

APPENDIX F

Project PowerPoint Presentation




Western Alaska Access Planning Study (WAAPS)



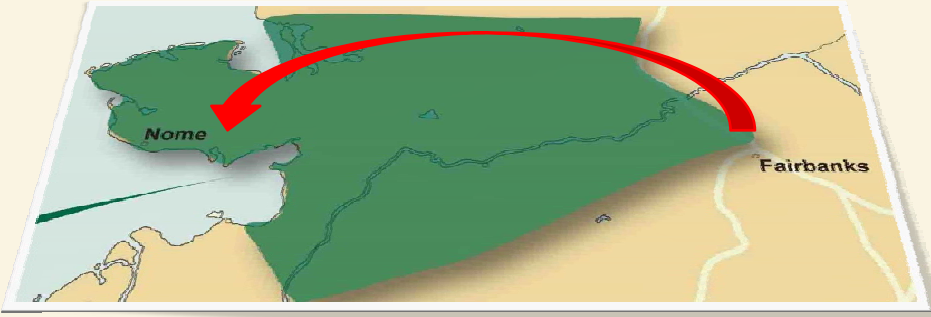
Alaska Department
of Transportation &
Public Facilities

www.westernalaskaaccess.com



WAAPS Project Purpose

- Connect State's existing highway system with Seward Peninsula highways
- Facilitate regional community and resource development



Nome Fairbanks



WAAPS Project Overview

- 3 routes identified/evaluated – routes 1, 2a, 2b, 3
- Routing selection mostly considered:
 - Access to communities and minerals
 - Avoiding federally protected lands
 - Minimizing crossings through environmentally sensitive areas – caribou, wetlands, threatened and endangered species, rivers/streams
 - Avoiding steep terrain
- Recommended 2b – **Yukon River Corridor**
- Report published January, 2010



Proposed Yukon River Corridor





WAAPS Project Schedule

➤ March 2009 – January 2010

- Evaluated route options 1, 2a, 2b, 3



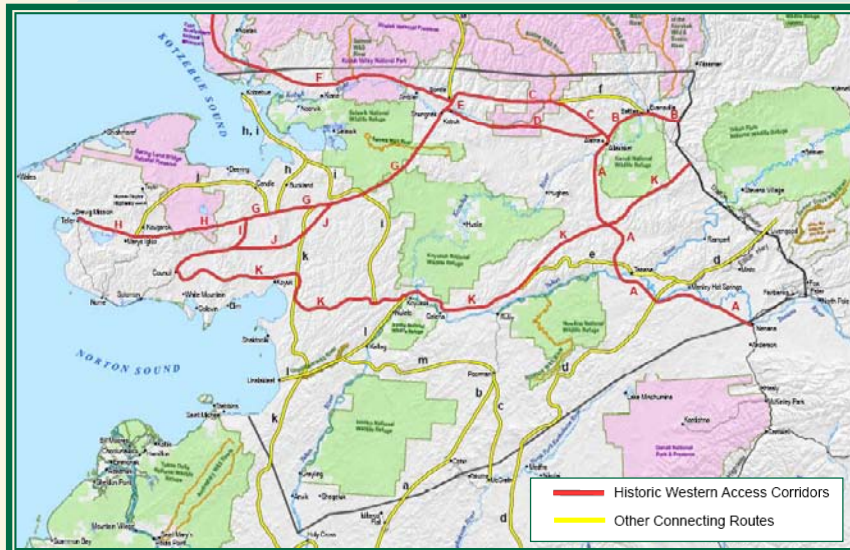
➤ September 2010 – May 2011



- Conduct public/stakeholder meetings on Yukon River Corridor and other routes considered
- Evaluate staging, construction methods, next steps

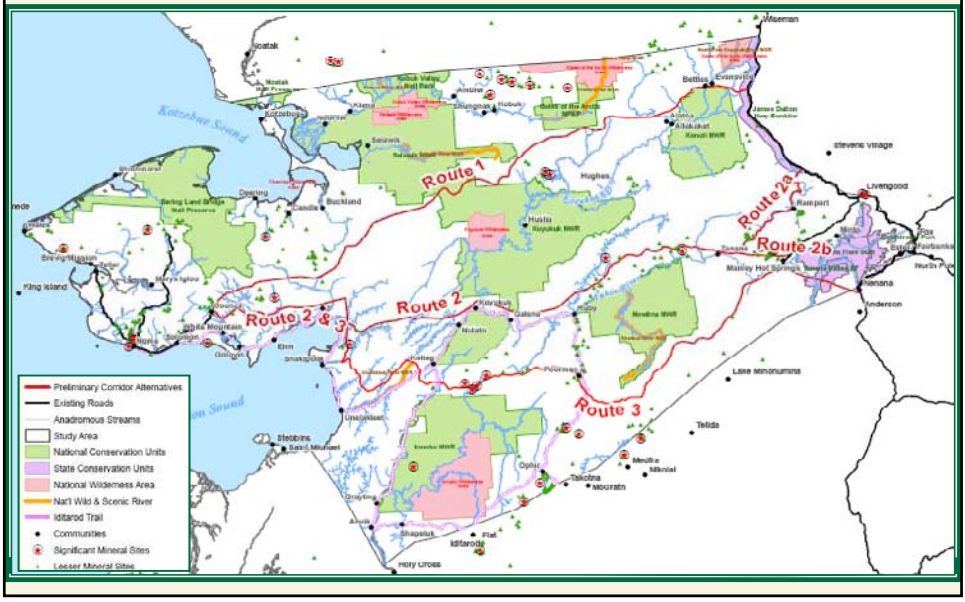


Historical Routes from Past Studies





Preliminary Corridor Alternatives

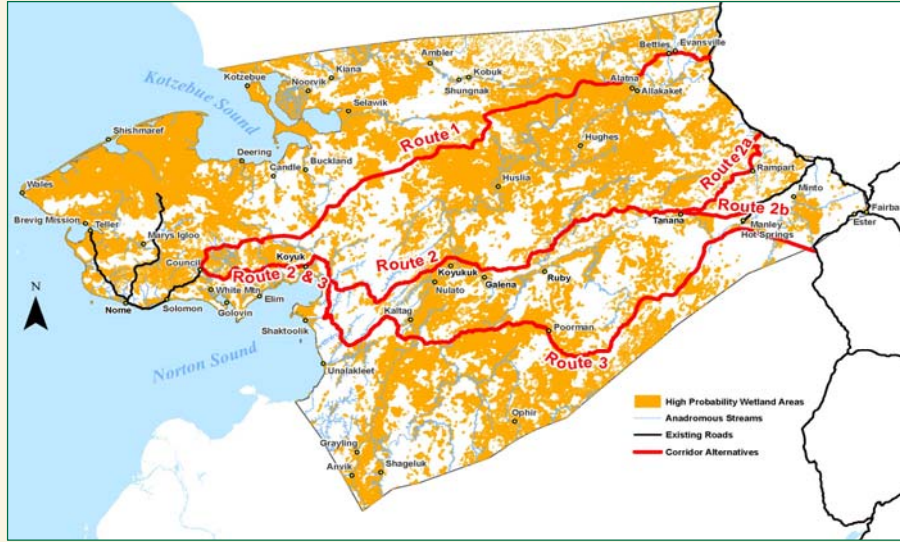


Corridor Evaluation Criteria

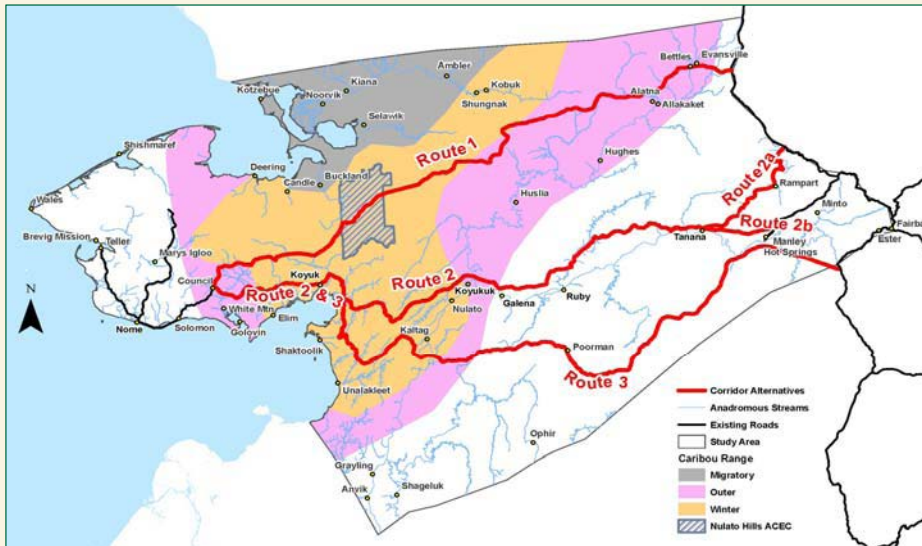
- Community Access
- Mineral Resource Access
- Land Management and Environment
- Engineering and Costs

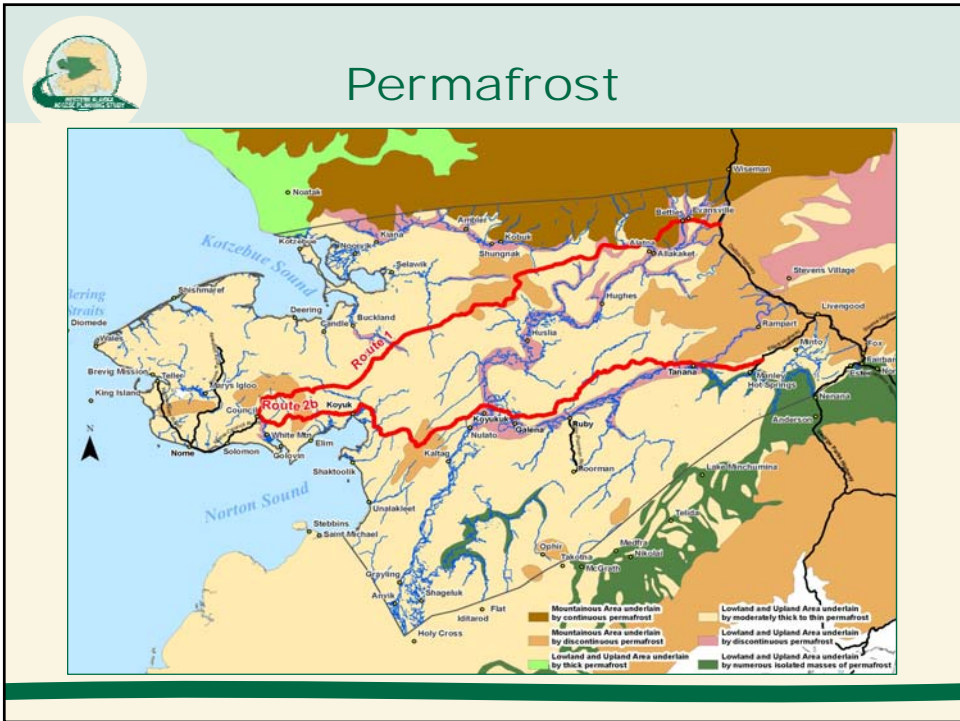
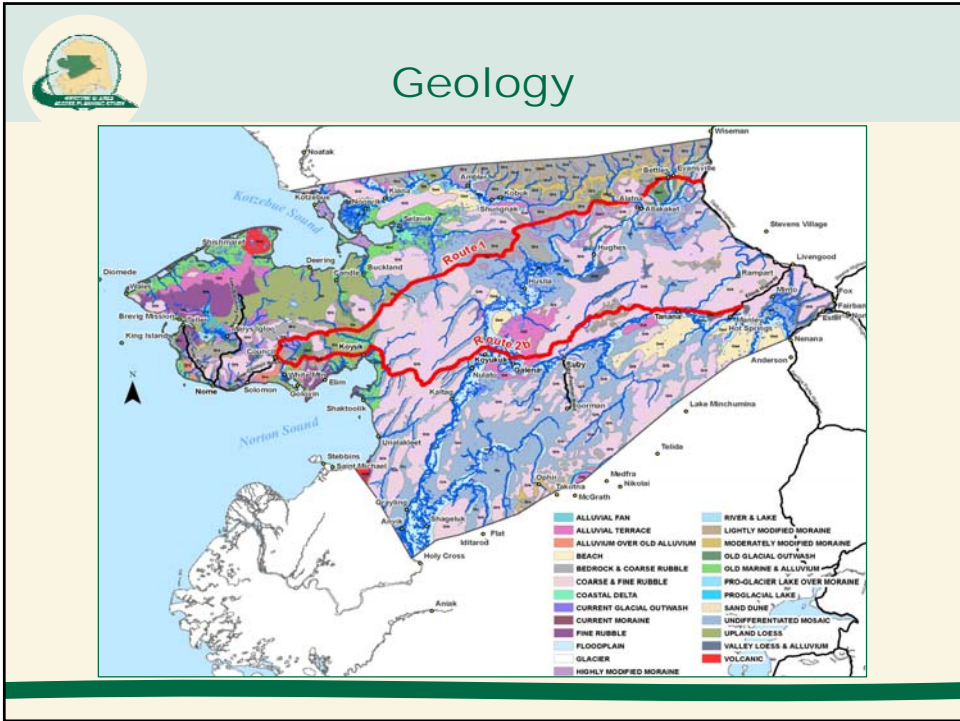


Wetlands



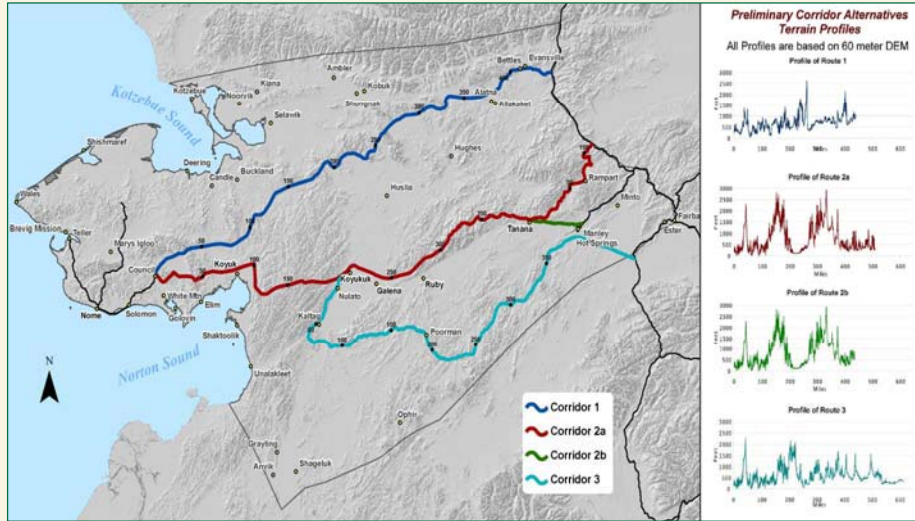
Caribou







Terrain



Corridor Evaluation Results

Category	Route 1	Route 2a	Route 2b	Route 3
Communities	—	+	+	0
Resources	+	0	0	0
Land Ownership / Management	—	0	0	0
Environment	0	0	0	—
Engineering & Costs	+	—	0	—

+ = data showed clear advantage of alternative

0 = data showed no clear advantage or disadvantage relative to other alternatives

— = data showed clear disadvantage of alternative



Planning Level Cost Estimates

Route	Route 1	Route 2a	Route 2b – Yukon River Corridor	Route 3
Proposed Road Length	450 Miles	510 Miles	500 Miles	620 Miles
Distance between Fairbanks and Nome along proposed corridor	713 Miles	709 Miles	665 Miles	742 Miles
Construction Cost	\$2.1 Billion	\$2.9 Billion	\$2.7 Billion	\$3.2 Billion
Annual M&O Costs	\$14 Million	\$12 Million	\$15 Million	\$15 Million



Yukon River Corridor Economic & Social Benefits

- Studied savings to:
 - Communities of **Tanana, Ruby, Galena, Koyukuk, Koyuk, and Nome**
 - Mines at **Ambler, Donlin Creek, Illinois Creek, and 10 large placer mines**
- Identified benefits from road versus other transportation modes





Economic & Social Benefits Lower Passenger Transportation Costs

- Passenger travel between villages and Nome/Fairbanks
- **Sample Savings** - *Koyuk to Nome \$180 cost savings round trip compared to flying (assumes 2 people in vehicle).*
- Cost savings greater for longer trips with more passengers



Economic & Social Benefits Lower Energy & Power Infrastructure Costs

- Conversion from barged diesel to trucked propane
- Estimated **average per capita savings of \$2,700 per year** for Tanana, Ruby, Galena, Koyukuk, Koyuk, and Nome
- **Annual cost savings of \$13.5 million** for these communities alone





Economic & Social Benefits

Lower Mining/Resource Development Costs

- Hauling freight and fuel to mine sites and mineral concentrate from mine site
- **Transportation cost savings of \$120 million/year**
- Road would **reduce costs of extending fuel or power lines by 30% - 50%**, a benefit to mines and communities.



Economic & Social Benefits

Increase in Jobs, Income, Access to Services

- Mining employment – **1,590 jobs** = 1 / 4 of region's workforce
- Average **mining wage of \$7,000/month**
- Potential jobs and income in other sectors such as tourism
- Road access for medical transport, disaster relief, waste removal, construction materials, and inter-community visits
- Community sustainability/affordability





Economic & Social Concerns

- Potential positive and negative effects on:
 - Village lifestyle
 - Environment
 - Subsistence resources
 - Village population levels



Community Concerns on Subsistence and Rural Lifestyles

- Non-Resident hunters
- Roadway routed through:
 - *Sensitive and traditional hunting areas*
 - *Winter caribou ranges*
 - *Native owned lands*
- Lack of enforcement on hunting regulations.
- Changes to traditional and subsistence lifestyles and diets.





Current WAAPS Study Efforts

- Public meetings in most villages in the region
 - October 2010 to March 2011
- Questionnaire
 - Website and paper copies
- Project phasing – construction methods and next steps being defined
- Report to DOT&PF, Governor and Legislature by mid-2011



Sample of Public Comments to Date

- Meetings held in Nome, Elim, White Mountain, Koyuk, Shaktoolik, Unalakleet, Tanana, Nenana, Nulato, Kaltag, Koyukuk, Galena, Hughes, Ambler, Shungnak, Kobuk, Manley Hot Springs, Golovin, Ruby, Huslia, Bettles, Allakaket, Fairbanks, Anchorage, Kotzebue, Kiana, Buckland, Noorvik, Selawik, Deering and Council.





Sample of Public Comments to Date

- Primary **Advantages** of Western Alaska Access Corridor
 - “lower cost of living like food, fuel, and travel” **White Mountain**
 - “opportunity for a wide range of economic opportunities for Alaskan communities, including development of tourism across the State” **Shaktoolik**
 - “open opportunities for renewable resources pertaining to energy; increased economic opportunities for tourism” **Unalakleet**
 - “lowering costs for travel and shipping freight” **Elim**
 - “easier extraction of resources” **Nome**



Sample of Public Comments to Date

- Primary **Disadvantages** of Western Alaska Access Corridor
 - “cost of upkeep and safety are unsustainable” **Fairbanks**
 - “Bad effects of mining” **Galena**
 - “huge impact on the remote way of living with the land and river” **Tanana**
 - “I would prefer a more restricted transportation system, such as a railroad – the initial higher cost is worth keeping people off the land” **White Mountain**





Sample of Public Comments to Date

- Primary **Disadvantages** of Western Alaska Access Corridor
 - *“subsistence, drugs & alcohol, accidents”* **Koyuk**
 - *“disruption of land animal migration routes and/or calving grounds”* **Shaktoolik**
 - *“brings rapid development to a culture that is easily damaged by it”* **Nome**
 - *“contamination, pollution, overall bad effect on the environment”* **Hughes**
 - *“criminals may use the corridor as an escape”* **Nulato**
 - *“influx of hunters with more money than sense”* **Nenana**



Sample of Public Comments to Date

- Primary **Advantages** of Western Alaska Access Corridor
 - *“Lower cost of living might entice some families to move back to rural Alaska.”* **Galena**
 - *“I think young people can see that there are job opportunities out there”* **Koyuk**
 - *“more access to modern activity”* **Nulato**
 - *“access to excellent agricultural land as well as minerals”* **Nenana**
 - *“economic relief to villages”* **Manley Hot Springs**





Western Alaska Access Planning Study Project Contacts

www.westernalaskaaccess.com

Alexa Greene

WAAPS Project Manager
Northern Region
AK Department of Transportation
2301 Peger Road
Fairbanks, AK 99709
Ph: 907-451-2388
Fax: 907-451-2313
Email: alexa.greene@alaska.gov

Tom Middendorf

DOWL HKM
4041 B Street
Anchorage, AK 99503
Ph: 907-562-2000
Fax: 907-563-3953
Email:
tmiddendorf@dowlhkm.com



Thank You for Being Here!





ADDITIONAL SLIDES

FOR INFORMATIONAL PURPOSES ONLY



Preliminary Screening Criteria

➤ Types of data collected and analyzed:

Communities	Mineral Resources	Environment
Number of communities	Estimated gross value	Caribou and T&E habitat
Population	Number of mineral occurrences	Wetlands
Distance from communities to corridor	Distance from mineral occurrences to corridor	Anadromous stream & total stream crossings
Distance from Fairbanks to Nome		Subsistence
		Cultural / historical sites
Land Ownership		Engineering & Costs
Wilderness Areas	Federal-owned Lands	Length of corridor
Wild & Scenic Rivers	Native-owned Lands	Construction costs
National Parks, Preserves, Monuments, Wildlife Refuges	State-owned Lands	Maintenance & Operations (M&O) costs



Preliminary Alternatives Screening

Route 1	
Advantages	Challenges
Access to northern communities in study area	Crosses through Koyukuk National Wildlife Refuge
Proximity to rich Ambler mining district	Crosses through Nulato Hills Area of Critical Environmental Concern
Fewest topographic challenges	Start Point is furthest from Fairbanks
Least cost to construct and maintain	

Route 2a	
Advantages	Challenges
Access to Yukon River communities and resources	Significantly less mineral value in proximity to route as compared to Route 1
No new Yukon River crossing required	Higher construction cost than Routes 1 and 2b
Potential intermodal transportation benefits (Yukon barges)	Topography (steeper grades, mountainous terrain) than Route 1
	Longer travel distance between Fairbanks and Nome than Route 2b



Preliminary Alternatives Screening

Route 2b - Yukon River Corridor	
Advantages	Challenges
Access to Yukon River communities and resources – greatest population served	Significantly less mineral value in proximity to route as compared to Route 1
Uses 70 miles of Elliott Highway/Shortest Fairbanks – Nome travel distance	Higher construction cost than Route 1
Potential intermodal transportation benefits (Yukon barges)	Topography (steeper grades, mountainous terrain) than Route 1
Fewest land and environmental impacts	New Yukon River Crossing needed

Route 3	
Advantages	Challenges
Access to communities along Norton Sound and southern study area	Significantly less mineral value in proximity to route as compared to Route 1
Proximity to resources in southern study area – Donlin mining district	Highest cost to construct and maintain (longest route length)
	Crosses Iditarod Trail 3 times
	Crosses through spectacled eider critical habitat
	Longest Fairbanks – Nome travel distance

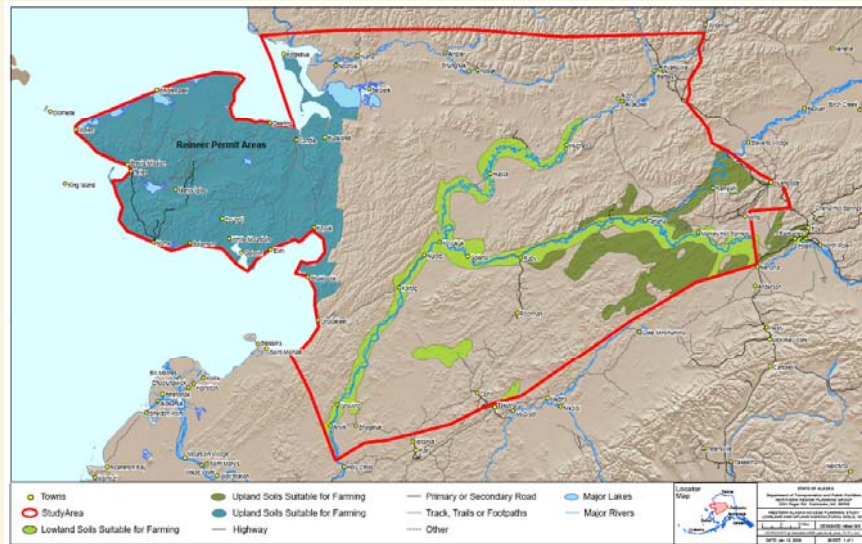


Refined Cost Estimates

Route	Route 1	Route 2b
Estimated Construction Costs		
Proposed new length of road (mi)	450	500
Road Construction Cost (\$B)	\$2.06	\$2.90
Bridge Construction Cost (\$B)	\$0.22	\$0.40
M&O Facilities Capital Cost (\$B)	\$0.12	\$0.14
Total Construction Cost (\$B)	\$2.4	\$3.4
Average Cost per Mile (\$M)	\$5.3	\$6.8
Estimated Annual M&O/Rehab Costs		
Routine Maintenance (\$M)	\$11	\$12
Facilities Maintenance (\$M)	\$2.6	\$2.9
Resurfacing & Rehabilitation (\$M)	\$22.5	\$25
Total Annual M&O/Rehab Cost (\$M)	\$36.1	\$39.9



Economic Analysis - Agriculture





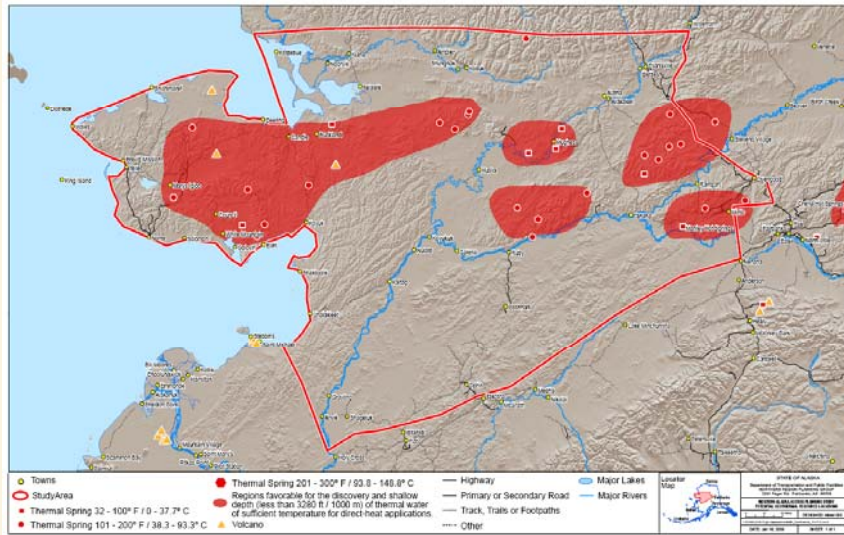
Economic Analysis – Renewable Energy Potential



- Geothermal
- Wind Power
- Hydroelectric
- Biomass

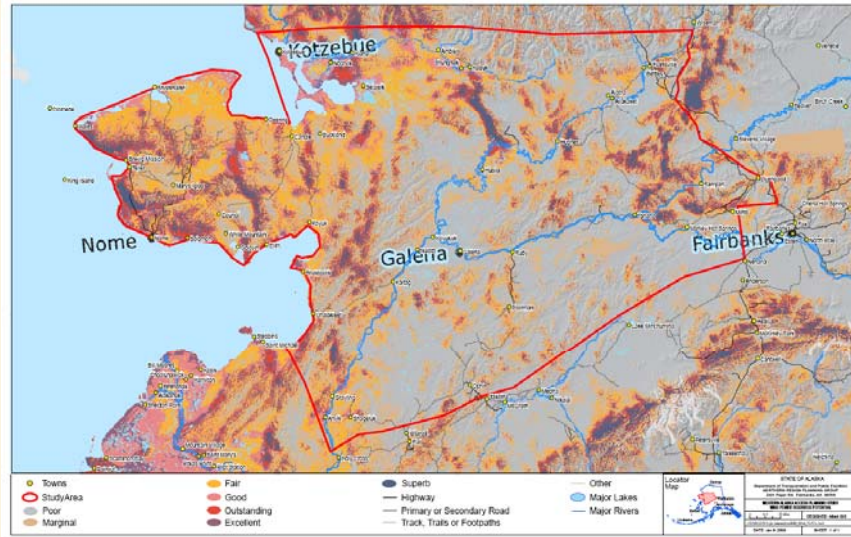


Renewable Energy – Geothermal Energy Potential





Renewable Energy – Wind Power Resource Potential



Renewable Energy – Hydroelectric Power Resource Potential

