Appendix G. Benefit-cost analysis

This appendix was prepared by HLB Decision Economics, Inc. It provides an analysis of the scenario/options in comparison to A1 and a description of the benefit-cost framework, assumptions, and theory. The scenario options are evaluated for the low, medium, and high cost bridge estimates using a spreadsheet-based model.

All dollar figures presented in this appendix are expressed in constant 2003 dollars. Costs used as input to the benefits model were converted to standardized 2003 dollars from the dollars of various years as expressed in the airport master plan documents. Inflation rates used in this process are included in Table G-5, which also includes underlying assumptions for the analysis.

The revenue and cost streams occur over multiple years, which have been analyzed in terms of net present value (NPV) using the real discount rate recommended by the Office of Management and Budget for project analysis as listed in Table G-5. The calculation of NPV for each alternative allows the alternatives to be readily compared on a standardized basis over the analysis period of 2004 through 2033.

No-bridge alternatives

Before beginning a discussion of bridge alternatives and the estimation of benefits to bridge users, it is necessary to compare two aviation-only alternatives under Scenario A:

- Option A1: Keep all three airports open; and
- Option A2: Close Naknek Airport in 2006.

Option A1 constitutes the base case against which all other options were evaluated. Option A2 assumes the closure of Naknek Airport in 2006. Expenditures for Operations and Maintenance as well as for Capital Improvements required to continue operations at King Salmon and South Naknek are included in Option A2. Table G-1 presents the net savings of Option A2 over Option A1.

Table G-1. Summary of value of Naknek crossing options

	Savings relative to option a1 (full aviation only improvements) (In millions of constant 2003 dollars)				
Option	**Total savings**	**O & M cost savings**	**Capital cost savings**	**Diversion costs**	**Total savings**
Option A2: Close Naknek in 2006	$15.0	$0.4	$14.6	$7.1	$7.9

Diversion costs is an estimate of the added expense for those travelers whose airport of choice, Naknek or South Naknek, might be closed. This cost should be added to account for the inconvenience of accessing the next most convenient airport.

All subsequent estimations of benefits for the variations of bridge Scenario B are also presented *relative to the A1 base case*.

What are "user benefits?"

Direct standard of living and productivity gains to persons making river crossings are called "*user benefits*" to distinguish them from other more indirect benefits, such as economic development, that may accrue to persons who may not cross the river at all or to the community or region as a whole. The primary user benefits of construction of a bridge spanning the Naknek River at Fishery Point will arise in two principal categories. The first category includes those existing travelers who currently make river crossings via the various modes currently available: air taxi, private plane, skiff or other boat, snowmachine and "other vehicles," which includes cars and trucks making the crossing when the river freezes sufficiently to support the vehicle's weight. Time savings and reduction in out-of-pocket travel costs benefit existing travelers as a result of the quicker and less expensive travel provided by the bridge.

Benefits in the second principal category arise in the form of additional trip making to and from South Naknek and neighboring areas by auto and truck users for whom the costs of access prior to the improvement outweighed the value of opportunities on the other side. Such opportunities can include existing draws such as shops, work places, and social and recreational activities. As well, new opportunities can emerge in response to the new cost-to-value travel equation, leading to yet further "*induced demand*." The sum of all projected benefits, by category, is given in Table G-2 through Table G-4. As the tables show, with the net present value of benefits ranging from $33 million to $165 million (in constant 2003 dollars) over the period 2004 to 2033, all the bridge options and under all of the assumptions offer significant net economic gains. Underlying assumptions are presented in Table G-7. Year-by-year net benefits are shown in detail in Tables G-8 through G-10 at the end of the appendix. The three pie charts shown in Figure G-1 demonstrate that the preponderance of benefits in every case comes from induced trips rather than existing trips.

Figure G-2 presents the relationship between the benefits for existing travelers and benefits arising from induced demand. Due to fact that the estimated bridge traffic is up to 34 times greater than estimates for current crossing levels, the benefits from induced demand are in turn many times greater than for existing travelers.

Table G-2. Summary of user benefits by option, high bridge cost

(In millions of constant 2003 dollars)

Relative to OptionA1 (aviation only improvements)

Option	Travel Cost Benefits			Borough Savings from Facility Consolidation (Midpoint Estimate)*	NET Operating Cost Savings (Agency Benefits)	Total Project Benefits	Diversion Cost	Total Incremental Capital Costs	Net Benefits
	Existing Trips	Induced Trips	Grand Total (Consumer Surplus)						
Build Traffic Forecast Assumption				$ 4.39					
Base Case	$ 7.14	$ 134.99	$ 142.14						
Low Case	$ 7.14	$ 50.81	$ 57.96						
High Case	$ 7.14	$ 168.11	$ 175.26						
Option B1: All Airports Open					($ 0.03)			$ 24.47	
Base Case						$ 142.10			$ 117.64
Low Case						$ 57.92			$ 33.46
High Case						$ 175.22			$ 150.76
Option B2: Close Naknek in 2014					$ 0.37		$ 4.59	$ 9.89	
Base Case						$ 142.51			$ 128.02
Low Case						$ 58.33			$ 43.84
High Case						$ 175.63			$ 161.14
Option B3: Close South Naknek in 2016					$ 0.16		$ 1.11	$ 20.92	
Base Case						$ 142.30			$ 120.27
Low Case						$ 58.12			$ 36.09
High Case						$ 175.42			$ 153.39
Option B4: Close Naknek in 2014 and South Naknek in 2016					$ 0.59		$ 5.70	$ 6.51	
Base Case						$ 142.73			$ 130.51
Low Case						$ 58.55			$ 46.33
High Case						$ 175.85			$ 163.63

*Not included in total net benefits since it is already captured in benefits for induced trips.

Table G-3. Summary of user benefits by option, medium bridge cost

(In millions of constant 2003 dollars)

Relative to option A1 (Aviation only improvements)

Option	Travel Cost Benefits			Borough Savings from Facility Consolidation (Midpoint Estimate)*	NET Operating Cost Savings (Agency Benefits)	Total Project Benefits	Diversion Cost	Total Incremental Capital Costs	Net Benefits
	Existing Trips	Induced Trips	Grand Total (Consumer Surplus)						
Build Traffic Forecast Assumption				$ 4.39					
Base Case	$ 7.14	$ 134.99	$ 142.14						
Low Case	$ 7.14	$ 50.81	$ 57.96						
High Case	$ 7.14	$ 168.11	$ 175.26						
Option B1: All Airports Open					($ 0.45)			$ 23.03	
Base Case						$ 141.69			$ 118.66
Low Case						$ 57.51			$ 34.48
High Case						$ 174.81			$ 151.78
Option B2: Close Naknek in 2014					($ 0.05)		$ 4.59	$ 8.45	
Base Case						$ 142.09			$ 129.04
Low Case						$ 57.91			$ 44.86
High Case						$ 175.21			$ 162.16
Option B3: Close South Naknek in 2016					($ 0.25)		$ 1.11	$ 19.49	
Base Case						$ 141.88			$ 121.29
Low Case						$ 57.70			$ 37.11
High Case						$ 175.01			$ 154.41
Option B4: Close Naknek in 2014 and South Naknek in 2016					$ 0.17		$ 5.70	$ 5.08	
Base Case						$ 142.31			$ 131.51
Low Case						$ 58.13			$ 47.35
High Case						$ 175.43			$ 164.65

*Not included in total net benefits since it is already captured in benefits for induced trips.

Table G-4. Summary of user benefits by option, low bridge cost

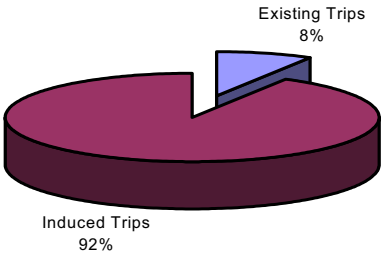
(In millions of constant 2003 dollars)

Relative to option A1 (Aviation only improvements)

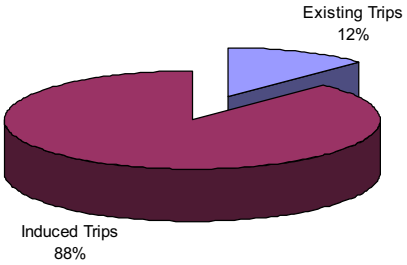
Option	Travel Cost Benefits			Borough Savings from Facility Consolidation (Midpoint Estimate)*	NET Operating Cost Savings (Agency Benefits)	Total Project Benefits	Diversion Cost	Total Incremental Capital Costs	Net Benefits
	Existing Trips	Induced Trips	Grand Total (Consumer Surplus)						
Build Traffic Forecast Assumption				$ 4.39					
Base Case	$ 7.14	$ 134.99	$ 142.14						
Low Case	$ 7.14	$ 50.81	$ 57.96						
High Case	$ 7.14	$ 168.11	$ 175.26						
Option B1: All Airports Open					($ 0.45)			$ 21.92	
Base Case						$ 141.69			$ 119.77
Low Case						$ 57.51			$ 35.59
High Case						$ 174.81			$ 152.89
Option B2: Close Naknek in 2014					($ 0.05)		$ 4.59	$ 7.34	
Base Case						$ 142.09			$ 130.15
Low Case						$ 57.70			$ 45.97
High Case						$ 175.21			$ 163.27
Option B3: Close South Naknek in 2016					($ 0.25)		$ 1.11	$ 18.38	
Base Case						$ 141.88			$ 122.40
Low Case						$ 57.70			$ 38.22
High Case						$ 175.01			$ 155.52
Option B4: Close Naknek in 2014 and South Naknek in 2016					$ 0.17		$ 5.70	$ 3.97	
Base Case						$ 137.50			$ 132.64
Low Case						$ 56.16			$ 48.46
High Case						$ 169.50			$ 165.76

*Not included in total net benefits since it is already captured in benefits for induced trips.

Distribution of Benefits: Base Case



Distribution of Benefits: Low Case



Distribution of Benefits: High Case

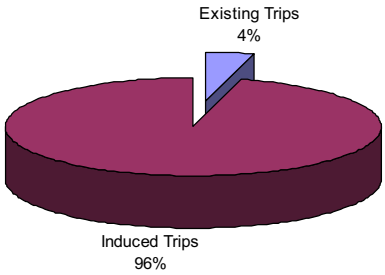


Figure G-1. Distribution of benefits from existing and induced crossings, all cases

Key assumptions

Key assumptions and data sources for the user benefits estimation are shown in Table G-5.

Table G-5. Benefit/cost analysis assumptions and sources

ITEM	VALUE	SOURCE
VALUE OF TIME, $ per HOUR PER PASSENGER		
Personal Cars	$13.86	Federal Highway Administration, *Highway Economic Requirements System Technical Report*, U.S. Department of Transportation, December 2000; U. S. Department of Transportation, "The Value of Saving Travel Time: Departmental Guidance for Conducting Economic Evaluations," April 1997, Table 4.
Trucks	$23.75	
Bristol Bay Salary as a % of National Average	100%	
VEHICLE OPERATING COSTS		
Air Taxi (Fare)	$36.00	Northern Economics / Ivan Moore Research Survey January 2-5, 2004
Personal Cars/Snowachine		Snowmachine costs assumed equivalent to private cars.
Fuel, $ per gallon	$2.00	AAA, Daily Fuel Gauge Report, adjusted for local prices per http://www.state.ak.us/local/akpages/ADMIN/dgs/cam/temppdf/8fuels.pdf
Oil, $ per quart	$4.23	Federal Highway Administration, Highway Economic Requirements System Technical Report, U.S. Department of Transportation, December 2000; J.P. Zaniewski, et.al., Vehicle Operating Costs, Fuel Consumption, and Pavement Type and Condition Factors, Texas Research and Development Foundation, prepared for U.S. Department of Transportation, Federal Highway Administration, Washington, D.C., June 1982, Table 2, p. 7.
Tire, $ per tire	$74.09	
M&R, $	$120.82	
Depreciable Value, $	$21,159.14	Federal Highway Administration, Highway Economic Requirements System Technical Report, U.S. Department of Transportation, December 2000.
Total VOC Per Vehicle Mile	$0.3600	
Trucks		
Fuel, $ per gallon	$2.00	AAA, Daily Fuel Gauge Report.
Oil, $ per quart	$1.69	Federal Highway Administration, Highway Economic Requirements System Technical Report, U.S. Department of Transportation, December 2000; J.P. Zaniewski, et.al., Vehicle Operating Costs, Fuel Consumption, and Pavement Type and Condition Factors, Texas Research and Development Foundation, prepared for U.S. Department of Transportation, Federal Highway Administration, Washington, D.C., June 1982, Table 2, p. 7.
Tire, $ per tire	$487.78	
M&R, $	$421.02	
Depreciable Value, $	$94,933.01	Federal Highway Administration, Highway Economic Requirements System Technical Report, U.S. Department of Transportation, December 2000.
Total VOC Per Vehicle Mile	$0.980	
Private Aircraft - Per Hour, Fuel Price @$2.62/gallon	$163.00	Conkin & Decker Aircraft Cost Evaluator (http://www.aso.com/cda/main/)
Boat/Skiff - Per Hour	$50.00	HLB Decision Economics Estimate
DISCOUNT RATE FOR PRESENT VALUE CALCULATIONS	3.5%	Federal OMB Circular A-94, Appendix C, 30-Year, Revised February 2004 (http://www.whitehouse.gov/omb/circulars/a094/a94_appx-c.html)

ITEM	VALUE	SOURCE
BRIDGE AND AIRPORT COSTS		
Bridge and Airport Costs in 2003 Dollars		
CONSTRUCTION INFLATION		Average of Construction and Building Cost Indices. Source: McGraw-Hill Construction, Engineering News Record, various dates. http://enr.construction.com/features/conEco/costIndexes/default.asp
1998	1.32%	
1999	2.19%	
2000	2.58%	
2001	1.59%	
2002	2.47%	
2003	2.23%	
O & M INFLATION (GENERAL PRICE INFLATION)		National CPI, All Urban, U.S. Bureau of Labor Statistics, Consumer Price Indices, www.bls.gov
1998	1.60%	
1999	2.20%	
2000	3.40%	
2001	2.60%	
2002	1.30%	
2003	2.50%	
Bridge Project Start Year	2008	
Bridge Completion Year	2013	
Bridge In Service Year	2014	
Analysis End Year	2033	
REAL DISCOUNT RATE	3.50%	OMB Circular A-94, Appendix C, Revised February 2004, 30-year (http://www.whitehouse.gov/omb/circulars/a094/a94_appx-c.html)
SCENARIO A (NO BUILD)	-2.750%	Annual Growth Rate in Crossings Forecast Equivalent to Low Case Scenario B Forecast
NUMBER OF PASSENGERS PER VEHICLE		Consultant Team Estimate
Air Taxi	1.70	
Private Plane	1.70	
Skiff or Boat	1.70	
Snowmachine	1.20	
Other Vehicle		
Personal Cars	1.70	
ITEM	**VALUE**	**SOURCE**
Trucks	1.00	
% Truck Traffic of Total (Scenario B - with Bridge)	5%	

Economic framework for measuring user benefits

The primary benefits of most highway and bridge infrastructure projects are benefits that infrastructure users realize through travel time savings and induced demand. The economic framework for measuring these benefits is illustrated in Figure G-2 below. The classic economic demand and supply relationship is illustrated for cross-river travel, with the quantity of trips (Q) demanded at a given level of generalized price per trip (P). The generalized price included vehicle operating costs, airfares, the value of travel time including access and egress and so on. Under the status quo, users of the current modes demand Qb trips across the river at a generalized trip price Pb.

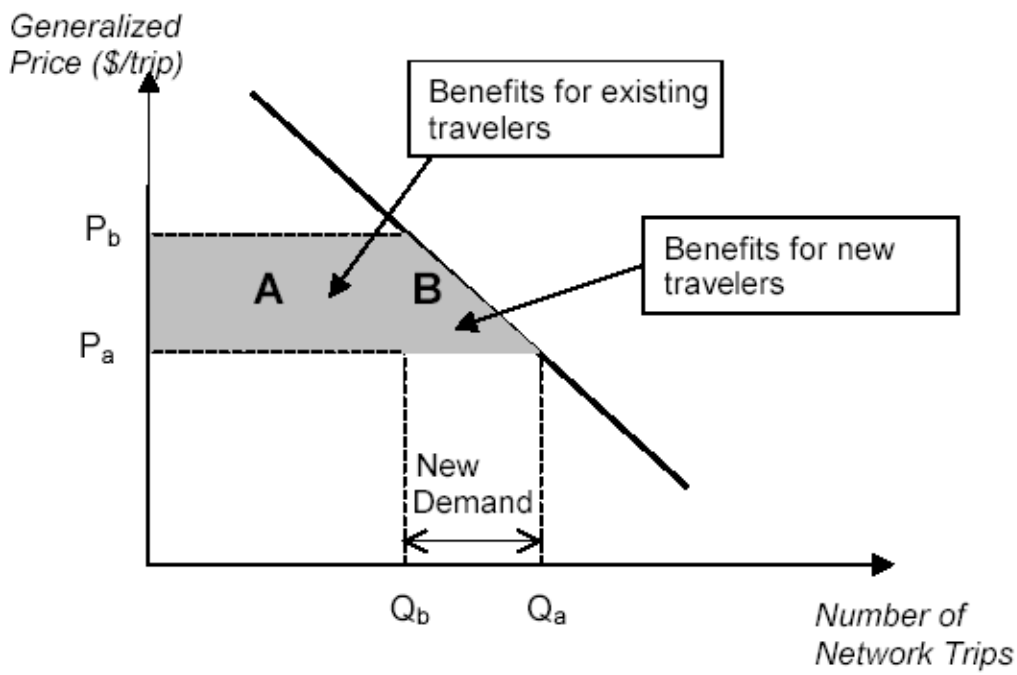


Figure G-2. Methodology for measuring benefits of bridge alternatives

where:

Pb is the generalized trip price of the existing modes for trips that include a river crossing

Pa is the generalized trip price after the implementation of the bridge access

Qb is the number of trips with the existing modes

Qa is number of trips after implementation of the bridge access

Using the assumption that construction of the bridge results in a reduction in the generalized trip price Pa, we see in Figure G-2 that the amount of trips demanded increases to Qa creating two distinct user benefits:

1) Reduced trip cost for existing travelers; and,

2) “Consumer surplus” from the new trips.

The reduced trip costs for existing travelers is represented by rectangular shaded area A of Figure G-2. The consumer surplus from new trips, or the difference between what travelers are willing to pay relative to the amount travelers actually pay for new trips, is represented by triangular shaded area B of Figure G-2.

What is included within consumer surplus and induced demand?

Although the economic benefits (highlighted in areas A and B of Figure G-2) of improved access to South Naknek are measured here in terms of the monetary equivalent value of the time and operating costs to be saved by users of a prospective bridge, and the consumer surplus derived from new trips, it is important to note that the final economic manifestation of such benefits could arise partly in other forms. These other benefits could include stimulation of commercial and housing development on both sides of the river, increases in the value of land, addition of jobs from businesses whose transportation costs are significantly lower, costs savings to the Bristol Bay Borough from consolidation of services currently duplicated in both Naknek and South Nakek and so on. Estimates of the latter benefits have been made and are shown in Table G-2 through Table G-4 alongside the total consumer surplus, because these benefits are in effect already included in the consumer surplus. In fact, the large increase in the number of trips resulting from the bridge is in part due to residents traveling across the river to procure services such as education, library, and post office which no longer need to be provided on both sides of the river. Admittedly, the centralization of services on the north side of the river may mean that a road trip will become necessary for South Naknek residents whereas today *some* of these services may be procured in their own community. Nevertheless the much greater reliability of the bridge link in virtually all weather conditions is of considerable value to a majority of travelers. The considerable number of induced trips forecast for the bridge indicates this reliability delivers significant value as expressed by consumers' choice of the new route. In many cases South Naknek residents who today forego trips altogether to the north side of the river due to the difficulty of crossing will choose to make those trips due to the more convenient alternative.

It is simply analytic convenience that leads transportation economists to measure the development value of better access through the lens of trip volumes, including new demand, and corresponding time savings. We know something of the trip generating effects of a new bridge in particular geographic circumstances. The alternative, namely to forecast the monetization of each acre of land development because of improved access, when, and so forth, requires a great deal more information and, more significantly, is a great deal less accurate.

Detail of benefits estimation methodology

Figure G-3 below illustrates a high-level structure and logic diagram describing the overall benefits framework for the access improvements highlighting the various cost elements that are considered in the analysis. For the both the base case (Scenario A) and the bridge alternative considered, a generalized cost per trip is estimated including travel time costs and vehicle operating costs. The methodology used in estimating each of the user cost components is described in the sections below.

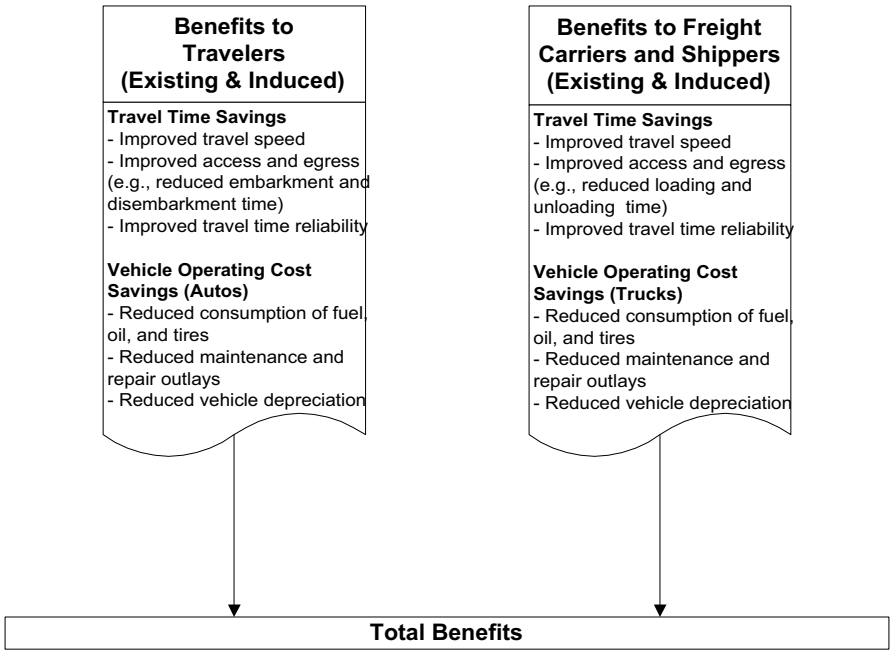


Figure G-3. Benefits estimation methodology

Travel time costs

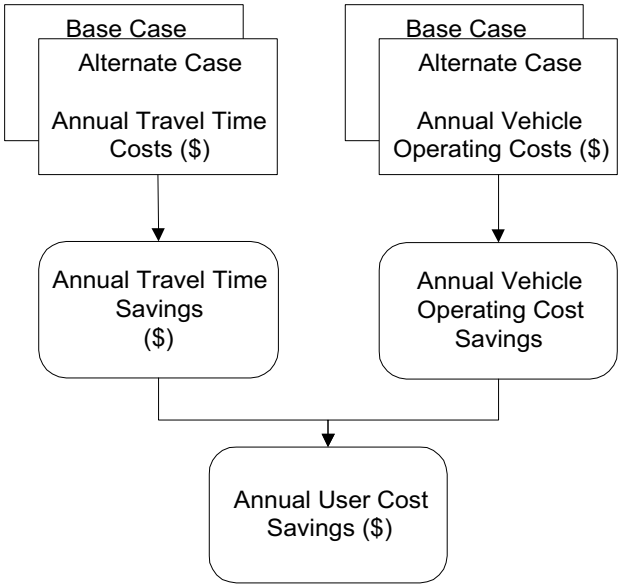


Figure G-4. Calculation of travel time costs

Time costs figure prominently in the economic evaluation of transportation infrastructure projects. The potential time savings from even a minor improvement can translate into significant user cost savings over the life of the investment, depending on the facility type

and traffic characteristics. Travel time costs are derived by first calculating a value of time, for passenger cars and trucks. In urban settings, these values are adjusted for congestion, but in this rural setting it is not necessary to do so. These values of time, in dollars per hour, are then multiplied by the total trip time. These calculations are performed for all trips using the existing modes and included estimates of time to reach the airport, dock, etc.

"Out of pocket" travel expenses

Out of pocket travel expenses consist of vehicle operating costs for roadway traffic, snow machines, and private planes and airfares for crossings in air taxis. The mileages for all the existing modes and bridge traffic were estimated using area maps. Since crossings could have as their northern origin or destination either Naknek, King Salmon or other intermediate point, distances are an average of trips to each of the two major towns.

Truck and passenger car operating costs per mile are estimated for each access alternative using typical roadway speeds and fuel at $2.00 per gallon. Per mile rates are then multiplied by the average roadway trip length to derive a vehicle operating cost estimate per trip. Vehicle operating costs are an integral element of computing roadway user costs. They generally are the most recognized of the user costs because they typically involve the out-of-pocket expenses associated with owning, operating and maintaining a vehicle. The unit costs are marginal costs, net of taxes, subsidies and other transfer payments. There are five cost components associated with operating a vehicle. They include: fuel consumption, oil consumption, maintenance and repairs, tire wear and roadway related vehicle depreciation.

Each component is a unique function of vehicle class and vehicle speed. Fares for air taxis are obtained from the travel survey which was used to estimate the bridge traffic. Operating costs for private planes are derived using an online estimator for a Piper Cherokee 140, selected as a representative aircraft in service between the study communities. For snow machines, it was assumed that the costs were roughly equivalent to automobiles, and skiffs and boats are costed at an estimated composite rate of $50 per hour.

Figure G-5 on the following page shows the structure and logic of the user cost calculation. Table G-6 provides the elements of the calculation of travel cost for both Scenarios A and B.

The estimated elements of current and future travel times and costs were chosen to be as realistic as possible yet not overstate the travel costs. The routing of boat, snow machine, ice road and air travel will vary greatly depending on weather conditions. For example, although the straight-line distance between the airports at Naknek and South Naknek is quite short, varying wind conditions can result in circuitous routings and delays that extend flight times considerably beyond the shortest possible times. Delays and time involved in loading and unloading mail, freight, and passenger baggage, plus the surface travel time between the two airports and the point of origin and ultimate destination also contributes to longer air travel times than envisioned when comparing the distance between the two communities. The time required for crossing the Naknek river on a snow machine also takes longer than might be envisioned because the ice crossing must be upriver beyond the point of tidal influence. The distance to the crossing site, plus the fact that there is no road on the south side of the river, requires a longer travel time than might be expected.

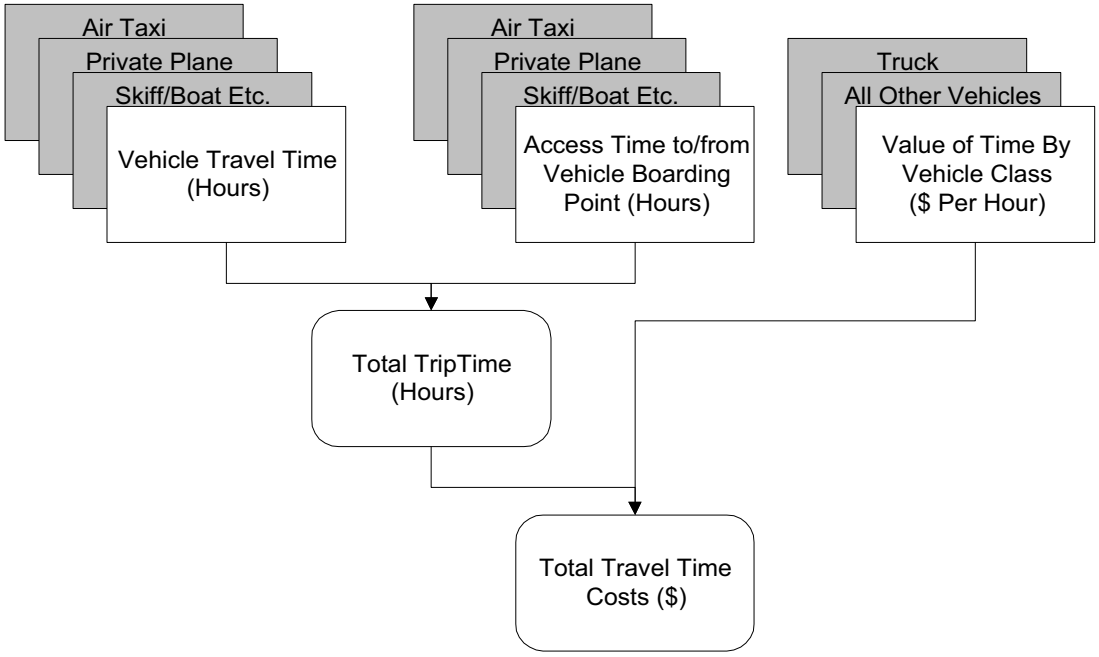


Figure G-5. Calculation of travel costs

Costs of diversion to alternate airport in the event of closure

Under Options B2/B6, B3, and B4, Naknek, South Naknek and both airports respectively will be closed. In addition to the costs and benefits described above some additional cost incurred by those whose airport of choice will be closed should be included to account for the inconvenience of accessing the next most convenient airport. Rough estimates of these costs, listed on a per trip basis in Table G-6, were based on the number of annual 2029 passengers (including pilots) forecast for the particular airport to be closed taken from Option B-1, under which all airports would remain open. For example, total passengers who would have used Naknek Airport in 2029 under Option B-1 are assumed to drive or take a taxi to South Naknek under Options B-2/B-6 in each year after the airport closes. The overall benefit-cost analysis includes the present value of these additional costs from the time the given airport is closed through the end of the projection period.

Table G-6. Additional costs from diversion to nearest open airport, per trip per passenger, including pilot

	Per Trip	Unit Costs	Unit		Source
Average Access Trip Length (miles)	15		Miles		
Average Access Time	0.5		Hours		
Travel Time Costs	$ 6.93	$ 13.86	Per hour	Value of Time	Time Valuation for Other Trip Calculations
Out-of-Pocket Costs	$ 30.00	$ 2.00	Per mile	Taxi/Private Car	HLB Estimate
Accident Costs	$ 0.67	$ .04469	Per mile		HLB - StratBencost
Emissions Costs	$ 0.24	$ .03506	Per mile		HLB - StratBencost
Total Additional Travel Costs	$ 37.84				

Table G-7. Calculation of travel cost

Average Travel Cost per *PASSENGER Trip*, Dollars of 2003
Trips to/from South Naknek From Naknek and King Salmon, Non-weighted Average

Personal Travel	Mode	Travel Time (hours)	Total Trip Length (miles)	Total Time Costs ($)	Average Roadway Vehicle Speed	Unit VOC ($) (Fare or Per Mi or Hr)	Total VOC ($)	Percent Distribution	Total Cost per Trip ($) Per Passenger	Weighted Total Costs ($)	Percentage Change in Costs (%)	Avg. Passenger per Vehicle
Option: Scenario A	Air Taxi*	0.67		$9.24		$36.0000	$36.00	30%	**$45.24**	$13.41		N/A
	Private Plane*	0.58		$8.09		$163.0000	$40.75	24%	**$28.73**	$6.87		1.70
	Skiff or Boat*	0.83		$11.55		$50.0000	$25.00	35%	**$21.50**	$7.56		1.70
	Snowmachine	0.50	15.50	$6.93		$0.3600	$3.28	3%	**$8.51**	$0.28		1.20
	Other Vehicle	0.50	15.50	$6.93		$0.3600	$3.28	8%	**$6.01**	$0.48		1.70
	Weighted Avg.							100%		$28.60		
										Change in Cost		
Scenario B - Base Case	Car**	0.31	15.50	$4.30	50.00	$0.3600	$3.28		**$4.46**	-$24.14	-84.41%	1.70
Scenario B - Low Case	Car**	0.31	15.50	$4.30	50.00	$0.3600	$3.28		**$4.46**			1.70
Scenario B - High Case	Car**	0.31	15.50	$4.30	50.00	$0.3600	$3.28		**$4.46**			1.70

*Includes 20 minutes access time and plane loading and unloading time at beginning and end of trip
**Assumes 50 miles per hour average speed

Commercial / Truck Travel	Mode	Travel Time (hours)	Trip Length (miles)	Total Time Costs ($)	Average Roadway Vehicle Speed	Unit Roadway VOC ($)	Total VOC ($)	Change in Roadway VOC ($)	Total Cost per Trip ($)	Change in Total Costs ($)	Percentage Change in Costs (%)	Avg. Passenger per Vehicle
Option: Scenario A	None											
Scenario B - Base Case	Truck**	0.31	15.50	$7.36	50.00	$0.980	$15.19	Varies	**$22.55**	-$6.05		1.00
Scenario B - Low Case	Truck**	0.31	15.50	$7.36	50.00	$0.980	$15.19		**$22.55**			1.00
Scenario B - High Case	Truck**	0.31	15.50	$7.36	50.00	$0.980	$15.19		**$22.55**			1.00

**Assumes 50 miles per hour average speed

Table G-8. Year-by-year stream of net benefits: bridge, high build option

	NPV 30-Year Period	2004	2005	2006	2007	2008	2009
Option B1: All Airports Open							
Option: B - Base Case	**$117,637,199**	$0	$0	$0	$0	($1,980,000)	($3,300,000)
Option: B - Low Case	**$33,457,054**	$0	$0	$0	$0	($1,980,000)	($3,300,000)
Option: B - High Case	**$150,757,697**	$0	$0	$0	$0	($1,980,000)	($3,300,000)
						Begin bridge Construction	
Option B2: Close Naknek in 2014							
Option: B - Base Case	**$128,021,798**	$13,498	$13,498	$7,173,069	$13,498	($1,966,502)	($3,286,502)
Option: B - Low Case	**$43,841,653**	$13,498	$13,498	$7,173,069	$13,498	($1,966,502)	($3,286,502)
Option: B - High Case	**$161,142,296**	$13,498	$13,498	$7,173,069	$13,498	($1,966,502)	($3,286,502)
		Savings from reduced Naknek O&M until closure		Savings from eliminating Naknek CIP		Begin bridge construction	
Option B3: Close South Naknek in 2016							
Option: B - Base Case	**$120,271,854**	$0	$0	$2,478,119	$0	($1,980,000)	($3,300,000)
Option: B - Low Case	**$36,091,708**	$0	$0	$2,478,119	$0	($1,980,000)	($3,300,000)
Option: B - High Case	**$153,392,351**	$0	$0	$2,478,119	$0	($1,980,000)	($3,300,000)
				Savings from eliminating S. Naknek CIP		Begin bridge construction	
Option B4: Close Naknek in 2014 and South Naknek in 2016							
Option: B - Base Case	**$130,509,510**	$13,498	$13,498	$9,476,214	$13,498	($1,966,502)	($3,286,502)
Option: B - Low Case	**$46,329,365**	$13,498	$13,498	$9,476,214	$13,498	($1,966,502)	($3,286,502)
Option: B - High Case	**$163,630,007**	$13,498	$13,498	$9,476,214	$13,498	($1,966,502)	($3,286,502)
		Savings from reduced Naknek O&M until closure		Savings from eliminating Naknek & S. Naknek CIPs		Begin bridge construction	

Table G-8. Year-by-year stream of net benefits: bridge, high build option (continued)

	2010	2011	2012	2013	2014	2015	2016	2017
Option B1: All Airports Open								
Option: B - Base Case	($1,320,000)	$0	($13,200,000)	($13,200,000)	$13,419,963	$13,501,018	$13,582,052	$13,663,066
Option: B - Low Case	($1,320,000)	$0	($13,200,000)	($13,200,000)	$7,109,238	$6,946,469	$6,783,679	$6,620,870
Option: B - High Case	($1,320,000)	$0	($13,200,000)	($13,200,000)	$13,520,361	$13,988,665	$14,456,948	$14,925,211
				Bridge construction completed	Travel savings, bridge O&M begins			
Option B2: Close Naknek in 2014								
Option: B - Base Case	($1,306,502)	$6,634,019	($13,186,502)	($13,186,502)	$12,992,763	$13,073,817	$13,154,851	$13,235,865
Option: B - Low Case	($1,306,502)	$6,634,019	($13,186,502)	($13,186,502)	$6,682,037	$6,519,268	$6,356,478	$6,193,669
Option: B - High Case	($1,306,502)	$6,634,019	($13,186,502)	($13,186,502)	$13,093,161	$13,561,464	$14,029,747	$14,498,010
		Savings from eliminating Naknek CIP		Bridge construction completed	Naknek closes, travel savings and Bridge O&M begins			
Option B3: Close South Naknek in 2016								
Option: B - Base Case	($1,320,000)	$1,130,296	($13,200,000)	($13,200,000)	$13,419,963	$13,501,018	$13,477,852	$13,558,866
Option: B - Low Case	($1,320,000)	$1,130,296	($13,200,000)	($13,200,000)	$7,109,238	$6,946,469	$6,679,479	$6,516,670
Option: B - High Case	($1,320,000)	$1,130,296	($13,200,000)	($13,200,000)	$13,520,361	$13,988,665	$14,352,748	$14,821,011
		Savings from eliminating S. Naknek CIP		Bridge construction completed	Travel savings, bridge O&M begins		S. Naknek closes	
Option B4: Close Naknek in 2014 and South Naknek in 2016								
Option: B - Base Case	($1,306,502)	$7,764,316	($13,186,502)	($13,186,502)	$12,995,050	$13,076,105	$13,052,939	$13,133,953
Option: B - Low Case	($1,306,502)	$7,764,316	($13,186,502)	($13,186,502)	$6,684,325	$6,521,556	$6,254,566	$6,091,757
Option: B - High Case	($1,306,502)	$7,764,316	($13,186,502)	($13,186,502)	$13,095,448	$13,563,752	$13,927,835	$14,396,098
		Savings from eliminating Naknek and S. Naknek CIPs		Bridge construction completed	Naknek closes, travel savings, bridge O&M begins		S. Naknek closes	

Table G-8. Year-by-year stream of net benefits: bridge, high build option (continued)

	2018	2019	2020	2021	2022	2023	2024	2025
Option B1: All Airports Open								
Option: B - Base Case	$13,744,061	$13,825,038	$13,905,996	$13,986,937	$14,067,860	$14,148,768	$14,229,658	$14,313,402
Option: B - Low Case	$6,458,041	$6,295,194	$6,129,461	$5,963,710	$5,797,941	$5,632,156	$5,466,355	$5,303,407
Option: B - High Case	$15,393,455	$15,861,681	$16,312,677	$16,763,656	$17,214,618	$17,665,563	$18,116,492	$18,581,747
Option B2: Close Naknek in 2014								
Option: B - Base Case	$18,495,952	$13,397,837	$13,478,795	$13,559,736	$13,640,660	$13,721,567	$13,802,458	$13,886,201
Option: B - Low Case	$11,209,932	$5,867,994	$5,702,260	$5,536,509	$5,370,741	$5,204,956	$5,039,155	$4,876,206
Option: B - High Case	$20,145,346	$15,434,480	$15,885,477	$16,336,455	$16,787,417	$17,238,362	$17,689,291	$18,154,547
Option B3: Close South Naknek in 2016								
Option: B - Base Case	$14,374,554	$13,720,837	$13,801,796	$13,882,737	$13,963,660	$14,044,567	$14,125,458	$14,209,202
Option: B - Low Case	$7,088,534	$6,190,994	$6,025,261	$5,859,510	$5,693,741	$5,527,956	$5,362,155	$5,199,207
Option: B - High Case	$16,023,948	$15,757,481	$16,208,477	$16,659,456	$17,110,418	$17,561,363	$18,012,292	$18,477,547
Option B4: Close Naknek in 2014 and South Naknek in 2016								
Option: B - Base Case	$19,128,732	$13,295,924	$13,376,883	$13,457,824	$13,538,747	$13,619,654	$13,700,545	$13,784,289
Option: B - Low Case	$11,842,712	$5,766,081	$5,600,348	$5,434,597	$5,268,828	$5,103,043	$4,937,242	$4,774,294
Option: B - High Case	$20,778,126	$15,332,568	$15,783,564	$16,234,543	$16,685,505	$17,136,450	$17,587,379	$18,052,634

Table G-8. Year-by-year stream of net benefits: bridge, high build option (continued)

	2026	2027	2028	2029	2030	2031	2032	2033
Option B1: All Airports Open								
Option: B - Base Case	$14,397,130	$14,480,844	$14,564,543	$14,648,228	$14,720,425	$14,806,951	$14,893,464	$14,965,623
Option: B - Low Case	$5,140,443	$4,977,465	$4,814,472	$4,651,464	$4,651,949	$4,322,541	$4,165,231	$3,993,566
Option: B - High Case	$19,046,988	$19,512,213	$19,977,424	$20,442,621	$20,902,067	$21,375,843	$21,849,605	$22,309,012
Option B2: Close Naknek in 2014								
Option: B - Base Case	$13,969,930	$14,053,643	$14,137,342	$14,221,027	$14,293,224	$14,379,750	$14,466,264	$14,538,422
Option: B - Low Case	$4,713,243	$4,550,264	$4,387,271	$4,224,264	$4,224,748	$3,895,340	$3,738,030	$3,566,365
Option: B - High Case	$18,619,787	$19,085,013	$19,550,224	$20,015,420	$20,474,867	$20,948,642	$21,422,404	$21,881,812
Option B3: Close South Naknek in 2016								
Option: B - Base Case	$14,292,930	$14,376,644	$14,460,343	$14,544,027	$14,616,225	$14,702,751	$14,789,264	$14,861,422
Option: B - Low Case	$5,036,243	$4,873,265	$4,710,271	$4,547,264	$4,547,749	$4,218,341	$4,061,031	$3,889,365
Option: B - High Case	$18,942,788	$19,408,013	$19,873,224	$20,338,421	$20,797,867	$21,271,643	$21,745,405	$22,204,812
Option B4: Close Naknek in 2014 and South Naknek in 2016								
Option: B - Base Case	$13,868,017	$13,951,731	$14,035,430	$14,119,114	$14,191,311	$14,277,838	$14,364,351	$14,436,509
Option: B - Low Case	$4,611,330	$4,448,352	$4,285,358	$4,122,351	$4,122,836	$3,793,428	$3,636,118	$3,464,452
Option: B - High Case	$18,517,875	$18,983,100	$19,448,311	$19,913,508	$20,372,954	$20,846,730	$21,320,492	$21,779,899

Table G-9. Year-by-year stream of net benefits: bridge, medium build option

	NPV 30-Year Period	2004	2005	2006	2007	2008	2009
Option B1: All Airports Open							
Option: B - Base Case	**$118,656,895**	$0	$0	$0	$0	($1,830,000)	($3,050,000)
Option: B - Low Case	**$34,476,750**	$0	$0	$0	$0	($1,830,000)	($3,050,000)
Option: B - High Case	**$151,777,393**	$0	$0	$0	$0	($1,830,000)	($3,050,000)
						Begin bridge construction	
Option B2: Close Naknek in 2014							
Option: B - Base Case	**$129,041,495**	$13,498	$13,498	$7,173,069	$13,498	($1,816,502)	($3,036,502)
Option: B - Low Case	**$44,861,349**	$13,498	$13,498	$7,173,069	$13,498	($1,816,502)	($3,036,502)
Option: B - High Case	**$162,161,992**	$13,498	$13,498	$7,173,069	$13,498	($1,816,502)	($3,036,502)
		Savings from reduced Naknek O&M until closure		Savings from eliminating Naknek CIP		Begin bridge construction	
Option B3: Close South Naknek in 2016							
Option: B - Base Case	**$121,291,550**	$0	$0	$2,491,617	$0	($1,830,000)	($3,050,000)
Option: B - Low Case	**$37,111,404**	$0	$0	$2,491,617	$0	($1,830,000)	($3,050,000)
Option: B - High Case	**$154,412,047**	$0	$0	$2,491,617	$0	($1,830,000)	($3,050,000)
				Savings from eliminating S. Naknek CIP		Begin bridge construction	
Option B4: Close Naknek in 2014 and South Naknek in 2016							
Option: B - Base Case	**$131,529,206**	$13,498	$13,498	$9,476,214	$13,498	($1,816,502)	($3,036,502)
Option: B - Low Case	**$47,349,061**	$13,498	$13,498	$9,476,214	$13,498	($1,816,502)	($3,036,502)
Option: B - High Case	**$164,649,704**	$13,498	$13,498	$9,476,214	$13,498	($1,816,502)	($3,036,502)
		Savings from reduced Naknek O&M until closure		Savings from eliminating Naknek & S. Naknek CIPs		Begin bridge construction	

Table G-9. Year-by-year stream of net benefits: bridge, medium build option (continued)

	2010	2011	2012	2013	2014	2015	2016	2017
Option B1: All Airports Open								
Option: B - Base Case	($1,220,000)	$0	($12,200,000)	($12,200,000)	$13,337,463	$13,418,518	$13,499,552	$13,580,566
Option: B - Low Case	($1,220,000)	$0	($12,200,000)	($12,200,000)	$7,026,738	$6,863,969	$6,701,179	$6,538,370
Option: B - High Case	($1,220,000)	$0	($12,200,000)	($12,200,000)	$13,437,861	$13,906,165	$14,374,448	$14,842,711
				Bridge construction completed	Travel savings, bridge O&M begins			
Option B2: Close Naknek in 2014								
Option: B - Base Case	($1,206,502)	$6,634,019	($12,186,502)	($12,186,502)	$12,910,263	$12,991,317	$13,072,351	$13,153,365
Option: B - Low Case	($1,206,502)	$6,634,019	($12,186,502)	($12,186,502)	$6,599,537	$6,436,768	$6,273,978	$6,111,169
Option: B - High Case	($1,206,502)	$6,634,019	($12,186,502)	($12,186,502)	$13,010,661	$13,478,964	$13,947,247	$14,415,510
		Savings from eliminating Naknek CIP		Bridge construction completed	Naknek closes, travel savings, bridge O&M begins			
Option B3: Close South Naknek in 2016								
Option: B - Base Case	($1,220,000)	$1,130,296	($12,200,000)	($12,200,000)	$13,337,463	$13,418,518	$13,395,352	$13,476,366
Option: B - Low Case	($1,220,000)	$1,130,296	($12,200,000)	($12,200,000)	$7,026,738	$6,863,969	$6,596,979	$6,434,170
Option: B - High Case	($1,220,000)	$1,130,296	($12,200,000)	($12,200,000)	$13,437,861	$13,906,165	$14,270,248	$14,738,511
		Savings from eliminating S. Naknek CIP		Bridge construction completed	Travel savings, bridge O&M begins		S. Naknek closes	
Option B4: Close Naknek in 2014 and South Naknek in 2016								
Option: B - Base Case	($1,206,502)	$7,764,316	($12,186,502)	($12,186,502)	$12,912,550	$12,993,605	$12,947,785	$13,051,453
Option: B - Low Case	($1,206,502)	$7,764,316	($12,186,502)	($12,186,502)	$6,601,825	$6,439,056	$6,149,412	$6,009,257
Option: B - High Case	($1,206,502)	$7,764,316	($12,186,502)	($12,186,502)	$13,012,948	$13,481,252	$13,822,681	$14,313,598
		Savings from eliminating Naknek & S. Naknek CIPs		Bridge construction completed	Naknek closes, travel savings, bridge O&M begins		S. Naknek closes	

Table G-9. Year-by-year stream of net benefits: bridge, medium build option (continued)

	2018	2019	2020	2021	2022	2023	2024	2025
Option B1: All Airports Open								
Option: B - Base Case	$13,661,561	$13,742,538	$13,823,496	$13,904,437	$13,985,360	$14,066,268	$14,147,158	$14,230,902
Option: B - Low Case	$6,375,541	$6,212,694	$6,046,961	$5,881,210	$5,715,441	$5,549,656	$5,383,855	$5,220,907
Option: B - High Case	$15,310,955	$15,779,181	$16,230,177	$16,681,156	$17,132,118	$17,583,063	$18,033,992	$18,499,247
Option B2: Close Naknek in 2014								
Option: B - Base Case	$18,413,452	$13,315,337	$13,396,295	$13,477,236	$13,558,160	$13,639,067	$13,719,958	$13,803,701
Option: B - Low Case	$11,127,432	$5,785,494	$5,619,760	$5,454,009	$5,288,241	$5,122,456	$4,956,655	$4,793,706
Option: B - High Case	$20,062,846	$15,351,980	$15,802,977	$16,253,955	$16,704,917	$17,155,862	$17,606,791	$18,072,047
Option B3: Close South Naknek in 2016								
Option: B - Base Case	$14,292,054	$13,638,337	$13,719,296	$13,800,237	$13,881,160	$13,962,067	$14,042,958	$14,126,702
Option: B - Low Case	$7,006,034	$6,108,494	$5,942,761	$5,777,010	$5,611,241	$5,445,456	$5,279,655	$5,116,707
Option: B - High Case	$15,941,448	$15,674,981	$16,125,977	$16,576,956	$17,027,918	$17,478,863	$17,929,792	$18,395,047
Option B4: Close Naknek in 2014 and South Naknek in 2016								
Option: B - Base Case	$19,046,232	$13,213,424	$13,294,383	$13,375,324	$13,456,247	$13,537,154	$13,618,045	$13,701,789
Option: B - Low Case	$11,760,212	$5,683,581	$5,517,848	$5,352,097	$5,186,328	$5,020,543	$4,854,742	$4,691,794
Option: B - High Case	$20,695,626	$15,250,068	$15,701,064	$16,152,043	$16,603,005	$17,053,950	$17,504,879	$17,970,134

Table G-9. Year-by-year stream of net benefits: bridge, medium build option (continued)

	2026	2027	2028	2029	2030	2031	2032	2033
Option B1: All Airports Open								
Option: B - Base Case	$14,314,630	$14,398,344	$14,482,043	$14,565,728	$14,637,925	$14,724,451	$14,810,964	$14,883,123
Option: B - Low Case	$5,057,943	$4,894,965	$4,731,972	$4,568,964	$4,569,449	$4,240,041	$4,082,731	$3,911,066
Option: B - High Case	$18,964,488	$19,429,713	$19,894,924	$20,360,121	$20,819,567	$21,293,343	$21,767,105	$22,226,512
Option B2: Close Naknek in 2014								
Option: B - Base Case	$13,887,430	$13,971,143	$14,054,842	$14,138,527	$14,210,724	$14,297,250	$14,383,764	$14,455,922
Option: B - Low Case	$4,630,743	$4,467,764	$4,304,771	$4,141,764	$4,142,248	$3,812,840	$3,655,530	$3,483,865
Option: B - High Case	$18,537,287	$19,002,513	$19,467,724	$19,932,920	$20,392,367	$20,866,142	$21,339,904	$21,799,312
Option B3: Close South Naknek in 2016								
Option: B - Base Case	$14,210,430	$14,294,144	$14,377,843	$14,461,527	$14,533,725	$14,620,251	$14,706,764	$14,778,922
Option: B - Low Case	$4,953,743	$4,790,765	$4,627,771	$4,464,764	$4,465,249	$4,135,841	$3,978,531	$3,806,865
Option: B - High Case	$18,860,288	$19,325,513	$19,790,724	$20,255,921	$20,715,367	$21,189,143	$21,662,905	$22,122,312
Option B4: Close Naknek in 2014 and South Naknek in 2016								
Option: B - Base Case	$13,785,517	$13,869,231	$13,952,930	$14,036,614	$14,108,811	$14,195,338	$14,281,851	$14,354,009
Option: B - Low Case	$4,528,830	$4,365,852	$4,202,858	$4,039,851	$4,040,336	$3,710,928	$3,553,618	$3,381,952
Option: B - High Case	$18,435,375	$18,900,600	$19,365,811	$19,831,008	$20,290,454	$20,764,230	$21,237,992	$21,697,399

Table G-10. Year-by-year stream of net benefits: bridge, low build option

	NPV 30-Year Period	2004	2005	2006	2007	2008	2009
Option B1: All Airports Open							
Option: B - Base Case	**$119,767,447**	$0	$0	$0	$0	($1,740,000)	($2,900,000)
Option: B - Low Case	**$35,587,302**	$0	$0	$0	$0	($1,740,000)	($2,900,000)
Option: B - High Case	**$152,887,945**	$0	$0	$0	$0	($1,740,000)	($2,900,000)
						Begin bridge construction	
Option B2: Close Naknek in 2014							
Option: B - Base Case	**$130,152,047**	$13,498	$13,498	$7,173,069	$13,498	($1,726,502)	($2,886,502)
Option: B - Low Case	**$45,971,901**	$13,498	$13,498	$7,173,069	$13,498	($1,726,502)	($2,886,502)
Option: B - High Case	**$163,272,544**	$13,498	$13,498	$7,173,069	$13,498	($1,726,502)	($2,886,502)
		Savings from reduced Naknek O&M until closure		Savings from eliminating Naknek CIP		Begin bridge construction	
Option B3: Close South Naknek in 2016							
Option: B - Base Case	**$122,402,102**	$0	$0	$2,491,617	$0	($1,740,000)	($2,900,000)
Option: B - Low Case	**$38,221,956**	$0	$0	$2,491,617	$0	($1,740,000)	($2,900,000)
Option: B - High Case	**$155,522,599**	$0	$0	$2,491,617	$0	($1,740,000)	($2,900,000)
				Savings from eliminating S. Naknek CIP		Begin bridge construction	
Option B4: Close Naknek in 2014 and South Naknek in 2016							
Option: B - Base Case	**$132,639,758**	$13,498	$13,498	$9,476,214	$13,498	($1,726,502)	($2,886,502)
Option: B - Low Case	**$48,459,613**	$13,498	$13,498	$9,476,214	$13,498	($1,726,502)	($2,886,502)
Option: B - High Case	**$165,760,256**	$13,498	$13,498	$9,476,214	$13,498	($1,726,502)	($2,886,502)
		Savings from reduced Naknek O&M until closure		Savings from eliminating Naknek & S. Naknek CIPs		Begin bridge construction	

Table G-10. Year-by-year stream of net benefits: bridge, low build option (continued)

	2010	2011	2012	2013	2014	2015	2016	2017
Option B1: All Airports Open								
Option: B - Base Case	($1,160,000)	$0	($11,600,000)	($11,600,000)	$13,337,463	$13,418,518	$13,499,552	$13,580,566
Option: B - Low Case	($1,160,000)	$0	($11,600,000)	($11,600,000)	$7,026,738	$6,863,969	$6,701,179	$6,538,370
Option: B - High Case	($1,160,000)	$0	($11,600,000)	($11,600,000)	$13,437,861	$13,906,165	$14,374,448	$14,842,711
				Bridge construction completed	Travel savings, bridge O&M begins			
Option B2: Close Naknek in 2014								
Option: B - Base Case	($1,146,502)	$6,634,019	($11,586,502)	($11,586,502)	$12,910,263	$12,991,317	$13,072,351	$13,153,365
Option: B - Low Case	($1,146,502)	$6,634,019	($11,586,502)	($11,586,502)	$6,599,537	$6,436,768	$6,273,978	$6,111,169
Option: B - High Case	($1,146,502)	$6,634,019	($11,586,502)	($11,586,502)	$13,010,661	$13,478,964	$13,947,247	$14,415,510
		Savings from eliminating Naknek CIP		Bridge construction completed	Naknek closes, travel savings, bridge O&M begins			
Option B3: Close South Naknek in 2016								
Option: B - Base Case	($1,160,000)	$1,130,296	($11,600,000)	($11,600,000)	$13,337,463	$13,418,518	$13,395,352	$13,476,366
Option: B - Low Case	($1,160,000)	$1,130,296	($11,600,000)	($11,600,000)	$7,026,738	$6,863,969	$6,596,979	$6,434,170
Option: B - High Case	($1,160,000)	$1,130,296	($11,600,000)	($11,600,000)	$13,437,861	$13,906,165	$14,270,248	$14,738,511
		Savings from eliminating S. Naknek CIP		Bridge construction completed	Travel savings, bridge O&M begins		S. Naknek closes	
Option B4: Close Naknek in 2014 and South Naknek in 2016								
Option: B - Base Case	($1,146,502)	$7,764,316	($11,586,502)	($11,586,502)	$12,912,550	$12,993,605	$12,947,785	$13,051,453
Option: B - Low Case	($1,146,502)	$7,764,316	($11,586,502)	($11,586,502)	$6,601,825	$6,439,056	$6,149,412	$6,009,257
Option: B - High Case	($1,146,502)	$7,764,316	($11,586,502)	($11,586,502)	$13,012,948	$13,481,252	$13,822,681	$14,313,598
		Savings from eliminating Naknek & S. Naknek CIPs		Bridge construction completed	Naknek closes, travel savings, bridge O&M begins		S. Naknek closes	

Table G-10. Year-by-year stream of net benefits: bridge, low build option (continued)

	2018	2019	2020	2021	2022	2023	2024	2025
Option B1: All Airports Open								
Option: B - Base Case	$13,661,561	$13,742,538	$13,823,496	$13,904,437	$13,985,360	$14,066,268	$14,147,158	$14,230,902
Option: B - Low Case	$6,375,541	$6,212,694	$6,046,961	$5,881,210	$5,715,441	$5,549,656	$5,383,855	$5,220,907
Option: B - High Case	$15,310,955	$15,779,181	$16,230,177	$16,681,156	$17,132,118	$17,583,063	$18,033,992	$18,499,247
Option B2: Close Naknek in 2014								
Option: B - Base Case	$18,413,452	$13,315,337	$13,396,295	$13,477,236	$13,558,160	$13,639,067	$13,719,958	$13,803,701
Option: B - Low Case	$11,127,432	$5,785,494	$5,619,760	$5,454,009	$5,288,241	$5,122,456	$4,956,655	$4,793,706
Option: B - High Case	$20,062,846	$15,351,980	$15,802,977	$16,253,955	$16,704,917	$17,155,862	$17,606,791	$18,072,047
Option B3: Close South Naknek in 2016								
Option: B - Base Case	$14,292,054	$13,638,337	$13,719,296	$13,800,237	$13,881,160	$13,962,067	$14,042,958	$14,126,702
Option: B - Low Case	$7,006,034	$6,108,494	$5,942,761	$5,777,010	$5,611,241	$5,445,456	$5,279,655	$5,116,707
Option: B - High Case	$15,941,448	$15,674,981	$16,125,977	$16,576,956	$17,027,918	$17,478,863	$17,929,792	$18,395,047
Option B4: Close Naknek in 2014 and South Naknek in 2016								
Option: B - Base Case	$19,046,232	$13,213,424	$13,294,383	$13,375,324	$13,456,247	$13,537,154	$13,618,045	$13,701,789
Option: B - Low Case	$11,760,212	$5,683,581	$5,517,848	$5,352,097	$5,186,328	$5,020,543	$4,854,742	$4,691,794
Option: B - High Case	$20,695,626	$15,250,068	$15,701,064	$16,152,043	$16,603,005	$17,053,950	$17,504,879	$17,970,134

Table G-10. Year-by-year stream of net benefits: bridge, low build option (continued)

	2026	2027	2028	2029	2030	2031	2032	2033
Option B1: All Airports Open								
Option: B - Base Case	$14,314,630	$14,398,344	$14,482,043	$14,565,728	$14,637,925	$14,724,451	$14,810,964	$14,883,123
Option: B - Low Case	$5,057,943	$4,894,965	$4,731,972	$4,568,964	$4,569,449	$4,240,041	$4,082,731	$3,911,066
Option: B - High Case	$18,964,488	$19,429,713	$19,894,924	$20,360,121	$20,819,567	$21,293,343	$21,767,105	$22,226,512
Option B2: Close Naknek in 2014								
Option: B - Base Case	$13,887,430	$13,971,143	$14,054,842	$14,138,527	$14,210,724	$14,297,250	$14,383,764	$14,455,922
Option: B - Low Case	$4,630,743	$4,467,764	$4,304,771	$4,141,764	$4,142,248	$3,812,840	$3,655,530	$3,483,865
Option: B - High Case	$18,537,287	$19,002,513	$19,467,724	$19,932,920	$20,392,367	$20,866,142	$21,339,904	$21,799,312
Option B3: Close South Naknek in 2016								
Option: B - Base Case	$14,210,430	$14,294,144	$14,377,843	$14,461,527	$14,533,725	$14,620,251	$14,706,764	$14,778,922
Option: B - Low Case	$4,953,743	$4,790,765	$4,627,771	$4,464,764	$4,465,249	$4,135,841	$3,978,531	$3,806,865
Option: B - High Case	$18,860,288	$19,325,513	$19,790,724	$20,255,921	$20,715,367	$21,189,143	$21,662,905	$22,122,312
Option B4: Close Naknek in 2014 and South Naknek in 2016								
Option: B - Base Case	$13,785,517	$13,869,231	$13,952,930	$14,036,614	$14,108,811	$14,195,338	$14,281,851	$14,354,009
Option: B - Low Case	$4,528,830	$4,365,852	$4,202,858	$4,039,851	$4,040,336	$3,710,928	$3,553,618	$3,381,952
Option: B - High Case	$18,435,375	$18,900,600	$19,365,811	$19,831,008	$20,290,454	$20,764,230	$21,237,992	$21,697,399