

# **Tiger Discretionary Grant Application Caribou Connector**

**September 15, 2009**

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**Tiger Discretionary Grant Application  
Caribou Connector  
September 15, 2009**

**Contact Information**

**Applicant Name:**

David A. Cole, Commissioner  
Maine Department of Transportation  
Augusta, Maine 04333-0016  
Phone Number: 207-624-3000  
E-mail Address: David.A.Cole@Maine.gov  
Organization Address:  
Maine Department of Transportation  
16 State House Station  
Augusta, ME 04333-0016

DUNS Number: 80-904-5966

Contractor Central Registration Number:

MaineDOT has an active status in the Contractor Central Registration system.

**Primary Point of Contact:**

Russell Charette, PE, Director of Mobility Management  
Bureau of Transportation Systems Planning  
Maine Department of Transportation  
Augusta, Maine 04333-0016  
207-624-3300

Amount of Grant Funds Requested: \$25 Million

**Project Overview**

Project Type: Highway Project in Rural Aroostook County

Location: Caribou, Aroostook County, ME, 2nd Congressional District

The proposed project is the Caribou Connector. The purpose of this project is to construct a bypass to reduce or totally eliminate heavy trucks and other through traffic from traveling through downtown portions of the City of Caribou creating congestion, noise and air quality impacts to the commercial/business district of downtown Caribou. The Caribou Connector project is one of two segments of a larger study called the Aroostook County Transportation Study (ACTS) that is shovel ready. MaineDOT is seeking to advance 2 of the 11 segments in the ACTS, the Caribou Connector and the Presque Isle Bypass into final design and construction. Forty Six million (\$46 million – Allocations {\$66 million in Total Budget Authority}) of HPP funding was provided to the Department for economic development activities for a control of access highway for northern Maine described as the ACTS in the Project Description section of this application. To date, \$7 million dollars have been expended in environmental processing and documentation for the corridor; TIGER funds are being sought to augment the HPP funding. Without additional funding, there is insufficient available funding to build the Presque Isle bypass, the second of two segments being advanced for advertisement and construction. The Presque Isle by-pass is not shovel ready. Estimates of the construction costs for the Caribou Connector and the Presque Isle Bypass are approximately \$132 million (2008 dollars). Total cost to complete the entire ACTS corridor is estimated at \$660 million.



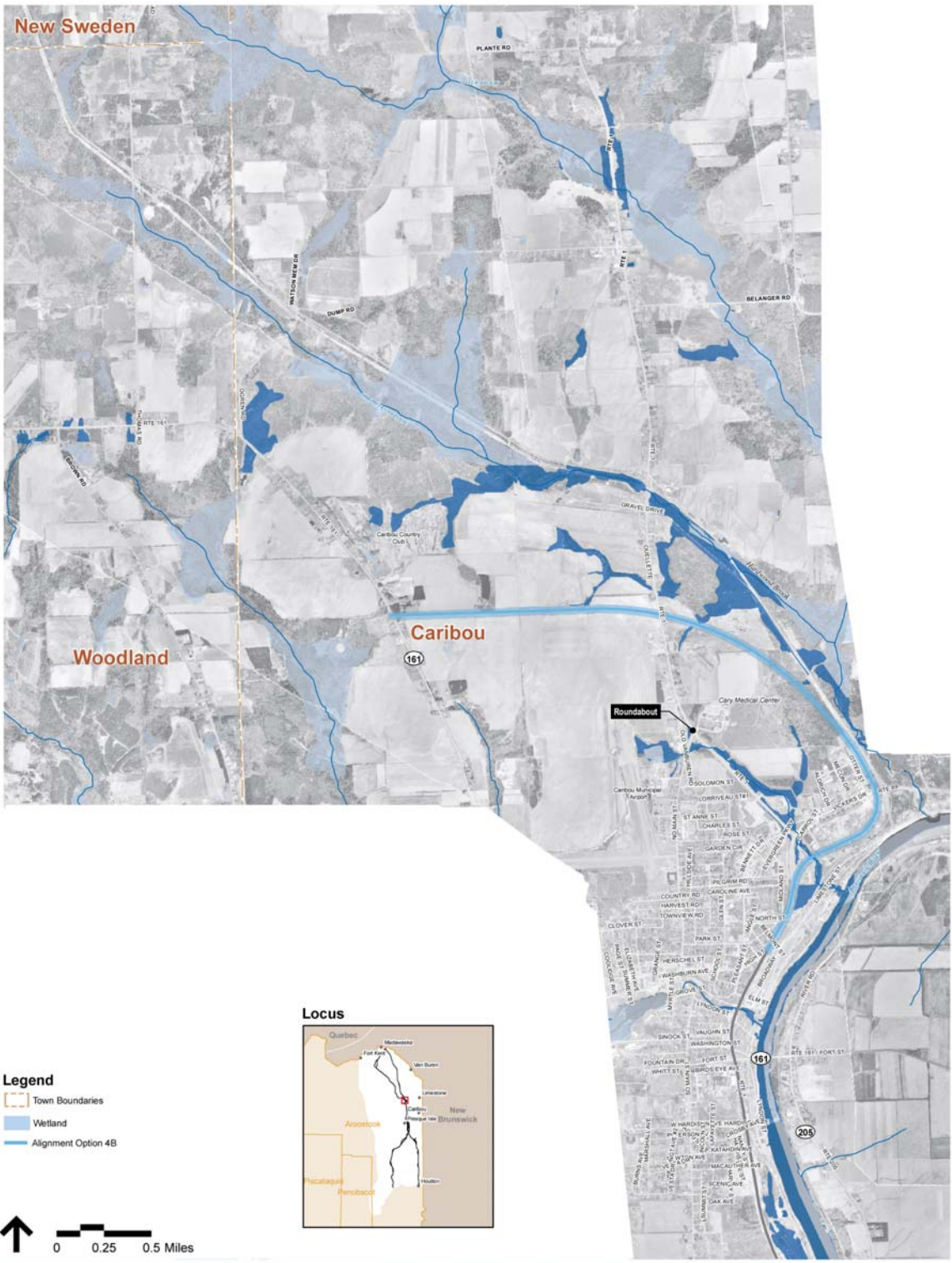


Figure 2: Caribou Connector (Alignment Option 4B)

## Summary of Benefits

Table 1 provides a comprehensive summary of the benefits of constructing the Caribou Connector, in addition to benefits derived from the future build-out of the complete ACTS corridor. Individual references for data are provided within the appropriate section of this document.

**Table 1  
Caribou Connector - Summary of Benefits**

<u>Item</u>	<u>Caribou Connector</u>	<u>ACTS Complete<sup>1</sup></u>
Purpose	Relieve Congestion, Improve Efficiency, Safety & Air Quality	Enhance Local & Regional Economy & Connectivity, Improve Safety
Scope	4.28 Mile Bypass w/ 0.6 Mile Highway Rebuild to Relieve Congestion	Construct North-South Highway to Reduce Travel Time by 21-43 Minutes
Innovation	Partial Design-Build	To Be Determined
Vehicle Hours Traveled	- 310 Vehicle Hours	To Be Determined
Number of Vehicles Diverted	Total 3,060 per Day (- 22%) 280 Trucks per Day (- 23%)	To Be Determined To Be Determined
Safety	- 4.93 Crashes/Year (-22%)	To Be Determined
Employment	+ 130/Year (2010-2012) + 12/Year (2013-2030)	+ 595 to 1,133 by 2030 (+ 2.2%)
Retail Sales	Effect Unknown	+17.7 Million by 2035
Personal Income	Effect Unknown	+ \$80 Million by 2030
Disposable Personal Income	Effect Unknown	+ \$21.3 to \$24.5 Million by 2030
Gross Regional Product	Effect Unknown	+ \$45 Million by 2035
Year 2030 Population	Effect Unknown	+ 1,100
Per Capita Income County vs. U.S.	\$27,633 vs. \$38,615 (2007)	\$27,633 vs. \$38,615 (2007)
Unemployment Rate Caribou vs. U.S.	5.7% vs. 4.6% (2007)	5.7% vs. 4.6% (2007)
Ratio of Area Per Capita Income to National Average	71%	71%
Ratio of Area Unemployment to National Average	124%	124%
Meets Economically Depressed National Criteria	Yes	Yes
Maine Pine Tree Zone	Yes	Yes
Capital Cost	\$31.7 Million Total (\$25 M TIGER)	\$660 Million (Estimated in \$2008 Dollars)
Maintenance Costs	\$19,000 per Year/ mile	To Be Determined
Benefit-to-Cost Ratio	1.29	To Be Determined

## Project Description

The Federal Highway Administration (FHWA) and the Maine Department of Transportation (MaineDOT) have undertaken the ACTS pursuant to the National Environmental Policy Act (NEPA) and the Maine Sensible Transportation Policy Act (STPA) to identify transportation improvements that

<sup>1</sup> Aroostook County Transportation Study

will enhance travel mobility and efficiency, and support regional economic growth within northeastern Aroostook County in northern Maine. The ACTS study area is bounded on the south by I-95; on the west by Route 11; and on the north and east by the Canadian Province of New Brunswick. Because I-95 terminates in Houlton in the far southeast corner of the Study Area, the majority of the Study Area has no Interstate Highway access. The Study Area is approximately 100 miles long and 25 to 40 miles wide, encompassing approximately 2,760 square miles. The total cost of completion of the Aroostook North-South Highway identified in the ACTS is estimated at \$660 million (2008 dollars). The Study Area is sparse with a population of 70,576 people according to the 2000 United States (U.S.) Census. The majority of the population (39,115) lives in the Presque Isle-Caribou area in the central portion of the Study Area. In compliance with FHWA's segmentation criteria (23 CFR 771.111(f)), each segment of the transportation study alternatives being considered has logical termini, independent utility, and would not restrict consideration of alternatives for other segments.

After publication of the March 2002 Draft Environmental Impact Statement [DEIS](#) MaineDOT and FHWA prepared a [Supplemental Draft Environmental Impact \(SDEIS\)](#) (published in June 2006) as a Tiered NEPA document. It included both Tier 1 and Tier 2 level analyses. At the Tier 1 level, similar to the DEIS, it described four major north-south corridors connecting I-95 to the St. John Valley. These corridors were largely modifications of those studied in the DEIS. The SDEIS Tier 2 analysis consisted of an evaluation of three of the eleven segments that were generated. The three segments listed below comprised the SDEIS Proposed Action.

- Segment 2 – an approximately 25.9-mile, 2-lane upgrade of Route 161 between Caribou and Cross Lake Township;
- Segment 4 – an approximately 5.5-mile new connection between the Route 1/High Street intersection and Route 161 in Caribou; and
- Segment 7 – a new 10-mile long bypass east of downtown Presque Isle.

The Caribou Connector involves the construction of a 4.28 mile section of new highway providing a direct connection from Route 1 to Route 161 in Caribou, Maine and has logical termini and independent utility. The alignment was developed in partnership with the City of Caribou to minimize impacts to the commercial/business district at the intersection of Routes 1 and 89. The project would include an upgrade of an approximately 1,600-foot long section of Route 1 and extend northeast along new alignment roughly parallel to the Montreal, Maine and Atlantic (MM&A) railway (formerly known as the Bangor and Aroostook Railroad) before swinging northwest and crossing Route 89 at Otter Street. From Route 89, the new highway would head northwest, passing through predominantly undeveloped forest, re-cross Route 1, and then head directly west, traversing farmland and forest before intersecting with Route 161 at a "T" intersection approximately 1.5 miles south of Ogren Road. The project would include 3.7 miles of new-alignment highway, and 0.58 miles of existing highway reconstruction. A 0.28-mile long section of Route 161 would be upgraded to tie the Caribou Connector to existing Route 161. An additional 0.3 miles of Route 1 would be upgraded at the south end of the Caribou Connector. The Caribou Connector would have at-grade intersections with Route 1 south of the Cary Medical Center roundabout and also at Route 161, and a grade-separated intersection at Route 1 and Route 89 north of the Cary Medical Center roundabout.

Aroostook County has a limited transportation system that presents access and mobility challenges to, from, and within the county. Poor mobility in turn limits economic opportunity. The regional transportation system of 2-lane highways, often extending through downtown centers, does not provide direct, efficient connections between population and commercial, industrial, and agricultural centers within the Study Area to the high speed Interstate highway systems of Maine and Canada (I-95 and Canadian Route 2 - TransCanada Highway). Many highways in Aroostook County have geometric and

safety deficiencies that make it difficult for commercial vehicles to travel safely.<sup>2</sup> Farming and forestry are the chief economic activities in Aroostook County, resulting in disproportionate numbers and percentages of heavy trucks as compared to all other vehicle types. The preponderance of heavy trucks causes functional conflicts between through traffic (trucks) and local traffic in downtown areas and also causes congestion and safety problems. Travel times between points within northern Aroostook County, and between the Study Area and external points, hamper the mobility of goods and people, and thus increase the cost of goods brought in and goods sold to market. The additional travel and delivery costs affect the local economy, and reduce job opportunities. The existing highway system connecting the county's major population and commercial, industrial, and agricultural centers with each other, the I-95 and the TransCanada Highway, does not have a consistent cross-section and consistent speed, has dramatic speed differentials between rural and developed areas and between different vehicular types. The limited highway system does not provide efficient access to jobs and services.

Caribou is the second largest population center in rural Aroostook County (2008 Population 7,861) and one of the largest economic activity centers in Aroostook County. Route 1 is the north-south route through Caribou and has controlled access between its southern intersection with Route 164 south of downtown and Route 89 north of downtown; it provides an eastern bypass of Caribou. The uncontrolled Route 164 provides direct access into the downtown from Route 1 south of Caribou and connects Route 1 with Route 161 west of Caribou. Route 164 is built up with commercial development along much of its length and acts as the principal connection between the northern rural Aroostook County area in the St. John Valley (Fort Kent, Frenchville, and Madawaska) and areas south and east of Caribou. For most of its length, Route 161 is a 2-lane rural arterial with maximum posted speeds of 55 mph. Vehicles traveling north on Route 1 to the Saint John Valley either exit Route 1 at Route 164 and travel through the one-way downtown loop to reach Route 161 ([See Figure 3, Page 2-2, Corps of Engineers Section 404 Permit Application for the Caribou Route 1-161 Connector](#)) or exit Route 1 further north at Fort Street (Route 161) and then pass through the downtown business district's one-way loop. These connections have a 25-mph speed limit, stop signs, with built up residential and commercial streets, which increase travel times and result in conflicts between through traffic (particularly heavy trucks) and local destination traffic, as well as with the pedestrian use of downtown Caribou. The City of Caribou is over 250 miles and a 4-hour drive from Maine's Capitol City of Augusta, which is another 100 miles and an additional 2-hour drive to the New Hampshire border. This 350 mile, 6-hour travel gives the area a competitive disadvantage in shipping and receiving raw materials and goods to and from markets.

The Caribou Connector would decrease travel times between the St. John Valley and Route 1 saving over 300 vehicle-hours per day. This is a very important first step of the larger ACTS , which will provide an overall travel-time savings ranging from 21 to 43 minutes (depending on the ACTS corridor selected). The Caribou Connector, when coupled with future implementation of the larger Study, will improve the cost-effectiveness of transporting goods and materials to market.

The U.S. Army Corps of Engineers (USACE) has determined that the Caribou Connector is the [Least Environmentally Damaging Practicable Alternative](#). FHWA has given authorization for final design on the project which is in process. MaineDOT has also filed the [Corps of Engineers Section 404 Permit Application for the Caribou Route 1-161 Connector](#).

MaineDOT submitted the Caribou Final Environmental Impact Statement (FEIS) to the Federal Highway Administration (FHWA) Maine Division Office on August 31<sup>st</sup>, 2009. The FHWA Maine Division forwarded the FEIS to the FHWA Office of General Counsel for the legal sufficiency review.

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<sup>2</sup> Source: Vanasse Hangen Brustlin, Inc. August 2005. Supplemental Draft Environmental Impact Statement, Corridor Traffic Analysis Technical Memorandum.

See the Environmental Approvals and Required Permits section on page 20 for additional discussion on this issue.

### **Project Parties**

The grant recipient will be the State of Maine, Maine Department of Transportation. The City of Caribou is another project party.

### **Grant Funds, Sources and Uses of Project Funds**

Total Project Costs: \$31.7 Million

Amount of Grant Funding Requested: \$25 Million

Sources and Uses of all Project Funds:

\$25 million TIGER Funds 79%

\$6.7 million High Priority Funds 21%

Percentage of Project Costs Paid for with TIGER Discretionary Grant Funds: 79%

### **Federal Wage Rate Requirement – Certification**

The Maine Department of Transportation certifies that it will comply with the requirements of subchapter IV of chapter 31 of title 40, United States Code, as required by the Recovery Act.

### **Long-Term Outcomes**

The Caribou Connector is a central element common to all of the north-south regional corridors being evaluated through the NEPA process, and is essential to achieving the transportation and economic benefits of the ACTS. The ACTS would improve the economic competitiveness of the northern Aroostook County region and improve the long-term efficiency of the transportation network by reducing travel times.

Specific elements of the need for transportation improvements include:

- Aroostook County suffers from a long-term loss of population;
- The unemployment rate in the Study Area has been chronically higher than the state average;
- The rate of job growth has been chronically below the state average;
- There has been a lack of diverse job opportunities, which would retain and attract workers; and
- There is a need to improve transportation access to, from, and within Aroostook County and the surrounding provinces and adjacent states to improve access to jobs, reduce travel times for bringing goods to market, and address issues of transportation system continuity.

Job growth and unemployment rates are further discussed in the Job Creation and Economic Stimulus section on page 13.

The Caribou Connector is part of transportation improvements in the region that help to address the economic and transportation needs and to meet the following major objectives that were identified in the [SDEIS Page 1-5 and 1-6:](#)

Economic Objectives:

- Help to maintain and expand Aroostook County's economy;
- Enhance the marketability of Aroostook County's existing and potential economic assets;
- Improve access to jobs and services;
- Improve connections to markets within and outside of Aroostook County including New England, Canada, and more distant areas; and
- Improve access to multi-modal (air and rail) facilities.

Transportation Objectives:

- Reduce travel time to, from, and within Aroostook County;
- Enhance the reliability of Aroostook County’s transportation system;
- Improve traffic flow through Houlton, Mars Hill, Presque Isle, and Caribou;
- Reduce the potential for crashes;
- Provide an adequate highway geometry;
- Reduce speed differentials in developed areas, and among highway users;
- Reduce conflicts caused by the varied traffic mix; and
- Improve access management along existing highways.

The Connector would provide better access to the north side of Caribou’s downtown and would support the recommendations of the Route 1 Corridor Management Plan to concentrate Caribou’s growth in the vicinity of Routes 1 and 89 ([Table 4-1, Page 4-5](#)) **Route 1 Corridor Management Plan ~ Caribou to Van Buren**, (August 2005); and would improve network connectivity by linking Route 1 to the Route 161 corridor.

The Caribou Connector would enhance traffic flow in the Caribou downtown by removing from the traffic stream trucks and other traffic traveling to and from northern Maine using Route 161. The Connector would also improve safety by reducing traffic volumes at four high crash locations (HCL) and provide a savings of over 300 vehicle hours of travel per day (almost 10 percent of the transportation efficiency gains of overall north–south corridors studied in the overall Aroostook Count Transportation Study). This 10% gain can be accomplished for about 3 percent of the costs of the entire cost of the corridor alternatives studied in the ACTS.

Table 2 summarizes the 2030 travel demand performance measures for the Caribou Connector compared to the No-Action Alternative<sup>3</sup>.

**Table 2  
Caribou Connector -Transportation Benefits**

	No-Action Alternative (2030)	Change Compared to the No-Action Alternative (2030)
Truck VHT (vehicle-hours traveled)		-50 vehicle-hours
Total VHT (vehicle-hours traveled)		-310 vehicle-hours
Total VMT (vehicle-miles traveled)		+2,190 vehicle-miles
Travel Time (minutes)	9 minutes	-2.0 minutes
Mobility (%) <sup>1</sup>	39 percent	+1 percent
Downtown Truck ADT (trucks per day)	1,240 trucks per day	-280 trucks per day
Downtown Total ADT (vehicles per day)	13,730 vehicles per day	-3,060 vehicles per day

<sup>1</sup>Mobility is the percent of daily traffic through the Segment 4 Study Area that travels on freeways and principal arterial roads.

The Caribou Connector would reduce vehicle hours of travel (VHT) and provide better access to rural northern Aroostook County. Total daily VHT would decrease by 310 vehicle-hours (truck VHT would decrease by 50 vehicle-hours). Total daily vehicle miles of travel (VMT) would increase by 2,190 vehicle-miles. The VMT increase is due to the longer distance vehicles would travel via the Caribou Connector between Route 161 and Route 1. However, the travel time and VHT reductions show that the

<sup>3</sup> Source: Table 3 of ACOE 404 Water Quality Permit application for Caribou Route 1-161 Connector

Caribou Connector provides a faster and more efficient through travel path between Route 161 and Route 1 in Caribou. The Connector enhances regional mobility between Route 161 and Route 1 in Caribou and places 40 percent of the ADT on freeways or principal arterial roads. The Connector would divert a portion of the regional north-south through traffic away from downtown Caribou whereas the traffic currently has to travel right through the downtown. About 3,060 vehicles per day, including 280 trucks per day, would divert to the Caribou Connector.

### **State of Good Repair**

No major economic impacts to community facilities and services are anticipated as a result of building the Caribou Connector. MaineDOT would continue to maintain existing roads; no new investment would likely be required locally for this activity. While the 4.6 miles of new no-access highway will give additional responsibility to MaineDOT's maintenance activities, construction of the Caribou Connector would effectively move a portion of the existing Route 161 section adjacent to the urban compact boundary into the City's area of responsibility. In effect, a portion of existing Route 161, (1 mile) would be downgraded from State Highway to State Aid Highway. As a result of the change, winter maintenance responsibility of Sweden St (Route 161), from the State Urban Compact Boundary to the end of the new alignment, will be transferred from MaineDOT Region 5 to the City of Caribou. The City of Caribou is aware of this issue and has agreed to accept maintenance responsibility for this additional mileage to their system.

### **Economic Competitiveness**

As previously stated, the Caribou Connector is the first element of the ACTS to be implemented. The Caribou Connector is a central element common to all of the north-south regional corridors being evaluated through the NEPA process, and is essential to achieving the transportation and economic benefits of the ACTS. The ACTS would improve the cost-competitiveness of the northern Aroostook County region and would also improve the long-term efficiency of the transportation network by reducing travel times.

The Study Area contains a large land area with 54 populated communities, but has a small population base that has declined severely since 1960. The largest declines were associated with the 1978-1981 recession and the 1992-1995 Loring Air Force Base closure. Since 1960, the population has declined 28 percent, from approximately 100,100 to 73,241. There has also been a shift in age distribution with the loss of younger people in the labor force. Approximately 65 percent of the population is within the labor force age range of 15-64, with 19 percent of the population under age 15 and 15 percent over age 65. The population is also anticipated to continue to shift in age, with the over-55 population increasing by 54 percent as a result of the continued out-migration of younger adults who seek better economic opportunities outside of Aroostook County.<sup>4</sup> Employment within the Study Area has also declined. The economic restructuring associated with the Loring Air Force Base closure resulted in the loss of 10,700 jobs in the three largest industry sectors (government, manufacturing, and agriculture). Future growth is predicted to be primarily in the service sector, with continued losses (approximately 1,500 jobs by 2020) anticipated in the areas of manufacturing, farming and government.

Income levels of Aroostook County residents were close to the State of Maine average during the 1970s. More recently, however, the rate of income growth in Aroostook County has consistently lagged behind the state as a whole. In 1996, per capita personal income in Aroostook County reached roughly \$16,000, 22 percent below the statewide average of just under \$21,000. In 1998, all of the communities within the Study Area were below the estimated median household income for Maine (\$31,952). Commuting times within the Study Area affect income values. The majority of residents travel less than 15 minutes to work, but commuting time increases as salary decreases (i.e., the lowest-paid workers drive longer), and

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<sup>4</sup> Source: *Draft Environmental Impact Statement*, March 2002 page 1-6.

commuting times are generally higher for the second jobs that most of the lower-paid workers require in order to maintain a living wage.

The ACTS, including the Caribou Route 1-161 Connector, is predicted to reduce travel times, increase jobs and increase personal income, gross regional product and retail sales. The primary effect is to reduce truck travel times and costs, thus reducing costs to producers and making the region more economically competitive. This is particularly important for farmers who need to quickly bring their agricultural products to markets generally located outside of the county. By improving access and reducing travel times, the proposed highway improvements will enhance local economic development efforts to attract and retain businesses, making the region more competitive. In addition, the savings in non-truck vehicle miles and time as a result of the highway improvements means that Aroostook County is likely to attract additional visitors in future years.

The chief factor in economic change resulting from highway construction is the change in time spent traveling by both trucks (commercial transport) and passenger cars. This change (measured as changes in vehicle hours traveled or VHT) has several important economic effects. For commercial transport, it reduces the cost of transportation of goods into and out of Aroostook County. Increasingly, Aroostook County's service-based economy also depends critically on the speed of transportation for contact through courier services, such as Federal Express, United Parcel Service, or DHL International. The ACTS overall would provide a regional travel-time savings ranging from 21 to 43 minutes (depending on the corridor selected), which would improve the cost-effectiveness of transporting goods and materials. The Route 1-161 Connector would decrease travel times between the St. John Valley and Route 1 by an average of 2 minutes, saving over 300 vehicle-hours per day.

The ACTS economic impact analysis shows that the construction of the new and improved highways would have a beneficial impact on the Aroostook County economy. Compared with a baseline forecast, employment would expand by over 1,100 after 2030, an increase of approximately 2.2 percent over the baseline forecast. Personal income would increase by about \$80 million and retail sales by over \$17 million by 2035. The gross regional product is predicted to increase by \$45 million. Population would increase by approximately 1,300 with construction of any of the corridors. This would return Aroostook County to a population of just over 80,000, the level it last had in 1994, the year Loring Air Force Base was closed. For the No-Action Alternative, this would not occur until after 2040, so these corridors would have the effect of accelerating population recovery by about a decade.<sup>5</sup>

### **Livability**

Building the Connector, in combination with revisions to Caribou's zoning ordinance that focus mixed-use growth and residential growth in the downtown, could serve as an effective "urban boundary," helping to enhance the image and "livability" of downtown. This has potential to affect the out-migration rate of the region's youth and serve to attract additional employers to the community. In addition, the reduction of traffic may enhance the "livability" of downtown Caribou, thereby enhancing the attractiveness and value of residential units and commercial properties that are not as dependent on through traffic. A 2004 study on migration patterns of youth from Aroostook County<sup>6</sup> indicated that the lack of "urban amenities," such as restaurants, cultural activities, and other features was also a factor, along with limited educational opportunities, in the decision by younger people to leave. The enhancement of Caribou's downtown as a place to live and work, perhaps resulting from the reduction in heavy truck traffic on the main streets as a result of building the Connector, along with continued growth of the region's higher education institutions, could make Caribou more attractive, thereby

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<sup>5</sup> Source: *Supplemental Draft Environmental Impact Statement*, June 2006. Pages 4-26, 4-27 (Information from *Supplemental Draft Environmental Impact Statement, Economic Technical Report*, August 2005. RKG Associates).

<sup>6</sup> Source: Colgan, Charles and Bruce Andrews. October 2004. *Migration and Youth Migration from Aroostook County: Trends, Factors, and Implications*. Center for Business and Economic Research, University of Southern Maine. Prepared for Northern Maine Development Commission

helping to stem the outflow of young people as well as attract more permanent residents to Aroostook County.

### **Sustainability**

The Caribou Connector would have a beneficial effect on the highway transportation environment. The Connector would improve mobility to and around Caribou; provide better access to growth nodes in this community; enhance traffic flow by removing trucks from congested downtown areas; and improve safety. Specifically, construction of the Caribou Connector would reduce average daily traffic in downtown Caribou by 22 percent (3,060 vehicles), and reduce average daily truck traffic in downtown Caribou by 23 percent (280 trucks). As previously mentioned, the Caribou Connector would reduce travel times and vehicle miles traveled through the Caribou urban area. It is expected that this decrease in travel time would reduce total annual fuel consumption in spite of the slight growth in VMT over the No-Action Alternative. The reductions in travel time and fuel consumption are a result of a shift in traffic demand from congested downtown routes and portions of Route 1 and Route 161 to the higher-speed controlled-access Connector. Since the Caribou Connector alternative is expected to result in less energy-consuming delay and congestion, greenhouse gas emissions would also be slightly lower than the No-Action Alternative. The Connector is just one of the measures, identified in *Connecting Maine: Planning Our Transportation Future*<sup>7</sup>, expected to reduce CO<sub>2</sub> emissions by as much as 48 Metric tons per year by 2030. *Connecting Maine*, Maine's 2030 Long-Range Transportation Plan, sets the stage for developing transportation policies, initiatives, and strategies that are necessary to achieve the goal, established in the [Maine Climate Action Plan](#), (December 1, 2004) of reducing CO<sub>2</sub> emissions to 10% below 1990 levels by 2020.

### **Safety**

Construction of the Caribou Connector will yield an overall reduction of 4.93 crashes per year given the Year 2030 traffic volumes and today's crash rates, as described below. There would be 22.80 crashes/year under the No-Build scenario. Construction of the Caribou Connector would result in an overall crash rate reduction to 17.87 crashes/year for the combination of the new connector and the affected existing roads, which would have reduced traffic volumes.

#### Caribou Connector:

Crash Rate = 67.14 crashes per Hundred Million Vehicle Miles (HMVM) traveled (Statewide average for Principal Arterial-Other Rural)

Bypass Length = 4.88 Miles (4.28 miles new Caribou Connector plus 0.6 miles improved existing roads)

Year 2030 traffic volume = 4,900 vehicles per day, or 0.0873 HMVM per year

Annual Number of Crashes = 5.86 crashes per year (67.14 x 0.0873)

#### Current Roads:

- 2030 No-Build:

Crash Rate = 340.36/HMVM (Actual, 2006-2008)

Existing Roads Length = 3.58 Miles

Year 2030 Traffic Volume = 5,200 VPD = 0.0670 HMVM per Year

Total Crashes = 22.80 Crashes/Year

- With Caribou Connector:

Crash Rate = 340.36/HMVM (Assumed Unchanged)

Existing Roads Length = 3.58 Miles

Year 2030 Traffic Volume = 2,700 VPD = 0.0353 HMVM

Total Crashes = 12.01 Crashes/Year

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<sup>7</sup> Final Draft of Connecting Maine (MaineDOT Long Range Plan), June 2009.

### Overall Change in Year 2030 Crashes

- No-Build = 22.80 Crashes/Year
- Build = Net Crash Reduction of 4.93 Crashes/Year (5.86+12.01-22.80)

Five High Crash Locations (HCLs) were originally identified in the SDEIS using MaineDOT data from 2002 to 2004. One of the HCLs has since been improved with construction of a modern roundabout, leaving four current HCLs. The five original HCLs, all located on Route 1, Route 89, and Route 161 are:

- Route 1 at Bennett Drive
- Route 1 at North Main Street (the HCL designation at this location does not reflect the current roundabout geometry, since this location was reconstructed with a modern Roundabout to mitigate the crashes).
- Route 89 at Bennett Drive/Pleasant Street
- Route 161 at Route 89
- Route 161 northwest of Main Street (Spring Street)

Construction of the Caribou Connector would reduce through traffic and heavy trucks at the remaining HCLs referenced above, thus reducing the number of crashes at those intersections.

### Job Creation and Economic Stimulus

The project would create 389 jobs through construction of the project from 2010 through 2012. Communities and organizations throughout Aroostook County actively promote and encourage economic development, including operating several existing industrial parks. By improving access and reducing travel times, the proposed highway improvements would enhance local economic development efforts to attract and retain businesses, making the region more competitive. The extent of this impact cannot be specifically quantified, other than in a general sense, through the results of the Regional Economic Models Incorporated (REMI) econometric modeling system. The REMI model is only available at the county level and cannot be applied to individual towns making up the Study Area. However, since the Study Area comprises approximately 94 percent of the population of Aroostook County, the results derived from the REMI model are believed to accurately reflect the economic impacts that will occur in the Study Area. The estimation of economic impacts of each corridor studied in the DEIS was undertaken using the REMI model. The REMI model used for this study is maintained and updated by the Center for Business and Economic Research (CBER) at the University of Southern Maine. The CBER REMI model actually consists of nine separate models of regions in Maine, which are then summed to derive the statewide model. Aroostook County is one of these nine regions. In order to estimate the economic impacts of a particular action using the REMI Model, a series of changes are made to a "baseline" economic forecast. In this case, the baseline REMI forecast represents the No-Action Alternative. The collective changes are referred to as a simulation and represent the direct effects or direct economic impacts associated with the scenario being evaluated. The model then quantifies the direct economic effects and calculates the multiplier effects or secondary economic impacts, which result from the simulation. The difference between the two forecasts (baseline and simulation) represents the total economic impacts that can be attributed to the changes, including multiplier effects. In this analysis, all changes to the baseline forecast were made to the Aroostook County model. The CBER REMI model then calculated the secondary economic impacts of the changes upon Aroostook County, as well as the 8 other regions. The economic impacts in all regions were then summed to determine the total resulting change in the Maine economy. Outputs for both Aroostook County and the State of Maine were generated. The results of the model for the proposed corridor alignments are presented in a report entitled [Economic Technical Report](#) (August 2005). The primary impact on the agricultural and forestry industries would be to reduce truck travel times and costs, thus reducing costs to producers and making the region more economically competitive, and would help to create new jobs. The construction of the Connector would have other, less tangible impacts on the economy of the

area. These types of impacts would be the result of a combination of building the Connector project with other reasonably foreseeable actions within Aroostook County that, in combination, would provide additional economic benefits. Completion of the corridor proposed in the Aroostook County Transportation Study would increase employment by 1,100 jobs and would increase population by 1,300 (2%)<sup>8</sup>. Employment increases would also increase the gross regional product (by \$45 million<sup>9</sup>). Indirect impacts include the “spin-off” or “multiplier” effects that occur when an economic activity leads to subsequent spending within the regional economy or which result in actions by others in response to the initial investment (for example, subsequent new development along or adjacent to the new corridors). In addition, the cost and travel time savings resulting from usage of the highway improvements also result in indirect economic impacts. Cumulative impacts are incremental effects that, when added to other past, present, and reasonably foreseeable future actions, may result in changes to the environment. A more detailed explanation of these impacts was included in the [DEIS \(page 4-46 through 4-50\) DEIS](#), (March 2002). It should be noted that this section discusses economic impacts to the region based on corridor improvements studies in the ACTS.

### **Direct Economic Impacts**

In the case of investments in new highways, several types of direct economic impacts have been observed. The following direct and secondary impacts were quantified and included in the model simulations conducted for this analysis.

- Population and Employment Effects;
- Income Effects;
- Retail Sales; and
- Gross Regional Product.

In addition to the above impacts that have been included in the REMI model simulations, there are two other direct impacts that can result from investments in highway improvements: purchase of roadside services and impacts on business attraction and retention.

### **REMI Simulation Results**

The combined direct effects of (a) changes in trucking costs, (b) increased tourism visitation, (c) investment in highway construction and maintenance, and (d) changes in commuting amenity values were all input to the REMI model, as part of the March 2002 DEIS. This section summarizes the forecast results.

The Aroostook County Transportation Study addresses a 30-year forecast period. All transportation effects associated with the proposed corridors have been projected to the year 2030. Therefore, the economic forecasts used in the screening process were also projected to 2030. Because of the lengthy time periods that may be required to complete the construction of the Corridors, as well as the time lag effects for economic impacts to occur, REMI model outputs for years prior to 2030 had limited usefulness and were not relied upon. Unless otherwise noted, all data reported in this section reflect the difference between each Corridor and the No-Action Alternative in the year 2030. The No-Action Alternative would not provide any economic benefits to the Study Area, under any of the economic measures listed below. Current economic trends would continue.

### **Population and Employment Effects**

The effects of the Build alternatives under consideration would increase Year 2030 population between 595 and 1,133 people, depending on which corridor is finally selected., as discussed in See [Section 2 – Potential Impacts](#), of the *Economic Technical Report* (August 2005) for additional discussion on labor force, employment, and unemployment rate trends. The 2030 population for the No-Action Alternative

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<sup>8</sup> The FEIS for the Caribou Connector updated the information on employment previously reported in the DEIS.

<sup>9</sup> The FEIS for the Caribou Connector updated the information on the gross regional product previously reported in the DEIS.

is predicted to be 79,500 persons. Future employment effects are similar to population, with a net increase by 2,030 of 595 to 1,133 jobs over the No-Action Alternative, depending on which corridor is selected and built. Impacts of the Build Corridors on the State of Maine as a whole are slightly larger and proportional to the impacts on Aroostook County, increasing statewide population by 1,285 and employment by 711. For all of the Corridors about 17 percent of the forecasted statewide population gains and 23 percent of statewide employment effects are projected to occur outside of Aroostook County as a result of improved transportation. In general, the majority of new jobs generated by each corridor are in services and retail trade. This is due to the tourism effects of the corridors and the fact that secondary economic impacts result in increased regional population and income growth, ultimately spent on retail goods and services.

### **Income Effects**

The effects of each Corridor on personal income (in contrast to the No-Action Alternative) are also discussed in Chapter 4 of the DEIS, (March 2002). Personal income is an aggregate measure for the entire region and is expressed in constant dollars to remove the effects of inflation during the forecast period. The REMI used as part of the SDEIS model indexes all constant or “real dollar” values to 1992. The No-Action Alternative predicts that disposable personal income in 2030 will total \$1.9 billion for Aroostook County. The Build alternatives yield a range from \$21.3 to \$24.5 million in 2030.

### **Retail Sales**

Potential impacts on Aroostook County retail sales in 2030 are also shown in Table 2-7, Page 2-9 in [Section 2 – Potential Impacts](#), of the *Economic Technical Report* (August 2005). Retail sales increases are largely a product of tourism demand and regional income growth, and are thus proportional to changes in personal income. The 2030 No-Action value for retail sales is projected at \$444 million. Retail sales are projected to increase over \$17 million for any of the build corridors. Because a substantial portion of retail sales impacts are related to tourism, additional sales impacts to the balance of the state are relatively small at only 12 percent of the total.

### **Gross Regional Product**

Gross Regional Product (GRP) measures the total annual value of goods and services produced by the residents of a given region. GRP is an indicator of the total economic impact on the Aroostook County economy, measured in dollar terms. Similar to income effects, the REMI model measures GRP impacts in 1992 constant dollars to minimize inflationary conditions. The effects on Aroostook County and Maine GRP (in 2035) are presented in [Section 2 – Potential Impacts](#), of the *Economic Technical Report* (August 2005). The No-Action Alternative is predicted to result in a GRP of \$2.6 billion in 2030. REMI forecasts that the Build alternatives will yield a net increase in GRP of approximately \$45 million compared to the No-Action Alternative. Impacts on Maine GRP are about 25 percent higher than those forecast for Aroostook County.

### **Economic Distress and Opportunities**

The Department evaluated the economic distressed criteria as part of the first round of Tiger Grant process. A more detailed analysis of the economically distressed area discussion is shown on the MaineDOT ARRA website and is discussed in [The Economic Considerations for Transportation Projects Selected for the American Recovery and Reinvestment Act of 2009 \(ARRA.\)](#)

For the purpose of this application ARRA requires

**“[t]hat in selecting projects to be carried out with funds apportioned under this heading, priority shall be given to projects that are projected for completion within a 3-year time frame, and are located in economically distressed areas as defined by section 301 of the Public Works and Economic Development Act of 1965, as amended (42 U.S.C. 3161).”**(Page 92)

Economically distressed areas are determined using three criteria, only one of which needs to be met for designation. The three criteria are:

- low per capita income defined as 80% or less of the national average; or
- unemployment rate above the national average defined as an unemployment rate that is 1% above the national average for the most recent 24-month period for which data are available; or
- unemployment or economic-adjustment problems defined as an area that the (U.S.) Secretary (of Health and Human Services) determines has experienced or is about to experience a special need arising from actual or threatened severe unemployment or economic-adjustment problems resulting from severe short-term or long-term changes in economic conditions.

For purposes of its analysis, MaineDOT was limited to the comparative evaluations of the per capita income and the unemployment rate, since no areas have been designated by the Secretary of Health and Human Services.

For comparing per capita income, MaineDOT evaluated regional economic data from the U.S. Department of Commerce Bureau of Economic Analysis (BEA). Much of the most recent data at BEA is aggregated to the county level. When compared to the national per capita income, eight Maine counties did not meet the definition in this category, exceeding the “80% of national per capita income” criterion. This was somewhat surprising based on knowledge of conditions within large areas of these counties. Drilling down into the data and looking at the community as the geopolitical entity to be used in the comparison led to data contained in the U.S. Census for 2000, the most recent document detailing per capita income at the community-based level<sup>10</sup>. Emerging from that analysis was the realization that using the aggregated county-level data resulted in a false positive due to results being skewed by a few areas of wealth that pull the county per capita income above the threshold level, or 80% of national per capita income.

The federal regulations cited earlier in this paper also address “Political boundaries of areas,” but do not restrict evaluation to any one specific political subdivision. Thus, the evaluator is free to use large subdivisions, such as state, county or congressional districts, or smaller subdivisions such as labor market areas, minor civil divisions, and even voting districts. However, results are more credible if a consistent set of data are used throughout the evaluation rather than achieving a result by mixing and matching data. MaineDOT used data from the U.S. Census for 2000, rather than more recent aggregated data, since it more realistically represented economic conditions throughout the state, and evaluated conditions at a sub-county level.

Using this data for Caribou leads to a determination that Caribou meets the criteria as an economically distressed area. See [ARRA 2009 Projects and Economically Distressed Areas Map](#) showing the first round ARRA projects and the economic distressed areas for Maine. Also see [Selected Income Data](#) for Caribou, Page 11 of 13.

### **Short-Term Job Creation**

Jobs creation and benefit cost analysis were evaluated using the “Transportation Economic Development Impact System” (TREDIS). TREDIS enables transportation planners and consultants to conduct economic development impact evaluation and benefit-cost analysis for transportation investments. It is applicable for all modes -- highway, bus, rail, aviation and marine projects, as well as multi-modal projects. It is also applicable for both freight and passenger transportation projects, and accounts for rural accessibility as well as urban congestion factors. The system also distinguishes generative and distributive effects of transportation on regional economic growth. This is done using

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<sup>10</sup> William Chamberlain of the Center for Workforce Research and Information at the Maine Department of Labor was asked to provide the most recent data available at the community level on per capita income. The 2000 Census was the reference document as the latest source for that data.

sophisticated economic geography tools that integrate GIS with the Leadership Evaluation and Analysis Program economic analysis system to account for threshold effects associated with changes in service areas, market access and travel times.

Construction activity is considered a cost yet it also stimulates local economic activity. This occurs because the construction requires local supplies and hires local workers that, in turn, spend their wages in the area. This activity occurs over three years—2010 through 2012—therefore it is a short-term boost to the local economy providing opportunity for local workers. The economic impacts in Table 3 show that an average of 130 jobs per year would be supported by construction of the bypass.

**Table 3 Short-term Job Impacts of Caribou Bypass**

Year	Jobs
2010	126
2011	126
2012	137

Source: TREDIS, inputs from MDOT and EDR Group.

### **Long-Term Job Creation**

After the Caribou Connector is completed, the stimulative effects of construction wane and the long-term economic adjustments take hold. In this case, since the project is diverting traffic from an existing route the long-term impacts are minimal. This lack of magnitude is typical for a bypass project and, in some cases, may be a negative impact if bypassed businesses rely heavily on pass-by traffic. However, this project will affect the access to delivery markets and consumers-- especially by shortening the distance to the nearby US-Canada border crossing. The time savings (and by extension cost savings) to businesses that accrue should go toward increased production and, therefore, increased employment. The operations and maintenance of the road will also support employment throughout its use. The long-term job impacts are shown below in Table 4. On average, 12 local jobs are created each year through 2030. Creation of 218 new jobs by 2030 will help reverse the overall regional economic decline that began in the early part of this decade. See Section 1 - Affected Environment, of the [Economic Technical Report](#) (August 2005) for additional discussion on labor force, employment, and unemployment rate trends.

**Table 4 Long-term Impacts of Caribou Bypass**

Year	Jobs	Year	Jobs
2013	11	2022	12
2014	11	2023	12
2015	11	2024	13
2016	11	2025	13
2017	11	2026	13
2018	11	2027	13
2019	12	2028	13
2020	12	2029	13
2021	12	2030	14

Source: TREDIS, inputs from MDOT and EDR Group.

### **Benefit-Cost Analysis**

This section provides a summary of the benefits and costs of the Caribou Bypass. The costs of the project were taken from estimates by Maine DOT including construction costs, property acquisition and operations and maintenance costs (based on an average of \$19,000 per two-lane mile/year in Aroostook County). The benefits were calculated based on the projected shifts in travel volume (VMT and VHT in 2030) which determine the benefits from operating costs, value-of-time savings, freight logistics

savings, reliability and safety. Both benefits and costs are presented in terms of present value from 2012 through 2030 using a discount rate of 7%.

### Costs

Construction of the Caribou Bypass will cost a total of \$31.7 million over the course of two years (\$6.7 million of this amount is towards property acquisition). The project also will cost \$19,000 per year in additional operations and maintenance compared to the existing highway. Therefore, the combined construction and maintenance costs for the useful life of the bypass (2012 through 2030) will total over \$32 million.

Table 5 below shows the present value of costs for the project which include the discounted construction costs (\$27.7 million), total operations and maintenance costs (\$200,000) and residual value (-\$500,000) which represents the remaining value of the road after depreciation<sup>11</sup>. In total, the present value of costs is \$27.4 million.

**Table 5 Costs of Caribou Bypass**

<b>Present Value of Cost Stream (\$mil. 2008 dollars)</b>			
<b>Startup Costs</b>	<b>Annual O&amp;M Costs</b>	<b>Residual Value</b>	<b>Net Total Costs</b>
27.7	0.2	-0.5	27.4

Source: TREDIS, inputs from MaineDOT and EDR Group.

### Benefits

The bypass diverts traffic away from downtown Caribou which adds vehicle miles of travel (VMT) to the journey but also saves time and improves safety and reliability. On average, each trip will save two minutes by using the bypass in 2030. The savings of time is reflected in the changes in vehicle hours of travel (VHT). This time savings can be quantified based on the purpose of each trip (on-the-clock, commuting, personal, and freight). Freight trips are especially sensitive to time savings since minutes of delay can have drastic effects for other transportation connections (e.g. marine ports). On-the-clock travel time is more valuable than commuting and personal time since there are fewer direct business costs involved in the latter two categories.

The categories of benefits are shown in Table 6 and explained as follows.

**Table 6 Benefits of Caribou Bypass**

<b>Present Value of Cost Stream (\$mil. 2008 dollars)</b>						
<b>Mode</b>	<b>Vehicle Operating Costs</b>	<b>Time and Reliability Costs</b>	<b>Value of Personal Time</b>	<b>Safety</b>	<b>Shipper/Logistics Cost</b>	<b>Net Total Benefits</b>
Car/Lt. Truck	-2.6	14.4	15.2	2.0	0	29.0
Truck Freight	-0.3	4.8	0	0.2	1.5	6.2
<b>All Modes</b>	<b>-2.9</b>	<b>19.2</b>	<b>15.2</b>	<b>2.2</b>	<b>1.5</b>	<b>35.2</b>

Source: TREDIS, inputs from MDOT and EDR Group.

**Vehicle Operating Costs** – Since the bypass causes travelers to drive a longer distance (1.3 miles) than the existing route, this is slightly more costly to the operators of the vehicles. Therefore, this savings is negative (-\$2.9 million)--otherwise known as a “disbenefit.”

<sup>11</sup> This number is negative since the road will still be of value after 2030. Therefore, the remaining value of the road after 2030 slightly offsets the costs of the project.

**Time and Reliability Savings** - This is comprised of the cost savings for vehicles used for business for various purposes (on-the-clock, commuting, and freight trucks) that save time by using the bypass. This is the largest benefit for the project at \$19.2 million.

**Value of Personal Time** – This represents the value of time saved on commuting and personal trips by using the bypass. The total benefit is \$15.2 million.

**Safety Costs** – The rate of accidents is predicted to decrease significantly (52%) with the building of the bypass. This rate decrease results in substantial savings in terms of property damage and personal injuries—a total savings of \$2.2 million.

**Shipper and Logistics Costs** – This is a “non-traditional” benefit that represents the savings accruing to freight handlers and warehouses from faster freight delivery. This benefit is valued at \$1.5 million.

The total benefits of the bypass come to \$35.2 million. This yields a net present value (benefits minus costs) of \$7.6 million and a benefit-cost ratio of 1.29.

### **Project Schedule**

It is anticipated that the Caribou Connector project can be ready to proceed rapidly upon receipt of a TIGER Discretionary Grant. The schedule outlined below provides information on a two- phased approach in order to expedite project delivery and to reduce impacts to an adjacent business in the process of expanding. Phase 1 would construct 1.4 miles of the northern section of the Caribou Connector from Route 161 to Route 1 about 0.6 miles north of the roundabout by Cary Medical Center while Phase II would construct the 2.9 mile long southern section from Route 1 to Route 1/Route 89 in the vicinity of High Street.

#### *Phase 1 (Northern Section): Route 161 to Route 1*

- September 2009 - Complete Survey
- September 2009 - Begin design
- November 2009 - Identify R/W Needs and begin appraisals
- January 2010 - Finish Appraisals
- January 2010 - Proposed ROD (NEPA Complete), After receiving ROD, begin negotiations and relocation process
- July 2010- Condemn R/W
- August 2010 - Advertise for Construction
- September 2010 – Begin Construction
- November 2011 - Construction Complete

#### *Phase 2 (Southern Section): Route 1 to Routes 1/89 in the vicinity of High Street.*

- September 2009 -Begin development of Design Build (DB) Request for Qualifications (RFQ)
- December 2009 - Post RFQ
- February 2010 -RFQ Due to Department
- March -April 2010 - RFQ review and Scoring
- April 2010 - RFQ Shortlist Identified
- May 2010 - Advertise Request for Proposals (RFP) to shortlist
- July 2010 – RFP Due to Department
- August – October 2010- RFP Review and Scoring
- October 2010 – DB Team Under Contract
- October 2010 – Construction Begin

- July 2012 – Construction Complete

Phase 1 will be accomplished through conventional design-bid-build while Phase 2 will utilize a Design-Build process to accelerate project delivery. MaineDOT has successfully used this innovative approach on two major projects, the Sagadahoc Bridge and the award-winning Penobscot Narrows Bridge and Observatory.

### **Environmental Approvals and Required Permits**

The Caribou Route 1-161 Connector will require the completion of the National Environmental Policy Act (NEPA) process with the subsequent distribution of a Record of Decision (ROD); and a USACE Section 404 Permit under the Clean Water Act. In order to coordinate the USACE's Section 404 permitting process with the NEPA process, MaineDOT submitted to the USACE a Phase I Avoidance Technical Memorandum (June 2007) and a Phase II Permit Application (December 2007) in accordance with the Highway Methodology requirements. The Highway Methodology is the process the New England Division of the USACE uses to coordinate the Section 404 review process with the NEPA process. In a letter dated September 18, 2008, the USACE identified Alignment Option 4B (Caribou Connector) as the [Least Environmentally Damaging Practicable Alternative \(LEDPA\)](#). On August 31, 2009 MaineDOT submitted the Final Environmental Impact Statement describing Alternative 4B (Caribou Connector) as the Preferred Alternative (Proposed Action) to the Federal Highway Administration (FHWA) Maine Division for the legal sufficiency review by the FHWA Office of General Counsel. On September 10<sup>th</sup>, 2009 the FHWA Maine Division office forwarded the FEIS to the FHWA Office of General Council for the legal sufficiency review. Following the Legal Sufficiency process a Notice of Availability (NOA) will be filed with USEPA for publication in the Federal Register announcing FEIS availability and distribution to the public and to the state and federal agencies that submitted substantive comments on the SDEIS. A Record of Decision ROD will be prepared and published after the expiration of the Council on Environmental Quality 30-day waiting period between the FEIS Notice of Availability and the publication of the ROD. Prior to construction of the Preferred Alternative MaineDOT will apply for and anticipates receipt of all federal and state permits and approvals required for the Caribou Connector ([See SDEIS, page S-17 and page S-18](#) for applicable federal statutes and regulations and Table S-4 for the required federal and state permit and approvals).

MaineDOT anticipates receipt of all environmental approvals necessary for the project to proceed to construction on the timeline specified in the project schedule, including satisfaction of all Federal, State and local requirements and completion of the National Environmental Policy Act process.

### **Legislative Approvals**

The Caribou Connector is one of several segments that comprise the proposed ACTS Aroostook North-South Highway. The North-South Highway will connect I-95 in southern Aroostook County to the Saint John Valley in northern Aroostook County, which also borders Canada. As previously discussed earlier in this application, MaineDOT is seeking to advance 2 of the 11 segments, the Caribou Connector and the Presque Isle Bypass into final design and construction. MaineDOT received final USACE approval for the Caribou Connector in September 2008 and expects to receive approval from the USACE for the Presque Isle Bypass segment in the next few months. On March 9<sup>th</sup>, 2009, Governor John E. Baldacci signed a [Memorandum of Agreement](#) that directed the MaineDOT to advance the Caribou Connector project so that construction on the proposed project could begin in 2010. A legislative resolve, [LR 954](#) was signed on June 19<sup>th</sup>, 2009 that directed the MaineDOT to complete the Aroostook North-South highway project (ACTS). The resolve indicates that the Department has \$40 million available for construction of the ACTS. The resolve directs the Department to make the completion of the Caribou Connector and the Presque Isle Bypass segments a priority, with construction of the Caribou segment to begin in 2010 and the Presque Isle segment to begin as soon as the approval is received by the USACE. The resolve identifies that funding is insufficient and directs the Department to seek all available

resources to complete the corridor. Estimates of the construction costs for the Caribou Connector and the Presque Isle Bypass are approximately \$132 million (2008 dollars). Total cost to complete the entire ACTS corridor is estimated at \$660 million.

### **Support for the Project**

The project has regional support. Many of the Aroostook County towns support the development of the new North-South transportation corridor being studied in the ACTS and have been working together in partnership with all of the towns in the study area. This support is reflected in the many hours of municipal official representation in the public participation process for the ACTS and the Caribou Connector project. Commissioner Cole has received letters of support from the following in support of the Caribou Connector project.

#### List of Support Letters

[Governor John E. Baldacci Support Letter](#)

[City of Presque Isle Support Letter](#)

[Town of St. Agatha Support Letter](#)

[Aroostook Municipal Association Support Letter](#)

[Northern Maine Development Commission Support Letter](#)

[LEADers \(Leaders Encouraging Aroostook Development\) Support Letter](#)

[BMW Reality Support Letter](#)

[Aroostook County Rail Users Support Letter](#)

[Aroostook County Administrator Support Letter](#)

Additionally, there is a resolution passed by the City of Caribou supporting development of the Caribou Connector (Alignment 4B).

[City of Caribou Resolution](#)

### **State and Regional Planning**

The Final Draft of *Connecting Maine: Planning Our Transportation Future Statewide Long-Range Transportation Plan 2008-2030* calls for the construction of the Caribou Connector and completion of the *Aroostook County Transportation Study*.

The Caribou Connector falls within the boundary of the planning area of the Northern Maine Development Commission (NMDC). NMDC identified the following planning initiative as being regionally significant and their number one planning priority. The priority order as determined by the NMDC was based upon the Modified TELUS<sup>12</sup> scoring model provided by MaineDOT.

“Improve North/ South mobility to include completion of projects listed in the Aroostook County Transportation Study (Environmental Impact Statement). The most specific alignments are located in the central Aroostook area with no specific north-south corridor from the St. John Valley to I-95 being identified at this time. Projects listed include by-passes around the downtown Presque Isle and Caribou, corridor management planning on US Route 1, and potential new intersections on the Maysville Road.”

The NMDC planning initiatives were identified prior to having a specific alignment determination being made for the Caribou Connector.

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<sup>12</sup> TELUS = Transportation, Economic and Land Use System, developed by the New Jersey Institute of Technology for FHWA. MaineDOT and its partner Regional Planning Organizations and Metropolitan Planning Organizations used aspects of TELUS to rank transportation alternatives irrespective of transportation mode to prioritize candidate projects.

## **Local Planning**

The Caribou Connector was reviewed to evaluate its compatibility with local comprehensive plans of the municipalities in which it is located. The Connector is entirely within Caribou, and would support the City's transportation and economic goals. The Caribou Comprehensive plan outlines six transportation policies. Three of which are relevant to the ACTS:

- Identify, assess, and preserve the carrying capacity, and promote the construction, reconstruction, and maintenance of roads and bridges.
- Encourage programs that will minimize air and water pollution and promote safety for transportation systems.
- Increase tourism through safe, user-friendly transportation facilities and services.

The connector would help support these policies in several ways. By providing a connection directly from Route 161 to Route 1 for north-south traffic that bypasses the downtown area, it would help reduce traffic, particularly truck traffic, in the downtown, thereby improving traffic flow on the downtown roads. It would improve safety by reducing the mix of through traffic, particularly trucks, from local traffic, by reducing through traffic on Route 1 at the entrance to the Cary Medical Center, and by improving the intersection with Bennett Drive. These improvements preserve the carrying capacity of existing roads, promote safety, and minimize air pollution by reducing traffic congestion. Construction of the Connector would also help to support Caribou's economic development goals by improving access to its Pine Tree Zone, which includes industrial and commercial districts north of the Cary Medical Center.

The City of Caribou has identified the construction of the Caribou Connector as an essential component to the revitalization of the downtown area. Strategies number 24 and 25 on page 11 of the [2004 Caribou Comprehensive Plan](#) identify transportation strategies related to the Connector.

24. Explore ways to control heavy through traffic from Routes 1 and 161 on Sweden and High Streets and out of the downtown area.

25. City officials will review, once a final corridor from the Aroostook County Transportation Study is chosen, the impact to the city and develop, with the assistance of MaineDOT, a corridor management plan that is beneficial to both the City and MaineDOT.<sup>13</sup>

## **Equal Opportunity**

The Caribou Connector project would promote the creation of job opportunities for low-income workers. Order 12898, Federal Actions to Address Environmental Justice in Minority and Low Income Populations, requires agencies to identify and address potential disproportionate high and adverse impacts on minority and low income populations. The construction of the Caribou Connector would have a positive impact on Caribou's disadvantaged populations by providing additional employment opportunities and reducing the costs of commuting. The distribution of low income and minorities in Aroostook County is widespread among the individual communities and rural areas; therefore there will be no neighborhood disruption or other action that will specifically impact these groups. Census data for income and poverty status at the block group level were analyzed for each of the Alignment Options for the Caribou Connector and no substantial variation from county-wide or state-wide trends were seen.

## **Opportunities for Small and Disadvantaged Business Enterprises**

Maine DOT has implemented an annual race-neutral DBE goal for all federally-assisted projects pursuant to Federal guidelines, providing maximum practicable opportunities for small businesses and

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<sup>13</sup> Source: January 12, 2004 Caribou Comprehensive Plan

disadvantaged business enterprises. This goal is defined on an annual basis and this project is subject to that goal.

### **Use of Community-Based Organizations Connecting Disadvantaged Workers**

The MaineDOT works with community-based organizations such as Maine Centers for Women Work & Community, Women Unlimited, Inc, Eastern Maine Development Corp., Jobs for Maine Graduates and others to ensure that this and all federally funded projects are providing Equal Employment Opportunity/Affirmative Action to women, minorities & disadvantaged workers.

### **Support of Entities Having a Sound Track Record on Labor Practices**

In order to be pre-qualified to work on federally-assisted highway/bridge projects, all contractors must provide MaineDOT with their company policies (Harassment, Equal Employment Opportunity/Affirmative Action, non-discrimination, workforce reports, etc.) to ensure that all contractors comply with non-discrimination and equal opportunity requirements. The MaineDOT Office of Civil Rights will conduct contractor compliance reviews which include all Equal Employment Opportunity/Affirmative Action documentation.

### **Best Practices Consistent with Civil Rights and Equal Opportunity Laws**

The Department has implemented best practices consistent with civil rights and equal opportunity laws. Pursuant to FHWA - 1273 "Required Contract Provisions Federal-Aid Construction Contracts" The Maine Department of Transportation requires that all prime contractors comply with Federal Title IV requirements, and primes must ensure that all subcontractors likewise comply. This project will require that the contractor work with MaineDOT to carry out all obligations to Federal and State Requirements and are subject to Contractor Compliance reviews. MaineDOT will provide the awarded contractor(s) with the MaineDOT Contract Compliance Review Process manual and direct the contractor(s) to MaineDOT online manuals which can be found at <http://www.maine.gov/mdot/disadvantaged-business-enterprises/dbe-home.php>

### **Promotion of Creation of Job Opportunities for Low-Income Workers**

See discussion of Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low Income Populations in the Equal Opportunity section on the previous page for discussion of job opportunities for low income workers.

### **Innovation**

As previously discussed in the Project Schedule section on page 19, the Caribou Connector project is being split into two phases to accommodate a planned expansion of a large employer adjacent to the Connector alignment. Phase 1, the northerly section, will be completed using traditional design-bid-build practices to advertise the project, since it will be ready for advertisement in advance of the planned expansion. In order to accommodate the needs of the large employer, phase 2, the southerly section will be built after completion of the first phase to allow uninterrupted access and will incorporate a design-build approach.

### **Partnership**

Many of the Aroostook County towns will be affected by construction of the ACTS and have been working together in partnership with all of the towns in the study area.. This support is reflected in the many hours of municipal official representation in the public participation process for the ACTS and the Caribou Connector project. The public support is also reflected in the letters submitted to Commissioner Cole referenced in the Legislative Approvals section on page 20.