOME (millions)

	25 Million Metric Tons	54 Million Metric Tons	Source
Direct Personal Income	\$134.8	\$166.5	Martin, adjusted to averages
Indirect & Induced Pers. Income	\$147.4	\$182.1	Martin, adjusted to averages
Total Personal Income*	\$282.2	\$348.7	Martin, adjusted to averages

* Personal Income impacts are for the total estimated 2-year construction period.

TOTAL ECONOMIC BENEFIT (millions)

	25 Million Metric Tons	54 Million Metric Tons	Source
Local Construction Expenditures*	\$536.0	\$665.0	GPT
State/Local Taxes	\$74.4	\$92.4	Martin
Total Personal Income	\$282.2	\$348.7	Martin, adjusted to averages

* SSA Marine estimate of construction cost. Impacts are for the total estimated 2-year construction period.

¹ Based on Martin Associates, "The Projected Economic Impacts for the Development of a Bulk Terminal at Cherry Point", July 2011 using RIMS and a proprietary input-output economic impact modeling system. Job impacts were further reviewed and verified by Finance & Resource Management Consultants, Inc., "Review of Martin Associates Economic Impact Study", October 24, 2011 using the IMPLAN economic impact modeling system; job impacts represent averages of the job impacts from both studies and personal income data was adjusted accordingly.

² Direct Jobs=Jobs directly involved in the construction of the Terminal; Indirect Jobs=Jobs that are created locally due to purchases of goods and services by firms for the construction of the Terminal; Induced Jobs=Jobs that are created throughout the local economy because individuals directly employed by the activity at the terminal will spend their wages locally on goods and services (i.e. food, housing and clothing); Direct Personal Income=Employee wages and salaries (excluding benefits) for direct FTEs; Re-spending/Indirect & Induced Income=Local consumption expenditures and wages and salaries by indirect/induced employees; Local Construction Expenditures=SSA estimate of construction cost (excluding cost of equipment); State/Local Taxes=Taxess paid to State and Local government by terminal and construction companies involved in project (includes sales tax on the initial construction expenditures)

Operation Impacts³

OPERATIONS JOBS

	25 Million Metric Tons	54 Million Metric Tons	Source
Direct Ongoing Jobs	294	430	Martin
Indirect/Induced Ongoing Jobs	573	821	Average of Martin & FRMC
Total Ongoing Jobs*	867	1,251	Average of Martin & FRMC

*Jobs are Full-time Equivalents (FTEs)

PERSONAL INCOME (millions)

	25 Million Metric Tons	54 Million Metric Tons	Source
Direct Annual Income	\$29.5	\$40.8	Martin
Indirect & Induced Annual Income	\$62.0	\$87.8	Martin, adjusted to averages
Total Annual Personal Income	\$91.5	\$128.6	Martin, adjusted to averages

ANNUAL ECONOMIC BENEFIT (millions)

	25 Million Metric Tons	54 Million Metric Tons	Source
Local Purchases	\$12.0	\$17.1	Martin
State and Local Taxes	\$8.1	\$11.2	Martin
Personal Income	\$91.5	\$128.6	Martin, adjusted to averages

³ Direct Jobs=Jobs directly generated by the movement of the bulk cargo via the terminal; Indirect Jobs=Jobs that are created locally due to purchases of goods and services by firms for the construction of the Terminal; Induced Jobs=Jobs that are created throughout the local economy because individuals directly employed by the activity at the terminal will spend their wages locally on goods and services (i.e. food, housing and clothing); Direct Income=Employee wages and salaries (excluding benefits) for direct FTEs; Re-spending/Indirect & Induced Income=Local consumption expenditures and wages and salaries by indirect/induced employees; Local Purchases= Purchases made by firms which provide handling and vessel services at the Terminal; State and Local Taxes=Tax payments made to the state and local governments by firms and by individuals whose jobs are directly dependent upon and supported by (induced jobs) activity at the bulk terminal.

Attachment #4

Finance & Resource Management Consultants, Inc.

Facilitators for Study Groups

www.studygroups.com

David M. Nelson, Ph.D.
President and Founder

1200 Chuckanut Crest Lane
Bellingham, WA 98229

Jedidiah W. Brewer, Ph.D.
Vice President

March 25, 2012

Public Financial Management Report Review¹

Prepared for: Jim Waldo, Gordon Thomas Honeywell

Prepared by: Jedidiah W. Brewer, Ph.D. and David M. Nelson, Ph.D.

Report Summary

Public Financial Management (PFM) prepared a report on the Gateway Pacific Terminal (GPT) for Communitywise Bellingham on March 6, 2012 titled "The Impact of the Development of the Gateway Pacific Terminal on the Whatcom County Economy." The PFM report aims to expand on the earlier estimates of job creation arising from the construction and operation of the GPT that were provided to SSA Marine and the public by Martin Associates and Finance & Resource Management Consultants, Inc. (FRMC). Specifically, PFM's report seeks to describe and discuss potential *adverse* economic impacts that could arise from the terminal. By doing this, the report claims to provide more complete benefit and cost information of the GPT's impact on Whatcom County's economy and better aid policymakers and the public in making informed decisions about the project.

Our Objective

SSA Marine management asked us to review the PFM report and discuss its strengths and shortcomings. The following is our opinion on the report based on a thorough reading and reflection.

Report Strengths

1. The PFM report correctly points out that, to date, the economic analysis provided by Martin Associates and FRMC has focused primarily on the *benefits* (job, income, and tax creation) of the GPT and has included little discussion of the potential economic *costs*. As a result, policy makers and the public have been left speculating about the project's attendant adverse economic impacts and risks.
2. The PFM report highlights potential economic *costs* associated with the terminal. Most projects come with costs to the local, regional, or more widespread economy and so it is appropriate to discuss what these may be.

¹ Confidential attorney client privilege/attorney work product. Prepared in anticipation of litigation.

3. The tone of the report is balanced and thoughtful. The report does not take an explicit position on the desirability of the project. It merely describes the potential risks in a fair manner.
4. The report makes no attempt to modify, attack or discredit the estimates or methodologies employed by Martin Associates or FRMC. Instead, the report takes Martin's and FRMC's findings as given and uses them in its own analysis.
5. The report discusses possible solutions and mitigation strategies for some possible adverse economic impacts that SSA Marine, the local government, or other stakeholders could employ.
6. The report highlights that where mitigation strategies need to be employed it is important for everyone to ask and be mindful of who will bear the cost of mitigation.
7. The report attempts to assign the number of jobs that would need to be lost from adverse economic impacts relative to the number of expected jobs gained in order for the GPT to produce negative net job benefits for the local community.

Report Weaknesses

1. Perhaps the biggest weakness of the PFM report is its inability to adequately address its stated purpose: "to provide policymakers – and the public – with additional information about the potential economic impact to reach better-informed decisions."² The report highlights several *possible* negative economic impacts. It goes on to discuss that if those possible impacts are sufficiently large, then the GPT could produce negative net benefits to the local economy. It is true indeed that with the project – like with most projects – negative economic impacts could exist. The critical question, though, is not whether those impacts could exist (most individuals already know that they could exist) but rather how large those impacts are and how likely they are to occur. Here, the report falls short. The report makes no attempt to estimate the size nor the likelihood of the possible respective impacts. We, therefore, are not sure what *additional* information the report adds to the public debate that will allow stakeholders to make "more-informed" decisions. To make informed decisions, policymakers need to understand the probable size of the adverse impacts, something the report explicitly makes no attempt to provide. Accordingly, policymakers and members of the public that came in with the prior or bias that the externalities will be large will likely continue to hold their position and will oppose the project, and policymakers and members of the public that came in with the prior or bias that the externalities will be comparatively small will likely continue to hold their position and will support the project. The report provides so little clarity about the possible size of the externalities that it may only further divide, as opposed to centralize, public discourse. In fact, the report's focus on hypothetical scenarios and lack of focus on quantitative analysis makes the report somewhat difficult for us to thoroughly review in a fact-based manner.
2. Perhaps the greatest value-add of the PFM report is the figures presented on page 30 that attempt to quantify the risk the county faces owing to the GPT. The report finds that if the GPT reduces otherwise projected job growth by more than 17 percent under

² Page 4.

one scenario (and by more than 13 percent under another scenario), then the project will result in a net job loss for the county. These breakeven levels, however, may be understated in two key ways. First, it's important to realize that the breakeven level emphasized by PFM is where the number of *jobs* gained equals the number of *jobs* lost for the county. PFM's analysis, therefore, implicitly assumes that a GPT job gained is equal to the typical job in the county (in other words, a job lost fully offsets a job gained) and so the net *jobs* gained or lost is what we should care about. We know, however, that in the permanent direct operation of the GPT, each job gained carries 2-3 times the salary of a typical worker in Whatcom County. If the GPT induced, on average, the departure of a median-salaried job in Whatcom County, then the PFM report would understate the true breakeven risk level. A more rigorous characterization of the job gained to job lost ratio would increase the risk breakeven level from 17 percent to about 19 percent under their first scenario. Moreover, the breakeven risk level may be understated in possibly an even more important way. The PFM analysis only focuses on the jobs created in Phase I of the GPT. The report focuses only on Phase I because it concludes Phase II is too speculative at this point to merit considering. If the job creation of Phase II were included, however, the breakeven point under PFM's scenario one could be as high as roughly 24 percent. Incorporation of this information represents as much as a 30 percent decrease in the level of "risk" associated with the GPT.

3. The PFM report claims that most tax revenue generated by GPT will go to the state. To support its claim, the report cites that 75 percent of sales taxes and 24 percent of property taxes go to the state. These statistics are accurate; however, it is important to keep in mind that some of the money that is transferred from the local community to the state ends up flowing back to the local community to support infrastructure, public services, and institutions. The *net* tax revenue that leaves the county could very well end up being less than the *majority* claimed by PFM.
4. The PFM report warns that if externalities lead to a reduction in Whatcom County home values, the reduced property values could in turn lead to an undesirable reduction in property tax revenue. In the state of Washington, however, there is a maximum dollar amount of revenue that can be raised by property taxes in a county in any given year based on history, some inflation adjustment, and any special assessments approved. This authorized amount is divided up based on the total assessed value of property in the taxing jurisdiction. Example: Say \$100,000 is authorized to be raised and there is \$10 million of assessed value. In this case the property tax rate would be 1 percent. If the assessed value of the property fell to \$5 million the rate would go to 2 percent to raise \$100,000; or if the assessed value grew to \$10 million then the rate would fall to 0.5 percent. The salient aspect is the assessed value is important to determine a taxpayer's share of the tax burden but not important for the overall revenue raised. A widespread reduction in property values across Whatcom County resulting from the GPT, therefore, would not necessarily lead to a reduction in county property tax revenue.
5. The PFM report focuses almost exclusively on *negative* costs and risks to the local economy owing to the GPT. For instance, it mentions that some individuals who would

otherwise move to Whatcom County for its environmental aspects may no longer if the GPT is approved and built. The report fails to mention or consider possible *positive* risks/externalities that may result in addition to the direct, indirect, and induced job, income, and tax creation already found in Martin's and FRMC's studies. For instance, we could equally describe hypothetical scenarios where individuals are inclined to move to Whatcom County for the blue-collar, industrial qualities of the county that GPT might enhance. As is, the PFM report appears one-sided in its discussion of "impacts." To rigorously and non-speculatively address the question of who would come to the county and who wouldn't, PFM would need to provide an underlying data-based model describing and predicting individual preferences and choices. Admittedly, this would be difficult to construct, but it is what is required if confident conclusions are to be drawn.

6. The PFM report expressed concern that passenger train (Amtrak) service could suffer because of the additional trains servicing the GPT. To us it seems this would occur only if the rail system faced capacity constraints arising from the additional GPT rail traffic. It is not clear from the PFM report that GPT would cause the BNSF rail system to reach capacity forcing a rationing of the system.
7. The PFM report cites "stigma" arising from rail traffic as a possible adverse impact of the GPT. It says "Stigma – associated with proximity to the increase in rail traffic or even resulting specifically from the fact that the rail was increasingly being used to transport coal – could affect property value even if the properties would not be affected by additional noise."³ In footnote 48, the report cites two studies to support this claim. We cannot rule out the existence of stigma. The question is how large is the stigma and how likely is it to occur. The PFM report does not address this. We would contend that stigma would likely play a substantially lesser role in the case of the GPT than in the two cited studies. One cited study examines the stigma arising from a neighbor finding arsenic in his well. It is reasonable that a neighbor or potential purchaser of a neighbor's property may be concerned about their own well possibly containing arsenic in the future – even if there is none now – if a neighbor's well has it. Groundwater tables are interrelated. The second cited study examines REO sales leading to neighboring property price discounts. The economics academic literature is replete with examples of housing externalities arising from lack of care of a neighbor's property, renters living nearby, etc. So it's understandable that stigma would be found with REO sales too. In the specific case of GPT, the rail traffic/noise does not impact the house in question and there is no expectation that it will in the future. The transmission mechanism of stigma then is less clear. In fairness to PFM, the report does admit that any negative stigma resulting near the rail may be offset (possibly more than offset) by positive stigma in communities further from the rail tracks.
8. Overall, the PFM report does a nice job discussing some *possible* adverse impacts of the GPT in Whatcom County. The report does a poor job, though, of quantifying the size and likelihood of occurrence of the impacts. Unfortunately, the latter are the critical pieces of information policymakers and the public need to make informed decisions about the GPT.

³ Page 19.

Attachment #5



October 5, 2012

The proposed Gateway Pacific Terminal (GPT) at Cherry Point would significantly enhance tax revenues for jurisdictions and special districts in Whatcom County, Washington.

Because of the weak economy, Whatcom County property values decreased six percent from 2009 to 2010, making it difficult for local governments to fund basic services without tax increases or service cuts.

According to an analysis by the FCS GROUP, the additional assessed valuation generated by the \$665 million Gateway Pacific Terminal would make GPT the second largest tax payer in Whatcom County.

Increased Property Tax Revenue

Assuming Whatcom County's existing property tax rate regime remains at current levels, at full operation the GPT will enhance annual property tax revenues and/or tax savings by approximately \$7.0 million. Annual property tax benefits generated by the GPT include:

- \$1,779,000 in additional property tax revenue for Whatcom County
- \$1,668,000 in additional property revenue for Washington State
- \$636,000 in additional property tax revenue for the local Fire District #7 Expense Fund
- \$337,000 in additional property tax revenue for the local Rural Library District
- \$195,000 in additional property tax revenue for the Port of Bellingham
- \$1,425,000 in revenue or "tax savings" for rate payers in the Ferndale School District*
- \$809,000 in revenue or "tax savings" for rate payers in the Blaine School District*
- Measurable increases in property tax revenues for local Cemetery #7 and Flood Control Zone districts

Increased Sales Tax Revenue

In addition to increased property tax revenue, construction of GPT is projected to generate \$12.3 million in local sales tax revenues and \$44.3 million in Washington State sales tax revenues.

At full build out, operation of the terminal and spending by its estimated 1,250 employees are projected to generate \$700,000 a year in sales tax revenue for local jurisdictions in Whatcom County, with Bellingham, Lynden and Ferndale likely receiving the biggest increase since that is where the majority of workers and retail establishments are located. Washington State would receive an estimated \$2.5 million a year in new sales tax revenue.**²

*The GPT site is bisected by two school districts. It should be noted that tax levies for the Blaine school bond and the Ferndale school bond (and other voter-approved bonds) are serial bonds that have fixed annual coupon payments. Hence, the additional assessed valuation levels by the GPT may not increase the total property tax revenue for that particular tax district/item, but instead will result in lower annual costs to all taxpayers within the particular tax district, as the levy amount due each year is spread over a larger tax base if the GPT is constructed.

** In addition to the property tax and sales and use tax revenue impacts discussed above, the private investment in the GPT and the direct, induced and indirect payroll attributed to facility construction and operations would generate increases in other local and state taxes and fees, including but not limited to: WA State Worker Compensation taxes, Unemployment Insurance taxes, WA State Business & Occupation taxes, Real Estate Excise taxes, Motor vehicle fuel taxes, and Public Utility taxes (affects water, sewer, power, telephone, natural gas, transportation, railroads, etc.).



Analysis of Potential Increased Local Government Tax Benefits That Result from Construction and Operation of the Gateway Pacific Terminal

Local private investment in the proposed Gateway Pacific Terminal (GPT) at Cherry Point would significantly enhance tax revenues for jurisdictions and special districts in Whatcom County, Washington. The analysis by FCS GROUP is based on build-out of a bulk commodity export terminal with up to 54 million metric tons in gross throughput capacity.

Assessed property values in Whatcom County have been trending down making it difficult for local districts to fund basic services without tax increases or service cuts. Total assessed property values in Whatcom County amounted to \$23.7 billion in 2010, down nearly 6% from \$25.1 billion in the prior year. The additional assessed valuation generated by the \$665 million GPT would make this the second largest tax payer in Whatcom County.

If we assume the existing property tax rate regime remains constant within Whatcom County at current levels, then the additional amount of total property tax revenues and/or tax savings is projected to equate to approximately \$7.0 million once the facility is fully operational. Once the GPT is operational, the annual property tax benefits are estimated at:

- \$1,779,000 in additional property tax revenues for Whatcom County
- \$1,668,000 in additional property revenues for Washington State
- \$636,000 in additional property tax revenues for the local Fire District #7 Expense Fund
- \$337,000 in additional property tax revenues for the local Rural Library District
- \$195,000 in additional property tax revenues for the Port of Bellingham
- \$1,425,000 in revenues or "tax savings" for rate payers in the Ferndale School District*
- \$809,000 in revenues or "tax savings" for rate payers in the Blaine School District*
- Measurable increases in property tax revenues for local Cemetery #7 and Flood Control Zone districts

In addition to annual property tax benefits, the total estimated Sales and Use Tax revenues that would be generated as a result of the construction and operation of GPT will flow primarily into local jurisdictions, including Bellingham, Lynden and Ferndale. As indicated in Table 1, the total construction impact from the \$665 million GPT is expected to generate \$12.3 million in local Sales and Use Tax revenues, and \$44.3 million in Washington State Sales and Use Tax revenues.

Once operational, the GPT, with an estimated 1,251 workers, \$128.6 million payroll and \$17.1 million in additional local purchases would generate annual Sales and Use Tax revenues for local jurisdictions and Washington State. It is estimated that once fully operational, the local Sales and Use Tax revenues would generate \$700,000 annually for local jurisdictions in Whatcom County. The Cities of

* The GPT site is bisected by two school districts. It should be noted that tax levies, for the Blaine School Bond and the Ferndale School Bond (and other voter-approved bonds) are serial bonds that have fixed annual coupon payments. Hence, the additional assessed valuation levels by the GPT may not increase the total property tax revenue for that particular tax district/item, but instead result in lower annual costs to all tax payers within the particular tax district, as the levy amount due each year is spread over a larger tax base if the GPT is constructed.

Analysis of Potential Increased Local Government Tax Benefits That Result from Construction and Operation of the Gateway Pacific Terminal

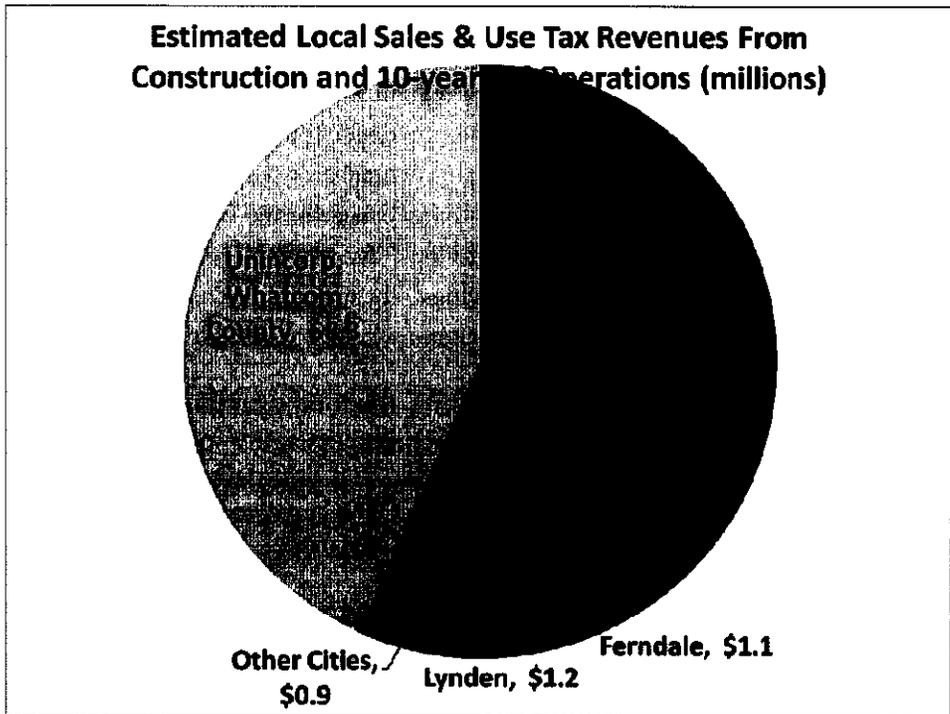
Bellingham, Lynden and Ferndale would likely receive the most significant increase in Sales and Use Tax revenues, since that is where the majority of workers and retail establishments are located (see following pie chart).

Washington State would receive an estimated \$2.5 million annually in Sales and Use Tax revenues.**

Table 1 Est. Local and State Sales and Use Tax Impacts Attributed to the GPT (millions)

Construction Impact	
Est. Local Sales & Use Tax Revenue	\$12.3
Estimated WA State Sales & Use Tax Revenue	\$2.5
Total	\$56.6
Annual Operations Impact	
Annual Est. Local Sales & Use Tax Revenue	\$0.7
Estimated WA State Sales & Use Tax Revenue	\$2.5
Total	\$3.2

To the extent that local employees are hired at the GPT consistent with the “Local Hires First” policy, we would expect the relative distribution of the local Sales and Use Tax Revenues to be allocated in a manner similar to current population distributions, with local revenues increasing over 10 years, as shown in the pie chart.



Note, all dollar figures contained in this report reflect constant 2012 dollar amounts.

**** In addition to the property tax revenue impacts and sales and use tax revenue impacts discussed above, the private investment in the GPT and the direct, induced and indirect payroll attributed to facility construction and operations would generate increases in other local and state taxes and fees, including but not limited to: WA State Worker Compensation and Unemployment Insurance tax revenues; WA State Business & Occupation Tax revenues; Real Estate Excise Tax revenues; Motor vehicle fuel tax revenues; Public Utility tax revenues (affects water, sewer, power, telephone, natural gas, transportation, railroads, etc.).**

To: Gateway Pacific Terminal & SSA Marine

Date: October 5, 2012

From: Todd Chase, AICP, LEED and Peter Moy, FCS GROUP

RE Analysis of Potential Increased Local Government Tax Benefits That Result from Construction and Operation of the Gateway Pacific Terminal

1. INTRODUCTION

Purpose of the Study

This memorandum is intended to help **document the local and state property and sales tax impacts that are expected to occur from development of a new bulk terminal in Whatcom County, Washington.** The analysis is based on the projected bulk throughput tonnage potential that would be shipped via the proposed Gateway Pacific Terminal (GPT) at Cherry Point.¹

The focus of this study is on potential fiscal impacts of the project after construction of full build-out of the potential Gateway Pacific Terminal (GPT). For fiscal analysis purposes, the contemplated terminal is assumed to be fully operational by year 2017, with project scoping and permitting in 2012-2014; and construction during 2015-2016.²

The findings of this study are intended to be consistent with overall economic impact analysis and findings contained in the Martin Associates report titled: *The Projected Economic Impacts of the Development of a Bulk Terminal at Cherry Point*, July 2011. The impacts identified in the Martin Associates report were further verified by Finance & Resource Management (FRMC) in a report titled: *Review of the Martin Associates Economic Impact Study*, October 24, 2011. To the extent possible, FCS GROUP has utilized the average of the Martin Associates and FRMC studies in the findings cited below.

Work Completed

To undertake this local Fiscal Impact Assessment, FCS GROUP completed the following work tasks:

- Obtained and reviewed the current terminal development program, cost assumptions, background materials, and plans from client representatives;
- Formulated draft input assumptions to be used in the Fiscal Impact Assessment;
- Reviewed and revised input assumptions with staff input; and
- Prepared a summary of local fiscal impact findings, with the focus of this work on the **property and sales tax revenues that are likely to be realized by Whatcom County and Whatcom County cities and special districts as a result of changes in property valuations and sales and use tax expenditures.**

¹ Assumes 54 million metric ton export potential for dry bulk commodities.

² The actual schedule for project permitting and construction will vary depending upon the outcome of project scoping and design.

2. METHODOLOGY

The methods used to conduct this work are consistent with national practices on this subject matter, which generally include:

- A. Define the direct impact area, including current tax lots and parcels to be included as part of the proposed development;
- B. Identify the most likely private development build-out assumptions, including phasing and development capital cost assumptions.
- C. Consider the potential private capital investment to be made and how it would likely impact local property tax revenues. This Fiscal Impact Assessment assumes all facilities and capital improvements are to be provided and funded privately with no local or state funding commitment.
- D. Consider the potential ongoing annual maintenance & operations (M&O) costs for the new terminal. This Fiscal Impact Assessment assumes all M&O costs will be provided/funded privately.
- E. Determine the potential increase in property tax revenues to be realized as a result of increased assessed valuations created by the new private development over the next 30 years. This analysis is based on the current average property tax rates that are now being applied to the subject properties.
- F. Determine the likely increase in local and Washington State Sales & Use Tax Revenues. Note, since no Business and Occupation Tax revenues are collected by Whatcom County there is no direct quantifiable benefit for that item at the local level.
- G. Summarize results in expected local and state property and sales and use tax revenue and/or tax savings impacts that would occur within local jurisdictions and affected special taxing districts.

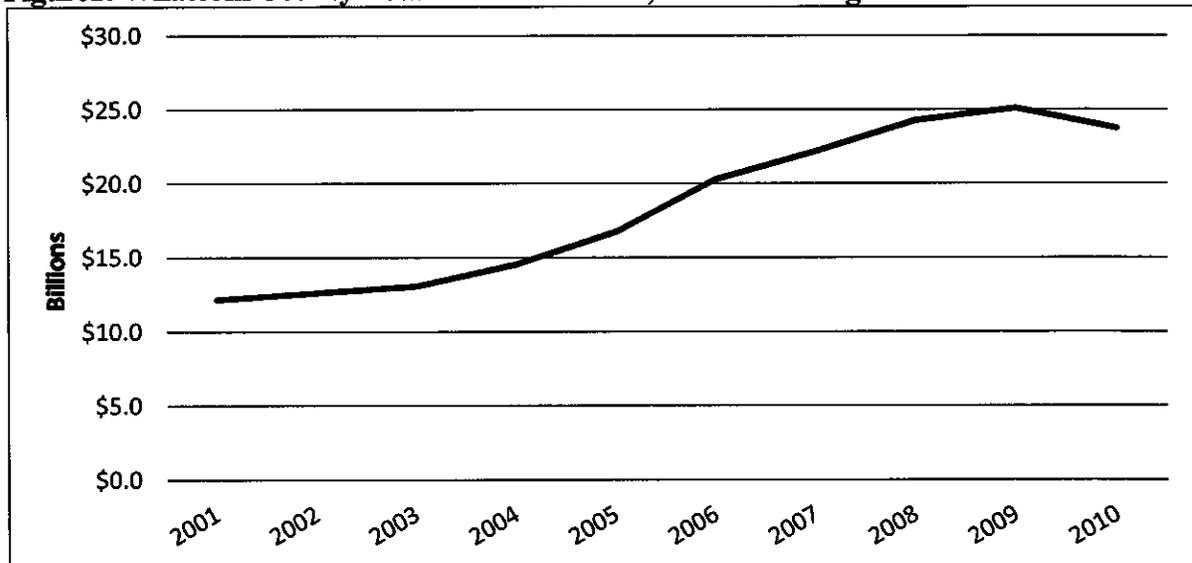
The results of this fiscal impact assessment are intended to focus upon the potential local and state property and sales tax fiscal impacts that would likely occur within Whatcom County from the GPT, as it is envisioned at full build out. This analysis does not include broader state or regional fiscal impacts that would likely result.

3. PROPERTY TAX IMPACTS

With a potential construction capital investment of \$665 million, the GPT would represent a measurable increase in the taxable assessed values of property within Whatcom County.³

As shown in **Figure 1**, the amount of total assessed property values in Whatcom County has been trending down over the past two years. Total assessed property values in Whatcom County amounted to \$23.7 billion in 2010, down nearly 6% from \$25.1 billion in the prior year. **The additional assessed valuation generated as a result of the construction of the GPT will help increase assessed valuation levels in Whatcom County and reduce property tax burdens for local tax payers.**

³ *These capital cost estimates include two phases of potential development and were prepared in 2011; and conservatively assumed to be expressed in 2012 dollars for fiscal impact study analysis purposes.*

Figure1: Whatcom County Total Assessed Values, Historic Change 2001-2010

Source: Whatcom County Assessor.

FCS GROUP evaluated existing conditions based on current assessments for the 31 tax lots that would be included as part of the potential bulk terminal development at Cherry Point. The analysis indicates that the proposed dry bulk terminal would be situated on 31 tax lots. According to Whatcom County Assessor records, these tax lots currently have an aggregate assessed valuation of \$10,861,000, including \$10,604,000 in land value and \$257,000 in improvement value.

In its current under-utilized state, the land to be used for the GPT only generates about \$112,000 per year in annual property tax revenues for the affected tax districts combined. The average mil rates for the 31 tax lots that would be included in the GPT development are summarized in **Appendix A**. The jurisdictions and special districts that stand to benefit from increased property tax revenues or tax savings for their rate payers include:

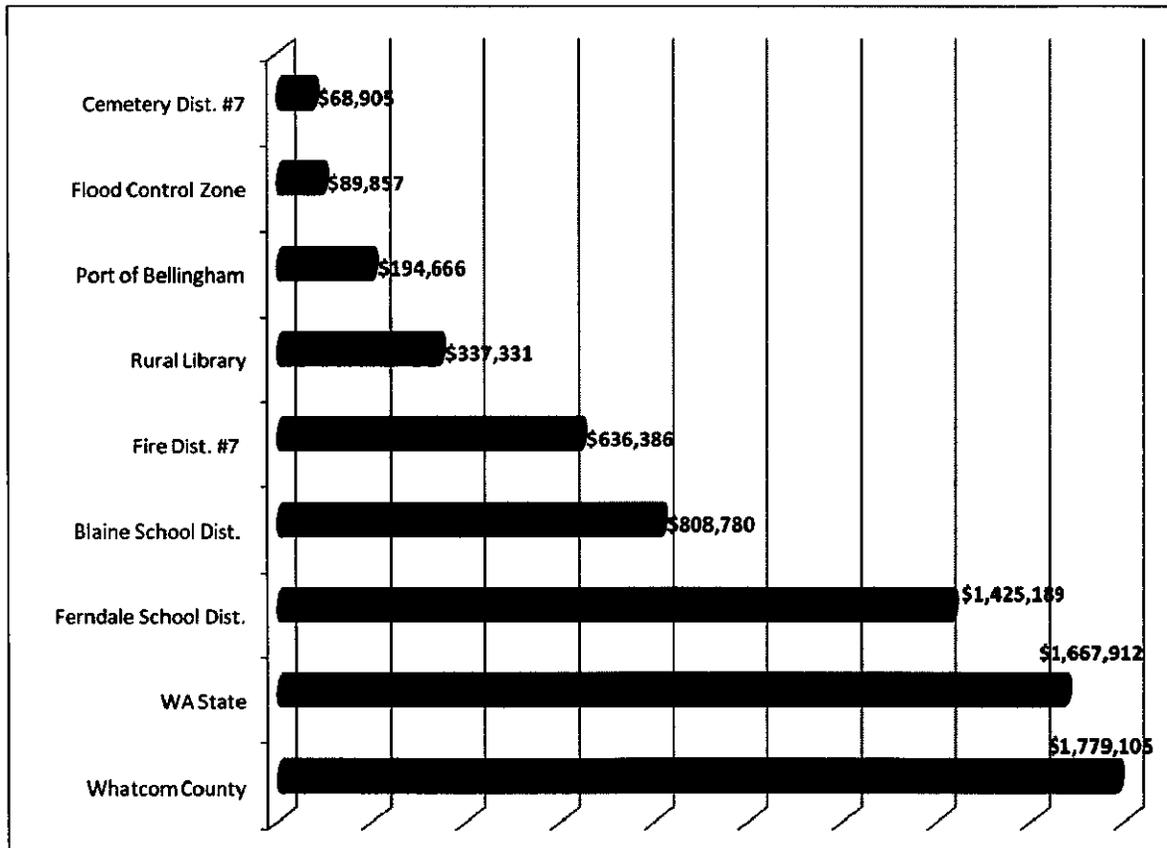
- Whatcom County
- Washington State
- Ferndale School District
- Blaine School District
- Fire District #7
- Rural Library District
- Port of Bellingham
- Flood Control Zone
- Cemetery District #7

The Whatcom County Assessor attempts to assess new construction projects at 100% of market valuation; and for analysis purposes, it is assumed that the potential bulk terminal at Cherry Point would be assessed at 100% of the construction cost. Real property improvements, (such as buildings and machinery) are assumed to be assessed at 100% of their original cost.

The amount of future property valuation levels within unincorporated Whatcom County would increase as construction occurs and the terminal becomes operational. If we assume the existing property tax rate regime remains constant with no change in current mil rates, then the amount of increased total property tax revenues and/or tax savings is projected to equate to be approximately \$7.0 million once the GPT is constructed and fully operational (see Table 1).

The taxing districts that could experience the most significant annual revenue increase or tax savings are shown in Figure 2. It should be noted that special levies, such as the Blaine School Bond and the Ferndale School Bond (and other voter-approved bonds) are serial bonds that have fixed annual coupon payments. Hence, the additional assessed valuation levels by the GPT may not increase the total property tax revenue for that particular tax district/item, but instead result in lower annual costs to all tax payers within the particular tax district, as the levy amount due each year is spread over a larger tax base if the GPT is constructed.

Figure 2 Projected Annual Avg. Net New Property Tax Revenue or Tax Savings by District



Note, these represent potential new tax revenues and/or the value of tax savings that may result in Whatcom County as a direct result of the potential dry bulk terminal.

Table 2 Top 10 Private Taxpayers in Whatcom County by Taxable Assessed Property Value

Taxpayer	2010			2001		
	Taxable Assessed Value	Rank	Percentage of Total County Assessed Value	Taxable Assessed Value	Rank	Percentage of Total County Assessed Value
BP West Coast Products LLC (ARCO)	\$ 828,832,407	1	3.49%	\$ 438,521,025	1	3.61%
Tosco Corporation	436,170,049	2	1.84%	85,748,100	4	0.71%
Puget Sound Energy/Electric	251,505,033	3	1.06%	246,287,095	2	2.03%
Alumet Corp 61%, ET AL	81,234,937	4	0.34%	154,082,260	3	1.27%
Tenaska Washington Partners LP	64,928,332	5	0.27%	83,774,895	5	0.69%
Northwest Pipeline Corp	54,992,771	6	0.23%	-		
Cascade Natural Gas	47,984,453	7	0.20%	-		
Bellis Fair Partners	42,284,652	8	0.18%	47,978,725	9	0.39%
Verizon Northwest Inc	38,643,186	9	0.16%	51,185,369	7	0.42%
Trillium	37,964,301	10	0.16%	50,162,795	8	0.41%
Sumas Cogeneration CO. LP	-			72,220,595	6	0.59%
Talbot Real Estate LLC	-			44,263,450	10	0.36%
Total	\$ 1,884,540,121		7.93%	\$ 1,274,224,309		10.48%

Source: Whatcom County

4. SALES AND USE TAX IMPACTS

In general, most retail sales made in Washington State are taxable at applicable local and state Sales and Use tax rates. Physical delivery of the “good or product” to the buyer in Washington is what makes the sale take place in the state (and this is considered taxable).

Outbound sales, including exports of commodities, are usually not taxable if the seller delivers the property in Washington to a freight consolidator, freight forwarder, or for-hire carrier, who then arranges for the delivery to the buyer located outside the state. Certain records must be kept to document the carrier’s duties to substantiate this exemption. [Wash. Admin. Code 458-20-193(6).]

For study analysis purposes, the potential bulk terminal would generate taxable retail sales that are subject to local and state Sales and Use Tax rates due to:

- Construction (specifically delivery of construction materials and related retail purchases attributed to direct, indirect and induced payroll); and
- Operations (including direct purchase of goods and supplies in the local area, and retail purchases attributed to increases in direct, indirect and induced payroll).

Construction Impact

The construction-related local Sales and Use Tax impacts are summarized in **Appendix B**. The analysis indicates that the construction of the bulk terminal would create approximately 4,429 jobs of construction employment (including direct, indirect and induced impacts) with \$348.6 million in personal income at build-out. It is assumed that approximately 20% of the personal income would be spent on local goods subject to the sales and use tax.⁴

⁴ The assumption regarding the percentage share of personal income to local sales and use tax revenues was derived by FCS GROUP using the Impact Analysis for Planning (IMPLAN) model.

The \$665 million construction investment is expected to result in a substantial increase in local purchases. It is assumed that approximately 92% of the construction investment would be spent on goods subject to the sales and use tax.⁵ **The total estimated local sales and use tax revenues collected within Whatcom County (general funds for cities or the county) is estimated to be \$12.3 million with build-out of the GPT.**

Additional WA State sales and use tax revenues from construction of the GPT are estimated at \$44.3 million, as shown in Table 3.

Annual Operations Impact

Once the bulk terminal is operational, the annual operations and maintenance investment and on-site permanent employment will further enhance local and Washington State sales and use tax revenues. As indicated in **Appendix C**, the analysis indicates that the bulk terminal would create approximately 1,251 total jobs (includes direct, induced and indirect impacts) with \$128.6 million in annual personal income at build-out. It is assumed that approximately 20% of the personal income would be spent on local goods subject to the sales and use tax.⁶

Local purchases resulting from operation of the GPT would represent approximately \$38.2 million annually upon build-out. It is assumed that an estimated 73% of these purchases would be subject to the sales and use tax.⁷ **The total estimated local sales and use tax revenues that would be collected within Whatcom County (general funds for cities or the county) is estimated to be \$700,000 annually after build-out of the GPT.**

Additional annual WA State sales and use tax revenues from operation of the GPT are estimated at \$2.5 million, as shown in Table 3.

Table 3 Estimated Local and State Sales and Use Tax Impacts Attributed to the GPT

Construction Impact ¹	
Est. Local Sales & Use Tax Revenue	\$12.3
Total	\$56.6
Annual Operations Impact ²	
Annual Est. Local Sales & Use Tax Revenue	\$0.7
Total	\$3.2

Notes:

(1) Derived from Appendix B, assumes 2-year construction time frame with full build-out.

(2) Derived from Appendix C, based on full build-out of GPT.

⁵ The assumption regarding the percentage of local purchases that are subject to sales and use tax revenues was derived by FCS GROUP using the Impact Analysis for Planning (IMPLAN) model.

⁶ IBID.

⁷ IBID.

5. OTHER LOCAL AND STATE FISCAL IMPACTS

In addition to the property tax revenue impacts and sales and use tax revenue impacts discussed above, the private investment in the GPT and the direct, induced and indirect payroll attributed to facility construction and operations would generate increases in other local and state taxes and fees, including but not limited to:

- WA State Worker Compensation and Unemployment Insurance tax revenues
- WA State Business & Occupation tax revenues
- Real Estate Excise Tax revenues
- Motor vehicle fuel tax revenues
- Public Utility tax revenues (affects water, sewer, power, telephone, natural gas, transportation, railroads, etc.)
- Misc. Other taxes (includes several categories such as beverages, enhanced 911, refuse, rental cars, lodging, tobacco, watercraft, etc.)⁸

The direct, induced and indirect impact of other potential additional local, regional or state tax revenues and related-fiscal impacts have not be quantified by this analysis, but have been estimated in aggregate by other studies, including the economic impact study by Martin Associates, cited earlier.

⁸ For a more complete list of other taxes please go to: <http://dor.wa.gov/content/FindTaxesAndRates/OtherTaxes/>

Appendix A

Existing Avg. Annual Mil Rates for the Subject Site, 2011

District	Avg. Mill Rate (per \$1,000 AV)
Cemetery #7	0.1036166
Conservation Futures	0.0420470
Flood Control Zone	0.1351231
Fire #7 Expense Fund	0.9068075
Port of Bellingham GO Bond	0.0551718
Port of Bellingham General Fund	0.2336903
Port of Bellingham RDA	0.0001314
County Road Division	0.0602017
County Road Fund	1.4377918
Rural Library	0.5000000
Blaine School #503 Bond	0.5553729
Blaine School #503 M&O	0.8596448
WA State General Fund	2.5078758
WA State Refund Fund	0.0002626
County Current Expense	1.0828352
County Combined Treatment	0.0125000
County Development Disability	0.0125000
County Election Reserve	0.0152986
County Veterans Relief	0.0112500
Ferndale School #502 Bond	0.3787016
Ferndale School #502 Capital Projects	0.0826652
Ferndale School #502 M&O	1.3329858
	10.3264738

Source: Whatcom County Assessor, compiled by FCS GROUP, year ending 2011.

Appendix B
Estimated Local and State Sales and Use Tax Revenues Attributed to GPT Construction

	Full Build-Out	Source/Notes
Jobs		
Direct	2,115	/1
Induced & Indirect	2,314	/1
Total	4,429	/1
Personal Income (millions)		
Direct	\$166.5	/1
Induced & Indirect	\$182.1	/1
Total	\$348.6	/1
	% Subject to Local Sales & Use Tax	/2
	Amt. Subject to Sales & Use Tax	calculated
	\$69.72	
Local Purchases (millions)		
	\$665.0	/1
	% Subject to Local Sales & Use Tax	/2
	Amt. Subject to Sales & Use Tax	calculated
	\$611.8	
Total Amt. Subject to Sales & Use Tax (millions)	\$681.5	calculated
Estimated Local Sales & Use Taxes		
Unicorp. Whatcom County Tax Rate	1.40%	/3
Incorp. Local Cities Tax Rate (Avg.)	2.20%	/3
Weighted Average	1.80%	/4
Est. Local Sales & Use Tax Revenue (millions)	\$12.3	calculated
Estimated Washington State Sales & Use Taxes		
Washington State Sales & Use Tax Rate	6.50%	/3
Estimated WA State Sales & Use Tax Revenue (millions)	\$44.3	calculated

Notes:

- (1) Derived from averaging estimates by: Martin Associates, The Projected Economic Impacts For the Development of a Bulk Terminal at Cherry Point, 2011; and economic review study by Finance & Resource Management Consultants, Inc., "Review of Martin Associates Economic Impact Study," October 24, 2011 using the IMPLAN economic impact modeling system. Job impacts represent averages of the job impacts from both studies and personal income data were adjusted accordingly.
- (2) Estimated by FCS GROUP, based on analysis of commodity spending patterns using IMPLAN economic modeling system.
- (3) Washington Dept. of Revenue, Local Sales & Use Tax Rates by City/County, effective April 1-June 30, 2012.
- (4) Weighted average determined based on April 1, 2012 population estimate/distribution for Whatcom County cities and unincorporated areas; Washington Office of Financial Management.

Appendix C Estimated Local Sales and Use Tax Revenues Attributed to Operations

	Full Build-Out	Source/Notes
Jobs		
Direct	430	/1
Induced & Indirect	821	/2
Total	1,251	summation
Personal Income (millions)		
Direct	\$40.8	/1
Induced & Indirect	\$87.8	/2
Total	\$128.6	summation
% Subject to Local Sales & Use Tax	20%	/3
Amt. Subject to Sales & Use Tax	\$25.7	calculated
Local Purchases (millions)	\$17.1	/1
% Subject to Local Sales & Use Tax	73%	/2
Amt. Subject to Sales & Use Tax	\$12.5	calculated
Total Amt. Subject to sales & Use Tax (millions)	\$38.2	calculated
Estimated Local Sales & Use Tax Rate		
Unicorp. Whatcom County	1.40%	/4
Incorp. Local Cities (avg.)	2.20%	/4
Weighted Average	1.80%	/5
Est. Local Sales & Use Tax Revenue (millions)	\$0.7	calculated
Estimated Washington State Sales & Use Taxes		
Washington State Sales & Use Tax Rate	6.50%	/4
Estimated WA State Sales & Use Tax Revenue		calculated
		calculated

Notes:

(1) Derived from Martin Associates, The Projected Economic Impacts For the Development of a Bulk Terminal at Cherry Point, 2011.

(2) Derived from averaging estimates by: Martin Associates, The Projected Economic Impacts For the Development of a Bulk Terminal at Cherry Point, 2011; and economic review study by Finance & Resource Management Consultants, Inc., "Review of Martin Associates Economic Impact Study," October 24, 2011 using the IMPLAN economic impact modeling system. Job impacts represent averages of the job impacts from both studies and personal income data were adjusted accordingly.

(3) Estimated by FCS GROUP, based on analysis of commodity spending patterns using IMPLAN economic modeling system.

(4) Washington Dept. of Revenue, Local Sales & Use Tax Rates by City/County, effective April 1-June 30, 2012.

(5) Weighted average determined based on April 1, 2012 population estimate/distribution for Whatcom County cities and unincorporated areas; Washington Office of Financial Management.

FCS GROUP PROFILE

FCS GROUP, established in 1988, provides financial, economic, and management consulting services to public sector clients inclusive of city and county governments, municipal corporations and ports, special service districts, and state agencies. Since the firm's inception, FCS GROUP has delivered high-quality, cost-effective consulting services in over 2,200 engagements and served more than 475 clients. Our staff serves clients throughout the western United States and Canada from our offices in Redmond, Washington; Portland, Oregon; and San Francisco, California.

Economic Services

FCS GROUP's economic consultants evaluate the economic and fiscal implications of alternative development approaches, use and create innovative analytical techniques, and craft achievable economic strategies that add public and private value. We understand the public sector's policy objectives, the private sector's economic imperatives, and the decision-making processes required to generate support for proposed solutions. FCS GROUP specialties include local and regional economic and financing strategies for transportation, transit, parks, sewer, water, stormwater facilities, public-private developments, and community revitalization.

FCS GROUP Economic Services include:

Asset Management and Valuation	Financial Feasibility
Capital Improvement Programs	Financing and Implementation Strategies
Community Outreach	Life Cycle Cost Analysis
Community Redevelopment Strategies	Real Estate Market Analysis
Developer/Business Recruitment	Site Programming and Phasing
Economic Analysis	Special Benefit District Formation Plans
Fiscal Impact Analysis	Tax Revenue Forecasts
Environmental and Social Justice Analysis	Valuations and Asset Management

FCS Staff Experience

PETER MOY – PRINCIPAL-IN-CHARGE, FCS GROUP

M.B.A., Finance, University of California, Berkeley

B.A., Finance and Organizational Behavior & Industrial Relations, University of California, Berkeley

Peter Moy is a principal at FCS GROUP with over 30 years of public sector experience specializing in public finance, program evaluation, organizational analysis and policy analysis. He has collaborated with a variety of non-profit organizations and governmental agencies and provides clients with a thorough knowledge of government operations and innovative and workable solutions to issues and problems. Peter has worked on forecasting revenues and expenditures for local governments and formulating strategies for large development projects throughout the western United States.

RELEVANT EXPERIENCE

- ◆ Port of Skamania County Strategic Plan and Economic Development Strategy (WA)
- ◆ City of Coeur d'Alene Interfund Allocation Study (ID)
- ◆ City of Puyallup Cost Analysis on Potential Annexations (WA)
- ◆ City of Snohomish Urban Growth Area and Annexation Analysis (WA)
- ◆ City of Chehalis Industrial Area Annexation & Fiscal Impact Study (WA)

- ◆ City of Bellingham Waterfront Development Financial Model (WA)
- ◆ Port of Bremerton Kitsap SEED Project Economic & Financial Analysis (WA)
- ◆ City of Tukwila Segale Development Analysis (WA)

E. TODD CHASE, AICP, LEED® AP – SENIOR PROJECT MANAGER, FCS GROUP

B.S., Economics, University of Florida

M.S., coursework in Finance, Johns Hopkins University

Todd Chase is a senior project manager and economist with over 25 years of experience in development consulting, financial and market analysis and, economic analysis for public- and private clients. His experience includes management of over 150 economic development strategies and impact studies, annexation studies, funding strategies, and capital facility plans. He specializes in providing target market strategies for industrial development and creating strategies for implementing public and private projects.

Mr. Chase has successfully managed dozens of master plans and development strategies for cities, counties, and ports throughout the United States. He is a member of the American Planning Association, Association of Pacific Ports, and the U.S. Green Build Council, Leadership in Energy and Environmental Design.

RELEVANT EXPERIENCE

- ◆ Port of Skamania County Target Industry Analysis, Comprehensive Plan & Economic Development Strategy
- ◆ Cascades Business Park, Site Master Plan, North Bonneville (WA)
- ◆ South Benton County Economic Opportunities Analysis (WA)
- ◆ Hood River Juice Company Economic Impact Analysis (OR)
- ◆ Columbia River Gorge Telecommunications Development Strategy (OR and WA)
- ◆ Port of Cascade Locks Marine Park Action Plan (OR)
- ◆ City of Tukwila South Annexation Analysis (WA)
- ◆ Ridgefield Industrial Area Transportation Benefit District Formation Strategy (WA)
- ◆ Portland/Vancouver Regional Infrastructure Strategy (OR and WA)
- ◆ Economic Landscape Analysis and Target Cluster Strategy (Clackamas, OR)
- ◆ Portland/SW Washington Workforce Innovation in Regional Economic Development, Global Competitiveness Assessment (OR and WA)
- ◆ Portland/Vancouver Regional Economic and Employment Analysis (OR)
- ◆ City of Bend Sustainability Strategy (OR)
- ◆ Portland Airport/International Center Return on Investment Analysis (OR)
- ◆ West Hayden Island Industrial Master Plan Return on Investment Analysis (OR)
- ◆ Northwest Public Power Real Estate Asset Management Strategy (Clark County, WA)
- ◆ Port of St. Helens Strategic Plan (OR)
- ◆ Port of Garibaldi Strategic Plan (OR)
- ◆ Port of Umpqua Strategic Plan (OR)

