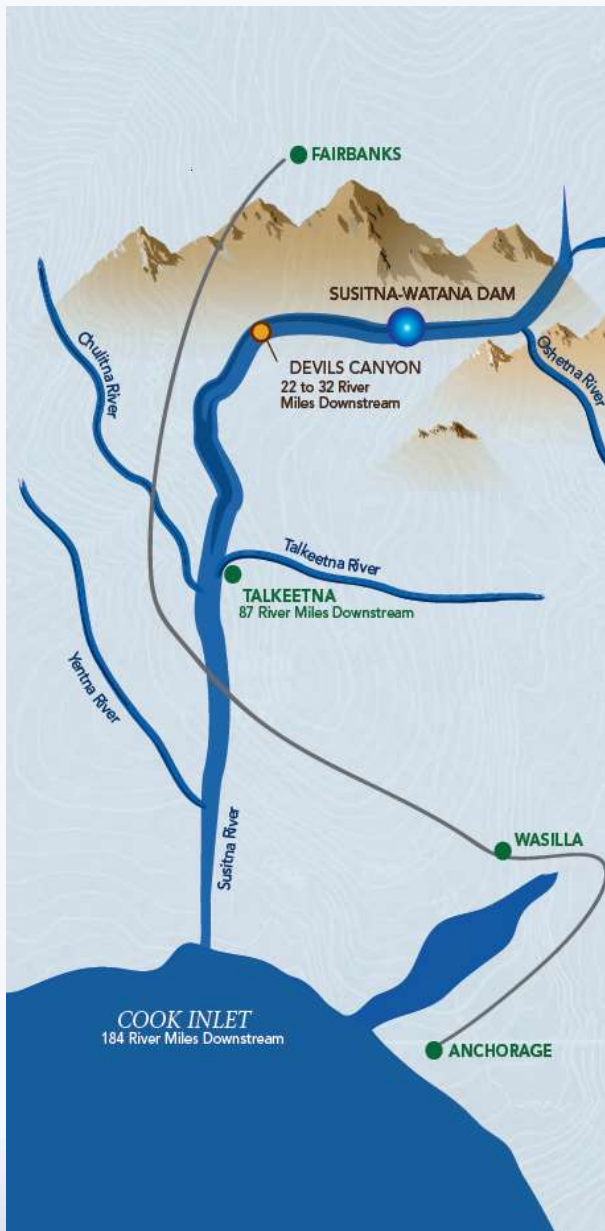


# Initial Study Report Meeting

## *Study 12.6* *Aesthetic Resources*

*March 30, 2016*

Prepared by  
URS



# Study 12.6 Status

## ISR documents (ISR Part D Overview):

- Initial Study Report: Parts A, B and C (June 3, 2014)
- 2014 Study Implementation Report (SIR) (November 4, 2015)

## Status:

- Completed viewshed models for each road and transmission corridor
- Classified lands within the primary and secondary study areas into 31 discrete landscape character types based on shared attributes of landform, vegetation, water, and cultural modification.
- Completed baseline field assessment at 135 analysis locations across the four seasons.
- Completed baseline data collection of landscape character, scenic quality and visual sensitivity.
- Collected baseline photography to support future development of photosimulations.
- Completed long- and short-term baseline soundscape analysis.

## *Study 12.6 Objectives*

The study objectives, established in **RSP Section 12.6.1**, are to:

- **Inventory and document** baseline aesthetic (e.g., visual, auditory) conditions within the Aesthetic Resources Study area.
- **Evaluate the potential effects** to aesthetic resources that may result from construction and operation of the proposed Project.

# Study 12.6 Components

## Visual Resources

- Viewshed Modeling
- Analysis Locations
- Baseline Data Collection
- Photosimulations

## Soundscape

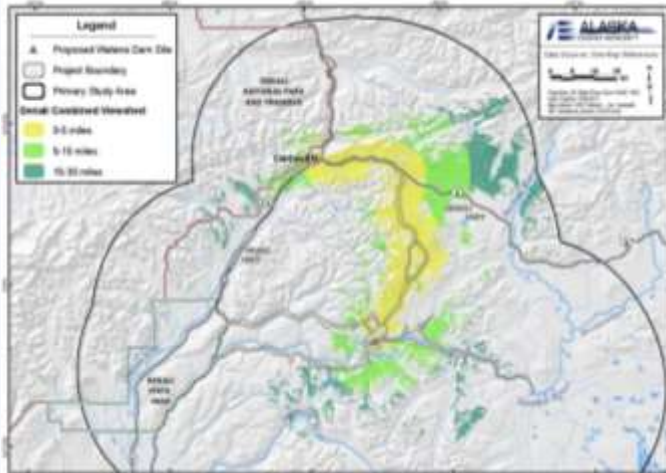
- Monitoring Locations
- Baseline Data Collection

## *Study 12.6 Variances*

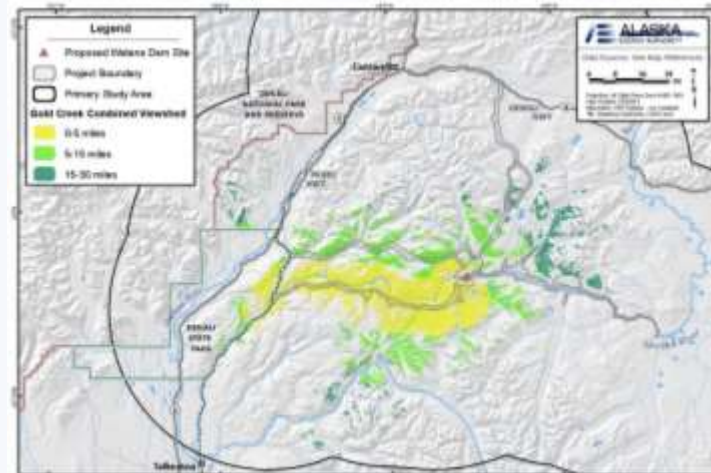
AEA implemented the methods as described  
in the Study Plan with no variances

# Study 12.6 Summary of Results – Viewshed Modelling

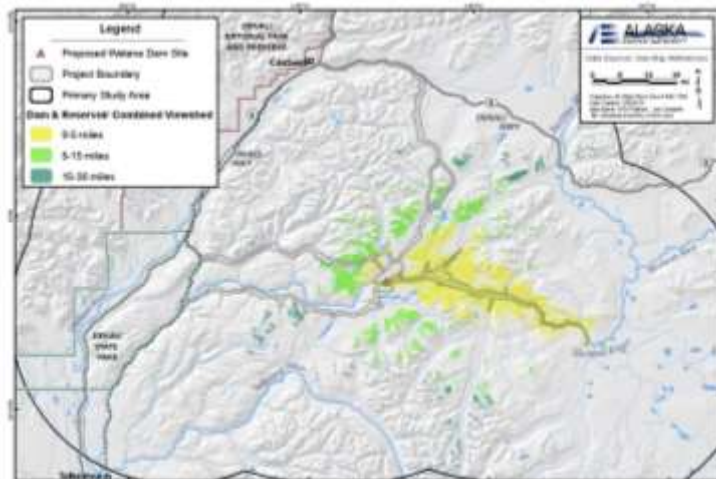
## Denali Corridor



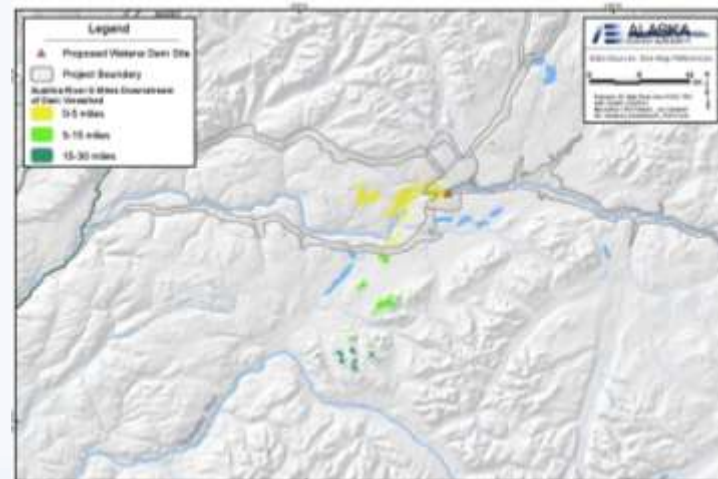
## Gold Creek Corridor



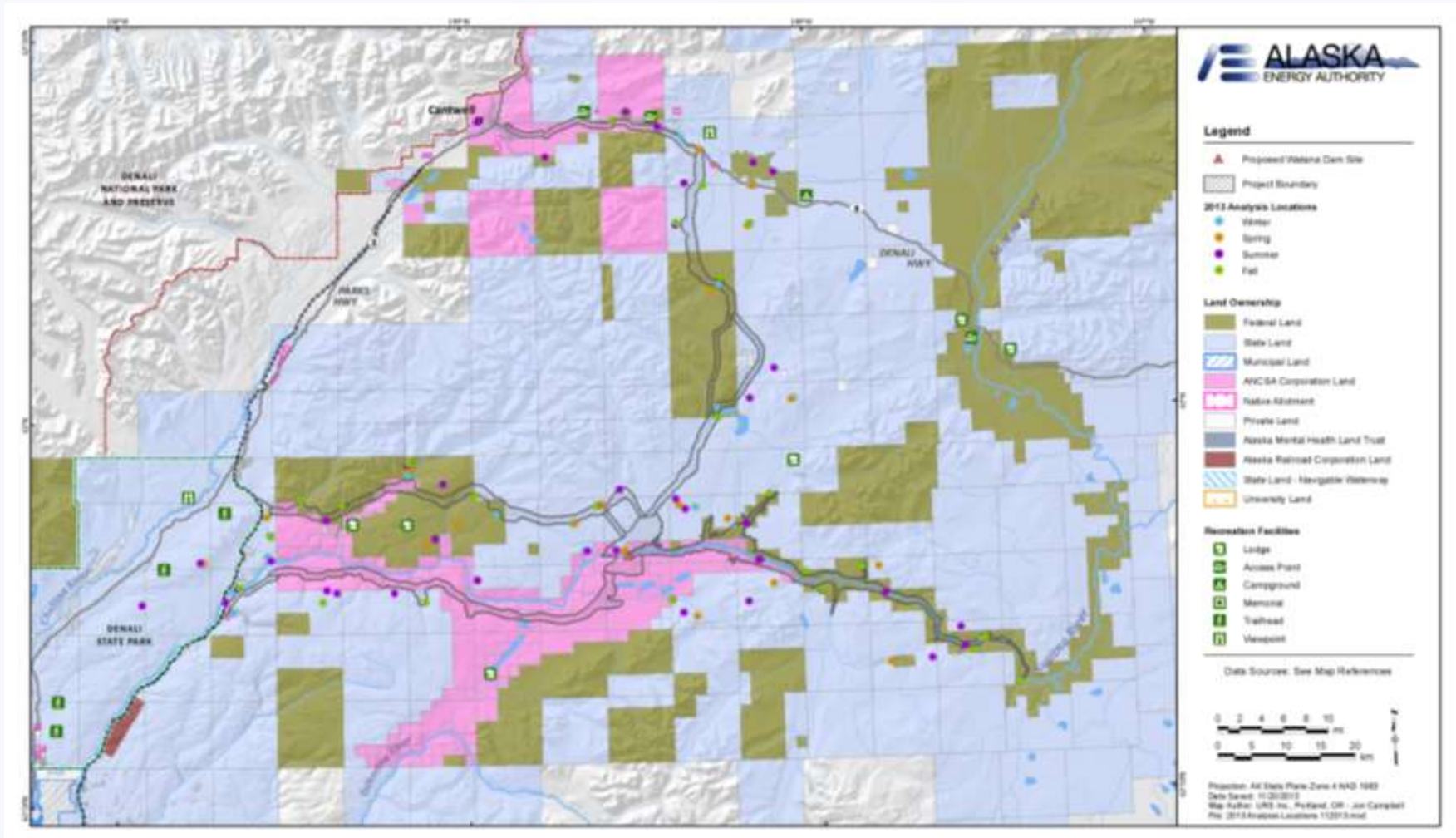
## Reservoir



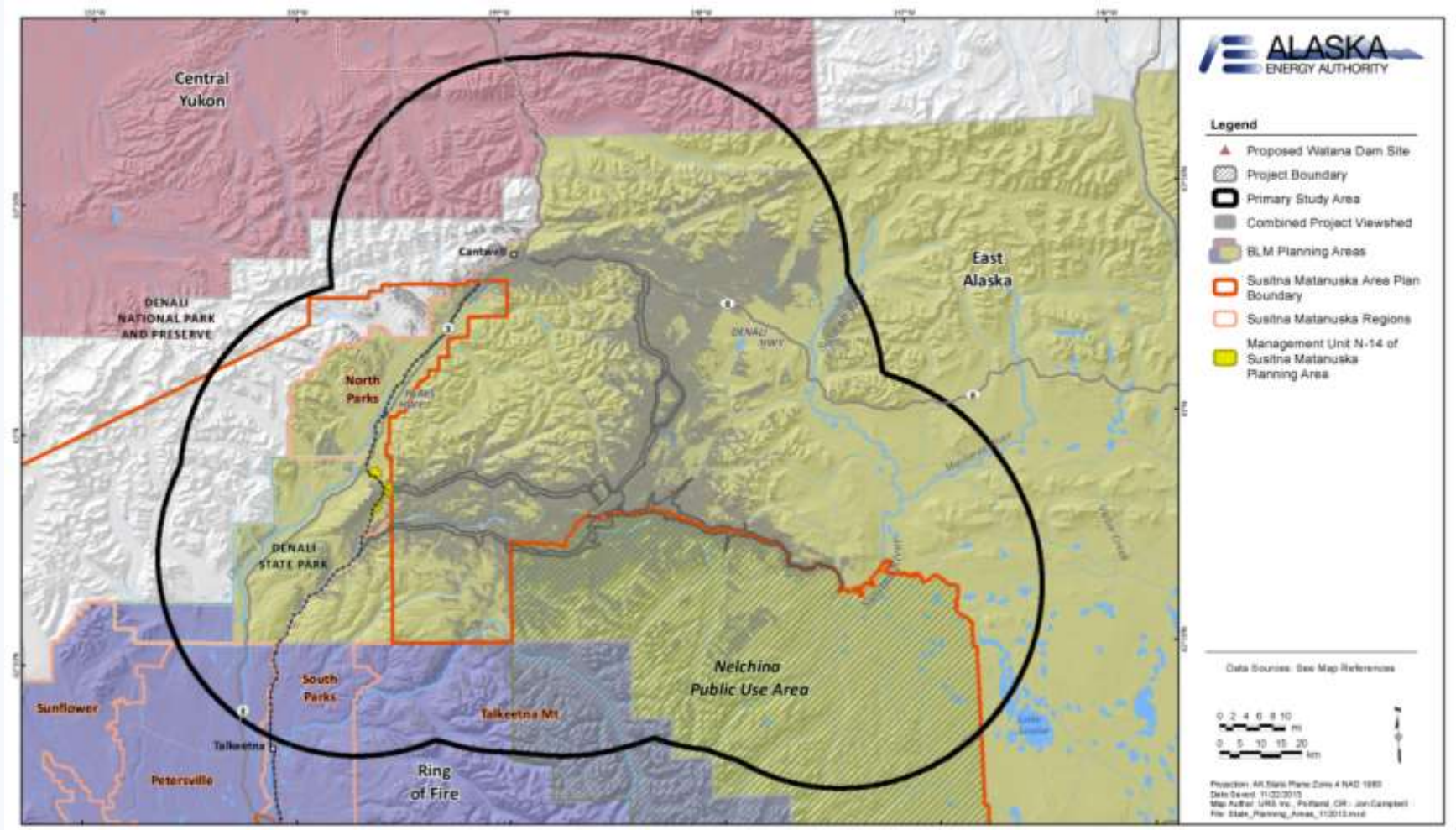
## Downriver from Dam



# Study 12.6 Summary of Results – Analysis Locations (Visual)

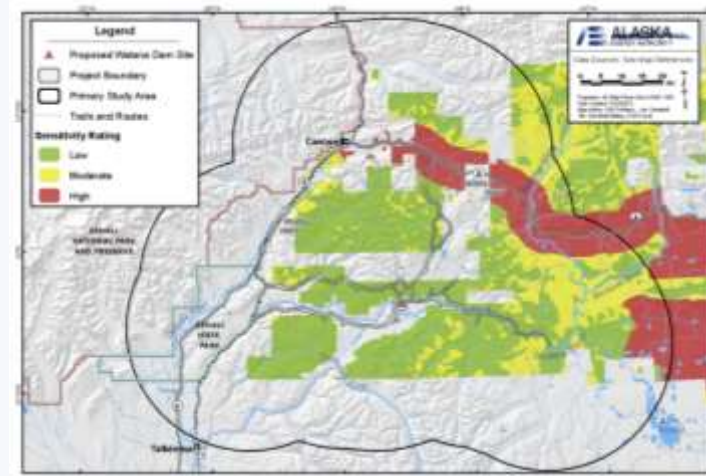
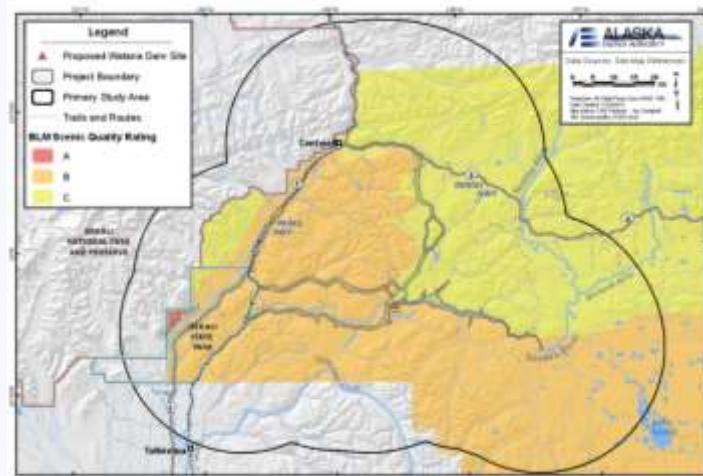
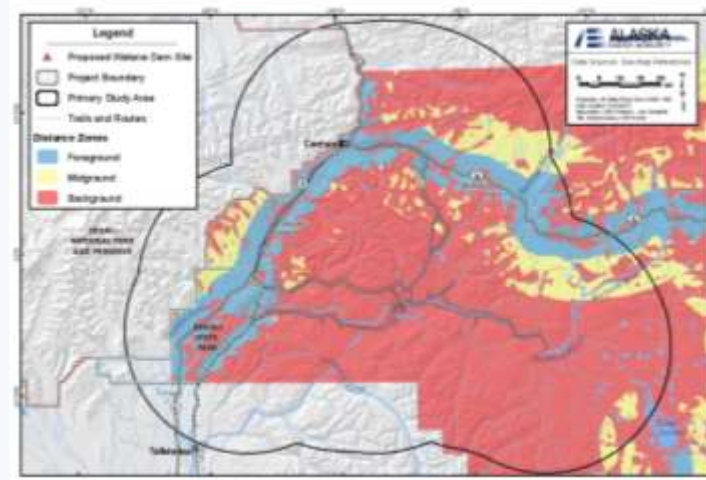
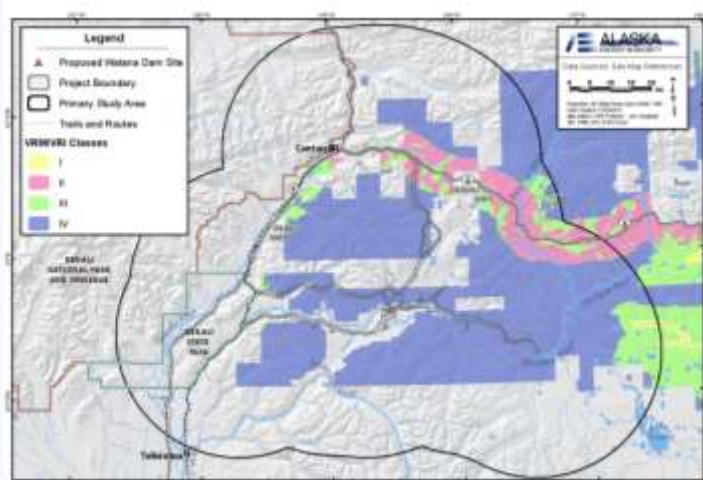


# Study 12.6 Summary of Results – Baseline Data Collection (Visual)





# Study 12.6 Summary of Results – Baseline Data Collection (Visual)



# Study 12.6 Summary of Results – Baseline Data Collection (Visual)

Location Information		
AL Number: SU173	AL Type: LCP	Date(s) Surveyed: 7/21/13
Jurisdiction: Federal	Land Owner / Mgmt. Agency: BLM	Simulated View:
Location Name: Nenana River Overlook		
Description:		
Landscape Character Type: Chulitna-Nenana River Valley	Season: Summer	
AL Focus: South toward Nenana River, Denali Corridor, and Denali Highway	Co-dominant/Dominant Viewer Direction:	
AL Distance Zone(s): FM / B	Approximate Distance to Project (miles): 0.7	
Landscape Visibility		
Context of Viewers (Existing): N/A (LCP)		
Context of Viewers (Post-Project): To be determined.		
Metrics		
Scenic Attractiveness: A	Scenic Integrity: High	
<p><b>Rationale:</b> Landscape character attributes of the colorful, rugged mountains; bright mosaic of green colors across the valley; the Nenana River; and Denali Highway combine to provide variety in visual elements. The enclosure of the landscape and extent of views to the west contribute to positive aspects of unity, coherence, and harmony to result in scenic quality that is unique and outstanding within this portion of the study area. Scenic integrity is high as the valued landscape character appears intact.</p>		
<p><b>Landscape Absorption:</b> Moderate to low due to the dense spruce forest located adjacent to the Denali Highway. Some increase in absorption could be achieved in areas located immediately adjacent to the Highway.</p>		
Narrative		
<p><b>Purpose:</b> SU173 is situated on BLM land located north of the Denali Highway and Nenana River. The purpose of this AL is to assess potential change in visual resources that may result from construction and operation of the Denali Corridor, including the proposed transmission line and associated right-of-way and potential improvements to the Denali Highway. The view being analyzed is directed to the south and provides the perspective of a superior (elevated) viewing position. The AL type is an LCP.</p>		
<p><b>Landscape Character:</b> SU173 is within the Chulitna-Nenana River Valley LCT. The landscape appears as a broad, U-shaped river valley that is large scale. To the south, views are limited to the foreground/middleground distance zone by the Chulitna Mountains. Downriver to the west, views extend to the background and seldom seen distance zones. Though distinct earthen colored domes and peaks are evident in the mountain ranges, the silhouette of the ridgeline appears largely contiguous. Exposed rock at the mountain tops is rugged and rough with directional lines from grey scree. Colors are brown, grey, black, and pink. Color is dominated by the mosaic of greens imparted by spruce trees and upland shrubs/tundra vegetation. Spruce forest is dense and contiguous across the</p>		



**Purpose of Photo:** SU173 is situated on BLM administered lands located to the north of the Denali Highway and Nenana River. The purpose of this AL is to assess potential change in visual resources that may result from construction and operation of the Denali Corridor, including the transmission line and associated right-of-way and potential improvements to the Denali Highway. The view being analyzed is directed to the south. The AL type is an LCP.

**View:** View to the south across the Nenana River towards the Denali Highway

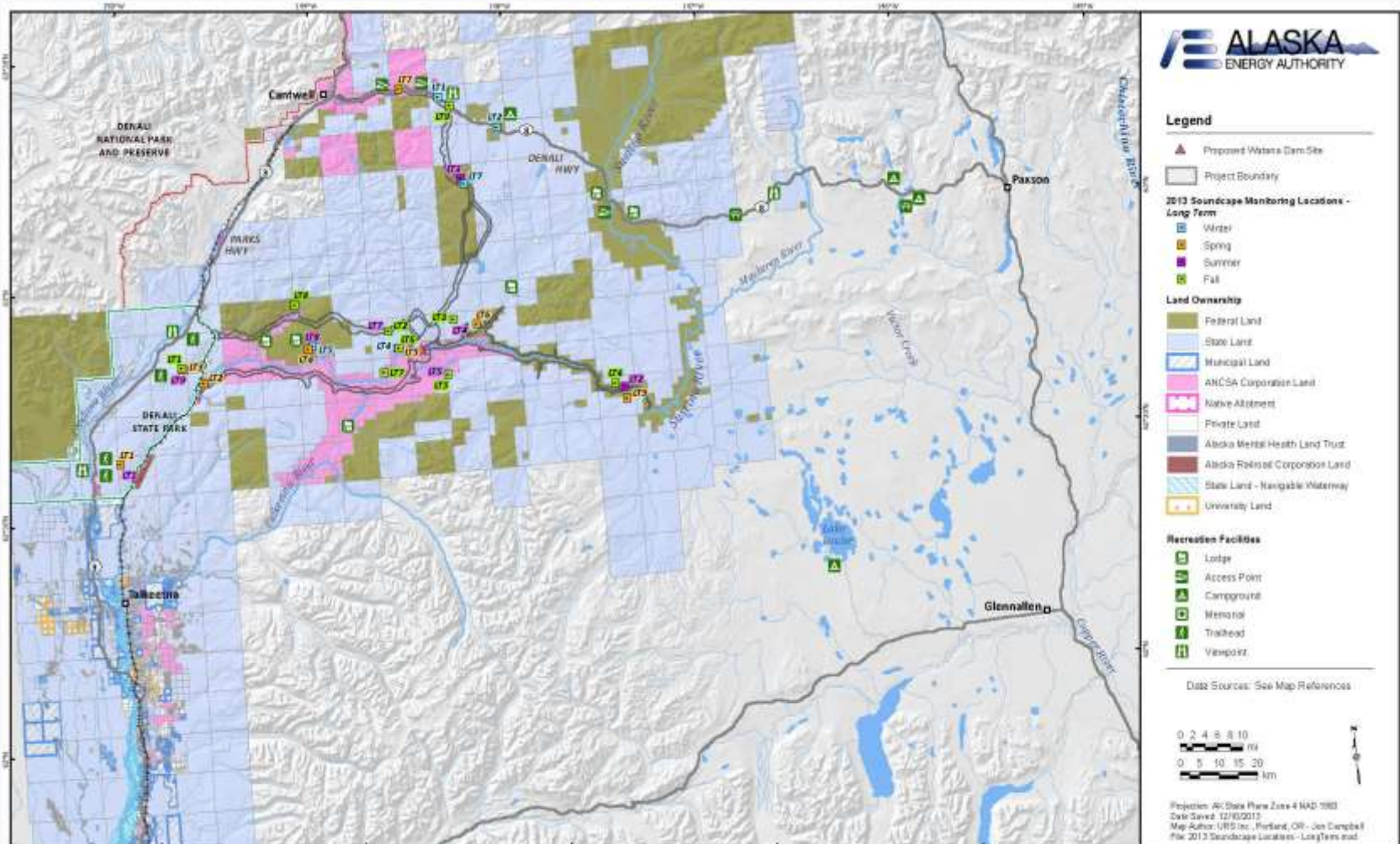
<p><b>Project/Contributor Name:</b></p>	<p><b>Author:</b> Susan Hydroelectric Project</p>
<p><b>Project Location:</b> SU173 - Nenana</p>	<p><b>View of Camera / Lens:</b> Nikon D4 / 24mm</p>
<p><b>Photo Date:</b> July 23, 2013</p>	<p><b>File Name:</b> 001.jpg</p>
<p><b>Photographer:</b> King / J. Johnson</p>	<p><b>Date of Day:</b> 2013</p>

Note: This report format is under development. Photographs are in draft format and subject to ongoing review and editing.

valley floor, creating irregular diagonal to curved lines at the upper edge of their elevation distribution. The Nenana River is a dominant feature, appearing as a flat, smooth, wide, reflective, and grey line that winds in and out of visibility. The Denali Highway, located above the river to the south, appears as a straight to broadly curving grey line characterized by intermittent visibility as it passes through the gently hills of the river valley.

The proposed Denali Corridor would be situated immediately south of and parallel to the Denali Highway, approximately 0.7 miles south of AL SU173. Since the transmission line right-of-way would follow the Denali Highway, it would not introduce a new line type to the landscape, although it would appear larger and thicker.

# Study 12.6 Summary of Results – Monitoring Locations (Soundscape)



# Study 12.6 Summary of Results –Baseline Data Collection (Soundscape)

- **Long-term (LT) monitors**
  - Minimum of 24 continuous hours and up to a single week.
- **Short-term (ST) monitors**
  - 15-20 minutes duration each.

Long-Term Sound Monitor Summary - Sample			
Location and Purpose	Near Curry Lookout and Camp Regalvista in Denali State Park. This is a prominent viewpoint and includes a shelter on the National Register of Historic Places. This location represents a visitor attraction. Spring and summer monitoring took place here.		
Coordinates	Lat: 62.62237, Long: -150.09857		
Elevation	2,550 feet		
Deployed	July 12 – July 20, 2013		
Analysis period	July 13 – 15, 17 – 18		
Disturbance Classification	high		
Access by	Helicopter		
Temperature (°F)	Average: 53.72	Maximum: 67.8	Minimum: 45.6
Average Humidity (%)	81.34		
Average Barometric Pressure (Bar)	0.93		
Wind Speed (mph)	Average: 10.25	Gust: 25.4	



# Study 12.6 Summary of Results –Baseline Data Collection (Soundscape)

## Results

- Geophony
- Biophony
- Mechanized Sound
  - Hourly
  - Daily
- Sound Pressure Levels
- Audible Mechanized Events
  - Hourly
  - Daily

## Discussion

- Overall landscape dominated by natural sounds (wind, rain, running water, birdsong, fauna, etc)
- Sound disturbances vary based on location, ambient natural sound levels, season
  - Highway traffic
  - OHV use
  - Overhead flight
- Median sound levels generally consistent with “wilderness ambient” day-night sound levels

# *Study 12.6 Decision Point – Assessment of Downriver Study Area*

## **Methods**

- **Question-Answer** approach to substantiating the downstream determination made in the June 2014 ISR.
- For each question, a set of **indicators** was established to inform a response to each question.
- **Interdisciplinary Coordination** -- Recreation Resources (Study 12.5), Recreation River Flow and Access (Study 12.7), the Fish and Aquatics Instream Flow (Study 8.5), Geomorphology (Study 6.5), Riparian Vegetation (Study 11.6), and Ice Processes (Study 7.6).

## *Study 12.6 Decision Point – Assessment of Downriver Study Area*

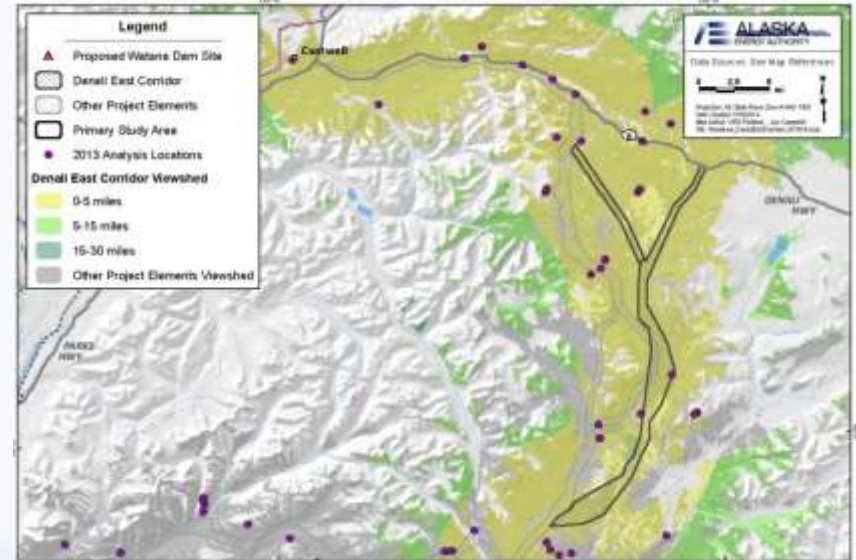
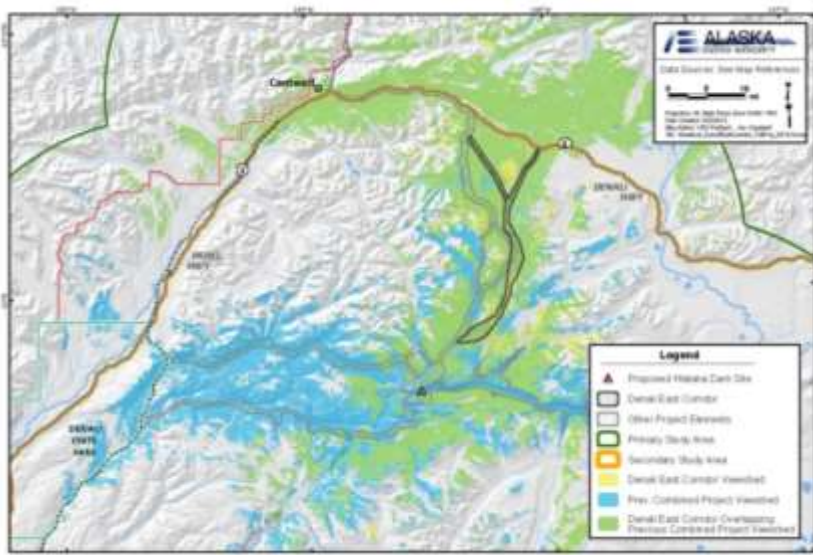
### **Results Based on OS-1a and OS-1b**

- Changes to river flow, stage, sediment load, and ice cover in the Lower River Segment would occur; however they are considered to be within the normal range of variability.
- The Lower River Segment expected to remain a wide, low-gradient, braided, and turbid river.
- River uses not expected to change; consequently there would be no shift in predominant viewer groups.
- As such, extending the Aesthetics Resources Study downstream of Talkeetna is not warranted.

# AEA's Proposed Modifications to Study 12.6

(ISR Part D, Section 7)

- No modifications to the Study Plan methods are needed to complete the study and meet the Study Plan objectives.
- However, the study area has changed from that described in the RSP (Section 12.6.3): AEA **removed the Chulitna Corridor (ISR Part D Overview Section 1.3) and added the alternative Denali East Option** (access road and transmission line corridor) to the study area.





## *Steps to Complete Study 12.6*

*(ISR Part D, Section 8)*

- **Develop viewshed models** for pre- and post-Project conditions of the inundation zone of the Susitna River to depict expected changes in viewshed areas (RSP Section 12.6.4)
- **Baseline data collection** of basic landscape components (RSP Section 12.6.4)
- Complete **Focus Groups** (RSP Section 12.6.4)
- Produce **photosimulations** to illustrate the expected visibility of Project components (RSP Section 12.6.4)
- **Modeling of Project sound levels** to complete the soundscape analysis (RSP Section 12.6.4)

## *Licensing Participants Proposed Modifications to Study 12.6?*

- Agencies
- CIRWG members and Ahtna
- Public