4. ALTERNATIVES

4.1 ALTERNATIVE MEASURES CONSIDERED IN THE FINAL ENVIRONMENTAL IMPACT STATEMENT

Several alternatives were evaluated in the Final Environmental Impact Statement (FEIS) (USACE, 2012b), including:

- Energy Source Alternatives:
  - Kenai Peninsula and Cook Inlet natural gas
  - Nenana Basin natural gas, Gubik natural gas, or both
  - Liquefied Natural Gas (LNG) import
  - Hydroelectric power
  - Nuclear power
  - Coal and coal gas renewable resources (wind, geothermal, biomass, and tidal)
    - Energy conservation measures and programs

- Natural Gas Transport System Alternatives:
  - Dry gas pipeline from North Slope
  - Smaller-diameter pipeline
  - Spur pipeline from a large North Slope-to- Lower Continental 48 U.S. States (Lower 48) or Valdez Pipeline
  - Pipeline from North Slope to Fairbanks; transport by rail car to the Southcentral region (Southcentral)
  - Transport by truck and trailer

- Pipeline Route Alternatives:
  - Major Route Alternative:
    - Richardson Highway Route Alternative:
  - Route Variations:
    - Fairbanks Route Variation
    - Alaska Intertie Route Variation
    - Denali National Park Route Variation
    - Alaska Railroad (ARR) Route Variations

- Aboveground Facility Site Alternatives

A number of alternatives were considered but eliminated from detailed analysis in the FEIS (Chapter 4, Table 4.6; USACE, 2012b).

An alternative route that could direct the pipe directly through Denali National Park and Preserve (DNP&P) was assessed in the Alternatives chapter (USACE, 2012b). The preferred alternative is the DNP&P Bypass Route, which was assessed in the FEIS (Revision 5 of the design; USACE,

2012b). The Park Bypass remains the preferred alternative put forth by the Alaska Gasline Development Corporation (AGDC) in the 2014 draft Joint Application for Permit and Plan of Development (POD) (Revision 6 of the design; AGDC, 2014a,b). The Park Bypass intentionally avoids disturbance of a national park and includes mitigation to minimize visual and noise disturbances that would be noticed by park visitors and other members of the public.

Alignment selection was based on available engineering and survey data, analysis of aerial imagery, visual survey conducted at the site, and efforts to identify potential risks associated with constructing the pipeline near a highly sensitive area such as DNP&P. The route segment that bypasses DNP&P begins at Mile Post (MP) 528, at the Moody Bridge across the Nenana River, and runs to MP 539, east of McKinley Village. Once across the bridge, the alignment parallels the Parks Highway. At MP 533, the pipeline will climb the ridge line above the highway heading southeast away from the highway to avoid constructing work pads and access roads within the viewshed of the DNP&P where possible. This route crosses Lynx Creek near MP 533.8, Montana Creek near MP 534.5 (not to be confused with the salmon stream Montana Creek further south near Willow), and the Yanert River near MP 538.7.

4.2 NEW ALTERNATIVE MEASURES CONSIDERED FOR ALASKA STAND ALONE PIPELINE

In addition to these alternatives as assessed in the FEIS, AGDC has addressed additional alternative measures since the FEIS (USACE, 2012b). One alternative measure involved the selection of West Dock, Dock Head (DH)3 as the preferred location for barge entry during the construction period. Several North Slope ports of entry were considered to accommodate the new conceptual design change involving modular components barged into Prudhoe Bay to construct the Gas Conditioning Facility (GCF). Two locations at West Dock were also considered to reach a preferred location (Attachment 3).

The second alternative measure addressed by AGDC was the concept of an additional 30-mile extension of the Fairbanks Lateral from its current terminus to the city of North Pole, Alaska, approximately 30 miles away. AGDC investigated whether the design proposed in the Joint Application for Permit (AGDC, 2014a) meets its statutory mandate to deliver gas to Alaskans at the lowest possible cost. Alaska Statute (AS) 31.25.005 directs AGDC to advance an in-state pipeline capable of delivering natural gas to Fairbanks, and to accomplish this goal in a safe, efficient, and economic manner. The current design provides gas to Fairbanks and will significantly reduce power and heating costs, as well as improve air quality. AGDC must balance the desire to maximize public benefit with economic feasibility, cost-effectiveness, and environmental impacts. Furthermore, there are fundamental local distribution decisions for the Fairbanks area that remain unresolved and that do not warrant additional investigation of the extended route to the city of North Pole at this time. The current project design meets AGDC's statutory obligation to deliver gas to Fairbanks and leverages the existing local distribution system. The details of AGDC's consideration of this alternative were outlined in a July 24, 2014 letter from Dan Fauske, President of AGDC (Attachment 4).

4.3 REFERENCES

Alaska Gasline Development Corporation (AGDC). 2014a. *Alaska Stand Alone Gas Pipeline/ASAP – Joint Application for Permit.* Revised July 2014. http://asapeis.com/docs/Joint%20Application%20for%20Permit.pdf. Accessed October 9, 2014.

Alaska Gasline Development Corporation (AGDC). 2014b. *Alaska Stand Alone Gas Pipeline/ASAP – Plan of Development*. Revision 3. June. http://asapgas.agdc.us/pdfs/documents/pod2014/POD%20Rev%203_Final_07-22-2014_COMBINED.pdf. Accessed October 9, 2014.

U.S. Army Corps of Engineers (USACE). 2012b. *Final Environmental Impact Statement. Alaska Stand Alone Pipeline*. October. http://asapgas.agdc.us/documents.html. Accessed October 9, 2014.