

3.8 Economics

Has any new information been developed since the Draft EIS?

No new economics issues were introduced since the Draft EIS, but refinements have been made to employment and truck trip estimates.

What are the economic conditions in the study area?

WSDOT analysts reviewed recent information on several economic components, such as local retail sales, employment, and household income to characterize current economic conditions in the project study area. The economics study area for the existing CTC facility is the casting basin facility site and greater Tacoma. For the Grays Harbor build alternatives, the study area includes Hoquiam, Aberdeen, and Grays Harbor County. Broader regional areas were studied because the project would have economic effects beyond the immediate project vicinity.

CTC Facility

Until the current economic downturn, the Tacoma area had experienced strong economic growth over the past 5 years. Revitalization of Tacoma's core has increased public and private investment ventures in the downtown area. As of September 2008, employment growth within the Tacoma area had remained relatively unchanged during the prior year, and it continued to perform better than the nation overall (City of Tacoma 2008).

Tacoma's naturally deep harbor and vast natural resources led to the opening of its first lumber mill in 1852. In 1873, the Northern Pacific Railroad selected Tacoma as the western terminus of its transcontinental rail line. After the line was completed in 1887, the city experienced a large growth in its population, and activities on the waterfront expanded.

Other past actions that have shaped the economy in Tacoma and Pierce County was the creation of the Port of Tacoma; expansion of the Port to include other commercial and industrial activity such as shipbuilding, chemical manufacturing, and concrete products manufacturing, and the construction of I-5. The rise of the global economy and Tacoma's proximity to the Pacific Ocean have made the activities at the Port of Tacoma a critical part of the regional economy. The CTC facility is located within the boundaries of the Port of Tacoma industrial area.

What is the Economics Technical Memorandum?

This section was derived from the Economics Technical Memorandum, Appendix J, which includes detailed information about the study area economy and is the document on which this section is based.

What defines economic conditions in a study area?

The overall economic condition of an area is based on information on several components: population and housing, household income, local economic trends, levels of employment and unemployment, retail trends, and revenue sources. These components combine to present an overall picture of an area's economy.

Grays Harbor Build Alternatives

Historically, Grays Harbor County's economic base has consisted of resource-based industries (primarily timber and fishing). The completion of the Northern Pacific Railroad in 1898 connected Grays Harbor to new markets, which catapulted Grays Harbor's economic growth. By 1920, the Grays Harbor area was one of the largest lumber-producing regions in the world. However, the following decades found the natural resources in the region declining, taking with them Grays Harbor's resource-based economy.

In recent years, the county's economy has become more diversified and relies less on resources and more on the government sector and other services, although timber remains an important economic base industry. The recent economic downturn has affected the Grays Harbor region, and the decreased demand for timber products has resulted in the closing of a Weyerhaeuser log export facility. Imperium Renewables, an ethanol production and storage plant, has also been affected by decreased demand for its product and has stopped production and reduced staff. Because of the difficult economic conditions, many people have been unable to find new jobs locally.

Population and Housing

Between 2000 and 2009, the populations of Hoquiam and Aberdeen declined very slightly. Hoquiam was down 0.4 percent to 8,765, and Aberdeen was essentially unchanged at 16,440. Grays Harbor County's total population grew to 71,200 at an average annual rate of 0.6 percent during the same time (OFM 2009a). The number of households in Hoquiam, Aberdeen, and Grays Harbor County increased at a higher average annual rate than the population between 2000 and 2008, meaning that the number of people per household has been declining. The total number of households in Hoquiam decreased by 0.3 percent per year, while Aberdeen experienced an average annual growth rate of 0.2 percent. The number of households in Grays Harbor County increased 1.1 percent per year (OFM 2009b).

The median housing values in Hoquiam and Aberdeen were \$75,500 and \$80,300, respectively, in 2000 (City-Data 2009a, b). Both of these values were lower than the county median housing value of \$93,500. By 2007, median housing values in Hoquiam, Aberdeen, and Grays Harbor County had all increased by nearly 58 percent (City-Data 2009a, b).

Household Income

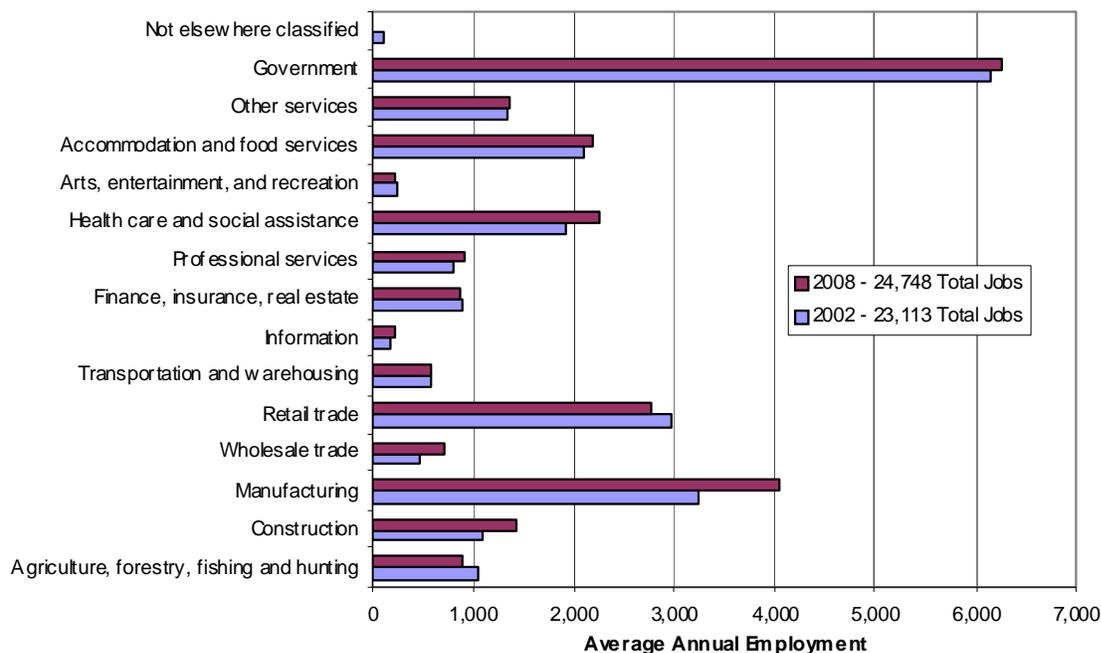
Median household incomes in Hoquiam and Aberdeen are lower than the county and state medians. Hoquiam's and Aberdeen's median household incomes were approximately \$36,814 and \$38,086, respectively, in 2007 (City-Data 2009a, b). Median household income

was \$42,049 in Grays Harbor County and \$59,119 statewide in 2007. Incomes in Hoquiam, Aberdeen, Grays Harbor County, and the state increased by 24.1, 24.1, 23.1, and 29.1 percent, respectively, since the 1999 Census (OFM 2009a, b).

Employment

Exhibit 3.8-1 shows Grays Harbor County employment by job sector for 2002 and 2008. Total employment increased by approximately 1,500 jobs. The largest percentage of jobs is in government and services. By 2008, the biggest decrease in jobs was in the retail trade and agriculture, forestry, fishing, and mining. Manufacturing and wholesale trade both slightly increased their share of total jobs in the county. The top two employers in Grays Harbor County are Grays Harbor Community Hospital and Westport Shipyard (GHEDC 2009). Other major employers that demonstrate the county's economic diversity are Stafford Creek Prison, Grays Harbor County, Aberdeen and Hoquiam school districts, Quinault Beach Resort, Quinault Indian Nation, Wal-Mart, Grays Harbor College, Simpson Door Plant, and Grays Harbor Paper.

EXHIBIT 3.8-1
Average Annual Employment in Grays Harbor County, 2002 and 2008



Source: Washington State Employment Security Department, 2009a

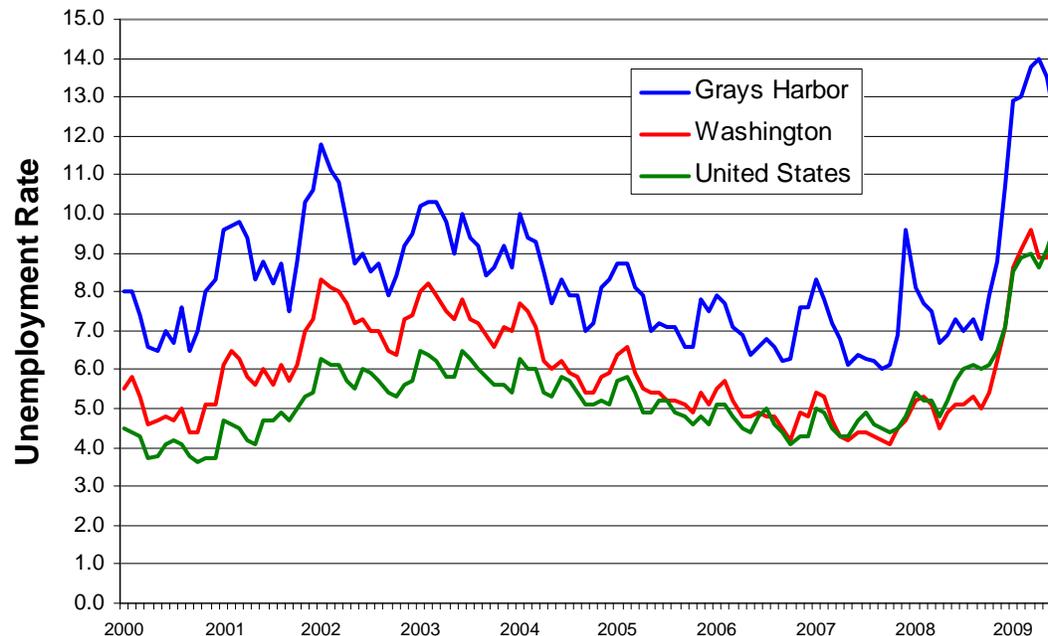
Unemployment

Exhibit 3.8-2 shows that Grays Harbor County's unemployment rate has trended higher than state or national rates since 2000. Since 2008, the unemployment rates of the county, state, and nation have trended higher

because of the global economic recession. In April 2009, the unemployment rate in the county had reached 14.0 percent, while the unemployment rate in the state and nation had reached 9.0 percent climbing to 10.0 percent by September (Washington State Employment Security 2009b).

EXHIBIT 3.8-2

Unemployment Rates in Grays Harbor County, Washington State, and the United States, 2000 to 2009



Source: Washington State Employment Security Department (2009b).

Revenue Sources

Property and sales taxes accounted for approximately 45 percent of the Grays Harbor County General Fund revenues in 2007 and 2008 (Grays Harbor County 2008). Additional taxes accounted for 19 percent of the 2008 proposed county budget and included license, permit, and forest taxes. Nontax revenue sources accounted for the remaining 36 percent of total revenue.

How did WSDOT evaluate direct effects on the economy?

WSDOT reviewed state-generated population and housing information, as well as local and federal employment data. WSDOT analysts also visited the Aberdeen and Hoquiam business districts to gauge the project's potential effects on local businesses. Based on data compiled for other large construction projects, WSDOT estimated the potential

temporary increase in employment. WSDOT also used an existing model to estimate the indirect and induced jobs that could be created during project construction and operation. To evaluate the project's economic effects due to traffic congestion, mobility, and access, WSDOT also checked the findings in the Noise, Transportation, and Visual Quality and Aesthetics technical memoranda prepared for this Draft EIS (Appendices L, P, and Q, respectively).

How would construction of the casting basin facility directly affect the economy?

Federal or state funds for a new project can have a positive measurable economic effect on employment and income in a region during construction. The State of Washington would provide most of the funds for the proposed SR 520 Pontoon Construction Project, adding temporary income to the local economy. Exhibit 3.8-3 summarizes the estimated employment for either build alternative during the project's construction phase and operation phase (discussed in the next section). These estimates represent the most employment WSDOT anticipates during the project phases.

EXHIBIT 3.8-3
Estimated Direct, Indirect, and Induced Employment

Project Phase	Direct	Indirect and Induced	Total
Jobs estimate during construction	150	200	350
Jobs estimate during operation	350	470	820

CTC Facility

Because the existing CTC facility in Tacoma is part of an established manufacturing business in a large industrial park, there would be no construction effects on the economy because the facility is already built and functioning.

Aberdeen Log Yard Alternative (Preferred Alternative)

WSDOT would need up to 150 workers during casting basin facility construction. The types of jobs would include supervisors, foremen, clerical workers, equipment operators, mechanics, truck drivers, iron workers, carpenters, cement masons, electricians, plumbers, painters, and semiskilled and unskilled laborers.

The extent that construction spending has beneficial effects on the local economy would largely depend on where the labor force resides.

WSDOT expects that some local firms and workers would be directly involved in constructing the casting basin facility, while other local firms and their employees could supply construction materials. The more local workers and firms hired to construct and supply materials for the casting basin, the greater would be the effect on the local economy.

The selected contractor would be responsible for securing vendors and subcontractors and assembling the workforce. Increased traffic congestion, noise, and visual quality changes during project construction could cause temporary, adverse effects on some local businesses and residences by discouraging some potential customers.

WSDOT estimates that approximately 114,900 total truck trips (loaded and unloaded) to and from the site would be required during casting basin construction for excavation and material delivery. The highest number of daily truck trips that would occur for either site during the month with the most activity could be slightly more than 1,400 truck trips (loaded and unloaded) in a day. During this period, there would be an average of approximately 79 outbound and 79 inbound trips during the peak hour (see Section 3.14, Transportation).

During casting basin construction at the Aberdeen Log Yard site, designated truck haul routes would likely not extend west of Aberdeen. However, about 20 percent of the truck trips could potentially be routed west to the Hoquiam sewage lagoon for excavation material disposal (see Exhibit 2-1 in Chapter 2).

For businesses that rely on unimpeded access, there could be potential decreases in sales revenues resulting from increased truck traffic that could impede access to these businesses. Some business patrons could choose to shop elsewhere if the businesses were difficult to access with the heavier traffic. Conversely, construction-worker spending could have a positive effect on revenues at businesses such as restaurants and coffee shops near the Aberdeen Log Yard site and along the haul routes as workers stop for food and refreshments. The potentially positive effects would not likely be substantial. There would be no economic effects on the mostly residential neighborhoods or industrial facilities along the haul routes.

The positive effects of construction-related jobs, spending (for example, project spending and spending by construction workers), and resulting sales tax revenue would be more widely dispersed through the local and regional Grays Harbor economy than the location-specific negative effects of increased traffic congestion and noise. For this reason,

WSDOT expects that project construction would have a net beneficial economic effect.

Anderson & Middleton Alternative

Economic effects during construction of the Anderson & Middleton Alternative would be similar to effects described above for the Aberdeen Log Yard Alternative. One difference is that WSDOT estimates that approximately 103,600 total one-way truck trips (loaded and unloaded) would be required during casting basin construction for excavation and material delivery with this alternative, which is fewer truck trips than with the Aberdeen Log Yard Alternative. Slightly more truck trips would be needed with the Aberdeen Log Yard Alternative because more excavation for the launch channel would be required at that site.

Most businesses near the Anderson & Middleton Alternative site are industrial and would not be adversely affected by construction-related traffic congestion and noise.

Revenues could decrease slightly at businesses that depend on unimpeded access because increased truck traffic could temporarily hinder access to these businesses. Some business patrons could choose to shop elsewhere if the businesses were difficult to access with the heavier traffic. Beneficial economic effects from construction-worker spending could have a positive effect on revenues at businesses such as restaurants and coffee shops, and WSDOT expects effects to be similar as those anticipated from the Aberdeen Log Yard Alternative.

Construction-related economic effects associated with the construction of the Anderson & Middleton Alternative—such as construction-related jobs and spending (for example, project spending and spending by construction workers)—would be predominantly beneficial to the local and regional economy. WSDOT expects the positive effects to be similar to those anticipated from the Aberdeen Log Yard Alternative.

How would pontoon-building operations directly affect the economy?

CTC Facility

During project operation, CTC and the contractors producing pontoons at the facility would benefit through WSDOT's use of the CTC facility. This would also help each firm sustain employment and increase its revenue, a beneficial effect.

Aberdeen Log Yard Alternative (Preferred Alternative)

New jobs would be created that would have a beneficial effect on local employment and business revenues during pontoon construction. Up to 350 workers would be needed to manufacture the pontoons.

Some products and materials used during pontoon production could be purchased in Aberdeen and Hoquiam, and local firms and workers could be employed during pontoon construction. The extent that construction spending would benefit the local economy would largely depend on where the labor force resides. The more local workers and firms hired to construct and supply materials for the pontoons, the greater the effect on the local economy. Ultimately, the contractor would be responsible for securing vendors and subcontractors and assembling the workforce. Economic benefits from the project would be dispersed throughout the Grays Harbor region and beyond and not necessarily be concentrated in Aberdeen and Hoquiam.

Along the haul routes, however, truck traffic to and from the site could affect retail businesses that depend on drive-by traffic and unimpeded access, although the amount of trucks trips to and from the site during pontoon building would be substantially less than during casting basin construction. Some businesses near the Aberdeen Log Yard site and along haul routes could benefit from project-worker spending. Revenues at businesses along the haul routes could decrease somewhat from patrons' unwillingness to tolerate project-generated dust, noise, and congestion, and less convenient parking and access. The trucks would mostly affect businesses along US 101 in Aberdeen and US 101 and SR 109 in Hoquiam. During pontoon construction at the casting basin facility, local businesses would cater to project workers in the study area; however, any increase in sales revenues would likely be limited and short term.

Anderson & Middleton Alternative

Most local businesses are too far from the Anderson & Middleton site to be affected by noise and other direct effects of pontoon production. However, traffic-related effects on local business revenues could be more than under the Aberdeen Log Yard Alternative because the designated haul route travels a longer distance through Hoquiam and Aberdeen. Otherwise, the economic effects from the Anderson & Middleton Alternative during pontoon-building operations would be similar to the Aberdeen Log Yard Alternative and largely beneficial.

What direct effects would pontoon moorage have on the economy?

Pontoons produced at either Grays Harbor build alternative site and the CTC facility would require potential moorage fees and occasional maintenance and security. Although potential moorage fees, maintenance, and security would be required while the pontoons are moored, only a few local businesses would benefit for a short time; therefore, pontoon moorage would not have a substantial effect on the local or regional economy.

How would the Grays Harbor build alternatives compare in their direct effects on the economy?

Exhibit 3.8-4 summarizes and compares effects of the build alternatives on the local economy.

EXHIBIT 3.8-4
Economics Summary of Direct Effects

	Aberdeen Log Yard Alternative (Preferred Alternative)	Anderson & Middleton Alternative
Casting basin construction	<p>Up to 150 workers would be needed for facility construction, resulting in new jobs in the region.</p> <p>Increased traffic congestion and noise could temporarily affect local businesses by discouraging customers.</p> <p>Construction worker spending could increase sales at businesses, such as restaurants and coffee shops.</p> <p>Local businesses could supply construction and other materials, providing increased sales and revenues for those businesses.</p>	<p>Effects would be similar to those of the Aberdeen Log Yard Alternative, although traffic congestion effects might be more because the haul route for this alternative travels a longer distance to the casting basin facility site.</p>
Pontoon-building operation	<p>Up to 350 workers would be needed to operate the casting basin facility.</p> <p>Some pontoon materials could be purchased in Aberdeen and Hoquiam, bringing revenue to local firms and businesses.</p> <p>Increased traffic congestion and noise could temporarily affect local businesses by discouraging customers.</p>	<p>Effects would be similar to those of the Aberdeen Log Yard Alternative, although traffic congestion effects might be more because the haul route for this alternative travels a longer distance through Aberdeen and Hoquiam.</p>
Pontoon moorage	Negligible	Negligible

What indirect effects would the project have on the economy?

CTC Facility

The CTC facility in Tacoma is part of an established manufacturing business located in a large industrial park. The proposed project would have no indirect effects on the economy because the CTC facility is already built and functioning. The proposed project would not alter the economics of the region in the future. There are no other actions related to project activities at either build alternative site that would result in indirect effects related to economics.

Grays Harbor Build Alternatives

The Grays Harbor area could experience beneficial indirect economic effects during casting basin facility construction and operation if local firms are used to supply construction materials to the project. Hiring local suppliers would generate income and sales tax revenue in the study area. The proposed project would also generate indirect and induced jobs (see Exhibit 3.8-2). Indirect jobs would be created if other firms, such as local suppliers, hire workers to support increased demand from pontoon construction needs. Induced jobs would be created if the wages paid to project employees are spent on other goods and services, such as restaurants or department stores, thus creating employment opportunities at those businesses.

The long-term indirect effects associated with the project would vary depending on whether a private or public entity found a long-term use for the site after the project is completed. If another entity were to continue operating the facility for a different use (for example, boat construction), then the economic effects on the Grays Harbor region and the cities of Hoquiam and Aberdeen would depend on the number of employees and where they lived. In addition, materials and supplies used during the continued operation of the facility could generate positive economic activity in the study area. Materials supplied from outside the region would have a less positive effect compared to materials from within the Grays Harbor region.

Grass Creek

Constructing the Grass Creek mitigation site is unlikely to result in many new jobs, and contracting this work would have a negligible beneficial effect on the local economy.

How would the economy be affected if the project were not built?

Under the No Build Alternative, the local and regional economies would not benefit from the temporary increase in employment, income, and spending that would result from project construction and operation. There would be no adverse effects on the local economy from project construction-related congestion, noise, and visual quality. Adverse economic effects of project operation, such as reduced access to retail businesses along the haul routes, would not occur under the No Build Alternative.

What would the cumulative effect on the economy likely be?

CTC Facility

The CTC facility in Tacoma is part of an established manufacturing business located in a large industrial park. The proposed project would have no direct or indirect effects on the economy because the CTC facility is already built and is functioning. The proposed project would not alter the economics of the region in the future. Therefore, there would be no contribution to cumulative effects on the local economy associated with pontoon-building or towing activities at this site.

Grays Harbor Build Alternatives

The proposed SR 520 Pontoon Construction Project would produce positive direct economic effects in the Grays Harbor region, such as new employment opportunities and the associated benefits of increased local spending, as well as positive indirect effects in the form of the creation of indirect and induced employment opportunities. These positive economic effects would be temporary and end when pontoon construction at this facility ends. For this reason, these positive effects are not considered to be contributions to the regional cumulative economic effect. However, the presence of a new industrial facility (the proposed casting basin facility) could result in sustained economic opportunities for the region if the facility was maintained for regular use. The permanent status of the casting basin facility is currently unknown. See Chapter 1, *What would happen to the pontoon construction facility when the project is completed?* section for a discussion of when WSDOT could determine the permanent status of the facility.

Towing the pontoons would not create new jobs for tug captains and crews. There are multiple tug companies available to do the work, and WSDOT would contract with one or two companies for towing.

Thirty-three tows is not a large job for these companies. In addition, towing would most likely occur slowly over the course of many months. The interval between tows is unknown. It is likely that pontoons would be towed singly. Crabbing-towboat lanes are established, so the risk of entangling towing lines with commercial crabbing gear would be minimal.