

TIGER II Grant

I-90 Corridor Program – Keechelus Dam Vicinity Project



Kittitas County Public Works Department
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I-90 Snoqualmie Pass East – Phase 2A TIGER II Grant Application

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I. Project Description

Interstate 90 Snoqualmie Pass East Corridor Project

Interstate 90 (I-90) crosses the United States from Seattle to Boston, MA. In Washington state, I-90 spans 300 miles from the Port of Seattle to the Washington/Idaho border. The Snoqualmie Pass portion of I-90 (elevation 3,022 feet) is located in Kittitas County and is the most heavily traveled east-west highway crossings in Washington state. Washington state is increasing safety, reducing traffic congestion, and stimulating job growth and the economy by using a phased approach to improve this critical transportation corridor. This proposal focuses on a portion of Phase 2 of the I-90 Corridor Improvement Program referred to as Phase 2A - Keechelus Dam Vicinity, further described under project phasing below.

As the main east-west transportation corridor across Washington state, I-90 Snoqualmie Pass is the critical link connecting western Washington's large population centers, businesses and ports with the rural communities, agricultural industries, and recreational opportunities of central and eastern Washington. Safe and reliable travel over I-90

Snoqualmie Pass is essential to the economic vitality and livability of Washington state. Interstate closures due to avalanches, extreme weather, and rock fall can cripple Kittitas County's economy. When I-90 is closed, large portions of Kittitas County are rendered unreachable.

The I-90 Corridor at Snoqualmie Pass is threatened every year by increasing congestion, increasing traffic volumes and temporary closures from avalanches, rock slides and extreme weather conditions. The I-90 Corridor Improvement Program aims to remedy these threats to Washington state's livability and economic vitality by improving a 15-mile portion of I-90 east of Snoqualmie Pass from Hyak (milepost 55) to Easton (milepost 70). The two phased construction project features corridor improvements including: widening I-90 Snoqualmie Pass from four to six lanes to increase capacity and reduce congestion; stabilizing unstable rock slopes to prevent rock fall hazards; replacing deteriorated concrete pavement for a smoother, safer ride; rebuilding the Lake Keechelus Snowshed to prevent avalanches from reaching the interstate and the associated interstate closures; adding and extending chain up / off areas for freight and passenger vehicle movement; straightening sharp roadway curves for visibility and to reduce collisions; replacing low-clearance interchanges for freight mobility; adding truck climbing lanes; and reconnecting aquatic and terrestrial wildlife connectivity to minimize wildlife/vehicle collisions.



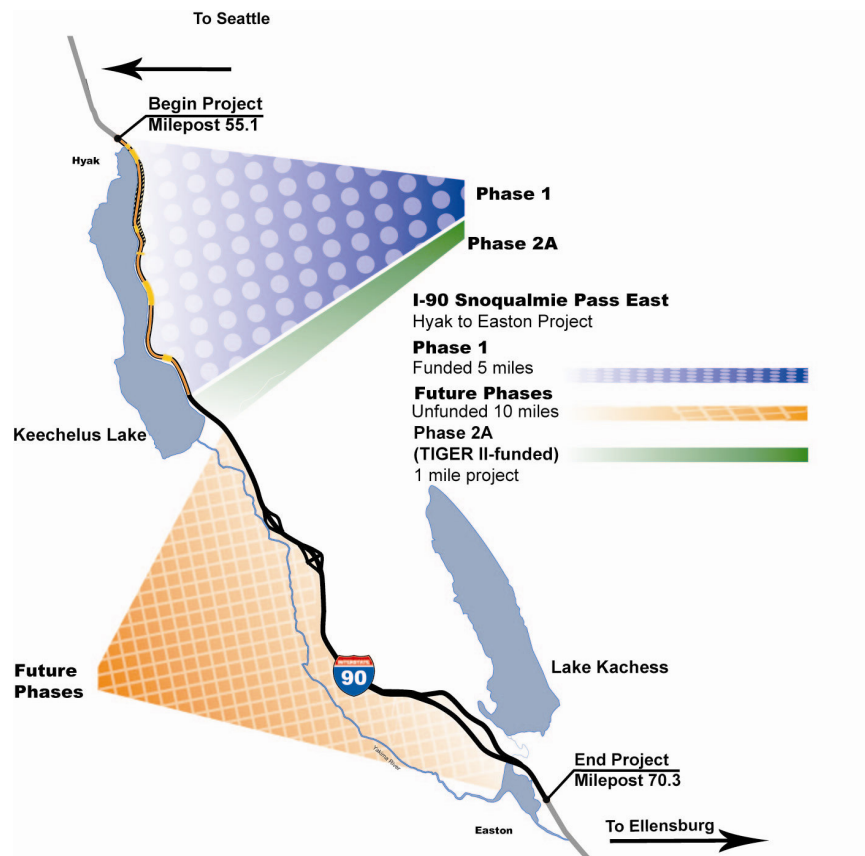
NEPA and SEPA processes for the I-90 Corridor Program are complete, and regulatory permits are secured, such as Section 4(f) identifying that the project will have no more than a de minimis impact on the project area; section 106 of the National Historic Preservation Act; Clean Water Act; Clean Air Act; Endangered Species Act, and other state and local requirements.

Construction of this rural project, located in the economically distressed Kittitas County, is underway and will continue to infuse the economy with much needed construction-related jobs for years to come.

Project phasing

The I-90 Corridor Program is appropriately capitalized up-front. The Washington State Legislature has funded 56.5% - or \$571 million - of the \$1.01 billion (engineers estimated cost) project through the 2005 Transportation Partnership Account. The I-90 Corridor Program is divided into two phases: Phase 1 and Phase 2, which includes, Phase 2A in which TIGER II funds are requested. Phase 1 is a five-mile section divided into several construction contracts.

Phase 1 begins near the Hyak Interchange (milepost 55) where the existing highway narrows from six lanes to four lanes, and passes through a narrow corridor between the shores of Keechelus Lake, a deep water agricultural reservoir used in Kittitas County and eastern Washington for agriculture, and steep mountain slopes. Phase 1 improvements include: adding a new lane in each direction; replacing deteriorating concrete of existing lanes; stabilizing rock slopes; rebuilding the Lake Keechelus Snowshed; rebuilding bridges and culverts; building wildlife crossing structures; extending chain up/off areas; straightening sharp roadway curves; and installing intelligent transportation systems.



Phase 2 is a 10-mile section also divided into sub-phases that begins near the Keechelus Lake Dam (milepost 59.9) and ends near the town of Easton (milepost 70). Phase 2 improvements include: adding a new lane in each direction; replacing deteriorating concrete of existing lanes; building wildlife crossing structures, including overcrossings; rebuilding bridges and culverts;

adding and extending chain up/off areas; replacing low-clearance interchanges; adding truck climbing lanes; stabilizing slopes; and installing intelligent transportation systems. Phase 2A, the portion of the project requesting TIGER II support, is described below.

Phase 2A (located between milepost 59.9 to milepost 60.9 and referred to as the Keechelus Dam Vicinity Project) requests TIGER II grant funding for design and construction work to meet medium and long-term needs of Washington state and the nation.

Kittitas County's economy is dependent on I-90. The integrity of this lifeline must be maintained for the county to thrive. Therefore, Kittitas County is requesting \$12.32 million in TIGER II funding to continue design and construction of several much-needed improvements of Phase 2. The TIGER II-funded Phase 2 improvements will herein be referred to as the I-90 Phase 2A–Keechelus Dam Vicinity, or Phase 2A. Funding support from TIGER II will be invested in design and construction of Washington state's first wildlife overcrossing to improve ecological connectivity. The project also completes design engineering for one-mile phase of the project, which includes adding a new lane in each direction, replacing deteriorating concrete pavement of existing lanes, building chain-up areas, and stabilizing a rock slope. While matching funds are not mandated by the TIGER II grant guidelines for rural projects, WSDOT's Secretary of Transportation, Paula Hammond, has signed a letter committing state funds as a 20% match if TIGER II funding is received. WSDOT, along with approval from Washington State Legislature, will provide 20% matching funds, or \$3.08 million, for this project utilizing cost savings realized on construction projects in Phase 1. WSDOT will use part of the 20% match to fund right-of-way acquisition of land for a recreation Sno Park that aligns with ecological connectivity objectives. Total project cost is \$15.4 million. (Please see Appendix A for the signed match funds letter from WSDOT.)

II. Project Parties

Kittitas County Commissioners are empowered to set county policy, adopt laws, implement them, and, except for the responsibilities of other elected officials, carry out day-to-day operations of the county.

The Kittitas County Public Works Department reports to the County Commissioners. Kittitas County Public Works is the departmental unit within County Government seeking the TIGER II grant. Other project parties include:

- WSDOT
- Central Washington University
- I-90 Wildlife Bridges Coalition
- Federal Highways Administration
- U.S. Forest Service (land owner)

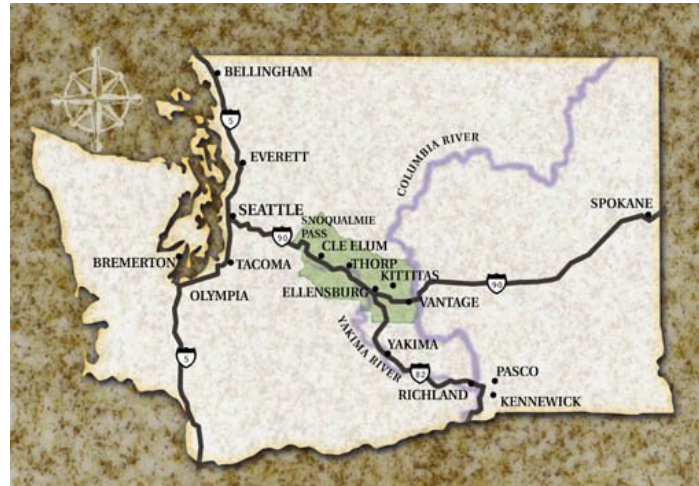
Kittitas County Demographics (according to Office of Financial Management):

Statistics: Population: 38,951

Labor force: 19,960

Unemployment rate: 8.6% (or 1,710)

Median Household Income: \$32,370
 Per capita income: \$25,370
 Families below poverty: 17%
 Legislative: District 13
 Congressional: District 4



Kittitas County description -
 Kittitas County is located east of the Cascade Range in the geographical center of the state. It spans from the lush forested Cascade Mountains to the upper Yakima River Valley plains and the Columbia River.

Comprising a geographic area of 2,297 square miles, Kittitas County ranks eighth in land area size among Washington counties. As such, it accounts for almost 3.5 percent of the state’s total land mass. The topography of Kittitas County is fairly straightforward. As part of the southern extension of the Wenatchee National Forest, the terrain in the county’s northwest corner is rugged and heavily forested wilderness. However, at higher elevations, one also discovers a series of major rivers carrying precipitation and snow-melt out of the Cascades and into the Kittitas Valley. This rural, geographically discrete area is sparsely populated with an average of 14.5 people residing per square mile (Washington state’s average is 101.18 people/square mile).

Fifty-seven percent of Kittitas County residents live in incorporated areas, with 43 percent living in unincorporated areas. State government, retail trade, accommodation & food services, and local government are the county’s top four job sectors.

III. Use of TIGER II discretionary Grant funds

I-90 Corridor Program Cost Summary -

I-90 Snoqualmie Pass East Corridor Program				
Action	Funding Amount	Funding Source	Project Percentage	Funding Status
Phase 1 Engineering & Construction	\$571.1 million	State	56.5%	Secured
Initial Phase 2A Design & Construction	\$12.3 million	TIGER II	1.2%	Pending
Initial Phase 2A Design & Construction	\$3.1 million	State Match	0.3%	Pending
Phase 2A Complete Construction	\$33.7 million	State	3.3%	Awaiting Legislative Approval
Future Phases Engineering & Construction	\$391.1 million	TBD	38.7%	Exploring sources for funding
Total Funding	\$1.01 billion	Mixed	100%	

TIGER II funded Phase 2A – Keechelus Dam Vicinity Cost Summary –

TIGER II Grant Funds Cost Summary

Action	Total Cost	TIGER II	WSDOT Matching Funds
Construction	\$8.4 million	\$8.4 million	
Construction Engineernig	\$1.1 million	\$1.1 million	
Right-of-way for Sno-Park*	\$1.5 million		\$1.5 million
Project Engineering	\$4.4 million	\$2.82 million	\$1.58 million
Total funding with TIGER Grant	\$15.4 million	\$12.32 million	\$3.08 million

* WSDOT will pay for ROW with a portion of 20% match funds

IV. Selection Criteria

a. Long-term outcomes

Kittitas County has reviewed the TIGER II grant selection criteria describing the long-term grant outcomes and is confident the I-90 Corridor Program (of which Phase 2A is a part) aligns with each criterion in the following ways:

i. State of Good Repair

The current condition of I-90 across Snoqualmie Pass presents a number of threats, impacts, and poor conditions that affect passenger and freight mobility. Completion of the I-90 Corridor Program including Phase 2A addresses road conditions affecting safety and our economy in the following ways:

- **Structural Deficiencies:** The existing roadway pavement on I-90 Snoqualmie Pass is 50 years old in places, far exceeding its 20-year design life, and continues to rapidly deteriorate. If it is not replaced, continued deterioration of the roadway will result in unsafe driving conditions, increased vehicle damage, travel delay, repeated maintenance efforts, and eventual failure of the roadway. Plans include replacement of existing concrete pavement with new concrete with a 45-year design life, and straightening sharp roadway curves that do not accommodate current speed limits, create visibility issues, and can lead to collisions.
- **Slope Instability:** I-90 Snoqualmie Pass has miles of continuous unstable slopes which can result in rock and debris falling onto the roadway, causing damage to property and loss of life. The unstable slopes located in the corridor will continue to pose a threat to property and safety if they are not stabilized. Plans include stabilization of rock slopes with grouted steel bars that are designed in accordance with the structural geology of each slope, and use of protective netting and large ditches to prevent loose rock from falling on the roadway.
- **Ecological Connectivity:** This portion of I-90 is located on U.S. Forest Service land. The I-90 Corridor Program has gone to great lengths to ensure ecological connectivity goals align with U.S. Forest Service land management goals as well as non-governmental conservancy goals.

Federal land management plans have documented that I-90 across Snoqualmie Pass forms a barrier to wildlife movement and the need to increase ecological connectivity across the highway. Improving ecological connectivity via wildlife crossing structures advances federal land management goals by reducing fish and wildlife isolation. Wildlife crossing structures also improve motorists' safety by reducing wildlife / vehicle collisions. There are multiple wildlife crossing structures throughout the corridor improvement program. In the Phase 2A-Keechelus Dam Vicinity project, construction of Washington's first wildlife overcrossing structure is planned near a high road kill rate area.

- **Reliability:** Freight carriers rely on I-90 Snoqualmie Pass to transport goods across Washington state and beyond. Thirty-five million tons of freight cargo valued at \$500 billion moves across I-90 each year. Highway closures due to avalanches, repeated road maintenance efforts, and rock slides can cause shipment delays, resulting in negative impacts to the economy. I-90 Corridor Program improvements include building a new showshed to reduce avalanche-related road closures by 70% in the project area and installing avalanche fencing, along with replacement of the existing concrete pavement with new pavement and stabilize rock slopes. These improvements will increase the safety and reliability of the corridor.
- **Traffic volumes / Capacity:** Currently, 28,000 vehicles traverse I-90 Snoqualmie Pass daily; on weekends and holidays, over 60,000 vehicles cross I-90. Capacity issues were evident during Memorial Day Weekend 2010. During that Memorial Day weekend, approximately 187,000 vehicles traveled on both directions of I-90 Snoqualmie Pass, according to WSDOT. These heavy traffic volumes created a 27-mile backup on westbound I-90 on Monday afternoon, leading to three to four hours of added travel time for motorists. Twenty-seven mile back-ups could be glimpse into the future for drivers across I-90 Snoqualmie Pass if the current four-lane interstate does not have the capacity to accommodate busy travel weekends and the estimated increase in traffic volumes. WSDOT traffic engineers estimate average daily traffic and weekend traffic will increase by about 2.1% every year. The I-90 Corridor Program results in increased capacity by adding a new lane in each travel direction as well as truck-climbing lanes, and installing intelligent transportation systems that give drivers real-time travel information from the road.
- **Winter driving conditions:** During winter snow storms, freight and passenger vehicles must install tire chains on their vehicles to maintain traction while traversing the Snoqualmie Summit. The existing chain-up areas in the corridor are not sufficient to accommodate the amount of vehicles needing to pull off the road during a winter storm and chain up. Oftentimes, freight truck drivers are forced to stop in the right-hand lane of the interstate and chain up under live traffic due to icy roads and space constraints of the current designated chain-up area. This poses a significant safety risk to all motorists on the road due to people exiting their vehicles and trucks parked on the interstate. This Program adds and extends existing chain-up/off areas, increasing safety for motorists during winter driving conditions.

Relative to asset management, in the 2007-2009 biennium, WSDOT provided an additional \$3.5 million in funding to cover I-90 Snoqualmie Pass winter maintenance operations, including the application of anti-icier materials, snow removal and avalanche control. The five-year snow

average is 415 inches per year; the pass was closed 190 hours in 2007-2008 and 130 hours in 2008-2009 due to avalanche and rock slides.

Completion of the I-90 Corridor Program will help reduce unanticipated long-term operation and maintenance (O&M) activities, allowing scarce State resources to be available for other use. WSDOT manages over 18,000 lane miles of state highway through its Highway Maintenance Program. The O&M budget is established each biennium by the Washington State Legislature. Recent budgets are approximately \$310 million. A Maintenance Accountability Program is in place to guide maintenance decisions.

A result of the Corridor Program is to significantly reduce the unanticipated O&M expenditures of keeping I-90 Snoqualmie Pass open during the winter. A new six-lane snowshed will reduce avalanche control needed at the most active avalanche chutes on Snoqualmie Pass, thereby reducing associated road closures and the length of closures in the project area by 70%. Closures will also be reduced by preventing falling rock from reaching the roadway by the installation of high-grade netting and completing extensive rock bolting measures. Wildlife crossing structures will reduce wildlife / vehicle collisions, thereby minimizing road closure associated with collisions. Savings will also be realized from the new concrete pavement. New concrete pavement will replace the deteriorated pavement of existing lanes, thereby eliminating costly pavement fixes in the summer.

ii. Economic competitiveness – over the medium to long term

Improvements to I-90 through the I-90 Corridor Program will contribute to the economic competitiveness of the nation, Washington state, and Kittitas County.

National and International Ports

Washington's 75 ports serve as the primary gateway for international trade between the United States and Asian markets. Washington's ports handle seven percent of U.S. exports and six percent of all imports, with \$70 billion of goods flowing through the Port of Seattle and Port of Tacoma. The Ports handle slightly more than 54.0 million short tons of cargo, including 13.2 million tons of domestic cargo (containers, breakbulk, liquid bulks); 17.4 million tons of imports (containers, automobiles, steel); and 23.3 million tons of exports (containers, grain, wood chips).

Exports through the Ports of Seattle and Tacoma are largely comprised of products grown and/or manufactured in Washington state, and account for 70 percent to 80 percent of total exports by weight and between 35 percent and 50 percent by value. Major exports through the Ports include agricultural products, food products, machinery, petroleum products, waste/scrap, paper, chemicals, transportation equipment, other forestry products, and fish and seafood products. These products come from every corner of Washington state, primarily via I-90. Kittitas County is Washington state's largest producer of grass hay, primarily timothy, and oats for grain. Kittitas County timothy hay is known worldwide. Approximately 70 percent of the annual production of timothy hay is exported, principally to Japan.

Products shipped through Washington state reach more than 200 countries worldwide, with one-third of Washington-grown products shipped overseas. The Port of Seattle and Port of Tacoma combined are the third largest container complex in North America, after Los Angeles/Long

Beach. The Puget Sound Ports of Seattle and Tacoma are 1.5 days closer to the Asian market than any other U.S. port. Washington ranks third in bulk cargo and container shipping to and from the Asian market, with one in four jobs in the state related to trade.

The importance of the efficient movement of freight and goods across the state was highlighted last year by the TIGER grant funding of the US 395 North Spokane Corridor Project – Spokane, WA (\$35 million) and the Mercer Corridor Project – Seattle, WA (\$30 million). These projects will improve access and provide long term economic benefits to Washington state. The next logical link is the I-90 Corridor Program, and specifically Phase 2A, as this will provide the critical cross-state and economic link between these projects' two locations, Seattle and Spokane. The I-90 Corridor Program provides connectivity between the improvements constructed by the two TIGER Grant-funded projects in Washington state by ensuring a safe and reliable cross-state transportation corridor.

Freight and movement of goods/services

Washington's transportation system supports the highest per capita trade in the nation. More than 446 million tons of freight moves to, from and through Washington state each year. Trucks carry most of the freight, both in tonnage (59 percent) and value (64 percent). I-90 Snoqualmie Pass is the critical link in moving this freight along the east-west commerce route. I-90 connects directly between ports and agricultural industries located in eastern Washington and beyond.

- Thirty-five million tons of freight cargo, which equates to \$500 billion in value, crosses I-90 each year.
- Approximately 28 percent of the freight traffic on I-90 is related to agricultural goods. Prompt delivery of agricultural goods is essential to guarantee quality and freshness.
- Approximately 19 percent is related to industrial materials. Timely delivery of parts to major employers, such as Boeing, ensures they stay on track to deliver a product or supplies.
- By 2028, more than 10,000 trucks will use I-90 daily.

I-90 Corridor Program improvements, including the proposed TIGER II-funded Phase 2A-Keechelus Dam Vicinity project, improve the route for freight traffic. Freight improvements include adding a new lane in each direction for additional capacity; reducing avalanche-related closures by 70% in the corridor with a new snowshed; adding a truck climbing lane; extending existing chain up/off areas for wintertime travel; installing intelligent information systems highlighting travel times, lane closures, and variable message signs; replacing deteriorating concrete of existing lanes for a smooth ride; stabilizing a rock slope for safety; and building a wildlife overcrossing to minimize wildlife/vehicle collisions.

Movement of people, goods, services

On a more local level, Kittitas County, classified as an economically distressed county in 2009 with an unemployment rate of 8.6% (according to the Office of Financial Management), will benefit exponentially from the entire I-90 Corridor Program, as improvements will ease the movement of workers.

According to the Economic Development Group of Kittitas County, in 2006, more commuters began traveling to and from the county for work. Today, more than 4,000 Kittitas County

residents work outside of the county; two out of five of the county's outbound commuters travel to and return from King County (located west of Kittitas County across Snoqualmie Pass, with its largest city being Seattle) each day.

This breaks down to 1,775 traveling to King County; 779 Traveling to Yakima County; 356 traveling to Snohomish County; 274 traveling to Grant County; and 192 traveling to Spokane County.

More than 4,000 jobs located in Kittitas County are held by residents from outside of the county.

This breaks down to 1,428 traveling from Yakima County; 1,107 traveling from King County; 348 traveling from Piece County; 310 traveling from Snohomish County; and 176 traveling from Spokane County.

Corridor improvements to increase the reliability of I-90, such as adding capacity, reducing avalanche-related road closures; rock slope stabilization, new concrete pavement, and intelligent communications systems, will ensure commuters reach their destinations with piece of mind and in a timely fashion.

Economic productivity of land, attracting talent, and supporting Central Washington University

Productivity of land -

Kittitas County is known for its agricultural production. Agriculture, at present, consists largely of the production of grass hay, cereal grain, and livestock. Kittitas County is home to the largest producers of grass hay, primarily timothy, and oats for grain in Washington. Kittitas County timothy hay is known worldwide. Approximately 70 percent of the annual production of timothy hay is exported, principally to Japan. Timothy hay is the single-largest cash crop in Kittitas County, grown commercially by an estimated 200 to 250 farmers on between 25,000 to 30,000 acres of land. The economic impact of this industry on the county is estimated to have an annual value of more than \$30 million.

In addition to agriculture, Kittitas County is known for its livestock production. Kittitas County has the fourth largest beef cow inventory in Washington state. The sheep industry fills up a unique niche in the county, as sheep are used to clean up crop aftermath and for consuming poorer quality hay, causing the county to rank third in the state for sheep inventory.

While Kittitas County will continue to rely on its agricultural roots, the Kittitas County Economic Development Group has identified priority target sectors for recruiting new business to the county, including renewable energy, professional services, agriculture and natural resources, light industrial, and transportation and logistics. Kittitas County's central location in the state and its geographic location, including proximity to the Puget Sound area, make it an ideal, low-cost option for attracting recruiting new businesses to the region.

The condition of I-90 affects all sectors and is fundamental to the movement of goods. A more accessible, reliable, and freight-friendly I-90 corridor that includes additional capacity, upgraded

high-clearance interchange overpasses, truck climbing lanes, and extended chain-up / off areas will aid in attracting new economic development to the county.

A strong example of Kittitas County's commitment to growing its target sectors for new business is evident in its rapidly increasing renewable energy business. The region is a hot spot for the wind energy industry because wind speeds east of Snoqualmie Pass consistently reach the desired average of 16 miles per hour or more. This clean, renewable energy source will benefit the entire state by reducing air pollution, our dependence on foreign oil, the use of petroleum, and create jobs for Washington state citizens. Other clean energy sources such as solar, biomass, and hydroelectric can also be found in the county. The recently constructed Renewable Energy Center at Puget Sound Energy's Wild Horse Wind and Solar Facility (located about 15 miles east of Ellensburg on the Vantage Highway) is one of only a handful of wind energy visitor centers in the nation.

- With 149 wind turbines, Wild Horse has the capacity to produce 273 megawatts of electricity. One megawatt of electricity provides for the electrical needs of 225 to 300 homes.
- 2,408 solar panels rest atop the ridgeline at Wild Horse with maximum capacity to produce 500 kilowatts of power
- The facility provides 25 jobs and has 40,000 visitors boosting area tourism dollars.

Further examples of the County's commitment to the renewable energy industry include the 75 megawatt (MW) Teanaway Solar Reserve Project, Invenergy's 75 MW Vantage Wind Project, and Enexco's 190MW Desert Claim Wind Project. These renewable energy projects provide millions of dollars in new tax revenue and other economic benefits to Kittitas County, as well as provide clean energy to hundreds of thousands of homes in the state's fastest-growing areas.

Attract talent -

Another priority of the Economic Development Group is to attract new talent to the area, as well as leverage the talent already in the county and retain those that pass through Central Washington University (CWU).

One strategy for attracting talent is to leverage the county's already booming tourism industry and tourism-related marketing techniques. (The tourism industry alone generates 1,570 jobs and \$133.8 million in the county's economy.) Kittitas County is known for its natural beauty, open space, small-town character, historic downtown, and recreation/outdoor activities. Capacity improvements to I-90 play a vital role in this strategy.

Heavy weekend and holiday traffic volumes on I-90 and the resulting lengthy backups and added travel times can detract from the enjoyment of traveling / touristic activities. Increasing capacity by adding a new lane in each direction will accommodate these increases in traffic volumes for decades to come, therefore aiding Kittitas County's efforts to attract tourism and talent to the region.

Leverage Central Washington University (CWU) -

Kittitas County is home to CWU, a comprehensive, four-year public university. CWU is the prime economic force driving the local economy. CWU has a student body of over 10,000

students at the main campus in Ellensburg (Kittitas County's government seat) and six centers located in western and central Washington to serve place-bound students. Of the 10,000 students, approximately 8,000 reside in Ellensburg, supported by about 1,500 university faculty and staff. CWU's direct economic impact on Kittitas County is tremendous. In addition to offering educational opportunities for existing residents, CWU provides social and political capital to the county and delivers entertainment and recreation options for the local and regional population. Equally important is the university's role as a conduit for bringing young, educated people to the region.

I-90 is the primary transportation corridor for employees, students and their families to access the university. Corridor improvements to reduce road closures and improve safety are essential for student's and employees' year-round access to the college.

I-90 closures impact Kittitas County, Washington citizens and the economy-

A closure of I-90 Snoqualmie Pass not only hinders east-west movement of freight, but also impacts commerce across Washington and the northern United States. In the winter of 2008, heavy snow fall and avalanche danger resulted in an 89 hour total closure of I-90 Snoqualmie Pass. According to WSDOT's Storm-Related closures of I-5 and I-90: Freight Transportation Economic Impact Assessment Report, Winter 2007-2008, the I-90 closure resulted in:

- \$27.89 million of total lost economic output.
- 170 estimated jobs lost for one year following the closure.
- \$1.42 million lost in state tax revenue.
- \$8.6 million reduction in personal income.

A closure of I-90 Snoqualmie Pass significantly impacts small farmers and businesses. For example, during the 89 hour closure of the winter of 2008, The Walla Walla Gardeners' Association was unable to deliver fresh produce to the Seattle market for a week. The closure meant six truckloads – or \$70,000 to \$150,000 – in lost sales to family owned farms. Generally speaking, a loss in sales is often passed to the consumer. The reliable delivery of goods will result in stable and predictable cash flow for businesses and consistent prices at the local grocery store.

Closures of I-90 also impact the tourism industry of Kittitas County. Hyak is home to the Summit at Snoqualmie. The resort has 1,916 skiable acres, 26 chair lifts, has the capacity to accommodate 34,490 people an hour and has more than 500,000 guests each year. The resort has 12,346 parking spaces. The parking lots routinely reach capacity on weekends and holidays. The resort's employees rely on a safe and reliable road to get to work and provide a paycheck for their families.

Other resort-related businesses such as ski-rental shops, restaurants, gas stations and hotels depend on I-90 to get their customers to the Pass. The majority of the revenue the resort earns each year is brought in during the five to seven months of winter. Just one day closure of I-90 Snoqualmie Pass for snow or avalanche danger can have rippling effects in the local, state and national economy.

In summary, the I-90 Corridor Program benefits Washington's economic competitiveness by reducing the current negative impact of road closures on the state's economy and the extra costs of transport passed on to consumers. By having a reliable, safe cross-state transportation corridor, the agricultural industries of eastern Washington have a direct link for selling their goods to the large businesses and populations centers of western Washington and the rest of the world via Ports. Conversely, western Washington can take advantage of the abundant recreational opportunities and touristic activities of eastern Washington.

Of importance, the I-90 Corridor Program construction practices are environmentally sustainable, and utilize state and nationally approved best management practices.

iii. Livability - fostering livable communities

I-90 Snoqualmie Pass is a vital link between eastern and western Washington. Several rural communities located in Kittitas County and along the project corridor (e.g. Hyak, Easton, Roslyn, Cle Elum, and Ellensburg) are large farming and agricultural communities serving as vital economic drivers for central and eastern Washington.

These rural communities also explode on weekends due to the region's vast year-round recreational opportunities. Conversely, Snoqualmie Pass serves as the eastern gateway to the large metropolitan business centers, university research hospitals, and service industries of western Washington. Every day, thousands of trips are made across Snoqualmie Pass by central and eastern Washington residents for business, shopping, professional sports, or access to advanced health care found only in population centers.

A project of this magnitude can cause both economic and social impacts. The highly supported I-90 Corridor improvement program will positively contribute to the social and livable conditions of Kittitas County and the entire state by providing a reliable, safe, and efficient cross-state route. By easing weekend and holiday travel delays and minimizing pass closures, more travelers can reach their destination safely and on time. Additional social benefits include reducing driver frustration, (including the 8,000 daily commuters) due to traffic backups and pass closures, and increasing access to health care and recreational areas. Increasing wildlife habitat connections in the project area is also an important social value. Efforts to restore wildlife mobility and preserve habitat along the I-90 Corridor is an important part of the project plans.

Government is the biggest employer in Kittitas County (according to Office of Financial Management). Outside of government, these former rustic mining communities now rely on retail trade, recreation, farming, and tourism as their primary sources of income.

Kittitas County, through its Comprehensive Plan, has expressed its desire to further develop the Snoqualmie Pass sub-area for recreation while retaining its rural lifestyle.

Tourism and lodging

Economic sustainability is vital for the rural communities of Kittitas County. Economically, the retail industry in this area is directly related to recreation- and tourism-related expenditures. According to a the Economic Development Group of Kittitas County, tourism-generated

employment for Kittitas County was 1,570, or 7.6% of 20,750 total employed. Tourism-related revenues for the county are \$133.8 million.

A more solid indicator of the local travel-related economic impact is the total state and local retail sales and the hotel/motel tax collections. Kittitas County visitor-generated taxes accounts for 7.1% of total state sales tax; 13.8% of total local sales tax; and 8.3% of total lodging tax. Hotel/motel tax in 2009 added \$199,206.25 to the cash base. Total local sales and lodging taxes accounted for 13.4% of state receipts, higher than counties much larger than Kittitas. Of significance, the local sales and lodging tax remain in the county.

Property development

Capitalizing on the natural beauty, endless recreation, and rural lifestyle of Kittitas County, developers are building resorts and planned communities along the I-90 corridor. Suncadia, for example, is a 6,400 acre planned community and all-season destination resort and conference center located between Roslyn and Cle Elum. The mountain community is adjacent to the 2.2 million acre Okanogan-Wenatchee National Forest.

A new winery, Swiftwater Cellars, will open its doors on Sept. 10, 2010 near the Suncadia Resort. The winery is being marketed as Washington's ultimate destination winery featuring dining, golf, and events. The large winery will offer tours, concerts, and take advantage of the close proximity to Suncadia. Swiftwater Cellars will have a capacity to produce 7,000 cases annually.

In August 2010, the Washington State Horse Park was opened in Cle Elum as a premier equestrian facility in the Northwest serving the recreational, competitive and educational needs of riders and horse enthusiasts in all disciplines, age groups and skill levels. The venue accommodates large horse events and caters to smaller, less formal activities. In addition to providing new opportunities for those involved in equine sports, the Horse Park also will stimulate Washington's economy by creating jobs, increasing demand for goods and services and attracting new tourism.

The only public to access to the aforementioned property developments is from I-90.

Housing development continues as well. Because of the Puget Sound's high cost of living, traffic congestion, and urban lifestyle compromises, the rural communities residing along the I-90 corridor are seeing an increased number of persons working from home and commuting to King County and Snohomish County. Retiring persons are also moving to lower cost rural areas where housing is more affordable and cost of living less

Recreation

The I-90 Corridor Program results in a safer more reliable highway that provides recreational and economic benefits to the communities of Kittitas County and Washington state.

I-90 Snoqualmie Pass serves as the western gateway to the winter recreational opportunities in central and eastern Washington, which includes snowmobiling, skiing, snowshoeing, dog sledding, snowboarding, and cross-country skiing. Several ski areas and numerous condos and

vacation rentals populate the pass, with shuttle buses running between ski areas. Snoqualmie Pass is also crossed by the popular Pacific Crest Trail, which runs from British Columbia, Canada, through the U.S., to Mexico. Other trailheads abound at the pass or along its approaches. With access to thousands of acres of mountain forest and high country lakes and streams, I-90 Snoqualmie Pass also serves as the gateway to the vast summer activities of the region, including golfing, backpacking, camping, kayaking, whitewater rafting, and fly fishing. Large employers rely on access to such recreational opportunities to recruit and sustain a good quality of life for their employees.

Recreational activities such as hunting and fishing provide substantial economic benefit to the state. According to the Washington Department of Fish and Wildlife, spending by fishers, hunters and wildlife watchers generates more than \$6.7 billion annually for Washington state's economy. Also, more than one million people purchased Washington state fishing licenses, hunting license or vehicle-use permits for access to Washington Department of Fish and Wildlife lands each year. Many of these dollars support small businesses and rural communities in Kittitas County. These recreation activities also provide opportunities to educate people on the importance of preserving and protecting our natural resources. Phase 2A features building a wildlife crossing to improve ecological connectivity for aquatic species and wildlife; as a result, wildlife and fish populations will be maintained and enhanced, ensuring these recreational and education opportunities will be enjoyed by future generations.

Public services

The I-90 Corridor Program will have a beneficial impact on public services, especially emergency responders.

The corridor program will increase capacity, minimize congestion, and decrease wildlife/vehicle collisions with wildlife crossing structures. KITTCOM, a civilian-staffed 9-1-1 center that serves 17 public safety agencies in Kittitas County, handled approximately 32,095 calls in 2009. Swedish Hospital, the greater Seattle area's largest medical center, purchased property in Cle Elum and has plans for a 2,900-square-foot state-of-the-art physician's clinic. The clinic will be home to a primary care physician and offer advanced medical care, X-ray and laboratory services. A safer, more reliable and less congested I-90 will help improve emergency and area hospital operations and help Kittitas County serve its citizens' health care needs.

In summary, completion of the I-90 Corridor Program improves the vital link between eastern and western Washington, allowing resident's of state to take full advantage of the diverse landscape and job opportunities Washington has to offer.

iv. Sustainability – improving energy and environmental sustainability through the I-90 Corridor Program

Fuel and energy savings

The I-90 Corridor Program will produce long-term fuel savings due to increased traffic speeds and reduced delays compared to the current situation where vehicles and trucks must idle or creep at very slow speeds from congestion and/or closures from avalanche control. During temporary pass closures, trucks often idle for long periods of time to maintain cargo refrigeration

and/or heat and diesel operations, and motorists idle to stay warm causing increased emissions and fuel consumption. Additional energy resources will be saved after construction of the project since WSDOT and crews will not have to perform maintenance paving operations every year, which consumes resources and causes traffic delays.

Environmental enhancements

Kittitas County and WSDOT analyzed potential permanent impacts from CO and toxic air pollutants. For the I-90 Corridor Program areas, Kittitas County and WSDOT conducted CO modeling analysis based on the requirements of Washington Administrative Code (WAC) 173-3-24 Affected Environment and Consequences 420 and USEPA guidelines. The team used the CAL3QHC air quality dispersion model for estimating CO concentrations. For both existing conditions and future conditions for all of the alternatives, the modeled CO concentrations at all receptors within 500 feet of the highway were much lower than the one-hour state and federal CO standard of 35 parts per million and the eight-hour state and federal CO standard of nine parts per million. Further, the projects would most likely result in lower CO concentrations than current conditions when compared to the “No-Build Alternative,” through the projected reduction in traffic congestion. Based on these findings, the team concluded that constructing these projects would not produce any adverse air quality impacts from CO. It was concluded in WSDOT’s I-90 Snoqualmie Pass East Final EIS that under any of the build alternatives, federal, state, and regional air quality standards would be met, including the NAAQS and Clean Air Act standards.

Air quality impacts were determined to be most likely during construction activities. Emissions caused by fugitive dust; odors; emissions from construction equipment; and emissions from temporary stationary sources were analyzed. It was determined that emissions from odors, construction equipment and temporary stationary sources were temporary, localized and short-term and would not cause significant impacts or ambient air pollutant concentrations exceeding NAAQS limits.

WSDOT will implement mitigation measures to minimize fugitive dust emissions to a less-than-significant level in compliance with the Washington regulation to minimize fugitive dust emissions. Wood debris generated during construction will be used as habitat features or chipped and mulched whenever possible.

The I-90 Corridor Program also provides ecological improvements resulting in greater ability for wildlife to safely cross the highway, including both larger, more mobile species such as deer and bear, and smaller, less mobile species such as amphibians. Phase 1 of the program includes several large bridges and culverts that serve as wildlife crossing structures at identified hydrologic connectivity zones. The ecological linkages provide more natural stream channel movement and improved fish passage. As part of the mitigation for Phase 1, WSDOT acquired a 306-acre property for habitat preservation in the Gold Creek Valley in concert with the Cascade Land Conservancy. This property contains wetlands, riparian areas, and mature forests, including potential habitat for northern spotted owls, marbled murrelets, and bull trout while avoiding the potential for high-density development. WSDOT has committed to preserve this property in perpetuity and has classified this land as conservation property to prevent public development. The property acquisition also aligns with the Cascade Land Conservancy’s Cascade Agenda,

which brings together business, civic, and government leaders to protect one million acres of working forests and maintain our rural economies and way of life. The Cascade Land Conservancy has completed 163 projects and has conserved 163,000 acres in Washington state. It is currently negotiating to protect another 200,000 acres.

Phase 2 calls for construction of several crossing structures in the form of bridges and culverts, including the Phase 2A TIGER II-funded wildlife overcrossing structure. The overcrossing structure will feature pre-cast arches that will create a natural earth crossing with an overall wildlife land bridge of approximately 400 feet long. The structure will be built utilizing an existing rock knob formation in the median of I-90 near Keechelus Dam. The overcrossing, combined with wildlife fencing, will significantly reduce the number of wildlife / vehicle collisions in this high-road-kill rate area and will improve the north-south migration of wildlife. Phase 2A completion also allows the movement of the existing Price Creek Sno-Park to a new location, necessary because the existing sno-park's location is situated between an important connectivity emphasis area and is in conflict with the corridor program's ecological connectivity goals. Through Phase 2A, WSDOT will be able to acquire new land to re-locate the sno-park, versus eliminating it. WSDOT, in cooperation with the U.S. Forest Service and Washington State Parks will re-build the sno-park to support public recreation, restore the existing sno-park location to a natural habitat, which includes wetlands, receive stormwater retention credit, and enhance the ecological permeability of the area.

Project designs will reflect the Cascadian theme giving the project area a uniform look consistent with the National Scenic Byway and U.S. National Forest Service guidelines. The design uses stone and wood textures and images matching the mountain environment. These images were developed collaboratively with the Mountains to Sound Greenway and the U.S. Forest Service to preserve and enhance the natural environment of the project area.

v. Safety: Improving the safety of U.S. transportation facilities and systems

The I-90 Corridor Program eliminates current known highway safety hazards which cause this section of I-90 to have a 2:1 ratio of collisions over other rural highways. Currently, 49 percent of the collisions occur near Keechelus Lake.

To correct these high collision situations, the corridor program will bring this section of I-90 to current FHWA and WSDOT standards by addressing the following high risk areas:

- **Unstable Slopes:** Collisions due to incidences of rock outfall and rockslides happen without warning. Occasionally, the spontaneous release of rock debris has been catastrophic, causing closures and the loss of property and life. A study was performed by the Geotechnical Services Branch of WSDOT identified several areas within Phase 1 and Phase 2 that have unstable slopes where rock outfall and rockslides occur. During recent construction projects, a few of these areas have been stabilized by rock bolting and doweling. The additional locations will be addressed as part of this project.
- **Structures:** The existing Lake Keechelus Snowshed Bridge does not meet the requirements for a modern transportation system, protecting only the two westbound lanes of I-90 from the two most active avalanche chutes, leaving the two eastbound lanes and motorists vulnerable to

avalanches. As part of the I-90 Corridor Program, the existing snowshed will be replaced with an 1,100 foot long snowshed and enlarged catchment ditches to protect all six lanes of the new highway from avalanche threats. The new snowshed reduces road closures associated with avalanches and avalanche control in this area by an estimated 70%.

To address the ecological connectivity within the project area and an identified safety concern with wildlife on the roadway, two large wildlife crossing structures – one structure is located in Phase 1 of the program, the other located in the Phase 2A TIGER II-funded Keechelus Dam Vicinity Project – are scheduled for construction. Crews are currently constructing the first crossing structure by replacing the existing 138- and 126-foot-long Gold Creek Bridges at the west end of Lake Keechelus with 930 foot-long and 1,085 foot-long bridges to facilitate year-round movement of wildlife and aquatic systems under the bridge. The Gold Creek Bridges minimize the rate of wildlife / vehicle collisions by giving wildlife an area to pass safely under the highway. Installation of wildlife exclusionary fencing keeps wildlife off the freeway and guides them to the crossing structures. TIGER II funds will establish a wildlife crossing structure at the east end of Keechelus Lake.

- **Deteriorating pavement:** The existing pavement located within the I-90 Corridor is over 50 years old in places and has far exceeded its service life. Maintenance over time has rehabilitated the pavement through grinding, asphalt overlays, and dowel bar replacement; however today the pavement is at a place of no repair. The cracks, holes, and ruts in the pavement create hazardous driving conditions for freight and passenger vehicles and an uncomfortable rough ride. Replacement of the deteriorating concrete pavement for all existing lanes creates a smoother, safer ride.

- **Alignment:** Many of the existing horizontal curves do not meet the design standards for rural interstates. Within the project limits, there are six risk locations having a high probability of run-off-the-road accidents based on existing geometrics. The length of the risk locations within the project limits is 2.56 miles. The roadway will be reconstructed to WSDOT and FHWA design standards to reduce the chance of an accident within the project limits. Additionally, the sharp curves, inadequate super elevation, and limited sight distance, all contribute to accidents within the project area and will be corrected.

Evaluation of expected project costs and benefits

The following information highlights a benefit cost analysis (BCA) and metrics for the operationally complete Phase 1 project of the corridor program, and the *operationally complete* TIGER II-funded portion (Phase 2A – Keechelus Dam Vicinity and the construction of the entire one mile project). Engineering and design for the remaining nine project miles are a work in progress, and therefore, this BCA does not measure the construction benefits of the entire 15-mile corridor program. The BCA does, however, demonstrate that the resulting benefits of Phase 1 and Phase 2A (first six project miles) outweigh the costs of construction.

A summary of these benefits and costs with associated dollar values are presented in Table 1. The TIGER II funded portion of Phase 2A was assumed to be operational in the fall of 2012, with benefits from the previously funded adjoining five miles coming on-line through 2016. This

BCA analysis examined the costs and benefits of these phases over a 30 year useful life of both phases (2012-2045). It should be noted that components of Phase 1 and Phase 2A will likely have a useful life beyond 30 years but this timeframe was used to capture a conservative estimate of total benefits. Total net benefits and the benefit cost ratio (BCR) were calculated using values in 2009 dollars with both the designated 7% discount rate and the alternative 3% discount rate to show the sensitivity of the results to this key variable. Both sets of results are presented below.

Table 1: BCA Results – Phase 1 and Phase 2A project benefits outweigh cost (Dollars in millions)

Analysis Using 7% Discount Rate	
Construction Costs	
Construction	\$390
Construction Engineering	\$55
PE	\$66
ROW (97% already obtained)	\$7
TOTAL DISCOUNTED COSTS	\$517
Key Phase 1 and 2A Benefits	
Reduction in Road Closures	\$144
Increased Safety	\$18
Improved Traffic Capacity	\$597
Greenhouse Gas Reduction	\$0.027
Water Quality (not quantified)	-
Ecological Connectivity (not quantified)	-
TOTAL DISCOUNTED BENEFITS (quantified)	\$759
NET BENEFITS	\$242
BCR	1.47
Analysis Using 3% Discount Rate	
Construction Costs	
Construction	\$436
Construction Engineering	\$61
PE	\$66
ROW (97% already obtained)	\$7
TOTAL DISCOUNTED COSTS	\$572
Key Phase 1 and 2A Benefits	
Reduction in Road Closures	\$281
Increased Safety	\$35
Improved Traffic Capacity	\$1,576
Greenhouse Gas Reduction	\$0.063
Water Quality (not quantified)	-
Ecological Connectivity (not quantified)	-
TOTAL DISCOUNTED BENEFITS (quantified)	\$1,893
NET BENEFITS	\$1,321
BCR	3.31

For a more detailed analysis on the cost benefits regarding reductions in road closures, increases in safety, improved traffic capacity, greenhouse gas reductions, and other non-quantifiable benefits, please refer to Appendix B.

b. Job Creation and economic stimulus

It's expected that the I-90 Corridor Program will support 12,100 total jobs, factoring out to 4,800 direct jobs and 7,300 indirect jobs (according to I-90 Snoqualmie Pass East Final EIS, issued in August 2008). Phase 1 of the project from Hyak to Keechelus Dam supports more than 6,000 direct and indirect jobs. The direct impact of this project's job creation to Kittitas County is significant. Current construction of the Phase 1B project, for example, has had dramatic positive impacts on the local economy with many business owners of hotels, restaurants, and convenience stations experiencing an increase in sales and customers due to construction workers frequenting the area's services.

The TIGER II funded portion, Phase 2A- Keechelus Dam Vicinity, supports approximately 128 jobs. The benefit of these added jobs would be realized immediately. The majority of job creation is expected during the summer months as can be seen in third quarter totals in the table below. There are a total of 82 direct jobs created by the project; these jobs occur in the construction sector during building of the project itself as well as in businesses in the area that would supply goods and services to the project construction, such as equipment suppliers, construction companies and maintenance firms. Induced job creation accounts for 46 jobs in the businesses that supply goods and services to these new direct and indirect workers and their families; examples include retail stores, gas stations, banks, restaurants, and service companies.

Job Creation						
	2011			2012		
	Q3	Q4	Q1	Q2	Q3	TOTAL
Total jobs created	40	13	13	25	37	128
Direct & indirect	25	8	8	16	24	82
Induced	14	5	5	9	13	46

Source: Numbers calculated using methodology provided in: Council of Economic Advisors, "Estimates of Job Creation from the American Recovery and Reinvestment Act of 2009", Executive Offices of the President, May 2009

The remaining construction portion of Phase 2A not funded by TIGER II funds would support approximately 339 direct and indirect jobs.

Project Schedule

Work on the Phase 2A – Keechelus Dam Vicinity project will begin immediately upon receiving TIGER II funds.

- Wildlife overcrossing structure -
- Design engineering: October 2010
- Project advertisement: April 2011
- 1st season construction: June 2011 – October 2011
- Mandatory winter shutdown: October 2011 – April 2012
- 2nd season construction: May 2012 – October 2012
 - Project substantially complete: February 2012
 - Project operationally complete: October 2012

Design Engineering for one project mile (add lanes, replace pavement, stabilize rock slope, extend chain up / off area) -

For the TIGER II design engineering portion of the project, WSDOT will begin designing the one-mile of project improvements from milepost 59.9 to 60.9 in October 2010. Design engineering will be substantially complete by February 2012.

Right-of-Way acquisitions -

WSDOT will use a portion of the 20% match to fund right-of-way acquisition for the Price Creek Sno-Park. The right-of-way acquisition will be substantially complete by February 2012. The right-of-way acquisition is not needed in order to begin construction of the wildlife overcrossing. The right-of-way acquisition and relocation of the sno-park is necessary for WSDOT to achieve long-term ecological connectivity goals of associated with the overcrossing. The relocation of the sno-park will reduce the level of human / wildlife interaction near the crossing structure and will enable WSDOT to restore habitat near the connectivity emphasis area, including wetlands.

I-90 Corridor Program Construction Progress -

Construction began on the Phase 1 I-90 Snoqualmie Pass East – Hyak to Keechelus Dam Project in June 2009. WSDOT and their contractor, KLB Construction, Inc. (Mukilteo, WA) a women's business enterprise company, built a long-term detour bridge near the Gold Creek area (just east of the Snoqualmie Summit) for use in the second construction contract. Crews also excavated material from the Keechelus Lake reservoir to mitigate for the project's future impacts on reservoir storage. The \$3.3 million project supported 33 construction-related jobs and was completed on time and on budget in fall 2009.

This year, WSDOT and their contractor Max J. Kuney Co. (Spokane, WA) began construction on the first three project miles from Hyak (milepost 55.1) to the Lake Keechelus Snowshed (milepost 58.1). Work on the \$76 million contract adds a new lane in each direction, replaces the deteriorating concrete pavement of the existing lanes, adds and replaces bridges and culverts, stabilizes rock slopes, extends chain-up / off areas, adds illumination, traffic cameras, and variable message signs. The construction contract for the project is estimated to support approximately 1,500 jobs over the next three years. Max. J. Kuney has hired 32 sub-contractors from across Washington state to assist with the build. The average construction worker on the project makes approximately \$39.50 per hour. Max J. Kuney Co. is utilizing disadvantaged businesses on this project.

In 2011, improvements will begin on the remaining two project miles from the snowshed to the Keechelus Dam vicinity (milepost 60.1), which includes continuing to add a new lane in each direction, replacing the existing deteriorated concrete pavement, demolishing and replacing the snowshed, stabilizing rock slopes and replacing bridges and culverts. Advertisement of this work, worth an estimated \$150 million to \$200 million, to solicit contractors is slated for February 2011. Estimated contract work will support about 1,510 to 2,014 jobs. Anticipated completion date for this multi-season construction project is 2016.

Equal Opportunity

A public procurement process will be followed that requires contractors to have a program in place to meet or exceed the Executive Order 11246 regarding affirmative action to ensure equal employment and sub-contracting opportunities for women and minorities.

The I-90 Corridor Program will require the contractor have a program in place that meets the Executive Order 11246 regarding affirmative action to ensure equal employment and sub-contracting opportunities for women and minorities. The Program will define the utilization goals and will only support contractors with sound safety and labor practices. The Program will also require certification from contractors that their Disadvantaged Business Enterprise (DBE) sub-contractors are certified in the described work they are named to perform. The Program will instruct bidders to:

- Describe work commitments in the WSDOT DBE Utilization Certification using only those terms that are consistent with the NAICS Code Index Entry contained in the DBE firm's current certification letter.
- Include written confirmation from the DBE firm that it intends to participate in the contract and is in agreement with the bidder's commitment as described in their DBE Utilization Certification.

The Program will employ best practices consistent with our nation's civil rights and equal opportunity laws. The Program will assure full compliance with Title VI of the Civil Rights Act of 1964 prohibiting discrimination based upon race, color, national origin, and sex.

Environmental approvals

NEPA is complete. The I-90 Snoqualmie Pass East Project Final Environmental Impact Statement, issued in August 2008, highlights NEPA and SEPA actions. The Final EIS also includes: Section 4(f); section 106; Clean Water Act; Clean Air Act; ESA, and other state and local requirements.

The environmental documentation, including the Record of Decision (issued in October 2008), is located at the following link:

<http://www.wsdot.wa.gov/Projects/I90/SnoqualmiePassEast/Finaleis>

Legislative approvals

The Washington State Legislature approved funding for the first five-mile section - Hyak to Keechelus Dam of the 15-mile corridor program subject of this grant application, through its 2005 Transportation Partnership Funding Package (ESSB 6091).

State and local planning

Washington's Growth Management Act (GMA) requires counties and cities to take a comprehensive, cooperative approach to land use planning to avoid unplanned growth, and conserve natural resources, while allowing for economic development. Under the GMA, counties, cities, and towns must classify, designate, and regulate critical areas through Critical Area Ordinances. The Act also encourages county officials to participate early on in the planning process with project owners, community stakeholders, et al.

Kittitas County was part of the I-90 Corridor Program's Interdisciplinary team (IDT) and cognizant of project characteristics and location. Kittitas County is current in the GMA-required Snoqualmie Pass Sub-Area Plan as incorporated into their Comprehensive Plan approved in 2008.

Under this law (RCW 47.06), WSDOT is responsible for developing a statewide multi-modal transportation plan in conformance with federal requirements "to ensure the continued mobility of people and goods within regions and across the state in a safe, cost-effective manner."

WSDOT adopted Washington's Transportation Plan in 1996 to comply in part with this mandate.

The I-90 Corridor Program is included in the WSDOT 20-year long range plan, the six-year STIP, and the Kittitas County GMA Plan, which must be consistent with the state plan.

Technical feasibility

Design for Phase 1 of the corridor is nearly complete. Design for Phases 1A and 1B are complete. Design for Phase 1C is 90% complete, with a February 2011 advertising date.

During the NEPA evaluation, four alternatives to minimize economic, environmental and social impacts of the project were considered. The selected design, or Preferred Alternative, will bring the existing I-90 into conformance with current Federal and State Highway design criteria.

FHWA's Record of Decision, issued in October 2008, concludes that, "based on an evaluation of information presented in the Final EIS, the project's purpose and need, interagency coordination, input from the public, and the factors and commitments outlined, that "the Preferred Alternative (Keechelus Lake Alignment Alternative 4) is the alternative that best meets the purpose and need of the project, and will have the least impact to the human and natural environment. The Preferred Alternative is less expensive than the other alternatives, presents less risk, and avoids substantial environmental impact on lands adjacent to I-90 between milepost 55.1 east of the Hyak interchange and milepost 70.3 near Easton."

Financial feasibility

The I-90 Project team regularly reports financial and schedule information to a variety of audiences and mediums including a Quarterly Project Review, Quarterly Project Reports, and WSDOT's Gray Notebook. WSDOT's quarterly report to the Governor and the Washington State Transportation Commission on transportation programs and department management Quarterly Progress Reports are also posted on the I-90 Web page at www.wsdot.wa.gov/projects/i90/snoqualmiepassseast.

From the project scoping phase to the start of construction of the first contract of the I-90 Corridor Program, continuous communication about the project is made available to the public, using tools such as Web sites, presentations, e-mail updates, social media tools (blogs, Facebook, Twitter and YouTube), and press conferences. This level of communication including public involvement and reporting efforts will continue to be maintained or exceeded to ensure the I-90 Corridor Program remains transparent to the public, and demonstrates tax dollars are providing jobs and meaningful transportation improvements.

c. Innovation

The I-90 Corridor Program is a case study of innovation. The unique project location provides many challenges for design, construction and environmental compliance. The project corridor is located in a mountain pass between steep (1/4:1) rock slopes and environmentally sensitive Keechelus Lake. The design and construction of project phases must take into account maintenance requirements to remove up to 20 feet of snow in the winter, the presence of three endangered species, and traffic impacts during construction.

One of the most innovative features in the entire corridor program is the wildlife overcrossing included the Phase 2A - Keechelus Dam Vicinity Project. Vegetation will cover the top of the overcrossing, providing habitat and shelter for wildlife to safely travel over the freeway.

The unique location of the corridor program also presented an opportunity for the development of atypical, out-of-kind mitigation measures. To capitalize on this opportunity, a multi-agency team of biologists and hydrologists were convened to work with the design engineers to develop, review, and deliver a comprehensive mitigation strategy to the I-90 Interdisciplinary Team (see the Partnerships section for more information on this innovative approach). Mitigation strategies were developed by the team to meet the needs of wetlands, groundwater, stormwater, floodplains, and both mega- and microfauna species.

Resource agencies round out the team to identify the most appropriate stormwater treatment Best Management Practices (BMPs). Since space is limited and freezing conditions exist for significant portions of the year, there are few available stormwater BMPs that are effective. An innovative demonstrative approach is present that shows how a typical stormwater BMP, a Media Filter Drain (MFD), can be used to provide effective treatment for highway runoff.

Finally, a Construction Optimization Workshop was convened, and Cost Validation Procedures with outside experts were used to brainstorm and define methods of optimizing design and construction of the high-risk portion of the project. An in-depth analysis of design and construction was completed to optimize the construction schedule and minimize cost.

d. Partnership

Jurisdictional / stakeholder collaboration

Kittitas County was part of the Interdisciplinary team and cognizant of project characteristics and location. Kittitas County is current in the Growth Management Act / Snoqualmie Pass Sub-Area Plan and it's incorporated into their Comprehensive Plan approved in 2008.

The I-90 Corridor Program is included in the WSDOT 20-year long range plan, the six-year STIP, and the Kittitas County GMA Plan, which must be consistent with the state plan.

Disciplinary integration

The I-90 Corridor Program exemplifies the benefits of using the collaborative approach process. Since 1999, the I-90 Project team has worked with dozens of government agencies and non-governmental groups to develop a range of potential solutions to meet project needs. Project

needs include addressing traditional and nontraditional transportation improvements as they relate to the physical and natural environment. As part of NEPA, the underlying challenge for WSDOT and project partners was to design this interstate improvement project around an unforgiving environment and incorporate meaningful ways to mitigate the project's potential adverse impacts on the Central Cascades' ecosystem and the state's economy.

Even before project scoping, WSDOT and FHWA participated in an extensive and ongoing program of government-to-government consultation with affected Native American Tribes to discuss concerns regarding potential project impacts to traditional resources. Tribes included in this consultation are the Yakama Nation, Snoqualmie, Tulalip, Muckleshoot, Confederated Tribes of the Colville Reservation, and Wanapum Tribes. The Tribes have indicated strong support for the project's ecological connectivity goals. Those that participated in the consultation process indicated a desire to be consulted on impacts to cultural sites or objects discovered during construction, and impacts to traditional cultural practices, including hunting and fishing. Consultation with the tribes will continue throughout the completion of the project.

In recent years, there have been substantial private and public land conservation efforts to protect old-growth forest, provide larger contiguous blocks of forested habitat, and facilitate habitat connectivity across the I-90 corridor through the acquisition of private land. The Cascades Conservation Partnership, the Mountains-to-Sound Greenway Trust, the U.S. Fish and Wildlife Service and the U.S. Forest Service have invested more than \$100 million in these efforts during the last five years. These land purchases, along with the I-90 Land Exchange, have added 75,000 acres (approximately 117 square miles) of land to the National Forest system adjacent to and within I-90 Snoqualmie Pass.

To ensure that plans align with the objectives of these groups, a multi-agency Interdisciplinary Team (IDT) of biologists and hydrologists was convened in 2000 to determine the types of mitigation measures needed to offset the anticipated impacts to wildlife and aquatic resources from the reconstruction project. WSDOT and FHWA were the lead agencies on the IDT. The original IDT consisted of eight agency members – five voting members and three advisory members. By 2005, the IDT was expanded to include 12 agencies, including WSDOT and FHWA. Partnership agencies included: U.S. Forest Service, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Environmental Protection Agency, National Marine Fishery Service, Washington Department of Fish and Wildlife, Washington Department of Ecology, Washington State Parks, and Kittitas County.

The IDT accomplished ecological project goals by applying a landscape-level, watershed-based mitigation strategy which allowed consideration of multiple ecological needs in the project design, including connecting habitat, streams, and groundwater across I-90 at various Connectivity Emphasis Areas (CEAs), or ecological linkages. (CEAs are mostly located at existing bridge and culvert locations and include water crossings as part of the design strategy.)

The IDT went on to form the Mitigation Development Team (MDT), a technical advisory sub-committee consisting of hydrologists and biologists from different agencies, to identify locations and develop performance criteria for investments in ecological connectivity. In addition to the

IDT and MDT, formal technical committees were formed to assist in planning and permitting challenges for final designs on wetlands mitigation, wildlife monitoring, and stormwater.

Innovative partnerships are in place with university researchers and conservation groups such as the Cascade Land Conservancy, Sierra Club, and Conservation Northwest, to help establish citizen awareness and wildlife monitoring programs, and target habitat acquisitions. Transportation-based organizations, associations, and businesses – such as the Washington Trucking Association and Puget Sound Regional Council Freight Mobility Board - were also brought into the project to gain insight into the needs of interstate users.

The unique components of the I-90 Corridor Program, as well as the project team's innovative approach to developing partnerships to understand and meet landscape-scale, watershed-based objectives, provides a scalable model for the integration of context sensitive solutions for future transportation projects

V. Project readiness and NEPA

The TIGER II funded project – Phase 2A-Keechelus Dam Vicinity - is technically and financially feasible and is ready to move forward quickly. The Final EIS and the Endangered Species Act (ESA) consultation for the entire 15-mile project are complete. FHWA signed the Record of Decision (ROD) in October 2008. The ROD from the FHWA (FHWA-WA-EIS-05-01-F) confirmed that the NEPA process has been satisfactorily completed. Federal, state, and local permits or agreements were delineated in the Final EIS and the ROD. All of the permits and/or agreements have been received for first contract of Phase 1 with approval obtained prior to start of construction in July 2009.

The I-90 Snoqualmie Pass East project Final EIS, issued August 2008, highlights NEPA and SEPA actions. The environmental documentation, including the Record of Decision, is located at the following link:

<http://www.wsdot.wa.gov/Projects/I90/SnoqualmiePassEast/Finaleis>

Phase 1 of the corridor program is under construction and is infusing Kittitas County and the State of Washington with much needed jobs. Design of Phase 2A begins upon receipt of TIGER II with advertisement of the project to contractors by April 2011, and a scheduled construction start date of June 2011.

VI. Federal Wage Rate Certification

See Appendix C

VII. Update to pre-application

See Appendix D

Protection of Confidential Business Information

All information and referenced documents contained in this grant application are publicly available.

Appendix A: Matching Funds Letter



**Washington State
Department of Transportation**
Paula J. Hammond, P.E.
Secretary of Transportation

Transportation Building
310 Maple Park Avenue S.E.
P.O. Box 47300
Olympia, WA 98504-7300
360-705-7000
TTY: 1-800-833-6388
www.wsdot.wa.gov

August 20, 2010

Mr. Kirk Holmes
Kittitas County Public Works Director
411 North Ruby, Suite 1
Ellensburg, WA 98926

Dear Mr. Holmes:

The Washington State Department of Transportation (WSDOT) would like to convey our support to Kittitas County in their Transportation Investment Generating Economic Recovery (TIGER II) grant request of \$15.4 million to continue the design and right-of-way acquisition and construction for an unfunded portion of the important I-90 Snoqualmie Pass East project.

WSDOT understands, if successful, Kittitas County will contract with the department to perform all the design and property acquisition tasks outlined in the application and we commit to providing the engineering resources to perform this work. WSDOT, with authorization from the legislature, will also commit to providing a 20 percent match of \$3.08 million for the TIGER II grant request. The department will submit this request through our formal 11-13 biennium budget process for Governor and Legislative concurrence.

We have reviewed the timelines and milestones in your application and are confident we will be able to meet them. Our record of project delivery is very strong. The WSDOT has completed or is underway with over \$150 million in transportation improvements in this corridor so far, with an additional \$245 million planned to start next year.

We look forward to the U.S. DOT's decision in the fall.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Hammond', written over a horizontal line.

Paula J. Hammond, P.E.
Secretary of Transportation

PJH:jaa

cc: Jerry Lenzi, WSDOT
Don Whitehouse, WSDOT
Brian White, WSDOT
Teresa Berntsen, Governor's Office

Appendix B: Benefit Cost Analysis

The following information highlights a benefit cost analysis (BCA) and metrics for the operationally complete Phase 1 project of the corridor program, and the *operationally complete* TIGER II-funded portion (Phase 2A – Keechelus Dam Vicinity and the construction of the entire one mile project). Engineering and design for the remaining nine project miles are a work in progress, and therefore, this BCA does not measure the construction benefits of the entire 15-mile corridor program. The BCA does, however, demonstrate that the resulting benefits of Phase 1 and Phase 2A (first six project miles) outweigh the costs of construction.

A summary of these benefits and costs with associated dollar values are presented in Table 1. The TIGER II funded portion of Phase 2A was assumed to be operational in the fall of 2012, with benefits from the previously funded adjoining five miles coming on-line through 2016. This BCA analysis examined the costs and benefits of these phases over a 30 year useful life of both phases (2012-2045). It should be noted that components of Phase 1 and Phase 2A will likely have a useful life beyond 30 years but this timeframe was used to capture a conservative estimate of total benefits. Total net benefits and the benefit cost ratio (BCR) were calculated using values in 2009 dollars with both the designated 7% discount rate and the alternative 3% discount rate to show the sensitivity of the results to this key variable. Both sets of results are presented below.

Table 1: BCA Results – Phase 1 and Phase 2A project benefits outweigh cost (Dollars in millions)

Analysis Using 7% Discount Rate	
Construction Costs	
Construction	\$390
Construction Engineering	\$55
PE	\$66
ROW (97% already obtained)	\$7
TOTAL DISCOUNTED COSTS	\$517
Key Phase 1 and 2A Benefits	
Reduction in Road Closures	\$144
Increased Safety	\$18
Improved Traffic Capacity	\$597
Greenhouse Gas Reduction	\$0.027
Water Quality (not quantified)	-
Ecological Connectivity (not quantified)	-
TOTAL DISCOUNTED BENEFITS (quantified)	\$759
NET BENEFITS	\$242
BCR	1.47
Analysis Using 3% Discount Rate	
Construction Costs	
Construction	\$436
Construction Engineering	\$61
PE	\$66
ROW (97% already obtained)	\$7
TOTAL DISCOUNTED COSTS	\$572
Key Phase 1 and 2A Benefits	
Reduction in Road Closures	\$281
Increased Safety	\$35
Improved Traffic Capacity	\$1,576
Greenhouse Gas Reduction	\$0.063
Water Quality (not quantified)	-
Ecological Connectivity (not quantified)	-
TOTAL DISCOUNTED BENEFITS (quantified)	\$1,893
NET BENEFITS	\$1,321
BCR	3.31

The key Phase 1 and Phase 2A (complete six mile section of the I-90 Corridor Program) benefits as listed in Table 1 above are: (1) a reduction in economic losses resulting from fewer highway closures due to less snow and rock debris falling into the roadway; (2) a reduction in economic losses associated with a reduction in travel times from increased highway capacity; (3) a reduction in societal costs associated with improved safety and fewer accidents; and (4) a reduction in greenhouse gas emissions associated with less idling due to less traffic congestion and delays due to road closures. Each of these Phase 1 and Phase 2A benefits are discussed below with a summary of the methodology used to calculate their dollar values. In addition, the relationship is identified between these key benefits and all of the five long-term grant outcome criteria (state of good repair, economic competitiveness, livability, sustainability and safety).

Reductions in road closures

These reductions are a primary benefit of Phase 1 and Phase 2A, as snow and rock debris lead to a significant number of highway closures that prevent people and goods from traveling to desired destinations in a timely fashion. By reducing the potential for snow and rock debris to reach the highway, the I-90 Corridor Program addresses both the economic competitiveness and the livability long-term grant criteria. Economic competitiveness is improved as the losses associated with increased travel times and delays are reduced. Livability is also improved as individuals utilizing the highway are able to travel more conveniently with less worry of long-term delays.

Dollar values for these benefits were calculated using analysis conducted by WSDOT to identify and quantify the economic impact of highway closures on I-90 and the Transportation Discipline Report (TDR) appendix for the full project EIS supporting alternative selection and impact analysis for the I-90 Corridor Program. The economic analysis conducted in the WSDOT highway closure report was a combination of primary data collection through surveys of stakeholders examining impacts of past highway closures and IMPLAN modeling of direct, indirect and induced impacts. The results included the calculation of losses associated with lost economic output, employment loss, state tax revenue loss and reduction in personal income. The complete six-mile Phase 1 and Phase 2A is assumed to eliminate 42 hours per year of road closure in the project area and the economic value of this reduction is estimated at \$16.65 million annually (2009 dollars) in avoided economic losses. This \$16.65 million is calculated as a combination of the costs associated with both snow (\$12.95 million) and rock (\$3.7 million) closure events. Over the 30 year useful life examined in this analysis, this amounts to a total benefit of \$144 million when converted to 2009 dollars using a 7% discount rate and \$281 million when a 3% discount rate is used.

Increases in safety

The I-90 Corridor Program will increase public safety through the completion of Phase 1 and Phase 2A by stabilizing unstable rock slopes, straightening sharp curves, replacing deteriorating concrete pavement, and reducing wildlife/vehicle collisions. These improvements directly address the long-term safety criteria of the grant. This benefit is also reflective of the state of good repair criteria, as these improvements better the overall long-term condition of the roadway.

Dollar values for these benefits were calculated using estimated societal costs from the analysis conducted in the WSDOT TDR for Phase 1 and Phase 2A (all six miles). These societal costs were calculated in accordance with the Roadside Design Guide and related software. The model

takes into account highway features such as grade, terrain, concrete barriers, and curvature, and produces societal costs relating to accident risk based on road characteristics. Accident risks were based on actual accident statistics from the project area. The total societal costs of accidents in the project area with the no-build alternative were estimated at \$8.4 million annually (2009 dollars). The project is assumed to reduce the risk of accidents by 20% to 30%. An average reduction of 25% was used in this analysis to arrive at a safety benefit of \$2.1 million annually. Discounted over the life of the project, this yields a total benefit of \$18 million at a 7% discount rate and \$35 million at 3%.

Improved traffic capacity

The widening of the highway from four to six lanes will increase traffic flow capacity and provide benefits through reductions in travel times. Such improvements will increase economic competitiveness, as there will be a reduction in economics losses associated with slower, inefficient travel. Capacity increases will also improve livability, as motorists will have greater ability to travel without delays.

Dollar values for these benefits were calculated using the traditional methodology for calculating the economic costs associated with road congestion. The benefit of the project is the dollar value of the expected reduction in delay resulting from the highway improvements. The dollar value of delay is the product of three components: (i) the time of delay multiplied by (i) the per hour cost of that delay then multiplied by (iii) the number of vehicles experiencing the delay.

To obtain values for the first component, estimates for expected delay times for the no-build and project alternatives were obtained from analysis conducted in the WSDOT TDR. This WSDOT analysis utilized methodologies provided in the Transportation Research Board's (TRB) Highway Capacity Manual. Levels of service (LOS) for the highway were calculated in consideration of vehicle density, speed and the ratio of volume capacity. The project area was then designated a TRB LOS based on expected conditions under the no-build and project alternatives. These LOS designations were converted to travel speeds for this analysis using WSDOT default flow speed curves for a base 70 MPH flow freeway.

To obtain a value for the second component, the dollar value of time of delay estimated by the National Highway Traffic Safety Administration was used as required in the Federal Register solicitation of the grant. This value of \$24.64 per hour per vehicle was inflated to 2009 dollars using the Consumer Price Index for all goods and a base annual inflation rate of 2.4% was assumed for years going forward.

To obtain values for the third component, expected future growth in average daily traffic volumes were estimated using historical data on vehicle growth in the project area. The WSDOT TDR found that the majority of traffic congestion occurs on weekends and, therefore it was assumed congestion occurs for eight hours per weekend, which translates into 17.3 congestion days per year.

The proposed project is estimated to provide \$597 million in benefits with a 7% discount rate and \$1.58 billion at 3%.

Greenhouse gas reductions

Phase 1 and Phase 2A are expected to provide benefits from greenhouse gas reductions through reduced idling due to reduced traffic congestion and fewer road closures. This benefit addresses the long-term sustainability criteria of the grant. Given the importance of finding ways to reduce greenhouse gas emissions, especially in the transportation sector, projects such as this are a particularly useful way to achieve a win-win by both reducing greenhouse gasses and improving travelers' utility through reductions in transport delay.

Dollar values for greenhouse gas emissions were calculated using estimates of idling times based on the LOS analysis in the WSDOT TDR and the estimated number of expected hours of road closure. Conversion factors were obtained to translate idling time into gallons of fuel (gasoline for passenger vehicles and diesel for trucks) and gallons of fuel burned into CO₂ emissions. Conversion factors for fuel burned during idling were taken from an engineering study examining idling, and conversion factors for translating fuel use to CO₂ emissions were obtained from a report prepared for the California Energy Commission. This conversion data was specifically pulled from the estimate of engines in 2012 and the mpg values were from typical estimates for cars and trucks. Total annual CO₂ savings were estimated at 37 metric tons in 2013 (the first full year of Phase 1 and Phase 2A operation) and 227 metric tons in 2043. This increase in savings is due to both the increase in traffic volume and the worsening congestion associated with the no-build alternative. In addition, fuel savings from reduced idling are estimated at around 7,500 gallons per year in 2013 and increasing to 13,300 gallons per year in 2043. It should be noted that these values are conservative as data was not available to determine increases in congestion times under the no-build alternative and, therefore congestion time is assumed to remain constant over the life of the project.

The total annual benefit of greenhouse gas reductions was calculated using the \$33 per metric ton value provided in the Federal Register solicitation of the grant. This yields a benefit of \$27,000 over the life of the project at a 7% discount rate and \$63,000 at 3%. While these values are small in comparison to the other quantifiable benefits of Phase 1 and Phase 2A, they are equally important to consider given the regulatory environment, the need for long-term sustainability planning by public agencies, and the ability of a number of these types of transportation projects to aggregate CO₂ and fuel savings at a significant level.

Other Phase 1 and Phase 2A project benefits (non-quantifiable)

There are two other key Phase 1 and Phase 2A benefits that address the long-term sustainability criteria of the grant. These are improvements in water quality and ecological habitat.

Water quality is improved as the project offers an opportunity to restore the natural hydrology and hydraulics of the streams in the project area, which were altered as a result of the original highway construction and other land use changes. Phase 1 and Phase 2A would achieve these beneficial effects by replacing existing bridges, culverts, and highway fill with longer bridges and wider bottomless culverts, along with additional smaller culverts at Hydrologic Connectivity Zones. These replacements would improve hydrologic connectivity, sediment transport, channel migration, floodplain function, and groundwater movement. Water quality would be improved through lowered water temperature and sediment load. In addition, the I-90 Corridor Program will treat stormwater runoff for the equivalent of all new and existing impervious surfaces in the

project area. WSDOT will provide on-site treatment systems and off-site mitigation when on-site treatment is not possible because of physical constraints. This commitment meets or exceeds the requirements of the WSDOT Highway Runoff Manual. Stormwater treatment would be accomplished through the use of Best Management Practices (BMPs) such as bioinfiltration swales, detention ponds, vegetated filter strips, planted roadsides, media filter drain, and natural or engineered dispersion. Although the amount of impervious surface would increase, installing stormwater treatment BMPs for the project area would lower the overall pollutant loads and concentrations.

Improving wildlife habitat is a critical component of the I-90 Corridor Program. Consequently, the overall effect of the project on terrestrial species will be substantial. The planned bridges, enlarged box culverts, wildlife overcrossings, and wildlife exclusionary fencing will reduce the amount of wildlife / vehicle collisions in the project area, thereby improving motorists' safety. Phase 1 and Phase 2A also provide an increase in habitat through the restoration and preservation of the delicate ecosystems of the Central Cascades. WSDOT's riparian restoration efforts are important for aquatic wildlife and providing shelter, foraging habitat and water for terrestrial species.

Given the scope of this grant preparation, there resources weren't available to undertake an examination of the non-market valuation and obtain a dollar value for the resulting benefits from water quality and habitat improvement. However, it is clear that significant benefits are generated for both of these factors, and dollar value quantification of these improvements in ecological sustainability would only improve the already overall beneficial nature of this project.

Appendix C: Wage Rate Certification

Certificate of Compliance with subchapter IV of chapter 31 of title 40, United States Code (Federal Wage Requirements) per the American Recovery and Reinvestment Act

WAGE RATE REQUIREMENTS

Notwithstanding any other provision of law and in a manner consistent with other provisions in this Act, all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by and through the Federal Government pursuant to this Act shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code. With respect to the labor standards specified in this section, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.) and section 3145 of title 40, United States Code.

The Kittitas County Public Works Department hereby certifies that it will meet the requirements of **subchapter IV of chapter 31 of title 40, United State Code** (Federal Wage Rate Requirements).

Date: 8/18/10
Signature: K. Hol
Title: Director of Public Works
Grant Applicant: Kittitas County

Appendix D: Update to Pre-Application

After submitting the pre-application for the Phase 2A – Keechelus Dam Vicinity project on July 26, 2010, the Kittitas County Public Works Department and Washington State Department of Transportation modified the project cost based on new reporting data. In the pre-application, the project cost was listed at \$15.1 million. After reviewing reporting data, we determined the actual project cost at \$15.4 million. Therefore, the total amount requested from TIGER II Funds changed from \$12.08 million in the pre-application to \$12.32 million in the final application.