APPENDIX 1L AGENCY CORRESPONDENCE

TABLE 1L-1

Alaska Pipeline Project
Summary of Agency Meetings Through October 31, 2011

Date	Participating Agencies	General Topic(s) Covered
December 16, 2008	Alaska Department of Natural Resources (ADNR) – Office of History and Archaeology (OHA)	Geotechnical investigations
December 17, 2008	State Pipeline Coordinator's Office (SPCO), U.S. Bureau of Land Management (BLM)	Project introduction, permitting, geotechnical investigations
January 6, 2009	U.S. Army Corps of Engineers (COE), U.S. Department of Energy, Department of Homeland Security: Pipeline Security Division, Department of the Interior, U.S. Department of Transportation (DOT) – Pipeline and Hazardous Material Safety Agency (PHMSA), Advisory Council on Historic Preservation, U.S. Environmental Protection Agency (EPA), Federal Coordinator for Alaska Natural Gas Transportation Projects, U.S. Federal Energy Regulatory Commission (FERC)	Project kick-off meeting
January 14, 2009	BLM, U.S. Fish and Wildlife Service (FWS), National Marine Fisheries Service (NMFS), EPA, DOT – PHMSA, ADNR, Alaska Department of Fish and Game (ADFG), Alaska Department of Transportation and Public Facilities (ADOTPF), Alaska Department of Environmental Conservation (ADEC)	Project kick-off meeting
January 15, 2009	BLM, FWS, ADFG, ADNR, ADOTPF, Office of the Federal Coordinator (OFC)	Project kick-off meeting
January 28, 2009	North Slope Borough – Planning Commission	Project kick-off meeting
January 29, 2009	North Slope Borough – Planning Commission, Inupiat Community of the Arctic Slope	Project kick-off meeting
March 16, 2009	BLM	Project update, facility siting and routing, existing geotechnical data
March 16, 2009	OFC, Alaska Gasline Inducement Act (AGIA) Coordinator's Office, SPCO	Project update, BLM and ADNR permitting, carbon dioxide (CO_2) at Gas Treatment Plant (GTP), endangered species, greenhouse gas and climate change
March 17, 2009	ADEC – Air	Project update, facility siting, CO_2, meteorological data, air quality and modeling, permitting
March 18, 2009	ADFG, FWS	Project update, facility siting and routing, safety at faults, aerial crossings, Tetlin National Wildlife Refuge (NWR), field surveys and timing, permitting process, waterbody crossings
March 18, 2009	ADNR, ADEC, ADNR – Forestry	Project update, field surveys and timing, access, Project facilities including camps and aboveground facilities, permitting process, treatment of timber on state lands
March 19, 2009	ADNR Division of Parks and Outdoor Recreation – OHA – State Historic Preservation Office (SHPO)	Project update, cultural resource surveys, existing data from Trans-Alaska Pipeline System

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Alaska Pipeline Project
Summary of Agency Meetings Through October 31, 2011

Date	Participating Agencies	General Topic(s) Covered
March 19, 2009	EPA, COE, ADEC – Water	Project update, wetland construction, impacts on permafrost, steep slope construction, facilities siting and pipeline routing, greenhouse gases and climate change
March 19, 2009	FWS	Project update, land requirements, construction seasons, right-of-way maintenance, Tetlin NWR, polar bear critical habitat, secondary impacts from facilities
June 1, 2009	AGIA Coordinator's Office/SPCO	Project status, agency roles, and service agreements
June 2, 2009	BLM	Project status, agency roles, and service agreements
June 23, 2009	PHMSA	Initiated discussion on process for special permits and supplemental design requirements
July 15, 2009	Alaska Department of Public Safety (ADPS), Deputy Fire Marshall	Project introduction, specific aspects of GTP structures
July 15, 2009	OFC	Project update
August 7, 2009	ADPS, Deputy Fire Marshall	General Project discussion and specific aspects of GTP structures
August 11, 2009	OFC	Project update
September 21, 2009	OFC	Draft Implementation Plan, permit guidance tools
September 24, 2009	ADOTPF	Road upgrades for Dalton and Richardson highways
September 29, 2009	BLM	Introductory meeting for Anchorage-based Project staff
October 5, 2009	BLM	Completion reports for 2009 geotechnical surveys
October 6, 2009	SPCO	Introductory meeting for Anchorage-based Project staff
October 7, 2009	COE	Introductory meeting for Anchorage-based Project staff
December 7, 2009	OFC	APP interactions with OFC
December 17, 2009	OFC	APP interactions with OFC
January 11, 2010	OFC	Project status update to interagency meeting
January 14, 2010	ADOTPF	Alaska Pipeline Project (APP) use of Alaska infrastructure
February 24, 2010	Alaska Department of Labor and Workforce Development	Gas Pipeline Training Steering Committee
March 22, 2010	BLM	Right-of-way application submittal process
April 2, 2010	SPCO	Right-of-way application submittal process
April 14, 2010	ADPS, Division of Fire and Life Safety	GTP design
May 6, 2010	ADFG	Proposed field sampling protocols
May 7, 2010	COE, FERC, OFC	Proposed field sampling protocols
May 11, 2010	AGIA Coordinator's Office	Status update
May 15, 2010	ADFG	North Slope water sources and fisheries

TABLE 1L-1

Alaska Pipeline Project
Summary of Agency Meetings Through October 31, 2011

Date	Participating Agencies	General Topic(s) Covered
May 17, 2010	North Slope Borough	North Slope Borough Science Permit application
May 20, 2010	OFC	Status update
May 24, 2010	ADFG	Proposed field sampling protocols
May 26, 2010	ADEC	Request for air quality datasets
May 26, 2010	ADNR – OHA, BLM	Field sampling protocols
May 27, 2010	BLM	Request for Casual Use Notification and Concurrence
June 9, 2010	BLM	Field sampling program
June 9, 2010	COE	Field sampling program
June 14, 2010	SPCO	Land use permitting
June 15, 2010	BLM	Land use permitting
June 25, 2010	OFC	Status update
July 6, 2010	OFC	Status update to Interagency Meeting
July 6, 2010	OFC, FERC	APP interactions with FERC and OFC, and field studies
August 9, 2010	ADFG	Pipeline construction approaches
August 10, 2010	ADFG	Pipeline construction approaches
August 12, 2010	PHMSA	APP interactions with PHMSA and information delivery plan
September 10, 2010	AGIA Coordinator's Office	Project regulatory process
September 15, 2010	OFC	Project regulatory process
September 27, 2010	FERC, OFC, AGIA Coordinator's Office	2010 Field Programs and Project regulatory process
September 30, 2010	State of Alaska Department of Health and Social Services	State of Alaska Heath Impact Assessment Program
October 7, 2010	ADFG	Existing and planned subsistence field studies
October 14, 2010	FERC, OFC, AGIA Coordinator's Office	FERC application filing requirements
October 19-20, 2010	PHMSA and other federal and State of Alaska agencies	Multi-agency PHMSA Workshop on pipeline safety requirements, routing, integrity, and information needs
October 21, 2010	PHMSA, OFC	PHMSA regulatory filing requirements and information delivery planning
November 4, 2010	BLM	Project plans for 2011 field studies
November 9, 2010	PHMSA	PHMSA regulatory filing requirements dealing with materials engineering
November 22, 2010	ADOTPF	Project update, pipeline routing relative to highway corridors
December 3, 2010	ADFG	Reviewed 2010 fish studies and discussed potential 2011 studies

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Alaska Pipeline Project
Summary of Agency Meetings Through October 31, 2011

Date	Participating Agencies	General Topic(s) Covered
December 13, 2010	PHMSA	PHMSA regulatory filing requirements dealing with pipeline engineering
December 14, 2010	Alaska Coastal Management Program, ADFG, Alaska Division of Homeland Security and Emergency Services (ADHSEM), AGIA Coordinator's Office, U.S. Bureau of Indian Affairs, BLM, ADEC, ADNR – Division of Geological and Geophysical Survey (DGGS), ADNR, U.S. Department of Defense (DOD), ADOTPF, EPA, FERC, U.S. Forest Service, FWS, NMFS, U.S. National Parks Service, OFC, PHMSA, Regulatory Commission of Alaska (RCA), SHPO, COE, U.S. Coast Guard (USCG), U.S. Geological Survey (USGS)	Review Project description, facilities siting, and pipeline routing
December 17, 2010	ADFG	Subsistence data gathering
January 21, 2011	ADNR – OHA	Update on 2010 field data collection program
February 1, 2011	FERC	Upcoming community meetings
February 1, 2011	NMFS, OFC	Project update, permitting requirements
February 2, 2011	FWS, OFC	Project update, permitting requirements
February 2, 2011	SPCO	Project update, permitting requirements
February 3, 2011	COE, OFC	Project update, permitting requirements
February 11, 2011	COE	Wetland mapping
February 15, 2011	PHMSA, OFC	Pipeline management systems
February 16, 2011	FERC	Project update
February 16, 2011	BLM, SPCO	Right-of-way permit application
February 25, 2011	BLM, FWS	Access for field surveys and studies
March 1, 2011	COE, EPA, OFC	Discussed dredging/dredge disposal concepts and permitting options
March 1, 2011	ADEC, ADHSEM, ADFG, ADNR, AGIA Coordinator's Office, ADOTPF, SPCO, BLM, COE, DGGS, DOD-U.S. Air Force (USAF), DOD-USAF-Eielson, EPA, FERC (including third-party representatives), FWS, NMFS, OFC, PHMSA, RCA, SHPO, Transportation Security Administration, USGS	Inter-Agency Technical Workshop Construction Overview
March 2, 2011	ADEC, ADFG, ADNR, AGIA Coordinator's Office, SPCO, BLM, COE, DGGS, EPA, FERC (including third-party representatives), FWS, NMFS, OFC	Right-of-way preparation and maintenance workshop
March 3, 2011	ADEC, ADFG, ADNR, AGIA Coordinator's Office, SPCO, BLM, COE, EPA, FERC (including third-party representatives), FWS, NMFS, OFC	Water course crossing workshop

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Alaska Pipeline Project
Summary of Agency Meetings Through October 31, 2011

Date	Participating Agencies	General Topic(s) Covered
March 3, 2011	FERC, OFC	Discussed wetlands delineation protocols
March 30, 2011	FWS, NMFS, OFC	Overview of 2010-11 field data collection programs and discussion of dredging and dredge disposal concepts
March 31, 2011	EPA, OFC	Overview of 2010-11 field data collection programs and discussion of dredging and dredge disposal concepts
April 13, 2011	OFC	Status update
April 14, 2011	FERC	Status update
April 19, 2011	BLM, Central Yukon Field Office	Communication/coordination for 2011 field season
April 19-20, 2011	PHMSA	Pipeline technical design
April 20, 2011	COE	GTP permitting
April 20, 2011	FWS	Example bald eagle protection measures/ Final Environmental Impact Statement
April 21, 2011	BLM, FWS, COE, USCG, OFC, ADNR – OHA	National Historic Preservation Act Section (§) 106 – cultural resources management/programmatic agreement
April 26, 2011	FERC	Environmental baseline information, field protocols, 2010/2011 field programs, NHPA §106 framework, wetland delineation
May 5, 2011	PHMSA, OFC	Discussed pipeline technical information requirements
May 12, 2011	PHMSA, OFC	Discussed pipeline technical information requirements and information delivery plan
May 12, 2011	FERC, OFC, other federal and State of Alaska agencies	Inter-Agency Technical Workshop GTP Dredging
May 12, 2011	FERC, OFC, COE, EPA	Discussed marine sediment sampling program
May 27, 2011	BLM	Discussed field studies coordination and revised Archaeological Resources Protection Act reporting requirements
June 8, 2011	FERC, OFC, SPCO	Discussed Project status update
June 9, 2011	FERC, OFC, other federal and State of Alaska agencies	Attended part of FERC-sponsored Cooperating Agency workshop on Preliminary Draft Resource Reports 1 and 10
June 9, 2011	FERC	Discussed APP's Project-specific Plan and Procedures development
June 13, 2011	PHMSA, OFC	Discussed pipeline technical information requirements and information delivery plan
June 15, 2011	FWS	Provided Project status update
June 20, 2011	FERC	Discussed data collection status and plans
June 30, 2011	EPA	Discussed Summer 2011 marine surveys

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Alaska Pipeline Project
Summary of Agency Meetings Through October 31, 2011

Date	Participating Agencies	General Topic(s) Covered
July 8, 2011	COE	Discussed Summer 2011 marine sediment sampling program
July 8, 2011	SPCO, Joint Pipeline Office, ADFG	Discussed Fiscal Year 2012 reimbursable services agreement
July 12, 2011	USAF, OFC	Discussed field studies access and routing on Wainwright and Eielson bases
July 15, 2011	FERC, COE, FWS, EPA, OFC	Discussed 2010 wetlands mapping efforts, 2011 wetlands field studies
July 22, 2011	SPCO	Reviewed APP RSA budget controls
July 22, 2011	SPCO, ADHSS	Discussed Habitat Impact Analysis steps forward
July 25, 2011	SPCO, ADFG	Discussed subsistence work planning
July 26, 2011	U.S. Solicitor's Office	Alaska National Interests Lands Claim Act discussion
July 27, 2011	USAF, OFC	Route Review on site USAF-Eielson
July 28, 2011	FWS, OFC	Discussed field studies access/NWR priorities with the Tetlin NWR staff
August 22, 2011	PHMSA	Project status updates, special permit approach
September 7, 2011	ADNR – OHA	Review of archaeology/field site data
September 13, 2011	SPCO	Discuss communication protocol
September 15, 2011	SPCO	Discuss permit planning/scheduling
September 19, 2011	ADFG, FERC, OFC, SPCO, Alaska Gas Pipeline Project Office	Discuss subsistence studies and analysis
September 19, 2011	SPCO, State of Alaska Department of Health and Social Services	Discuss HIA studies and analysis
September 23, 2011	FWS	Routing/field studies
September 29, 2011	PHMSA	Discussions about the special permit process and letter of intent
October 3, 2011	NMFS, OFC, FERC	Proposed permitting plan
October 4, 2011	FWS, OFC, FERC	Proposed permitting plan
October 5, 2011	FERC	Review of status and plans regarding draft project Resource Reports
October 5, 2011	BLM, OFC, FERC	Review of 2011 field season and proposed permitting plan
October 5, 2011	NMFS, OFC, FERC	Review of 2011 field season and proposed permitting plan
October 6, 2011	COE, OFC, FERC	Review of 2011 field season and proposed permitting plan
October 12, 2011	COE, OFC	Continued discussions on proposed permitting plan
October 14, 2011	ADEC – Air	Review of 2011 field season and proposed permitting plan

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Alaska Pipeline Project
Summary of Agency Meetings Through October 31, 2011

Date	Participating Agencies	General Topic(s) Covered
October 20, 2011	PHMSA, OFC	Discussions about the special permit process and delivery of technical information
October 25, 2011	SPCO, ADOTPF	Review of 2011 field season and proposed permitting plan
October 25, 2011	ADFG, SPCO	Review of 2011 field season and proposed permitting plan
October 26, 2011	FWS	Review of 2011 field season and proposed permitting plan
October 27, 2011	FERC	Review of filing requirements for the GTP
October 27, 2011	ADEC – Water, SPCO, OFC, FERC, Alaska Gas Pipeline Project Office	Review of 2011 field season and proposed permitting plan
October 27, 2011	COE, OFC	Continued discussions on proposed permitting plan

Agency Correspondence Index

Federal

- Bureau of Land Management (BLM)
  - March 16, 2009 Meeting with BLM – Update of APP
  - March 9, 2011 Letter from APP to BLM – 2010 Cultural Resources Field Study Results
  - August 31, 2011 Letter from APP to BLM – Section 106 Consultation

- U.S. Army Corps of Engineers (COE)
  - July 2, 2010 Letter from COE to APP – 2010 Wetlands Field Studies Protocols
  - February 3, 2011 Meeting with COE and OFC – Regulatory Review Meeting
  - February 11, 2011 Meeting with COE and OFC – Regulatory Review Meeting

- U.S. Department of Defense (DOD)
  - July 12, 2011 Meeting with representatives of Eielson Air Force Base (AFB) and OFC – AFB military property discussion points and alignment overview
  - July 12, 2011 Meeting with representatives of Fort Wainwright and OFC – Project update and military property discussion points
  - August 3, 2011 Meeting with representatives of Eielson Air Force Base (AFB) and OFC – AFB military property discussion point and alignment overview

- U.S. Environmental Protection Agency (EPA)
  - February 9, 2011 Record of Phone Conversation – Dredging and permitting discussion
  - March 31, 2011 Meeting with EPA and OFC – Regulatory Review Meeting

- U.S. Fish and Wildlife Service (FWS)
  - February 2, 2011 Meeting with FWS – Regulatory Review Meeting
  - August 8, 2011 Letter from APP to FWS – Threatened and Endangered Species Review and Bald and Golden Eagle Protection Review

- National Marine Fisheries Service (NMFS)
  - February 1, 2011 Meeting with NMFS – Regulatory Review Meeting

- August 8, 2011 Letter from APP to NMFS – Threatened and Endangered Species Review; Marine Mammal Protection Act Species Review; and Essential Fish Habitat Review
- September 19, 2011 Letter from NMFS to APP – Request for Species List and Review

- Office of Federal Coordinator (OFC)
  - August 10, 2009 Meeting with OFC and FERC – Alaska Natural Gas Transportation Projects

- Pipeline and Hazardous Material Safety Administration (PHMSA)
  - March 3, 2010 Letter from PHMSA to APP – Request for Information
  - October 21, 2010 Meeting with PHMSA and OFC – APP-PHMSA Engagement Process
  - November 9, 2010 Meeting with PMSA – Information Delivery Plan and Materials Engineering
  - February 15, 2011 Meeting with PHMSA and OFC – Information Delivery Plan Development and Quality and Integrity Management
  - March 4, 2011 Letter from APP to PHMSA – Working Group Meetings on Coatings and Fracture Control
  - March 16, 2011 Letter from APP to PHMSA – Working Group Meetings on Coatings, Fracture Control, Welding, and Metallurgy
  - May 12, 2011 Meeting with PHMSA and OFC – Information Delivery Plan
  - June 13, 2011 Meeting with PHMSA and OFC – Information Delivery Plan

State

- Alaska Department of Fish and Game (ADFG)
  - March 22, 2002 Memo from ADFG to Pipeline Liaison & Surveillance Supervisor – Buried vs. Above-Ground Mode of Gas Pipeline
  - May 6, 2010 Meeting with ADFG – Fish Survey Presentation
  - June 8, 2010 Email from ADFG – Approval of Stream Survey Field Protocols
  - August 12, 2010 Memo from Ott to Winters (ADFG) – APP Dalton Highway Site Visit on August 10, 2010
  - December 3, 2010 Meeting with ADFG – Review of 2010 fish studies and discussion of potential studies for 2011

- Alaska Department of Transportation and Public Facilities (ADOTPF)
  - September 24, 2009 Meeting with ADOTPF – ADOTPF planned road improvement projects

- State Historic Preservation Office (SHPO)
  - March 19, 2009 Meeting with SHPO – Update of the APP
  - August 31, 2011 Letter from APP to SHPO – Request for consultation under Section 106 of the National Historic Preservation Act

- September 19, 2011 Letter from APP to SHPO – Preliminary Field Survey Results

- State Pipeline Coordinator's Office (SPCO)
  - February 2, 2011 Meeting with SPCO – Regulatory Review Meeting
  - September 20, 2011 Letter from APP to SPCO – Preliminary Field Survey Results

Local

- Alaska Native Organizations and Groups
  - September 15, 2011 Letters from APP to Alaska Native Organizations and Groups – Request for Consultation under Section 106 of the National Historic Preservation Act

Multi-Agency Meeting Summaries

- March 16, 2009 Meeting with AGIA, JPO, SPCO, and OFC – Update of APP
- March 18, 2009 Meeting with ADFG and FWS – Update of APP
- March 18, 2009 Meeting with ADNR and ADEC – Update of APP
- February 16, 2011 Meeting with BLM and SPCO – Regulatory Review Meeting
- March 1, 2011 Meeting with COE, EPA, and OFC – Prudhoe Bay Dredge Material Disposal
- March 1, 2011 Meeting with ADEC, ADHSEM, ADFG, ADNR, AGIA Coordinator's Office, ADOTPF, BLM, COE, DOD, EPA, FERC, FWS, NMFS, OFC, PHMSA, RCA, SPCO, SHPO, Transportation Security Administration, USGS – APP Construction Overview Workshop
- March 2, 2011 Meeting with ADEC, ADHSEM, ADFG, ADNR, AGIA Coordinator's Office, ADOTPF, BLM, COE, EPA, FERC, FWS, NMFS, OFC, SPCO – APP Pipeline Right-of-Way Preparation and Maintenance Workshop
- March 3, 2011 Meeting with ADEC, ADFG, ADNR, AGIA Coordinator's Office, BLM, COE, EPA, FERC, FWS, NMFS, OFC, SPCO – APP Waterbody Crossing Technical Workshop
- March 30, 2011 Meeting with FWS, NMFS, and OFC – Field Studies Overview and GTP Dredging
- April 21, 2011 Meeting with BLM, COE, FWS, SHPO, OFC, and USCG – APP 106 Framework Meeting
- May 12, 2011 Meeting with ADFG, ADNR, AGIA, COE, EPA, FERC, FWS, NMFS, OFC, SPCO – APP Dredging Workshop
- May 12, 2011 Meeting with COE, EPA, FERC, OFC – APP Dredging Workshop Breakout Session

FEDERAL AGENCY CORRESPONDENCE

Bureau of Land Management

Bureau of Land Management (BLM), Anchorage, Alaska
March 16, 2009. 10:00 AM-11:30 at BLM office

Attendees:

TransCanada Team:	*Agency Staff:*
Karen Etherington (TransCanada)	**Run Dunton** (BLM)
Chris Humphrey (AECOM)	**Ramona Chinn** (BLM)
Jon Issacs (URS)	**Jerry Brossia** (BLM JPO)
	Diann Rasmussen (BLM JPO)
	Joe Correa (BLM JPO)
	Joe Dygas (BLM JPO)
	Doug Lalla (BLM JPO)
	Christa Gunn (OFC)

Meeting Objectives

The goals of this meeting were to discuss: 1) an update on the APP; 2) review a winter construction video; 3) address questions from staff; and, 4) discuss the next steps to obtain information needs to support the cost estimate for open season.

Content of Key Messages Conveyed and Questions Raised:

- Why isn't TC using ANGTS geotechnical data?
- How will TC develop adequate information the Class IV cost estimate in time for Open Season?
- Will the whole pipeline be buried?
- Would you build in the summer, winter or both?
- How many compressor stations? What will be the footprint size for each station?
- What size engines and number?
- How will ROW proximity to TAPS and other proposed projects (ANGDA, Enstar, etc) be addressed? Current 200ft criteria are not based on engineering evaluation. Possible to coordinate with other projects to sequence pipeline placement with close proximity ROWs? Locating multiple pipe projects should be done to allow for orderly and safe development.
- Share results from Environmental Information Need Analysis report? Not as complete document but could share data source lists.
- Is it possible that one EIS can be prepared that addresses both Denali and TC APP? Current timelines are different.

Data Discussion

JPO opinion is that ANGTS data has tremendous value and should be used. Expect most will become publicly available and other projects will be using.

JPO will want to have access to GIS data including air photo data to facilitate their project review and input. Need to establish data transfer protocols and GIS points of contact.

Agency Issues, Concerns, and Recommendations:

BLM Office of Pipeline Monitoring (aka JPO) is expecting to participate in engineering design review and DOT PHSMA special use permits. DOT & BLM (as per their 2006 MOU) will play joint role in review and approval of special use permits (aka waivers) likely to be pursued for alternative pipe designs. DOT role is based on safety, BLM is role is protecting federal resources---TAPS is considered one of these resources on federal land. Timeline for reviewing waiver requests could impact NPEA process and recommends that a schedule is provided for that activity as soon as possible.

DRAFT

BLM described the NEPA process as being 'full disclosure', and the need for an 'Alaska' process which includes reviewing engineering data. BLM is currently working with OFC to finalize implementation plans for existing Federal Agency MOU.

BLM JPO wants to engage TC engineering team to understand the details and methodologies of the geotechnical and engineering design program. They want to understand our engineering design approach (as it seems different to what they've seen in the past).

BLM will require an additional cost recovery agreement for subsequent project activities beyond the 2009 winter geotechnical program. Each new activity will require a new SF299 submission and related cost recovery agreement. BLM will administer the cost recovery agreement for other federal agency (except USACE) activities.

Ron Dunton in new role as Gas Pipeline(s) Project Manager and will be primary point of contact for BLM for all activities. Ron will engage BLM staff and JPO for technical support work on permitting and EIS tasks on routine basis. Romona Chinn role will shift to more high level activities for all gas projects, including working with OFC.

Action Items:

Work with Ramona Chinn to develop a new cost recovery agreement to address activities beyond the current geotechnical investigation effort.

Set up meeting with TC Engineering (Joe Zoe and/or Jack Beattie) and JPO to discuss current details and methodologies of the geotechnical and engineering design program

DRAFT

ALASKA
PipelineProject
An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0245

March 9, 2011

Dr. Robert King
State Archaeologist
Bureau of Land Management
Alaska State Office
222 West 7th, #13
Anchorage, AK 99513

Re: 2010 Cultural Resource Field Study Results – Preliminary Report to the U.S. Bureau of Land Management (BLM), Permit No. AA-92471

Dear Dr. King,

Per conversations with Bill Hedman at BLM, ExxonMobil is augmenting it's 2010 Cultural Resource Field Study Results – Preliminary Report to the Bureau of Land Management. Additional supporting information is being submitted including:

- Attachment A: Cultural Resource Site Forms Alaska Pipeline Project (APP), 2010 Phase I Survey;
- Attachment B: 2010 APP Phase I Survey BLM Cultural Resource Site Information Matrices – Table 1 Historic Sites, and Table 2 Prehistoric Sites; and
- Attachment C: 2010 APP Phase I Survey – Table 1 Tabulation of Areas Surveyed on BLM Lands.

Please note that all the attachments are considered privileged information under Section 106 of the National Historic Preservation Act of 1996. Per BLM direction, we are also sending copies of this report the Ms Shelly Jacobsen, BLM Central Yukon Field Office Manager, attention Mr. Bill Hedman, and Ms Beth Mcclean, BLM Glenallen Field Office Manager, attention Mr. John Jangala. Any questions or comments regarding the work and this letter report, the presentation of information, or the interpretation of data are welcome. Inquiries should be addressed to Rod Hoffman (907-564-3641) or Bryan Trimm (907-564-3609) with the Alaska Pipeline Project, Anchorage-based Environment, Regulatory and Land Team.

Sincerely,

for

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U. S. Manager – Environment, Regulatory and Land

TransCanada ExxonMobil

DRAFT

Attachments: A. Cultural Resource Site Forms Alaska Pipeline Project (APP) 2010: B. 2010 APP Phase I Survey BLM Cultural Resource Site Information Matrices and C. 2010 APP Phase I Survey.

cc: Shelly Jacobsen, Office Manager, attention William Hedman (BLM Central Yukon Field Office)
Beth Maclean, Office Manager, attention John Jangala (BLM Glennallen Field Office)
Project Files
Rod Hoffman (APP)
Bryan Trimm (APP)
Steve McDaniel (APP)

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0372

August 31, 2011

Dr. Robert King, BLM State Archaeologist
U.S. Department of the Interior, Bureau of Land Management, Alaska State Office
222 West 7th Ave., #13
Anchorage, AK 99513-7504

Subject: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Dr. King:

TransCanada Alaska Company, LLC and Foothills Pipe Lines, Ltd., working cooperatively with ExxonMobil Alaska Midstream Gas Investments LLC as the Alaska Pipeline Project ("APP"), are collectively developing a project to treat, transport, and deliver gas from the Alaska North Slope to markets in North America. The purpose of this letter is to initiate formal consultation with the Bureau of Land Management (BLM) regarding compliance with relevant cultural resources and historic preservation regulations.

The APP will comprise the following major jurisdictional components in Alaska:

- About 58 miles of buried 32-inch-diameter Point Thomson Gas Transmission Pipeline and associated aboveground, ancillary, and auxiliary facilities from the processing facilities at the Point Thomson field to a gas treatment plant (GTP) near Prudhoe Bay;
- A GTP that would process gas from the existing Central Gas Facility also near Prudhoe Bay and from the Point Thomson field to deliver up to 4.5 billion cubic feet per day of residue gas, depending on final subscriptions and gas source; and
- About 745 miles of buried 48-inch-diameter Alaska Mainline and associated aboveground, ancillary, and auxiliary facilities from a GTP to the Alaska-Yukon border, including provisions for gas delivery points within Alaska.

As part of the project, the APP will also construct eight compressor stations, two meter stations, various mainline block valves, and pig launcher and receiver facilities; and associated ancillary and auxiliary infrastructure such as additional temporary workspace, access roads, helipads, construction camps, pipe storage areas, contractor yards, borrow sites, and dock modifications in Alaska. APP will also use existing airstrips. A project overview map is attached for general reference.

As required by Title 18 Code of Federal Regulations (CFR) Part 380.12, APP is preparing an application to the Federal Energy Regulatory Commission (FERC) for a Certificate of Public Convenience and Necessity under Section 7(c) of the Natural Gas Act, consistent with the Alaska Natural Gas Pipeline Act of 2004.

The FERC will be the lead federal agency responsible for implementation of the National Environmental Policy Act, and the National Historic Preservation Act (NHPA, 16 United States Code 470). Pursuant to 36 CFR 800, 18 CFR Parts 380.12, 380.14, Appendix A to Part 380, and pursuant to the FERC's Guidelines for Reporting on Cultural Resources Investigations for

DRAFT

Pipelines (December 2002), APP is asked to consult with the State Historic Preservation Office, Alaska Native Organizations, and/or land-managing agencies early in the project planning.

On May 26, 2010, APP met with representatives of the Bureau of Land Management (BLM) and the Alaska Office of History and Archaeology (OHA) to discuss the survey protocols for the project in preparation for the beginning of field work in 2010. On April 21, 2011, APP met with representatives of the BLM, OHA, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, and U.S. Coast Guard to again discuss the project and the Section 106 process. Specific items that were discussed and agreed upon at these meetings included:

- that APP would focus on field surveys for the first 3 years and not mitigation; mitigation planning would occur later in the Section 106 process;
- the area of potential effect (APE) for direct impacts was defined as the entire length of the Alaska Mainline Pipeline corridor, the Point Thompson Gas Transmission Pipeline corridor, potential GTP sites, and any ancillary facility locations;
- that a Programmatic Agreement (PA) would be advanced and signed by the time the FERC issues the Final Environmental Impact Statement (FEIS) to cover project changes, unsurveyed tracts, and unanticipated discoveries post-FEIS;
- a sensitivity model would be developed to determine areas of high and low probability;
- survey methods and artifact collection were discussed; and
- Phase I surveys would be completed in 2010 and 2011 on accessible lands with the potential for additional surveys in 2012; any required Phase II surveys would be completed at a later date where needed.

APP initiated cultural resources surveys in June 2010, conforming to the methodologies that were discussed during the May 26, 2010 meeting. However, no formal consultation has been initiated with the BLM regarding the project; therefore, with this letter APP, acting as the FERC's designated non-federal representative for purposes of complying with Section 106 of the NHPA, respectfully requests your input regarding compliance with the relevant historic preservation laws. APP understands that the BLM is the lead federal agency responsible for issuing the Right-of-Way Grant for the project and is coordinating that process with the other federal land managing agencies affected by the project; copies of this letter have been provided to these additional federal agencies.

APP appreciates your assistance with this request. If you have any questions or will require any additional information, please contact Ryan Childs at (907) 564-3626 or by email to ryan.childs@exxonmobil.com.

Regards,

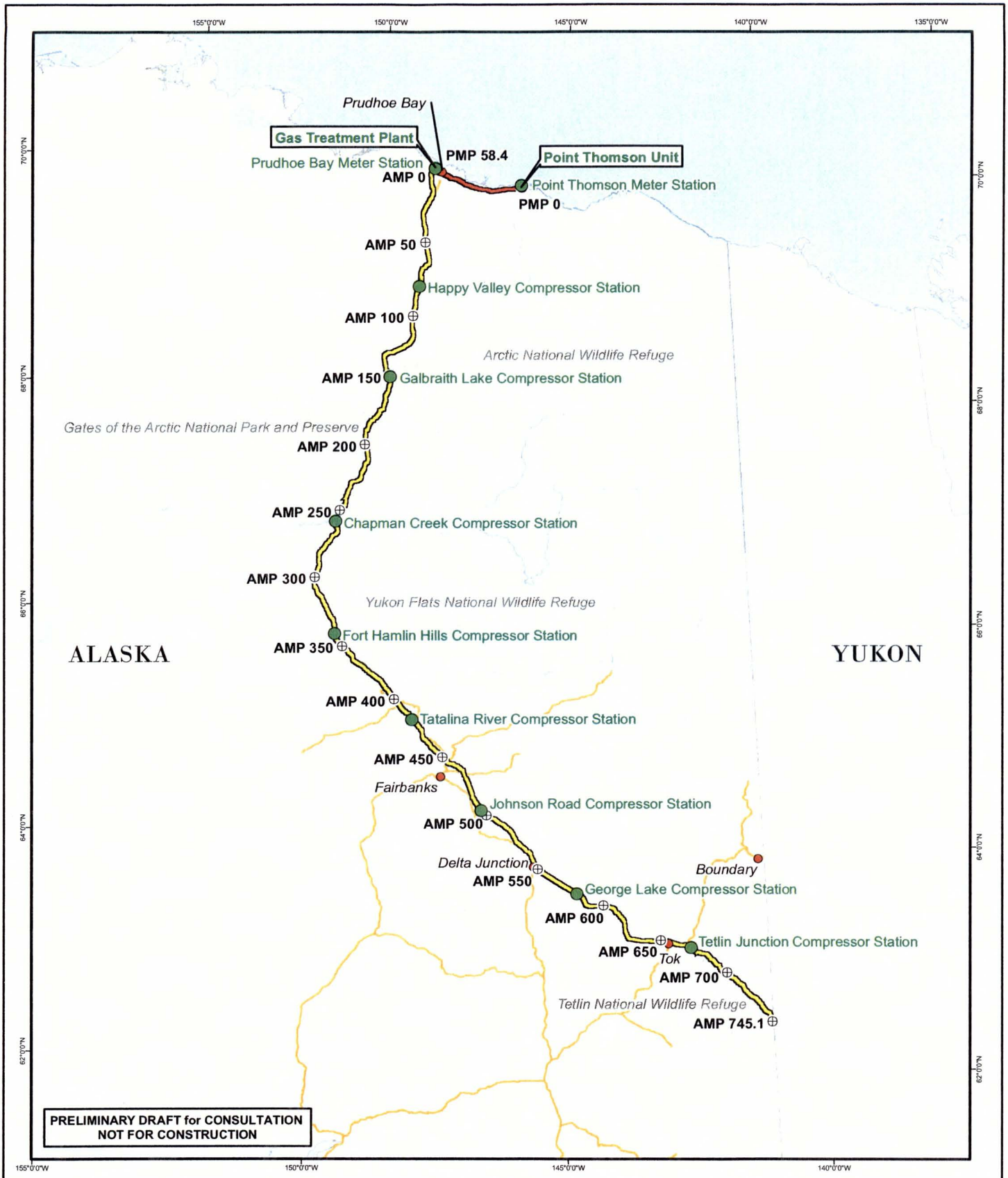
Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Co.
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Attachment: Project Overview Map

DRAFT

cc: Debbie Corbett, U.S. Fish and Wildlife Service
Ron Gunderson, U.S. Department of Defense, Air Force
Colonel Timothy Jones, U.S. Department of Defense, Army
Lisa Graham, U.S. Department of Defense, Army
Robert Jobson, U.S. Army Corps of Engineers
Paul Roehl, Bureau of Indian Affairs
Jim Helfinstine, U.S. Coast Guard
Judith E. Bittner, Alaska Office of History and Archaeology
Laurie Boros, FERC
Julie McKim, OFC



LEGEND

- ⊕ Proposed Route Milepost
- **A M P** Alaska Mainline Milepost
- **P M P** Point Thomson Gas Pipeline Milepost
- Facility
- Populated Place
- Proposed Alaska Mainline
- Proposed Point Thomson Gas Pipeline
- Highway
- River / Lake
- Park or Protected Area

0 25 50 75 100 Miles

Alaska Pipeline Project
Project Overview

Rev: F

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U.S. Army Corps of Engineers

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DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, ALASKA
REGULATORY DIVISION
P.O. BOX 6898
ELMENDORF AFB, ALASKA 99506-0898

REPLY TO ATTENTION OF:

JUL 02 2010

Regulatory Division
POA-2008-129

David E. Erikson
Senior Biologist/Project Manager
Environmental and Planning Group
URS Corporation
P.O Box 15204
Fritz Creek, AK 99603

Dear Mr. Erikson:

This is regarding the Alaska Pipeline Project (APP) 2010 Field Studies Protocols. The APP project has been assigned number POA-2008-129, which should be referred to in all correspondence with us.

The Corps has reviewed the APP 2010 Wetlands Delineation Field Studies Protocol, dated June 2010. The Corps hereby concurs that the methodology and delineation techniques as outlined in the procedures are adequate to meet the requirements of the Corps 1987 Wetland Delineation Manual and the Alaska Regional Supplement (September 2007). The Corps recommends that the delineation team conduct a post-field season review of the data collected in 2010 to identify any missing or conflicting data in conjunction with the development of future field study protocol. The Corps will coordinate with you to review this plan and provide any recommendations prior to conducting any additional field work.

The study area described in the protocol includes wetlands mapping corridor described as 2,000 feet wide (1,000 feet on each side of the project centerline), which is the standard study corridor width for proposed projects of this type in Alaska. The Corps recommends this width to ensure all areas that could potentially be impacted are fully analyzed during the initial environmental review process. Use of a corridor of this size is intended to avoid the need for a supplemental data collection which may affect timing of the environmental review process should an alignment shift be required. The Corps maintains if it is determined at any time during the study phase or the environmental review process that additional field work is essential outside of this established corridor, the applicant would be required to collect the additional information.

You may contact me at (907) 753-2819, toll free from within Alaska at (800) 478-2712, by email at serena.e.sweet@usace.army.mil or by mail at the address above, ATTN: CEPOA-RD, if you have questions. For additional information about our Regulatory Program, visit our web site at www.poa.usace.army.mil/reg.

Sincerely,

Serena Sweet
Project Manager

DRAFT

ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	**Alaska Pipeline Project**
	Meeting Subject:	Regulatory Review Meeting
	Date of Meeting:	February 3, 2011
	MoM Number:	MM-ETAK-0060 Rev 0

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
Shannon Morgan, Team Leader	US Army Corps of Engineers	Bryan Trimm	APP
Serena Sweet, Project Manager	US Army Corps of Engineers	Jon Schmidt	APP
Roberta "Birdie" Budnik, Regulatory Specialist	US Army Corps of Engineers	Ryan Childs	APP
Frank Richards, Deputy Federal Coordinator	Office of Federal Coordinator		
Julie McKim, Project Engineer	Office of Federal Coordinator		

AGENDA ITEMS:

Item	Agenda Item	Leader	Duration
1.	Serena Sweet will be the point-of-contact for the COE, Birdie will be assisting her. Shannon Morgan is their team leader. Ryan Childs is the APP point-of-contact; he will bring in other APP resources as necessary.	Trimm/Sweet	2 min
2.	The APP presentation included an overview of the project, information on the EIS/CPCN application process and phased permitting, and a list of topics to guide the meeting discussion with the COE.	Childs	35 min
3.	The EIS needs to cover the entire footprint of the proposed route without major changes later during the EIS process.	Sweet	2 min
4.	Off ROW areas (camps, roads, material sites, etc.) should be included in project description with as much info. as possible for COE review and concurrence.	Sweet	2 min
5.	APP should keep track of any route changes and the reasoning for the change so that when COE (or others) reviews the route they won't suggest pushing the route back to an area that APP had to avoid or has found unfavorable. Also, this would demonstrate any avoidance or minimization efforts by APP to aid in the COE mitigation and alternatives review. APP would be prudent to document those changes from the AGIA route to the FERC filing so that it shows that field information, engineering information, and other input from agencies/public was used and reflected in the route that gets filed.	Sweet	5 min
6.	There was a brief discussion of the Valdez option with an explanation that APP is currently focusing efforts on the Alberta option but that commercial discussions were continuing.	Sweet/Trimm	2 min
7.	There was discussion regarding dialogue with other agencies and understanding of focus on agencies with permitting authority.	Sweet	2 min
8.	There was an overview discussion of 2010 field programs and survey protocols used, esp. with regard to wetlands. APP would like to schedule a meeting with COE to review the wetland delineation protocols and give Serena a copy of comparison memo prepared by Oasis Environmental prior to meeting. Serena and Birdie will be available next Friday for such a meeting.	Childs/Sweet	5 min
9.	The COE would like to see the wetland mapping results and results of the field work as soon as possible. This includes the functional assessments to ensure that the routing avoids the most sensitive areas.	Morgan	5 min

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MINUTES OF MEETING

10.	COE confirmed APP understanding that CWA Sec. 404/RHA Sec.10/MPRSA Sec.103 are the only direct COE permitting that would be required.	Sweet	2 min
11.	There was discussion of how best to approach the necessary Sec. 404/10 permits. For a project of this magnitude, this COE office usually issues one individual permit and would want to do so to cover the pipeline, GTP, and all other associated facilities. APP pointed out that information submitted during phased approach would be based on the entire project, but that the timing of construction would vary from 2014 to 2017 and therefore suggested an individual permit for the GTP and related facilities to be released soon after the FEIS is complete and a NWP for most of the pipeline (possible individual permit for compressor stations, roads, material sites, etc.) that can be applicable whenever that construction portion gets started. COE warned that issuing permits for parts of the project under separate authorizations could be considered segmentation and would be inconsistent with regulatory practices in Alaska. COE said they would consider this issue as the EIS and permitting processes move forward.	Morgan/ Childs/Sweet/ Schmidt	10 min
12.	APP offered to share with COE examples where other COE Districts have utilized both individual and nationwide permits. Additionally, they would like to see the amount of wetlands on those projects.	Sweet	5 min
13.	COE questioned whether GTP dredge disposal should be covered under MPRSA Sec. 102 or Sec. 103. APP pointed out that Sec. 103 covers a project-specific dredge disposal location and that Sec. 102 covers a multiple user and long-term disposal site designation made by the EPA. APP would only use the disposal site for the duration of construction and would not need to use or maintain the dredged areas after construction and therefore wouldn't need Sec. 102 disposal site. COE indicated that they would review the regulations and discuss with EPA. It was agreed that further discussions on the topic among the agencies and the applicant would be necessary to determine the best path forward.	Sweet/Trimm	10 min
14.	There was a general discussion of the timing of submitting permit applications. APP will provide drafts of information to COE during the pre-filing process and draft applications near the DEIS. The final application could be filed in the DEIS-FEIS time window and the COE could time their public comment period concurrently with FERC's DEIS comment period. This would facilitate issuance of the permit immediately after the FEIS. This option will require close communication and coordination to ensure the permit packages provide the necessary information and are complete before submitting. Another permit application timing option would be to file the final permit applications after the FEIS, do the public notice period, and then issue the permits. However, this approach (esp. with one individual permit for the project) would be difficult to complete in order to meet APP's desired GTP construction start in late 2014.	Sweet	15 min
15.	COE asked APP if they had considered submitting a draft Record of Decision to facilitate agency review and approval. APP recommended they write a letter to FERC at the appropriate time to do so.	Morgan	2 min
16.	If there is a risk of project modifications after the DEIS, then effort should be undertaken to issue an IP from the GTP separate from the remaining permitting so GTP portion of the project is not delayed.	Schmidt	2 min
17.	Recommended strategy will be to develop the format and content of information exchange with the COE early on and provide them with updates as field work progresses. FERC Resource Reports should include information that COE staff indicate they'd need to start reviewing in support of permitting. APP/COE should develop format, etc. early in 2011 to ensure that first draft of Resource Reports cover the concerns. This will help move agencies towards accepting permit applications in the DEIS to FEIS stage, facilitating permitting in time for GTP construction start.	Sweet	5 min
18.	APP described upcoming workshops. COE will participate as schedules allow.	Schmidt/ Sweet	5 min

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MINUTES OF MEETING

ACTION ITEMS:

Item	Action Item	Action By	Date Req.
1	APP/COE to meet Friday, 2/11/11 to review delineation protocol and Oasis Environmental comparison study. Ryan to confirm time/location of meeting.	Childs	2/11/11
2	Ryan to provide information regarding other project experience use of individual permit and nationwide permit later this month.	Childs	2/18/11
3	Ryan to schedule a follow-up meeting on permit information formatting as discussed in item no. 17 above.	Childs	Post 2/18/11

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ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	**Alaska Pipeline Project**
	Meeting Subject:	Regulatory Review Meeting
	Date of Meeting:	February 11, 2011
	MoM Number:	MM-ETAK-0075 Rev A

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
Serena Sweet, Project Manager	US Army Corps of Engineers	Ryan Childs	APP
Roberta Budnik, Regulatory Specialist	US Army Corps of Engineers	Rod Hoffman	APP
Julie McKim, Project Engineer	Office of Federal Coordinator	Dave Erikson	APP – ERSS (URS)
		Susan Ives	OASIS Environmental

AGENDA ITEMS:

Item	Agenda Item	Leader	Duration
1.	Ryan and Rod provided overview understanding of APP and FERC considerations of Project's wetland delineations.	Childs	5 min
2.	Serena provided overview of COE wetland delineation expectations for a project of this size in Alaska. She indicated that COE expressed to FERC that they are not expecting a mile-by-mile, on-the-ground delineation. The COE understands the short window when field work can be conducted and the restrictions that this places on what can be reasonably done and their methodology as used on this project adequately identifies wetlands.	Sweet	5 min
3.	Serena expects ongoing discussions with FERC on this issue, but the COE initial approval of the wetland methodology for the project (2010 letter from COE to APP) is not likely to change.	Sweet	5 min
4.	Dave Erikson reviewed the project methods and status, including the use of both Observation Points (photos, notes, and GPS) and Determination Points (complete datasheet, photos, notes, and GPS) within the300-ft study corridor. Restricted access to private property was mentioned as an issue in 2010. Where the project cannot secure access to private property for 2011 field effort, it will work to identify appropriate reference sites in nearby areas of similar air photo signatures for data collection. Access should be obtained by mid-August 2011 or reference sites will likely be used.	Erikson	20 min
5.	Serena stressed making sure APP is establishing sampling points in reference areas across project, not just focusing solely on difficult classification areas.	Sweet	5 min
6.	Susan Ives discussed a memorandum being prepared by OASIS Environmental. She highlighted the use of misclassification matrices to identify patterns and trends per study spread, and applying confidence coding during the map revision process. High, moderate, and low confidence codes are applied to both the classification and shape of wetland polygons to identify areas where map revisers have greater degrees of uncertainty in the wetlands' Cowardin classification and/or boundaries. Size is an issue with selecting new field targets in areas already covered, so larger areas of low confidence may be incorporated into the 2011 field program.	Ives	15 min

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MINUTES OF MEETING

7.	Julie was encouraged to hear APP is taking the extra step of misclassification matrices to identify patterns per project region. She expressed that this, in conjunction with the process of identifying lower confidence areas for potential inclusion in the 2011 field program, should help FERC feel more comfortable with the wetland delineation method for the project. She suggests APP speak with the FERC to review 2010 progress, misclassification matrices, confidence coding, and additional 2011 field efforts.	McKim	5 min
8.	Serena expressed concurrence with how the methodology has been applied to date. When the revised wetland maps are available for review (mid to late March) she looks forward to another meeting on the subject. A GIS-format "walk-thru" was discussed for the presentation.	Sweet	5 min
9.	Ryan, Serena, and Julie discussed setting up a teleconference with Chris Meade, EPA – Juneau office to further discussing permitting options for dredging associated with the GTP.	Childs	5 min

ACTION ITEMS:

Item	Action Item	Action By	Date Req.
1	Serena to review OASIS memorandum re: wetland mapping and provide comments to Ryan	Sweet	2/18/11
2	OASIS to finalize memorandum and APP to provide to agencies as appropriate.	Hoffman	Mid-March
3	Ryan will schedule a meeting for mid – later March to review updated wetland maps.	Childs	Mid-March
4	Serena will contact EPA regarding review of wetland data already collected and future wetland data collection.	Sweet	TBD

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U.S. Department of Defense

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ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	**Alaska Pipeline Project**
	Meeting Subject:	AFB Military Property discussion points and alignment overview
	Date of Meeting:	July 12, 2011
	MoM Number:	**MM-ETAK-0139**

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
E. Harris	Eielson AFB	S. McDaniel	APP
H. Petak	OFC	R. Childs	APP
J. Miller	Eielson AFB	N. Scheirhorn	APP
D. Cassino	Eileson AFB	P. Thayer	APP

AGENDA ITEMS:

Item	Agenda Item	Leader	Duration
1.	Route overview in the field (drive out he route proposal and view infrastructure on AFB)	D. Cassino	
2.	Project alignment proposal	S. McDaniel	
3.	General Process for Easement and temporary rights on AFB.	E. Harris	
4.	Follow-up meeting	All	

ACTION ITEMS:

Item	Action Item	Action By	Date Req.
1	Set meeting date with discipline leads from AFB	E. Harris	8/3/2011
2			
3			
4			
5			
6			
7			

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ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	**Alaska Pipeline Project**
	Meeting Subject:	Project Update and Military Property discussion points
	Date of Meeting:	July 12, 2011
	MoM Number:	**MM-ETAK-0137**

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
See attached list labeled Attachment A			

AGENDA ITEMS:

Item	Agenda Item	Leader	Duration
1.	Meeting Purpose	S. McDaniel	
2.	Project overview	R. Childs	
3.	Project alignment proposal	S. McDaniel	
4.	General Process for Easement and temporary rights on Military, managed properties.	Nason / Blizzard / Cassino	
5.	Follow-up meeting requirements	All	

ACTION ITEMS:

Item	Action Item	Action By	Date Req.
1	Route Map for route in GIS format shapefile (if not already received)	Thayer / McDaniel	
2	Provide meeting information and follow-up to BLM .	Childs	
3	Arrange site visit week of 25th.	Thayer	
4	Contact Engineering and Environmental project disciplines for input.	McDaniel	
5			
6			
7			

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ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	**Alaska Pipeline Project**
	Meeting Subject:	AFB Military Property discussion points and alignment overview
	Date of Meeting:	8/03/2011
	MoM Number:	**MM-ETAK-0138**

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
E. Harris	Eielson AFB	S. McDaniel	APP
H. Petak	OFC	C. Wilder	APP
J. Miller	Eielson AFB		
M. Neeson	Eielson AFB		
SEE ATTACHED LIST FOR ADDITIONAL NAMES			

AGENDA ITEMS:

Item	Agenda Item	Leader	Duration
1.	Project overview and update for project progression	S. McDaniel	
2.	Project Construction overview	C. Wilder	
3.	Issues – Q&A for route/construction/Field Studies.	E. Harris / All	
4.			

ACTION ITEMS:

Item	Action Item	Action By	Date Req.
1	Request for information specific to studies	H. Petak	
2	Send GIS data (alignment)	S. McDaniel	
	Issues Presented and Notes:		
	*They requested we avoid the ricochet fan of firing range by moving our crossing of TAPS further south		
	*We will need to maintain access on their existing roads		
	*They recommend we avoid crossing or encroaching close to the old jet fuel line		
	*The water table in the area is high and may contain contaminants, making dewatering an issue		
	*Contaminated soils are possible		

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U.S. Environmental Protection Agency

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ExxonMobil

ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

TransCanada

RECORD OF PHONE CONVERSATION/MEETING

Date: 2/9/2011 Sheet: of

With: Chris Meade meade.chris@epa.gov	Representing: US EPA – Region 10 - Juneau, AK
By: Ryan Childs	
Subject(s): Introduction, Project Schedules, GTP Description incl. Dredging, Permitting	
Phone: 907-586-7622	Start Time: 4:30 Finish Time: 5:15

Notes:

1. Chris contacted Ryan following conversations with Julie McKim regarding 2/3/2011 APP/USACE/OFC Regulatory Review Meeting. General introduction of roles and responsibilites by both Chris and Ryan.
2. Ryan provided a summary of various one-on-one agency meetings APP is having with federal and state agencies following APP/FERC 12/14/2010 Project Description and Siting & Routing Workshop.
3. Ryan provided a summary of various field data collection efforts conducted in 2010 and those planned for 2011, including sediment sampling for dredging and disposal.
4. Ryan provided a summary of the FERC regulatory schedule and information flow to agencies during the pre-filing time period.
5. Ryan provided an overview of construction sequencing and schedule at the GTP with a focus on dredging activities.
6. Ryan outlined APP's intent to permit it's dredging activities under MPRSA Sec. 103 and preliminary discussion of that approach with USACE at the 2/3/2011 meeting. Ryan also mentioned the USACE expressed need for an internal review of dredging/disposal permitting. Chris provided an overview of pursuing a disposal site selection under MPRSA Sec. 103 with COE responsibility and EPA review and concurrence, and contrasted that to a MPRSA Section 102 site designation promulgated by EPA. Chris said that the "alternative site selection" process under MPRSA Sec. 103 may be appropriate for the GTP dredging/disposal given the verbal description of the GTP dredging/disposal scope; however, EPA needs a more detailed written project description to determine which path is appropriate.
7. Chris indicated his willingness to discuss APP dredging/disposal sampling plans as APP and its consultants continue the design.
8. Chris asked for a ball park estimate of the volume of dredged material (e.g., 1,000,000 cubic yards or 10,000,000 cubic yards). Ryan said the dredging/disposal plan is not done yet, but the amount of dredge material is more on the order of hundreds of thousands of cubic yards. Ryan subsequently informed Chris that the preliminary plan currently indicates roughly 600,000 cubic yards of dredge material.
9. Chris asked about the disposal duration and whether there will be a long term need for maintenance dredging & disposal. Ryan said APP's preliminary plan is for the dredging & disposal to be done within 3 years.

Actions:	Who:	By When:
1. Ryan discussed the likelihood of near-term further discussions with APP and it's consultants and the possiblity of a teleconference or meeting with Chris and USACE staff at an undetermined point in the near future and mentioned that he would raise it as a discussion topic with Serena Sweet – USACE and Julie McKim – OFC.	Childs	Undetermined

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ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	**Alaska Pipeline Project**
	Meeting Subject:	Regulatory Review Meeting
	Date of Meeting:	March 31, 2011
	MoM Number:	MM-ETAK-0120

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
Mark Jen	US EPA	Ryan Childs	APP
Tim Mayers	US EPA	Nancy Schierhorn	APP
Frank Richards	OFC	Ruth Ivory-Moore	APP
Julie McKim	OFC		
Heather Ptak	OFC		

AGENDA ITEMS:

Item	Agenda Item	Leader	Duration
1.	Ryan is responsible for APP's federal agency coordination. He is the primary point of contact for any of the federal agencies and will bring in others from the project team or support contractors as needed to address agency inquiries. Mark Jen is the primary point of contact for the EPA. Tim Mayers will be assisting him on the project. Chris Meade in Juneau continues to be the lead for questions related to dredging.	Childs/Jen	5 min
2.	There was discussion about the workshops earlier in the month. There was some discussion about alternatives and the scope of the preliminary draft resource reports currently under development. The preliminary draft resource report on alternatives should include route re-alignments, compressor stations locations, system alternatives, and the GTP location. A possible workshop topic suggested was field study protocols for all field surveys. Also, Mark inquired about a workshop on resource reports. Ryan stated that they may consider one in December when the full package of resource reports is available. Ryan also provided an overview of each of the resource reports as described in the FERC regulations.	Childs/Jen/ McKim	10 min
3.	Ryan provided a review of the regulatory pathway for the project, esp. focusing on data gathering during FERC pre-filing, as opposed to later post-application permitting development.	Childs	5 min
4.	Ryan provided an overview of the major existing data sources relied on by the project and subsequent identification of data gaps driving the field data collection efforts.	Childs	10 min
5.	Frank asked about the use of existing air quality data and what the coverage of such existing data might be. Also asked about the schedule for collection of air quality data during the 2011 field effort. APP suggested that the air data doesn't have to be completely refined for FERC application. APP will discuss with FERC about what data is necessary. It was suggested that maybe APP have separate meeting with OFC, EPA, others (possibly ADEC) to focus on air quality efforts to date and next steps.	Richards/Childs	5 min
6.	Ryan provided an overview of the protocols used for the 2010 field sampling efforts for fisheries, hydrology, wetlands, and cultural resources and offered copies of the protocols if there was interest.	Childs	15 min

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MINUTES OF MEETING

7.	Ryan provided an overview of the proposed 2011 field studies and other study programs; fisheries, hydrology, wetlands, and cultural resource studies as well as wildlife, vegetation, air & noise monitoring, contaminated sites, and marine sediment sampling. Ryan agreed to schedule a joint meeting with USACE, EPA, and OFC to review 2010 wetland mapping results. Ryan made mention that sufficient data exists for the EIS for some areas of study (bald and golden eagles and vegetation) and that additional data would be collected prior to construction, as necessary.	Childs/Jen	15 min
8.	No air monitoring or contaminated sites field work was conducted in 2010. Ryan emphasized that the initial work completed on contaminated sites has been focused on literature review to identify areas of known contamination. There was discussion of the likelihood of contamination along the old Haines pipeline right-of-way in particular, including through Tetlin NWR. Additional areas of concern are routing through material sites and military bases where likelihood of encountering unknown contamination may not be identified during a literature review.	Ptak/Childs	10 min
9.	There was discussion of subsistence data gathering and health impact assessments. Ryan indicated that APP's team is currently developing plans with regards to those programs and it probably would be most efficient to have a future meeting focused on those topics.	Childs/Richards/ Jen	10 min
10.	Heather asked if APP knew if they would be pursuing construction of permitted landfills or if they would utilize existing landfills in Alaska and the Lower 48 as necessary. Ryan indicated that the detailed information that Heather was inquiring about was still in a planning stage and would be developed and permitted for at a later stage in the project development.	Ptak/Childs	5 min
11.	Ryan provided an overview of GTP execution/dredging as discussed previously with USACE, FWS, NMFS, and EPA-Juneau.	Childs	15 min
12.	Ryan asked what areas EPA may be involved in during the NEPA and permit reviews process. EPA stated that they see the potential for their involvement by providing oversight, concurrence, or expertise on: dredging, air quality, wetlands/functional assessment/USACE 404 permit, water body crossings, environmental justice, socioeconomics, subsistence, human health, and climate change. For instance, when APP meets with USACE regarding wetlands would EPA like to be involved? Mark confirmed that EPA would like to participate and would coordinate with USACE.	Childs/Jen/Maye rs	5 min

ACTION ITEMS:

Item	Action Item	Action By	Date Req.
1	Ryan will schedule a joint meeting with USACE/EPA/OFC to review the 2010 wetland mapping effort.	Childs	TBD
2	Ryan follow up on separate air quality meeting	Childs	

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U.S. Fish and Wildlife Service

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ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	**Alaska Pipeline Project**
	Meeting Subject:	Regulatory Review Meeting
	Date of Meeting:	February 2, 2011
	MoM Number:	MM-ETAK-0059 Rev 0

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
Jewel Bennett, Branch Chief – Conservation Planning	US Fish & Wildlife Service – Fairbanks Office		
Frances Mann, Regional Coordinator	US Fish & Wildlife Service – Anchorage Office		
Jennifer Spegon, Energy Coordinator	US Fish & Wildlife Service – Anchorage Office		
Julie McKim, Project Engineer	Office of Federal Coordinator		
Myron Fedak	APP		
Jon Schmidt	APP		
Ryan Childs	APP		

AGENDA ITEMS:

Item	Agenda Item	Leader	Duration
1.	The FWS main point-of-contact for the project will be Jewel Bennett; Frances Mann and Jennifer Spegon will assist and direct APP to the appropriate specialists within FWS. The APP point-of-contact is Ryan Childs who will bring in other APP resources as necessary.	Fedak/Bennett	10 min
2.	The APP presentation included an overview of the project, information on the EIS/CPCN application process and phased permitting, technical workshops, and a list of topics to guide the meeting discussion with FWS	Childs	45 min
3.	Following the review of the phased EIS-permitting approach of APP providing information throughout the FERC process of filing of drafts of resource reports with required permit applications later, FWS acknowledged the acceptability of this approach. FWS understands that the stand-alone applicant-prepared (at the direction of FERC) Biological Assessment will be filed at the time of the FERC application. FWS stated that is too early to tell if a Biological Opinion is needed.	Bennett	5 min
4.	FWS acknowledged the need for a near-term meeting(s) to discuss existing data sources, surveys (completed/planned and not just for wildlife but wetlands as well); and survey protocols. Ted Swem – Fairbanks office- should be included in the meeting to discuss FWS existing data for ESA species. Jewel will help coordinate that meeting.	Bennett	10 min

APP PROPRIETARY
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5.	As regards eiders, FWS will look at permanent footprint impacts of the GTP and pipeline and assess total acreage loss in the context of the entire potential habitat on the North Slope. URS has been in contact with Eric Taylor regarding the potential to expand the current 2011 FWS eider aerial survey area to include APP acreage (incremental costs to APP account). FWS stated that it may be possible to leverage FWS historical and ongoing eider survey data to develop eider densities which coupled with disturbed acreage calculations could allow FWS to make a finding of an impact, but not adversely affecting the species. This approach has been used before and could obviate the need for a project-specific eider survey	Bennett	15 min
6.	The designation of polar bear critical habitat is new, and therefore creates uncertainty of just how to proceed with an assessment of potential GTP and pipeline impacts. Under the Marine Mammal Protection Act, Incidental Take Regulations are in place that cover certain activities on the Slope that the project might be able to utilize. However, the language is vague and addresses exploration, development, and production activities. The wording could possibly be used to address the dredging and GTP (but not dredge disposal), but might not be seen as applicable to the transmission pipeline. APP can either make sure the language in the programmatic agreement is updated to include all aspects of the project (due for renewal Aug. 2, 2011 – time is now to include language) or proceed on acquiring its own take permit specific for the project. AOGA has petitioned that language be inserted in the renewal to incorporate work associated with a gas pipeline. It would be in APP's best interest to review the EIS that was issued for the programmatic take permits to ensure the activities are covered, if not, then ensure the language is broadened to include this project's activities. Craig Perham is the key FWS contacts for FWS Marine Mammal Protection Act implementation in Alaska.	Bennett	20 min
7.	USFWS was pleased with APP's phased approach to permitting. And to compliment later surveys for actual construction, Frances suggested surveys this year to map Bald/Golden eagles/raptor nests along the project footprint might be useful for the EIS and routing of the pipeline. This would give FWS a perspective on the potential number of nests at risk and provide a context for any nests that APP would see as needed to be taken down. USFWS usually recommends winter clearing. FWS could issue a programmatic permit to do so, but would require an eagle conservation plan on how to compensate for that impact which would probably be part of the EIS. Limits exist on the total number of takes within the entire state of Alaska. APP suggested that it focus its early efforts on areas scheduled for summer construction. FWS has some data on existing nest areas (not comprehensive) that reduce or focus the surveys required.	Mann	15 min
8.	FWS will participate in Technical Workshops as schedules allow; the first week of March is favorable timing. A FWS suggestion for a possible workshop topic is mitigation requirements for the project. They felt it would be helpful to have discussions among the regulatory agencies prior to the FEIS. A focused workshop on that topic could start next year after the agencies have had a chance to review the draft resource reports and APP's assessment of potential impacts.	Bennett	10 min

MINUTES OF MEETING

9.	FWS acknowledged current APP routing in Tetlin Wildlife Refuge. APP discussed the minimization of routing with the previously disturbed Haines corridor (now down to roughly 2.5 miles). FWS acknowledged that approval should be feasible but that there is a need to address regulatory procedures to permit the crossing. It was suggested that a meeting be held with Refuge personnel (Greg Risdhal – acting refuge manager and Bud Johnson – lead biologist) to review existing data that they have begun to gather that can be leveraged to minimize the scope of new field surveys. FWS likely as good data on bald/gold eagles in the refuge.	Childs/Bennett	10 min
10.	Frances provided handouts on managing activities near nesting bald eagles, timeframes for clearing trees in concurrence with the MBTA, and suggestions for website information	Mann	5 min

ACTION ITEMS:

Item	Action Item	Action By	Date Req.
1	Ryan will schedule a meeting with Jewel and Frances to review data sources for the project including an overview of existing data, 2010 field survey effort, planned 2011 field survey effort and protocols. Meeting sometime later this month.	Childs/Bennett	2/11/2011
2	Jewel and Ryan will schedule a meeting with the Tetlin Wildlife Refuge staff to discuss planned 2011 field survey efforts and what information Refuge staff have that might help focus APP field survey efforts. Meeting sometime later this month.	Childs/Bennett	2/11/2011

APP PROPRIETARY DRAFT

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0365

August 8, 2011

Ms. Jewel Bennett, Branch Chief
Conservation Planning Assistance
U.S. Fish and Wildlife Service
101 12th Avenue, Room 110
Fairbanks, AK 99701

Subject: Alaska Pipeline Project
Threatened & Endangered Species Review and Bald & Golden Eagle Protection Review

Dear Ms. Bennett,

As you are aware, TransCanada Alaska Company, LLC and Foothills Pipe Lines, Ltd. and ExxonMobil Alaska Midstream Gas Investments LLC, collectively the "Alaska Pipeline Project" (APP or Project), are working cooperatively to develop a project to treat, transport, and deliver gas from the Alaska North Slope (ANS) to markets in North America. APP will comprise the following major jurisdictional components in Alaska:

- About 58 miles of buried 32-inch-diameter Point Thomson Gas Transmission Pipeline and associated aboveground, ancillary, and auxiliary facilities from the processing facilities at the Point Thomson field to a gas treatment plant (GTP) near Prudhoe Bay;
- A GTP that would process gas from the existing Central Gas Facility also near Prudhoe Bay, and from the Point Thomson field to deliver up to 4.5 billion cubic feet per day (bcfd) of residue gas, depending on final subscriptions and gas source; and
- About 745 miles of buried 48-inch-diameter Alaska Mainline and associated aboveground, ancillary, and auxiliary facilities from a GTP to the Alaska-Yukon border, including provisions for gas delivery points within Alaska.

As part of the project, APP will also construct eight compressor stations, two meter stations, various mainline block valves, and pig launcher and receiver facilities; and associated ancillary and auxiliary infrastructure such as additional temporary workspace, access roads, helipads, construction camps, pipe storage areas, contractor yards, borrow sites, and dock modifications in Alaska. APP will also use existing airstrips.

As required by Title 18 CFR Section 380.12, APP is preparing an application to the U.S. Federal Energy Regulatory Commission (FERC) for a Certificate of Public Convenience and Necessity under Section 7(c) of the Natural Gas Act and the Alaska Natural Gas Pipeline Act of 2004.

APP is requesting U.S. Fish and Wildlife Service (Service) review of the proposed project for potential effects on federally listed threatened and endangered species and their critical habitats. APP is acting as FERC's non-federal representative for purposes of complying with section 7(a) of the Endangered Species Act (ESA) as authorized under Title 18 CFR Section 380.13(b)(1) (see attached correspondence). In order to comply with FERC guidelines and Section 7 of the ESA, APP has prepared this request for your review and response.

The proposed pipeline and ancillary facilities are identified on the enclosed overview map and in the enclosed table which includes township, range, and sections for an expanded area along the centerline of the Project's linear and ancillary facilities. These expanded areas along the pipeline route and around ancillary sites are included to provide increased flexibility in planning. Construction will be phased by segment and by season, and is anticipated to commence as soon as the winter of 2014/2015 and continue until 2020.

Based on review of current Service publications, APP is aware of the following federally listed species and designated critical habitat falling under the jurisdiction of the Service in Alaska:

- Eskimo curlew (*Numenius borealis*) – Endangered;
- Short-tailed albatross (*Phoebastria (=Diomedea) albatrus)* – Endangered;
- Northern sea otter, southwest Alaska DPS (*Enhydra lutris kenyoni*) – Threatened;
- Polar bear (*Ursus maritimus*) - Threatened with designated critical habitat;
- Stellar's eider (*Polysticta stelleri*) (Alaska breeding population only) – Threatened
- Spectacled eider (*Somateria fischeri*) - Threatened
- Pacific walrus (*Odobenus rosmarus divergens*) – Candidate
- Aleutian shield fern (*Polystichum aleuticum*) - Endangered

If your review of the proposed project map or table of expanded areas indicates the proposed project may adversely affect these or other federally protected species or any designated critical habitat, please provide APP with information on the species, their location, and the area or location of designated critical habitat. Additionally, please identify any other areas of particular interest to the Service, such as possible affect on wildlife refuges or wildlife management areas. Any existing related information you might be able to provide in GIS-format would be most useful.

Please specify which species may require field surveys before you can complete your review and provide species-specific survey protocols, if applicable. The information provided by the Service will allow APP to develop plans that will reduce impacts to protected species and their habitat, and to ensure that the project is constructed in compliance with the ESA.

In addition to protected species under the ESA, APP also requests that the Service provide information regarding management of activities near bald and golden eagle nesting and locations of known eagle nests in the expanded areas listed in the enclosed tables. APP is currently in the process of compiling existing data on known eagle nests, so any information on known eagle nests would be helpful. The information provided by the Service will allow APP to develop plans for the management of its activities relative to bald and golden eagle nesting and to ensure that the project is constructed in compliance with the Bald and Golden Eagle Protection Act.

APP appreciates your assistance with this request. If you have any questions, please contact Ryan Childs at (907) 564-3626 or by email to ryan.childs@exxonmobil.com.

Regards,

Myron E. Fedak

Myron E. Fedak
Exxon Mobil Development Co.
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory, and Land

Attachment: Correspondence dated April 14, 2011

Enclosure: Overview Map
Project Review Table

cc: Frances Mann, USFWS
Lt. Amy Cox, NMFS
Jeanne Hanson, NMFS
Brad Smith, NMFS
Candace Nachman, NMFS
Mike Boyle, FERC
Julie McKim, OFC
Ryan Childs, APP

Alaska Pipeline Project
Ref No.: LT-ETAK-0365
August 8, 2011

Attachment

DRAFT

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICE OF ENERGY PROJECTS

In Reply Refer To:
OEP/DG2E
TransCanada Alaska Company LLC
Alaska Pipeline Project
Docket No. PF09-11-000

April 14, 2011

Jewel Bennett
Conservation Planning Assistance Branch Chief
U.S. Fish and Wildlife Service
101 12th Ave.; Room 110
Fairbanks, AK 99701

Lt. Amy Cox
NOAA/NMFS
222 West 7th Ave.; Box 43
Anchorage, AK 99513

Re: Designation of Non-federal Representative to Conduct Informal Endangered Species Consultation

Dear Ms. Bennett and Lt. Cox:

This letter is to provide formal notification as per 50 CFR 402.08 and Federal Energy Regulatory Commission (FERC) regulations at 18 CFR 380.13 that the FERC is designating the project sponsors, TransCanada Alaska Company LLC and the Alaska Pipeline Project (TransCanada and APP) as our non-federal representatives for purposes of coordination pursuant to Section 7 of the Endangered Species Act.

Please work directly with TransCanada and APP, and their environmental contractors, during the informal consultation process (e.g., discussing species lists; offering technical assistance and information regarding surveys; attending meetings; developing impact minimization measures; and other coordination related to compliance with Section 7). TransCanada/APP will file the pertinent information with the FERC, which will assist us in our Section 7 obligations.

DRAFT

The FERC acknowledges that the ultimate responsibility for Section 7 lies with the FERC (the action agency), and we will prepare the biological assessment for the Alaska Pipeline Project.

If you have any questions, please contact Dave Swearingen, project biologist, at 202-502-6173.

Sincerely,

Michael J. Boyle, Deputy Director
Division of Gas – Environment
and Engineering

cc: Public File, Docket No. PF09-11-000

Larry Harms
Alaska Pipeline Project
ExxonMobil Development Company
16945 Northchase Dr.
Houston, TX 77060

Dr. John Krummel
Argonne National Laboratory
9700 S. Cass Ave.
Argonne, IL 60439

DRAFT

Alaska Pipeline Project
Ref No.: LT-ETAK-0365
August 8, 2011

Enclosures

Overview Map

Project Review Table (electronic file provided in enclosed CD)

LEGEND

- Proposed Route Milepost
- A M P Alaska Mainline Milepost
- P M P Point Thomson Gas Pipeline Milepost
- Facility
- Populated Place
- Proposed Alaska Mainline
- Proposed Point Thomson Gas Pipeline
- Highway
- River / Lake
- Park or Protected Area

0 25 50 75 100 Miles

Figure 1.1-1
US-00-039-000
Alaska Pipeline Project
Project Overview

Rev: F

DRAFT

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	001N	014E	01	U001N014E01
Umiat	001N	014E	02	U001N014E02
Umiat	001N	014E	10	U001N014E10
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Umiat	001N	014E	12	U001N014E12
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Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
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Legal Descriptions for the ESA Section 7 Consultation

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Legal Descriptions for the ESA Section 7 Consultation

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Legal Descriptions for the ESA Section 7 Consultation

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
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Umiat	005N	014E	29	U005N014E29
Umiat	005N	014E	30	U005N014E30
Umiat	005N	014E	31	U005N014E31
Umiat	005N	014E	32	U005N014E32
Umiat	005N	014E	33	U005N014E33
Umiat	005S	013E	01	U005S013E01
Umiat	005S	013E	02	U005S013E02
Umiat	005S	013E	11	U005S013E11
Umiat	005S	013E	12	U005S013E12
Umiat	005S	013E	13	U005S013E13
Umiat	005S	013E	14	U005S013E14
Umiat	005S	013E	23	U005S013E23
Umiat	005S	013E	24	U005S013E24
Umiat	005S	013E	25	U005S013E25
Umiat	005S	013E	36	U005S013E36
Umiat	005S	014E	03	U005S014E03
Umiat	005S	014E	04	U005S014E04
Umiat	005S	014E	05	U005S014E05
Umiat	005S	014E	06	U005S014E06
Umiat	005S	014E	07	U005S014E07
Umiat	005S	014E	08	U005S014E08
Umiat	005S	014E	09	U005S014E09
Umiat	005S	014E	10	U005S014E10
Umiat	005S	014E	15	U005S014E15
Umiat	005S	014E	16	U005S014E16
Umiat	005S	014E	17	U005S014E17
Umiat	005S	014E	18	U005S014E18
Umiat	005S	014E	19	U005S014E19
Umiat	005S	014E	20	U005S014E20
Umiat	005S	014E	21	U005S014E21

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	005S	014E	22	U005S014E22
Umiat	005S	014E	27	U005S014E27
Umiat	005S	014E	28	U005S014E28
Umiat	005S	014E	29	U005S014E29
Umiat	005S	014E	30	U005S014E30
Umiat	005S	014E	31	U005S014E31
Umiat	005S	014E	32	U005S014E32
Umiat	005S	014E	33	U005S014E33
Umiat	005S	014E	34	U005S014E34
Umiat	006N	013E	01	U006N013E01
Umiat	006N	013E	02	U006N013E02
Umiat	006N	013E	03	U006N013E03
Umiat	006N	013E	10	U006N013E10
Umiat	006N	013E	11	U006N013E11
Umiat	006N	013E	12	U006N013E12
Umiat	006N	013E	13	U006N013E13
Umiat	006N	013E	14	U006N013E14
Umiat	006N	013E	15	U006N013E15
Umiat	006N	013E	22	U006N013E22
Umiat	006N	013E	23	U006N013E23
Umiat	006N	013E	24	U006N013E24
Umiat	006N	013E	25	U006N013E25
Umiat	006N	013E	26	U006N013E26
Umiat	006N	013E	34	U006N013E34
Umiat	006N	013E	35	U006N013E35
Umiat	006N	013E	36	U006N013E36
Umiat	006N	014E	06	U006N014E06
Umiat	006N	014E	07	U006N014E07
Umiat	006N	014E	08	U006N014E08
Umiat	006N	014E	17	U006N014E17
Umiat	006N	014E	18	U006N014E18
Umiat	006N	014E	19	U006N014E19
Umiat	006N	014E	20	U006N014E20
Umiat	006N	014E	29	U006N014E29
Umiat	006N	014E	30	U006N014E30
Umiat	006N	014E	31	U006N014E31
Umiat	006N	014E	32	U006N014E32
Umiat	006S	013E	01	U006S013E01
Umiat	006S	013E	02	U006S013E02
Umiat	006S	013E	11	U006S013E11
Umiat	006S	013E	12	U006S013E12
Umiat	006S	013E	13	U006S013E13
Umiat	006S	013E	14	U006S013E14
Umiat	006S	013E	24	U006S013E24
Umiat	006S	013E	25	U006S013E25
Umiat	006S	013E	36	U006S013E36

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Umiat	006S	014E	05	U006S014E05
Umiat	006S	014E	06	U006S014E06
Umiat	006S	014E	07	U006S014E07
Umiat	006S	014E	08	U006S014E08
Umiat	006S	014E	17	U006S014E17
Umiat	006S	014E	18	U006S014E18
Umiat	006S	014E	19	U006S014E19
Umiat	006S	014E	20	U006S014E20
Umiat	006S	014E	29	U006S014E29
Umiat	006S	014E	30	U006S014E30
Umiat	006S	014E	31	U006S014E31
Umiat	006S	014E	32	U006S014E32
Umiat	007N	013E	01	U007N013E01
Umiat	007N	013E	12	U007N013E12
Umiat	007N	013E	13	U007N013E13
Umiat	007N	013E	23	U007N013E23
Umiat	007N	013E	24	U007N013E24
Umiat	007N	013E	25	U007N013E25
Umiat	007N	013E	26	U007N013E26
Umiat	007N	013E	35	U007N013E35
Umiat	007N	013E	36	U007N013E36
Umiat	007N	014E	03	U007N014E03
Umiat	007N	014E	04	U007N014E04
Umiat	007N	014E	05	U007N014E05
Umiat	007N	014E	06	U007N014E06
Umiat	007N	014E	07	U007N014E07
Umiat	007N	014E	08	U007N014E08
Umiat	007N	014E	09	U007N014E09
Umiat	007N	014E	10	U007N014E10
Umiat	007N	014E	16	U007N014E16
Umiat	007N	014E	17	U007N014E17
Umiat	007N	014E	18	U007N014E18
Umiat	007N	014E	19	U007N014E19
Umiat	007N	014E	20	U007N014E20
Umiat	007N	014E	29	U007N014E29
Umiat	007N	014E	30	U007N014E30
Umiat	007N	014E	31	U007N014E31
Umiat	007S	013E	01	U007S013E01
Umiat	007S	013E	12	U007S013E12
Umiat	007S	014E	04	U007S014E04
Umiat	007S	014E	05	U007S014E05
Umiat	007S	014E	06	U007S014E06
Umiat	007S	014E	07	U007S014E07
Umiat	007S	014E	08	U007S014E08
Umiat	007S	014E	09	U007S014E09
Umiat	007S	014E	10	U007S014E10

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	007S	014E	15	U007S014E15
Umiat	007S	014E	16	U007S014E16
Umiat	007S	014E	17	U007S014E17
Umiat	007S	014E	18	U007S014E18
Umiat	007S	014E	19	U007S014E19
Umiat	007S	014E	20	U007S014E20
Umiat	007S	014E	21	U007S014E21
Umiat	007S	014E	22	U007S014E22
Umiat	007S	014E	27	U007S014E27
Umiat	007S	014E	28	U007S014E28
Umiat	007S	014E	29	U007S014E29
Umiat	007S	014E	30	U007S014E30
Umiat	007S	014E	31	U007S014E31
Umiat	007S	014E	32	U007S014E32
Umiat	007S	014E	33	U007S014E33
Umiat	008N	014E	01	U008N014E01
Umiat	008N	014E	02	U008N014E02
Umiat	008N	014E	03	U008N014E03
Umiat	008N	014E	04	U008N014E04
Umiat	008N	014E	08	U008N014E08
Umiat	008N	014E	09	U008N014E09
Umiat	008N	014E	10	U008N014E10
Umiat	008N	014E	11	U008N014E11
Umiat	008N	014E	12	U008N014E12
Umiat	008N	014E	14	U008N014E14
Umiat	008N	014E	15	U008N014E15
Umiat	008N	014E	16	U008N014E16
Umiat	008N	014E	17	U008N014E17
Umiat	008N	014E	20	U008N014E20
Umiat	008N	014E	21	U008N014E21
Umiat	008N	014E	22	U008N014E22
Umiat	008N	014E	23	U008N014E23
Umiat	008N	014E	27	U008N014E27
Umiat	008N	014E	28	U008N014E28
Umiat	008N	014E	29	U008N014E29
Umiat	008N	014E	30	U008N014E30
Umiat	008N	014E	31	U008N014E31
Umiat	008N	014E	32	U008N014E32
Umiat	008N	014E	33	U008N014E33
Umiat	008N	014E	34	U008N014E34
Umiat	008N	015E	06	U008N015E06
Umiat	008S	012E	36	U008S012E36
Umiat	008S	013E	01	U008S013E01
Umiat	008S	013E	02	U008S013E02
Umiat	008S	013E	11	U008S013E11
Umiat	008S	013E	12	U008S013E12

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	008S	013E	13	U008S013E13
Umiat	008S	013E	14	U008S013E14
Umiat	008S	013E	15	U008S013E15
Umiat	008S	013E	16	U008S013E16
Umiat	008S	013E	21	U008S013E21
Umiat	008S	013E	22	U008S013E22
Umiat	008S	013E	23	U008S013E23
Umiat	008S	013E	24	U008S013E24
Umiat	008S	013E	25	U008S013E25
Umiat	008S	013E	26	U008S013E26
Umiat	008S	013E	27	U008S013E27
Umiat	008S	013E	28	U008S013E28
Umiat	008S	013E	29	U008S013E29
Umiat	008S	013E	31	U008S013E31
Umiat	008S	013E	32	U008S013E32
Umiat	008S	013E	33	U008S013E33
Umiat	008S	013E	34	U008S013E34
Umiat	008S	013E	35	U008S013E35
Umiat	008S	013E	36	U008S013E36
Umiat	008S	014E	04	U008S014E04
Umiat	008S	014E	05	U008S014E05
Umiat	008S	014E	06	U008S014E06
Umiat	008S	014E	07	U008S014E07
Umiat	008S	014E	08	U008S014E08
Umiat	008S	014E	09	U008S014E09
Umiat	008S	014E	17	U008S014E17
Umiat	008S	014E	18	U008S014E18
Umiat	008S	014E	19	U008S014E19
Umiat	008S	014E	30	U008S014E30
Umiat	009N	013E	23	U009N013E23
Umiat	009N	013E	24	U009N013E24
Umiat	009N	013E	25	U009N013E25
Umiat	009N	013E	26	U009N013E26
Umiat	009N	013E	36	U009N013E36
Umiat	009N	014E	01	U009N014E01
Umiat	009N	014E	02	U009N014E02
Umiat	009N	014E	04	U009N014E04
Umiat	009N	014E	05	U009N014E05
Umiat	009N	014E	06	U009N014E06
Umiat	009N	014E	07	U009N014E07
Umiat	009N	014E	08	U009N014E08
Umiat	009N	014E	09	U009N014E09
Umiat	009N	014E	11	U009N014E11
Umiat	009N	014E	12	U009N014E12
Umiat	009N	014E	15	U009N014E15
Umiat	009N	014E	16	U009N014E16

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	009N	014E	17	U009N014E17
Umiat	009N	014E	18	U009N014E18
Umiat	009N	014E	19	U009N014E19
Umiat	009N	014E	20	U009N014E20
Umiat	009N	014E	21	U009N014E21
Umiat	009N	014E	22	U009N014E22
Umiat	009N	014E	27	U009N014E27
Umiat	009N	014E	28	U009N014E28
Umiat	009N	014E	29	U009N014E29
Umiat	009N	014E	30	U009N014E30
Umiat	009N	014E	31	U009N014E31
Umiat	009N	014E	32	U009N014E32
Umiat	009N	014E	33	U009N014E33
Umiat	009N	014E	34	U009N014E34
Umiat	009N	014E	35	U009N014E35
Umiat	009N	015E	06	U009N015E06
Umiat	009N	015E	07	U009N015E07
Umiat	009N	017E	01	U009N017E01
Umiat	009N	017E	02	U009N017E02
Umiat	009N	018E	01	U009N018E01
Umiat	009N	018E	02	U009N018E02
Umiat	009N	018E	03	U009N018E03
Umiat	009N	018E	04	U009N018E04
Umiat	009N	018E	05	U009N018E05
Umiat	009N	018E	06	U009N018E06
Umiat	009N	018E	07	U009N018E07
Umiat	009N	018E	08	U009N018E08
Umiat	009N	018E	09	U009N018E09
Umiat	009N	018E	10	U009N018E10
Umiat	009N	018E	11	U009N018E11
Umiat	009N	018E	12	U009N018E12
Umiat	009N	018E	13	U009N018E13
Umiat	009N	018E	14	U009N018E14
Umiat	009N	019E	01	U009N019E01
Umiat	009N	019E	02	U009N019E02
Umiat	009N	019E	03	U009N019E03
Umiat	009N	019E	04	U009N019E04
Umiat	009N	019E	05	U009N019E05
Umiat	009N	019E	06	U009N019E06
Umiat	009N	019E	07	U009N019E07
Umiat	009N	019E	08	U009N019E08
Umiat	009N	019E	09	U009N019E09
Umiat	009N	019E	10	U009N019E10
Umiat	009N	019E	11	U009N019E11
Umiat	009N	019E	12	U009N019E12
Umiat	009N	019E	13	U009N019E13

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	009N	019E	14	U009N019E14
Umiat	009N	019E	15	U009N019E15
Umiat	009N	019E	16	U009N019E16
Umiat	009N	019E	17	U009N019E17
Umiat	009N	019E	18	U009N019E18
Umiat	009N	019E	21	U009N019E21
Umiat	009N	019E	22	U009N019E22
Umiat	009N	019E	23	U009N019E23
Umiat	009N	019E	24	U009N019E24
Umiat	009N	020E	01	U009N020E01
Umiat	009N	020E	06	U009N020E06
Umiat	009N	020E	07	U009N020E07
Umiat	009N	020E	08	U009N020E08
Umiat	009N	020E	09	U009N020E09
Umiat	009N	020E	10	U009N020E10
Umiat	009N	020E	11	U009N020E11
Umiat	009N	020E	12	U009N020E12
Umiat	009N	020E	13	U009N020E13
Umiat	009N	020E	14	U009N020E14
Umiat	009N	020E	15	U009N020E15
Umiat	009N	020E	16	U009N020E16
Umiat	009N	020E	17	U009N020E17
Umiat	009N	020E	18	U009N020E18
Umiat	009N	020E	19	U009N020E19
Umiat	009N	020E	20	U009N020E20
Umiat	009N	020E	21	U009N020E21
Umiat	009N	020E	22	U009N020E22
Umiat	009N	020E	23	U009N020E23
Umiat	009N	020E	24	U009N020E24
Umiat	009N	020E	25	U009N020E25
Umiat	009N	020E	26	U009N020E26
Umiat	009N	020E	27	U009N020E27
Umiat	009N	020E	28	U009N020E28
Umiat	009N	020E	29	U009N020E29
Umiat	009N	021E	01	U009N021E01
Umiat	009N	021E	02	U009N021E02
Umiat	009N	021E	03	U009N021E03
Umiat	009N	021E	04	U009N021E04
Umiat	009N	021E	05	U009N021E05
Umiat	009N	021E	06	U009N021E06
Umiat	009N	021E	07	U009N021E07
Umiat	009N	021E	08	U009N021E08
Umiat	009N	021E	09	U009N021E09
Umiat	009N	021E	10	U009N021E10
Umiat	009N	021E	11	U009N021E11
Umiat	009N	021E	12	U009N021E12

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	009N	021E	13	U009N021E13
Umiat	009N	021E	14	U009N021E14
Umiat	009N	021E	15	U009N021E15
Umiat	009N	021E	16	U009N021E16
Umiat	009N	021E	17	U009N021E17
Umiat	009N	021E	18	U009N021E18
Umiat	009N	021E	19	U009N021E19
Umiat	009N	021E	20	U009N021E20
Umiat	009N	021E	21	U009N021E21
Umiat	009N	021E	22	U009N021E22
Umiat	009N	021E	23	U009N021E23
Umiat	009N	021E	24	U009N021E24
Umiat	009N	021E	30	U009N021E30
Umiat	009N	022E	01	U009N022E01
Umiat	009N	022E	02	U009N022E02
Umiat	009N	022E	03	U009N022E03
Umiat	009N	022E	04	U009N022E04
Umiat	009N	022E	05	U009N022E05
Umiat	009N	022E	06	U009N022E06
Umiat	009N	022E	07	U009N022E07
Umiat	009N	022E	08	U009N022E08
Umiat	009N	022E	09	U009N022E09
Umiat	009N	022E	10	U009N022E10
Umiat	009N	022E	11	U009N022E11
Umiat	009N	022E	12	U009N022E12
Umiat	009N	022E	14	U009N022E14
Umiat	009N	022E	15	U009N022E15
Umiat	009N	022E	16	U009N022E16
Umiat	009N	022E	17	U009N022E17
Umiat	009N	022E	18	U009N022E18
Umiat	009N	022E	19	U009N022E19
Umiat	009N	022E	20	U009N022E20
Umiat	009N	022E	21	U009N022E21
Umiat	009N	022E	28	U009N022E28
Umiat	009N	022E	29	U009N022E29
Umiat	009N	022E	30	U009N022E30
Umiat	009N	023E	01	U009N023E01
Umiat	009N	023E	02	U009N023E02
Umiat	009N	023E	03	U009N023E03
Umiat	009N	023E	04	U009N023E04
Umiat	009N	023E	05	U009N023E05
Umiat	009N	023E	06	U009N023E06
Umiat	009N	023E	07	U009N023E07
Umiat	009N	023E	08	U009N023E08
Umiat	009N	023E	09	U009N023E09
Umiat	009N	023E	10	U009N023E10

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	009N	023E	11	U009N023E11
Umiat	009N	023E	12	U009N023E12
Umiat	009N	023E	13	U009N023E13
Umiat	009N	023E	14	U009N023E14
Umiat	009N	023E	15	U009N023E15
Umiat	009N	023E	16	U009N023E16
Umiat	009N	023E	17	U009N023E17
Umiat	009N	023E	21	U009N023E21
Umiat	009N	023E	22	U009N023E22
Umiat	009N	023E	23	U009N023E23
Umiat	009N	023E	24	U009N023E24
Umiat	009N	023E	26	U009N023E26
Umiat	009N	023E	27	U009N023E27
Umiat	009N	024E	05	U009N024E05
Umiat	009N	024E	06	U009N024E06
Umiat	009N	024E	07	U009N024E07
Umiat	009N	024E	08	U009N024E08
Umiat	009N	024E	09	U009N024E09
Umiat	009N	024E	15	U009N024E15
Umiat	009N	024E	16	U009N024E16
Umiat	009N	024E	17	U009N024E17
Umiat	009N	024E	18	U009N024E18
Umiat	009N	024E	19	U009N024E19
Umiat	009N	024E	20	U009N024E20
Umiat	009N	024E	21	U009N024E21
Umiat	009N	024E	22	U009N024E22
Umiat	009N	024E	27	U009N024E27
Umiat	009N	024E	28	U009N024E28
Umiat	009N	024E	29	U009N024E29
Umiat	009N	024E	30	U009N024E30
Umiat	009N	024E	32	U009N024E32
Umiat	009N	024E	33	U009N024E33
Umiat	009S	011E	13	U009S011E13
Umiat	009S	011E	23	U009S011E23
Umiat	009S	011E	24	U009S011E24
Umiat	009S	011E	25	U009S011E25
Umiat	009S	011E	26	U009S011E26
Umiat	009S	011E	27	U009S011E27
Umiat	009S	011E	33	U009S011E33
Umiat	009S	011E	34	U009S011E34
Umiat	009S	011E	35	U009S011E35
Umiat	009S	011E	36	U009S011E36
Umiat	009S	012E	01	U009S012E01
Umiat	009S	012E	02	U009S012E02
Umiat	009S	012E	10	U009S012E10
Umiat	009S	012E	11	U009S012E11

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	009S	012E	12	U009S012E12
Umiat	009S	012E	13	U009S012E13
Umiat	009S	012E	14	U009S012E14
Umiat	009S	012E	15	U009S012E15
Umiat	009S	012E	16	U009S012E16
Umiat	009S	012E	17	U009S012E17
Umiat	009S	012E	18	U009S012E18
Umiat	009S	012E	19	U009S012E19
Umiat	009S	012E	20	U009S012E20
Umiat	009S	012E	21	U009S012E21
Umiat	009S	012E	22	U009S012E22
Umiat	009S	012E	23	U009S012E23
Umiat	009S	012E	24	U009S012E24
Umiat	009S	012E	27	U009S012E27
Umiat	009S	012E	28	U009S012E28
Umiat	009S	012E	29	U009S012E29
Umiat	009S	012E	30	U009S012E30
Umiat	009S	012E	31	U009S012E31
Umiat	009S	012E	32	U009S012E32
Umiat	009S	012E	33	U009S012E33
Umiat	009S	012E	34	U009S012E34
Umiat	009S	013E	02	U009S013E02
Umiat	009S	013E	03	U009S013E03
Umiat	009S	013E	04	U009S013E04
Umiat	009S	013E	05	U009S013E05
Umiat	009S	013E	06	U009S013E06
Umiat	009S	013E	07	U009S013E07
Umiat	009S	013E	08	U009S013E08
Umiat	009S	013E	09	U009S013E09
Umiat	009S	013E	10	U009S013E10
Umiat	009S	013E	17	U009S013E17
Umiat	009S	013E	18	U009S013E18
Umiat	010N	013E	01	U010N013E01
Umiat	010N	013E	02	U010N013E02
Umiat	010N	013E	10	U010N013E10
Umiat	010N	013E	11	U010N013E11
Umiat	010N	013E	12	U010N013E12
Umiat	010N	013E	13	U010N013E13
Umiat	010N	013E	14	U010N013E14
Umiat	010N	013E	15	U010N013E15
Umiat	010N	013E	22	U010N013E22
Umiat	010N	013E	23	U010N013E23
Umiat	010N	013E	24	U010N013E24
Umiat	010N	013E	25	U010N013E25
Umiat	010N	013E	26	U010N013E26
Umiat	010N	013E	27	U010N013E27

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	010N	013E	34	U010N013E34
Umiat	010N	013E	35	U010N013E35
Umiat	010N	013E	36	U010N013E36
Umiat	010N	014E	01	U010N014E01
Umiat	010N	014E	02	U010N014E02
Umiat	010N	014E	03	U010N014E03
Umiat	010N	014E	04	U010N014E04
Umiat	010N	014E	05	U010N014E05
Umiat	010N	014E	06	U010N014E06
Umiat	010N	014E	07	U010N014E07
Umiat	010N	014E	08	U010N014E08
Umiat	010N	014E	09	U010N014E09
Umiat	010N	014E	10	U010N014E10
Umiat	010N	014E	11	U010N014E11
Umiat	010N	014E	12	U010N014E12
Umiat	010N	014E	13	U010N014E13
Umiat	010N	014E	14	U010N014E14
Umiat	010N	014E	15	U010N014E15
Umiat	010N	014E	17	U010N014E17
Umiat	010N	014E	18	U010N014E18
Umiat	010N	014E	19	U010N014E19
Umiat	010N	014E	20	U010N014E20
Umiat	010N	014E	21	U010N014E21
Umiat	010N	014E	23	U010N014E23
Umiat	010N	014E	24	U010N014E24
Umiat	010N	014E	25	U010N014E25
Umiat	010N	014E	26	U010N014E26
Umiat	010N	014E	28	U010N014E28
Umiat	010N	014E	29	U010N014E29
Umiat	010N	014E	30	U010N014E30
Umiat	010N	014E	31	U010N014E31
Umiat	010N	014E	32	U010N014E32
Umiat	010N	014E	33	U010N014E33
Umiat	010N	014E	35	U010N014E35
Umiat	010N	014E	36	U010N014E36
Umiat	010N	015E	01	U010N015E01
Umiat	010N	015E	02	U010N015E02
Umiat	010N	015E	03	U010N015E03
Umiat	010N	015E	04	U010N015E04
Umiat	010N	015E	05	U010N015E05
Umiat	010N	015E	06	U010N015E06
Umiat	010N	015E	07	U010N015E07
Umiat	010N	015E	08	U010N015E08
Umiat	010N	015E	09	U010N015E09
Umiat	010N	015E	10	U010N015E10
Umiat	010N	015E	11	U010N015E11

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	010N	015E	12	U010N015E12
Umiat	010N	015E	13	U010N015E13
Umiat	010N	015E	14	U010N015E14
Umiat	010N	015E	15	U010N015E15
Umiat	010N	015E	16	U010N015E16
Umiat	010N	015E	17	U010N015E17
Umiat	010N	015E	18	U010N015E18
Umiat	010N	015E	19	U010N015E19
Umiat	010N	015E	20	U010N015E20
Umiat	010N	015E	21	U010N015E21
Umiat	010N	015E	29	U010N015E29
Umiat	010N	015E	30	U010N015E30
Umiat	010N	015E	31	U010N015E31
Umiat	010N	015E	32	U010N015E32
Umiat	010N	016E	01	U010N016E01
Umiat	010N	016E	02	U010N016E02
Umiat	010N	016E	03	U010N016E03
Umiat	010N	016E	04	U010N016E04
Umiat	010N	016E	05	U010N016E05
Umiat	010N	016E	06	U010N016E06
Umiat	010N	016E	07	U010N016E07
Umiat	010N	016E	08	U010N016E08
Umiat	010N	016E	09	U010N016E09
Umiat	010N	016E	10	U010N016E10
Umiat	010N	016E	11	U010N016E11
Umiat	010N	016E	12	U010N016E12
Umiat	010N	016E	13	U010N016E13
Umiat	010N	016E	14	U010N016E14
Umiat	010N	016E	15	U010N016E15
Umiat	010N	016E	16	U010N016E16
Umiat	010N	016E	17	U010N016E17
Umiat	010N	016E	18	U010N016E18
Umiat	010N	016E	23	U010N016E23
Umiat	010N	016E	24	U010N016E24
Umiat	010N	017E	02	U010N017E02
Umiat	010N	017E	03	U010N017E03
Umiat	010N	017E	04	U010N017E04
Umiat	010N	017E	05	U010N017E05
Umiat	010N	017E	06	U010N017E06
Umiat	010N	017E	07	U010N017E07
Umiat	010N	017E	08	U010N017E08
Umiat	010N	017E	09	U010N017E09
Umiat	010N	017E	10	U010N017E10
Umiat	010N	017E	15	U010N017E15
Umiat	010N	017E	16	U010N017E16
Umiat	010N	017E	17	U010N017E17

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	010N	017E	18	U010N017E18
Umiat	010N	017E	19	U010N017E19
Umiat	010N	017E	20	U010N017E20
Umiat	010N	017E	21	U010N017E21
Umiat	010N	017E	22	U010N017E22
Umiat	010N	017E	23	U010N017E23
Umiat	010N	017E	24	U010N017E24
Umiat	010N	017E	25	U010N017E25
Umiat	010N	017E	26	U010N017E26
Umiat	010N	017E	27	U010N017E27
Umiat	010N	017E	28	U010N017E28
Umiat	010N	017E	29	U010N017E29
Umiat	010N	017E	30	U010N017E30
Umiat	010N	017E	33	U010N017E33
Umiat	010N	017E	34	U010N017E34
Umiat	010N	017E	35	U010N017E35
Umiat	010N	017E	36	U010N017E36
Umiat	010N	018E	19	U010N018E19
Umiat	010N	018E	28	U010N018E28
Umiat	010N	018E	29	U010N018E29
Umiat	010N	018E	30	U010N018E30
Umiat	010N	018E	31	U010N018E31
Umiat	010N	018E	32	U010N018E32
Umiat	010N	018E	33	U010N018E33
Umiat	010N	018E	34	U010N018E34
Umiat	010N	018E	35	U010N018E35
Umiat	010N	018E	36	U010N018E36
Umiat	010N	021E	36	U010N021E36
Umiat	010N	022E	31	U010N022E31
Umiat	010N	022E	33	U010N022E33
Umiat	010N	022E	34	U010N022E34
Umiat	010N	022E	35	U010N022E35
Umiat	010N	022E	36	U010N022E36
Umiat	010N	023E	31	U010N023E31
Umiat	010N	023E	32	U010N023E32
Umiat	010N	023E	33	U010N023E33
Umiat	010N	023E	34	U010N023E34
Umiat	010N	023E	35	U010N023E35
Umiat	010N	023E	36	U010N023E36
Umiat	010N	024E	31	U010N024E31
Umiat	010S	011E	02	U010S011E02
Umiat	010S	011E	03	U010S011E03
Umiat	010S	011E	04	U010S011E04
Umiat	010S	011E	09	U010S011E09
Umiat	010S	011E	10	U010S011E10
Umiat	010S	011E	11	U010S011E11

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	010S	011E	13	U010S011E13
Umiat	010S	011E	14	U010S011E14
Umiat	010S	011E	15	U010S011E15
Umiat	010S	011E	16	U010S011E16
Umiat	010S	011E	21	U010S011E21
Umiat	010S	011E	22	U010S011E22
Umiat	010S	011E	23	U010S011E23
Umiat	010S	011E	24	U010S011E24
Umiat	010S	011E	25	U010S011E25
Umiat	010S	011E	26	U010S011E26
Umiat	010S	011E	27	U010S011E27
Umiat	010S	011E	28	U010S011E28
Umiat	010S	011E	34	U010S011E34
Umiat	010S	011E	35	U010S011E35
Umiat	010S	011E	36	U010S011E36
Umiat	010S	012E	03	U010S012E03
Umiat	010S	012E	04	U010S012E04
Umiat	010S	012E	05	U010S012E05
Umiat	011N	013E	01	U011N013E01
Umiat	011N	013E	02	U011N013E02
Umiat	011N	013E	11	U011N013E11
Umiat	011N	013E	12	U011N013E12
Umiat	011N	013E	13	U011N013E13
Umiat	011N	013E	14	U011N013E14
Umiat	011N	013E	23	U011N013E23
Umiat	011N	013E	24	U011N013E24
Umiat	011N	013E	25	U011N013E25
Umiat	011N	013E	26	U011N013E26
Umiat	011N	013E	35	U011N013E35
Umiat	011N	013E	36	U011N013E36
Umiat	011N	014E	01	U011N014E01
Umiat	011N	014E	02	U011N014E02
Umiat	011N	014E	03	U011N014E03
Umiat	011N	014E	04	U011N014E04
Umiat	011N	014E	05	U011N014E05
Umiat	011N	014E	06	U011N014E06
Umiat	011N	014E	07	U011N014E07
Umiat	011N	014E	08	U011N014E08
Umiat	011N	014E	09	U011N014E09
Umiat	011N	014E	10	U011N014E10
Umiat	011N	014E	11	U011N014E11
Umiat	011N	014E	12	U011N014E12
Umiat	011N	014E	13	U011N014E13
Umiat	011N	014E	14	U011N014E14
Umiat	011N	014E	15	U011N014E15
Umiat	011N	014E	16	U011N014E16

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	011N	014E	17	U011N014E17
Umiat	011N	014E	18	U011N014E18
Umiat	011N	014E	19	U011N014E19
Umiat	011N	014E	20	U011N014E20
Umiat	011N	014E	21	U011N014E21
Umiat	011N	014E	22	U011N014E22
Umiat	011N	014E	23	U011N014E23
Umiat	011N	014E	24	U011N014E24
Umiat	011N	014E	25	U011N014E25
Umiat	011N	014E	26	U011N014E26
Umiat	011N	014E	27	U011N014E27
Umiat	011N	014E	28	U011N014E28
Umiat	011N	014E	29	U011N014E29
Umiat	011N	014E	30	U011N014E30
Umiat	011N	014E	31	U011N014E31
Umiat	011N	014E	32	U011N014E32
Umiat	011N	014E	33	U011N014E33
Umiat	011N	014E	34	U011N014E34
Umiat	011N	014E	35	U011N014E35
Umiat	011N	014E	36	U011N014E36
Umiat	011N	015E	04	U011N015E04
Umiat	011N	015E	05	U011N015E05
Umiat	011N	015E	06	U011N015E06
Umiat	011N	015E	07	U011N015E07
Umiat	011N	015E	08	U011N015E08
Umiat	011N	015E	09	U011N015E09
Umiat	011N	015E	16	U011N015E16
Umiat	011N	015E	17	U011N015E17
Umiat	011N	015E	18	U011N015E18
Umiat	011N	015E	19	U011N015E19
Umiat	011N	015E	20	U011N015E20
Umiat	011N	015E	21	U011N015E21
Umiat	011N	015E	22	U011N015E22
Umiat	011N	015E	25	U011N015E25
Umiat	011N	015E	26	U011N015E26
Umiat	011N	015E	27	U011N015E27
Umiat	011N	015E	28	U011N015E28
Umiat	011N	015E	29	U011N015E29
Umiat	011N	015E	30	U011N015E30
Umiat	011N	015E	31	U011N015E31
Umiat	011N	015E	32	U011N015E32
Umiat	011N	015E	33	U011N015E33
Umiat	011N	015E	34	U011N015E34
Umiat	011N	015E	35	U011N015E35
Umiat	011N	015E	36	U011N015E36
Umiat	011N	016E	30	U011N016E30

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	011N	016E	31	U011N016E31
Umiat	011N	016E	32	U011N016E32
Umiat	011N	016E	33	U011N016E33
Umiat	011N	016E	34	U011N016E34
Umiat	011N	016E	35	U011N016E35
Umiat	011N	016E	36	U011N016E36
Umiat	011N	017E	31	U011N017E31
Umiat	011N	017E	32	U011N017E32
Umiat	011N	017E	33	U011N017E33
Umiat	011N	017E	34	U011N017E34
Umiat	011S	011E	01	U011S011E01
Umiat	011S	011E	02	U011S011E02
Umiat	011S	011E	03	U011S011E03
Umiat	011S	011E	10	U011S011E10
Umiat	011S	011E	11	U011S011E11
Umiat	011S	011E	12	U011S011E12
Umiat	011S	011E	13	U011S011E13
Umiat	011S	011E	14	U011S011E14
Umiat	011S	011E	15	U011S011E15
Umiat	011S	011E	16	U011S011E16
Umiat	011S	011E	21	U011S011E21
Umiat	011S	011E	22	U011S011E22
Umiat	011S	011E	23	U011S011E23
Umiat	011S	011E	24	U011S011E24
Umiat	011S	011E	25	U011S011E25
Umiat	011S	011E	26	U011S011E26
Umiat	011S	011E	27	U011S011E27
Umiat	011S	011E	34	U011S011E34
Umiat	011S	011E	35	U011S011E35
Umiat	011S	011E	36	U011S011E36
Umiat	011S	012E	07	U011S012E07
Umiat	011S	012E	17	U011S012E17
Umiat	011S	012E	18	U011S012E18
Umiat	011S	012E	19	U011S012E19
Umiat	011S	012E	20	U011S012E20
Umiat	011S	012E	21	U011S012E21
Umiat	011S	012E	22	U011S012E22
Umiat	011S	012E	26	U011S012E26
Umiat	011S	012E	27	U011S012E27
Umiat	011S	012E	28	U011S012E28
Umiat	011S	012E	29	U011S012E29
Umiat	011S	012E	30	U011S012E30
Umiat	011S	012E	31	U011S012E31
Umiat	011S	012E	32	U011S012E32
Umiat	011S	012E	33	U011S012E33
Umiat	011S	012E	34	U011S012E34

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	011S	012E	35	U011S012E35
Umiat	011S	012E	36	U011S012E36
Umiat	012N	013E	24	U012N013E24
Umiat	012N	013E	25	U012N013E25
Umiat	012N	013E	35	U012N013E35
Umiat	012N	013E	36	U012N013E36
Umiat	012N	014E	01	U012N014E01
Umiat	012N	014E	02	U012N014E02
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Umiat	012N	014E	04	U012N014E04
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Umiat	012N	014E	09	U012N014E09
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Umiat	012N	014E	11	U012N014E11
Umiat	012N	014E	12	U012N014E12
Umiat	012N	014E	13	U012N014E13
Umiat	012N	014E	14	U012N014E14
Umiat	012N	014E	15	U012N014E15
Umiat	012N	014E	16	U012N014E16
Umiat	012N	014E	17	U012N014E17
Umiat	012N	014E	18	U012N014E18
Umiat	012N	014E	19	U012N014E19
Umiat	012N	014E	20	U012N014E20
Umiat	012N	014E	21	U012N014E21
Umiat	012N	014E	22	U012N014E22
Umiat	012N	014E	23	U012N014E23
Umiat	012N	014E	24	U012N014E24
Umiat	012N	014E	25	U012N014E25
Umiat	012N	014E	26	U012N014E26
Umiat	012N	014E	27	U012N014E27
Umiat	012N	014E	28	U012N014E28
Umiat	012N	014E	29	U012N014E29
Umiat	012N	014E	30	U012N014E30
Umiat	012N	014E	31	U012N014E31
Umiat	012N	014E	32	U012N014E32
Umiat	012N	014E	33	U012N014E33
Umiat	012N	014E	34	U012N014E34
Umiat	012N	014E	35	U012N014E35
Umiat	012N	014E	36	U012N014E36
Umiat	012N	015E	04	U012N015E04
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Umiat	012N	015E	07	U012N015E07
Umiat	012N	015E	08	U012N015E08
Umiat	012N	015E	09	U012N015E09
Umiat	012N	015E	16	U012N015E16

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	012N	015E	17	U012N015E17
Umiat	012N	015E	18	U012N015E18
Umiat	012N	015E	19	U012N015E19
Umiat	012N	015E	20	U012N015E20
Umiat	012N	015E	21	U012N015E21
Umiat	012N	015E	28	U012N015E28
Umiat	012N	015E	29	U012N015E29
Umiat	012N	015E	30	U012N015E30
Umiat	012N	015E	31	U012N015E31
Umiat	012N	015E	32	U012N015E32
Umiat	012N	015E	33	U012N015E33
Umiat	012S	011E	01	U012S011E01
Umiat	012S	011E	02	U012S011E02
Umiat	012S	011E	11	U012S011E11
Umiat	012S	011E	12	U012S011E12
Umiat	012S	011E	13	U012S011E13
Umiat	012S	011E	24	U012S011E24
Umiat	012S	012E	01	U012S012E01
Umiat	012S	012E	02	U012S012E02
Umiat	012S	012E	03	U012S012E03
Umiat	012S	012E	04	U012S012E04
Umiat	012S	012E	05	U012S012E05
Umiat	012S	012E	06	U012S012E06
Umiat	012S	012E	07	U012S012E07
Umiat	012S	012E	08	U012S012E08
Umiat	012S	012E	09	U012S012E09
Umiat	012S	012E	10	U012S012E10
Umiat	012S	012E	11	U012S012E11
Umiat	012S	012E	12	U012S012E12
Umiat	012S	012E	14	U012S012E14
Umiat	012S	012E	15	U012S012E15
Umiat	012S	012E	16	U012S012E16
Umiat	012S	012E	17	U012S012E17
Umiat	012S	012E	18	U012S012E18
Umiat	012S	012E	19	U012S012E19
Umiat	012S	012E	20	U012S012E20
Umiat	012S	012E	21	U012S012E21
Umiat	012S	012E	22	U012S012E22
Umiat	012S	012E	23	U012S012E23
Umiat	012S	012E	27	U012S012E27
Umiat	012S	012E	28	U012S012E28
Umiat	012S	012E	29	U012S012E29
Umiat	012S	012E	32	U012S012E32
Umiat	012S	012E	33	U012S012E33
Umiat	012S	012E	34	U012S012E34
Umiat	013N	014E	20	U013N014E20

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	013N	014E	21	U013N014E21
Umiat	013N	014E	22	U013N014E22
Umiat	013N	014E	23	U013N014E23
Umiat	013N	014E	24	U013N014E24
Umiat	013N	014E	25	U013N014E25
Umiat	013N	014E	26	U013N014E26
Umiat	013N	014E	27	U013N014E27
Umiat	013N	014E	28	U013N014E28
Umiat	013N	014E	29	U013N014E29
Umiat	013N	014E	32	U013N014E32
Umiat	013N	014E	33	U013N014E33
Umiat	013N	014E	34	U013N014E34
Umiat	013N	014E	35	U013N014E35
Umiat	013N	014E	36	U013N014E36
Umiat	013N	015E	19	U013N015E19
Umiat	013N	015E	20	U013N015E20
Umiat	013N	015E	29	U013N015E29
Umiat	013N	015E	30	U013N015E30
Umiat	013N	015E	31	U013N015E31
Umiat	013N	015E	32	U013N015E32
Umiat	013S	012E	02	U013S012E02
Umiat	013S	012E	03	U013S012E03
Umiat	013S	012E	04	U013S012E04
Umiat	013S	012E	08	U013S012E08
Umiat	013S	012E	09	U013S012E09
Umiat	013S	012E	10	U013S012E10
Umiat	013S	012E	11	U013S012E11
Umiat	013S	012E	14	U013S012E14
Umiat	013S	012E	15	U013S012E15
Umiat	013S	012E	16	U013S012E16
Umiat	013S	012E	17	U013S012E17
Umiat	013S	012E	20	U013S012E20
Umiat	013S	012E	21	U013S012E21
Umiat	013S	012E	22	U013S012E22
Umiat	013S	012E	23	U013S012E23
Umiat	013S	012E	27	U013S012E27
Umiat	013S	012E	28	U013S012E28
Umiat	013S	012E	29	U013S012E29
Umiat	013S	012E	31	U013S012E31
Umiat	013S	012E	32	U013S012E32
Umiat	013S	012E	33	U013S012E33
Umiat	013S	012E	34	U013S012E34
Umiat	014S	011E	36	U014S011E36
Umiat	014S	012E	04	U014S012E04
Umiat	014S	012E	05	U014S012E05
Umiat	014S	012E	06	U014S012E06

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	014S	012E	07	U014S012E07
Umiat	014S	012E	08	U014S012E08
Umiat	014S	012E	09	U014S012E09
Umiat	014S	012E	16	U014S012E16
Umiat	014S	012E	17	U014S012E17
Umiat	014S	012E	18	U014S012E18
Umiat	014S	012E	19	U014S012E19
Umiat	014S	012E	20	U014S012E20
Umiat	014S	012E	21	U014S012E21
Umiat	014S	012E	28	U014S012E28
Umiat	014S	012E	29	U014S012E29
Umiat	014S	012E	30	U014S012E30
Umiat	014S	012E	31	U014S012E31
Umiat	014S	012E	32	U014S012E32
Umiat	014S	012E	33	U014S012E33
Umiat	015S	011E	01	U015S011E01
Umiat	015S	011E	12	U015S011E12
Umiat	015S	011E	13	U015S011E13
Umiat	015S	011E	14	U015S011E14
Umiat	015S	011E	22	U015S011E22
Umiat	015S	011E	23	U015S011E23
Umiat	015S	011E	24	U015S011E24
Umiat	015S	011E	25	U015S011E25
Umiat	015S	011E	26	U015S011E26
Umiat	015S	011E	27	U015S011E27
Umiat	015S	011E	33	U015S011E33
Umiat	015S	011E	34	U015S011E34
Umiat	015S	011E	35	U015S011E35
Umiat	015S	011E	36	U015S011E36
Umiat	015S	012E	04	U015S012E04
Umiat	015S	012E	05	U015S012E05
Umiat	015S	012E	06	U015S012E06
Umiat	015S	012E	07	U015S012E07
Umiat	015S	012E	08	U015S012E08
Umiat	015S	012E	17	U015S012E17
Umiat	015S	012E	18	U015S012E18
Umiat	015S	012E	19	U015S012E19
Umiat	015S	012E	20	U015S012E20
Umiat	015S	012E	30	U015S012E30
Umiat	016S	010E	23	U016S010E23
Umiat	016S	010E	24	U016S010E24
Umiat	016S	010E	25	U016S010E25
Umiat	016S	010E	26	U016S010E26
Umiat	016S	010E	34	U016S010E34
Umiat	016S	010E	35	U016S010E35
Umiat	016S	010E	36	U016S010E36

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	016S	011E	01	U016S011E01
Umiat	016S	011E	02	U016S011E02
Umiat	016S	011E	03	U016S011E03
Umiat	016S	011E	04	U016S011E04
Umiat	016S	011E	05	U016S011E05
Umiat	016S	011E	08	U016S011E08
Umiat	016S	011E	09	U016S011E09
Umiat	016S	011E	10	U016S011E10
Umiat	016S	011E	11	U016S011E11
Umiat	016S	011E	14	U016S011E14
Umiat	016S	011E	15	U016S011E15
Umiat	016S	011E	16	U016S011E16
Umiat	016S	011E	17	U016S011E17
Umiat	016S	011E	18	U016S011E18
Umiat	016S	011E	19	U016S011E19
Umiat	016S	011E	20	U016S011E20
Umiat	016S	011E	21	U016S011E21
Umiat	016S	011E	22	U016S011E22
Umiat	016S	011E	28	U016S011E28
Umiat	016S	011E	29	U016S011E29
Umiat	016S	011E	30	U016S011E30
Umiat	016S	011E	31	U016S011E31
Umiat	016S	011E	32	U016S011E32
Umiat	017S	010E	01	U017S010E01
Umiat	017S	010E	02	U017S010E02
Umiat	017S	010E	03	U017S010E03
Umiat	017S	011E	06	U017S011E06
Seward	001N	001W	33	S001N001W33
Seward	001N	001W	34	S001N001W34
Seward	001N	001W	35	S001N001W35
Seward	001S	001W	02	S001S001W02
Seward	001S	001W	03	S001S001W03
Seward	001S	001W	04	S001S001W04
Seward	008N	004E	10	S008N004E10
Seward	008N	004E	14	S008N004E14
Seward	008N	004E	15	S008N004E15
Seward	008N	004E	16	S008N004E16
Seward	008N	004E	21	S008N004E21
Seward	008N	004E	22	S008N004E22
Seward	008N	004E	23	S008N004E23
Seward	012N	004W	03	S012N004W03
Seward	012N	004W	04	S012N004W04
Seward	012N	004W	05	S012N004W05
Seward	013N	004W	27	S013N004W27
Seward	013N	004W	28	S013N004W28
Seward	013N	004W	29	S013N004W29

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Seward	013N	004W	32	S013N004W32
Seward	013N	004W	33	S013N004W33
Seward	013N	004W	34	S013N004W34
Fairbanks	001N	001E	01	F001N001E01
Fairbanks	001N	001E	02	F001N001E02
Fairbanks	001N	001E	03	F001N001E03
Fairbanks	001N	001E	04	F001N001E04
Fairbanks	001N	001E	07	F001N001E07
Fairbanks	001N	001E	08	F001N001E08
Fairbanks	001N	001E	09	F001N001E09
Fairbanks	001N	001E	10	F001N001E10
Fairbanks	001N	001E	11	F001N001E11
Fairbanks	001N	001E	15	F001N001E15
Fairbanks	001N	001E	16	F001N001E16
Fairbanks	001N	001E	17	F001N001E17
Fairbanks	001N	001E	18	F001N001E18
Fairbanks	001N	001E	19	F001N001E19
Fairbanks	001N	001E	20	F001N001E20
Fairbanks	001N	001E	21	F001N001E21
Fairbanks	001N	001E	28	F001N001E28
Fairbanks	001N	001E	29	F001N001E29
Fairbanks	001N	002E	02	F001N002E02
Fairbanks	001N	002E	03	F001N002E03
Fairbanks	001N	002E	04	F001N002E04
Fairbanks	001N	002E	05	F001N002E05
Fairbanks	001N	002E	06	F001N002E06
Fairbanks	001N	002E	07	F001N002E07
Fairbanks	001N	002E	08	F001N002E08
Fairbanks	001N	002E	09	F001N002E09
Fairbanks	001N	002E	10	F001N002E10
Fairbanks	001N	002E	11	F001N002E11
Fairbanks	001N	002E	12	F001N002E12
Fairbanks	001N	002E	13	F001N002E13
Fairbanks	001N	002E	14	F001N002E14
Fairbanks	001N	002E	15	F001N002E15
Fairbanks	001N	002E	16	F001N002E16
Fairbanks	001N	002E	17	F001N002E17
Fairbanks	001N	002E	21	F001N002E21
Fairbanks	001N	002E	22	F001N002E22
Fairbanks	001N	002E	23	F001N002E23
Fairbanks	001N	002E	24	F001N002E24
Fairbanks	001N	002E	25	F001N002E25
Fairbanks	001N	002E	26	F001N002E26
Fairbanks	001N	002E	27	F001N002E27
Fairbanks	001N	002E	28	F001N002E28
Fairbanks	001N	002E	35	F001N002E35

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	001N	002E	36	F001N002E36
Fairbanks	001N	003E	18	F001N003E18
Fairbanks	001N	003E	19	F001N003E19
Fairbanks	001N	003E	20	F001N003E20
Fairbanks	001N	003E	29	F001N003E29
Fairbanks	001N	003E	30	F001N003E30
Fairbanks	001N	003E	31	F001N003E31
Fairbanks	001N	003E	32	F001N003E32
Fairbanks	001S	001E	21	F001S001E21
Fairbanks	001S	001E	22	F001S001E22
Fairbanks	001S	001E	23	F001S001E23
Fairbanks	001S	001E	25	F001S001E25
Fairbanks	001S	001E	26	F001S001E26
Fairbanks	001S	001E	27	F001S001E27
Fairbanks	001S	001E	28	F001S001E28
Fairbanks	001S	001E	33	F001S001E33
Fairbanks	001S	001E	34	F001S001E34
Fairbanks	001S	001E	35	F001S001E35
Fairbanks	001S	001E	36	F001S001E36
Fairbanks	001S	001W	18	F001S001W18
Fairbanks	001S	001W	19	F001S001W19
Fairbanks	001S	001W	30	F001S001W30
Fairbanks	001S	002E	01	F001S002E01
Fairbanks	001S	002W	13	F001S002W13
Fairbanks	001S	002W	14	F001S002W14
Fairbanks	001S	002W	23	F001S002W23
Fairbanks	001S	002W	24	F001S002W24
Fairbanks	001S	002W	25	F001S002W25
Fairbanks	001S	002W	26	F001S002W26
Fairbanks	001S	003E	04	F001S003E04
Fairbanks	001S	003E	05	F001S003E05
Fairbanks	001S	003E	06	F001S003E06
Fairbanks	001S	003E	07	F001S003E07
Fairbanks	001S	003E	08	F001S003E08
Fairbanks	001S	003E	09	F001S003E09
Fairbanks	001S	003E	10	F001S003E10
Fairbanks	001S	003E	15	F001S003E15
Fairbanks	001S	003E	16	F001S003E16
Fairbanks	001S	003E	17	F001S003E17
Fairbanks	001S	003E	18	F001S003E18
Fairbanks	001S	003E	19	F001S003E19
Fairbanks	001S	003E	20	F001S003E20
Fairbanks	001S	003E	21	F001S003E21
Fairbanks	001S	003E	22	F001S003E22
Fairbanks	001S	003E	23	F001S003E23
Fairbanks	001S	003E	26	F001S003E26

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	001S	003E	27	F001S003E27
Fairbanks	001S	003E	28	F001S003E28
Fairbanks	001S	003E	29	F001S003E29
Fairbanks	001S	003E	30	F001S003E30
Fairbanks	001S	003E	31	F001S003E31
Fairbanks	001S	003E	32	F001S003E32
Fairbanks	001S	003E	33	F001S003E33
Fairbanks	001S	003E	34	F001S003E34
Fairbanks	001S	003E	35	F001S003E35
Fairbanks	002N	001E	06	F002N001E06
Fairbanks	002N	001E	07	F002N001E07
Fairbanks	002N	001E	08	F002N001E08
Fairbanks	002N	001E	09	F002N001E09
Fairbanks	002N	001E	15	F002N001E15
Fairbanks	002N	001E	16	F002N001E16
Fairbanks	002N	001E	17	F002N001E17
Fairbanks	002N	001E	18	F002N001E18
Fairbanks	002N	001E	19	F002N001E19
Fairbanks	002N	001E	20	F002N001E20
Fairbanks	002N	001E	21	F002N001E21
Fairbanks	002N	001E	22	F002N001E22
Fairbanks	002N	001E	23	F002N001E23
Fairbanks	002N	001E	25	F002N001E25
Fairbanks	002N	001E	26	F002N001E26
Fairbanks	002N	001E	27	F002N001E27
Fairbanks	002N	001E	28	F002N001E28
Fairbanks	002N	001E	29	F002N001E29
Fairbanks	002N	001E	30	F002N001E30
Fairbanks	002N	001E	32	F002N001E32
Fairbanks	002N	001E	33	F002N001E33
Fairbanks	002N	001E	34	F002N001E34
Fairbanks	002N	001E	35	F002N001E35
Fairbanks	002N	001E	36	F002N001E36
Fairbanks	002N	001W	01	F002N001W01
Fairbanks	002N	001W	02	F002N001W02
Fairbanks	002N	001W	03	F002N001W03
Fairbanks	002N	001W	04	F002N001W04
Fairbanks	002N	001W	05	F002N001W05
Fairbanks	002N	001W	09	F002N001W09
Fairbanks	002N	001W	10	F002N001W10
Fairbanks	002N	001W	11	F002N001W11
Fairbanks	002N	001W	12	F002N001W12
Fairbanks	002N	001W	13	F002N001W13
Fairbanks	002N	001W	14	F002N001W14
Fairbanks	002N	001W	15	F002N001W15
Fairbanks	002N	001W	22	F002N001W22

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	002N	001W	23	F002N001W23
Fairbanks	002N	001W	24	F002N001W24
Fairbanks	002N	001W	25	F002N001W25
Fairbanks	002N	001W	26	F002N001W26
Fairbanks	002N	002E	30	F002N002E30
Fairbanks	002N	002E	31	F002N002E31
Fairbanks	002N	002E	32	F002N002E32
Fairbanks	002N	002E	33	F002N002E33
Fairbanks	002S	001E	02	F002S001E02
Fairbanks	002S	001E	03	F002S001E03
Fairbanks	002S	002E	01	F002S002E01
Fairbanks	002S	002E	12	F002S002E12
Fairbanks	002S	002E	13	F002S002E13
Fairbanks	002S	002E	14	F002S002E14
Fairbanks	002S	002E	23	F002S002E23
Fairbanks	002S	002E	24	F002S002E24
Fairbanks	002S	002E	25	F002S002E25
Fairbanks	002S	002E	26	F002S002E26
Fairbanks	002S	003E	01	F002S003E01
Fairbanks	002S	003E	02	F002S003E02
Fairbanks	002S	003E	03	F002S003E03
Fairbanks	002S	003E	04	F002S003E04
Fairbanks	002S	003E	05	F002S003E05
Fairbanks	002S	003E	06	F002S003E06
Fairbanks	002S	003E	07	F002S003E07
Fairbanks	002S	003E	08	F002S003E08
Fairbanks	002S	003E	09	F002S003E09
Fairbanks	002S	003E	10	F002S003E10
Fairbanks	002S	003E	11	F002S003E11
Fairbanks	002S	003E	12	F002S003E12
Fairbanks	002S	003E	13	F002S003E13
Fairbanks	002S	003E	14	F002S003E14
Fairbanks	002S	003E	15	F002S003E15
Fairbanks	002S	003E	16	F002S003E16
Fairbanks	002S	003E	17	F002S003E17
Fairbanks	002S	003E	18	F002S003E18
Fairbanks	002S	003E	19	F002S003E19
Fairbanks	002S	003E	20	F002S003E20
Fairbanks	002S	003E	21	F002S003E21
Fairbanks	002S	003E	22	F002S003E22
Fairbanks	002S	003E	23	F002S003E23
Fairbanks	002S	003E	24	F002S003E24
Fairbanks	002S	003E	25	F002S003E25
Fairbanks	002S	003E	26	F002S003E26
Fairbanks	002S	003E	27	F002S003E27
Fairbanks	002S	003E	28	F002S003E28

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	002S	003E	29	F002S003E29
Fairbanks	002S	003E	30	F002S003E30
Fairbanks	002S	003E	33	F002S003E33
Fairbanks	002S	003E	34	F002S003E34
Fairbanks	002S	003E	35	F002S003E35
Fairbanks	002S	003E	36	F002S003E36
Fairbanks	002S	004E	18	F002S004E18
Fairbanks	002S	004E	19	F002S004E19
Fairbanks	002S	004E	29	F002S004E29
Fairbanks	002S	004E	30	F002S004E30
Fairbanks	002S	004E	31	F002S004E31
Fairbanks	002S	004E	32	F002S004E32
Fairbanks	003N	001E	31	F003N001E31
Fairbanks	003N	001W	04	F003N001W04
Fairbanks	003N	001W	05	F003N001W05
Fairbanks	003N	001W	06	F003N001W06
Fairbanks	003N	001W	07	F003N001W07
Fairbanks	003N	001W	08	F003N001W08
Fairbanks	003N	001W	09	F003N001W09
Fairbanks	003N	001W	10	F003N001W10
Fairbanks	003N	001W	11	F003N001W11
Fairbanks	003N	001W	14	F003N001W14
Fairbanks	003N	001W	15	F003N001W15
Fairbanks	003N	001W	16	F003N001W16
Fairbanks	003N	001W	17	F003N001W17
Fairbanks	003N	001W	18	F003N001W18
Fairbanks	003N	001W	19	F003N001W19
Fairbanks	003N	001W	20	F003N001W20
Fairbanks	003N	001W	21	F003N001W21
Fairbanks	003N	001W	22	F003N001W22
Fairbanks	003N	001W	23	F003N001W23
Fairbanks	003N	001W	25	F003N001W25
Fairbanks	003N	001W	26	F003N001W26
Fairbanks	003N	001W	27	F003N001W27
Fairbanks	003N	001W	28	F003N001W28
Fairbanks	003N	001W	29	F003N001W29
Fairbanks	003N	001W	30	F003N001W30
Fairbanks	003N	001W	31	F003N001W31
Fairbanks	003N	001W	32	F003N001W32
Fairbanks	003N	001W	33	F003N001W33
Fairbanks	003N	001W	34	F003N001W34
Fairbanks	003N	001W	35	F003N001W35
Fairbanks	003N	001W	36	F003N001W36
Fairbanks	003N	002W	01	F003N002W01
Fairbanks	003N	002W	02	F003N002W02
Fairbanks	003N	002W	03	F003N002W03

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	003N	002W	04	F003N002W04
Fairbanks	003N	002W	05	F003N002W05
Fairbanks	003N	002W	09	F003N002W09
Fairbanks	003N	002W	10	F003N002W10
Fairbanks	003N	002W	11	F003N002W11
Fairbanks	003N	002W	12	F003N002W12
Fairbanks	003N	002W	13	F003N002W13
Fairbanks	003N	002W	14	F003N002W14
Fairbanks	003N	002W	15	F003N002W15
Fairbanks	003N	002W	16	F003N002W16
Fairbanks	003N	002W	23	F003N002W23
Fairbanks	003N	002W	24	F003N002W24
Fairbanks	003N	002W	25	F003N002W25
Fairbanks	003S	003E	01	F003S003E01
Fairbanks	003S	003E	02	F003S003E02
Fairbanks	003S	003E	03	F003S003E03
Fairbanks	003S	003E	04	F003S003E04
Fairbanks	003S	003E	09	F003S003E09
Fairbanks	003S	003E	10	F003S003E10
Fairbanks	003S	003E	11	F003S003E11
Fairbanks	003S	003E	12	F003S003E12
Fairbanks	003S	003E	13	F003S003E13
Fairbanks	003S	003E	14	F003S003E14
Fairbanks	003S	003E	22	F003S003E22
Fairbanks	003S	003E	23	F003S003E23
Fairbanks	003S	003E	24	F003S003E24
Fairbanks	003S	003E	25	F003S003E25
Fairbanks	003S	003E	26	F003S003E26
Fairbanks	003S	003E	27	F003S003E27
Fairbanks	003S	004E	05	F003S004E05
Fairbanks	003S	004E	06	F003S004E06
Fairbanks	003S	004E	07	F003S004E07
Fairbanks	003S	004E	08	F003S004E08
Fairbanks	003S	004E	09	F003S004E09
Fairbanks	003S	004E	16	F003S004E16
Fairbanks	003S	004E	17	F003S004E17
Fairbanks	003S	004E	18	F003S004E18
Fairbanks	003S	004E	19	F003S004E19
Fairbanks	003S	004E	20	F003S004E20
Fairbanks	003S	004E	21	F003S004E21
Fairbanks	003S	004E	22	F003S004E22
Fairbanks	003S	004E	27	F003S004E27
Fairbanks	003S	004E	28	F003S004E28
Fairbanks	003S	004E	29	F003S004E29
Fairbanks	003S	004E	30	F003S004E30
Fairbanks	003S	004E	32	F003S004E32

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	003S	004E	33	F003S004E33
Fairbanks	003S	004E	34	F003S004E34
Fairbanks	003S	004E	35	F003S004E35
Fairbanks	003S	004E	36	F003S004E36
Fairbanks	003S	005E	31	F003S005E31
Fairbanks	004N	001W	31	F004N001W31
Fairbanks	004N	001W	32	F004N001W32
Fairbanks	004N	001W	33	F004N001W33
Fairbanks	004N	002W	06	F004N002W06
Fairbanks	004N	002W	07	F004N002W07
Fairbanks	004N	002W	15	F004N002W15
Fairbanks	004N	002W	17	F004N002W17
Fairbanks	004N	002W	18	F004N002W18
Fairbanks	004N	002W	19	F004N002W19
Fairbanks	004N	002W	20	F004N002W20
Fairbanks	004N	002W	21	F004N002W21
Fairbanks	004N	002W	22	F004N002W22
Fairbanks	004N	002W	23	F004N002W23
Fairbanks	004N	002W	25	F004N002W25
Fairbanks	004N	002W	26	F004N002W26
Fairbanks	004N	002W	27	F004N002W27
Fairbanks	004N	002W	28	F004N002W28
Fairbanks	004N	002W	29	F004N002W29
Fairbanks	004N	002W	30	F004N002W30
Fairbanks	004N	002W	31	F004N002W31
Fairbanks	004N	002W	32	F004N002W32
Fairbanks	004N	002W	33	F004N002W33
Fairbanks	004N	002W	34	F004N002W34
Fairbanks	004N	002W	35	F004N002W35
Fairbanks	004N	002W	36	F004N002W36
Fairbanks	004N	003W	01	F004N003W01
Fairbanks	004N	003W	02	F004N003W02
Fairbanks	004N	003W	03	F004N003W03
Fairbanks	004N	003W	04	F004N003W04
Fairbanks	004N	003W	09	F004N003W09
Fairbanks	004N	003W	10	F004N003W10
Fairbanks	004N	003W	11	F004N003W11
Fairbanks	004N	003W	12	F004N003W12
Fairbanks	004N	003W	13	F004N003W13
Fairbanks	004N	003W	14	F004N003W14
Fairbanks	004N	003W	15	F004N003W15
Fairbanks	004N	003W	22	F004N003W22
Fairbanks	004N	003W	23	F004N003W23
Fairbanks	004N	003W	24	F004N003W24
Fairbanks	004N	003W	25	F004N003W25
Fairbanks	004S	003E	24	F004S003E24

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	004S	003E	25	F004S003E25
Fairbanks	004S	003E	36	F004S003E36
Fairbanks	004S	004E	01	F004S004E01
Fairbanks	004S	004E	02	F004S004E02
Fairbanks	004S	004E	03	F004S004E03
Fairbanks	004S	004E	04	F004S004E04
Fairbanks	004S	004E	09	F004S004E09
Fairbanks	004S	004E	10	F004S004E10
Fairbanks	004S	004E	11	F004S004E11
Fairbanks	004S	004E	12	F004S004E12
Fairbanks	004S	004E	13	F004S004E13
Fairbanks	004S	004E	14	F004S004E14
Fairbanks	004S	004E	15	F004S004E15
Fairbanks	004S	004E	16	F004S004E16
Fairbanks	004S	004E	17	F004S004E17
Fairbanks	004S	004E	18	F004S004E18
Fairbanks	004S	004E	19	F004S004E19
Fairbanks	004S	004E	20	F004S004E20
Fairbanks	004S	004E	21	F004S004E21
Fairbanks	004S	004E	22	F004S004E22
Fairbanks	004S	004E	23	F004S004E23
Fairbanks	004S	004E	24	F004S004E24
Fairbanks	004S	004E	25	F004S004E25
Fairbanks	004S	004E	26	F004S004E26
Fairbanks	004S	004E	27	F004S004E27
Fairbanks	004S	004E	28	F004S004E28
Fairbanks	004S	004E	29	F004S004E29
Fairbanks	004S	004E	30	F004S004E30
Fairbanks	004S	004E	31	F004S004E31
Fairbanks	004S	004E	32	F004S004E32
Fairbanks	004S	004E	34	F004S004E34
Fairbanks	004S	004E	35	F004S004E35
Fairbanks	004S	004E	36	F004S004E36
Fairbanks	004S	005E	05	F004S005E05
Fairbanks	004S	005E	06	F004S005E06
Fairbanks	004S	005E	07	F004S005E07
Fairbanks	004S	005E	08	F004S005E08
Fairbanks	004S	005E	09	F004S005E09
Fairbanks	004S	005E	16	F004S005E16
Fairbanks	004S	005E	17	F004S005E17
Fairbanks	004S	005E	18	F004S005E18
Fairbanks	004S	005E	19	F004S005E19
Fairbanks	004S	005E	20	F004S005E20
Fairbanks	004S	005E	21	F004S005E21
Fairbanks	004S	005E	26	F004S005E26
Fairbanks	004S	005E	27	F004S005E27

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	004S	005E	28	F004S005E28
Fairbanks	004S	005E	29	F004S005E29
Fairbanks	004S	005E	30	F004S005E30
Fairbanks	004S	005E	31	F004S005E31
Fairbanks	004S	005E	32	F004S005E32
Fairbanks	004S	005E	33	F004S005E33
Fairbanks	004S	005E	34	F004S005E34
Fairbanks	004S	005E	35	F004S005E35
Fairbanks	004S	005E	36	F004S005E36
Fairbanks	005N	003W	02	F005N003W02
Fairbanks	005N	003W	03	F005N003W03
Fairbanks	005N	003W	04	F005N003W04
Fairbanks	005N	003W	05	F005N003W05
Fairbanks	005N	003W	06	F005N003W06
Fairbanks	005N	003W	07	F005N003W07
Fairbanks	005N	003W	08	F005N003W08
Fairbanks	005N	003W	09	F005N003W09
Fairbanks	005N	003W	10	F005N003W10
Fairbanks	005N	003W	11	F005N003W11
Fairbanks	005N	003W	14	F005N003W14
Fairbanks	005N	003W	15	F005N003W15
Fairbanks	005N	003W	16	F005N003W16
Fairbanks	005N	003W	17	F005N003W17
Fairbanks	005N	003W	20	F005N003W20
Fairbanks	005N	003W	21	F005N003W21
Fairbanks	005N	003W	22	F005N003W22
Fairbanks	005N	003W	23	F005N003W23
Fairbanks	005N	003W	26	F005N003W26
Fairbanks	005N	003W	27	F005N003W27
Fairbanks	005N	003W	28	F005N003W28
Fairbanks	005N	003W	33	F005N003W33
Fairbanks	005N	003W	34	F005N003W34
Fairbanks	005N	003W	35	F005N003W35
Fairbanks	005N	003W	36	F005N003W36
Fairbanks	005N	004W	01	F005N004W01
Fairbanks	005N	004W	02	F005N004W02
Fairbanks	005N	004W	03	F005N004W03
Fairbanks	005N	004W	04	F005N004W04
Fairbanks	005S	004E	01	F005S004E01
Fairbanks	005S	004E	02	F005S004E02
Fairbanks	005S	004E	13	F005S004E13
Fairbanks	005S	004E	14	F005S004E14
Fairbanks	005S	004E	22	F005S004E22
Fairbanks	005S	004E	23	F005S004E23
Fairbanks	005S	004E	24	F005S004E24
Fairbanks	005S	004E	25	F005S004E25

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	005S	004E	26	F005S004E26
Fairbanks	005S	004E	27	F005S004E27
Fairbanks	005S	004E	34	F005S004E34
Fairbanks	005S	004E	35	F005S004E35
Fairbanks	005S	004E	36	F005S004E36
Fairbanks	005S	005E	01	F005S005E01
Fairbanks	005S	005E	02	F005S005E02
Fairbanks	005S	005E	03	F005S005E03
Fairbanks	005S	005E	04	F005S005E04
Fairbanks	005S	005E	05	F005S005E05
Fairbanks	005S	005E	06	F005S005E06
Fairbanks	005S	005E	09	F005S005E09
Fairbanks	005S	005E	10	F005S005E10
Fairbanks	005S	005E	11	F005S005E11
Fairbanks	005S	005E	12	F005S005E12
Fairbanks	005S	005E	13	F005S005E13
Fairbanks	005S	005E	14	F005S005E14
Fairbanks	005S	005E	15	F005S005E15
Fairbanks	005S	005E	16	F005S005E16
Fairbanks	005S	005E	17	F005S005E17
Fairbanks	005S	005E	18	F005S005E18
Fairbanks	005S	005E	19	F005S005E19
Fairbanks	005S	005E	20	F005S005E20
Fairbanks	005S	005E	21	F005S005E21
Fairbanks	005S	005E	22	F005S005E22
Fairbanks	005S	005E	23	F005S005E23
Fairbanks	005S	005E	24	F005S005E24
Fairbanks	005S	005E	25	F005S005E25
Fairbanks	005S	005E	26	F005S005E26
Fairbanks	005S	005E	27	F005S005E27
Fairbanks	005S	005E	28	F005S005E28
Fairbanks	005S	005E	29	F005S005E29
Fairbanks	005S	005E	30	F005S005E30
Fairbanks	005S	005E	31	F005S005E31
Fairbanks	005S	005E	32	F005S005E32
Fairbanks	005S	006E	06	F005S006E06
Fairbanks	005S	006E	07	F005S006E07
Fairbanks	005S	006E	08	F005S006E08
Fairbanks	005S	006E	09	F005S006E09
Fairbanks	005S	006E	10	F005S006E10
Fairbanks	005S	006E	11	F005S006E11
Fairbanks	005S	006E	13	F005S006E13
Fairbanks	005S	006E	14	F005S006E14
Fairbanks	005S	006E	15	F005S006E15
Fairbanks	005S	006E	16	F005S006E16
Fairbanks	005S	006E	17	F005S006E17

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	005S	006E	18	F005S006E18
Fairbanks	005S	006E	19	F005S006E19
Fairbanks	005S	006E	20	F005S006E20
Fairbanks	005S	006E	21	F005S006E21
Fairbanks	005S	006E	22	F005S006E22
Fairbanks	005S	006E	23	F005S006E23
Fairbanks	005S	006E	24	F005S006E24
Fairbanks	005S	006E	25	F005S006E25
Fairbanks	005S	006E	26	F005S006E26
Fairbanks	005S	006E	27	F005S006E27
Fairbanks	005S	006E	28	F005S006E28
Fairbanks	005S	006E	30	F005S006E30
Fairbanks	005S	006E	34	F005S006E34
Fairbanks	005S	006E	35	F005S006E35
Fairbanks	005S	006E	36	F005S006E36
Fairbanks	005S	007E	17	F005S007E17
Fairbanks	005S	007E	18	F005S007E18
Fairbanks	005S	007E	19	F005S007E19
Fairbanks	005S	007E	20	F005S007E20
Fairbanks	005S	007E	21	F005S007E21
Fairbanks	005S	007E	26	F005S007E26
Fairbanks	005S	007E	27	F005S007E27
Fairbanks	005S	007E	28	F005S007E28
Fairbanks	005S	007E	29	F005S007E29
Fairbanks	005S	007E	30	F005S007E30
Fairbanks	005S	007E	31	F005S007E31
Fairbanks	005S	007E	32	F005S007E32
Fairbanks	005S	007E	33	F005S007E33
Fairbanks	005S	007E	34	F005S007E34
Fairbanks	005S	007E	35	F005S007E35
Fairbanks	005S	007E	36	F005S007E36
Fairbanks	005S	008E	31	F005S008E31
Fairbanks	006N	003W	06	F006N003W06
Fairbanks	006N	003W	07	F006N003W07
Fairbanks	006N	003W	08	F006N003W08
Fairbanks	006N	003W	17	F006N003W17
Fairbanks	006N	003W	18	F006N003W18
Fairbanks	006N	003W	19	F006N003W19
Fairbanks	006N	003W	20	F006N003W20
Fairbanks	006N	003W	28	F006N003W28
Fairbanks	006N	003W	29	F006N003W29
Fairbanks	006N	003W	30	F006N003W30
Fairbanks	006N	003W	31	F006N003W31
Fairbanks	006N	003W	32	F006N003W32
Fairbanks	006N	003W	33	F006N003W33
Fairbanks	006N	003W	34	F006N003W34

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	006N	003W	35	F006N003W35
Fairbanks	006N	004W	01	F006N004W01
Fairbanks	006N	004W	02	F006N004W02
Fairbanks	006N	004W	03	F006N004W03
Fairbanks	006N	004W	04	F006N004W04
Fairbanks	006N	004W	05	F006N004W05
Fairbanks	006N	004W	06	F006N004W06
Fairbanks	006N	004W	07	F006N004W07
Fairbanks	006N	004W	08	F006N004W08
Fairbanks	006N	004W	09	F006N004W09
Fairbanks	006N	004W	10	F006N004W10
Fairbanks	006N	004W	11	F006N004W11
Fairbanks	006N	004W	12	F006N004W12
Fairbanks	006N	004W	13	F006N004W13
Fairbanks	006N	004W	14	F006N004W14
Fairbanks	006N	004W	15	F006N004W15
Fairbanks	006N	004W	16	F006N004W16
Fairbanks	006N	004W	17	F006N004W17
Fairbanks	006N	004W	20	F006N004W20
Fairbanks	006N	004W	21	F006N004W21
Fairbanks	006N	004W	22	F006N004W22
Fairbanks	006N	004W	23	F006N004W23
Fairbanks	006N	004W	24	F006N004W24
Fairbanks	006N	004W	25	F006N004W25
Fairbanks	006N	004W	26	F006N004W26
Fairbanks	006N	004W	27	F006N004W27
Fairbanks	006N	004W	28	F006N004W28
Fairbanks	006N	004W	29	F006N004W29
Fairbanks	006N	004W	32	F006N004W32
Fairbanks	006N	004W	33	F006N004W33
Fairbanks	006N	004W	34	F006N004W34
Fairbanks	006N	004W	35	F006N004W35
Fairbanks	006N	004W	36	F006N004W36
Fairbanks	006N	005W	01	F006N005W01
Fairbanks	006S	006E	01	F006S006E01
Fairbanks	006S	006E	02	F006S006E02
Fairbanks	006S	006E	03	F006S006E03
Fairbanks	006S	006E	04	F006S006E04
Fairbanks	006S	006E	08	F006S006E08
Fairbanks	006S	006E	09	F006S006E09
Fairbanks	006S	006E	10	F006S006E10
Fairbanks	006S	006E	11	F006S006E11
Fairbanks	006S	006E	12	F006S006E12
Fairbanks	006S	006E	14	F006S006E14
Fairbanks	006S	006E	15	F006S006E15
Fairbanks	006S	006E	16	F006S006E16

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	006S	006E	17	F006S006E17
Fairbanks	006S	006E	18	F006S006E18
Fairbanks	006S	006E	19	F006S006E19
Fairbanks	006S	006E	20	F006S006E20
Fairbanks	006S	006E	21	F006S006E21
Fairbanks	006S	006E	22	F006S006E22
Fairbanks	006S	006E	25	F006S006E25
Fairbanks	006S	006E	26	F006S006E26
Fairbanks	006S	006E	27	F006S006E27
Fairbanks	006S	006E	28	F006S006E28
Fairbanks	006S	006E	29	F006S006E29
Fairbanks	006S	006E	30	F006S006E30
Fairbanks	006S	006E	31	F006S006E31
Fairbanks	006S	006E	32	F006S006E32
Fairbanks	006S	006E	33	F006S006E33
Fairbanks	006S	006E	34	F006S006E34
Fairbanks	006S	006E	35	F006S006E35
Fairbanks	006S	006E	36	F006S006E36
Fairbanks	006S	007E	01	F006S007E01
Fairbanks	006S	007E	02	F006S007E02
Fairbanks	006S	007E	03	F006S007E03
Fairbanks	006S	007E	04	F006S007E04
Fairbanks	006S	007E	05	F006S007E05
Fairbanks	006S	007E	06	F006S007E06
Fairbanks	006S	007E	07	F006S007E07
Fairbanks	006S	007E	08	F006S007E08
Fairbanks	006S	007E	09	F006S007E09
Fairbanks	006S	007E	10	F006S007E10
Fairbanks	006S	007E	11	F006S007E11
Fairbanks	006S	007E	12	F006S007E12
Fairbanks	006S	007E	13	F006S007E13
Fairbanks	006S	007E	14	F006S007E14
Fairbanks	006S	007E	15	F006S007E15
Fairbanks	006S	007E	16	F006S007E16
Fairbanks	006S	007E	22	F006S007E22
Fairbanks	006S	007E	23	F006S007E23
Fairbanks	006S	007E	24	F006S007E24
Fairbanks	006S	007E	25	F006S007E25
Fairbanks	006S	007E	26	F006S007E26
Fairbanks	006S	007E	27	F006S007E27
Fairbanks	006S	007E	28	F006S007E28
Fairbanks	006S	007E	30	F006S007E30
Fairbanks	006S	007E	31	F006S007E31
Fairbanks	006S	007E	32	F006S007E32
Fairbanks	006S	007E	33	F006S007E33
Fairbanks	006S	007E	34	F006S007E34

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	006S	007E	35	F006S007E35
Fairbanks	006S	007E	36	F006S007E36
Fairbanks	006S	008E	06	F006S008E06
Fairbanks	006S	008E	07	F006S008E07
Fairbanks	006S	008E	17	F006S008E17
Fairbanks	006S	008E	18	F006S008E18
Fairbanks	006S	008E	19	F006S008E19
Fairbanks	006S	008E	20	F006S008E20
Fairbanks	006S	008E	21	F006S008E21
Fairbanks	006S	008E	28	F006S008E28
Fairbanks	006S	008E	29	F006S008E29
Fairbanks	006S	008E	30	F006S008E30
Fairbanks	006S	008E	31	F006S008E31
Fairbanks	006S	008E	32	F006S008E32
Fairbanks	006S	008E	33	F006S008E33
Fairbanks	006S	008E	34	F006S008E34
Fairbanks	007N	003W	05	F007N003W05
Fairbanks	007N	003W	06	F007N003W06
Fairbanks	007N	003W	07	F007N003W07
Fairbanks	007N	003W	08	F007N003W08
Fairbanks	007N	003W	17	F007N003W17
Fairbanks	007N	003W	18	F007N003W18
Fairbanks	007N	004W	01	F007N004W01
Fairbanks	007N	004W	02	F007N004W02
Fairbanks	007N	004W	10	F007N004W10
Fairbanks	007N	004W	11	F007N004W11
Fairbanks	007N	004W	12	F007N004W12
Fairbanks	007N	004W	13	F007N004W13
Fairbanks	007N	004W	14	F007N004W14
Fairbanks	007N	004W	15	F007N004W15
Fairbanks	007N	004W	16	F007N004W16
Fairbanks	007N	004W	19	F007N004W19
Fairbanks	007N	004W	20	F007N004W20
Fairbanks	007N	004W	21	F007N004W21
Fairbanks	007N	004W	22	F007N004W22
Fairbanks	007N	004W	23	F007N004W23
Fairbanks	007N	004W	24	F007N004W24
Fairbanks	007N	004W	26	F007N004W26
Fairbanks	007N	004W	27	F007N004W27
Fairbanks	007N	004W	28	F007N004W28
Fairbanks	007N	004W	29	F007N004W29
Fairbanks	007N	004W	30	F007N004W30
Fairbanks	007N	004W	31	F007N004W31
Fairbanks	007N	004W	32	F007N004W32
Fairbanks	007N	004W	33	F007N004W33
Fairbanks	007N	005W	04	F007N005W04

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	007N	005W	05	F007N005W05
Fairbanks	007N	005W	06	F007N005W06
Fairbanks	007N	005W	07	F007N005W07
Fairbanks	007N	005W	08	F007N005W08
Fairbanks	007N	005W	09	F007N005W09
Fairbanks	007N	005W	10	F007N005W10
Fairbanks	007N	005W	13	F007N005W13
Fairbanks	007N	005W	14	F007N005W14
Fairbanks	007N	005W	15	F007N005W15
Fairbanks	007N	005W	16	F007N005W16
Fairbanks	007N	005W	17	F007N005W17
Fairbanks	007N	005W	18	F007N005W18
Fairbanks	007N	005W	20	F007N005W20
Fairbanks	007N	005W	21	F007N005W21
Fairbanks	007N	005W	22	F007N005W22
Fairbanks	007N	005W	23	F007N005W23
Fairbanks	007N	005W	24	F007N005W24
Fairbanks	007N	005W	25	F007N005W25
Fairbanks	007N	005W	26	F007N005W26
Fairbanks	007N	005W	27	F007N005W27
Fairbanks	007N	005W	28	F007N005W28
Fairbanks	007N	005W	35	F007N005W35
Fairbanks	007N	005W	36	F007N005W36
Fairbanks	007N	006W	01	F007N006W01
Fairbanks	007N	006W	12	F007N006W12
Fairbanks	007S	006E	01	F007S006E01
Fairbanks	007S	006E	02	F007S006E02
Fairbanks	007S	006E	03	F007S006E03
Fairbanks	007S	006E	04	F007S006E04
Fairbanks	007S	006E	12	F007S006E12
Fairbanks	007S	007E	02	F007S007E02
Fairbanks	007S	007E	03	F007S007E03
Fairbanks	007S	007E	04	F007S007E04
Fairbanks	007S	007E	05	F007S007E05
Fairbanks	007S	007E	06	F007S007E06
Fairbanks	007S	007E	07	F007S007E07
Fairbanks	007S	007E	08	F007S007E08
Fairbanks	007S	007E	09	F007S007E09
Fairbanks	007S	007E	10	F007S007E10
Fairbanks	007S	007E	11	F007S007E11
Fairbanks	007S	007E	14	F007S007E14
Fairbanks	007S	007E	15	F007S007E15
Fairbanks	007S	007E	16	F007S007E16
Fairbanks	007S	007E	17	F007S007E17
Fairbanks	007S	007E	18	F007S007E18
Fairbanks	007S	007E	21	F007S007E21

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	007S	007E	22	F007S007E22
Fairbanks	007S	007E	23	F007S007E23
Fairbanks	007S	007E	26	F007S007E26
Fairbanks	007S	007E	27	F007S007E27
Fairbanks	007S	007E	28	F007S007E28
Fairbanks	007S	008E	03	F007S008E03
Fairbanks	007S	008E	04	F007S008E04
Fairbanks	007S	008E	05	F007S008E05
Fairbanks	007S	008E	08	F007S008E08
Fairbanks	007S	008E	09	F007S008E09
Fairbanks	007S	008E	10	F007S008E10
Fairbanks	007S	008E	11	F007S008E11
Fairbanks	007S	008E	13	F007S008E13
Fairbanks	007S	008E	14	F007S008E14
Fairbanks	007S	008E	15	F007S008E15
Fairbanks	007S	008E	16	F007S008E16
Fairbanks	007S	008E	17	F007S008E17
Fairbanks	007S	008E	21	F007S008E21
Fairbanks	007S	008E	22	F007S008E22
Fairbanks	007S	008E	23	F007S008E23
Fairbanks	007S	008E	24	F007S008E24
Fairbanks	007S	008E	25	F007S008E25
Fairbanks	007S	008E	26	F007S008E26
Fairbanks	007S	008E	27	F007S008E27
Fairbanks	007S	008E	28	F007S008E28
Fairbanks	007S	008E	33	F007S008E33
Fairbanks	007S	008E	34	F007S008E34
Fairbanks	007S	008E	35	F007S008E35
Fairbanks	007S	008E	36	F007S008E36
Fairbanks	007S	009E	30	F007S009E30
Fairbanks	007S	009E	31	F007S009E31
Fairbanks	007S	009E	32	F007S009E32
Fairbanks	008N	005W	19	F008N005W19
Fairbanks	008N	005W	29	F008N005W29
Fairbanks	008N	005W	30	F008N005W30
Fairbanks	008N	005W	31	F008N005W31
Fairbanks	008N	005W	32	F008N005W32
Fairbanks	008N	005W	33	F008N005W33
Fairbanks	008N	006W	04	F008N006W04
Fairbanks	008N	006W	05	F008N006W05
Fairbanks	008N	006W	06	F008N006W06
Fairbanks	008N	006W	07	F008N006W07
Fairbanks	008N	006W	08	F008N006W08
Fairbanks	008N	006W	09	F008N006W09
Fairbanks	008N	006W	10	F008N006W10
Fairbanks	008N	006W	11	F008N006W11

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	008N	006W	13	F008N006W13
Fairbanks	008N	006W	14	F008N006W14
Fairbanks	008N	006W	15	F008N006W15
Fairbanks	008N	006W	16	F008N006W16
Fairbanks	008N	006W	17	F008N006W17
Fairbanks	008N	006W	18	F008N006W18
Fairbanks	008N	006W	19	F008N006W19
Fairbanks	008N	006W	20	F008N006W20
Fairbanks	008N	006W	21	F008N006W21
Fairbanks	008N	006W	22	F008N006W22
Fairbanks	008N	006W	23	F008N006W23
Fairbanks	008N	006W	24	F008N006W24
Fairbanks	008N	006W	25	F008N006W25
Fairbanks	008N	006W	26	F008N006W26
Fairbanks	008N	006W	27	F008N006W27
Fairbanks	008N	006W	28	F008N006W28
Fairbanks	008N	006W	29	F008N006W29
Fairbanks	008N	006W	35	F008N006W35
Fairbanks	008N	006W	36	F008N006W36
Fairbanks	008N	007W	01	F008N007W01
Fairbanks	008N	007W	12	F008N007W12
Fairbanks	008N	007W	13	F008N007W13
Fairbanks	008S	008E	01	F008S008E01
Fairbanks	008S	008E	02	F008S008E02
Fairbanks	008S	008E	03	F008S008E03
Fairbanks	008S	008E	11	F008S008E11
Fairbanks	008S	008E	12	F008S008E12
Fairbanks	008S	009E	04	F008S009E04
Fairbanks	008S	009E	05	F008S009E05
Fairbanks	008S	009E	06	F008S009E06
Fairbanks	008S	009E	07	F008S009E07
Fairbanks	008S	009E	08	F008S009E08
Fairbanks	008S	009E	09	F008S009E09
Fairbanks	008S	009E	10	F008S009E10
Fairbanks	008S	009E	14	F008S009E14
Fairbanks	008S	009E	15	F008S009E15
Fairbanks	008S	009E	16	F008S009E16
Fairbanks	008S	009E	17	F008S009E17
Fairbanks	008S	009E	18	F008S009E18
Fairbanks	008S	009E	20	F008S009E20
Fairbanks	008S	009E	21	F008S009E21
Fairbanks	008S	009E	22	F008S009E22
Fairbanks	008S	009E	23	F008S009E23
Fairbanks	008S	009E	24	F008S009E24
Fairbanks	008S	009E	25	F008S009E25
Fairbanks	008S	009E	26	F008S009E26

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	008S	009E	27	F008S009E27
Fairbanks	008S	009E	28	F008S009E28
Fairbanks	008S	009E	34	F008S009E34
Fairbanks	008S	009E	35	F008S009E35
Fairbanks	008S	009E	36	F008S009E36
Fairbanks	008S	010E	29	F008S010E29
Fairbanks	008S	010E	30	F008S010E30
Fairbanks	008S	010E	31	F008S010E31
Fairbanks	008S	010E	32	F008S010E32
Fairbanks	008S	010E	33	F008S010E33
Fairbanks	009N	006W	18	F009N006W18
Fairbanks	009N	006W	19	F009N006W19
Fairbanks	009N	006W	20	F009N006W20
Fairbanks	009N	006W	28	F009N006W28
Fairbanks	009N	006W	29	F009N006W29
Fairbanks	009N	006W	30	F009N006W30
Fairbanks	009N	006W	31	F009N006W31
Fairbanks	009N	006W	32	F009N006W32
Fairbanks	009N	006W	33	F009N006W33
Fairbanks	009N	007W	02	F009N007W02
Fairbanks	009N	007W	03	F009N007W03
Fairbanks	009N	007W	04	F009N007W04
Fairbanks	009N	007W	05	F009N007W05
Fairbanks	009N	007W	08	F009N007W08
Fairbanks	009N	007W	09	F009N007W09
Fairbanks	009N	007W	10	F009N007W10
Fairbanks	009N	007W	11	F009N007W11
Fairbanks	009N	007W	12	F009N007W12
Fairbanks	009N	007W	13	F009N007W13
Fairbanks	009N	007W	14	F009N007W14
Fairbanks	009N	007W	15	F009N007W15
Fairbanks	009N	007W	16	F009N007W16
Fairbanks	009N	007W	17	F009N007W17
Fairbanks	009N	007W	22	F009N007W22
Fairbanks	009N	007W	23	F009N007W23
Fairbanks	009N	007W	24	F009N007W24
Fairbanks	009N	007W	25	F009N007W25
Fairbanks	009N	007W	26	F009N007W26
Fairbanks	009N	007W	27	F009N007W27
Fairbanks	009N	007W	34	F009N007W34
Fairbanks	009N	007W	35	F009N007W35
Fairbanks	009N	007W	36	F009N007W36
Fairbanks	009S	009E	01	F009S009E01
Fairbanks	009S	009E	12	F009S009E12
Fairbanks	009S	010E	03	F009S010E03
Fairbanks	009S	010E	04	F009S010E04

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	009S	010E	05	F009S010E05
Fairbanks	009S	010E	06	F009S010E06
Fairbanks	009S	010E	07	F009S010E07
Fairbanks	009S	010E	08	F009S010E08
Fairbanks	009S	010E	09	F009S010E09
Fairbanks	009S	010E	10	F009S010E10
Fairbanks	009S	010E	11	F009S010E11
Fairbanks	009S	010E	12	F009S010E12
Fairbanks	009S	010E	13	F009S010E13
Fairbanks	009S	010E	14	F009S010E14
Fairbanks	009S	010E	15	F009S010E15
Fairbanks	009S	010E	16	F009S010E16
Fairbanks	009S	010E	17	F009S010E17
Fairbanks	009S	010E	18	F009S010E18
Fairbanks	009S	010E	20	F009S010E20
Fairbanks	009S	010E	21	F009S010E21
Fairbanks	009S	010E	22	F009S010E22
Fairbanks	009S	010E	23	F009S010E23
Fairbanks	009S	010E	24	F009S010E24
Fairbanks	009S	010E	25	F009S010E25
Fairbanks	009S	010E	26	F009S010E26
Fairbanks	009S	010E	27	F009S010E27
Fairbanks	009S	010E	28	F009S010E28
Fairbanks	009S	010E	34	F009S010E34
Fairbanks	009S	010E	35	F009S010E35
Fairbanks	009S	010E	36	F009S010E36
Fairbanks	009S	011E	29	F009S011E29
Fairbanks	009S	011E	30	F009S011E30
Fairbanks	009S	011E	31	F009S011E31
Fairbanks	009S	011E	32	F009S011E32
Fairbanks	010N	007W	07	F010N007W07
Fairbanks	010N	007W	17	F010N007W17
Fairbanks	010N	007W	18	F010N007W18
Fairbanks	010N	007W	19	F010N007W19
Fairbanks	010N	007W	20	F010N007W20
Fairbanks	010N	007W	21	F010N007W21
Fairbanks	010N	007W	27	F010N007W27
Fairbanks	010N	007W	28	F010N007W28
Fairbanks	010N	007W	29	F010N007W29
Fairbanks	010N	007W	30	F010N007W30
Fairbanks	010N	007W	31	F010N007W31
Fairbanks	010N	007W	32	F010N007W32
Fairbanks	010N	007W	33	F010N007W33
Fairbanks	010N	007W	34	F010N007W34
Fairbanks	010N	007W	35	F010N007W35
Fairbanks	010N	008W	02	F010N008W02

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	010N	008W	03	F010N008W03
Fairbanks	010N	008W	04	F010N008W04
Fairbanks	010N	008W	05	F010N008W05
Fairbanks	010N	008W	06	F010N008W06
Fairbanks	010N	008W	08	F010N008W08
Fairbanks	010N	008W	09	F010N008W09
Fairbanks	010N	008W	10	F010N008W10
Fairbanks	010N	008W	11	F010N008W11
Fairbanks	010N	008W	12	F010N008W12
Fairbanks	010N	008W	13	F010N008W13
Fairbanks	010N	008W	14	F010N008W14
Fairbanks	010N	008W	15	F010N008W15
Fairbanks	010N	008W	16	F010N008W16
Fairbanks	010N	008W	21	F010N008W21
Fairbanks	010N	008W	22	F010N008W22
Fairbanks	010N	008W	23	F010N008W23
Fairbanks	010N	008W	24	F010N008W24
Fairbanks	010N	008W	25	F010N008W25
Fairbanks	010N	008W	26	F010N008W26
Fairbanks	010N	008W	35	F010N008W35
Fairbanks	010N	008W	36	F010N008W36
Fairbanks	010N	009W	01	F010N009W01
Fairbanks	010N	009W	02	F010N009W02
Fairbanks	010S	010E	01	F010S010E01
Fairbanks	010S	010E	02	F010S010E02
Fairbanks	010S	010E	03	F010S010E03
Fairbanks	010S	010E	10	F010S010E10
Fairbanks	010S	010E	11	F010S010E11
Fairbanks	010S	010E	12	F010S010E12
Fairbanks	010S	010E	13	F010S010E13
Fairbanks	010S	010E	14	F010S010E14
Fairbanks	010S	010E	15	F010S010E15
Fairbanks	010S	010E	23	F010S010E23
Fairbanks	010S	010E	24	F010S010E24
Fairbanks	010S	010E	25	F010S010E25
Fairbanks	010S	010E	36	F010S010E36
Fairbanks	010S	011E	05	F010S011E05
Fairbanks	010S	011E	06	F010S011E06
Fairbanks	010S	011E	07	F010S011E07
Fairbanks	010S	011E	08	F010S011E08
Fairbanks	010S	011E	17	F010S011E17
Fairbanks	010S	011E	18	F010S011E18
Fairbanks	010S	011E	19	F010S011E19
Fairbanks	010S	011E	20	F010S011E20
Fairbanks	010S	011E	21	F010S011E21
Fairbanks	010S	011E	23	F010S011E23

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	010S	011E	24	F010S011E24
Fairbanks	010S	011E	25	F010S011E25
Fairbanks	010S	011E	26	F010S011E26
Fairbanks	010S	011E	27	F010S011E27
Fairbanks	010S	011E	28	F010S011E28
Fairbanks	010S	011E	29	F010S011E29
Fairbanks	010S	011E	30	F010S011E30
Fairbanks	010S	011E	31	F010S011E31
Fairbanks	010S	011E	32	F010S011E32
Fairbanks	010S	011E	33	F010S011E33
Fairbanks	010S	011E	34	F010S011E34
Fairbanks	010S	011E	35	F010S011E35
Fairbanks	010S	011E	36	F010S011E36
Fairbanks	010S	012E	30	F010S012E30
Fairbanks	010S	012E	31	F010S012E31
Fairbanks	011N	008W	19	F011N008W19
Fairbanks	011N	008W	29	F011N008W29
Fairbanks	011N	008W	30	F011N008W30
Fairbanks	011N	008W	31	F011N008W31
Fairbanks	011N	008W	32	F011N008W32
Fairbanks	011N	008W	33	F011N008W33
Fairbanks	011N	008W	34	F011N008W34
Fairbanks	011N	009W	03	F011N009W03
Fairbanks	011N	009W	04	F011N009W04
Fairbanks	011N	009W	05	F011N009W05
Fairbanks	011N	009W	06	F011N009W06
Fairbanks	011N	009W	07	F011N009W07
Fairbanks	011N	009W	08	F011N009W08
Fairbanks	011N	009W	09	F011N009W09
Fairbanks	011N	009W	10	F011N009W10
Fairbanks	011N	009W	14	F011N009W14
Fairbanks	011N	009W	15	F011N009W15
Fairbanks	011N	009W	16	F011N009W16
Fairbanks	011N	009W	17	F011N009W17
Fairbanks	011N	009W	18	F011N009W18
Fairbanks	011N	009W	20	F011N009W20
Fairbanks	011N	009W	21	F011N009W21
Fairbanks	011N	009W	22	F011N009W22
Fairbanks	011N	009W	23	F011N009W23
Fairbanks	011N	009W	24	F011N009W24
Fairbanks	011N	009W	25	F011N009W25
Fairbanks	011N	009W	26	F011N009W26
Fairbanks	011N	009W	27	F011N009W27
Fairbanks	011N	009W	28	F011N009W28
Fairbanks	011N	009W	34	F011N009W34
Fairbanks	011N	009W	35	F011N009W35

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	011N	009W	36	F011N009W36
Fairbanks	011N	010W	01	F011N010W01
Fairbanks	011N	010W	02	F011N010W02
Fairbanks	011N	010W	03	F011N010W03
Fairbanks	011N	010W	04	F011N010W04
Fairbanks	011N	010W	11	F011N010W11
Fairbanks	011N	010W	12	F011N010W12
Fairbanks	011S	011E	01	F011S011E01
Fairbanks	011S	011E	02	F011S011E02
Fairbanks	011S	011E	03	F011S011E03
Fairbanks	011S	011E	04	F011S011E04
Fairbanks	011S	011E	05	F011S011E05
Fairbanks	011S	011E	10	F011S011E10
Fairbanks	011S	011E	11	F011S011E11
Fairbanks	011S	011E	12	F011S011E12
Fairbanks	011S	011E	13	F011S011E13
Fairbanks	011S	011E	14	F011S011E14
Fairbanks	011S	012E	06	F011S012E06
Fairbanks	011S	012E	07	F011S012E07
Fairbanks	011S	012E	08	F011S012E08
Fairbanks	011S	012E	09	F011S012E09
Fairbanks	011S	012E	15	F011S012E15
Fairbanks	011S	012E	16	F011S012E16
Fairbanks	011S	012E	17	F011S012E17
Fairbanks	011S	012E	18	F011S012E18
Fairbanks	011S	012E	19	F011S012E19
Fairbanks	011S	012E	20	F011S012E20
Fairbanks	011S	012E	21	F011S012E21
Fairbanks	011S	012E	22	F011S012E22
Fairbanks	011S	012E	23	F011S012E23
Fairbanks	011S	012E	24	F011S012E24
Fairbanks	011S	012E	25	F011S012E25
Fairbanks	011S	012E	26	F011S012E26
Fairbanks	011S	012E	27	F011S012E27
Fairbanks	011S	012E	28	F011S012E28
Fairbanks	011S	012E	29	F011S012E29
Fairbanks	011S	012E	30	F011S012E30
Fairbanks	011S	012E	34	F011S012E34
Fairbanks	011S	012E	35	F011S012E35
Fairbanks	011S	012E	36	F011S012E36
Fairbanks	011S	013E	29	F011S013E29
Fairbanks	011S	013E	30	F011S013E30
Fairbanks	011S	013E	31	F011S013E31
Fairbanks	011S	013E	32	F011S013E32
Fairbanks	011S	013E	33	F011S013E33
Fairbanks	012N	009W	19	F012N009W19

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	012N	009W	29	F012N009W29
Fairbanks	012N	009W	30	F012N009W30
Fairbanks	012N	009W	31	F012N009W31
Fairbanks	012N	009W	32	F012N009W32
Fairbanks	012N	009W	33	F012N009W33
Fairbanks	012N	009W	34	F012N009W34
Fairbanks	012N	010W	04	F012N010W04
Fairbanks	012N	010W	05	F012N010W05
Fairbanks	012N	010W	06	F012N010W06
Fairbanks	012N	010W	07	F012N010W07
Fairbanks	012N	010W	08	F012N010W08
Fairbanks	012N	010W	09	F012N010W09
Fairbanks	012N	010W	14	F012N010W14
Fairbanks	012N	010W	15	F012N010W15
Fairbanks	012N	010W	16	F012N010W16
Fairbanks	012N	010W	17	F012N010W17
Fairbanks	012N	010W	18	F012N010W18
Fairbanks	012N	010W	19	F012N010W19
Fairbanks	012N	010W	20	F012N010W20
Fairbanks	012N	010W	21	F012N010W21
Fairbanks	012N	010W	22	F012N010W22
Fairbanks	012N	010W	23	F012N010W23
Fairbanks	012N	010W	24	F012N010W24
Fairbanks	012N	010W	25	F012N010W25
Fairbanks	012N	010W	26	F012N010W26
Fairbanks	012N	010W	27	F012N010W27
Fairbanks	012N	010W	28	F012N010W28
Fairbanks	012N	010W	29	F012N010W29
Fairbanks	012N	010W	30	F012N010W30
Fairbanks	012N	010W	32	F012N010W32
Fairbanks	012N	010W	33	F012N010W33
Fairbanks	012N	010W	34	F012N010W34
Fairbanks	012N	010W	35	F012N010W35
Fairbanks	012N	010W	36	F012N010W36
Fairbanks	012N	011W	01	F012N011W01
Fairbanks	012N	011W	02	F012N011W02
Fairbanks	012N	011W	03	F012N011W03
Fairbanks	012N	011W	04	F012N011W04
Fairbanks	012N	011W	05	F012N011W05
Fairbanks	012N	011W	06	F012N011W06
Fairbanks	012N	011W	08	F012N011W08
Fairbanks	012N	011W	09	F012N011W09
Fairbanks	012N	011W	10	F012N011W10
Fairbanks	012N	011W	11	F012N011W11
Fairbanks	012N	011W	12	F012N011W12
Fairbanks	012N	011W	13	F012N011W13

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	012N	011W	14	F012N011W14
Fairbanks	012N	011W	15	F012N011W15
Fairbanks	012N	011W	22	F012N011W22
Fairbanks	012N	011W	23	F012N011W23
Fairbanks	012N	011W	24	F012N011W24
Fairbanks	012N	011W	25	F012N011W25
Fairbanks	012N	011W	26	F012N011W26
Fairbanks	012N	011W	27	F012N011W27
Fairbanks	012S	012E	01	F012S012E01
Fairbanks	012S	012E	02	F012S012E02
Fairbanks	012S	013E	02	F012S013E02
Fairbanks	012S	013E	03	F012S013E03
Fairbanks	012S	013E	04	F012S013E04
Fairbanks	012S	013E	05	F012S013E05
Fairbanks	012S	013E	06	F012S013E06
Fairbanks	012S	013E	07	F012S013E07
Fairbanks	012S	013E	08	F012S013E08
Fairbanks	012S	013E	09	F012S013E09
Fairbanks	012S	013E	10	F012S013E10
Fairbanks	012S	013E	11	F012S013E11
Fairbanks	012S	013E	12	F012S013E12
Fairbanks	012S	013E	13	F012S013E13
Fairbanks	012S	013E	14	F012S013E14
Fairbanks	012S	013E	15	F012S013E15
Fairbanks	012S	013E	16	F012S013E16
Fairbanks	012S	013E	22	F012S013E22
Fairbanks	012S	013E	23	F012S013E23
Fairbanks	012S	013E	24	F012S013E24
Fairbanks	012S	013E	25	F012S013E25
Fairbanks	012S	014E	07	F012S014E07
Fairbanks	012S	014E	09	F012S014E09
Fairbanks	012S	014E	10	F012S014E10
Fairbanks	012S	014E	11	F012S014E11
Fairbanks	012S	014E	12	F012S014E12
Fairbanks	012S	014E	13	F012S014E13
Fairbanks	012S	014E	14	F012S014E14
Fairbanks	012S	014E	15	F012S014E15
Fairbanks	012S	014E	16	F012S014E16
Fairbanks	012S	014E	17	F012S014E17
Fairbanks	012S	014E	18	F012S014E18
Fairbanks	012S	014E	19	F012S014E19
Fairbanks	012S	014E	20	F012S014E20
Fairbanks	012S	014E	21	F012S014E21
Fairbanks	012S	014E	22	F012S014E22
Fairbanks	012S	014E	23	F012S014E23
Fairbanks	012S	014E	24	F012S014E24

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	012S	014E	25	F012S014E25
Fairbanks	012S	014E	26	F012S014E26
Fairbanks	012S	014E	27	F012S014E27
Fairbanks	012S	014E	28	F012S014E28
Fairbanks	012S	014E	29	F012S014E29
Fairbanks	012S	014E	30	F012S014E30
Fairbanks	012S	014E	31	F012S014E31
Fairbanks	012S	014E	32	F012S014E32
Fairbanks	012S	014E	33	F012S014E33
Fairbanks	012S	014E	34	F012S014E34
Fairbanks	012S	014E	35	F012S014E35
Fairbanks	012S	014E	36	F012S014E36
Fairbanks	012S	015E	07	F012S015E07
Fairbanks	012S	015E	08	F012S015E08
Fairbanks	012S	015E	09	F012S015E09
Fairbanks	012S	015E	15	F012S015E15
Fairbanks	012S	015E	16	F012S015E16
Fairbanks	012S	015E	17	F012S015E17
Fairbanks	012S	015E	18	F012S015E18
Fairbanks	012S	015E	19	F012S015E19
Fairbanks	012S	015E	20	F012S015E20
Fairbanks	012S	015E	21	F012S015E21
Fairbanks	012S	015E	22	F012S015E22
Fairbanks	012S	015E	23	F012S015E23
Fairbanks	012S	015E	24	F012S015E24
Fairbanks	012S	015E	25	F012S015E25
Fairbanks	012S	015E	26	F012S015E26
Fairbanks	012S	015E	27	F012S015E27
Fairbanks	012S	015E	28	F012S015E28
Fairbanks	012S	015E	29	F012S015E29
Fairbanks	012S	015E	30	F012S015E30
Fairbanks	012S	015E	31	F012S015E31
Fairbanks	012S	015E	32	F012S015E32
Fairbanks	012S	015E	33	F012S015E33
Fairbanks	012S	015E	34	F012S015E34
Fairbanks	012S	015E	35	F012S015E35
Fairbanks	012S	015E	36	F012S015E36
Fairbanks	012S	016E	30	F012S016E30
Fairbanks	012S	016E	31	F012S016E31
Fairbanks	012S	016E	32	F012S016E32
Fairbanks	012S	016E	33	F012S016E33
Fairbanks	013N	010W	28	F013N010W28
Fairbanks	013N	010W	29	F013N010W29
Fairbanks	013N	010W	30	F013N010W30
Fairbanks	013N	010W	31	F013N010W31
Fairbanks	013N	010W	32	F013N010W32

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	013N	010W	33	F013N010W33
Fairbanks	013N	010W	34	F013N010W34
Fairbanks	013N	011W	04	F013N011W04
Fairbanks	013N	011W	05	F013N011W05
Fairbanks	013N	011W	06	F013N011W06
Fairbanks	013N	011W	07	F013N011W07
Fairbanks	013N	011W	08	F013N011W08
Fairbanks	013N	011W	09	F013N011W09
Fairbanks	013N	011W	15	F013N011W15
Fairbanks	013N	011W	16	F013N011W16
Fairbanks	013N	011W	17	F013N011W17
Fairbanks	013N	011W	18	F013N011W18
Fairbanks	013N	011W	19	F013N011W19
Fairbanks	013N	011W	20	F013N011W20
Fairbanks	013N	011W	21	F013N011W21
Fairbanks	013N	011W	22	F013N011W22
Fairbanks	013N	011W	23	F013N011W23
Fairbanks	013N	011W	25	F013N011W25
Fairbanks	013N	011W	26	F013N011W26
Fairbanks	013N	011W	27	F013N011W27
Fairbanks	013N	011W	28	F013N011W28
Fairbanks	013N	011W	29	F013N011W29
Fairbanks	013N	011W	30	F013N011W30
Fairbanks	013N	011W	31	F013N011W31
Fairbanks	013N	011W	32	F013N011W32
Fairbanks	013N	011W	33	F013N011W33
Fairbanks	013N	011W	34	F013N011W34
Fairbanks	013N	011W	35	F013N011W35
Fairbanks	013N	011W	36	F013N011W36
Fairbanks	013N	012W	01	F013N012W01
Fairbanks	013N	012W	02	F013N012W02
Fairbanks	013N	012W	03	F013N012W03
Fairbanks	013N	012W	04	F013N012W04
Fairbanks	013N	012W	11	F013N012W11
Fairbanks	013N	012W	12	F013N012W12
Fairbanks	013N	012W	13	F013N012W13
Fairbanks	013N	012W	14	F013N012W14
Fairbanks	013N	012W	25	F013N012W25
Fairbanks	013N	012W	26	F013N012W26
Fairbanks	013S	014E	01	F013S014E01
Fairbanks	013S	014E	02	F013S014E02
Fairbanks	013S	014E	03	F013S014E03
Fairbanks	013S	014E	04	F013S014E04
Fairbanks	013S	014E	05	F013S014E05
Fairbanks	013S	014E	08	F013S014E08
Fairbanks	013S	014E	09	F013S014E09

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	013S	014E	10	F013S014E10
Fairbanks	013S	014E	11	F013S014E11
Fairbanks	013S	014E	12	F013S014E12
Fairbanks	013S	014E	13	F013S014E13
Fairbanks	013S	014E	14	F013S014E14
Fairbanks	013S	014E	15	F013S014E15
Fairbanks	013S	014E	16	F013S014E16
Fairbanks	013S	014E	17	F013S014E17
Fairbanks	013S	014E	21	F013S014E21
Fairbanks	013S	014E	22	F013S014E22
Fairbanks	013S	014E	23	F013S014E23
Fairbanks	013S	014E	24	F013S014E24
Fairbanks	013S	014E	25	F013S014E25
Fairbanks	013S	014E	26	F013S014E26
Fairbanks	013S	014E	27	F013S014E27
Fairbanks	013S	014E	35	F013S014E35
Fairbanks	013S	014E	36	F013S014E36
Fairbanks	013S	015E	01	F013S015E01
Fairbanks	013S	015E	02	F013S015E02
Fairbanks	013S	015E	03	F013S015E03
Fairbanks	013S	015E	04	F013S015E04
Fairbanks	013S	015E	05	F013S015E05
Fairbanks	013S	015E	06	F013S015E06
Fairbanks	013S	015E	07	F013S015E07
Fairbanks	013S	015E	08	F013S015E08
Fairbanks	013S	015E	09	F013S015E09
Fairbanks	013S	015E	10	F013S015E10
Fairbanks	013S	015E	11	F013S015E11
Fairbanks	013S	015E	12	F013S015E12
Fairbanks	013S	015E	13	F013S015E13
Fairbanks	013S	015E	14	F013S015E14
Fairbanks	013S	015E	15	F013S015E15
Fairbanks	013S	015E	16	F013S015E16
Fairbanks	013S	015E	17	F013S015E17
Fairbanks	013S	015E	18	F013S015E18
Fairbanks	013S	015E	19	F013S015E19
Fairbanks	013S	015E	20	F013S015E20
Fairbanks	013S	015E	21	F013S015E21
Fairbanks	013S	015E	22	F013S015E22
Fairbanks	013S	015E	23	F013S015E23
Fairbanks	013S	015E	24	F013S015E24
Fairbanks	013S	015E	25	F013S015E25
Fairbanks	013S	015E	26	F013S015E26
Fairbanks	013S	015E	27	F013S015E27
Fairbanks	013S	015E	28	F013S015E28
Fairbanks	013S	015E	29	F013S015E29

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	013S	015E	30	F013S015E30
Fairbanks	013S	015E	31	F013S015E31
Fairbanks	013S	015E	32	F013S015E32
Fairbanks	013S	015E	33	F013S015E33
Fairbanks	013S	015E	34	F013S015E34
Fairbanks	013S	015E	35	F013S015E35
Fairbanks	013S	015E	36	F013S015E36
Fairbanks	013S	016E	02	F013S016E02
Fairbanks	013S	016E	03	F013S016E03
Fairbanks	013S	016E	04	F013S016E04
Fairbanks	013S	016E	05	F013S016E05
Fairbanks	013S	016E	06	F013S016E06
Fairbanks	013S	016E	07	F013S016E07
Fairbanks	013S	016E	08	F013S016E08
Fairbanks	013S	016E	09	F013S016E09
Fairbanks	013S	016E	10	F013S016E10
Fairbanks	013S	016E	11	F013S016E11
Fairbanks	013S	016E	12	F013S016E12
Fairbanks	013S	016E	13	F013S016E13
Fairbanks	013S	016E	14	F013S016E14
Fairbanks	013S	016E	15	F013S016E15
Fairbanks	013S	016E	16	F013S016E16
Fairbanks	013S	016E	17	F013S016E17
Fairbanks	013S	016E	18	F013S016E18
Fairbanks	013S	016E	19	F013S016E19
Fairbanks	013S	016E	20	F013S016E20
Fairbanks	013S	016E	21	F013S016E21
Fairbanks	013S	016E	22	F013S016E22
Fairbanks	013S	016E	23	F013S016E23
Fairbanks	013S	016E	24	F013S016E24
Fairbanks	013S	016E	25	F013S016E25
Fairbanks	013S	016E	26	F013S016E26
Fairbanks	013S	016E	27	F013S016E27
Fairbanks	013S	016E	28	F013S016E28
Fairbanks	013S	016E	29	F013S016E29
Fairbanks	013S	016E	30	F013S016E30
Fairbanks	013S	016E	31	F013S016E31
Fairbanks	013S	016E	32	F013S016E32
Fairbanks	013S	016E	33	F013S016E33
Fairbanks	013S	016E	34	F013S016E34
Fairbanks	013S	016E	35	F013S016E35
Fairbanks	013S	016E	36	F013S016E36
Fairbanks	014N	012W	03	F014N012W03
Fairbanks	014N	012W	04	F014N012W04
Fairbanks	014N	012W	05	F014N012W05
Fairbanks	014N	012W	06	F014N012W06

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	014N	012W	07	F014N012W07
Fairbanks	014N	012W	08	F014N012W08
Fairbanks	014N	012W	09	F014N012W09
Fairbanks	014N	012W	16	F014N012W16
Fairbanks	014N	012W	17	F014N012W17
Fairbanks	014N	012W	18	F014N012W18
Fairbanks	014N	012W	19	F014N012W19
Fairbanks	014N	012W	20	F014N012W20
Fairbanks	014N	012W	21	F014N012W21
Fairbanks	014N	012W	22	F014N012W22
Fairbanks	014N	012W	25	F014N012W25
Fairbanks	014N	012W	26	F014N012W26
Fairbanks	014N	012W	27	F014N012W27
Fairbanks	014N	012W	28	F014N012W28
Fairbanks	014N	012W	29	F014N012W29
Fairbanks	014N	012W	30	F014N012W30
Fairbanks	014N	012W	32	F014N012W32
Fairbanks	014N	012W	33	F014N012W33
Fairbanks	014N	012W	34	F014N012W34
Fairbanks	014N	012W	35	F014N012W35
Fairbanks	014N	012W	36	F014N012W36
Fairbanks	014N	013W	01	F014N013W01
Fairbanks	014N	013W	02	F014N013W02
Fairbanks	014N	013W	12	F014N013W12
Fairbanks	014N	013W	13	F014N013W13
Fairbanks	014S	015E	01	F014S015E01
Fairbanks	014S	015E	02	F014S015E02
Fairbanks	014S	015E	03	F014S015E03
Fairbanks	014S	015E	04	F014S015E04
Fairbanks	014S	015E	05	F014S015E05
Fairbanks	014S	015E	06	F014S015E06
Fairbanks	014S	015E	08	F014S015E08
Fairbanks	014S	015E	09	F014S015E09
Fairbanks	014S	015E	10	F014S015E10
Fairbanks	014S	015E	11	F014S015E11
Fairbanks	014S	015E	12	F014S015E12
Fairbanks	014S	015E	13	F014S015E13
Fairbanks	014S	015E	14	F014S015E14
Fairbanks	014S	015E	15	F014S015E15
Fairbanks	014S	015E	22	F014S015E22
Fairbanks	014S	015E	23	F014S015E23
Fairbanks	014S	015E	24	F014S015E24
Fairbanks	014S	015E	25	F014S015E25
Fairbanks	014S	015E	26	F014S015E26
Fairbanks	014S	015E	27	F014S015E27
Fairbanks	014S	015E	35	F014S015E35

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	014S	015E	36	F014S015E36
Fairbanks	014S	016E	01	F014S016E01
Fairbanks	014S	016E	02	F014S016E02
Fairbanks	014S	016E	03	F014S016E03
Fairbanks	014S	016E	04	F014S016E04
Fairbanks	014S	016E	05	F014S016E05
Fairbanks	014S	016E	06	F014S016E06
Fairbanks	014S	016E	07	F014S016E07
Fairbanks	014S	016E	08	F014S016E08
Fairbanks	014S	016E	09	F014S016E09
Fairbanks	014S	016E	10	F014S016E10
Fairbanks	014S	016E	11	F014S016E11
Fairbanks	014S	016E	12	F014S016E12
Fairbanks	014S	016E	13	F014S016E13
Fairbanks	014S	016E	14	F014S016E14
Fairbanks	014S	016E	15	F014S016E15
Fairbanks	014S	016E	16	F014S016E16
Fairbanks	014S	016E	17	F014S016E17
Fairbanks	014S	016E	18	F014S016E18
Fairbanks	014S	016E	19	F014S016E19
Fairbanks	014S	016E	20	F014S016E20
Fairbanks	014S	016E	21	F014S016E21
Fairbanks	014S	016E	22	F014S016E22
Fairbanks	014S	016E	23	F014S016E23
Fairbanks	014S	016E	24	F014S016E24
Fairbanks	014S	016E	25	F014S016E25
Fairbanks	014S	016E	26	F014S016E26
Fairbanks	014S	016E	27	F014S016E27
Fairbanks	014S	016E	28	F014S016E28
Fairbanks	014S	016E	29	F014S016E29
Fairbanks	014S	016E	30	F014S016E30
Fairbanks	014S	016E	31	F014S016E31
Fairbanks	014S	016E	32	F014S016E32
Fairbanks	014S	016E	33	F014S016E33
Fairbanks	014S	016E	34	F014S016E34
Fairbanks	014S	016E	35	F014S016E35
Fairbanks	014S	016E	36	F014S016E36
Fairbanks	015N	012W	05	F015N012W05
Fairbanks	015N	012W	06	F015N012W06
Fairbanks	015N	012W	07	F015N012W07
Fairbanks	015N	012W	08	F015N012W08
Fairbanks	015N	012W	09	F015N012W09
Fairbanks	015N	012W	10	F015N012W10
Fairbanks	015N	012W	15	F015N012W15
Fairbanks	015N	012W	16	F015N012W16
Fairbanks	015N	012W	17	F015N012W17

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	015N	012W	18	F015N012W18
Fairbanks	015N	012W	19	F015N012W19
Fairbanks	015N	012W	20	F015N012W20
Fairbanks	015N	012W	21	F015N012W21
Fairbanks	015N	012W	22	F015N012W22
Fairbanks	015N	012W	27	F015N012W27
Fairbanks	015N	012W	28	F015N012W28
Fairbanks	015N	012W	29	F015N012W29
Fairbanks	015N	012W	30	F015N012W30
Fairbanks	015N	012W	31	F015N012W31
Fairbanks	015N	012W	32	F015N012W32
Fairbanks	015N	012W	33	F015N012W33
Fairbanks	015N	012W	34	F015N012W34
Fairbanks	015N	013W	01	F015N013W01
Fairbanks	015N	013W	02	F015N013W02
Fairbanks	015N	013W	11	F015N013W11
Fairbanks	015N	013W	12	F015N013W12
Fairbanks	015N	013W	13	F015N013W13
Fairbanks	015N	013W	14	F015N013W14
Fairbanks	015N	013W	15	F015N013W15
Fairbanks	015N	013W	22	F015N013W22
Fairbanks	015N	013W	23	F015N013W23
Fairbanks	015N	013W	24	F015N013W24
Fairbanks	015N	013W	25	F015N013W25
Fairbanks	015N	013W	26	F015N013W26
Fairbanks	015N	013W	27	F015N013W27
Fairbanks	015N	013W	34	F015N013W34
Fairbanks	015N	013W	35	F015N013W35
Fairbanks	015N	013W	36	F015N013W36
Fairbanks	015S	015E	01	F015S015E01
Fairbanks	015S	016E	01	F015S016E01
Fairbanks	015S	016E	02	F015S016E02
Fairbanks	015S	016E	03	F015S016E03
Fairbanks	015S	016E	04	F015S016E04
Fairbanks	015S	016E	05	F015S016E05
Fairbanks	015S	016E	06	F015S016E06
Fairbanks	015S	016E	07	F015S016E07
Fairbanks	015S	016E	08	F015S016E08
Fairbanks	015S	016E	09	F015S016E09
Fairbanks	015S	016E	10	F015S016E10
Fairbanks	015S	016E	11	F015S016E11
Fairbanks	015S	016E	12	F015S016E12
Fairbanks	015S	016E	13	F015S016E13
Fairbanks	015S	016E	14	F015S016E14
Fairbanks	015S	016E	15	F015S016E15
Fairbanks	015S	016E	16	F015S016E16

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	016N	012W	19	F016N012W19
Fairbanks	016N	012W	30	F016N012W30
Fairbanks	016N	012W	31	F016N012W31
Fairbanks	016N	013W	02	F016N013W02
Fairbanks	016N	013W	03	F016N013W03
Fairbanks	016N	013W	04	F016N013W04
Fairbanks	016N	013W	05	F016N013W05
Fairbanks	016N	013W	08	F016N013W08
Fairbanks	016N	013W	09	F016N013W09
Fairbanks	016N	013W	10	F016N013W10
Fairbanks	016N	013W	11	F016N013W11
Fairbanks	016N	013W	12	F016N013W12
Fairbanks	016N	013W	13	F016N013W13
Fairbanks	016N	013W	14	F016N013W14
Fairbanks	016N	013W	15	F016N013W15
Fairbanks	016N	013W	16	F016N013W16
Fairbanks	016N	013W	21	F016N013W21
Fairbanks	016N	013W	22	F016N013W22
Fairbanks	016N	013W	23	F016N013W23
Fairbanks	016N	013W	24	F016N013W24
Fairbanks	016N	013W	25	F016N013W25
Fairbanks	016N	013W	26	F016N013W26
Fairbanks	016N	013W	35	F016N013W35
Fairbanks	016N	013W	36	F016N013W36
Fairbanks	017N	013W	05	F017N013W05
Fairbanks	017N	013W	06	F017N013W06
Fairbanks	017N	013W	07	F017N013W07
Fairbanks	017N	013W	08	F017N013W08
Fairbanks	017N	013W	09	F017N013W09
Fairbanks	017N	013W	16	F017N013W16
Fairbanks	017N	013W	17	F017N013W17
Fairbanks	017N	013W	18	F017N013W18
Fairbanks	017N	013W	19	F017N013W19
Fairbanks	017N	013W	20	F017N013W20
Fairbanks	017N	013W	21	F017N013W21
Fairbanks	017N	013W	22	F017N013W22
Fairbanks	017N	013W	27	F017N013W27
Fairbanks	017N	013W	28	F017N013W28
Fairbanks	017N	013W	29	F017N013W29
Fairbanks	017N	013W	30	F017N013W30
Fairbanks	017N	013W	32	F017N013W32
Fairbanks	017N	013W	33	F017N013W33
Fairbanks	017N	013W	34	F017N013W34
Fairbanks	017N	013W	35	F017N013W35
Fairbanks	017N	013W	36	F017N013W36
Fairbanks	017N	014W	01	F017N014W01

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	017N	014W	02	F017N014W02
Fairbanks	017N	014W	12	F017N014W12
Fairbanks	017N	014W	13	F017N014W13
Fairbanks	018N	013W	19	F018N013W19
Fairbanks	018N	013W	30	F018N013W30
Fairbanks	018N	013W	31	F018N013W31
Fairbanks	018N	013W	32	F018N013W32
Fairbanks	018N	014W	02	F018N014W02
Fairbanks	018N	014W	03	F018N014W03
Fairbanks	018N	014W	04	F018N014W04
Fairbanks	018N	014W	05	F018N014W05
Fairbanks	018N	014W	06	F018N014W06
Fairbanks	018N	014W	08	F018N014W08
Fairbanks	018N	014W	09	F018N014W09
Fairbanks	018N	014W	10	F018N014W10
Fairbanks	018N	014W	11	F018N014W11
Fairbanks	018N	014W	13	F018N014W13
Fairbanks	018N	014W	14	F018N014W14
Fairbanks	018N	014W	15	F018N014W15
Fairbanks	018N	014W	16	F018N014W16
Fairbanks	018N	014W	21	F018N014W21
Fairbanks	018N	014W	22	F018N014W22
Fairbanks	018N	014W	23	F018N014W23
Fairbanks	018N	014W	24	F018N014W24
Fairbanks	018N	014W	25	F018N014W25
Fairbanks	018N	014W	26	F018N014W26
Fairbanks	018N	014W	27	F018N014W27
Fairbanks	018N	014W	35	F018N014W35
Fairbanks	018N	014W	36	F018N014W36
Fairbanks	019N	014W	07	F019N014W07
Fairbanks	019N	014W	17	F019N014W17
Fairbanks	019N	014W	18	F019N014W18
Fairbanks	019N	014W	19	F019N014W19
Fairbanks	019N	014W	20	F019N014W20
Fairbanks	019N	014W	28	F019N014W28
Fairbanks	019N	014W	29	F019N014W29
Fairbanks	019N	014W	30	F019N014W30
Fairbanks	019N	014W	31	F019N014W31
Fairbanks	019N	014W	32	F019N014W32
Fairbanks	019N	014W	33	F019N014W33
Fairbanks	019N	014W	34	F019N014W34
Fairbanks	019N	015W	01	F019N015W01
Fairbanks	019N	015W	02	F019N015W02
Fairbanks	019N	015W	03	F019N015W03
Fairbanks	019N	015W	04	F019N015W04
Fairbanks	019N	015W	10	F019N015W10

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	019N	015W	11	F019N015W11
Fairbanks	019N	015W	12	F019N015W12
Fairbanks	019N	015W	13	F019N015W13
Fairbanks	019N	015W	14	F019N015W14
Fairbanks	019N	015W	15	F019N015W15
Fairbanks	019N	015W	23	F019N015W23
Fairbanks	019N	015W	24	F019N015W24
Fairbanks	019N	015W	25	F019N015W25
Fairbanks	019N	015W	26	F019N015W26
Fairbanks	019N	015W	36	F019N015W36
Fairbanks	020N	014W	06	F020N014W06
Fairbanks	020N	015W	01	F020N015W01
Fairbanks	020N	015W	02	F020N015W02
Fairbanks	020N	015W	03	F020N015W03
Fairbanks	020N	015W	04	F020N015W04
Fairbanks	020N	015W	05	F020N015W05
Fairbanks	020N	015W	07	F020N015W07
Fairbanks	020N	015W	08	F020N015W08
Fairbanks	020N	015W	09	F020N015W09
Fairbanks	020N	015W	10	F020N015W10
Fairbanks	020N	015W	11	F020N015W11
Fairbanks	020N	015W	12	F020N015W12
Fairbanks	020N	015W	13	F020N015W13
Fairbanks	020N	015W	14	F020N015W14
Fairbanks	020N	015W	15	F020N015W15
Fairbanks	020N	015W	16	F020N015W16
Fairbanks	020N	015W	17	F020N015W17
Fairbanks	020N	015W	18	F020N015W18
Fairbanks	020N	015W	19	F020N015W19
Fairbanks	020N	015W	20	F020N015W20
Fairbanks	020N	015W	21	F020N015W21
Fairbanks	020N	015W	22	F020N015W22
Fairbanks	020N	015W	23	F020N015W23
Fairbanks	020N	015W	24	F020N015W24
Fairbanks	020N	015W	25	F020N015W25
Fairbanks	020N	015W	26	F020N015W26
Fairbanks	020N	015W	27	F020N015W27
Fairbanks	020N	015W	28	F020N015W28
Fairbanks	020N	015W	29	F020N015W29
Fairbanks	020N	015W	30	F020N015W30
Fairbanks	020N	015W	32	F020N015W32
Fairbanks	020N	015W	33	F020N015W33
Fairbanks	020N	015W	34	F020N015W34
Fairbanks	020N	015W	35	F020N015W35
Fairbanks	020N	015W	36	F020N015W36
Fairbanks	021N	014W	04	F021N014W04

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	021N	014W	05	F021N014W05
Fairbanks	021N	014W	06	F021N014W06
Fairbanks	021N	014W	07	F021N014W07
Fairbanks	021N	014W	08	F021N014W08
Fairbanks	021N	014W	09	F021N014W09
Fairbanks	021N	014W	17	F021N014W17
Fairbanks	021N	014W	18	F021N014W18
Fairbanks	021N	014W	19	F021N014W19
Fairbanks	021N	014W	20	F021N014W20
Fairbanks	021N	014W	29	F021N014W29
Fairbanks	021N	014W	30	F021N014W30
Fairbanks	021N	014W	31	F021N014W31
Fairbanks	021N	014W	32	F021N014W32
Fairbanks	021N	015W	01	F021N015W01
Fairbanks	021N	015W	11	F021N015W11
Fairbanks	021N	015W	12	F021N015W12
Fairbanks	021N	015W	13	F021N015W13
Fairbanks	021N	015W	14	F021N015W14
Fairbanks	021N	015W	24	F021N015W24
Fairbanks	021N	015W	25	F021N015W25
Fairbanks	021N	015W	26	F021N015W26
Fairbanks	021N	015W	34	F021N015W34
Fairbanks	021N	015W	35	F021N015W35
Fairbanks	021N	015W	36	F021N015W36
Fairbanks	022N	014W	04	F022N014W04
Fairbanks	022N	014W	05	F022N014W05
Fairbanks	022N	014W	06	F022N014W06
Fairbanks	022N	014W	07	F022N014W07
Fairbanks	022N	014W	08	F022N014W08
Fairbanks	022N	014W	09	F022N014W09
Fairbanks	022N	014W	16	F022N014W16
Fairbanks	022N	014W	17	F022N014W17
Fairbanks	022N	014W	18	F022N014W18
Fairbanks	022N	014W	19	F022N014W19
Fairbanks	022N	014W	20	F022N014W20
Fairbanks	022N	014W	21	F022N014W21
Fairbanks	022N	014W	28	F022N014W28
Fairbanks	022N	014W	29	F022N014W29
Fairbanks	022N	014W	30	F022N014W30
Fairbanks	022N	014W	31	F022N014W31
Fairbanks	022N	014W	32	F022N014W32
Fairbanks	022N	014W	33	F022N014W33
Fairbanks	022N	015W	01	F022N015W01
Fairbanks	022N	015W	12	F022N015W12
Fairbanks	022N	015W	13	F022N015W13
Fairbanks	022N	015W	24	F022N015W24

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	022N	015W	25	F022N015W25
Fairbanks	022N	015W	36	F022N015W36
Fairbanks	023N	014W	01	F023N014W01
Fairbanks	023N	014W	02	F023N014W02
Fairbanks	023N	014W	03	F023N014W03
Fairbanks	023N	014W	04	F023N014W04
Fairbanks	023N	014W	05	F023N014W05
Fairbanks	023N	014W	06	F023N014W06
Fairbanks	023N	014W	07	F023N014W07
Fairbanks	023N	014W	08	F023N014W08
Fairbanks	023N	014W	09	F023N014W09
Fairbanks	023N	014W	10	F023N014W10
Fairbanks	023N	014W	11	F023N014W11
Fairbanks	023N	014W	15	F023N014W15
Fairbanks	023N	014W	16	F023N014W16
Fairbanks	023N	014W	17	F023N014W17
Fairbanks	023N	014W	18	F023N014W18
Fairbanks	023N	014W	19	F023N014W19
Fairbanks	023N	014W	20	F023N014W20
Fairbanks	023N	014W	21	F023N014W21
Fairbanks	023N	014W	28	F023N014W28
Fairbanks	023N	014W	29	F023N014W29
Fairbanks	023N	014W	30	F023N014W30
Fairbanks	023N	014W	31	F023N014W31
Fairbanks	023N	014W	32	F023N014W32
Fairbanks	023N	014W	33	F023N014W33
Fairbanks	023N	015W	12	F023N015W12
Fairbanks	023N	015W	13	F023N015W13
Fairbanks	023N	015W	24	F023N015W24
Fairbanks	023N	015W	25	F023N015W25
Fairbanks	023N	015W	36	F023N015W36
Fairbanks	024N	013W	04	F024N013W04
Fairbanks	024N	013W	05	F024N013W05
Fairbanks	024N	013W	06	F024N013W06
Fairbanks	024N	013W	07	F024N013W07
Fairbanks	024N	013W	08	F024N013W08
Fairbanks	024N	013W	09	F024N013W09
Fairbanks	024N	013W	17	F024N013W17
Fairbanks	024N	013W	18	F024N013W18
Fairbanks	024N	013W	19	F024N013W19
Fairbanks	024N	013W	20	F024N013W20
Fairbanks	024N	013W	30	F024N013W30
Fairbanks	024N	014W	11	F024N014W11
Fairbanks	024N	014W	12	F024N014W12
Fairbanks	024N	014W	13	F024N014W13
Fairbanks	024N	014W	14	F024N014W14

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	024N	014W	15	F024N014W15
Fairbanks	024N	014W	22	F024N014W22
Fairbanks	024N	014W	23	F024N014W23
Fairbanks	024N	014W	24	F024N014W24
Fairbanks	024N	014W	25	F024N014W25
Fairbanks	024N	014W	26	F024N014W26
Fairbanks	024N	014W	27	F024N014W27
Fairbanks	024N	014W	33	F024N014W33
Fairbanks	024N	014W	34	F024N014W34
Fairbanks	024N	014W	35	F024N014W35
Fairbanks	024N	014W	36	F024N014W36
Fairbanks	025N	012W	05	F025N012W05
Fairbanks	025N	012W	06	F025N012W06
Fairbanks	025N	012W	07	F025N012W07
Fairbanks	025N	012W	08	F025N012W08
Fairbanks	025N	012W	17	F025N012W17
Fairbanks	025N	012W	18	F025N012W18
Fairbanks	025N	012W	19	F025N012W19
Fairbanks	025N	013W	01	F025N013W01
Fairbanks	025N	013W	02	F025N013W02
Fairbanks	025N	013W	11	F025N013W11
Fairbanks	025N	013W	12	F025N013W12
Fairbanks	025N	013W	13	F025N013W13
Fairbanks	025N	013W	14	F025N013W14
Fairbanks	025N	013W	21	F025N013W21
Fairbanks	025N	013W	22	F025N013W22
Fairbanks	025N	013W	23	F025N013W23
Fairbanks	025N	013W	24	F025N013W24
Fairbanks	025N	013W	25	F025N013W25
Fairbanks	025N	013W	26	F025N013W26
Fairbanks	025N	013W	27	F025N013W27
Fairbanks	025N	013W	28	F025N013W28
Fairbanks	025N	013W	29	F025N013W29
Fairbanks	025N	013W	32	F025N013W32
Fairbanks	025N	013W	33	F025N013W33
Fairbanks	025N	013W	34	F025N013W34
Fairbanks	025N	013W	35	F025N013W35
Fairbanks	026N	012W	05	F026N012W05
Fairbanks	026N	012W	06	F026N012W06
Fairbanks	026N	012W	07	F026N012W07
Fairbanks	026N	012W	08	F026N012W08
Fairbanks	026N	012W	18	F026N012W18
Fairbanks	026N	012W	30	F026N012W30
Fairbanks	026N	012W	31	F026N012W31
Fairbanks	026N	012W	32	F026N012W32
Fairbanks	026N	013W	01	F026N013W01

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	026N	013W	02	F026N013W02
Fairbanks	026N	013W	03	F026N013W03
Fairbanks	026N	013W	04	F026N013W04
Fairbanks	026N	013W	05	F026N013W05
Fairbanks	026N	013W	08	F026N013W08
Fairbanks	026N	013W	09	F026N013W09
Fairbanks	026N	013W	10	F026N013W10
Fairbanks	026N	013W	11	F026N013W11
Fairbanks	026N	013W	12	F026N013W12
Fairbanks	026N	013W	13	F026N013W13
Fairbanks	026N	013W	14	F026N013W14
Fairbanks	026N	013W	15	F026N013W15
Fairbanks	026N	013W	16	F026N013W16
Fairbanks	026N	013W	21	F026N013W21
Fairbanks	026N	013W	22	F026N013W22
Fairbanks	026N	013W	23	F026N013W23
Fairbanks	026N	013W	24	F026N013W24
Fairbanks	026N	013W	25	F026N013W25
Fairbanks	026N	013W	26	F026N013W26
Fairbanks	026N	013W	27	F026N013W27
Fairbanks	026N	013W	35	F026N013W35
Fairbanks	026N	013W	36	F026N013W36
Fairbanks	027N	012W	04	F027N012W04
Fairbanks	027N	012W	05	F027N012W05
Fairbanks	027N	012W	06	F027N012W06
Fairbanks	027N	012W	07	F027N012W07
Fairbanks	027N	012W	08	F027N012W08
Fairbanks	027N	012W	18	F027N012W18
Fairbanks	027N	012W	19	F027N012W19
Fairbanks	027N	012W	20	F027N012W20
Fairbanks	027N	012W	29	F027N012W29
Fairbanks	027N	012W	30	F027N012W30
Fairbanks	027N	012W	31	F027N012W31
Fairbanks	027N	012W	32	F027N012W32
Fairbanks	027N	013W	01	F027N013W01
Fairbanks	027N	013W	02	F027N013W02
Fairbanks	027N	013W	10	F027N013W10
Fairbanks	027N	013W	11	F027N013W11
Fairbanks	027N	013W	12	F027N013W12
Fairbanks	027N	013W	13	F027N013W13
Fairbanks	027N	013W	14	F027N013W14
Fairbanks	027N	013W	15	F027N013W15
Fairbanks	027N	013W	16	F027N013W16
Fairbanks	027N	013W	20	F027N013W20
Fairbanks	027N	013W	21	F027N013W21
Fairbanks	027N	013W	22	F027N013W22

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	027N	013W	23	F027N013W23
Fairbanks	027N	013W	24	F027N013W24
Fairbanks	027N	013W	25	F027N013W25
Fairbanks	027N	013W	26	F027N013W26
Fairbanks	027N	013W	27	F027N013W27
Fairbanks	027N	013W	28	F027N013W28
Fairbanks	027N	013W	29	F027N013W29
Fairbanks	027N	013W	32	F027N013W32
Fairbanks	027N	013W	33	F027N013W33
Fairbanks	027N	013W	34	F027N013W34
Fairbanks	027N	013W	35	F027N013W35
Fairbanks	027N	013W	36	F027N013W36
Fairbanks	028N	012W	02	F028N012W02
Fairbanks	028N	012W	03	F028N012W03
Fairbanks	028N	012W	04	F028N012W04
Fairbanks	028N	012W	08	F028N012W08
Fairbanks	028N	012W	09	F028N012W09
Fairbanks	028N	012W	10	F028N012W10
Fairbanks	028N	012W	11	F028N012W11
Fairbanks	028N	012W	14	F028N012W14
Fairbanks	028N	012W	15	F028N012W15
Fairbanks	028N	012W	16	F028N012W16
Fairbanks	028N	012W	17	F028N012W17
Fairbanks	028N	012W	19	F028N012W19
Fairbanks	028N	012W	20	F028N012W20
Fairbanks	028N	012W	21	F028N012W21
Fairbanks	028N	012W	22	F028N012W22
Fairbanks	028N	012W	23	F028N012W23
Fairbanks	028N	012W	27	F028N012W27
Fairbanks	028N	012W	28	F028N012W28
Fairbanks	028N	012W	29	F028N012W29
Fairbanks	028N	012W	30	F028N012W30
Fairbanks	028N	012W	31	F028N012W31
Fairbanks	028N	012W	32	F028N012W32
Fairbanks	028N	012W	33	F028N012W33
Fairbanks	028N	013W	36	F028N013W36
Fairbanks	029N	011W	06	F029N011W06
Fairbanks	029N	011W	07	F029N011W07
Fairbanks	029N	011W	18	F029N011W18
Fairbanks	029N	011W	19	F029N011W19
Fairbanks	029N	011W	20	F029N011W20
Fairbanks	029N	011W	29	F029N011W29
Fairbanks	029N	011W	30	F029N011W30
Fairbanks	029N	011W	31	F029N011W31
Fairbanks	029N	012W	01	F029N012W01
Fairbanks	029N	012W	02	F029N012W02

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	029N	012W	11	F029N012W11
Fairbanks	029N	012W	12	F029N012W12
Fairbanks	029N	012W	13	F029N012W13
Fairbanks	029N	012W	14	F029N012W14
Fairbanks	029N	012W	15	F029N012W15
Fairbanks	029N	012W	22	F029N012W22
Fairbanks	029N	012W	23	F029N012W23
Fairbanks	029N	012W	24	F029N012W24
Fairbanks	029N	012W	25	F029N012W25
Fairbanks	029N	012W	26	F029N012W26
Fairbanks	029N	012W	27	F029N012W27
Fairbanks	029N	012W	34	F029N012W34
Fairbanks	029N	012W	35	F029N012W35
Fairbanks	029N	012W	36	F029N012W36
Fairbanks	030N	011W	01	F030N011W01
Fairbanks	030N	011W	02	F030N011W02
Fairbanks	030N	011W	03	F030N011W03
Fairbanks	030N	011W	04	F030N011W04
Fairbanks	030N	011W	05	F030N011W05
Fairbanks	030N	011W	06	F030N011W06
Fairbanks	030N	011W	07	F030N011W07
Fairbanks	030N	011W	08	F030N011W08
Fairbanks	030N	011W	09	F030N011W09
Fairbanks	030N	011W	17	F030N011W17
Fairbanks	030N	011W	18	F030N011W18
Fairbanks	030N	011W	19	F030N011W19
Fairbanks	030N	011W	20	F030N011W20
Fairbanks	030N	011W	29	F030N011W29
Fairbanks	030N	011W	30	F030N011W30
Fairbanks	030N	011W	31	F030N011W31
Fairbanks	030N	011W	32	F030N011W32
Fairbanks	030N	012W	01	F030N012W01
Fairbanks	030N	012W	12	F030N012W12
Fairbanks	030N	012W	13	F030N012W13
Fairbanks	030N	012W	24	F030N012W24
Fairbanks	030N	012W	25	F030N012W25
Fairbanks	030N	012W	26	F030N012W26
Fairbanks	030N	012W	35	F030N012W35
Fairbanks	030N	012W	36	F030N012W36
Fairbanks	031N	004W	16	F031N004W16
Fairbanks	031N	004W	17	F031N004W17
Fairbanks	031N	004W	18	F031N004W18
Fairbanks	031N	004W	19	F031N004W19
Fairbanks	031N	004W	20	F031N004W20
Fairbanks	031N	004W	21	F031N004W21
Fairbanks	031N	004W	29	F031N004W29

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	031N	004W	30	F031N004W30
Fairbanks	031N	010W	04	F031N010W04
Fairbanks	031N	010W	05	F031N010W05
Fairbanks	031N	010W	06	F031N010W06
Fairbanks	031N	010W	07	F031N010W07
Fairbanks	031N	010W	08	F031N010W08
Fairbanks	031N	010W	09	F031N010W09
Fairbanks	031N	010W	16	F031N010W16
Fairbanks	031N	010W	17	F031N010W17
Fairbanks	031N	010W	18	F031N010W18
Fairbanks	031N	010W	19	F031N010W19
Fairbanks	031N	010W	20	F031N010W20
Fairbanks	031N	010W	21	F031N010W21
Fairbanks	031N	010W	29	F031N010W29
Fairbanks	031N	010W	30	F031N010W30
Fairbanks	031N	010W	31	F031N010W31
Fairbanks	031N	011W	01	F031N011W01
Fairbanks	031N	011W	12	F031N011W12
Fairbanks	031N	011W	13	F031N011W13
Fairbanks	031N	011W	23	F031N011W23
Fairbanks	031N	011W	24	F031N011W24
Fairbanks	031N	011W	25	F031N011W25
Fairbanks	031N	011W	26	F031N011W26
Fairbanks	031N	011W	27	F031N011W27
Fairbanks	031N	011W	28	F031N011W28
Fairbanks	031N	011W	29	F031N011W29
Fairbanks	031N	011W	31	F031N011W31
Fairbanks	031N	011W	32	F031N011W32
Fairbanks	031N	011W	33	F031N011W33
Fairbanks	031N	011W	34	F031N011W34
Fairbanks	031N	011W	35	F031N011W35
Fairbanks	031N	011W	36	F031N011W36
Fairbanks	032N	010W	02	F032N010W02
Fairbanks	032N	010W	03	F032N010W03
Fairbanks	032N	010W	04	F032N010W04
Fairbanks	032N	010W	05	F032N010W05
Fairbanks	032N	010W	08	F032N010W08
Fairbanks	032N	010W	09	F032N010W09
Fairbanks	032N	010W	10	F032N010W10
Fairbanks	032N	010W	15	F032N010W15
Fairbanks	032N	010W	16	F032N010W16
Fairbanks	032N	010W	17	F032N010W17
Fairbanks	032N	010W	19	F032N010W19
Fairbanks	032N	010W	20	F032N010W20
Fairbanks	032N	010W	21	F032N010W21
Fairbanks	032N	010W	22	F032N010W22

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	032N	010W	27	F032N010W27
Fairbanks	032N	010W	28	F032N010W28
Fairbanks	032N	010W	29	F032N010W29
Fairbanks	032N	010W	30	F032N010W30
Fairbanks	032N	010W	31	F032N010W31
Fairbanks	032N	010W	32	F032N010W32
Fairbanks	032N	010W	33	F032N010W33
Fairbanks	032N	011W	36	F032N011W36
Fairbanks	033N	009W	07	F033N009W07
Fairbanks	033N	009W	18	F033N009W18
Fairbanks	033N	009W	19	F033N009W19
Fairbanks	033N	009W	30	F033N009W30
Fairbanks	033N	009W	31	F033N009W31
Fairbanks	033N	010W	01	F033N010W01
Fairbanks	033N	010W	02	F033N010W02
Fairbanks	033N	010W	03	F033N010W03
Fairbanks	033N	010W	10	F033N010W10
Fairbanks	033N	010W	11	F033N010W11
Fairbanks	033N	010W	12	F033N010W12
Fairbanks	033N	010W	13	F033N010W13
Fairbanks	033N	010W	14	F033N010W14
Fairbanks	033N	010W	15	F033N010W15
Fairbanks	033N	010W	23	F033N010W23
Fairbanks	033N	010W	24	F033N010W24
Fairbanks	033N	010W	25	F033N010W25
Fairbanks	033N	010W	26	F033N010W26
Fairbanks	033N	010W	27	F033N010W27
Fairbanks	033N	010W	33	F033N010W33
Fairbanks	033N	010W	34	F033N010W34
Fairbanks	033N	010W	35	F033N010W35
Fairbanks	033N	010W	36	F033N010W36
Fairbanks	034N	010W	02	F034N010W02
Fairbanks	034N	010W	03	F034N010W03
Fairbanks	034N	010W	04	F034N010W04
Fairbanks	034N	010W	05	F034N010W05
Fairbanks	034N	010W	08	F034N010W08
Fairbanks	034N	010W	09	F034N010W09
Fairbanks	034N	010W	10	F034N010W10
Fairbanks	034N	010W	11	F034N010W11
Fairbanks	034N	010W	13	F034N010W13
Fairbanks	034N	010W	14	F034N010W14
Fairbanks	034N	010W	15	F034N010W15
Fairbanks	034N	010W	16	F034N010W16
Fairbanks	034N	010W	21	F034N010W21
Fairbanks	034N	010W	22	F034N010W22
Fairbanks	034N	010W	23	F034N010W23

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	034N	010W	24	F034N010W24
Fairbanks	034N	010W	25	F034N010W25
Fairbanks	034N	010W	26	F034N010W26
Fairbanks	034N	010W	27	F034N010W27
Fairbanks	034N	010W	34	F034N010W34
Fairbanks	034N	010W	35	F034N010W35
Fairbanks	034N	010W	36	F034N010W36
Fairbanks	035N	010W	02	F035N010W02
Fairbanks	035N	010W	03	F035N010W03
Fairbanks	035N	010W	04	F035N010W04
Fairbanks	035N	010W	05	F035N010W05
Fairbanks	035N	010W	08	F035N010W08
Fairbanks	035N	010W	09	F035N010W09
Fairbanks	035N	010W	10	F035N010W10
Fairbanks	035N	010W	15	F035N010W15
Fairbanks	035N	010W	16	F035N010W16
Fairbanks	035N	010W	17	F035N010W17
Fairbanks	035N	010W	20	F035N010W20
Fairbanks	035N	010W	21	F035N010W21
Fairbanks	035N	010W	22	F035N010W22
Fairbanks	035N	010W	27	F035N010W27
Fairbanks	035N	010W	28	F035N010W28
Fairbanks	035N	010W	29	F035N010W29
Fairbanks	035N	010W	32	F035N010W32
Fairbanks	035N	010W	33	F035N010W33
Fairbanks	035N	010W	34	F035N010W34
Fairbanks	036N	010W	01	F036N010W01
Fairbanks	036N	010W	02	F036N010W02
Fairbanks	036N	010W	03	F036N010W03
Fairbanks	036N	010W	04	F036N010W04
Fairbanks	036N	010W	09	F036N010W09
Fairbanks	036N	010W	10	F036N010W10
Fairbanks	036N	010W	11	F036N010W11
Fairbanks	036N	010W	14	F036N010W14
Fairbanks	036N	010W	15	F036N010W15
Fairbanks	036N	010W	16	F036N010W16
Fairbanks	036N	010W	17	F036N010W17
Fairbanks	036N	010W	20	F036N010W20
Fairbanks	036N	010W	21	F036N010W21
Fairbanks	036N	010W	22	F036N010W22
Fairbanks	036N	010W	23	F036N010W23
Fairbanks	036N	010W	27	F036N010W27
Fairbanks	036N	010W	28	F036N010W28
Fairbanks	036N	010W	29	F036N010W29
Fairbanks	036N	010W	32	F036N010W32
Fairbanks	036N	010W	33	F036N010W33

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	036N	010W	34	F036N010W34
Fairbanks	037N	009W	30	F037N009W30
Fairbanks	037N	009W	31	F037N009W31
Fairbanks	037N	010W	25	F037N010W25
Fairbanks	037N	010W	26	F037N010W26
Fairbanks	037N	010W	34	F037N010W34
Fairbanks	037N	010W	35	F037N010W35
Fairbanks	037N	010W	36	F037N010W36
Copper River	008S	006W	25	C008S006W25
Copper River	008S	006W	26	C008S006W26
Copper River	008S	006W	27	C008S006W27
Copper River	008S	006W	34	C008S006W34
Copper River	008S	006W	35	C008S006W35
Copper River	008S	006W	36	C008S006W36
Copper River	009N	023E	01	C009N023E01
Copper River	009S	006W	01	C009S006W01
Copper River	009S	006W	02	C009S006W02
Copper River	009S	006W	03	C009S006W03
Copper River	010N	023E	01	C010N023E01
Copper River	010N	023E	02	C010N023E02
Copper River	010N	023E	03	C010N023E03
Copper River	010N	023E	04	C010N023E04
Copper River	010N	023E	11	C010N023E11
Copper River	010N	023E	12	C010N023E12
Copper River	010N	023E	13	C010N023E13
Copper River	010N	023E	14	C010N023E14
Copper River	010N	023E	24	C010N023E24
Copper River	010N	023E	25	C010N023E25
Copper River	010N	023E	36	C010N023E36
Copper River	011N	022E	01	C011N022E01
Copper River	011N	022E	02	C011N022E02
Copper River	011N	022E	12	C011N022E12
Copper River	011N	022E	13	C011N022E13
Copper River	011N	023E	02	C011N023E02
Copper River	011N	023E	03	C011N023E03
Copper River	011N	023E	04	C011N023E04
Copper River	011N	023E	05	C011N023E05
Copper River	011N	023E	06	C011N023E06
Copper River	011N	023E	07	C011N023E07
Copper River	011N	023E	08	C011N023E08
Copper River	011N	023E	09	C011N023E09
Copper River	011N	023E	10	C011N023E10
Copper River	011N	023E	11	C011N023E11
Copper River	011N	023E	12	C011N023E12
Copper River	011N	023E	13	C011N023E13
Copper River	011N	023E	14	C011N023E14

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	011N	023E	15	C011N023E15
Copper River	011N	023E	16	C011N023E16
Copper River	011N	023E	17	C011N023E17
Copper River	011N	023E	18	C011N023E18
Copper River	011N	023E	19	C011N023E19
Copper River	011N	023E	20	C011N023E20
Copper River	011N	023E	21	C011N023E21
Copper River	011N	023E	22	C011N023E22
Copper River	011N	023E	23	C011N023E23
Copper River	011N	023E	24	C011N023E24
Copper River	011N	023E	25	C011N023E25
Copper River	011N	023E	26	C011N023E26
Copper River	011N	023E	27	C011N023E27
Copper River	011N	023E	28	C011N023E28
Copper River	011N	023E	29	C011N023E29
Copper River	011N	023E	30	C011N023E30
Copper River	011N	023E	32	C011N023E32
Copper River	011N	023E	33	C011N023E33
Copper River	011N	023E	34	C011N023E34
Copper River	011N	023E	35	C011N023E35
Copper River	011N	023E	36	C011N023E36
Copper River	012N	021E	01	C012N021E01
Copper River	012N	021E	02	C012N021E02
Copper River	012N	021E	03	C012N021E03
Copper River	012N	021E	11	C012N021E11
Copper River	012N	021E	12	C012N021E12
Copper River	012N	022E	01	C012N022E01
Copper River	012N	022E	02	C012N022E02
Copper River	012N	022E	03	C012N022E03
Copper River	012N	022E	04	C012N022E04
Copper River	012N	022E	05	C012N022E05
Copper River	012N	022E	06	C012N022E06
Copper River	012N	022E	07	C012N022E07
Copper River	012N	022E	08	C012N022E08
Copper River	012N	022E	09	C012N022E09
Copper River	012N	022E	10	C012N022E10
Copper River	012N	022E	11	C012N022E11
Copper River	012N	022E	12	C012N022E12
Copper River	012N	022E	13	C012N022E13
Copper River	012N	022E	14	C012N022E14
Copper River	012N	022E	15	C012N022E15
Copper River	012N	022E	16	C012N022E16
Copper River	012N	022E	17	C012N022E17
Copper River	012N	022E	18	C012N022E18
Copper River	012N	022E	20	C012N022E20
Copper River	012N	022E	21	C012N022E21

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	012N	022E	22	C012N022E22
Copper River	012N	022E	23	C012N022E23
Copper River	012N	022E	24	C012N022E24
Copper River	012N	022E	25	C012N022E25
Copper River	012N	022E	26	C012N022E26
Copper River	012N	022E	27	C012N022E27
Copper River	012N	022E	28	C012N022E28
Copper River	012N	022E	34	C012N022E34
Copper River	012N	022E	35	C012N022E35
Copper River	012N	022E	36	C012N022E36
Copper River	012N	023E	06	C012N023E06
Copper River	012N	023E	07	C012N023E07
Copper River	012N	023E	08	C012N023E08
Copper River	012N	023E	16	C012N023E16
Copper River	012N	023E	17	C012N023E17
Copper River	012N	023E	18	C012N023E18
Copper River	012N	023E	19	C012N023E19
Copper River	012N	023E	20	C012N023E20
Copper River	012N	023E	21	C012N023E21
Copper River	012N	023E	22	C012N023E22
Copper River	012N	023E	26	C012N023E26
Copper River	012N	023E	27	C012N023E27
Copper River	012N	023E	28	C012N023E28
Copper River	012N	023E	29	C012N023E29
Copper River	012N	023E	30	C012N023E30
Copper River	012N	023E	31	C012N023E31
Copper River	012N	023E	32	C012N023E32
Copper River	012N	023E	33	C012N023E33
Copper River	012N	023E	34	C012N023E34
Copper River	012N	023E	35	C012N023E35
Copper River	013N	020E	01	C013N020E01
Copper River	013N	020E	02	C013N020E02
Copper River	013N	020E	12	C013N020E12
Copper River	013N	020E	13	C013N020E13
Copper River	013N	020E	24	C013N020E24
Copper River	013N	021E	02	C013N021E02
Copper River	013N	021E	03	C013N021E03
Copper River	013N	021E	04	C013N021E04
Copper River	013N	021E	05	C013N021E05
Copper River	013N	021E	06	C013N021E06
Copper River	013N	021E	07	C013N021E07
Copper River	013N	021E	08	C013N021E08
Copper River	013N	021E	09	C013N021E09
Copper River	013N	021E	10	C013N021E10
Copper River	013N	021E	11	C013N021E11
Copper River	013N	021E	12	C013N021E12

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	013N	021E	13	C013N021E13
Copper River	013N	021E	14	C013N021E14
Copper River	013N	021E	15	C013N021E15
Copper River	013N	021E	16	C013N021E16
Copper River	013N	021E	17	C013N021E17
Copper River	013N	021E	18	C013N021E18
Copper River	013N	021E	19	C013N021E19
Copper River	013N	021E	20	C013N021E20
Copper River	013N	021E	21	C013N021E21
Copper River	013N	021E	22	C013N021E22
Copper River	013N	021E	23	C013N021E23
Copper River	013N	021E	24	C013N021E24
Copper River	013N	021E	25	C013N021E25
Copper River	013N	021E	26	C013N021E26
Copper River	013N	021E	27	C013N021E27
Copper River	013N	021E	28	C013N021E28
Copper River	013N	021E	29	C013N021E29
Copper River	013N	021E	30	C013N021E30
Copper River	013N	021E	32	C013N021E32
Copper River	013N	021E	33	C013N021E33
Copper River	013N	021E	34	C013N021E34
Copper River	013N	021E	35	C013N021E35
Copper River	013N	021E	36	C013N021E36
Copper River	013N	022E	18	C013N022E18
Copper River	013N	022E	19	C013N022E19
Copper River	013N	022E	20	C013N022E20
Copper River	013N	022E	27	C013N022E27
Copper River	013N	022E	28	C013N022E28
Copper River	013N	022E	29	C013N022E29
Copper River	013N	022E	30	C013N022E30
Copper River	013N	022E	31	C013N022E31
Copper River	013N	022E	32	C013N022E32
Copper River	013N	022E	33	C013N022E33
Copper River	013N	022E	34	C013N022E34
Copper River	013N	022E	35	C013N022E35
Copper River	014N	019E	01	C014N019E01
Copper River	014N	019E	02	C014N019E02
Copper River	014N	019E	03	C014N019E03
Copper River	014N	019E	11	C014N019E11
Copper River	014N	019E	12	C014N019E12
Copper River	014N	019E	13	C014N019E13
Copper River	014N	020E	01	C014N020E01
Copper River	014N	020E	02	C014N020E02
Copper River	014N	020E	03	C014N020E03
Copper River	014N	020E	04	C014N020E04
Copper River	014N	020E	05	C014N020E05

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	014N	020E	06	C014N020E06
Copper River	014N	020E	07	C014N020E07
Copper River	014N	020E	08	C014N020E08
Copper River	014N	020E	09	C014N020E09
Copper River	014N	020E	10	C014N020E10
Copper River	014N	020E	11	C014N020E11
Copper River	014N	020E	12	C014N020E12
Copper River	014N	020E	13	C014N020E13
Copper River	014N	020E	14	C014N020E14
Copper River	014N	020E	15	C014N020E15
Copper River	014N	020E	16	C014N020E16
Copper River	014N	020E	17	C014N020E17
Copper River	014N	020E	18	C014N020E18
Copper River	014N	020E	19	C014N020E19
Copper River	014N	020E	20	C014N020E20
Copper River	014N	020E	21	C014N020E21
Copper River	014N	020E	22	C014N020E22
Copper River	014N	020E	23	C014N020E23
Copper River	014N	020E	24	C014N020E24
Copper River	014N	020E	25	C014N020E25
Copper River	014N	020E	26	C014N020E26
Copper River	014N	020E	27	C014N020E27
Copper River	014N	020E	28	C014N020E28
Copper River	014N	020E	33	C014N020E33
Copper River	014N	020E	34	C014N020E34
Copper River	014N	020E	35	C014N020E35
Copper River	014N	020E	36	C014N020E36
Copper River	014N	021E	06	C014N021E06
Copper River	014N	021E	07	C014N021E07
Copper River	014N	021E	08	C014N021E08
Copper River	014N	021E	16	C014N021E16
Copper River	014N	021E	17	C014N021E17
Copper River	014N	021E	18	C014N021E18
Copper River	014N	021E	19	C014N021E19
Copper River	014N	021E	20	C014N021E20
Copper River	014N	021E	21	C014N021E21
Copper River	014N	021E	22	C014N021E22
Copper River	014N	021E	26	C014N021E26
Copper River	014N	021E	27	C014N021E27
Copper River	014N	021E	28	C014N021E28
Copper River	014N	021E	29	C014N021E29
Copper River	014N	021E	30	C014N021E30
Copper River	014N	021E	31	C014N021E31
Copper River	014N	021E	32	C014N021E32
Copper River	014N	021E	33	C014N021E33
Copper River	014N	021E	34	C014N021E34

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	014N	021E	35	C014N021E35
Copper River	015N	018E	01	C015N018E01
Copper River	015N	018E	02	C015N018E02
Copper River	015N	018E	03	C015N018E03
Copper River	015N	018E	10	C015N018E10
Copper River	015N	018E	11	C015N018E11
Copper River	015N	018E	12	C015N018E12
Copper River	015N	018E	13	C015N018E13
Copper River	015N	018E	14	C015N018E14
Copper River	015N	018E	15	C015N018E15
Copper River	015N	018E	23	C015N018E23
Copper River	015N	018E	24	C015N018E24
Copper River	015N	019E	01	C015N019E01
Copper River	015N	019E	02	C015N019E02
Copper River	015N	019E	03	C015N019E03
Copper River	015N	019E	04	C015N019E04
Copper River	015N	019E	05	C015N019E05
Copper River	015N	019E	06	C015N019E06
Copper River	015N	019E	07	C015N019E07
Copper River	015N	019E	08	C015N019E08
Copper River	015N	019E	09	C015N019E09
Copper River	015N	019E	10	C015N019E10
Copper River	015N	019E	11	C015N019E11
Copper River	015N	019E	12	C015N019E12
Copper River	015N	019E	13	C015N019E13
Copper River	015N	019E	14	C015N019E14
Copper River	015N	019E	15	C015N019E15
Copper River	015N	019E	16	C015N019E16
Copper River	015N	019E	17	C015N019E17
Copper River	015N	019E	18	C015N019E18
Copper River	015N	019E	19	C015N019E19
Copper River	015N	019E	20	C015N019E20
Copper River	015N	019E	21	C015N019E21
Copper River	015N	019E	22	C015N019E22
Copper River	015N	019E	23	C015N019E23
Copper River	015N	019E	24	C015N019E24
Copper River	015N	019E	25	C015N019E25
Copper River	015N	019E	26	C015N019E26
Copper River	015N	019E	27	C015N019E27
Copper River	015N	019E	28	C015N019E28
Copper River	015N	019E	29	C015N019E29
Copper River	015N	019E	33	C015N019E33
Copper River	015N	019E	34	C015N019E34
Copper River	015N	019E	35	C015N019E35
Copper River	015N	019E	36	C015N019E36
Copper River	015N	020E	07	C015N020E07

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	015N	020E	17	C015N020E17
Copper River	015N	020E	18	C015N020E18
Copper River	015N	020E	19	C015N020E19
Copper River	015N	020E	20	C015N020E20
Copper River	015N	020E	21	C015N020E21
Copper River	015N	020E	22	C015N020E22
Copper River	015N	020E	26	C015N020E26
Copper River	015N	020E	27	C015N020E27
Copper River	015N	020E	28	C015N020E28
Copper River	015N	020E	29	C015N020E29
Copper River	015N	020E	30	C015N020E30
Copper River	015N	020E	31	C015N020E31
Copper River	015N	020E	32	C015N020E32
Copper River	015N	020E	33	C015N020E33
Copper River	015N	020E	34	C015N020E34
Copper River	015N	020E	35	C015N020E35
Copper River	015N	020E	36	C015N020E36
Copper River	016N	015E	01	C016N015E01
Copper River	016N	015E	02	C016N015E02
Copper River	016N	015E	03	C016N015E03
Copper River	016N	015E	11	C016N015E11
Copper River	016N	015E	12	C016N015E12
Copper River	016N	015E	22	C016N015E22
Copper River	016N	015E	23	C016N015E23
Copper River	016N	015E	25	C016N015E25
Copper River	016N	015E	26	C016N015E26
Copper River	016N	015E	27	C016N015E27
Copper River	016N	015E	34	C016N015E34
Copper River	016N	015E	35	C016N015E35
Copper River	016N	015E	36	C016N015E36
Copper River	016N	016E	02	C016N016E02
Copper River	016N	016E	03	C016N016E03
Copper River	016N	016E	04	C016N016E04
Copper River	016N	016E	05	C016N016E05
Copper River	016N	016E	06	C016N016E06
Copper River	016N	016E	07	C016N016E07
Copper River	016N	016E	08	C016N016E08
Copper River	016N	016E	09	C016N016E09
Copper River	016N	016E	10	C016N016E10
Copper River	016N	016E	11	C016N016E11
Copper River	016N	016E	16	C016N016E16
Copper River	016N	016E	17	C016N016E17
Copper River	016N	017E	01	C016N017E01
Copper River	016N	017E	02	C016N017E02
Copper River	016N	017E	03	C016N017E03
Copper River	016N	017E	04	C016N017E04

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	016N	017E	10	C016N017E10
Copper River	016N	017E	11	C016N017E11
Copper River	016N	017E	12	C016N017E12
Copper River	016N	017E	13	C016N017E13
Copper River	016N	017E	14	C016N017E14
Copper River	016N	017E	24	C016N017E24
Copper River	016N	018E	02	C016N018E02
Copper River	016N	018E	03	C016N018E03
Copper River	016N	018E	04	C016N018E04
Copper River	016N	018E	05	C016N018E05
Copper River	016N	018E	06	C016N018E06
Copper River	016N	018E	07	C016N018E07
Copper River	016N	018E	08	C016N018E08
Copper River	016N	018E	09	C016N018E09
Copper River	016N	018E	10	C016N018E10
Copper River	016N	018E	11	C016N018E11
Copper River	016N	018E	12	C016N018E12
Copper River	016N	018E	13	C016N018E13
Copper River	016N	018E	14	C016N018E14
Copper River	016N	018E	15	C016N018E15
Copper River	016N	018E	16	C016N018E16
Copper River	016N	018E	17	C016N018E17
Copper River	016N	018E	18	C016N018E18
Copper River	016N	018E	19	C016N018E19
Copper River	016N	018E	20	C016N018E20
Copper River	016N	018E	21	C016N018E21
Copper River	016N	018E	22	C016N018E22
Copper River	016N	018E	23	C016N018E23
Copper River	016N	018E	24	C016N018E24
Copper River	016N	018E	25	C016N018E25
Copper River	016N	018E	26	C016N018E26
Copper River	016N	018E	27	C016N018E27
Copper River	016N	018E	28	C016N018E28
Copper River	016N	018E	29	C016N018E29
Copper River	016N	018E	30	C016N018E30
Copper River	016N	018E	32	C016N018E32
Copper River	016N	018E	33	C016N018E33
Copper River	016N	018E	34	C016N018E34
Copper River	016N	018E	35	C016N018E35
Copper River	016N	018E	36	C016N018E36
Copper River	016N	019E	07	C016N019E07
Copper River	016N	019E	17	C016N019E17
Copper River	016N	019E	18	C016N019E18
Copper River	016N	019E	19	C016N019E19
Copper River	016N	019E	20	C016N019E20
Copper River	016N	019E	28	C016N019E28

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	016N	019E	29	C016N019E29
Copper River	016N	019E	30	C016N019E30
Copper River	016N	019E	31	C016N019E31
Copper River	016N	019E	32	C016N019E32
Copper River	016N	019E	33	C016N019E33
Copper River	016N	019E	34	C016N019E34
Copper River	016N	019E	35	C016N019E35
Copper River	017N	011E	01	C017N011E01
Copper River	017N	011E	02	C017N011E02
Copper River	017N	011E	03	C017N011E03
Copper River	017N	011E	04	C017N011E04
Copper River	017N	011E	05	C017N011E05
Copper River	017N	012E	01	C017N012E01
Copper River	017N	012E	02	C017N012E02
Copper River	017N	013E	01	C017N013E01
Copper River	017N	013E	02	C017N013E02
Copper River	017N	013E	03	C017N013E03
Copper River	017N	013E	04	C017N013E04
Copper River	017N	013E	05	C017N013E05
Copper River	017N	013E	06	C017N013E06
Copper River	017N	013E	08	C017N013E08
Copper River	017N	013E	09	C017N013E09
Copper River	017N	013E	10	C017N013E10
Copper River	017N	013E	11	C017N013E11
Copper River	017N	013E	12	C017N013E12
Copper River	017N	013E	13	C017N013E13
Copper River	017N	013E	14	C017N013E14
Copper River	017N	013E	15	C017N013E15
Copper River	017N	014E	01	C017N014E01
Copper River	017N	014E	02	C017N014E02
Copper River	017N	014E	03	C017N014E03
Copper River	017N	014E	04	C017N014E04
Copper River	017N	014E	05	C017N014E05
Copper River	017N	014E	06	C017N014E06
Copper River	017N	014E	07	C017N014E07
Copper River	017N	014E	08	C017N014E08
Copper River	017N	014E	09	C017N014E09
Copper River	017N	014E	10	C017N014E10
Copper River	017N	014E	11	C017N014E11
Copper River	017N	014E	12	C017N014E12
Copper River	017N	014E	13	C017N014E13
Copper River	017N	014E	14	C017N014E14
Copper River	017N	014E	15	C017N014E15
Copper River	017N	014E	16	C017N014E16
Copper River	017N	014E	17	C017N014E17
Copper River	017N	014E	18	C017N014E18

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	017N	014E	21	C017N014E21
Copper River	017N	014E	22	C017N014E22
Copper River	017N	014E	23	C017N014E23
Copper River	017N	014E	24	C017N014E24
Copper River	017N	015E	01	C017N015E01
Copper River	017N	015E	02	C017N015E02
Copper River	017N	015E	03	C017N015E03
Copper River	017N	015E	04	C017N015E04
Copper River	017N	015E	05	C017N015E05
Copper River	017N	015E	06	C017N015E06
Copper River	017N	015E	07	C017N015E07
Copper River	017N	015E	08	C017N015E08
Copper River	017N	015E	09	C017N015E09
Copper River	017N	015E	10	C017N015E10
Copper River	017N	015E	11	C017N015E11
Copper River	017N	015E	12	C017N015E12
Copper River	017N	015E	13	C017N015E13
Copper River	017N	015E	14	C017N015E14
Copper River	017N	015E	15	C017N015E15
Copper River	017N	015E	16	C017N015E16
Copper River	017N	015E	17	C017N015E17
Copper River	017N	015E	18	C017N015E18
Copper River	017N	015E	19	C017N015E19
Copper River	017N	015E	20	C017N015E20
Copper River	017N	015E	21	C017N015E21
Copper River	017N	015E	22	C017N015E22
Copper River	017N	015E	23	C017N015E23
Copper River	017N	015E	24	C017N015E24
Copper River	017N	015E	25	C017N015E25
Copper River	017N	015E	26	C017N015E26
Copper River	017N	015E	27	C017N015E27
Copper River	017N	015E	28	C017N015E28
Copper River	017N	015E	29	C017N015E29
Copper River	017N	015E	30	C017N015E30
Copper River	017N	015E	32	C017N015E32
Copper River	017N	015E	33	C017N015E33
Copper River	017N	015E	34	C017N015E34
Copper River	017N	015E	35	C017N015E35
Copper River	017N	015E	36	C017N015E36
Copper River	017N	016E	01	C017N016E01
Copper River	017N	016E	02	C017N016E02
Copper River	017N	016E	03	C017N016E03
Copper River	017N	016E	04	C017N016E04
Copper River	017N	016E	05	C017N016E05
Copper River	017N	016E	06	C017N016E06
Copper River	017N	016E	07	C017N016E07

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	017N	016E	08	C017N016E08
Copper River	017N	016E	09	C017N016E09
Copper River	017N	016E	10	C017N016E10
Copper River	017N	016E	11	C017N016E11
Copper River	017N	016E	12	C017N016E12
Copper River	017N	016E	13	C017N016E13
Copper River	017N	016E	14	C017N016E14
Copper River	017N	016E	15	C017N016E15
Copper River	017N	016E	16	C017N016E16
Copper River	017N	016E	17	C017N016E17
Copper River	017N	016E	18	C017N016E18
Copper River	017N	016E	19	C017N016E19
Copper River	017N	016E	20	C017N016E20
Copper River	017N	016E	21	C017N016E21
Copper River	017N	016E	22	C017N016E22
Copper River	017N	016E	23	C017N016E23
Copper River	017N	016E	24	C017N016E24
Copper River	017N	016E	25	C017N016E25
Copper River	017N	016E	26	C017N016E26
Copper River	017N	016E	27	C017N016E27
Copper River	017N	016E	28	C017N016E28
Copper River	017N	016E	29	C017N016E29
Copper River	017N	016E	30	C017N016E30
Copper River	017N	016E	31	C017N016E31
Copper River	017N	016E	32	C017N016E32
Copper River	017N	016E	33	C017N016E33
Copper River	017N	016E	34	C017N016E34
Copper River	017N	016E	35	C017N016E35
Copper River	017N	017E	02	C017N017E02
Copper River	017N	017E	03	C017N017E03
Copper River	017N	017E	04	C017N017E04
Copper River	017N	017E	05	C017N017E05
Copper River	017N	017E	06	C017N017E06
Copper River	017N	017E	07	C017N017E07
Copper River	017N	017E	08	C017N017E08
Copper River	017N	017E	09	C017N017E09
Copper River	017N	017E	10	C017N017E10
Copper River	017N	017E	11	C017N017E11
Copper River	017N	017E	13	C017N017E13
Copper River	017N	017E	14	C017N017E14
Copper River	017N	017E	15	C017N017E15
Copper River	017N	017E	16	C017N017E16
Copper River	017N	017E	17	C017N017E17
Copper River	017N	017E	18	C017N017E18
Copper River	017N	017E	19	C017N017E19
Copper River	017N	017E	20	C017N017E20

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	017N	017E	21	C017N017E21
Copper River	017N	017E	22	C017N017E22
Copper River	017N	017E	23	C017N017E23
Copper River	017N	017E	24	C017N017E24
Copper River	017N	017E	25	C017N017E25
Copper River	017N	017E	26	C017N017E26
Copper River	017N	017E	27	C017N017E27
Copper River	017N	017E	28	C017N017E28
Copper River	017N	017E	29	C017N017E29
Copper River	017N	017E	30	C017N017E30
Copper River	017N	017E	31	C017N017E31
Copper River	017N	017E	32	C017N017E32
Copper River	017N	017E	33	C017N017E33
Copper River	017N	017E	34	C017N017E34
Copper River	017N	017E	35	C017N017E35
Copper River	017N	017E	36	C017N017E36
Copper River	017N	018E	19	C017N018E19
Copper River	017N	018E	29	C017N018E29
Copper River	017N	018E	30	C017N018E30
Copper River	017N	018E	31	C017N018E31
Copper River	017N	018E	32	C017N018E32
Copper River	017N	018E	33	C017N018E33
Copper River	018N	008E	01	C018N008E01
Copper River	018N	008E	02	C018N008E02
Copper River	018N	008E	03	C018N008E03
Copper River	018N	008E	04	C018N008E04
Copper River	018N	008E	05	C018N008E05
Copper River	018N	008E	06	C018N008E06
Copper River	018N	008E	08	C018N008E08
Copper River	018N	008E	09	C018N008E09
Copper River	018N	008E	10	C018N008E10
Copper River	018N	008E	11	C018N008E11
Copper River	018N	008E	12	C018N008E12
Copper River	018N	008E	13	C018N008E13
Copper River	018N	008E	14	C018N008E14
Copper River	018N	008E	15	C018N008E15
Copper River	018N	008E	16	C018N008E16
Copper River	018N	008E	17	C018N008E17
Copper River	018N	008E	21	C018N008E21
Copper River	018N	008E	22	C018N008E22
Copper River	018N	008E	23	C018N008E23
Copper River	018N	008E	24	C018N008E24
Copper River	018N	008E	25	C018N008E25
Copper River	018N	008E	26	C018N008E26
Copper River	018N	009E	01	C018N009E01
Copper River	018N	009E	02	C018N009E02

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	018N	009E	03	C018N009E03
Copper River	018N	009E	04	C018N009E04
Copper River	018N	009E	05	C018N009E05
Copper River	018N	009E	06	C018N009E06
Copper River	018N	009E	07	C018N009E07
Copper River	018N	009E	08	C018N009E08
Copper River	018N	009E	09	C018N009E09
Copper River	018N	009E	10	C018N009E10
Copper River	018N	009E	11	C018N009E11
Copper River	018N	009E	12	C018N009E12
Copper River	018N	009E	13	C018N009E13
Copper River	018N	009E	14	C018N009E14
Copper River	018N	009E	15	C018N009E15
Copper River	018N	009E	16	C018N009E16
Copper River	018N	009E	17	C018N009E17
Copper River	018N	009E	18	C018N009E18
Copper River	018N	009E	19	C018N009E19
Copper River	018N	009E	20	C018N009E20
Copper River	018N	009E	21	C018N009E21
Copper River	018N	009E	22	C018N009E22
Copper River	018N	009E	23	C018N009E23
Copper River	018N	009E	24	C018N009E24
Copper River	018N	009E	25	C018N009E25
Copper River	018N	009E	26	C018N009E26
Copper River	018N	009E	27	C018N009E27
Copper River	018N	009E	28	C018N009E28
Copper River	018N	009E	29	C018N009E29
Copper River	018N	009E	30	C018N009E30
Copper River	018N	009E	34	C018N009E34
Copper River	018N	009E	35	C018N009E35
Copper River	018N	009E	36	C018N009E36
Copper River	018N	010E	01	C018N010E01
Copper River	018N	010E	02	C018N010E02
Copper River	018N	010E	03	C018N010E03
Copper River	018N	010E	04	C018N010E04
Copper River	018N	010E	05	C018N010E05
Copper River	018N	010E	06	C018N010E06
Copper River	018N	010E	07	C018N010E07
Copper River	018N	010E	08	C018N010E08
Copper River	018N	010E	09	C018N010E09
Copper River	018N	010E	10	C018N010E10
Copper River	018N	010E	11	C018N010E11
Copper River	018N	010E	12	C018N010E12
Copper River	018N	010E	13	C018N010E13
Copper River	018N	010E	14	C018N010E14
Copper River	018N	010E	15	C018N010E15

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	018N	010E	16	C018N010E16
Copper River	018N	010E	17	C018N010E17
Copper River	018N	010E	18	C018N010E18
Copper River	018N	010E	19	C018N010E19
Copper River	018N	010E	20	C018N010E20
Copper River	018N	010E	21	C018N010E21
Copper River	018N	010E	22	C018N010E22
Copper River	018N	010E	23	C018N010E23
Copper River	018N	010E	24	C018N010E24
Copper River	018N	010E	25	C018N010E25
Copper River	018N	010E	26	C018N010E26
Copper River	018N	010E	27	C018N010E27
Copper River	018N	010E	28	C018N010E28
Copper River	018N	010E	29	C018N010E29
Copper River	018N	010E	30	C018N010E30
Copper River	018N	010E	31	C018N010E31
Copper River	018N	010E	32	C018N010E32
Copper River	018N	010E	33	C018N010E33
Copper River	018N	010E	34	C018N010E34
Copper River	018N	010E	35	C018N010E35
Copper River	018N	010E	36	C018N010E36
Copper River	018N	011E	01	C018N011E01
Copper River	018N	011E	02	C018N011E02
Copper River	018N	011E	03	C018N011E03
Copper River	018N	011E	04	C018N011E04
Copper River	018N	011E	05	C018N011E05
Copper River	018N	011E	06	C018N011E06
Copper River	018N	011E	07	C018N011E07
Copper River	018N	011E	08	C018N011E08
Copper River	018N	011E	09	C018N011E09
Copper River	018N	011E	10	C018N011E10
Copper River	018N	011E	11	C018N011E11
Copper River	018N	011E	12	C018N011E12
Copper River	018N	011E	13	C018N011E13
Copper River	018N	011E	14	C018N011E14
Copper River	018N	011E	15	C018N011E15
Copper River	018N	011E	16	C018N011E16
Copper River	018N	011E	17	C018N011E17
Copper River	018N	011E	18	C018N011E18
Copper River	018N	011E	19	C018N011E19
Copper River	018N	011E	20	C018N011E20
Copper River	018N	011E	21	C018N011E21
Copper River	018N	011E	22	C018N011E22
Copper River	018N	011E	23	C018N011E23
Copper River	018N	011E	24	C018N011E24
Copper River	018N	011E	25	C018N011E25

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	018N	011E	26	C018N011E26
Copper River	018N	011E	27	C018N011E27
Copper River	018N	011E	28	C018N011E28
Copper River	018N	011E	29	C018N011E29
Copper River	018N	011E	30	C018N011E30
Copper River	018N	011E	31	C018N011E31
Copper River	018N	011E	32	C018N011E32
Copper River	018N	011E	33	C018N011E33
Copper River	018N	011E	34	C018N011E34
Copper River	018N	011E	35	C018N011E35
Copper River	018N	011E	36	C018N011E36
Copper River	018N	012E	01	C018N012E01
Copper River	018N	012E	02	C018N012E02
Copper River	018N	012E	03	C018N012E03
Copper River	018N	012E	04	C018N012E04
Copper River	018N	012E	05	C018N012E05
Copper River	018N	012E	06	C018N012E06
Copper River	018N	012E	07	C018N012E07
Copper River	018N	012E	08	C018N012E08
Copper River	018N	012E	09	C018N012E09
Copper River	018N	012E	10	C018N012E10
Copper River	018N	012E	11	C018N012E11
Copper River	018N	012E	12	C018N012E12
Copper River	018N	012E	13	C018N012E13
Copper River	018N	012E	14	C018N012E14
Copper River	018N	012E	15	C018N012E15
Copper River	018N	012E	16	C018N012E16
Copper River	018N	012E	17	C018N012E17
Copper River	018N	012E	18	C018N012E18
Copper River	018N	012E	19	C018N012E19
Copper River	018N	012E	20	C018N012E20
Copper River	018N	012E	21	C018N012E21
Copper River	018N	012E	22	C018N012E22
Copper River	018N	012E	23	C018N012E23
Copper River	018N	012E	24	C018N012E24
Copper River	018N	012E	25	C018N012E25
Copper River	018N	012E	26	C018N012E26
Copper River	018N	012E	27	C018N012E27
Copper River	018N	012E	28	C018N012E28
Copper River	018N	012E	29	C018N012E29
Copper River	018N	012E	30	C018N012E30
Copper River	018N	012E	31	C018N012E31
Copper River	018N	012E	32	C018N012E32
Copper River	018N	012E	33	C018N012E33
Copper River	018N	012E	34	C018N012E34
Copper River	018N	012E	35	C018N012E35

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	018N	012E	36	C018N012E36
Copper River	018N	013E	01	C018N013E01
Copper River	018N	013E	02	C018N013E02
Copper River	018N	013E	03	C018N013E03
Copper River	018N	013E	04	C018N013E04
Copper River	018N	013E	05	C018N013E05
Copper River	018N	013E	06	C018N013E06
Copper River	018N	013E	07	C018N013E07
Copper River	018N	013E	08	C018N013E08
Copper River	018N	013E	09	C018N013E09
Copper River	018N	013E	10	C018N013E10
Copper River	018N	013E	11	C018N013E11
Copper River	018N	013E	12	C018N013E12
Copper River	018N	013E	13	C018N013E13
Copper River	018N	013E	14	C018N013E14
Copper River	018N	013E	15	C018N013E15
Copper River	018N	013E	16	C018N013E16
Copper River	018N	013E	17	C018N013E17
Copper River	018N	013E	18	C018N013E18
Copper River	018N	013E	19	C018N013E19
Copper River	018N	013E	20	C018N013E20
Copper River	018N	013E	21	C018N013E21
Copper River	018N	013E	22	C018N013E22
Copper River	018N	013E	23	C018N013E23
Copper River	018N	013E	24	C018N013E24
Copper River	018N	013E	25	C018N013E25
Copper River	018N	013E	26	C018N013E26
Copper River	018N	013E	27	C018N013E27
Copper River	018N	013E	28	C018N013E28
Copper River	018N	013E	29	C018N013E29
Copper River	018N	013E	30	C018N013E30
Copper River	018N	013E	31	C018N013E31
Copper River	018N	013E	32	C018N013E32
Copper River	018N	013E	33	C018N013E33
Copper River	018N	013E	34	C018N013E34
Copper River	018N	013E	35	C018N013E35
Copper River	018N	013E	36	C018N013E36
Copper River	018N	014E	01	C018N014E01
Copper River	018N	014E	02	C018N014E02
Copper River	018N	014E	03	C018N014E03
Copper River	018N	014E	04	C018N014E04
Copper River	018N	014E	05	C018N014E05
Copper River	018N	014E	06	C018N014E06
Copper River	018N	014E	07	C018N014E07
Copper River	018N	014E	08	C018N014E08
Copper River	018N	014E	09	C018N014E09

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	018N	014E	10	C018N014E10
Copper River	018N	014E	11	C018N014E11
Copper River	018N	014E	12	C018N014E12
Copper River	018N	014E	13	C018N014E13
Copper River	018N	014E	14	C018N014E14
Copper River	018N	014E	15	C018N014E15
Copper River	018N	014E	16	C018N014E16
Copper River	018N	014E	17	C018N014E17
Copper River	018N	014E	18	C018N014E18
Copper River	018N	014E	19	C018N014E19
Copper River	018N	014E	20	C018N014E20
Copper River	018N	014E	21	C018N014E21
Copper River	018N	014E	22	C018N014E22
Copper River	018N	014E	23	C018N014E23
Copper River	018N	014E	24	C018N014E24
Copper River	018N	014E	25	C018N014E25
Copper River	018N	014E	26	C018N014E26
Copper River	018N	014E	27	C018N014E27
Copper River	018N	014E	28	C018N014E28
Copper River	018N	014E	29	C018N014E29
Copper River	018N	014E	30	C018N014E30
Copper River	018N	014E	31	C018N014E31
Copper River	018N	014E	32	C018N014E32
Copper River	018N	014E	33	C018N014E33
Copper River	018N	014E	34	C018N014E34
Copper River	018N	014E	35	C018N014E35
Copper River	018N	014E	36	C018N014E36
Copper River	018N	015E	01	C018N015E01
Copper River	018N	015E	02	C018N015E02
Copper River	018N	015E	03	C018N015E03
Copper River	018N	015E	04	C018N015E04
Copper River	018N	015E	05	C018N015E05
Copper River	018N	015E	06	C018N015E06
Copper River	018N	015E	07	C018N015E07
Copper River	018N	015E	08	C018N015E08
Copper River	018N	015E	09	C018N015E09
Copper River	018N	015E	10	C018N015E10
Copper River	018N	015E	11	C018N015E11
Copper River	018N	015E	12	C018N015E12
Copper River	018N	015E	13	C018N015E13
Copper River	018N	015E	14	C018N015E14
Copper River	018N	015E	15	C018N015E15
Copper River	018N	015E	16	C018N015E16
Copper River	018N	015E	17	C018N015E17
Copper River	018N	015E	18	C018N015E18
Copper River	018N	015E	19	C018N015E19

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	018N	015E	20	C018N015E20
Copper River	018N	015E	21	C018N015E21
Copper River	018N	015E	22	C018N015E22
Copper River	018N	015E	23	C018N015E23
Copper River	018N	015E	24	C018N015E24
Copper River	018N	015E	25	C018N015E25
Copper River	018N	015E	26	C018N015E26
Copper River	018N	015E	27	C018N015E27
Copper River	018N	015E	28	C018N015E28
Copper River	018N	015E	29	C018N015E29
Copper River	018N	015E	30	C018N015E30
Copper River	018N	015E	31	C018N015E31
Copper River	018N	015E	32	C018N015E32
Copper River	018N	015E	33	C018N015E33
Copper River	018N	015E	34	C018N015E34
Copper River	018N	015E	35	C018N015E35
Copper River	018N	015E	36	C018N015E36
Copper River	018N	016E	07	C018N016E07
Copper River	018N	016E	17	C018N016E17
Copper River	018N	016E	18	C018N016E18
Copper River	018N	016E	19	C018N016E19
Copper River	018N	016E	20	C018N016E20
Copper River	018N	016E	21	C018N016E21
Copper River	018N	016E	25	C018N016E25
Copper River	018N	016E	26	C018N016E26
Copper River	018N	016E	27	C018N016E27
Copper River	018N	016E	28	C018N016E28
Copper River	018N	016E	29	C018N016E29
Copper River	018N	016E	30	C018N016E30
Copper River	018N	016E	31	C018N016E31
Copper River	018N	016E	32	C018N016E32
Copper River	018N	016E	33	C018N016E33
Copper River	018N	016E	34	C018N016E34
Copper River	018N	016E	35	C018N016E35
Copper River	018N	016E	36	C018N016E36
Copper River	018N	017E	31	C018N017E31
Copper River	018N	017E	32	C018N017E32
Copper River	018N	017E	33	C018N017E33
Copper River	019N	007E	01	C019N007E01
Copper River	019N	007E	02	C019N007E02
Copper River	019N	007E	11	C019N007E11
Copper River	019N	007E	12	C019N007E12
Copper River	019N	007E	13	C019N007E13
Copper River	019N	007E	24	C019N007E24
Copper River	019N	007E	25	C019N007E25
Copper River	019N	008E	01	C019N008E01

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	019N	008E	02	C019N008E02
Copper River	019N	008E	03	C019N008E03
Copper River	019N	008E	04	C019N008E04
Copper River	019N	008E	05	C019N008E05
Copper River	019N	008E	06	C019N008E06
Copper River	019N	008E	07	C019N008E07
Copper River	019N	008E	08	C019N008E08
Copper River	019N	008E	09	C019N008E09
Copper River	019N	008E	10	C019N008E10
Copper River	019N	008E	11	C019N008E11
Copper River	019N	008E	12	C019N008E12
Copper River	019N	008E	13	C019N008E13
Copper River	019N	008E	14	C019N008E14
Copper River	019N	008E	15	C019N008E15
Copper River	019N	008E	16	C019N008E16
Copper River	019N	008E	17	C019N008E17
Copper River	019N	008E	18	C019N008E18
Copper River	019N	008E	19	C019N008E19
Copper River	019N	008E	20	C019N008E20
Copper River	019N	008E	21	C019N008E21
Copper River	019N	008E	22	C019N008E22
Copper River	019N	008E	23	C019N008E23
Copper River	019N	008E	24	C019N008E24
Copper River	019N	008E	25	C019N008E25
Copper River	019N	008E	26	C019N008E26
Copper River	019N	008E	27	C019N008E27
Copper River	019N	008E	28	C019N008E28
Copper River	019N	008E	29	C019N008E29
Copper River	019N	008E	30	C019N008E30
Copper River	019N	008E	31	C019N008E31
Copper River	019N	008E	32	C019N008E32
Copper River	019N	008E	33	C019N008E33
Copper River	019N	008E	34	C019N008E34
Copper River	019N	008E	35	C019N008E35
Copper River	019N	008E	36	C019N008E36
Copper River	019N	009E	02	C019N009E02
Copper River	019N	009E	03	C019N009E03
Copper River	019N	009E	04	C019N009E04
Copper River	019N	009E	05	C019N009E05
Copper River	019N	009E	06	C019N009E06
Copper River	019N	009E	07	C019N009E07
Copper River	019N	009E	08	C019N009E08
Copper River	019N	009E	09	C019N009E09
Copper River	019N	009E	10	C019N009E10
Copper River	019N	009E	11	C019N009E11
Copper River	019N	009E	12	C019N009E12

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	019N	009E	13	C019N009E13
Copper River	019N	009E	14	C019N009E14
Copper River	019N	009E	15	C019N009E15
Copper River	019N	009E	16	C019N009E16
Copper River	019N	009E	17	C019N009E17
Copper River	019N	009E	18	C019N009E18
Copper River	019N	009E	19	C019N009E19
Copper River	019N	009E	20	C019N009E20
Copper River	019N	009E	21	C019N009E21
Copper River	019N	009E	22	C019N009E22
Copper River	019N	009E	23	C019N009E23
Copper River	019N	009E	24	C019N009E24
Copper River	019N	009E	25	C019N009E25
Copper River	019N	009E	26	C019N009E26
Copper River	019N	009E	27	C019N009E27
Copper River	019N	009E	28	C019N009E28
Copper River	019N	009E	29	C019N009E29
Copper River	019N	009E	30	C019N009E30
Copper River	019N	009E	31	C019N009E31
Copper River	019N	009E	32	C019N009E32
Copper River	019N	009E	33	C019N009E33
Copper River	019N	009E	34	C019N009E34
Copper River	019N	009E	35	C019N009E35
Copper River	019N	009E	36	C019N009E36
Copper River	019N	010E	07	C019N010E07
Copper River	019N	010E	08	C019N010E08
Copper River	019N	010E	09	C019N010E09
Copper River	019N	010E	10	C019N010E10
Copper River	019N	010E	11	C019N010E11
Copper River	019N	010E	12	C019N010E12
Copper River	019N	010E	13	C019N010E13
Copper River	019N	010E	14	C019N010E14
Copper River	019N	010E	15	C019N010E15
Copper River	019N	010E	16	C019N010E16
Copper River	019N	010E	17	C019N010E17
Copper River	019N	010E	18	C019N010E18
Copper River	019N	010E	19	C019N010E19
Copper River	019N	010E	20	C019N010E20
Copper River	019N	010E	21	C019N010E21
Copper River	019N	010E	22	C019N010E22
Copper River	019N	010E	23	C019N010E23
Copper River	019N	010E	24	C019N010E24
Copper River	019N	010E	25	C019N010E25
Copper River	019N	010E	26	C019N010E26
Copper River	019N	010E	27	C019N010E27
Copper River	019N	010E	28	C019N010E28

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	019N	010E	29	C019N010E29
Copper River	019N	010E	30	C019N010E30
Copper River	019N	010E	31	C019N010E31
Copper River	019N	010E	32	C019N010E32
Copper River	019N	010E	33	C019N010E33
Copper River	019N	010E	34	C019N010E34
Copper River	019N	010E	35	C019N010E35
Copper River	019N	010E	36	C019N010E36
Copper River	019N	011E	07	C019N011E07
Copper River	019N	011E	08	C019N011E08
Copper River	019N	011E	09	C019N011E09
Copper River	019N	011E	10	C019N011E10
Copper River	019N	011E	11	C019N011E11
Copper River	019N	011E	12	C019N011E12
Copper River	019N	011E	13	C019N011E13
Copper River	019N	011E	14	C019N011E14
Copper River	019N	011E	15	C019N011E15
Copper River	019N	011E	16	C019N011E16
Copper River	019N	011E	17	C019N011E17
Copper River	019N	011E	18	C019N011E18
Copper River	019N	011E	19	C019N011E19
Copper River	019N	011E	20	C019N011E20
Copper River	019N	011E	21	C019N011E21
Copper River	019N	011E	22	C019N011E22
Copper River	019N	011E	23	C019N011E23
Copper River	019N	011E	24	C019N011E24
Copper River	019N	011E	25	C019N011E25
Copper River	019N	011E	26	C019N011E26
Copper River	019N	011E	27	C019N011E27
Copper River	019N	011E	28	C019N011E28
Copper River	019N	011E	29	C019N011E29
Copper River	019N	011E	30	C019N011E30
Copper River	019N	011E	31	C019N011E31
Copper River	019N	011E	32	C019N011E32
Copper River	019N	011E	33	C019N011E33
Copper River	019N	011E	34	C019N011E34
Copper River	019N	011E	35	C019N011E35
Copper River	019N	011E	36	C019N011E36
Copper River	019N	012E	07	C019N012E07
Copper River	019N	012E	08	C019N012E08
Copper River	019N	012E	09	C019N012E09
Copper River	019N	012E	10	C019N012E10
Copper River	019N	012E	11	C019N012E11
Copper River	019N	012E	12	C019N012E12
Copper River	019N	012E	13	C019N012E13
Copper River	019N	012E	14	C019N012E14

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	019N	012E	15	C019N012E15
Copper River	019N	012E	16	C019N012E16
Copper River	019N	012E	17	C019N012E17
Copper River	019N	012E	18	C019N012E18
Copper River	019N	012E	19	C019N012E19
Copper River	019N	012E	20	C019N012E20
Copper River	019N	012E	21	C019N012E21
Copper River	019N	012E	22	C019N012E22
Copper River	019N	012E	23	C019N012E23
Copper River	019N	012E	24	C019N012E24
Copper River	019N	012E	25	C019N012E25
Copper River	019N	012E	26	C019N012E26
Copper River	019N	012E	27	C019N012E27
Copper River	019N	012E	28	C019N012E28
Copper River	019N	012E	29	C019N012E29
Copper River	019N	012E	30	C019N012E30
Copper River	019N	012E	31	C019N012E31
Copper River	019N	012E	32	C019N012E32
Copper River	019N	012E	33	C019N012E33
Copper River	019N	012E	34	C019N012E34
Copper River	019N	012E	35	C019N012E35
Copper River	019N	012E	36	C019N012E36
Copper River	019N	013E	15	C019N013E15
Copper River	019N	013E	16	C019N013E16
Copper River	019N	013E	17	C019N013E17
Copper River	019N	013E	18	C019N013E18
Copper River	019N	013E	19	C019N013E19
Copper River	019N	013E	20	C019N013E20
Copper River	019N	013E	21	C019N013E21
Copper River	019N	013E	22	C019N013E22
Copper River	019N	013E	23	C019N013E23
Copper River	019N	013E	24	C019N013E24
Copper River	019N	013E	25	C019N013E25
Copper River	019N	013E	26	C019N013E26
Copper River	019N	013E	27	C019N013E27
Copper River	019N	013E	28	C019N013E28
Copper River	019N	013E	29	C019N013E29
Copper River	019N	013E	30	C019N013E30
Copper River	019N	013E	31	C019N013E31
Copper River	019N	013E	32	C019N013E32
Copper River	019N	013E	33	C019N013E33
Copper River	019N	013E	34	C019N013E34
Copper River	019N	013E	35	C019N013E35
Copper River	019N	013E	36	C019N013E36
Copper River	019N	014E	25	C019N014E25
Copper River	019N	014E	26	C019N014E26

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	019N	014E	28	C019N014E28
Copper River	019N	014E	29	C019N014E29
Copper River	019N	014E	30	C019N014E30
Copper River	019N	014E	31	C019N014E31
Copper River	019N	014E	32	C019N014E32
Copper River	019N	014E	33	C019N014E33
Copper River	019N	014E	34	C019N014E34
Copper River	019N	014E	35	C019N014E35
Copper River	019N	014E	36	C019N014E36
Copper River	019N	015E	29	C019N015E29
Copper River	019N	015E	30	C019N015E30
Copper River	019N	015E	31	C019N015E31
Copper River	019N	015E	32	C019N015E32
Copper River	019N	015E	33	C019N015E33
Copper River	019N	015E	34	C019N015E34
Copper River	020N	007E	01	C020N007E01
Copper River	020N	007E	02	C020N007E02
Copper River	020N	007E	03	C020N007E03
Copper River	020N	007E	04	C020N007E04
Copper River	020N	007E	10	C020N007E10
Copper River	020N	007E	11	C020N007E11
Copper River	020N	007E	12	C020N007E12
Copper River	020N	007E	13	C020N007E13
Copper River	020N	007E	14	C020N007E14
Copper River	020N	007E	23	C020N007E23
Copper River	020N	007E	24	C020N007E24
Copper River	020N	007E	25	C020N007E25
Copper River	020N	007E	26	C020N007E26
Copper River	020N	007E	35	C020N007E35
Copper River	020N	007E	36	C020N007E36
Copper River	020N	008E	01	C020N008E01
Copper River	020N	008E	02	C020N008E02
Copper River	020N	008E	03	C020N008E03
Copper River	020N	008E	04	C020N008E04
Copper River	020N	008E	05	C020N008E05
Copper River	020N	008E	06	C020N008E06
Copper River	020N	008E	07	C020N008E07
Copper River	020N	008E	08	C020N008E08
Copper River	020N	008E	09	C020N008E09
Copper River	020N	008E	10	C020N008E10
Copper River	020N	008E	11	C020N008E11
Copper River	020N	008E	12	C020N008E12
Copper River	020N	008E	13	C020N008E13
Copper River	020N	008E	14	C020N008E14
Copper River	020N	008E	15	C020N008E15
Copper River	020N	008E	16	C020N008E16

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	020N	008E	17	C020N008E17
Copper River	020N	008E	18	C020N008E18
Copper River	020N	008E	19	C020N008E19
Copper River	020N	008E	20	C020N008E20
Copper River	020N	008E	21	C020N008E21
Copper River	020N	008E	22	C020N008E22
Copper River	020N	008E	23	C020N008E23
Copper River	020N	008E	24	C020N008E24
Copper River	020N	008E	25	C020N008E25
Copper River	020N	008E	26	C020N008E26
Copper River	020N	008E	27	C020N008E27
Copper River	020N	008E	28	C020N008E28
Copper River	020N	008E	29	C020N008E29
Copper River	020N	008E	30	C020N008E30
Copper River	020N	008E	31	C020N008E31
Copper River	020N	008E	32	C020N008E32
Copper River	020N	008E	33	C020N008E33
Copper River	020N	008E	34	C020N008E34
Copper River	020N	008E	35	C020N008E35
Copper River	020N	008E	36	C020N008E36
Copper River	020N	009E	04	C020N009E04
Copper River	020N	009E	05	C020N009E05
Copper River	020N	009E	06	C020N009E06
Copper River	020N	009E	07	C020N009E07
Copper River	020N	009E	08	C020N009E08
Copper River	020N	009E	09	C020N009E09
Copper River	020N	009E	16	C020N009E16
Copper River	020N	009E	17	C020N009E17
Copper River	020N	009E	18	C020N009E18
Copper River	020N	009E	19	C020N009E19
Copper River	020N	009E	20	C020N009E20
Copper River	020N	009E	21	C020N009E21
Copper River	020N	009E	28	C020N009E28
Copper River	020N	009E	29	C020N009E29
Copper River	020N	009E	30	C020N009E30
Copper River	020N	009E	31	C020N009E31
Copper River	020N	009E	32	C020N009E32
Copper River	020N	009E	33	C020N009E33
Copper River	020N	009E	34	C020N009E34
Copper River	021N	005E	01	C021N005E01
Copper River	021N	005E	02	C021N005E02
Copper River	021N	005E	03	C021N005E03
Copper River	021N	005E	04	C021N005E04
Copper River	021N	005E	05	C021N005E05
Copper River	021N	005E	06	C021N005E06
Copper River	021N	005E	07	C021N005E07

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	021N	005E	08	C021N005E08
Copper River	021N	005E	09	C021N005E09
Copper River	021N	005E	10	C021N005E10
Copper River	021N	005E	11	C021N005E11
Copper River	021N	005E	12	C021N005E12
Copper River	021N	006E	01	C021N006E01
Copper River	021N	006E	02	C021N006E02
Copper River	021N	006E	03	C021N006E03
Copper River	021N	006E	04	C021N006E04
Copper River	021N	006E	05	C021N006E05
Copper River	021N	006E	06	C021N006E06
Copper River	021N	006E	07	C021N006E07
Copper River	021N	006E	08	C021N006E08
Copper River	021N	006E	09	C021N006E09
Copper River	021N	006E	10	C021N006E10
Copper River	021N	006E	11	C021N006E11
Copper River	021N	006E	12	C021N006E12
Copper River	021N	006E	13	C021N006E13
Copper River	021N	006E	14	C021N006E14
Copper River	021N	006E	15	C021N006E15
Copper River	021N	006E	24	C021N006E24
Copper River	021N	006E	25	C021N006E25
Copper River	021N	007E	01	C021N007E01
Copper River	021N	007E	02	C021N007E02
Copper River	021N	007E	03	C021N007E03
Copper River	021N	007E	04	C021N007E04
Copper River	021N	007E	05	C021N007E05
Copper River	021N	007E	06	C021N007E06
Copper River	021N	007E	07	C021N007E07
Copper River	021N	007E	08	C021N007E08
Copper River	021N	007E	09	C021N007E09
Copper River	021N	007E	10	C021N007E10
Copper River	021N	007E	11	C021N007E11
Copper River	021N	007E	12	C021N007E12
Copper River	021N	007E	13	C021N007E13
Copper River	021N	007E	14	C021N007E14
Copper River	021N	007E	15	C021N007E15
Copper River	021N	007E	16	C021N007E16
Copper River	021N	007E	17	C021N007E17
Copper River	021N	007E	18	C021N007E18
Copper River	021N	007E	19	C021N007E19
Copper River	021N	007E	20	C021N007E20
Copper River	021N	007E	21	C021N007E21
Copper River	021N	007E	22	C021N007E22
Copper River	021N	007E	23	C021N007E23
Copper River	021N	007E	24	C021N007E24

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	021N	007E	25	C021N007E25
Copper River	021N	007E	26	C021N007E26
Copper River	021N	007E	27	C021N007E27
Copper River	021N	007E	28	C021N007E28
Copper River	021N	007E	29	C021N007E29
Copper River	021N	007E	30	C021N007E30
Copper River	021N	007E	31	C021N007E31
Copper River	021N	007E	32	C021N007E32
Copper River	021N	007E	33	C021N007E33
Copper River	021N	007E	34	C021N007E34
Copper River	021N	007E	35	C021N007E35
Copper River	021N	007E	36	C021N007E36
Copper River	021N	008E	01	C021N008E01
Copper River	021N	008E	02	C021N008E02
Copper River	021N	008E	03	C021N008E03
Copper River	021N	008E	04	C021N008E04
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Copper River	021N	008E	29	C021N008E29
Copper River	021N	008E	30	C021N008E30
Copper River	021N	008E	31	C021N008E31
Copper River	021N	008E	32	C021N008E32
Copper River	021N	008E	33	C021N008E33
Copper River	021N	008E	34	C021N008E34

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	021N	008E	35	C021N008E35
Copper River	021N	008E	36	C021N008E36
Copper River	021N	009E	18	C021N009E18
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Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	022N	006E	02	C022N006E02
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Copper River	022N	006E	23	C022N006E23
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Copper River	022N	006E	27	C022N006E27
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Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	022N	007E	12	C022N007E12
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Copper River	023N	005E	21	C023N005E21
Copper River	023N	005E	22	C023N005E22

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	023N	005E	23	C023N005E23
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Copper River	023N	006E	18	C023N006E18
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Copper River	023N	006E	21	C023N006E21
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Copper River	023N	006E	23	C023N006E23
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Copper River	028S	059E	10	C028S059E10
Copper River	028S	059E	11	C028S059E11
Copper River	028S	059E	12	C028S059E12

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	028S	059E	13	C028S059E13
Copper River	028S	059E	14	C028S059E14
Copper River	030S	059E	19	C030S059E19
Copper River	030S	059E	20	C030S059E20
Copper River	030S	059E	21	C030S059E21
Copper River	030S	059E	28	C030S059E28
Copper River	030S	059E	29	C030S059E29
Copper River	030S	059E	30	C030S059E30
Copper River	030S	059E	31	C030S059E31
Copper River	030S	059E	32	C030S059E32
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Copper River	040S	066E	30	C040S066E30
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Copper River	040S	066E	32	C040S066E32
Copper River	041S	066E	01	C041S066E01
Copper River	041S	066E	02	C041S066E02
Copper River	041S	066E	03	C041S066E03

National Marine Fisheries Service

DRAFT

ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	**Alaska Pipeline Project**
	Meeting Subject:	Regulatory Review Meeting
	Date of Meeting:	February 1, 2011
	MoM Number:	MM-ETAK-0058 Rev 0

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
Amy Cox, Lieutenant	National Marine Fisheries Service – Anchorage Office		
Julie McKim, Project Engineer	Office of Federal Coordinator		
Myron Fedak	APP		
Jon Schmidt	APP		
Ryan Childs	APP		

AGENDA ITEMS:

Item	Agenda Item	Leader	Duration
1.	The NMFS point-of-contact for the project is Amy Cox. Amy is in the middle of a 3-yr rotation, so she'll transition off the project roughly about the time APP files its FERC application. The APP point-of-contact is Ryan Childs who will bring in other APP resources as necessary.	Fedak/Cox	10 min
2.	Amy will coordinate as necessary with Brad Smith in Anchorage, the Section Seven Coordinator for NMFS Alaska Region, regarding protected species and a possible ESA section seven consultation –and with Jeanne Hanson, the Anchorage Field Office Supervisor for the Habitat Conservation Division for NMFS, regarding any living marine resources and a possible EFH consultation. Jeanne Hanson is currently on a three month rotation in Florida but remains current on the project	Cox	2 min
3.	The NMFS Anchorage Field Office is following this project. However we route all formal letters through Juneau for approval and signature. Some correspondence may be routed through the NMFS headquarters as necessary.	Cox	2 min
4.	Marine Mammal Protection Act (MMPA) issues are dealt with exclusively by the NMFS' Washington, DC headquarters office. The point-of-contact in DC for MMPA issues is Jolie Harrison.	Cox	2 min
5.	NMFS encourages early consultation on projects. APP has not met with NMFS in a one-on-one meeting before this one so a near-term focused meeting(s) on existing data sources, field survey efforts to date, planned surveys, and protocols will be helpful. Amy understands APP used guidance from ADF&G to date	Childs/Cox	5 min
6.	The APP presentation included an overview of the project, information on the EIS / CPCN application process and phased permitting, and a list of topics to guide the meeting discussion with NMFS.	Childs	30 min

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MINUTES OF MEETING

7.	Following the review of the project description, Amy indicated that the waterbody crossings of *anadromous streams*, dredging and dock improvements, any possible large water drawls or releases from the ocean or anadromous streams and sea lifts would be of particular interest to NMFS. Also, Amy noted that the current large breach (located between West Dock Head #2 and West Dock Head # 3) plays a vital role for habitat conservation. It is important to keep this fish passage for many reasons. There was a brief discussion of the Valdez option with an explanation that APP is currently focusing efforts on Alberta option but that commercial discussions were continuing.	Cox	2 min
8.	APP provided a review of the phased EIS-permitting approach of APP providing information through the FERC process of filing of drafts of resource reports with required permit applications later. Timelines for the EFH, ESA, and MMPA were discussed and will require continued coordination in the future.	Cox	5 min
9.	NMFS will provide a species list upon request from either FERC, or APP, if they are designated in writing to represent FERC, for a possible ESA section 7 consult. The species list will address both ESA species and any critical habitat if present and EFH (if both are requested). For EFH, the species list references the FMPs, Fisheries Management Plans.	Cox	10 min
10.	NMFS needs a copy of the FERC designation of APP as the non-federal representative for ESA Section 7 consultation before they can formally respond to any correspondence from APP regarding the consultation.	Cox	2 min
11.	Amy reminded everyone that this may not get to formal consultation. It is up to the action agency to determine if the action will have no effect or may affect. If the action may affect listed species, the action agency must then determine whether the action is not likely to adversely affect or likely to adversely affect. A biological assessment (BA) may be needed to determine the effects of the project. If it is a likely to adversely affect determination, then formal consultation will begin. If formal consultation is necessary and a Biological Opinion (BO) is completed, NMFS cannot issue the Incidental Take Statement (ITS) in the BO unless the MMPA permits have been issued if needed. NMFS can release the BO with a note that the ITS is pending. If this happens, after the MMPA permits are issued, the BO would be amended to then complete the ITS section.	Cox	10 min

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MINUTES OF MEETING

12.	Amy noted that currently NOAA's Fisheries Service is proposing to list four subspecies of ringed seals, found in the Arctic Basin and the North Atlantic, and two distinct population segments (DPS) of bearded seals in the Pacific Ocean, as threatened under the Endangered Species Act. For spotted seals only the southern DPS is listed under ESA. The southern DPS includes all breeding populations of spotted seals south of 43 degrees north latitude in the Pacific Ocean. If FERC decides to include the proposed for listing species in a BA and consultation goes formal, NMFS will produce a document which will be a conference opinion on the project. Then, upon issuance of a final rule listing the species, NMFS may be able issue a letter confirming this conference opinion to be the biological opinion of our agency on this action. FERC and APP should be aware though that critical habitat may be designated in the future for the proposed species if they are listed. This may or may not be cause for a future consultation. APP mentioned the possibility of a Memorandum of Understanding (MOU) to address future consultation possibilities. Amy is not sure about this. She would need to know exactly what type of MOU they are suggesting and talk to Brad Smith and headquarters and legal to see what is possible in relation to ESA. An MOU may not be a possibility, but if the species are listed and in turn, if critical habitat is designated, discussion about consultation would be necessary. Follow-up note for clarification: NMFS currently does not have any candidate species and the bearded and ringed seals are actually proposed for listing.	Cox	2 min
13.	Other comments from Amy included: a) sea ice roads need to be in place prior to March for seal mitigation- if road constructed later in the year, under MMPA, the project would need to contact NMFS before proceeding. Depending on the depth of the water, seal dens may also need to be considered and accounted for in the process. b) Important to survey any proposed areas where any dredge spoils may be deposited. NMFS would like to ensure that no boulder patches or unique habitat areas are present in these locations. c) sea lift traffic needs to be discussed but depending on the level by itself doesn't necessarily constitute a "take"; Beneficial to coordinate timing of the sea lift barges to avoid impact on subsistence activities d)Spotted seals are not a listed species for the North Slope. A Letter of Authorization (LOA) under the MMPA can take 9 months or more to acquire. An Incidental Harassment Authorization (IHA) generally takes less than 9 months. The time frames for completion of the authorizations can be dependent on various factors. Plan for about 9 months for an LOA (letter of authorization) or IHA (incidental harassment authorization), It is an elaborate application process that includes mitigation, monitoring, involving local communities, etc.	Cox	2 min
14.	Amy provided a CD with BAs from other projects as a reference. She also provided handouts from the NOAA website with regard to EFH, ESA, and MMPA.	Cox	10 min
15.	Amy will participate in Technical Workshops based on the topic and her schedule. She will check with other NMFS staff for suggestions for other workshop topics, if any.	Cox	5 min

ACTION ITEMS:

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MINUTES OF MEETING

Item	Action Item	Action By	Date Req.
1	Ryan will schedule a meeting with Amy to review data sources for the project including an overview of existing data, 2010 field survey effort, planned 2011 field survey effort, protocols with a focus on EFH Assessment. Meeting sometime later this month or early March.	Childs	2/11/2011

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ALASKA PipelineProject

An Unincorporated Joint Project

FERC Docket No. PF09-11-000

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0366

August 8, 2011

Lieutenant Amy Cox
National Marine Fisheries Service
222 West 7th Avenue
Box 43
Anchorage, AK 99513

Subject: Alaska Pipeline Project
Threatened & Endangered Species Review; Marine Mammal Protection Act Species Review; Essential Fish Habitat Review

Dear Lieutenant Cox,

As you are aware, TransCanada Alaska Company, LLC and Foothills Pipe Lines, Ltd. and ExxonMobil Alaska Midstream Gas Investments LLC, collectively the "Alaska Pipeline Project" (APP or Project) are working cooperatively to develop a project to treat, transport, and deliver gas from the Alaska North Slope (ANS) to markets in North America. APP will comprise the following major jurisdictional components in Alaska:

- About 58 miles of buried 32-inch-diameter Point Thomson Gas Transmission Pipeline and associated aboveground, ancillary, and auxiliary facilities from the processing facilities at the Point Thomson field to a gas treatment plant (GTP) near Prudhoe Bay;
- A GTP that would process gas from the existing Central Gas Facility near Prudhoe Bay and from the Point Thomson field to deliver up to 4.5 billion cubic feet per day (bcfd) of residue gas, depending on final subscriptions and gas source; and
- About 745 miles of buried 48-inch-diameter Alaska Mainline and associated aboveground, ancillary, and auxiliary facilities from a GTP to the Alaska-Yukon border, including provisions for gas delivery points within Alaska.

As part of the project, APP will also construct eight compressor stations, two meter stations, various mainline block valves, and pig launcher and receiver facilities; and associated ancillary and auxiliary infrastructure such as additional temporary workspace, access roads, helipads, construction camps, pipe storage areas, contractor yards, borrow sites, and dock modifications in Alaska. APP will also use existing airstrips.

As required by Title 18 CFR Section 380.12, APP is preparing an application to the U.S. Federal Energy Regulatory Commission (FERC) for a Certificate of Public Convenience and Necessity under Section 7(c) of the Natural Gas Act and the Alaska Natural Gas Pipeline Act of 2004.
APP is requesting National Marine Fisheries Service (NMFS) review of the proposed project for identification of federally listed threatened and endangered species under the jurisdiction of NMFS and their critical habitats in the Project area, and on essential fish habitats. APP is acting as FERC's non-federal representative for purposes of complying with section 7(a) of the Endangered Species Act (ESA) as authorized under Title 18 CFR Section 380.13(b)(1)(see

attached correspondence). In order to comply with FERC guidelines and Section 7 of the ESA, APP has prepared this request for your review and response.

Construction of the project will be phased by segment and by season, and is anticipated to commence as soon as the winter of 2014/2015 and continue until 2020. The proposed facilities and sites that could potentially impact marine resources are identified on the enclosed table which includes township, range, and sections in an expanded area around proposed facilities and project sites. These expanded areas around project sites are included to provide increased flexibility in planning.

These sites include the locations where near-shore dredging and access improvements may be required for construction of the GTP and dock loading/unloading facilities near Prudhoe Bay. The transportation of materials, fuel, and construction equipment to and from the project site will occur on ships and barges to and from existing ports, including those in Alaska, Canada, and the continental United States, using existing shipping lanes. APP believes these shipping activities will not constitute an additional area of potential effect and seeks NMFS concurrence with this conclusion.

Please provide APP with information on any protected species under the jurisdiction of the NMFS, their location, and the area or location of designated critical habitat or essential fish habitat. In addition, please specify which species may require field surveys before you can complete your review, and provide species-specific survey protocols, if applicable. The information provided by the NMFS will allow APP to develop plans that will reduce impacts to protected species and their habitat, as well as essential fish habitat, and to ensure that the project is constructed in compliance with the ESA, Marine Mammal Protection Act, and the Magnuson-Stevens Conservation and Management Act.

APP appreciates your assistance with this request. If you have any questions during your review, please contact Ryan Childs at (907) 564-3626 or by email to ryan.childs@exxonmobil.com.

Regards,

Myron E. Fedak

Myron E. Fedak
Exxon Mobil Development Co.
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory, and Land

Attachment: Correspondence dated April 14, 2011

Enclosure: Overview Map
Project Review Table

cc: Jeanne Hanson, NMFS
Brad Smith, NMFS
Candace Nachman, NMFS
Jewel Bennett, USFWS
Frances Mann, USFWS

Mike Boyle, FERC
Julie McKim, OFC
Ryan Childs, APP

Alaska Pipeline Project
Ref No.: LT-ETAK-0366
August 8, 2011

Attachment

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICE OF ENERGY PROJECTS

In Reply Refer To:
OEP/DG2E
TransCanada Alaska Company LLC
Alaska Pipeline Project
Docket No. PF09-11-000

April 14, 2011

Jewel Bennett
Conservation Planning Assistance Branch Chief
U.S. Fish and Wildlife Service
101 12th Ave.; Room 110
Fairbanks, AK 99701

Lt. Amy Cox
NOAA/NMFS
222 West 7th Ave.; Box 43
Anchorage, AK 99513

Re: Designation of Non-federal Representative to Conduct Informal Endangered Species Consultation

Dear Ms. Bennett and Lt. Cox:

This letter is to provide formal notification as per 50 CFR 402.08 and Federal Energy Regulatory Commission (FERC) regulations at 18 CFR 380.13 that the FERC is designating the project sponsors, TransCanada Alaska Company LLC and the Alaska Pipeline Project (TransCanada and APP) as our non-federal representatives for purposes of coordination pursuant to Section 7 of the Endangered Species Act.

Please work directly with TransCanada and APP, and their environmental contractors, during the informal consultation process (e.g., discussing species lists; offering technical assistance and information regarding surveys; attending meetings; developing impact minimization measures; and other coordination related to compliance with Section 7). TransCanada/APP will file the pertinent information with the FERC, which will assist us in our Section 7 obligations.

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20110414-3040 FERC PDF (Unofficial) 04/14/2011

The FERC acknowledges that the ultimate responsibility for Section 7 lies with the FERC (the action agency), and we will prepare the biological assessment for the Alaska Pipeline Project.

If you have any questions, please contact Dave Swearingen, project biologist, at 202-502-6173.

Sincerely,

Michael J. Boyle, Deputy Director
Division of Gas – Environment
and Engineering

cc: Public File, Docket No. PF09-11-000

Larry Harms
Alaska Pipeline Project
ExxonMobil Development Company
16945 Northchase Dr.
Houston, TX 77060

Dr. John Krummel
Argonne National Laboratory
9700 S. Cass Ave.
Argonne, IL 60439

DRAFT

Alaska Pipeline Project
Ref No.: LT-ETAK-0366
August 8, 2011

Enclosures

Overview Map

Project Review Table (electronic file provided in enclosed CD)

LEGEND

- Proposed Route Milepost
- A M P Alaska Mainline Milepost
- P M P Point Thomson Gas Pipeline Milepost
- Facility
- Populated Place
- Proposed Alaska Mainline
- Proposed Point Thomson Gas Pipeline
- Highway
- River / Lake
- Park or Protected Area

0 25 50 75 100 Miles

Figure 1.1-1
US-00-039-000
Alaska Pipeline Project
Project Overview

Rev: F

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Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	001N	014E	01	U001N014E01
Umiat	001N	014E	02	U001N014E02
Umiat	001N	014E	10	U001N014E10
Umiat	001N	014E	11	U001N014E11
Umiat	001N	014E	12	U001N014E12
Umiat	001N	014E	13	U001N014E13
Umiat	001N	014E	14	U001N014E14
Umiat	001N	014E	15	U001N014E15
Umiat	001N	014E	16	U001N014E16
Umiat	001N	014E	19	U001N014E19
Umiat	001N	014E	20	U001N014E20
Umiat	001N	014E	21	U001N014E21
Umiat	001N	014E	22	U001N014E22
Umiat	001N	014E	23	U001N014E23
Umiat	001N	014E	24	U001N014E24
Umiat	001N	014E	26	U001N014E26
Umiat	001N	014E	27	U001N014E27
Umiat	001N	014E	28	U001N014E28
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Umiat	001N	014E	30	U001N014E30
Umiat	001N	014E	31	U001N014E31
Umiat	001N	014E	32	U001N014E32
Umiat	001N	014E	33	U001N014E33
Umiat	001N	014E	34	U001N014E34
Umiat	001N	015E	05	U001N015E05
Umiat	001N	015E	06	U001N015E06
Umiat	001N	015E	07	U001N015E07
Umiat	001N	015E	18	U001N015E18
Umiat	001S	014E	02	U001S014E02
Umiat	001S	014E	03	U001S014E03
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Umiat	001S	014E	08	U001S014E08
Umiat	001S	014E	09	U001S014E09
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Umiat	001S	014E	16	U001S014E16
Umiat	001S	014E	17	U001S014E17
Umiat	001S	014E	20	U001S014E20
Umiat	001S	014E	21	U001S014E21
Umiat	001S	014E	22	U001S014E22
Umiat	001S	014E	23	U001S014E23
Umiat	001S	014E	26	U001S014E26
Umiat	001S	014E	27	U001S014E27
Umiat	001S	014E	28	U001S014E28
Umiat	001S	014E	29	U001S014E29

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	001S	014E	30	U001S014E30
Umiat	001S	014E	31	U001S014E31
Umiat	001S	014E	32	U001S014E32
Umiat	001S	014E	33	U001S014E33
Umiat	001S	014E	34	U001S014E34
Umiat	001S	014E	35	U001S014E35
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Umiat	002N	014E	02	U002N014E02
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Umiat	002N	014E	11	U002N014E11
Umiat	002N	014E	12	U002N014E12
Umiat	002N	014E	13	U002N014E13
Umiat	002N	014E	14	U002N014E14
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Umiat	002N	015E	07	U002N015E07
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Umiat	002S	013E	23	U002S013E23
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Umiat	002S	013E	35	U002S013E35
Umiat	002S	013E	36	U002S013E36
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Umiat	002S	014E	04	U002S014E04
Umiat	002S	014E	05	U002S014E05
Umiat	002S	014E	06	U002S014E06

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
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Umiat	002S	014E	13	U002S014E13
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Umiat	002S	014E	26	U002S014E26
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Umiat	002S	014E	32	U002S014E32
Umiat	002S	014E	33	U002S014E33
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Umiat	002S	014E	35	U002S014E35
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Umiat	003N	014E	03	U003N014E03
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Umiat	003N	014E	26	U003N014E26
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Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
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Umiat	003N	014E	35	U003N014E35
Umiat	003N	014E	36	U003N014E36
Umiat	003S	013E	12	U003S013E12
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Umiat	003S	014E	32	U003S014E32
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Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
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Umiat	004N	014E	35	U004N014E35
Umiat	004N	014E	36	U004N014E36
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Umiat	004S	014E	31	U004S014E31
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Umiat	005N	013E	10	U005N013E10
Umiat	005N	013E	11	U005N013E11
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Umiat	005N	013E	13	U005N013E13

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	005N	013E	24	U005N013E24
Umiat	005N	013E	25	U005N013E25
Umiat	005N	013E	26	U005N013E26
Umiat	005N	013E	35	U005N013E35
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Umiat	005N	014E	28	U005N014E28
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Umiat	005N	014E	31	U005N014E31
Umiat	005N	014E	32	U005N014E32
Umiat	005N	014E	33	U005N014E33
Umiat	005S	013E	01	U005S013E01
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Umiat	005S	014E	19	U005S014E19
Umiat	005S	014E	20	U005S014E20
Umiat	005S	014E	21	U005S014E21

Meridian	Township	Range	Section	Fixed-Length MTRS Code
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Umiat	005S	014E	27	U005S014E27
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Umiat	006S	013E	24	U006S013E24
Umiat	006S	013E	25	U006S013E25
Umiat	006S	013E	36	U006S013E36

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	006S	014E	05	U006S014E05
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Umiat	007N	013E	23	U007N013E23
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Umiat	007N	014E	20	U007N014E20
Umiat	007N	014E	29	U007N014E29
Umiat	007N	014E	30	U007N014E30
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Umiat	007S	013E	01	U007S013E01
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Umiat	007S	014E	07	U007S014E07
Umiat	007S	014E	08	U007S014E08
Umiat	007S	014E	09	U007S014E09
Umiat	007S	014E	10	U007S014E10

Meridian	Township	Range	Section	Fixed-Length MTRS Code
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Umiat	007S	014E	16	U007S014E16
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Umiat	007S	014E	20	U007S014E20
Umiat	007S	014E	21	U007S014E21
Umiat	007S	014E	22	U007S014E22
Umiat	007S	014E	27	U007S014E27
Umiat	007S	014E	28	U007S014E28
Umiat	007S	014E	29	U007S014E29
Umiat	007S	014E	30	U007S014E30
Umiat	007S	014E	31	U007S014E31
Umiat	007S	014E	32	U007S014E32
Umiat	007S	014E	33	U007S014E33
Umiat	008N	014E	01	U008N014E01
Umiat	008N	014E	02	U008N014E02
Umiat	008N	014E	03	U008N014E03
Umiat	008N	014E	04	U008N014E04
Umiat	008N	014E	08	U008N014E08
Umiat	008N	014E	09	U008N014E09
Umiat	008N	014E	10	U008N014E10
Umiat	008N	014E	11	U008N014E11
Umiat	008N	014E	12	U008N014E12
Umiat	008N	014E	14	U008N014E14
Umiat	008N	014E	15	U008N014E15
Umiat	008N	014E	16	U008N014E16
Umiat	008N	014E	17	U008N014E17
Umiat	008N	014E	20	U008N014E20
Umiat	008N	014E	21	U008N014E21
Umiat	008N	014E	22	U008N014E22
Umiat	008N	014E	23	U008N014E23
Umiat	008N	014E	27	U008N014E27
Umiat	008N	014E	28	U008N014E28
Umiat	008N	014E	29	U008N014E29
Umiat	008N	014E	30	U008N014E30
Umiat	008N	014E	31	U008N014E31
Umiat	008N	014E	32	U008N014E32
Umiat	008N	014E	33	U008N014E33
Umiat	008N	014E	34	U008N014E34
Umiat	008N	015E	06	U008N015E06
Umiat	008S	012E	36	U008S012E36
Umiat	008S	013E	01	U008S013E01
Umiat	008S	013E	02	U008S013E02
Umiat	008S	013E	11	U008S013E11
Umiat	008S	013E	12	U008S013E12

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	008S	013E	13	U008S013E13
Umiat	008S	013E	14	U008S013E14
Umiat	008S	013E	15	U008S013E15
Umiat	008S	013E	16	U008S013E16
Umiat	008S	013E	21	U008S013E21
Umiat	008S	013E	22	U008S013E22
Umiat	008S	013E	23	U008S013E23
Umiat	008S	013E	24	U008S013E24
Umiat	008S	013E	25	U008S013E25
Umiat	008S	013E	26	U008S013E26
Umiat	008S	013E	27	U008S013E27
Umiat	008S	013E	28	U008S013E28
Umiat	008S	013E	29	U008S013E29
Umiat	008S	013E	31	U008S013E31
Umiat	008S	013E	32	U008S013E32
Umiat	008S	013E	33	U008S013E33
Umiat	008S	013E	34	U008S013E34
Umiat	008S	013E	35	U008S013E35
Umiat	008S	013E	36	U008S013E36
Umiat	008S	014E	04	U008S014E04
Umiat	008S	014E	05	U008S014E05
Umiat	008S	014E	06	U008S014E06
Umiat	008S	014E	07	U008S014E07
Umiat	008S	014E	08	U008S014E08
Umiat	008S	014E	09	U008S014E09
Umiat	008S	014E	17	U008S014E17
Umiat	008S	014E	18	U008S014E18
Umiat	008S	014E	19	U008S014E19
Umiat	008S	014E	30	U008S014E30
Umiat	009N	013E	23	U009N013E23
Umiat	009N	013E	24	U009N013E24
Umiat	009N	013E	25	U009N013E25
Umiat	009N	013E	26	U009N013E26
Umiat	009N	013E	36	U009N013E36
Umiat	009N	014E	01	U009N014E01
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Umiat	009N	014E	11	U009N014E11
Umiat	009N	014E	12	U009N014E12
Umiat	009N	014E	15	U009N014E15
Umiat	009N	014E	16	U009N014E16

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	009N	014E	17	U009N014E17
Umiat	009N	014E	18	U009N014E18
Umiat	009N	014E	19	U009N014E19
Umiat	009N	014E	20	U009N014E20
Umiat	009N	014E	21	U009N014E21
Umiat	009N	014E	22	U009N014E22
Umiat	009N	014E	27	U009N014E27
Umiat	009N	014E	28	U009N014E28
Umiat	009N	014E	29	U009N014E29
Umiat	009N	014E	30	U009N014E30
Umiat	009N	014E	31	U009N014E31
Umiat	009N	014E	32	U009N014E32
Umiat	009N	014E	33	U009N014E33
Umiat	009N	014E	34	U009N014E34
Umiat	009N	014E	35	U009N014E35
Umiat	009N	015E	06	U009N015E06
Umiat	009N	015E	07	U009N015E07
Umiat	009N	017E	01	U009N017E01
Umiat	009N	017E	02	U009N017E02
Umiat	009N	018E	01	U009N018E01
Umiat	009N	018E	02	U009N018E02
Umiat	009N	018E	03	U009N018E03
Umiat	009N	018E	04	U009N018E04
Umiat	009N	018E	05	U009N018E05
Umiat	009N	018E	06	U009N018E06
Umiat	009N	018E	07	U009N018E07
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Umiat	009N	018E	11	U009N018E11
Umiat	009N	018E	12	U009N018E12
Umiat	009N	018E	13	U009N018E13
Umiat	009N	018E	14	U009N018E14
Umiat	009N	019E	01	U009N019E01
Umiat	009N	019E	02	U009N019E02
Umiat	009N	019E	03	U009N019E03
Umiat	009N	019E	04	U009N019E04
Umiat	009N	019E	05	U009N019E05
Umiat	009N	019E	06	U009N019E06
Umiat	009N	019E	07	U009N019E07
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Umiat	009N	019E	09	U009N019E09
Umiat	009N	019E	10	U009N019E10
Umiat	009N	019E	11	U009N019E11
Umiat	009N	019E	12	U009N019E12
Umiat	009N	019E	13	U009N019E13

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	009N	019E	14	U009N019E14
Umiat	009N	019E	15	U009N019E15
Umiat	009N	019E	16	U009N019E16
Umiat	009N	019E	17	U009N019E17
Umiat	009N	019E	18	U009N019E18
Umiat	009N	019E	21	U009N019E21
Umiat	009N	019E	22	U009N019E22
Umiat	009N	019E	23	U009N019E23
Umiat	009N	019E	24	U009N019E24
Umiat	009N	020E	01	U009N020E01
Umiat	009N	020E	06	U009N020E06
Umiat	009N	020E	07	U009N020E07
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Umiat	009N	020E	11	U009N020E11
Umiat	009N	020E	12	U009N020E12
Umiat	009N	020E	13	U009N020E13
Umiat	009N	020E	14	U009N020E14
Umiat	009N	020E	15	U009N020E15
Umiat	009N	020E	16	U009N020E16
Umiat	009N	020E	17	U009N020E17
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Umiat	009N	020E	21	U009N020E21
Umiat	009N	020E	22	U009N020E22
Umiat	009N	020E	23	U009N020E23
Umiat	009N	020E	24	U009N020E24
Umiat	009N	020E	25	U009N020E25
Umiat	009N	020E	26	U009N020E26
Umiat	009N	020E	27	U009N020E27
Umiat	009N	020E	28	U009N020E28
Umiat	009N	020E	29	U009N020E29
Umiat	009N	021E	01	U009N021E01
Umiat	009N	021E	02	U009N021E02
Umiat	009N	021E	03	U009N021E03
Umiat	009N	021E	04	U009N021E04
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Umiat	009N	021E	08	U009N021E08
Umiat	009N	021E	09	U009N021E09
Umiat	009N	021E	10	U009N021E10
Umiat	009N	021E	11	U009N021E11
Umiat	009N	021E	12	U009N021E12

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	009N	021E	13	U009N021E13
Umiat	009N	021E	14	U009N021E14
Umiat	009N	021E	15	U009N021E15
Umiat	009N	021E	16	U009N021E16
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Umiat	009N	021E	21	U009N021E21
Umiat	009N	021E	22	U009N021E22
Umiat	009N	021E	23	U009N021E23
Umiat	009N	021E	24	U009N021E24
Umiat	009N	021E	30	U009N021E30
Umiat	009N	022E	01	U009N022E01
Umiat	009N	022E	02	U009N022E02
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Umiat	009N	022E	04	U009N022E04
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Umiat	009N	022E	06	U009N022E06
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Umiat	009N	022E	12	U009N022E12
Umiat	009N	022E	14	U009N022E14
Umiat	009N	022E	15	U009N022E15
Umiat	009N	022E	16	U009N022E16
Umiat	009N	022E	17	U009N022E17
Umiat	009N	022E	18	U009N022E18
Umiat	009N	022E	19	U009N022E19
Umiat	009N	022E	20	U009N022E20
Umiat	009N	022E	21	U009N022E21
Umiat	009N	022E	28	U009N022E28
Umiat	009N	022E	29	U009N022E29
Umiat	009N	022E	30	U009N022E30
Umiat	009N	023E	01	U009N023E01
Umiat	009N	023E	02	U009N023E02
Umiat	009N	023E	03	U009N023E03
Umiat	009N	023E	04	U009N023E04
Umiat	009N	023E	05	U009N023E05
Umiat	009N	023E	06	U009N023E06
Umiat	009N	023E	07	U009N023E07
Umiat	009N	023E	08	U009N023E08
Umiat	009N	023E	09	U009N023E09
Umiat	009N	023E	10	U009N023E10

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	009N	023E	11	U009N023E11
Umiat	009N	023E	12	U009N023E12
Umiat	009N	023E	13	U009N023E13
Umiat	009N	023E	14	U009N023E14
Umiat	009N	023E	15	U009N023E15
Umiat	009N	023E	16	U009N023E16
Umiat	009N	023E	17	U009N023E17
Umiat	009N	023E	21	U009N023E21
Umiat	009N	023E	22	U009N023E22
Umiat	009N	023E	23	U009N023E23
Umiat	009N	023E	24	U009N023E24
Umiat	009N	023E	26	U009N023E26
Umiat	009N	023E	27	U009N023E27
Umiat	009N	024E	05	U009N024E05
Umiat	009N	024E	06	U009N024E06
Umiat	009N	024E	07	U009N024E07
Umiat	009N	024E	08	U009N024E08
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Umiat	009N	024E	18	U009N024E18
Umiat	009N	024E	19	U009N024E19
Umiat	009N	024E	20	U009N024E20
Umiat	009N	024E	21	U009N024E21
Umiat	009N	024E	22	U009N024E22
Umiat	009N	024E	27	U009N024E27
Umiat	009N	024E	28	U009N024E28
Umiat	009N	024E	29	U009N024E29
Umiat	009N	024E	30	U009N024E30
Umiat	009N	024E	32	U009N024E32
Umiat	009N	024E	33	U009N024E33
Umiat	009S	011E	13	U009S011E13
Umiat	009S	011E	23	U009S011E23
Umiat	009S	011E	24	U009S011E24
Umiat	009S	011E	25	U009S011E25
Umiat	009S	011E	26	U009S011E26
Umiat	009S	011E	27	U009S011E27
Umiat	009S	011E	33	U009S011E33
Umiat	009S	011E	34	U009S011E34
Umiat	009S	011E	35	U009S011E35
Umiat	009S	011E	36	U009S011E36
Umiat	009S	012E	01	U009S012E01
Umiat	009S	012E	02	U009S012E02
Umiat	009S	012E	10	U009S012E10
Umiat	009S	012E	11	U009S012E11

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	009S	012E	12	U009S012E12
Umiat	009S	012E	13	U009S012E13
Umiat	009S	012E	14	U009S012E14
Umiat	009S	012E	15	U009S012E15
Umiat	009S	012E	16	U009S012E16
Umiat	009S	012E	17	U009S012E17
Umiat	009S	012E	18	U009S012E18
Umiat	009S	012E	19	U009S012E19
Umiat	009S	012E	20	U009S012E20
Umiat	009S	012E	21	U009S012E21
Umiat	009S	012E	22	U009S012E22
Umiat	009S	012E	23	U009S012E23
Umiat	009S	012E	24	U009S012E24
Umiat	009S	012E	27	U009S012E27
Umiat	009S	012E	28	U009S012E28
Umiat	009S	012E	29	U009S012E29
Umiat	009S	012E	30	U009S012E30
Umiat	009S	012E	31	U009S012E31
Umiat	009S	012E	32	U009S012E32
Umiat	009S	012E	33	U009S012E33
Umiat	009S	012E	34	U009S012E34
Umiat	009S	013E	02	U009S013E02
Umiat	009S	013E	03	U009S013E03
Umiat	009S	013E	04	U009S013E04
Umiat	009S	013E	05	U009S013E05
Umiat	009S	013E	06	U009S013E06
Umiat	009S	013E	07	U009S013E07
Umiat	009S	013E	08	U009S013E08
Umiat	009S	013E	09	U009S013E09
Umiat	009S	013E	10	U009S013E10
Umiat	009S	013E	17	U009S013E17
Umiat	009S	013E	18	U009S013E18
Umiat	010N	013E	01	U010N013E01
Umiat	010N	013E	02	U010N013E02
Umiat	010N	013E	10	U010N013E10
Umiat	010N	013E	11	U010N013E11
Umiat	010N	013E	12	U010N013E12
Umiat	010N	013E	13	U010N013E13
Umiat	010N	013E	14	U010N013E14
Umiat	010N	013E	15	U010N013E15
Umiat	010N	013E	22	U010N013E22
Umiat	010N	013E	23	U010N013E23
Umiat	010N	013E	24	U010N013E24
Umiat	010N	013E	25	U010N013E25
Umiat	010N	013E	26	U010N013E26
Umiat	010N	013E	27	U010N013E27

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	010N	013E	34	U010N013E34
Umiat	010N	013E	35	U010N013E35
Umiat	010N	013E	36	U010N013E36
Umiat	010N	014E	01	U010N014E01
Umiat	010N	014E	02	U010N014E02
Umiat	010N	014E	03	U010N014E03
Umiat	010N	014E	04	U010N014E04
Umiat	010N	014E	05	U010N014E05
Umiat	010N	014E	06	U010N014E06
Umiat	010N	014E	07	U010N014E07
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Umiat	010N	014E	11	U010N014E11
Umiat	010N	014E	12	U010N014E12
Umiat	010N	014E	13	U010N014E13
Umiat	010N	014E	14	U010N014E14
Umiat	010N	014E	15	U010N014E15
Umiat	010N	014E	17	U010N014E17
Umiat	010N	014E	18	U010N014E18
Umiat	010N	014E	19	U010N014E19
Umiat	010N	014E	20	U010N014E20
Umiat	010N	014E	21	U010N014E21
Umiat	010N	014E	23	U010N014E23
Umiat	010N	014E	24	U010N014E24
Umiat	010N	014E	25	U010N014E25
Umiat	010N	014E	26	U010N014E26
Umiat	010N	014E	28	U010N014E28
Umiat	010N	014E	29	U010N014E29
Umiat	010N	014E	30	U010N014E30
Umiat	010N	014E	31	U010N014E31
Umiat	010N	014E	32	U010N014E32
Umiat	010N	014E	33	U010N014E33
Umiat	010N	014E	35	U010N014E35
Umiat	010N	014E	36	U010N014E36
Umiat	010N	015E	01	U010N015E01
Umiat	010N	015E	02	U010N015E02
Umiat	010N	015E	03	U010N015E03
Umiat	010N	015E	04	U010N015E04
Umiat	010N	015E	05	U010N015E05
Umiat	010N	015E	06	U010N015E06
Umiat	010N	015E	07	U010N015E07
Umiat	010N	015E	08	U010N015E08
Umiat	010N	015E	09	U010N015E09
Umiat	010N	015E	10	U010N015E10
Umiat	010N	015E	11	U010N015E11

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	010N	015E	12	U010N015E12
Umiat	010N	015E	13	U010N015E13
Umiat	010N	015E	14	U010N015E14
Umiat	010N	015E	15	U010N015E15
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Umiat	010N	015E	20	U010N015E20
Umiat	010N	015E	21	U010N015E21
Umiat	010N	015E	29	U010N015E29
Umiat	010N	015E	30	U010N015E30
Umiat	010N	015E	31	U010N015E31
Umiat	010N	015E	32	U010N015E32
Umiat	010N	016E	01	U010N016E01
Umiat	010N	016E	02	U010N016E02
Umiat	010N	016E	03	U010N016E03
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Umiat	010N	016E	11	U010N016E11
Umiat	010N	016E	12	U010N016E12
Umiat	010N	016E	13	U010N016E13
Umiat	010N	016E	14	U010N016E14
Umiat	010N	016E	15	U010N016E15
Umiat	010N	016E	16	U010N016E16
Umiat	010N	016E	17	U010N016E17
Umiat	010N	016E	18	U010N016E18
Umiat	010N	016E	23	U010N016E23
Umiat	010N	016E	24	U010N016E24
Umiat	010N	017E	02	U010N017E02
Umiat	010N	017E	03	U010N017E03
Umiat	010N	017E	04	U010N017E04
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Umiat	010N	017E	10	U010N017E10
Umiat	010N	017E	15	U010N017E15
Umiat	010N	017E	16	U010N017E16
Umiat	010N	017E	17	U010N017E17

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	010N	017E	18	U010N017E18
Umiat	010N	017E	19	U010N017E19
Umiat	010N	017E	20	U010N017E20
Umiat	010N	017E	21	U010N017E21
Umiat	010N	017E	22	U010N017E22
Umiat	010N	017E	23	U010N017E23
Umiat	010N	017E	24	U010N017E24
Umiat	010N	017E	25	U010N017E25
Umiat	010N	017E	26	U010N017E26
Umiat	010N	017E	27	U010N017E27
Umiat	010N	017E	28	U010N017E28
Umiat	010N	017E	29	U010N017E29
Umiat	010N	017E	30	U010N017E30
Umiat	010N	017E	33	U010N017E33
Umiat	010N	017E	34	U010N017E34
Umiat	010N	017E	35	U010N017E35
Umiat	010N	017E	36	U010N017E36
Umiat	010N	018E	19	U010N018E19
Umiat	010N	018E	28	U010N018E28
Umiat	010N	018E	29	U010N018E29
Umiat	010N	018E	30	U010N018E30
Umiat	010N	018E	31	U010N018E31
Umiat	010N	018E	32	U010N018E32
Umiat	010N	018E	33	U010N018E33
Umiat	010N	018E	34	U010N018E34
Umiat	010N	018E	35	U010N018E35
Umiat	010N	018E	36	U010N018E36
Umiat	010N	021E	36	U010N021E36
Umiat	010N	022E	31	U010N022E31
Umiat	010N	022E	33	U010N022E33
Umiat	010N	022E	34	U010N022E34
Umiat	010N	022E	35	U010N022E35
Umiat	010N	022E	36	U010N022E36
Umiat	010N	023E	31	U010N023E31
Umiat	010N	023E	32	U010N023E32
Umiat	010N	023E	33	U010N023E33
Umiat	010N	023E	34	U010N023E34
Umiat	010N	023E	35	U010N023E35
Umiat	010N	023E	36	U010N023E36
Umiat	010N	024E	31	U010N024E31
Umiat	010S	011E	02	U010S011E02
Umiat	010S	011E	03	U010S011E03
Umiat	010S	011E	04	U010S011E04
Umiat	010S	011E	09	U010S011E09
Umiat	010S	011E	10	U010S011E10
Umiat	010S	011E	11	U010S011E11

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	010S	011E	13	U010S011E13
Umiat	010S	011E	14	U010S011E14
Umiat	010S	011E	15	U010S011E15
Umiat	010S	011E	16	U010S011E16
Umiat	010S	011E	21	U010S011E21
Umiat	010S	011E	22	U010S011E22
Umiat	010S	011E	23	U010S011E23
Umiat	010S	011E	24	U010S011E24
Umiat	010S	011E	25	U010S011E25
Umiat	010S	011E	26	U010S011E26
Umiat	010S	011E	27	U010S011E27
Umiat	010S	011E	28	U010S011E28
Umiat	010S	011E	34	U010S011E34
Umiat	010S	011E	35	U010S011E35
Umiat	010S	011E	36	U010S011E36
Umiat	010S	012E	03	U010S012E03
Umiat	010S	012E	04	U010S012E04
Umiat	010S	012E	05	U010S012E05
Umiat	011N	013E	01	U011N013E01
Umiat	011N	013E	02	U011N013E02
Umiat	011N	013E	11	U011N013E11
Umiat	011N	013E	12	U011N013E12
Umiat	011N	013E	13	U011N013E13
Umiat	011N	013E	14	U011N013E14
Umiat	011N	013E	23	U011N013E23
Umiat	011N	013E	24	U011N013E24
Umiat	011N	013E	25	U011N013E25
Umiat	011N	013E	26	U011N013E26
Umiat	011N	013E	35	U011N013E35
Umiat	011N	013E	36	U011N013E36
Umiat	011N	014E	01	U011N014E01
Umiat	011N	014E	02	U011N014E02
Umiat	011N	014E	03	U011N014E03
Umiat	011N	014E	04	U011N014E04
Umiat	011N	014E	05	U011N014E05
Umiat	011N	014E	06	U011N014E06
Umiat	011N	014E	07	U011N014E07
Umiat	011N	014E	08	U011N014E08
Umiat	011N	014E	09	U011N014E09
Umiat	011N	014E	10	U011N014E10
Umiat	011N	014E	11	U011N014E11
Umiat	011N	014E	12	U011N014E12
Umiat	011N	014E	13	U011N014E13
Umiat	011N	014E	14	U011N014E14
Umiat	011N	014E	15	U011N014E15
Umiat	011N	014E	16	U011N014E16

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	011N	014E	17	U011N014E17
Umiat	011N	014E	18	U011N014E18
Umiat	011N	014E	19	U011N014E19
Umiat	011N	014E	20	U011N014E20
Umiat	011N	014E	21	U011N014E21
Umiat	011N	014E	22	U011N014E22
Umiat	011N	014E	23	U011N014E23
Umiat	011N	014E	24	U011N014E24
Umiat	011N	014E	25	U011N014E25
Umiat	011N	014E	26	U011N014E26
Umiat	011N	014E	27	U011N014E27
Umiat	011N	014E	28	U011N014E28
Umiat	011N	014E	29	U011N014E29
Umiat	011N	014E	30	U011N014E30
Umiat	011N	014E	31	U011N014E31
Umiat	011N	014E	32	U011N014E32
Umiat	011N	014E	33	U011N014E33
Umiat	011N	014E	34	U011N014E34
Umiat	011N	014E	35	U011N014E35
Umiat	011N	014E	36	U011N014E36
Umiat	011N	015E	04	U011N015E04
Umiat	011N	015E	05	U011N015E05
Umiat	011N	015E	06	U011N015E06
Umiat	011N	015E	07	U011N015E07
Umiat	011N	015E	08	U011N015E08
Umiat	011N	015E	09	U011N015E09
Umiat	011N	015E	16	U011N015E16
Umiat	011N	015E	17	U011N015E17
Umiat	011N	015E	18	U011N015E18
Umiat	011N	015E	19	U011N015E19
Umiat	011N	015E	20	U011N015E20
Umiat	011N	015E	21	U011N015E21
Umiat	011N	015E	22	U011N015E22
Umiat	011N	015E	25	U011N015E25
Umiat	011N	015E	26	U011N015E26
Umiat	011N	015E	27	U011N015E27
Umiat	011N	015E	28	U011N015E28
Umiat	011N	015E	29	U011N015E29
Umiat	011N	015E	30	U011N015E30
Umiat	011N	015E	31	U011N015E31
Umiat	011N	015E	32	U011N015E32
Umiat	011N	015E	33	U011N015E33
Umiat	011N	015E	34	U011N015E34
Umiat	011N	015E	35	U011N015E35
Umiat	011N	015E	36	U011N015E36
Umiat	011N	016E	30	U011N016E30

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	011N	016E	31	U011N016E31
Umiat	011N	016E	32	U011N016E32
Umiat	011N	016E	33	U011N016E33
Umiat	011N	016E	34	U011N016E34
Umiat	011N	016E	35	U011N016E35
Umiat	011N	016E	36	U011N016E36
Umiat	011N	017E	31	U011N017E31
Umiat	011N	017E	32	U011N017E32
Umiat	011N	017E	33	U011N017E33
Umiat	011N	017E	34	U011N017E34
Umiat	011S	011E	01	U011S011E01
Umiat	011S	011E	02	U011S011E02
Umiat	011S	011E	03	U011S011E03
Umiat	011S	011E	10	U011S011E10
Umiat	011S	011E	11	U011S011E11
Umiat	011S	011E	12	U011S011E12
Umiat	011S	011E	13	U011S011E13
Umiat	011S	011E	14	U011S011E14
Umiat	011S	011E	15	U011S011E15
Umiat	011S	011E	16	U011S011E16
Umiat	011S	011E	21	U011S011E21
Umiat	011S	011E	22	U011S011E22
Umiat	011S	011E	23	U011S011E23
Umiat	011S	011E	24	U011S011E24
Umiat	011S	011E	25	U011S011E25
Umiat	011S	011E	26	U011S011E26
Umiat	011S	011E	27	U011S011E27
Umiat	011S	011E	34	U011S011E34
Umiat	011S	011E	35	U011S011E35
Umiat	011S	011E	36	U011S011E36
Umiat	011S	012E	07	U011S012E07
Umiat	011S	012E	17	U011S012E17
Umiat	011S	012E	18	U011S012E18
Umiat	011S	012E	19	U011S012E19
Umiat	011S	012E	20	U011S012E20
Umiat	011S	012E	21	U011S012E21
Umiat	011S	012E	22	U011S012E22
Umiat	011S	012E	26	U011S012E26
Umiat	011S	012E	27	U011S012E27
Umiat	011S	012E	28	U011S012E28
Umiat	011S	012E	29	U011S012E29
Umiat	011S	012E	30	U011S012E30
Umiat	011S	012E	31	U011S012E31
Umiat	011S	012E	32	U011S012E32
Umiat	011S	012E	33	U011S012E33
Umiat	011S	012E	34	U011S012E34

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	011S	012E	35	U011S012E35
Umiat	011S	012E	36	U011S012E36
Umiat	012N	013E	24	U012N013E24
Umiat	012N	013E	25	U012N013E25
Umiat	012N	013E	35	U012N013E35
Umiat	012N	013E	36	U012N013E36
Umiat	012N	014E	01	U012N014E01
Umiat	012N	014E	02	U012N014E02
Umiat	012N	014E	03	U012N014E03
Umiat	012N	014E	04	U012N014E04
Umiat	012N	014E	08	U012N014E08
Umiat	012N	014E	09	U012N014E09
Umiat	012N	014E	10	U012N014E10
Umiat	012N	014E	11	U012N014E11
Umiat	012N	014E	12	U012N014E12
Umiat	012N	014E	13	U012N014E13
Umiat	012N	014E	14	U012N014E14
Umiat	012N	014E	15	U012N014E15
Umiat	012N	014E	16	U012N014E16
Umiat	012N	014E	17	U012N014E17
Umiat	012N	014E	18	U012N014E18
Umiat	012N	014E	19	U012N014E19
Umiat	012N	014E	20	U012N014E20
Umiat	012N	014E	21	U012N014E21
Umiat	012N	014E	22	U012N014E22
Umiat	012N	014E	23	U012N014E23
Umiat	012N	014E	24	U012N014E24
Umiat	012N	014E	25	U012N014E25
Umiat	012N	014E	26	U012N014E26
Umiat	012N	014E	27	U012N014E27
Umiat	012N	014E	28	U012N014E28
Umiat	012N	014E	29	U012N014E29
Umiat	012N	014E	30	U012N014E30
Umiat	012N	014E	31	U012N014E31
Umiat	012N	014E	32	U012N014E32
Umiat	012N	014E	33	U012N014E33
Umiat	012N	014E	34	U012N014E34
Umiat	012N	014E	35	U012N014E35
Umiat	012N	014E	36	U012N014E36
Umiat	012N	015E	04	U012N015E04
Umiat	012N	015E	05	U012N015E05
Umiat	012N	015E	06	U012N015E06
Umiat	012N	015E	07	U012N015E07
Umiat	012N	015E	08	U012N015E08
Umiat	012N	015E	09	U012N015E09
Umiat	012N	015E	16	U012N015E16

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	012N	015E	17	U012N015E17
Umiat	012N	015E	18	U012N015E18
Umiat	012N	015E	19	U012N015E19
Umiat	012N	015E	20	U012N015E20
Umiat	012N	015E	21	U012N015E21
Umiat	012N	015E	28	U012N015E28
Umiat	012N	015E	29	U012N015E29
Umiat	012N	015E	30	U012N015E30
Umiat	012N	015E	31	U012N015E31
Umiat	012N	015E	32	U012N015E32
Umiat	012N	015E	33	U012N015E33
Umiat	012S	011E	01	U012S011E01
Umiat	012S	011E	02	U012S011E02
Umiat	012S	011E	11	U012S011E11
Umiat	012S	011E	12	U012S011E12
Umiat	012S	011E	13	U012S011E13
Umiat	012S	011E	24	U012S011E24
Umiat	012S	012E	01	U012S012E01
Umiat	012S	012E	02	U012S012E02
Umiat	012S	012E	03	U012S012E03
Umiat	012S	012E	04	U012S012E04
Umiat	012S	012E	05	U012S012E05
Umiat	012S	012E	06	U012S012E06
Umiat	012S	012E	07	U012S012E07
Umiat	012S	012E	08	U012S012E08
Umiat	012S	012E	09	U012S012E09
Umiat	012S	012E	10	U012S012E10
Umiat	012S	012E	11	U012S012E11
Umiat	012S	012E	12	U012S012E12
Umiat	012S	012E	14	U012S012E14
Umiat	012S	012E	15	U012S012E15
Umiat	012S	012E	16	U012S012E16
Umiat	012S	012E	17	U012S012E17
Umiat	012S	012E	18	U012S012E18
Umiat	012S	012E	19	U012S012E19
Umiat	012S	012E	20	U012S012E20
Umiat	012S	012E	21	U012S012E21
Umiat	012S	012E	22	U012S012E22
Umiat	012S	012E	23	U012S012E23
Umiat	012S	012E	27	U012S012E27
Umiat	012S	012E	28	U012S012E28
Umiat	012S	012E	29	U012S012E29
Umiat	012S	012E	32	U012S012E32
Umiat	012S	012E	33	U012S012E33
Umiat	012S	012E	34	U012S012E34
Umiat	013N	014E	20	U013N014E20

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	013N	014E	21	U013N014E21
Umiat	013N	014E	22	U013N014E22
Umiat	013N	014E	23	U013N014E23
Umiat	013N	014E	24	U013N014E24
Umiat	013N	014E	25	U013N014E25
Umiat	013N	014E	26	U013N014E26
Umiat	013N	014E	27	U013N014E27
Umiat	013N	014E	28	U013N014E28
Umiat	013N	014E	29	U013N014E29
Umiat	013N	014E	32	U013N014E32
Umiat	013N	014E	33	U013N014E33
Umiat	013N	014E	34	U013N014E34
Umiat	013N	014E	35	U013N014E35
Umiat	013N	014E	36	U013N014E36
Umiat	013N	015E	19	U013N015E19
Umiat	013N	015E	20	U013N015E20
Umiat	013N	015E	29	U013N015E29
Umiat	013N	015E	30	U013N015E30
Umiat	013N	015E	31	U013N015E31
Umiat	013N	015E	32	U013N015E32
Umiat	013S	012E	02	U013S012E02
Umiat	013S	012E	03	U013S012E03
Umiat	013S	012E	04	U013S012E04
Umiat	013S	012E	08	U013S012E08
Umiat	013S	012E	09	U013S012E09
Umiat	013S	012E	10	U013S012E10
Umiat	013S	012E	11	U013S012E11
Umiat	013S	012E	14	U013S012E14
Umiat	013S	012E	15	U013S012E15
Umiat	013S	012E	16	U013S012E16
Umiat	013S	012E	17	U013S012E17
Umiat	013S	012E	20	U013S012E20
Umiat	013S	012E	21	U013S012E21
Umiat	013S	012E	22	U013S012E22
Umiat	013S	012E	23	U013S012E23
Umiat	013S	012E	27	U013S012E27
Umiat	013S	012E	28	U013S012E28
Umiat	013S	012E	29	U013S012E29
Umiat	013S	012E	31	U013S012E31
Umiat	013S	012E	32	U013S012E32
Umiat	013S	012E	33	U013S012E33
Umiat	013S	012E	34	U013S012E34
Umiat	014S	011E	36	U014S011E36
Umiat	014S	012E	04	U014S012E04
Umiat	014S	012E	05	U014S012E05
Umiat	014S	012E	06	U014S012E06

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	014S	012E	07	U014S012E07
Umiat	014S	012E	08	U014S012E08
Umiat	014S	012E	09	U014S012E09
Umiat	014S	012E	16	U014S012E16
Umiat	014S	012E	17	U014S012E17
Umiat	014S	012E	18	U014S012E18
Umiat	014S	012E	19	U014S012E19
Umiat	014S	012E	20	U014S012E20
Umiat	014S	012E	21	U014S012E21
Umiat	014S	012E	28	U014S012E28
Umiat	014S	012E	29	U014S012E29
Umiat	014S	012E	30	U014S012E30
Umiat	014S	012E	31	U014S012E31
Umiat	014S	012E	32	U014S012E32
Umiat	014S	012E	33	U014S012E33
Umiat	015S	011E	01	U015S011E01
Umiat	015S	011E	12	U015S011E12
Umiat	015S	011E	13	U015S011E13
Umiat	015S	011E	14	U015S011E14
Umiat	015S	011E	22	U015S011E22
Umiat	015S	011E	23	U015S011E23
Umiat	015S	011E	24	U015S011E24
Umiat	015S	011E	25	U015S011E25
Umiat	015S	011E	26	U015S011E26
Umiat	015S	011E	27	U015S011E27
Umiat	015S	011E	33	U015S011E33
Umiat	015S	011E	34	U015S011E34
Umiat	015S	011E	35	U015S011E35
Umiat	015S	011E	36	U015S011E36
Umiat	015S	012E	04	U015S012E04
Umiat	015S	012E	05	U015S012E05
Umiat	015S	012E	06	U015S012E06
Umiat	015S	012E	07	U015S012E07
Umiat	015S	012E	08	U015S012E08
Umiat	015S	012E	17	U015S012E17
Umiat	015S	012E	18	U015S012E18
Umiat	015S	012E	19	U015S012E19
Umiat	015S	012E	20	U015S012E20
Umiat	015S	012E	30	U015S012E30
Umiat	016S	010E	23	U016S010E23
Umiat	016S	010E	24	U016S010E24
Umiat	016S	010E	25	U016S010E25
Umiat	016S	010E	26	U016S010E26
Umiat	016S	010E	34	U016S010E34
Umiat	016S	010E	35	U016S010E35
Umiat	016S	010E	36	U016S010E36

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Umiat	016S	011E	01	U016S011E01
Umiat	016S	011E	02	U016S011E02
Umiat	016S	011E	03	U016S011E03
Umiat	016S	011E	04	U016S011E04
Umiat	016S	011E	05	U016S011E05
Umiat	016S	011E	08	U016S011E08
Umiat	016S	011E	09	U016S011E09
Umiat	016S	011E	10	U016S011E10
Umiat	016S	011E	11	U016S011E11
Umiat	016S	011E	14	U016S011E14
Umiat	016S	011E	15	U016S011E15
Umiat	016S	011E	16	U016S011E16
Umiat	016S	011E	17	U016S011E17
Umiat	016S	011E	18	U016S011E18
Umiat	016S	011E	19	U016S011E19
Umiat	016S	011E	20	U016S011E20
Umiat	016S	011E	21	U016S011E21
Umiat	016S	011E	22	U016S011E22
Umiat	016S	011E	28	U016S011E28
Umiat	016S	011E	29	U016S011E29
Umiat	016S	011E	30	U016S011E30
Umiat	016S	011E	31	U016S011E31
Umiat	016S	011E	32	U016S011E32
Umiat	017S	010E	01	U017S010E01
Umiat	017S	010E	02	U017S010E02
Umiat	017S	010E	03	U017S010E03
Umiat	017S	011E	06	U017S011E06
Seward	001N	001W	33	S001N001W33
Seward	001N	001W	34	S001N001W34
Seward	001N	001W	35	S001N001W35
Seward	001S	001W	02	S001S001W02
Seward	001S	001W	03	S001S001W03
Seward	001S	001W	04	S001S001W04
Seward	008N	004E	10	S008N004E10
Seward	008N	004E	14	S008N004E14
Seward	008N	004E	15	S008N004E15
Seward	008N	004E	16	S008N004E16
Seward	008N	004E	21	S008N004E21
Seward	008N	004E	22	S008N004E22
Seward	008N	004E	23	S008N004E23
Seward	012N	004W	03	S012N004W03
Seward	012N	004W	04	S012N004W04
Seward	012N	004W	05	S012N004W05
Seward	013N	004W	27	S013N004W27
Seward	013N	004W	28	S013N004W28
Seward	013N	004W	29	S013N004W29

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Seward	013N	004W	32	S013N004W32
Seward	013N	004W	33	S013N004W33
Seward	013N	004W	34	S013N004W34
Fairbanks	001N	001E	01	F001N001E01
Fairbanks	001N	001E	02	F001N001E02
Fairbanks	001N	001E	03	F001N001E03
Fairbanks	001N	001E	04	F001N001E04
Fairbanks	001N	001E	07	F001N001E07
Fairbanks	001N	001E	08	F001N001E08
Fairbanks	001N	001E	09	F001N001E09
Fairbanks	001N	001E	10	F001N001E10
Fairbanks	001N	001E	11	F001N001E11
Fairbanks	001N	001E	15	F001N001E15
Fairbanks	001N	001E	16	F001N001E16
Fairbanks	001N	001E	17	F001N001E17
Fairbanks	001N	001E	18	F001N001E18
Fairbanks	001N	001E	19	F001N001E19
Fairbanks	001N	001E	20	F001N001E20
Fairbanks	001N	001E	21	F001N001E21
Fairbanks	001N	001E	28	F001N001E28
Fairbanks	001N	001E	29	F001N001E29
Fairbanks	001N	002E	02	F001N002E02
Fairbanks	001N	002E	03	F001N002E03
Fairbanks	001N	002E	04	F001N002E04
Fairbanks	001N	002E	05	F001N002E05
Fairbanks	001N	002E	06	F001N002E06
Fairbanks	001N	002E	07	F001N002E07
Fairbanks	001N	002E	08	F001N002E08
Fairbanks	001N	002E	09	F001N002E09
Fairbanks	001N	002E	10	F001N002E10
Fairbanks	001N	002E	11	F001N002E11
Fairbanks	001N	002E	12	F001N002E12
Fairbanks	001N	002E	13	F001N002E13
Fairbanks	001N	002E	14	F001N002E14
Fairbanks	001N	002E	15	F001N002E15
Fairbanks	001N	002E	16	F001N002E16
Fairbanks	001N	002E	17	F001N002E17
Fairbanks	001N	002E	21	F001N002E21
Fairbanks	001N	002E	22	F001N002E22
Fairbanks	001N	002E	23	F001N002E23
Fairbanks	001N	002E	24	F001N002E24
Fairbanks	001N	002E	25	F001N002E25
Fairbanks	001N	002E	26	F001N002E26
Fairbanks	001N	002E	27	F001N002E27
Fairbanks	001N	002E	28	F001N002E28
Fairbanks	001N	002E	35	F001N002E35

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	001N	002E	36	F001N002E36
Fairbanks	001N	003E	18	F001N003E18
Fairbanks	001N	003E	19	F001N003E19
Fairbanks	001N	003E	20	F001N003E20
Fairbanks	001N	003E	29	F001N003E29
Fairbanks	001N	003E	30	F001N003E30
Fairbanks	001N	003E	31	F001N003E31
Fairbanks	001N	003E	32	F001N003E32
Fairbanks	001S	001E	21	F001S001E21
Fairbanks	001S	001E	22	F001S001E22
Fairbanks	001S	001E	23	F001S001E23
Fairbanks	001S	001E	25	F001S001E25
Fairbanks	001S	001E	26	F001S001E26
Fairbanks	001S	001E	27	F001S001E27
Fairbanks	001S	001E	28	F001S001E28
Fairbanks	001S	001E	33	F001S001E33
Fairbanks	001S	001E	34	F001S001E34
Fairbanks	001S	001E	35	F001S001E35
Fairbanks	001S	001E	36	F001S001E36
Fairbanks	001S	001W	18	F001S001W18
Fairbanks	001S	001W	19	F001S001W19
Fairbanks	001S	001W	30	F001S001W30
Fairbanks	001S	002E	01	F001S002E01
Fairbanks	001S	002W	13	F001S002W13
Fairbanks	001S	002W	14	F001S002W14
Fairbanks	001S	002W	23	F001S002W23
Fairbanks	001S	002W	24	F001S002W24
Fairbanks	001S	002W	25	F001S002W25
Fairbanks	001S	002W	26	F001S002W26
Fairbanks	001S	003E	04	F001S003E04
Fairbanks	001S	003E	05	F001S003E05
Fairbanks	001S	003E	06	F001S003E06
Fairbanks	001S	003E	07	F001S003E07
Fairbanks	001S	003E	08	F001S003E08
Fairbanks	001S	003E	09	F001S003E09
Fairbanks	001S	003E	10	F001S003E10
Fairbanks	001S	003E	15	F001S003E15
Fairbanks	001S	003E	16	F001S003E16
Fairbanks	001S	003E	17	F001S003E17
Fairbanks	001S	003E	18	F001S003E18
Fairbanks	001S	003E	19	F001S003E19
Fairbanks	001S	003E	20	F001S003E20
Fairbanks	001S	003E	21	F001S003E21
Fairbanks	001S	003E	22	F001S003E22
Fairbanks	001S	003E	23	F001S003E23
Fairbanks	001S	003E	26	F001S003E26

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	001S	003E	27	F001S003E27
Fairbanks	001S	003E	28	F001S003E28
Fairbanks	001S	003E	29	F001S003E29
Fairbanks	001S	003E	30	F001S003E30
Fairbanks	001S	003E	31	F001S003E31
Fairbanks	001S	003E	32	F001S003E32
Fairbanks	001S	003E	33	F001S003E33
Fairbanks	001S	003E	34	F001S003E34
Fairbanks	001S	003E	35	F001S003E35
Fairbanks	002N	001E	06	F002N001E06
Fairbanks	002N	001E	07	F002N001E07
Fairbanks	002N	001E	08	F002N001E08
Fairbanks	002N	001E	09	F002N001E09
Fairbanks	002N	001E	15	F002N001E15
Fairbanks	002N	001E	16	F002N001E16
Fairbanks	002N	001E	17	F002N001E17
Fairbanks	002N	001E	18	F002N001E18
Fairbanks	002N	001E	19	F002N001E19
Fairbanks	002N	001E	20	F002N001E20
Fairbanks	002N	001E	21	F002N001E21
Fairbanks	002N	001E	22	F002N001E22
Fairbanks	002N	001E	23	F002N001E23
Fairbanks	002N	001E	25	F002N001E25
Fairbanks	002N	001E	26	F002N001E26
Fairbanks	002N	001E	27	F002N001E27
Fairbanks	002N	001E	28	F002N001E28
Fairbanks	002N	001E	29	F002N001E29
Fairbanks	002N	001E	30	F002N001E30
Fairbanks	002N	001E	32	F002N001E32
Fairbanks	002N	001E	33	F002N001E33
Fairbanks	002N	001E	34	F002N001E34
Fairbanks	002N	001E	35	F002N001E35
Fairbanks	002N	001E	36	F002N001E36
Fairbanks	002N	001W	01	F002N001W01
Fairbanks	002N	001W	02	F002N001W02
Fairbanks	002N	001W	03	F002N001W03
Fairbanks	002N	001W	04	F002N001W04
Fairbanks	002N	001W	05	F002N001W05
Fairbanks	002N	001W	09	F002N001W09
Fairbanks	002N	001W	10	F002N001W10
Fairbanks	002N	001W	11	F002N001W11
Fairbanks	002N	001W	12	F002N001W12
Fairbanks	002N	001W	13	F002N001W13
Fairbanks	002N	001W	14	F002N001W14
Fairbanks	002N	001W	15	F002N001W15
Fairbanks	002N	001W	22	F002N001W22

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	002N	001W	23	F002N001W23
Fairbanks	002N	001W	24	F002N001W24
Fairbanks	002N	001W	25	F002N001W25
Fairbanks	002N	001W	26	F002N001W26
Fairbanks	002N	002E	30	F002N002E30
Fairbanks	002N	002E	31	F002N002E31
Fairbanks	002N	002E	32	F002N002E32
Fairbanks	002N	002E	33	F002N002E33
Fairbanks	002S	001E	02	F002S001E02
Fairbanks	002S	001E	03	F002S001E03
Fairbanks	002S	002E	01	F002S002E01
Fairbanks	002S	002E	12	F002S002E12
Fairbanks	002S	002E	13	F002S002E13
Fairbanks	002S	002E	14	F002S002E14
Fairbanks	002S	002E	23	F002S002E23
Fairbanks	002S	002E	24	F002S002E24
Fairbanks	002S	002E	25	F002S002E25
Fairbanks	002S	002E	26	F002S002E26
Fairbanks	002S	003E	01	F002S003E01
Fairbanks	002S	003E	02	F002S003E02
Fairbanks	002S	003E	03	F002S003E03
Fairbanks	002S	003E	04	F002S003E04
Fairbanks	002S	003E	05	F002S003E05
Fairbanks	002S	003E	06	F002S003E06
Fairbanks	002S	003E	07	F002S003E07
Fairbanks	002S	003E	08	F002S003E08
Fairbanks	002S	003E	09	F002S003E09
Fairbanks	002S	003E	10	F002S003E10
Fairbanks	002S	003E	11	F002S003E11
Fairbanks	002S	003E	12	F002S003E12
Fairbanks	002S	003E	13	F002S003E13
Fairbanks	002S	003E	14	F002S003E14
Fairbanks	002S	003E	15	F002S003E15
Fairbanks	002S	003E	16	F002S003E16
Fairbanks	002S	003E	17	F002S003E17
Fairbanks	002S	003E	18	F002S003E18
Fairbanks	002S	003E	19	F002S003E19
Fairbanks	002S	003E	20	F002S003E20
Fairbanks	002S	003E	21	F002S003E21
Fairbanks	002S	003E	22	F002S003E22
Fairbanks	002S	003E	23	F002S003E23
Fairbanks	002S	003E	24	F002S003E24
Fairbanks	002S	003E	25	F002S003E25
Fairbanks	002S	003E	26	F002S003E26
Fairbanks	002S	003E	27	F002S003E27
Fairbanks	002S	003E	28	F002S003E28

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	002S	003E	29	F002S003E29
Fairbanks	002S	003E	30	F002S003E30
Fairbanks	002S	003E	33	F002S003E33
Fairbanks	002S	003E	34	F002S003E34
Fairbanks	002S	003E	35	F002S003E35
Fairbanks	002S	003E	36	F002S003E36
Fairbanks	002S	004E	18	F002S004E18
Fairbanks	002S	004E	19	F002S004E19
Fairbanks	002S	004E	29	F002S004E29
Fairbanks	002S	004E	30	F002S004E30
Fairbanks	002S	004E	31	F002S004E31
Fairbanks	002S	004E	32	F002S004E32
Fairbanks	003N	001E	31	F003N001E31
Fairbanks	003N	001W	04	F003N001W04
Fairbanks	003N	001W	05	F003N001W05
Fairbanks	003N	001W	06	F003N001W06
Fairbanks	003N	001W	07	F003N001W07
Fairbanks	003N	001W	08	F003N001W08
Fairbanks	003N	001W	09	F003N001W09
Fairbanks	003N	001W	10	F003N001W10
Fairbanks	003N	001W	11	F003N001W11
Fairbanks	003N	001W	14	F003N001W14
Fairbanks	003N	001W	15	F003N001W15
Fairbanks	003N	001W	16	F003N001W16
Fairbanks	003N	001W	17	F003N001W17
Fairbanks	003N	001W	18	F003N001W18
Fairbanks	003N	001W	19	F003N001W19
Fairbanks	003N	001W	20	F003N001W20
Fairbanks	003N	001W	21	F003N001W21
Fairbanks	003N	001W	22	F003N001W22
Fairbanks	003N	001W	23	F003N001W23
Fairbanks	003N	001W	25	F003N001W25
Fairbanks	003N	001W	26	F003N001W26
Fairbanks	003N	001W	27	F003N001W27
Fairbanks	003N	001W	28	F003N001W28
Fairbanks	003N	001W	29	F003N001W29
Fairbanks	003N	001W	30	F003N001W30
Fairbanks	003N	001W	31	F003N001W31
Fairbanks	003N	001W	32	F003N001W32
Fairbanks	003N	001W	33	F003N001W33
Fairbanks	003N	001W	34	F003N001W34
Fairbanks	003N	001W	35	F003N001W35
Fairbanks	003N	001W	36	F003N001W36
Fairbanks	003N	002W	01	F003N002W01
Fairbanks	003N	002W	02	F003N002W02
Fairbanks	003N	002W	03	F003N002W03

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	003N	002W	04	F003N002W04
Fairbanks	003N	002W	05	F003N002W05
Fairbanks	003N	002W	09	F003N002W09
Fairbanks	003N	002W	10	F003N002W10
Fairbanks	003N	002W	11	F003N002W11
Fairbanks	003N	002W	12	F003N002W12
Fairbanks	003N	002W	13	F003N002W13
Fairbanks	003N	002W	14	F003N002W14
Fairbanks	003N	002W	15	F003N002W15
Fairbanks	003N	002W	16	F003N002W16
Fairbanks	003N	002W	23	F003N002W23
Fairbanks	003N	002W	24	F003N002W24
Fairbanks	003N	002W	25	F003N002W25
Fairbanks	003S	003E	01	F003S003E01
Fairbanks	003S	003E	02	F003S003E02
Fairbanks	003S	003E	03	F003S003E03
Fairbanks	003S	003E	04	F003S003E04
Fairbanks	003S	003E	09	F003S003E09
Fairbanks	003S	003E	10	F003S003E10
Fairbanks	003S	003E	11	F003S003E11
Fairbanks	003S	003E	12	F003S003E12
Fairbanks	003S	003E	13	F003S003E13
Fairbanks	003S	003E	14	F003S003E14
Fairbanks	003S	003E	22	F003S003E22
Fairbanks	003S	003E	23	F003S003E23
Fairbanks	003S	003E	24	F003S003E24
Fairbanks	003S	003E	25	F003S003E25
Fairbanks	003S	003E	26	F003S003E26
Fairbanks	003S	003E	27	F003S003E27
Fairbanks	003S	004E	05	F003S004E05
Fairbanks	003S	004E	06	F003S004E06
Fairbanks	003S	004E	07	F003S004E07
Fairbanks	003S	004E	08	F003S004E08
Fairbanks	003S	004E	09	F003S004E09
Fairbanks	003S	004E	16	F003S004E16
Fairbanks	003S	004E	17	F003S004E17
Fairbanks	003S	004E	18	F003S004E18
Fairbanks	003S	004E	19	F003S004E19
Fairbanks	003S	004E	20	F003S004E20
Fairbanks	003S	004E	21	F003S004E21
Fairbanks	003S	004E	22	F003S004E22
Fairbanks	003S	004E	27	F003S004E27
Fairbanks	003S	004E	28	F003S004E28
Fairbanks	003S	004E	29	F003S004E29
Fairbanks	003S	004E	30	F003S004E30
Fairbanks	003S	004E	32	F003S004E32

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	003S	004E	33	F003S004E33
Fairbanks	003S	004E	34	F003S004E34
Fairbanks	003S	004E	35	F003S004E35
Fairbanks	003S	004E	36	F003S004E36
Fairbanks	003S	005E	31	F003S005E31
Fairbanks	004N	001W	31	F004N001W31
Fairbanks	004N	001W	32	F004N001W32
Fairbanks	004N	001W	33	F004N001W33
Fairbanks	004N	002W	06	F004N002W06
Fairbanks	004N	002W	07	F004N002W07
Fairbanks	004N	002W	15	F004N002W15
Fairbanks	004N	002W	17	F004N002W17
Fairbanks	004N	002W	18	F004N002W18
Fairbanks	004N	002W	19	F004N002W19
Fairbanks	004N	002W	20	F004N002W20
Fairbanks	004N	002W	21	F004N002W21
Fairbanks	004N	002W	22	F004N002W22
Fairbanks	004N	002W	23	F004N002W23
Fairbanks	004N	002W	25	F004N002W25
Fairbanks	004N	002W	26	F004N002W26
Fairbanks	004N	002W	27	F004N002W27
Fairbanks	004N	002W	28	F004N002W28
Fairbanks	004N	002W	29	F004N002W29
Fairbanks	004N	002W	30	F004N002W30
Fairbanks	004N	002W	31	F004N002W31
Fairbanks	004N	002W	32	F004N002W32
Fairbanks	004N	002W	33	F004N002W33
Fairbanks	004N	002W	34	F004N002W34
Fairbanks	004N	002W	35	F004N002W35
Fairbanks	004N	002W	36	F004N002W36
Fairbanks	004N	003W	01	F004N003W01
Fairbanks	004N	003W	02	F004N003W02
Fairbanks	004N	003W	03	F004N003W03
Fairbanks	004N	003W	04	F004N003W04
Fairbanks	004N	003W	09	F004N003W09
Fairbanks	004N	003W	10	F004N003W10
Fairbanks	004N	003W	11	F004N003W11
Fairbanks	004N	003W	12	F004N003W12
Fairbanks	004N	003W	13	F004N003W13
Fairbanks	004N	003W	14	F004N003W14
Fairbanks	004N	003W	15	F004N003W15
Fairbanks	004N	003W	22	F004N003W22
Fairbanks	004N	003W	23	F004N003W23
Fairbanks	004N	003W	24	F004N003W24
Fairbanks	004N	003W	25	F004N003W25
Fairbanks	004S	003E	24	F004S003E24

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	004S	003E	25	F004S003E25
Fairbanks	004S	003E	36	F004S003E36
Fairbanks	004S	004E	01	F004S004E01
Fairbanks	004S	004E	02	F004S004E02
Fairbanks	004S	004E	03	F004S004E03
Fairbanks	004S	004E	04	F004S004E04
Fairbanks	004S	004E	09	F004S004E09
Fairbanks	004S	004E	10	F004S004E10
Fairbanks	004S	004E	11	F004S004E11
Fairbanks	004S	004E	12	F004S004E12
Fairbanks	004S	004E	13	F004S004E13
Fairbanks	004S	004E	14	F004S004E14
Fairbanks	004S	004E	15	F004S004E15
Fairbanks	004S	004E	16	F004S004E16
Fairbanks	004S	004E	17	F004S004E17
Fairbanks	004S	004E	18	F004S004E18
Fairbanks	004S	004E	19	F004S004E19
Fairbanks	004S	004E	20	F004S004E20
Fairbanks	004S	004E	21	F004S004E21
Fairbanks	004S	004E	22	F004S004E22
Fairbanks	004S	004E	23	F004S004E23
Fairbanks	004S	004E	24	F004S004E24
Fairbanks	004S	004E	25	F004S004E25
Fairbanks	004S	004E	26	F004S004E26
Fairbanks	004S	004E	27	F004S004E27
Fairbanks	004S	004E	28	F004S004E28
Fairbanks	004S	004E	29	F004S004E29
Fairbanks	004S	004E	30	F004S004E30
Fairbanks	004S	004E	31	F004S004E31
Fairbanks	004S	004E	32	F004S004E32
Fairbanks	004S	004E	34	F004S004E34
Fairbanks	004S	004E	35	F004S004E35
Fairbanks	004S	004E	36	F004S004E36
Fairbanks	004S	005E	05	F004S005E05
Fairbanks	004S	005E	06	F004S005E06
Fairbanks	004S	005E	07	F004S005E07
Fairbanks	004S	005E	08	F004S005E08
Fairbanks	004S	005E	09	F004S005E09
Fairbanks	004S	005E	16	F004S005E16
Fairbanks	004S	005E	17	F004S005E17
Fairbanks	004S	005E	18	F004S005E18
Fairbanks	004S	005E	19	F004S005E19
Fairbanks	004S	005E	20	F004S005E20
Fairbanks	004S	005E	21	F004S005E21
Fairbanks	004S	005E	26	F004S005E26
Fairbanks	004S	005E	27	F004S005E27

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	004S	005E	28	F004S005E28
Fairbanks	004S	005E	29	F004S005E29
Fairbanks	004S	005E	30	F004S005E30
Fairbanks	004S	005E	31	F004S005E31
Fairbanks	004S	005E	32	F004S005E32
Fairbanks	004S	005E	33	F004S005E33
Fairbanks	004S	005E	34	F004S005E34
Fairbanks	004S	005E	35	F004S005E35
Fairbanks	004S	005E	36	F004S005E36
Fairbanks	005N	003W	02	F005N003W02
Fairbanks	005N	003W	03	F005N003W03
Fairbanks	005N	003W	04	F005N003W04
Fairbanks	005N	003W	05	F005N003W05
Fairbanks	005N	003W	06	F005N003W06
Fairbanks	005N	003W	07	F005N003W07
Fairbanks	005N	003W	08	F005N003W08
Fairbanks	005N	003W	09	F005N003W09
Fairbanks	005N	003W	10	F005N003W10
Fairbanks	005N	003W	11	F005N003W11
Fairbanks	005N	003W	14	F005N003W14
Fairbanks	005N	003W	15	F005N003W15
Fairbanks	005N	003W	16	F005N003W16
Fairbanks	005N	003W	17	F005N003W17
Fairbanks	005N	003W	20	F005N003W20
Fairbanks	005N	003W	21	F005N003W21
Fairbanks	005N	003W	22	F005N003W22
Fairbanks	005N	003W	23	F005N003W23
Fairbanks	005N	003W	26	F005N003W26
Fairbanks	005N	003W	27	F005N003W27
Fairbanks	005N	003W	28	F005N003W28
Fairbanks	005N	003W	33	F005N003W33
Fairbanks	005N	003W	34	F005N003W34
Fairbanks	005N	003W	35	F005N003W35
Fairbanks	005N	003W	36	F005N003W36
Fairbanks	005N	004W	01	F005N004W01
Fairbanks	005N	004W	02	F005N004W02
Fairbanks	005N	004W	03	F005N004W03
Fairbanks	005N	004W	04	F005N004W04
Fairbanks	005S	004E	01	F005S004E01
Fairbanks	005S	004E	02	F005S004E02
Fairbanks	005S	004E	13	F005S004E13
Fairbanks	005S	004E	14	F005S004E14
Fairbanks	005S	004E	22	F005S004E22
Fairbanks	005S	004E	23	F005S004E23
Fairbanks	005S	004E	24	F005S004E24
Fairbanks	005S	004E	25	F005S004E25

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	005S	004E	26	F005S004E26
Fairbanks	005S	004E	27	F005S004E27
Fairbanks	005S	004E	34	F005S004E34
Fairbanks	005S	004E	35	F005S004E35
Fairbanks	005S	004E	36	F005S004E36
Fairbanks	005S	005E	01	F005S005E01
Fairbanks	005S	005E	02	F005S005E02
Fairbanks	005S	005E	03	F005S005E03
Fairbanks	005S	005E	04	F005S005E04
Fairbanks	005S	005E	05	F005S005E05
Fairbanks	005S	005E	06	F005S005E06
Fairbanks	005S	005E	09	F005S005E09
Fairbanks	005S	005E	10	F005S005E10
Fairbanks	005S	005E	11	F005S005E11
Fairbanks	005S	005E	12	F005S005E12
Fairbanks	005S	005E	13	F005S005E13
Fairbanks	005S	005E	14	F005S005E14
Fairbanks	005S	005E	15	F005S005E15
Fairbanks	005S	005E	16	F005S005E16
Fairbanks	005S	005E	17	F005S005E17
Fairbanks	005S	005E	18	F005S005E18
Fairbanks	005S	005E	19	F005S005E19
Fairbanks	005S	005E	20	F005S005E20
Fairbanks	005S	005E	21	F005S005E21
Fairbanks	005S	005E	22	F005S005E22
Fairbanks	005S	005E	23	F005S005E23
Fairbanks	005S	005E	24	F005S005E24
Fairbanks	005S	005E	25	F005S005E25
Fairbanks	005S	005E	26	F005S005E26
Fairbanks	005S	005E	27	F005S005E27
Fairbanks	005S	005E	28	F005S005E28
Fairbanks	005S	005E	29	F005S005E29
Fairbanks	005S	005E	30	F005S005E30
Fairbanks	005S	005E	31	F005S005E31
Fairbanks	005S	005E	32	F005S005E32
Fairbanks	005S	006E	06	F005S006E06
Fairbanks	005S	006E	07	F005S006E07
Fairbanks	005S	006E	08	F005S006E08
Fairbanks	005S	006E	09	F005S006E09
Fairbanks	005S	006E	10	F005S006E10
Fairbanks	005S	006E	11	F005S006E11
Fairbanks	005S	006E	13	F005S006E13
Fairbanks	005S	006E	14	F005S006E14
Fairbanks	005S	006E	15	F005S006E15
Fairbanks	005S	006E	16	F005S006E16
Fairbanks	005S	006E	17	F005S006E17

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	005S	006E	18	F005S006E18
Fairbanks	005S	006E	19	F005S006E19
Fairbanks	005S	006E	20	F005S006E20
Fairbanks	005S	006E	21	F005S006E21
Fairbanks	005S	006E	22	F005S006E22
Fairbanks	005S	006E	23	F005S006E23
Fairbanks	005S	006E	24	F005S006E24
Fairbanks	005S	006E	25	F005S006E25
Fairbanks	005S	006E	26	F005S006E26
Fairbanks	005S	006E	27	F005S006E27
Fairbanks	005S	006E	28	F005S006E28
Fairbanks	005S	006E	30	F005S006E30
Fairbanks	005S	006E	34	F005S006E34
Fairbanks	005S	006E	35	F005S006E35
Fairbanks	005S	006E	36	F005S006E36
Fairbanks	005S	007E	17	F005S007E17
Fairbanks	005S	007E	18	F005S007E18
Fairbanks	005S	007E	19	F005S007E19
Fairbanks	005S	007E	20	F005S007E20
Fairbanks	005S	007E	21	F005S007E21
Fairbanks	005S	007E	26	F005S007E26
Fairbanks	005S	007E	27	F005S007E27
Fairbanks	005S	007E	28	F005S007E28
Fairbanks	005S	007E	29	F005S007E29
Fairbanks	005S	007E	30	F005S007E30
Fairbanks	005S	007E	31	F005S007E31
Fairbanks	005S	007E	32	F005S007E32
Fairbanks	005S	007E	33	F005S007E33
Fairbanks	005S	007E	34	F005S007E34
Fairbanks	005S	007E	35	F005S007E35
Fairbanks	005S	007E	36	F005S007E36
Fairbanks	005S	008E	31	F005S008E31
Fairbanks	006N	003W	06	F006N003W06
Fairbanks	006N	003W	07	F006N003W07
Fairbanks	006N	003W	08	F006N003W08
Fairbanks	006N	003W	17	F006N003W17
Fairbanks	006N	003W	18	F006N003W18
Fairbanks	006N	003W	19	F006N003W19
Fairbanks	006N	003W	20	F006N003W20
Fairbanks	006N	003W	28	F006N003W28
Fairbanks	006N	003W	29	F006N003W29
Fairbanks	006N	003W	30	F006N003W30
Fairbanks	006N	003W	31	F006N003W31
Fairbanks	006N	003W	32	F006N003W32
Fairbanks	006N	003W	33	F006N003W33
Fairbanks	006N	003W	34	F006N003W34

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	006N	003W	35	F006N003W35
Fairbanks	006N	004W	01	F006N004W01
Fairbanks	006N	004W	02	F006N004W02
Fairbanks	006N	004W	03	F006N004W03
Fairbanks	006N	004W	04	F006N004W04
Fairbanks	006N	004W	05	F006N004W05
Fairbanks	006N	004W	06	F006N004W06
Fairbanks	006N	004W	07	F006N004W07
Fairbanks	006N	004W	08	F006N004W08
Fairbanks	006N	004W	09	F006N004W09
Fairbanks	006N	004W	10	F006N004W10
Fairbanks	006N	004W	11	F006N004W11
Fairbanks	006N	004W	12	F006N004W12
Fairbanks	006N	004W	13	F006N004W13
Fairbanks	006N	004W	14	F006N004W14
Fairbanks	006N	004W	15	F006N004W15
Fairbanks	006N	004W	16	F006N004W16
Fairbanks	006N	004W	17	F006N004W17
Fairbanks	006N	004W	20	F006N004W20
Fairbanks	006N	004W	21	F006N004W21
Fairbanks	006N	004W	22	F006N004W22
Fairbanks	006N	004W	23	F006N004W23
Fairbanks	006N	004W	24	F006N004W24
Fairbanks	006N	004W	25	F006N004W25
Fairbanks	006N	004W	26	F006N004W26
Fairbanks	006N	004W	27	F006N004W27
Fairbanks	006N	004W	28	F006N004W28
Fairbanks	006N	004W	29	F006N004W29
Fairbanks	006N	004W	32	F006N004W32
Fairbanks	006N	004W	33	F006N004W33
Fairbanks	006N	004W	34	F006N004W34
Fairbanks	006N	004W	35	F006N004W35
Fairbanks	006N	004W	36	F006N004W36
Fairbanks	006N	005W	01	F006N005W01
Fairbanks	006S	006E	01	F006S006E01
Fairbanks	006S	006E	02	F006S006E02
Fairbanks	006S	006E	03	F006S006E03
Fairbanks	006S	006E	04	F006S006E04
Fairbanks	006S	006E	08	F006S006E08
Fairbanks	006S	006E	09	F006S006E09
Fairbanks	006S	006E	10	F006S006E10
Fairbanks	006S	006E	11	F006S006E11
Fairbanks	006S	006E	12	F006S006E12
Fairbanks	006S	006E	14	F006S006E14
Fairbanks	006S	006E	15	F006S006E15
Fairbanks	006S	006E	16	F006S006E16

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	006S	006E	17	F006S006E17
Fairbanks	006S	006E	18	F006S006E18
Fairbanks	006S	006E	19	F006S006E19
Fairbanks	006S	006E	20	F006S006E20
Fairbanks	006S	006E	21	F006S006E21
Fairbanks	006S	006E	22	F006S006E22
Fairbanks	006S	006E	25	F006S006E25
Fairbanks	006S	006E	26	F006S006E26
Fairbanks	006S	006E	27	F006S006E27
Fairbanks	006S	006E	28	F006S006E28
Fairbanks	006S	006E	29	F006S006E29
Fairbanks	006S	006E	30	F006S006E30
Fairbanks	006S	006E	31	F006S006E31
Fairbanks	006S	006E	32	F006S006E32
Fairbanks	006S	006E	33	F006S006E33
Fairbanks	006S	006E	34	F006S006E34
Fairbanks	006S	006E	35	F006S006E35
Fairbanks	006S	006E	36	F006S006E36
Fairbanks	006S	007E	01	F006S007E01
Fairbanks	006S	007E	02	F006S007E02
Fairbanks	006S	007E	03	F006S007E03
Fairbanks	006S	007E	04	F006S007E04
Fairbanks	006S	007E	05	F006S007E05
Fairbanks	006S	007E	06	F006S007E06
Fairbanks	006S	007E	07	F006S007E07
Fairbanks	006S	007E	08	F006S007E08
Fairbanks	006S	007E	09	F006S007E09
Fairbanks	006S	007E	10	F006S007E10
Fairbanks	006S	007E	11	F006S007E11
Fairbanks	006S	007E	12	F006S007E12
Fairbanks	006S	007E	13	F006S007E13
Fairbanks	006S	007E	14	F006S007E14
Fairbanks	006S	007E	15	F006S007E15
Fairbanks	006S	007E	16	F006S007E16
Fairbanks	006S	007E	22	F006S007E22
Fairbanks	006S	007E	23	F006S007E23
Fairbanks	006S	007E	24	F006S007E24
Fairbanks	006S	007E	25	F006S007E25
Fairbanks	006S	007E	26	F006S007E26
Fairbanks	006S	007E	27	F006S007E27
Fairbanks	006S	007E	28	F006S007E28
Fairbanks	006S	007E	30	F006S007E30
Fairbanks	006S	007E	31	F006S007E31
Fairbanks	006S	007E	32	F006S007E32
Fairbanks	006S	007E	33	F006S007E33
Fairbanks	006S	007E	34	F006S007E34

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	006S	007E	35	F006S007E35
Fairbanks	006S	007E	36	F006S007E36
Fairbanks	006S	008E	06	F006S008E06
Fairbanks	006S	008E	07	F006S008E07
Fairbanks	006S	008E	17	F006S008E17
Fairbanks	006S	008E	18	F006S008E18
Fairbanks	006S	008E	19	F006S008E19
Fairbanks	006S	008E	20	F006S008E20
Fairbanks	006S	008E	21	F006S008E21
Fairbanks	006S	008E	28	F006S008E28
Fairbanks	006S	008E	29	F006S008E29
Fairbanks	006S	008E	30	F006S008E30
Fairbanks	006S	008E	31	F006S008E31
Fairbanks	006S	008E	32	F006S008E32
Fairbanks	006S	008E	33	F006S008E33
Fairbanks	006S	008E	34	F006S008E34
Fairbanks	007N	003W	05	F007N003W05
Fairbanks	007N	003W	06	F007N003W06
Fairbanks	007N	003W	07	F007N003W07
Fairbanks	007N	003W	08	F007N003W08
Fairbanks	007N	003W	17	F007N003W17
Fairbanks	007N	003W	18	F007N003W18
Fairbanks	007N	004W	01	F007N004W01
Fairbanks	007N	004W	02	F007N004W02
Fairbanks	007N	004W	10	F007N004W10
Fairbanks	007N	004W	11	F007N004W11
Fairbanks	007N	004W	12	F007N004W12
Fairbanks	007N	004W	13	F007N004W13
Fairbanks	007N	004W	14	F007N004W14
Fairbanks	007N	004W	15	F007N004W15
Fairbanks	007N	004W	16	F007N004W16
Fairbanks	007N	004W	19	F007N004W19
Fairbanks	007N	004W	20	F007N004W20
Fairbanks	007N	004W	21	F007N004W21
Fairbanks	007N	004W	22	F007N004W22
Fairbanks	007N	004W	23	F007N004W23
Fairbanks	007N	004W	24	F007N004W24
Fairbanks	007N	004W	26	F007N004W26
Fairbanks	007N	004W	27	F007N004W27
Fairbanks	007N	004W	28	F007N004W28
Fairbanks	007N	004W	29	F007N004W29
Fairbanks	007N	004W	30	F007N004W30
Fairbanks	007N	004W	31	F007N004W31
Fairbanks	007N	004W	32	F007N004W32
Fairbanks	007N	004W	33	F007N004W33
Fairbanks	007N	005W	04	F007N005W04

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	007N	005W	05	F007N005W05
Fairbanks	007N	005W	06	F007N005W06
Fairbanks	007N	005W	07	F007N005W07
Fairbanks	007N	005W	08	F007N005W08
Fairbanks	007N	005W	09	F007N005W09
Fairbanks	007N	005W	10	F007N005W10
Fairbanks	007N	005W	13	F007N005W13
Fairbanks	007N	005W	14	F007N005W14
Fairbanks	007N	005W	15	F007N005W15
Fairbanks	007N	005W	16	F007N005W16
Fairbanks	007N	005W	17	F007N005W17
Fairbanks	007N	005W	18	F007N005W18
Fairbanks	007N	005W	20	F007N005W20
Fairbanks	007N	005W	21	F007N005W21
Fairbanks	007N	005W	22	F007N005W22
Fairbanks	007N	005W	23	F007N005W23
Fairbanks	007N	005W	24	F007N005W24
Fairbanks	007N	005W	25	F007N005W25
Fairbanks	007N	005W	26	F007N005W26
Fairbanks	007N	005W	27	F007N005W27
Fairbanks	007N	005W	28	F007N005W28
Fairbanks	007N	005W	35	F007N005W35
Fairbanks	007N	005W	36	F007N005W36
Fairbanks	007N	006W	01	F007N006W01
Fairbanks	007N	006W	12	F007N006W12
Fairbanks	007S	006E	01	F007S006E01
Fairbanks	007S	006E	02	F007S006E02
Fairbanks	007S	006E	03	F007S006E03
Fairbanks	007S	006E	04	F007S006E04
Fairbanks	007S	006E	12	F007S006E12
Fairbanks	007S	007E	02	F007S007E02
Fairbanks	007S	007E	03	F007S007E03
Fairbanks	007S	007E	04	F007S007E04
Fairbanks	007S	007E	05	F007S007E05
Fairbanks	007S	007E	06	F007S007E06
Fairbanks	007S	007E	07	F007S007E07
Fairbanks	007S	007E	08	F007S007E08
Fairbanks	007S	007E	09	F007S007E09
Fairbanks	007S	007E	10	F007S007E10
Fairbanks	007S	007E	11	F007S007E11
Fairbanks	007S	007E	14	F007S007E14
Fairbanks	007S	007E	15	F007S007E15
Fairbanks	007S	007E	16	F007S007E16
Fairbanks	007S	007E	17	F007S007E17
Fairbanks	007S	007E	18	F007S007E18
Fairbanks	007S	007E	21	F007S007E21

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	007S	007E	22	F007S007E22
Fairbanks	007S	007E	23	F007S007E23
Fairbanks	007S	007E	26	F007S007E26
Fairbanks	007S	007E	27	F007S007E27
Fairbanks	007S	007E	28	F007S007E28
Fairbanks	007S	008E	03	F007S008E03
Fairbanks	007S	008E	04	F007S008E04
Fairbanks	007S	008E	05	F007S008E05
Fairbanks	007S	008E	08	F007S008E08
Fairbanks	007S	008E	09	F007S008E09
Fairbanks	007S	008E	10	F007S008E10
Fairbanks	007S	008E	11	F007S008E11
Fairbanks	007S	008E	13	F007S008E13
Fairbanks	007S	008E	14	F007S008E14
Fairbanks	007S	008E	15	F007S008E15
Fairbanks	007S	008E	16	F007S008E16
Fairbanks	007S	008E	17	F007S008E17
Fairbanks	007S	008E	21	F007S008E21
Fairbanks	007S	008E	22	F007S008E22
Fairbanks	007S	008E	23	F007S008E23
Fairbanks	007S	008E	24	F007S008E24
Fairbanks	007S	008E	25	F007S008E25
Fairbanks	007S	008E	26	F007S008E26
Fairbanks	007S	008E	27	F007S008E27
Fairbanks	007S	008E	28	F007S008E28
Fairbanks	007S	008E	33	F007S008E33
Fairbanks	007S	008E	34	F007S008E34
Fairbanks	007S	008E	35	F007S008E35
Fairbanks	007S	008E	36	F007S008E36
Fairbanks	007S	009E	30	F007S009E30
Fairbanks	007S	009E	31	F007S009E31
Fairbanks	007S	009E	32	F007S009E32
Fairbanks	008N	005W	19	F008N005W19
Fairbanks	008N	005W	29	F008N005W29
Fairbanks	008N	005W	30	F008N005W30
Fairbanks	008N	005W	31	F008N005W31
Fairbanks	008N	005W	32	F008N005W32
Fairbanks	008N	005W	33	F008N005W33
Fairbanks	008N	006W	04	F008N006W04
Fairbanks	008N	006W	05	F008N006W05
Fairbanks	008N	006W	06	F008N006W06
Fairbanks	008N	006W	07	F008N006W07
Fairbanks	008N	006W	08	F008N006W08
Fairbanks	008N	006W	09	F008N006W09
Fairbanks	008N	006W	10	F008N006W10
Fairbanks	008N	006W	11	F008N006W11

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	008N	006W	13	F008N006W13
Fairbanks	008N	006W	14	F008N006W14
Fairbanks	008N	006W	15	F008N006W15
Fairbanks	008N	006W	16	F008N006W16
Fairbanks	008N	006W	17	F008N006W17
Fairbanks	008N	006W	18	F008N006W18
Fairbanks	008N	006W	19	F008N006W19
Fairbanks	008N	006W	20	F008N006W20
Fairbanks	008N	006W	21	F008N006W21
Fairbanks	008N	006W	22	F008N006W22
Fairbanks	008N	006W	23	F008N006W23
Fairbanks	008N	006W	24	F008N006W24
Fairbanks	008N	006W	25	F008N006W25
Fairbanks	008N	006W	26	F008N006W26
Fairbanks	008N	006W	27	F008N006W27
Fairbanks	008N	006W	28	F008N006W28
Fairbanks	008N	006W	29	F008N006W29
Fairbanks	008N	006W	35	F008N006W35
Fairbanks	008N	006W	36	F008N006W36
Fairbanks	008N	007W	01	F008N007W01
Fairbanks	008N	007W	12	F008N007W12
Fairbanks	008N	007W	13	F008N007W13
Fairbanks	008S	008E	01	F008S008E01
Fairbanks	008S	008E	02	F008S008E02
Fairbanks	008S	008E	03	F008S008E03
Fairbanks	008S	008E	11	F008S008E11
Fairbanks	008S	008E	12	F008S008E12
Fairbanks	008S	009E	04	F008S009E04
Fairbanks	008S	009E	05	F008S009E05
Fairbanks	008S	009E	06	F008S009E06
Fairbanks	008S	009E	07	F008S009E07
Fairbanks	008S	009E	08	F008S009E08
Fairbanks	008S	009E	09	F008S009E09
Fairbanks	008S	009E	10	F008S009E10
Fairbanks	008S	009E	14	F008S009E14
Fairbanks	008S	009E	15	F008S009E15
Fairbanks	008S	009E	16	F008S009E16
Fairbanks	008S	009E	17	F008S009E17
Fairbanks	008S	009E	18	F008S009E18
Fairbanks	008S	009E	20	F008S009E20
Fairbanks	008S	009E	21	F008S009E21
Fairbanks	008S	009E	22	F008S009E22
Fairbanks	008S	009E	23	F008S009E23
Fairbanks	008S	009E	24	F008S009E24
Fairbanks	008S	009E	25	F008S009E25
Fairbanks	008S	009E	26	F008S009E26

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	008S	009E	27	F008S009E27
Fairbanks	008S	009E	28	F008S009E28
Fairbanks	008S	009E	34	F008S009E34
Fairbanks	008S	009E	35	F008S009E35
Fairbanks	008S	009E	36	F008S009E36
Fairbanks	008S	010E	29	F008S010E29
Fairbanks	008S	010E	30	F008S010E30
Fairbanks	008S	010E	31	F008S010E31
Fairbanks	008S	010E	32	F008S010E32
Fairbanks	008S	010E	33	F008S010E33
Fairbanks	009N	006W	18	F009N006W18
Fairbanks	009N	006W	19	F009N006W19
Fairbanks	009N	006W	20	F009N006W20
Fairbanks	009N	006W	28	F009N006W28
Fairbanks	009N	006W	29	F009N006W29
Fairbanks	009N	006W	30	F009N006W30
Fairbanks	009N	006W	31	F009N006W31
Fairbanks	009N	006W	32	F009N006W32
Fairbanks	009N	006W	33	F009N006W33
Fairbanks	009N	007W	02	F009N007W02
Fairbanks	009N	007W	03	F009N007W03
Fairbanks	009N	007W	04	F009N007W04
Fairbanks	009N	007W	05	F009N007W05
Fairbanks	009N	007W	08	F009N007W08
Fairbanks	009N	007W	09	F009N007W09
Fairbanks	009N	007W	10	F009N007W10
Fairbanks	009N	007W	11	F009N007W11
Fairbanks	009N	007W	12	F009N007W12
Fairbanks	009N	007W	13	F009N007W13
Fairbanks	009N	007W	14	F009N007W14
Fairbanks	009N	007W	15	F009N007W15
Fairbanks	009N	007W	16	F009N007W16
Fairbanks	009N	007W	17	F009N007W17
Fairbanks	009N	007W	22	F009N007W22
Fairbanks	009N	007W	23	F009N007W23
Fairbanks	009N	007W	24	F009N007W24
Fairbanks	009N	007W	25	F009N007W25
Fairbanks	009N	007W	26	F009N007W26
Fairbanks	009N	007W	27	F009N007W27
Fairbanks	009N	007W	34	F009N007W34
Fairbanks	009N	007W	35	F009N007W35
Fairbanks	009N	007W	36	F009N007W36
Fairbanks	009S	009E	01	F009S009E01
Fairbanks	009S	009E	12	F009S009E12
Fairbanks	009S	010E	03	F009S010E03
Fairbanks	009S	010E	04	F009S010E04

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	009S	010E	05	F009S010E05
Fairbanks	009S	010E	06	F009S010E06
Fairbanks	009S	010E	07	F009S010E07
Fairbanks	009S	010E	08	F009S010E08
Fairbanks	009S	010E	09	F009S010E09
Fairbanks	009S	010E	10	F009S010E10
Fairbanks	009S	010E	11	F009S010E11
Fairbanks	009S	010E	12	F009S010E12
Fairbanks	009S	010E	13	F009S010E13
Fairbanks	009S	010E	14	F009S010E14
Fairbanks	009S	010E	15	F009S010E15
Fairbanks	009S	010E	16	F009S010E16
Fairbanks	009S	010E	17	F009S010E17
Fairbanks	009S	010E	18	F009S010E18
Fairbanks	009S	010E	20	F009S010E20
Fairbanks	009S	010E	21	F009S010E21
Fairbanks	009S	010E	22	F009S010E22
Fairbanks	009S	010E	23	F009S010E23
Fairbanks	009S	010E	24	F009S010E24
Fairbanks	009S	010E	25	F009S010E25
Fairbanks	009S	010E	26	F009S010E26
Fairbanks	009S	010E	27	F009S010E27
Fairbanks	009S	010E	28	F009S010E28
Fairbanks	009S	010E	34	F009S010E34
Fairbanks	009S	010E	35	F009S010E35
Fairbanks	009S	010E	36	F009S010E36
Fairbanks	009S	011E	29	F009S011E29
Fairbanks	009S	011E	30	F009S011E30
Fairbanks	009S	011E	31	F009S011E31
Fairbanks	009S	011E	32	F009S011E32
Fairbanks	010N	007W	07	F010N007W07
Fairbanks	010N	007W	17	F010N007W17
Fairbanks	010N	007W	18	F010N007W18
Fairbanks	010N	007W	19	F010N007W19
Fairbanks	010N	007W	20	F010N007W20
Fairbanks	010N	007W	21	F010N007W21
Fairbanks	010N	007W	27	F010N007W27
Fairbanks	010N	007W	28	F010N007W28
Fairbanks	010N	007W	29	F010N007W29
Fairbanks	010N	007W	30	F010N007W30
Fairbanks	010N	007W	31	F010N007W31
Fairbanks	010N	007W	32	F010N007W32
Fairbanks	010N	007W	33	F010N007W33
Fairbanks	010N	007W	34	F010N007W34
Fairbanks	010N	007W	35	F010N007W35
Fairbanks	010N	008W	02	F010N008W02

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	010N	008W	03	F010N008W03
Fairbanks	010N	008W	04	F010N008W04
Fairbanks	010N	008W	05	F010N008W05
Fairbanks	010N	008W	06	F010N008W06
Fairbanks	010N	008W	08	F010N008W08
Fairbanks	010N	008W	09	F010N008W09
Fairbanks	010N	008W	10	F010N008W10
Fairbanks	010N	008W	11	F010N008W11
Fairbanks	010N	008W	12	F010N008W12
Fairbanks	010N	008W	13	F010N008W13
Fairbanks	010N	008W	14	F010N008W14
Fairbanks	010N	008W	15	F010N008W15
Fairbanks	010N	008W	16	F010N008W16
Fairbanks	010N	008W	21	F010N008W21
Fairbanks	010N	008W	22	F010N008W22
Fairbanks	010N	008W	23	F010N008W23
Fairbanks	010N	008W	24	F010N008W24
Fairbanks	010N	008W	25	F010N008W25
Fairbanks	010N	008W	26	F010N008W26
Fairbanks	010N	008W	35	F010N008W35
Fairbanks	010N	008W	36	F010N008W36
Fairbanks	010N	009W	01	F010N009W01
Fairbanks	010N	009W	02	F010N009W02
Fairbanks	010S	010E	01	F010S010E01
Fairbanks	010S	010E	02	F010S010E02
Fairbanks	010S	010E	03	F010S010E03
Fairbanks	010S	010E	10	F010S010E10
Fairbanks	010S	010E	11	F010S010E11
Fairbanks	010S	010E	12	F010S010E12
Fairbanks	010S	010E	13	F010S010E13
Fairbanks	010S	010E	14	F010S010E14
Fairbanks	010S	010E	15	F010S010E15
Fairbanks	010S	010E	23	F010S010E23
Fairbanks	010S	010E	24	F010S010E24
Fairbanks	010S	010E	25	F010S010E25
Fairbanks	010S	010E	36	F010S010E36
Fairbanks	010S	011E	05	F010S011E05
Fairbanks	010S	011E	06	F010S011E06
Fairbanks	010S	011E	07	F010S011E07
Fairbanks	010S	011E	08	F010S011E08
Fairbanks	010S	011E	17	F010S011E17
Fairbanks	010S	011E	18	F010S011E18
Fairbanks	010S	011E	19	F010S011E19
Fairbanks	010S	011E	20	F010S011E20
Fairbanks	010S	011E	21	F010S011E21
Fairbanks	010S	011E	23	F010S011E23

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	010S	011E	24	F010S011E24
Fairbanks	010S	011E	25	F010S011E25
Fairbanks	010S	011E	26	F010S011E26
Fairbanks	010S	011E	27	F010S011E27
Fairbanks	010S	011E	28	F010S011E28
Fairbanks	010S	011E	29	F010S011E29
Fairbanks	010S	011E	30	F010S011E30
Fairbanks	010S	011E	31	F010S011E31
Fairbanks	010S	011E	32	F010S011E32
Fairbanks	010S	011E	33	F010S011E33
Fairbanks	010S	011E	34	F010S011E34
Fairbanks	010S	011E	35	F010S011E35
Fairbanks	010S	011E	36	F010S011E36
Fairbanks	010S	012E	30	F010S012E30
Fairbanks	010S	012E	31	F010S012E31
Fairbanks	011N	008W	19	F011N008W19
Fairbanks	011N	008W	29	F011N008W29
Fairbanks	011N	008W	30	F011N008W30
Fairbanks	011N	008W	31	F011N008W31
Fairbanks	011N	008W	32	F011N008W32
Fairbanks	011N	008W	33	F011N008W33
Fairbanks	011N	008W	34	F011N008W34
Fairbanks	011N	009W	03	F011N009W03
Fairbanks	011N	009W	04	F011N009W04
Fairbanks	011N	009W	05	F011N009W05
Fairbanks	011N	009W	06	F011N009W06
Fairbanks	011N	009W	07	F011N009W07
Fairbanks	011N	009W	08	F011N009W08
Fairbanks	011N	009W	09	F011N009W09
Fairbanks	011N	009W	10	F011N009W10
Fairbanks	011N	009W	14	F011N009W14
Fairbanks	011N	009W	15	F011N009W15
Fairbanks	011N	009W	16	F011N009W16
Fairbanks	011N	009W	17	F011N009W17
Fairbanks	011N	009W	18	F011N009W18
Fairbanks	011N	009W	20	F011N009W20
Fairbanks	011N	009W	21	F011N009W21
Fairbanks	011N	009W	22	F011N009W22
Fairbanks	011N	009W	23	F011N009W23
Fairbanks	011N	009W	24	F011N009W24
Fairbanks	011N	009W	25	F011N009W25
Fairbanks	011N	009W	26	F011N009W26
Fairbanks	011N	009W	27	F011N009W27
Fairbanks	011N	009W	28	F011N009W28
Fairbanks	011N	009W	34	F011N009W34
Fairbanks	011N	009W	35	F011N009W35

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	011N	009W	36	F011N009W36
Fairbanks	011N	010W	01	F011N010W01
Fairbanks	011N	010W	02	F011N010W02
Fairbanks	011N	010W	03	F011N010W03
Fairbanks	011N	010W	04	F011N010W04
Fairbanks	011N	010W	11	F011N010W11
Fairbanks	011N	010W	12	F011N010W12
Fairbanks	011S	011E	01	F011S011E01
Fairbanks	011S	011E	02	F011S011E02
Fairbanks	011S	011E	03	F011S011E03
Fairbanks	011S	011E	04	F011S011E04
Fairbanks	011S	011E	05	F011S011E05
Fairbanks	011S	011E	10	F011S011E10
Fairbanks	011S	011E	11	F011S011E11
Fairbanks	011S	011E	12	F011S011E12
Fairbanks	011S	011E	13	F011S011E13
Fairbanks	011S	011E	14	F011S011E14
Fairbanks	011S	012E	06	F011S012E06
Fairbanks	011S	012E	07	F011S012E07
Fairbanks	011S	012E	08	F011S012E08
Fairbanks	011S	012E	09	F011S012E09
Fairbanks	011S	012E	15	F011S012E15
Fairbanks	011S	012E	16	F011S012E16
Fairbanks	011S	012E	17	F011S012E17
Fairbanks	011S	012E	18	F011S012E18
Fairbanks	011S	012E	19	F011S012E19
Fairbanks	011S	012E	20	F011S012E20
Fairbanks	011S	012E	21	F011S012E21
Fairbanks	011S	012E	22	F011S012E22
Fairbanks	011S	012E	23	F011S012E23
Fairbanks	011S	012E	24	F011S012E24
Fairbanks	011S	012E	25	F011S012E25
Fairbanks	011S	012E	26	F011S012E26
Fairbanks	011S	012E	27	F011S012E27
Fairbanks	011S	012E	28	F011S012E28
Fairbanks	011S	012E	29	F011S012E29
Fairbanks	011S	012E	30	F011S012E30
Fairbanks	011S	012E	34	F011S012E34
Fairbanks	011S	012E	35	F011S012E35
Fairbanks	011S	012E	36	F011S012E36
Fairbanks	011S	013E	29	F011S013E29
Fairbanks	011S	013E	30	F011S013E30
Fairbanks	011S	013E	31	F011S013E31
Fairbanks	011S	013E	32	F011S013E32
Fairbanks	011S	013E	33	F011S013E33
Fairbanks	012N	009W	19	F012N009W19

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	012N	009W	29	F012N009W29
Fairbanks	012N	009W	30	F012N009W30
Fairbanks	012N	009W	31	F012N009W31
Fairbanks	012N	009W	32	F012N009W32
Fairbanks	012N	009W	33	F012N009W33
Fairbanks	012N	009W	34	F012N009W34
Fairbanks	012N	010W	04	F012N010W04
Fairbanks	012N	010W	05	F012N010W05
Fairbanks	012N	010W	06	F012N010W06
Fairbanks	012N	010W	07	F012N010W07
Fairbanks	012N	010W	08	F012N010W08
Fairbanks	012N	010W	09	F012N010W09
Fairbanks	012N	010W	14	F012N010W14
Fairbanks	012N	010W	15	F012N010W15
Fairbanks	012N	010W	16	F012N010W16
Fairbanks	012N	010W	17	F012N010W17
Fairbanks	012N	010W	18	F012N010W18
Fairbanks	012N	010W	19	F012N010W19
Fairbanks	012N	010W	20	F012N010W20
Fairbanks	012N	010W	21	F012N010W21
Fairbanks	012N	010W	22	F012N010W22
Fairbanks	012N	010W	23	F012N010W23
Fairbanks	012N	010W	24	F012N010W24
Fairbanks	012N	010W	25	F012N010W25
Fairbanks	012N	010W	26	F012N010W26
Fairbanks	012N	010W	27	F012N010W27
Fairbanks	012N	010W	28	F012N010W28
Fairbanks	012N	010W	29	F012N010W29
Fairbanks	012N	010W	30	F012N010W30
Fairbanks	012N	010W	32	F012N010W32
Fairbanks	012N	010W	33	F012N010W33
Fairbanks	012N	010W	34	F012N010W34
Fairbanks	012N	010W	35	F012N010W35
Fairbanks	012N	010W	36	F012N010W36
Fairbanks	012N	011W	01	F012N011W01
Fairbanks	012N	011W	02	F012N011W02
Fairbanks	012N	011W	03	F012N011W03
Fairbanks	012N	011W	04	F012N011W04
Fairbanks	012N	011W	05	F012N011W05
Fairbanks	012N	011W	06	F012N011W06
Fairbanks	012N	011W	08	F012N011W08
Fairbanks	012N	011W	09	F012N011W09
Fairbanks	012N	011W	10	F012N011W10
Fairbanks	012N	011W	11	F012N011W11
Fairbanks	012N	011W	12	F012N011W12
Fairbanks	012N	011W	13	F012N011W13

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	012N	011W	14	F012N011W14
Fairbanks	012N	011W	15	F012N011W15
Fairbanks	012N	011W	22	F012N011W22
Fairbanks	012N	011W	23	F012N011W23
Fairbanks	012N	011W	24	F012N011W24
Fairbanks	012N	011W	25	F012N011W25
Fairbanks	012N	011W	26	F012N011W26
Fairbanks	012N	011W	27	F012N011W27
Fairbanks	012S	012E	01	F012S012E01
Fairbanks	012S	012E	02	F012S012E02
Fairbanks	012S	013E	02	F012S013E02
Fairbanks	012S	013E	03	F012S013E03
Fairbanks	012S	013E	04	F012S013E04
Fairbanks	012S	013E	05	F012S013E05
Fairbanks	012S	013E	06	F012S013E06
Fairbanks	012S	013E	07	F012S013E07
Fairbanks	012S	013E	08	F012S013E08
Fairbanks	012S	013E	09	F012S013E09
Fairbanks	012S	013E	10	F012S013E10
Fairbanks	012S	013E	11	F012S013E11
Fairbanks	012S	013E	12	F012S013E12
Fairbanks	012S	013E	13	F012S013E13
Fairbanks	012S	013E	14	F012S013E14
Fairbanks	012S	013E	15	F012S013E15
Fairbanks	012S	013E	16	F012S013E16
Fairbanks	012S	013E	22	F012S013E22
Fairbanks	012S	013E	23	F012S013E23
Fairbanks	012S	013E	24	F012S013E24
Fairbanks	012S	013E	25	F012S013E25
Fairbanks	012S	014E	07	F012S014E07
Fairbanks	012S	014E	09	F012S014E09
Fairbanks	012S	014E	10	F012S014E10
Fairbanks	012S	014E	11	F012S014E11
Fairbanks	012S	014E	12	F012S014E12
Fairbanks	012S	014E	13	F012S014E13
Fairbanks	012S	014E	14	F012S014E14
Fairbanks	012S	014E	15	F012S014E15
Fairbanks	012S	014E	16	F012S014E16
Fairbanks	012S	014E	17	F012S014E17
Fairbanks	012S	014E	18	F012S014E18
Fairbanks	012S	014E	19	F012S014E19
Fairbanks	012S	014E	20	F012S014E20
Fairbanks	012S	014E	21	F012S014E21
Fairbanks	012S	014E	22	F012S014E22
Fairbanks	012S	014E	23	F012S014E23
Fairbanks	012S	014E	24	F012S014E24

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	012S	014E	25	F012S014E25
Fairbanks	012S	014E	26	F012S014E26
Fairbanks	012S	014E	27	F012S014E27
Fairbanks	012S	014E	28	F012S014E28
Fairbanks	012S	014E	29	F012S014E29
Fairbanks	012S	014E	30	F012S014E30
Fairbanks	012S	014E	31	F012S014E31
Fairbanks	012S	014E	32	F012S014E32
Fairbanks	012S	014E	33	F012S014E33
Fairbanks	012S	014E	34	F012S014E34
Fairbanks	012S	014E	35	F012S014E35
Fairbanks	012S	014E	36	F012S014E36
Fairbanks	012S	015E	07	F012S015E07
Fairbanks	012S	015E	08	F012S015E08
Fairbanks	012S	015E	09	F012S015E09
Fairbanks	012S	015E	15	F012S015E15
Fairbanks	012S	015E	16	F012S015E16
Fairbanks	012S	015E	17	F012S015E17
Fairbanks	012S	015E	18	F012S015E18
Fairbanks	012S	015E	19	F012S015E19
Fairbanks	012S	015E	20	F012S015E20
Fairbanks	012S	015E	21	F012S015E21
Fairbanks	012S	015E	22	F012S015E22
Fairbanks	012S	015E	23	F012S015E23
Fairbanks	012S	015E	24	F012S015E24
Fairbanks	012S	015E	25	F012S015E25
Fairbanks	012S	015E	26	F012S015E26
Fairbanks	012S	015E	27	F012S015E27
Fairbanks	012S	015E	28	F012S015E28
Fairbanks	012S	015E	29	F012S015E29
Fairbanks	012S	015E	30	F012S015E30
Fairbanks	012S	015E	31	F012S015E31
Fairbanks	012S	015E	32	F012S015E32
Fairbanks	012S	015E	33	F012S015E33
Fairbanks	012S	015E	34	F012S015E34
Fairbanks	012S	015E	35	F012S015E35
Fairbanks	012S	015E	36	F012S015E36
Fairbanks	012S	016E	30	F012S016E30
Fairbanks	012S	016E	31	F012S016E31
Fairbanks	012S	016E	32	F012S016E32
Fairbanks	012S	016E	33	F012S016E33
Fairbanks	013N	010W	28	F013N010W28
Fairbanks	013N	010W	29	F013N010W29
Fairbanks	013N	010W	30	F013N010W30
Fairbanks	013N	010W	31	F013N010W31
Fairbanks	013N	010W	32	F013N010W32

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	013N	010W	33	F013N010W33
Fairbanks	013N	010W	34	F013N010W34
Fairbanks	013N	011W	04	F013N011W04
Fairbanks	013N	011W	05	F013N011W05
Fairbanks	013N	011W	06	F013N011W06
Fairbanks	013N	011W	07	F013N011W07
Fairbanks	013N	011W	08	F013N011W08
Fairbanks	013N	011W	09	F013N011W09
Fairbanks	013N	011W	15	F013N011W15
Fairbanks	013N	011W	16	F013N011W16
Fairbanks	013N	011W	17	F013N011W17
Fairbanks	013N	011W	18	F013N011W18
Fairbanks	013N	011W	19	F013N011W19
Fairbanks	013N	011W	20	F013N011W20
Fairbanks	013N	011W	21	F013N011W21
Fairbanks	013N	011W	22	F013N011W22
Fairbanks	013N	011W	23	F013N011W23
Fairbanks	013N	011W	25	F013N011W25
Fairbanks	013N	011W	26	F013N011W26
Fairbanks	013N	011W	27	F013N011W27
Fairbanks	013N	011W	28	F013N011W28
Fairbanks	013N	011W	29	F013N011W29
Fairbanks	013N	011W	30	F013N011W30
Fairbanks	013N	011W	31	F013N011W31
Fairbanks	013N	011W	32	F013N011W32
Fairbanks	013N	011W	33	F013N011W33
Fairbanks	013N	011W	34	F013N011W34
Fairbanks	013N	011W	35	F013N011W35
Fairbanks	013N	011W	36	F013N011W36
Fairbanks	013N	012W	01	F013N012W01
Fairbanks	013N	012W	02	F013N012W02
Fairbanks	013N	012W	03	F013N012W03
Fairbanks	013N	012W	04	F013N012W04
Fairbanks	013N	012W	11	F013N012W11
Fairbanks	013N	012W	12	F013N012W12
Fairbanks	013N	012W	13	F013N012W13
Fairbanks	013N	012W	14	F013N012W14
Fairbanks	013N	012W	25	F013N012W25
Fairbanks	013N	012W	26	F013N012W26
Fairbanks	013S	014E	01	F013S014E01
Fairbanks	013S	014E	02	F013S014E02
Fairbanks	013S	014E	03	F013S014E03
Fairbanks	013S	014E	04	F013S014E04
Fairbanks	013S	014E	05	F013S014E05
Fairbanks	013S	014E	08	F013S014E08
Fairbanks	013S	014E	09	F013S014E09

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	013S	014E	10	F013S014E10
Fairbanks	013S	014E	11	F013S014E11
Fairbanks	013S	014E	12	F013S014E12
Fairbanks	013S	014E	13	F013S014E13
Fairbanks	013S	014E	14	F013S014E14
Fairbanks	013S	014E	15	F013S014E15
Fairbanks	013S	014E	16	F013S014E16
Fairbanks	013S	014E	17	F013S014E17
Fairbanks	013S	014E	21	F013S014E21
Fairbanks	013S	014E	22	F013S014E22
Fairbanks	013S	014E	23	F013S014E23
Fairbanks	013S	014E	24	F013S014E24
Fairbanks	013S	014E	25	F013S014E25
Fairbanks	013S	014E	26	F013S014E26
Fairbanks	013S	014E	27	F013S014E27
Fairbanks	013S	014E	35	F013S014E35
Fairbanks	013S	014E	36	F013S014E36
Fairbanks	013S	015E	01	F013S015E01
Fairbanks	013S	015E	02	F013S015E02
Fairbanks	013S	015E	03	F013S015E03
Fairbanks	013S	015E	04	F013S015E04
Fairbanks	013S	015E	05	F013S015E05
Fairbanks	013S	015E	06	F013S015E06
Fairbanks	013S	015E	07	F013S015E07
Fairbanks	013S	015E	08	F013S015E08
Fairbanks	013S	015E	09	F013S015E09
Fairbanks	013S	015E	10	F013S015E10
Fairbanks	013S	015E	11	F013S015E11
Fairbanks	013S	015E	12	F013S015E12
Fairbanks	013S	015E	13	F013S015E13
Fairbanks	013S	015E	14	F013S015E14
Fairbanks	013S	015E	15	F013S015E15
Fairbanks	013S	015E	16	F013S015E16
Fairbanks	013S	015E	17	F013S015E17
Fairbanks	013S	015E	18	F013S015E18
Fairbanks	013S	015E	19	F013S015E19
Fairbanks	013S	015E	20	F013S015E20
Fairbanks	013S	015E	21	F013S015E21
Fairbanks	013S	015E	22	F013S015E22
Fairbanks	013S	015E	23	F013S015E23
Fairbanks	013S	015E	24	F013S015E24
Fairbanks	013S	015E	25	F013S015E25
Fairbanks	013S	015E	26	F013S015E26
Fairbanks	013S	015E	27	F013S015E27
Fairbanks	013S	015E	28	F013S015E28
Fairbanks	013S	015E	29	F013S015E29

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	013S	015E	30	F013S015E30
Fairbanks	013S	015E	31	F013S015E31
Fairbanks	013S	015E	32	F013S015E32
Fairbanks	013S	015E	33	F013S015E33
Fairbanks	013S	015E	34	F013S015E34
Fairbanks	013S	015E	35	F013S015E35
Fairbanks	013S	015E	36	F013S015E36
Fairbanks	013S	016E	02	F013S016E02
Fairbanks	013S	016E	03	F013S016E03
Fairbanks	013S	016E	04	F013S016E04
Fairbanks	013S	016E	05	F013S016E05
Fairbanks	013S	016E	06	F013S016E06
Fairbanks	013S	016E	07	F013S016E07
Fairbanks	013S	016E	08	F013S016E08
Fairbanks	013S	016E	09	F013S016E09
Fairbanks	013S	016E	10	F013S016E10
Fairbanks	013S	016E	11	F013S016E11
Fairbanks	013S	016E	12	F013S016E12
Fairbanks	013S	016E	13	F013S016E13
Fairbanks	013S	016E	14	F013S016E14
Fairbanks	013S	016E	15	F013S016E15
Fairbanks	013S	016E	16	F013S016E16
Fairbanks	013S	016E	17	F013S016E17
Fairbanks	013S	016E	18	F013S016E18
Fairbanks	013S	016E	19	F013S016E19
Fairbanks	013S	016E	20	F013S016E20
Fairbanks	013S	016E	21	F013S016E21
Fairbanks	013S	016E	22	F013S016E22
Fairbanks	013S	016E	23	F013S016E23
Fairbanks	013S	016E	24	F013S016E24
Fairbanks	013S	016E	25	F013S016E25
Fairbanks	013S	016E	26	F013S016E26
Fairbanks	013S	016E	27	F013S016E27
Fairbanks	013S	016E	28	F013S016E28
Fairbanks	013S	016E	29	F013S016E29
Fairbanks	013S	016E	30	F013S016E30
Fairbanks	013S	016E	31	F013S016E31
Fairbanks	013S	016E	32	F013S016E32
Fairbanks	013S	016E	33	F013S016E33
Fairbanks	013S	016E	34	F013S016E34
Fairbanks	013S	016E	35	F013S016E35
Fairbanks	013S	016E	36	F013S016E36
Fairbanks	014N	012W	03	F014N012W03
Fairbanks	014N	012W	04	F014N012W04
Fairbanks	014N	012W	05	F014N012W05
Fairbanks	014N	012W	06	F014N012W06

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	014N	012W	07	F014N012W07
Fairbanks	014N	012W	08	F014N012W08
Fairbanks	014N	012W	09	F014N012W09
Fairbanks	014N	012W	16	F014N012W16
Fairbanks	014N	012W	17	F014N012W17
Fairbanks	014N	012W	18	F014N012W18
Fairbanks	014N	012W	19	F014N012W19
Fairbanks	014N	012W	20	F014N012W20
Fairbanks	014N	012W	21	F014N012W21
Fairbanks	014N	012W	22	F014N012W22
Fairbanks	014N	012W	25	F014N012W25
Fairbanks	014N	012W	26	F014N012W26
Fairbanks	014N	012W	27	F014N012W27
Fairbanks	014N	012W	28	F014N012W28
Fairbanks	014N	012W	29	F014N012W29
Fairbanks	014N	012W	30	F014N012W30
Fairbanks	014N	012W	32	F014N012W32
Fairbanks	014N	012W	33	F014N012W33
Fairbanks	014N	012W	34	F014N012W34
Fairbanks	014N	012W	35	F014N012W35
Fairbanks	014N	012W	36	F014N012W36
Fairbanks	014N	013W	01	F014N013W01
Fairbanks	014N	013W	02	F014N013W02
Fairbanks	014N	013W	12	F014N013W12
Fairbanks	014N	013W	13	F014N013W13
Fairbanks	014S	015E	01	F014S015E01
Fairbanks	014S	015E	02	F014S015E02
Fairbanks	014S	015E	03	F014S015E03
Fairbanks	014S	015E	04	F014S015E04
Fairbanks	014S	015E	05	F014S015E05
Fairbanks	014S	015E	06	F014S015E06
Fairbanks	014S	015E	08	F014S015E08
Fairbanks	014S	015E	09	F014S015E09
Fairbanks	014S	015E	10	F014S015E10
Fairbanks	014S	015E	11	F014S015E11
Fairbanks	014S	015E	12	F014S015E12
Fairbanks	014S	015E	13	F014S015E13
Fairbanks	014S	015E	14	F014S015E14
Fairbanks	014S	015E	15	F014S015E15
Fairbanks	014S	015E	22	F014S015E22
Fairbanks	014S	015E	23	F014S015E23
Fairbanks	014S	015E	24	F014S015E24
Fairbanks	014S	015E	25	F014S015E25
Fairbanks	014S	015E	26	F014S015E26
Fairbanks	014S	015E	27	F014S015E27
Fairbanks	014S	015E	35	F014S015E35

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	014S	015E	36	F014S015E36
Fairbanks	014S	016E	01	F014S016E01
Fairbanks	014S	016E	02	F014S016E02
Fairbanks	014S	016E	03	F014S016E03
Fairbanks	014S	016E	04	F014S016E04
Fairbanks	014S	016E	05	F014S016E05
Fairbanks	014S	016E	06	F014S016E06
Fairbanks	014S	016E	07	F014S016E07
Fairbanks	014S	016E	08	F014S016E08
Fairbanks	014S	016E	09	F014S016E09
Fairbanks	014S	016E	10	F014S016E10
Fairbanks	014S	016E	11	F014S016E11
Fairbanks	014S	016E	12	F014S016E12
Fairbanks	014S	016E	13	F014S016E13
Fairbanks	014S	016E	14	F014S016E14
Fairbanks	014S	016E	15	F014S016E15
Fairbanks	014S	016E	16	F014S016E16
Fairbanks	014S	016E	17	F014S016E17
Fairbanks	014S	016E	18	F014S016E18
Fairbanks	014S	016E	19	F014S016E19
Fairbanks	014S	016E	20	F014S016E20
Fairbanks	014S	016E	21	F014S016E21
Fairbanks	014S	016E	22	F014S016E22
Fairbanks	014S	016E	23	F014S016E23
Fairbanks	014S	016E	24	F014S016E24
Fairbanks	014S	016E	25	F014S016E25
Fairbanks	014S	016E	26	F014S016E26
Fairbanks	014S	016E	27	F014S016E27
Fairbanks	014S	016E	28	F014S016E28
Fairbanks	014S	016E	29	F014S016E29
Fairbanks	014S	016E	30	F014S016E30
Fairbanks	014S	016E	31	F014S016E31
Fairbanks	014S	016E	32	F014S016E32
Fairbanks	014S	016E	33	F014S016E33
Fairbanks	014S	016E	34	F014S016E34
Fairbanks	014S	016E	35	F014S016E35
Fairbanks	014S	016E	36	F014S016E36
Fairbanks	015N	012W	05	F015N012W05
Fairbanks	015N	012W	06	F015N012W06
Fairbanks	015N	012W	07	F015N012W07
Fairbanks	015N	012W	08	F015N012W08
Fairbanks	015N	012W	09	F015N012W09
Fairbanks	015N	012W	10	F015N012W10
Fairbanks	015N	012W	15	F015N012W15
Fairbanks	015N	012W	16	F015N012W16
Fairbanks	015N	012W	17	F015N012W17

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	015N	012W	18	F015N012W18
Fairbanks	015N	012W	19	F015N012W19
Fairbanks	015N	012W	20	F015N012W20
Fairbanks	015N	012W	21	F015N012W21
Fairbanks	015N	012W	22	F015N012W22
Fairbanks	015N	012W	27	F015N012W27
Fairbanks	015N	012W	28	F015N012W28
Fairbanks	015N	012W	29	F015N012W29
Fairbanks	015N	012W	30	F015N012W30
Fairbanks	015N	012W	31	F015N012W31
Fairbanks	015N	012W	32	F015N012W32
Fairbanks	015N	012W	33	F015N012W33
Fairbanks	015N	012W	34	F015N012W34
Fairbanks	015N	013W	01	F015N013W01
Fairbanks	015N	013W	02	F015N013W02
Fairbanks	015N	013W	11	F015N013W11
Fairbanks	015N	013W	12	F015N013W12
Fairbanks	015N	013W	13	F015N013W13
Fairbanks	015N	013W	14	F015N013W14
Fairbanks	015N	013W	15	F015N013W15
Fairbanks	015N	013W	22	F015N013W22
Fairbanks	015N	013W	23	F015N013W23
Fairbanks	015N	013W	24	F015N013W24
Fairbanks	015N	013W	25	F015N013W25
Fairbanks	015N	013W	26	F015N013W26
Fairbanks	015N	013W	27	F015N013W27
Fairbanks	015N	013W	34	F015N013W34
Fairbanks	015N	013W	35	F015N013W35
Fairbanks	015N	013W	36	F015N013W36
Fairbanks	015S	015E	01	F015S015E01
Fairbanks	015S	016E	01	F015S016E01
Fairbanks	015S	016E	02	F015S016E02
Fairbanks	015S	016E	03	F015S016E03
Fairbanks	015S	016E	04	F015S016E04
Fairbanks	015S	016E	05	F015S016E05
Fairbanks	015S	016E	06	F015S016E06
Fairbanks	015S	016E	07	F015S016E07
Fairbanks	015S	016E	08	F015S016E08
Fairbanks	015S	016E	09	F015S016E09
Fairbanks	015S	016E	10	F015S016E10
Fairbanks	015S	016E	11	F015S016E11
Fairbanks	015S	016E	12	F015S016E12
Fairbanks	015S	016E	13	F015S016E13
Fairbanks	015S	016E	14	F015S016E14
Fairbanks	015S	016E	15	F015S016E15
Fairbanks	015S	016E	16	F015S016E16

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	016N	012W	19	F016N012W19
Fairbanks	016N	012W	30	F016N012W30
Fairbanks	016N	012W	31	F016N012W31
Fairbanks	016N	013W	02	F016N013W02
Fairbanks	016N	013W	03	F016N013W03
Fairbanks	016N	013W	04	F016N013W04
Fairbanks	016N	013W	05	F016N013W05
Fairbanks	016N	013W	08	F016N013W08
Fairbanks	016N	013W	09	F016N013W09
Fairbanks	016N	013W	10	F016N013W10
Fairbanks	016N	013W	11	F016N013W11
Fairbanks	016N	013W	12	F016N013W12
Fairbanks	016N	013W	13	F016N013W13
Fairbanks	016N	013W	14	F016N013W14
Fairbanks	016N	013W	15	F016N013W15
Fairbanks	016N	013W	16	F016N013W16
Fairbanks	016N	013W	21	F016N013W21
Fairbanks	016N	013W	22	F016N013W22
Fairbanks	016N	013W	23	F016N013W23
Fairbanks	016N	013W	24	F016N013W24
Fairbanks	016N	013W	25	F016N013W25
Fairbanks	016N	013W	26	F016N013W26
Fairbanks	016N	013W	35	F016N013W35
Fairbanks	016N	013W	36	F016N013W36
Fairbanks	017N	013W	05	F017N013W05
Fairbanks	017N	013W	06	F017N013W06
Fairbanks	017N	013W	07	F017N013W07
Fairbanks	017N	013W	08	F017N013W08
Fairbanks	017N	013W	09	F017N013W09
Fairbanks	017N	013W	16	F017N013W16
Fairbanks	017N	013W	17	F017N013W17
Fairbanks	017N	013W	18	F017N013W18
Fairbanks	017N	013W	19	F017N013W19
Fairbanks	017N	013W	20	F017N013W20
Fairbanks	017N	013W	21	F017N013W21
Fairbanks	017N	013W	22	F017N013W22
Fairbanks	017N	013W	27	F017N013W27
Fairbanks	017N	013W	28	F017N013W28
Fairbanks	017N	013W	29	F017N013W29
Fairbanks	017N	013W	30	F017N013W30
Fairbanks	017N	013W	32	F017N013W32
Fairbanks	017N	013W	33	F017N013W33
Fairbanks	017N	013W	34	F017N013W34
Fairbanks	017N	013W	35	F017N013W35
Fairbanks	017N	013W	36	F017N013W36
Fairbanks	017N	014W	01	F017N014W01

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	017N	014W	02	F017N014W02
Fairbanks	017N	014W	12	F017N014W12
Fairbanks	017N	014W	13	F017N014W13
Fairbanks	018N	013W	19	F018N013W19
Fairbanks	018N	013W	30	F018N013W30
Fairbanks	018N	013W	31	F018N013W31
Fairbanks	018N	013W	32	F018N013W32
Fairbanks	018N	014W	02	F018N014W02
Fairbanks	018N	014W	03	F018N014W03
Fairbanks	018N	014W	04	F018N014W04
Fairbanks	018N	014W	05	F018N014W05
Fairbanks	018N	014W	06	F018N014W06
Fairbanks	018N	014W	08	F018N014W08
Fairbanks	018N	014W	09	F018N014W09
Fairbanks	018N	014W	10	F018N014W10
Fairbanks	018N	014W	11	F018N014W11
Fairbanks	018N	014W	13	F018N014W13
Fairbanks	018N	014W	14	F018N014W14
Fairbanks	018N	014W	15	F018N014W15
Fairbanks	018N	014W	16	F018N014W16
Fairbanks	018N	014W	21	F018N014W21
Fairbanks	018N	014W	22	F018N014W22
Fairbanks	018N	014W	23	F018N014W23
Fairbanks	018N	014W	24	F018N014W24
Fairbanks	018N	014W	25	F018N014W25
Fairbanks	018N	014W	26	F018N014W26
Fairbanks	018N	014W	27	F018N014W27
Fairbanks	018N	014W	35	F018N014W35
Fairbanks	018N	014W	36	F018N014W36
Fairbanks	019N	014W	07	F019N014W07
Fairbanks	019N	014W	17	F019N014W17
Fairbanks	019N	014W	18	F019N014W18
Fairbanks	019N	014W	19	F019N014W19
Fairbanks	019N	014W	20	F019N014W20
Fairbanks	019N	014W	28	F019N014W28
Fairbanks	019N	014W	29	F019N014W29
Fairbanks	019N	014W	30	F019N014W30
Fairbanks	019N	014W	31	F019N014W31
Fairbanks	019N	014W	32	F019N014W32
Fairbanks	019N	014W	33	F019N014W33
Fairbanks	019N	014W	34	F019N014W34
Fairbanks	019N	015W	01	F019N015W01
Fairbanks	019N	015W	02	F019N015W02
Fairbanks	019N	015W	03	F019N015W03
Fairbanks	019N	015W	04	F019N015W04
Fairbanks	019N	015W	10	F019N015W10

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	019N	015W	11	F019N015W11
Fairbanks	019N	015W	12	F019N015W12
Fairbanks	019N	015W	13	F019N015W13
Fairbanks	019N	015W	14	F019N015W14
Fairbanks	019N	015W	15	F019N015W15
Fairbanks	019N	015W	23	F019N015W23
Fairbanks	019N	015W	24	F019N015W24
Fairbanks	019N	015W	25	F019N015W25
Fairbanks	019N	015W	26	F019N015W26
Fairbanks	019N	015W	36	F019N015W36
Fairbanks	020N	014W	06	F020N014W06
Fairbanks	020N	015W	01	F020N015W01
Fairbanks	020N	015W	02	F020N015W02
Fairbanks	020N	015W	03	F020N015W03
Fairbanks	020N	015W	04	F020N015W04
Fairbanks	020N	015W	05	F020N015W05
Fairbanks	020N	015W	07	F020N015W07
Fairbanks	020N	015W	08	F020N015W08
Fairbanks	020N	015W	09	F020N015W09
Fairbanks	020N	015W	10	F020N015W10
Fairbanks	020N	015W	11	F020N015W11
Fairbanks	020N	015W	12	F020N015W12
Fairbanks	020N	015W	13	F020N015W13
Fairbanks	020N	015W	14	F020N015W14
Fairbanks	020N	015W	15	F020N015W15
Fairbanks	020N	015W	16	F020N015W16
Fairbanks	020N	015W	17	F020N015W17
Fairbanks	020N	015W	18	F020N015W18
Fairbanks	020N	015W	19	F020N015W19
Fairbanks	020N	015W	20	F020N015W20
Fairbanks	020N	015W	21	F020N015W21
Fairbanks	020N	015W	22	F020N015W22
Fairbanks	020N	015W	23	F020N015W23
Fairbanks	020N	015W	24	F020N015W24
Fairbanks	020N	015W	25	F020N015W25
Fairbanks	020N	015W	26	F020N015W26
Fairbanks	020N	015W	27	F020N015W27
Fairbanks	020N	015W	28	F020N015W28
Fairbanks	020N	015W	29	F020N015W29
Fairbanks	020N	015W	30	F020N015W30
Fairbanks	020N	015W	32	F020N015W32
Fairbanks	020N	015W	33	F020N015W33
Fairbanks	020N	015W	34	F020N015W34
Fairbanks	020N	015W	35	F020N015W35
Fairbanks	020N	015W	36	F020N015W36
Fairbanks	021N	014W	04	F021N014W04

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	021N	014W	05	F021N014W05
Fairbanks	021N	014W	06	F021N014W06
Fairbanks	021N	014W	07	F021N014W07
Fairbanks	021N	014W	08	F021N014W08
Fairbanks	021N	014W	09	F021N014W09
Fairbanks	021N	014W	17	F021N014W17
Fairbanks	021N	014W	18	F021N014W18
Fairbanks	021N	014W	19	F021N014W19
Fairbanks	021N	014W	20	F021N014W20
Fairbanks	021N	014W	29	F021N014W29
Fairbanks	021N	014W	30	F021N014W30
Fairbanks	021N	014W	31	F021N014W31
Fairbanks	021N	014W	32	F021N014W32
Fairbanks	021N	015W	01	F021N015W01
Fairbanks	021N	015W	11	F021N015W11
Fairbanks	021N	015W	12	F021N015W12
Fairbanks	021N	015W	13	F021N015W13
Fairbanks	021N	015W	14	F021N015W14
Fairbanks	021N	015W	24	F021N015W24
Fairbanks	021N	015W	25	F021N015W25
Fairbanks	021N	015W	26	F021N015W26
Fairbanks	021N	015W	34	F021N015W34
Fairbanks	021N	015W	35	F021N015W35
Fairbanks	021N	015W	36	F021N015W36
Fairbanks	022N	014W	04	F022N014W04
Fairbanks	022N	014W	05	F022N014W05
Fairbanks	022N	014W	06	F022N014W06
Fairbanks	022N	014W	07	F022N014W07
Fairbanks	022N	014W	08	F022N014W08
Fairbanks	022N	014W	09	F022N014W09
Fairbanks	022N	014W	16	F022N014W16
Fairbanks	022N	014W	17	F022N014W17
Fairbanks	022N	014W	18	F022N014W18
Fairbanks	022N	014W	19	F022N014W19
Fairbanks	022N	014W	20	F022N014W20
Fairbanks	022N	014W	21	F022N014W21
Fairbanks	022N	014W	28	F022N014W28
Fairbanks	022N	014W	29	F022N014W29
Fairbanks	022N	014W	30	F022N014W30
Fairbanks	022N	014W	31	F022N014W31
Fairbanks	022N	014W	32	F022N014W32
Fairbanks	022N	014W	33	F022N014W33
Fairbanks	022N	015W	01	F022N015W01
Fairbanks	022N	015W	12	F022N015W12
Fairbanks	022N	015W	13	F022N015W13
Fairbanks	022N	015W	24	F022N015W24

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	022N	015W	25	F022N015W25
Fairbanks	022N	015W	36	F022N015W36
Fairbanks	023N	014W	01	F023N014W01
Fairbanks	023N	014W	02	F023N014W02
Fairbanks	023N	014W	03	F023N014W03
Fairbanks	023N	014W	04	F023N014W04
Fairbanks	023N	014W	05	F023N014W05
Fairbanks	023N	014W	06	F023N014W06
Fairbanks	023N	014W	07	F023N014W07
Fairbanks	023N	014W	08	F023N014W08
Fairbanks	023N	014W	09	F023N014W09
Fairbanks	023N	014W	10	F023N014W10
Fairbanks	023N	014W	11	F023N014W11
Fairbanks	023N	014W	15	F023N014W15
Fairbanks	023N	014W	16	F023N014W16
Fairbanks	023N	014W	17	F023N014W17
Fairbanks	023N	014W	18	F023N014W18
Fairbanks	023N	014W	19	F023N014W19
Fairbanks	023N	014W	20	F023N014W20
Fairbanks	023N	014W	21	F023N014W21
Fairbanks	023N	014W	28	F023N014W28
Fairbanks	023N	014W	29	F023N014W29
Fairbanks	023N	014W	30	F023N014W30
Fairbanks	023N	014W	31	F023N014W31
Fairbanks	023N	014W	32	F023N014W32
Fairbanks	023N	014W	33	F023N014W33
Fairbanks	023N	015W	12	F023N015W12
Fairbanks	023N	015W	13	F023N015W13
Fairbanks	023N	015W	24	F023N015W24
Fairbanks	023N	015W	25	F023N015W25
Fairbanks	023N	015W	36	F023N015W36
Fairbanks	024N	013W	04	F024N013W04
Fairbanks	024N	013W	05	F024N013W05
Fairbanks	024N	013W	06	F024N013W06
Fairbanks	024N	013W	07	F024N013W07
Fairbanks	024N	013W	08	F024N013W08
Fairbanks	024N	013W	09	F024N013W09
Fairbanks	024N	013W	17	F024N013W17
Fairbanks	024N	013W	18	F024N013W18
Fairbanks	024N	013W	19	F024N013W19
Fairbanks	024N	013W	20	F024N013W20
Fairbanks	024N	013W	30	F024N013W30
Fairbanks	024N	014W	11	F024N014W11
Fairbanks	024N	014W	12	F024N014W12
Fairbanks	024N	014W	13	F024N014W13
Fairbanks	024N	014W	14	F024N014W14

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	024N	014W	15	F024N014W15
Fairbanks	024N	014W	22	F024N014W22
Fairbanks	024N	014W	23	F024N014W23
Fairbanks	024N	014W	24	F024N014W24
Fairbanks	024N	014W	25	F024N014W25
Fairbanks	024N	014W	26	F024N014W26
Fairbanks	024N	014W	27	F024N014W27
Fairbanks	024N	014W	33	F024N014W33
Fairbanks	024N	014W	34	F024N014W34
Fairbanks	024N	014W	35	F024N014W35
Fairbanks	024N	014W	36	F024N014W36
Fairbanks	025N	012W	05	F025N012W05
Fairbanks	025N	012W	06	F025N012W06
Fairbanks	025N	012W	07	F025N012W07
Fairbanks	025N	012W	08	F025N012W08
Fairbanks	025N	012W	17	F025N012W17
Fairbanks	025N	012W	18	F025N012W18
Fairbanks	025N	012W	19	F025N012W19
Fairbanks	025N	013W	01	F025N013W01
Fairbanks	025N	013W	02	F025N013W02
Fairbanks	025N	013W	11	F025N013W11
Fairbanks	025N	013W	12	F025N013W12
Fairbanks	025N	013W	13	F025N013W13
Fairbanks	025N	013W	14	F025N013W14
Fairbanks	025N	013W	21	F025N013W21
Fairbanks	025N	013W	22	F025N013W22
Fairbanks	025N	013W	23	F025N013W23
Fairbanks	025N	013W	24	F025N013W24
Fairbanks	025N	013W	25	F025N013W25
Fairbanks	025N	013W	26	F025N013W26
Fairbanks	025N	013W	27	F025N013W27
Fairbanks	025N	013W	28	F025N013W28
Fairbanks	025N	013W	29	F025N013W29
Fairbanks	025N	013W	32	F025N013W32
Fairbanks	025N	013W	33	F025N013W33
Fairbanks	025N	013W	34	F025N013W34
Fairbanks	025N	013W	35	F025N013W35
Fairbanks	026N	012W	05	F026N012W05
Fairbanks	026N	012W	06	F026N012W06
Fairbanks	026N	012W	07	F026N012W07
Fairbanks	026N	012W	08	F026N012W08
Fairbanks	026N	012W	18	F026N012W18
Fairbanks	026N	012W	30	F026N012W30
Fairbanks	026N	012W	31	F026N012W31
Fairbanks	026N	012W	32	F026N012W32
Fairbanks	026N	013W	01	F026N013W01

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	026N	013W	02	F026N013W02
Fairbanks	026N	013W	03	F026N013W03
Fairbanks	026N	013W	04	F026N013W04
Fairbanks	026N	013W	05	F026N013W05
Fairbanks	026N	013W	08	F026N013W08
Fairbanks	026N	013W	09	F026N013W09
Fairbanks	026N	013W	10	F026N013W10
Fairbanks	026N	013W	11	F026N013W11
Fairbanks	026N	013W	12	F026N013W12
Fairbanks	026N	013W	13	F026N013W13
Fairbanks	026N	013W	14	F026N013W14
Fairbanks	026N	013W	15	F026N013W15
Fairbanks	026N	013W	16	F026N013W16
Fairbanks	026N	013W	21	F026N013W21
Fairbanks	026N	013W	22	F026N013W22
Fairbanks	026N	013W	23	F026N013W23
Fairbanks	026N	013W	24	F026N013W24
Fairbanks	026N	013W	25	F026N013W25
Fairbanks	026N	013W	26	F026N013W26
Fairbanks	026N	013W	27	F026N013W27
Fairbanks	026N	013W	35	F026N013W35
Fairbanks	026N	013W	36	F026N013W36
Fairbanks	027N	012W	04	F027N012W04
Fairbanks	027N	012W	05	F027N012W05
Fairbanks	027N	012W	06	F027N012W06
Fairbanks	027N	012W	07	F027N012W07
Fairbanks	027N	012W	08	F027N012W08
Fairbanks	027N	012W	18	F027N012W18
Fairbanks	027N	012W	19	F027N012W19
Fairbanks	027N	012W	20	F027N012W20
Fairbanks	027N	012W	29	F027N012W29
Fairbanks	027N	012W	30	F027N012W30
Fairbanks	027N	012W	31	F027N012W31
Fairbanks	027N	012W	32	F027N012W32
Fairbanks	027N	013W	01	F027N013W01
Fairbanks	027N	013W	02	F027N013W02
Fairbanks	027N	013W	10	F027N013W10
Fairbanks	027N	013W	11	F027N013W11
Fairbanks	027N	013W	12	F027N013W12
Fairbanks	027N	013W	13	F027N013W13
Fairbanks	027N	013W	14	F027N013W14
Fairbanks	027N	013W	15	F027N013W15
Fairbanks	027N	013W	16	F027N013W16
Fairbanks	027N	013W	20	F027N013W20
Fairbanks	027N	013W	21	F027N013W21
Fairbanks	027N	013W	22	F027N013W22

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	027N	013W	23	F027N013W23
Fairbanks	027N	013W	24	F027N013W24
Fairbanks	027N	013W	25	F027N013W25
Fairbanks	027N	013W	26	F027N013W26
Fairbanks	027N	013W	27	F027N013W27
Fairbanks	027N	013W	28	F027N013W28
Fairbanks	027N	013W	29	F027N013W29
Fairbanks	027N	013W	32	F027N013W32
Fairbanks	027N	013W	33	F027N013W33
Fairbanks	027N	013W	34	F027N013W34
Fairbanks	027N	013W	35	F027N013W35
Fairbanks	027N	013W	36	F027N013W36
Fairbanks	028N	012W	02	F028N012W02
Fairbanks	028N	012W	03	F028N012W03
Fairbanks	028N	012W	04	F028N012W04
Fairbanks	028N	012W	08	F028N012W08
Fairbanks	028N	012W	09	F028N012W09
Fairbanks	028N	012W	10	F028N012W10
Fairbanks	028N	012W	11	F028N012W11
Fairbanks	028N	012W	14	F028N012W14
Fairbanks	028N	012W	15	F028N012W15
Fairbanks	028N	012W	16	F028N012W16
Fairbanks	028N	012W	17	F028N012W17
Fairbanks	028N	012W	19	F028N012W19
Fairbanks	028N	012W	20	F028N012W20
Fairbanks	028N	012W	21	F028N012W21
Fairbanks	028N	012W	22	F028N012W22
Fairbanks	028N	012W	23	F028N012W23
Fairbanks	028N	012W	27	F028N012W27
Fairbanks	028N	012W	28	F028N012W28
Fairbanks	028N	012W	29	F028N012W29
Fairbanks	028N	012W	30	F028N012W30
Fairbanks	028N	012W	31	F028N012W31
Fairbanks	028N	012W	32	F028N012W32
Fairbanks	028N	012W	33	F028N012W33
Fairbanks	028N	013W	36	F028N013W36
Fairbanks	029N	011W	06	F029N011W06
Fairbanks	029N	011W	07	F029N011W07
Fairbanks	029N	011W	18	F029N011W18
Fairbanks	029N	011W	19	F029N011W19
Fairbanks	029N	011W	20	F029N011W20
Fairbanks	029N	011W	29	F029N011W29
Fairbanks	029N	011W	30	F029N011W30
Fairbanks	029N	011W	31	F029N011W31
Fairbanks	029N	012W	01	F029N012W01
Fairbanks	029N	012W	02	F029N012W02

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	029N	012W	11	F029N012W11
Fairbanks	029N	012W	12	F029N012W12
Fairbanks	029N	012W	13	F029N012W13
Fairbanks	029N	012W	14	F029N012W14
Fairbanks	029N	012W	15	F029N012W15
Fairbanks	029N	012W	22	F029N012W22
Fairbanks	029N	012W	23	F029N012W23
Fairbanks	029N	012W	24	F029N012W24
Fairbanks	029N	012W	25	F029N012W25
Fairbanks	029N	012W	26	F029N012W26
Fairbanks	029N	012W	27	F029N012W27
Fairbanks	029N	012W	34	F029N012W34
Fairbanks	029N	012W	35	F029N012W35
Fairbanks	029N	012W	36	F029N012W36
Fairbanks	030N	011W	01	F030N011W01
Fairbanks	030N	011W	02	F030N011W02
Fairbanks	030N	011W	03	F030N011W03
Fairbanks	030N	011W	04	F030N011W04
Fairbanks	030N	011W	05	F030N011W05
Fairbanks	030N	011W	06	F030N011W06
Fairbanks	030N	011W	07	F030N011W07
Fairbanks	030N	011W	08	F030N011W08
Fairbanks	030N	011W	09	F030N011W09
Fairbanks	030N	011W	17	F030N011W17
Fairbanks	030N	011W	18	F030N011W18
Fairbanks	030N	011W	19	F030N011W19
Fairbanks	030N	011W	20	F030N011W20
Fairbanks	030N	011W	29	F030N011W29
Fairbanks	030N	011W	30	F030N011W30
Fairbanks	030N	011W	31	F030N011W31
Fairbanks	030N	011W	32	F030N011W32
Fairbanks	030N	012W	01	F030N012W01
Fairbanks	030N	012W	12	F030N012W12
Fairbanks	030N	012W	13	F030N012W13
Fairbanks	030N	012W	24	F030N012W24
Fairbanks	030N	012W	25	F030N012W25
Fairbanks	030N	012W	26	F030N012W26
Fairbanks	030N	012W	35	F030N012W35
Fairbanks	030N	012W	36	F030N012W36
Fairbanks	031N	004W	16	F031N004W16
Fairbanks	031N	004W	17	F031N004W17
Fairbanks	031N	004W	18	F031N004W18
Fairbanks	031N	004W	19	F031N004W19
Fairbanks	031N	004W	20	F031N004W20
Fairbanks	031N	004W	21	F031N004W21
Fairbanks	031N	004W	29	F031N004W29

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	031N	004W	30	F031N004W30
Fairbanks	031N	010W	04	F031N010W04
Fairbanks	031N	010W	05	F031N010W05
Fairbanks	031N	010W	06	F031N010W06
Fairbanks	031N	010W	07	F031N010W07
Fairbanks	031N	010W	08	F031N010W08
Fairbanks	031N	010W	09	F031N010W09
Fairbanks	031N	010W	16	F031N010W16
Fairbanks	031N	010W	17	F031N010W17
Fairbanks	031N	010W	18	F031N010W18
Fairbanks	031N	010W	19	F031N010W19
Fairbanks	031N	010W	20	F031N010W20
Fairbanks	031N	010W	21	F031N010W21
Fairbanks	031N	010W	29	F031N010W29
Fairbanks	031N	010W	30	F031N010W30
Fairbanks	031N	010W	31	F031N010W31
Fairbanks	031N	011W	01	F031N011W01
Fairbanks	031N	011W	12	F031N011W12
Fairbanks	031N	011W	13	F031N011W13
Fairbanks	031N	011W	23	F031N011W23
Fairbanks	031N	011W	24	F031N011W24
Fairbanks	031N	011W	25	F031N011W25
Fairbanks	031N	011W	26	F031N011W26
Fairbanks	031N	011W	27	F031N011W27
Fairbanks	031N	011W	28	F031N011W28
Fairbanks	031N	011W	29	F031N011W29
Fairbanks	031N	011W	31	F031N011W31
Fairbanks	031N	011W	32	F031N011W32
Fairbanks	031N	011W	33	F031N011W33
Fairbanks	031N	011W	34	F031N011W34
Fairbanks	031N	011W	35	F031N011W35
Fairbanks	031N	011W	36	F031N011W36
Fairbanks	032N	010W	02	F032N010W02
Fairbanks	032N	010W	03	F032N010W03
Fairbanks	032N	010W	04	F032N010W04
Fairbanks	032N	010W	05	F032N010W05
Fairbanks	032N	010W	08	F032N010W08
Fairbanks	032N	010W	09	F032N010W09
Fairbanks	032N	010W	10	F032N010W10
Fairbanks	032N	010W	15	F032N010W15
Fairbanks	032N	010W	16	F032N010W16
Fairbanks	032N	010W	17	F032N010W17
Fairbanks	032N	010W	19	F032N010W19
Fairbanks	032N	010W	20	F032N010W20
Fairbanks	032N	010W	21	F032N010W21
Fairbanks	032N	010W	22	F032N010W22

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	032N	010W	27	F032N010W27
Fairbanks	032N	010W	28	F032N010W28
Fairbanks	032N	010W	29	F032N010W29
Fairbanks	032N	010W	30	F032N010W30
Fairbanks	032N	010W	31	F032N010W31
Fairbanks	032N	010W	32	F032N010W32
Fairbanks	032N	010W	33	F032N010W33
Fairbanks	032N	011W	36	F032N011W36
Fairbanks	033N	009W	07	F033N009W07
Fairbanks	033N	009W	18	F033N009W18
Fairbanks	033N	009W	19	F033N009W19
Fairbanks	033N	009W	30	F033N009W30
Fairbanks	033N	009W	31	F033N009W31
Fairbanks	033N	010W	01	F033N010W01
Fairbanks	033N	010W	02	F033N010W02
Fairbanks	033N	010W	03	F033N010W03
Fairbanks	033N	010W	10	F033N010W10
Fairbanks	033N	010W	11	F033N010W11
Fairbanks	033N	010W	12	F033N010W12
Fairbanks	033N	010W	13	F033N010W13
Fairbanks	033N	010W	14	F033N010W14
Fairbanks	033N	010W	15	F033N010W15
Fairbanks	033N	010W	23	F033N010W23
Fairbanks	033N	010W	24	F033N010W24
Fairbanks	033N	010W	25	F033N010W25
Fairbanks	033N	010W	26	F033N010W26
Fairbanks	033N	010W	27	F033N010W27
Fairbanks	033N	010W	33	F033N010W33
Fairbanks	033N	010W	34	F033N010W34
Fairbanks	033N	010W	35	F033N010W35
Fairbanks	033N	010W	36	F033N010W36
Fairbanks	034N	010W	02	F034N010W02
Fairbanks	034N	010W	03	F034N010W03
Fairbanks	034N	010W	04	F034N010W04
Fairbanks	034N	010W	05	F034N010W05
Fairbanks	034N	010W	08	F034N010W08
Fairbanks	034N	010W	09	F034N010W09
Fairbanks	034N	010W	10	F034N010W10
Fairbanks	034N	010W	11	F034N010W11
Fairbanks	034N	010W	13	F034N010W13
Fairbanks	034N	010W	14	F034N010W14
Fairbanks	034N	010W	15	F034N010W15
Fairbanks	034N	010W	16	F034N010W16
Fairbanks	034N	010W	21	F034N010W21
Fairbanks	034N	010W	22	F034N010W22
Fairbanks	034N	010W	23	F034N010W23

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	034N	010W	24	F034N010W24
Fairbanks	034N	010W	25	F034N010W25
Fairbanks	034N	010W	26	F034N010W26
Fairbanks	034N	010W	27	F034N010W27
Fairbanks	034N	010W	34	F034N010W34
Fairbanks	034N	010W	35	F034N010W35
Fairbanks	034N	010W	36	F034N010W36
Fairbanks	035N	010W	02	F035N010W02
Fairbanks	035N	010W	03	F035N010W03
Fairbanks	035N	010W	04	F035N010W04
Fairbanks	035N	010W	05	F035N010W05
Fairbanks	035N	010W	08	F035N010W08
Fairbanks	035N	010W	09	F035N010W09
Fairbanks	035N	010W	10	F035N010W10
Fairbanks	035N	010W	15	F035N010W15
Fairbanks	035N	010W	16	F035N010W16
Fairbanks	035N	010W	17	F035N010W17
Fairbanks	035N	010W	20	F035N010W20
Fairbanks	035N	010W	21	F035N010W21
Fairbanks	035N	010W	22	F035N010W22
Fairbanks	035N	010W	27	F035N010W27
Fairbanks	035N	010W	28	F035N010W28
Fairbanks	035N	010W	29	F035N010W29
Fairbanks	035N	010W	32	F035N010W32
Fairbanks	035N	010W	33	F035N010W33
Fairbanks	035N	010W	34	F035N010W34
Fairbanks	036N	010W	01	F036N010W01
Fairbanks	036N	010W	02	F036N010W02
Fairbanks	036N	010W	03	F036N010W03
Fairbanks	036N	010W	04	F036N010W04
Fairbanks	036N	010W	09	F036N010W09
Fairbanks	036N	010W	10	F036N010W10
Fairbanks	036N	010W	11	F036N010W11
Fairbanks	036N	010W	14	F036N010W14
Fairbanks	036N	010W	15	F036N010W15
Fairbanks	036N	010W	16	F036N010W16
Fairbanks	036N	010W	17	F036N010W17
Fairbanks	036N	010W	20	F036N010W20
Fairbanks	036N	010W	21	F036N010W21
Fairbanks	036N	010W	22	F036N010W22
Fairbanks	036N	010W	23	F036N010W23
Fairbanks	036N	010W	27	F036N010W27
Fairbanks	036N	010W	28	F036N010W28
Fairbanks	036N	010W	29	F036N010W29
Fairbanks	036N	010W	32	F036N010W32
Fairbanks	036N	010W	33	F036N010W33

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Fairbanks	036N	010W	34	F036N010W34
Fairbanks	037N	009W	30	F037N009W30
Fairbanks	037N	009W	31	F037N009W31
Fairbanks	037N	010W	25	F037N010W25
Fairbanks	037N	010W	26	F037N010W26
Fairbanks	037N	010W	34	F037N010W34
Fairbanks	037N	010W	35	F037N010W35
Fairbanks	037N	010W	36	F037N010W36
Copper River	008S	006W	25	C008S006W25
Copper River	008S	006W	26	C008S006W26
Copper River	008S	006W	27	C008S006W27
Copper River	008S	006W	34	C008S006W34
Copper River	008S	006W	35	C008S006W35
Copper River	008S	006W	36	C008S006W36
Copper River	009N	023E	01	C009N023E01
Copper River	009S	006W	01	C009S006W01
Copper River	009S	006W	02	C009S006W02
Copper River	009S	006W	03	C009S006W03
Copper River	010N	023E	01	C010N023E01
Copper River	010N	023E	02	C010N023E02
Copper River	010N	023E	03	C010N023E03
Copper River	010N	023E	04	C010N023E04
Copper River	010N	023E	11	C010N023E11
Copper River	010N	023E	12	C010N023E12
Copper River	010N	023E	13	C010N023E13
Copper River	010N	023E	14	C010N023E14
Copper River	010N	023E	24	C010N023E24
Copper River	010N	023E	25	C010N023E25
Copper River	010N	023E	36	C010N023E36
Copper River	011N	022E	01	C011N022E01
Copper River	011N	022E	02	C011N022E02
Copper River	011N	022E	12	C011N022E12
Copper River	011N	022E	13	C011N022E13
Copper River	011N	023E	02	C011N023E02
Copper River	011N	023E	03	C011N023E03
Copper River	011N	023E	04	C011N023E04
Copper River	011N	023E	05	C011N023E05
Copper River	011N	023E	06	C011N023E06
Copper River	011N	023E	07	C011N023E07
Copper River	011N	023E	08	C011N023E08
Copper River	011N	023E	09	C011N023E09
Copper River	011N	023E	10	C011N023E10
Copper River	011N	023E	11	C011N023E11
Copper River	011N	023E	12	C011N023E12
Copper River	011N	023E	13	C011N023E13
Copper River	011N	023E	14	C011N023E14

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	011N	023E	15	C011N023E15
Copper River	011N	023E	16	C011N023E16
Copper River	011N	023E	17	C011N023E17
Copper River	011N	023E	18	C011N023E18
Copper River	011N	023E	19	C011N023E19
Copper River	011N	023E	20	C011N023E20
Copper River	011N	023E	21	C011N023E21
Copper River	011N	023E	22	C011N023E22
Copper River	011N	023E	23	C011N023E23
Copper River	011N	023E	24	C011N023E24
Copper River	011N	023E	25	C011N023E25
Copper River	011N	023E	26	C011N023E26
Copper River	011N	023E	27	C011N023E27
Copper River	011N	023E	28	C011N023E28
Copper River	011N	023E	29	C011N023E29
Copper River	011N	023E	30	C011N023E30
Copper River	011N	023E	32	C011N023E32
Copper River	011N	023E	33	C011N023E33
Copper River	011N	023E	34	C011N023E34
Copper River	011N	023E	35	C011N023E35
Copper River	011N	023E	36	C011N023E36
Copper River	012N	021E	01	C012N021E01
Copper River	012N	021E	02	C012N021E02
Copper River	012N	021E	03	C012N021E03
Copper River	012N	021E	11	C012N021E11
Copper River	012N	021E	12	C012N021E12
Copper River	012N	022E	01	C012N022E01
Copper River	012N	022E	02	C012N022E02
Copper River	012N	022E	03	C012N022E03
Copper River	012N	022E	04	C012N022E04
Copper River	012N	022E	05	C012N022E05
Copper River	012N	022E	06	C012N022E06
Copper River	012N	022E	07	C012N022E07
Copper River	012N	022E	08	C012N022E08
Copper River	012N	022E	09	C012N022E09
Copper River	012N	022E	10	C012N022E10
Copper River	012N	022E	11	C012N022E11
Copper River	012N	022E	12	C012N022E12
Copper River	012N	022E	13	C012N022E13
Copper River	012N	022E	14	C012N022E14
Copper River	012N	022E	15	C012N022E15
Copper River	012N	022E	16	C012N022E16
Copper River	012N	022E	17	C012N022E17
Copper River	012N	022E	18	C012N022E18
Copper River	012N	022E	20	C012N022E20
Copper River	012N	022E	21	C012N022E21

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	012N	022E	22	C012N022E22
Copper River	012N	022E	23	C012N022E23
Copper River	012N	022E	24	C012N022E24
Copper River	012N	022E	25	C012N022E25
Copper River	012N	022E	26	C012N022E26
Copper River	012N	022E	27	C012N022E27
Copper River	012N	022E	28	C012N022E28
Copper River	012N	022E	34	C012N022E34
Copper River	012N	022E	35	C012N022E35
Copper River	012N	022E	36	C012N022E36
Copper River	012N	023E	06	C012N023E06
Copper River	012N	023E	07	C012N023E07
Copper River	012N	023E	08	C012N023E08
Copper River	012N	023E	16	C012N023E16
Copper River	012N	023E	17	C012N023E17
Copper River	012N	023E	18	C012N023E18
Copper River	012N	023E	19	C012N023E19
Copper River	012N	023E	20	C012N023E20
Copper River	012N	023E	21	C012N023E21
Copper River	012N	023E	22	C012N023E22
Copper River	012N	023E	26	C012N023E26
Copper River	012N	023E	27	C012N023E27
Copper River	012N	023E	28	C012N023E28
Copper River	012N	023E	29	C012N023E29
Copper River	012N	023E	30	C012N023E30
Copper River	012N	023E	31	C012N023E31
Copper River	012N	023E	32	C012N023E32
Copper River	012N	023E	33	C012N023E33
Copper River	012N	023E	34	C012N023E34
Copper River	012N	023E	35	C012N023E35
Copper River	013N	020E	01	C013N020E01
Copper River	013N	020E	02	C013N020E02
Copper River	013N	020E	12	C013N020E12
Copper River	013N	020E	13	C013N020E13
Copper River	013N	020E	24	C013N020E24
Copper River	013N	021E	02	C013N021E02
Copper River	013N	021E	03	C013N021E03
Copper River	013N	021E	04	C013N021E04
Copper River	013N	021E	05	C013N021E05
Copper River	013N	021E	06	C013N021E06
Copper River	013N	021E	07	C013N021E07
Copper River	013N	021E	08	C013N021E08
Copper River	013N	021E	09	C013N021E09
Copper River	013N	021E	10	C013N021E10
Copper River	013N	021E	11	C013N021E11
Copper River	013N	021E	12	C013N021E12

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	013N	021E	13	C013N021E13
Copper River	013N	021E	14	C013N021E14
Copper River	013N	021E	15	C013N021E15
Copper River	013N	021E	16	C013N021E16
Copper River	013N	021E	17	C013N021E17
Copper River	013N	021E	18	C013N021E18
Copper River	013N	021E	19	C013N021E19
Copper River	013N	021E	20	C013N021E20
Copper River	013N	021E	21	C013N021E21
Copper River	013N	021E	22	C013N021E22
Copper River	013N	021E	23	C013N021E23
Copper River	013N	021E	24	C013N021E24
Copper River	013N	021E	25	C013N021E25
Copper River	013N	021E	26	C013N021E26
Copper River	013N	021E	27	C013N021E27
Copper River	013N	021E	28	C013N021E28
Copper River	013N	021E	29	C013N021E29
Copper River	013N	021E	30	C013N021E30
Copper River	013N	021E	32	C013N021E32
Copper River	013N	021E	33	C013N021E33
Copper River	013N	021E	34	C013N021E34
Copper River	013N	021E	35	C013N021E35
Copper River	013N	021E	36	C013N021E36
Copper River	013N	022E	18	C013N022E18
Copper River	013N	022E	19	C013N022E19
Copper River	013N	022E	20	C013N022E20
Copper River	013N	022E	27	C013N022E27
Copper River	013N	022E	28	C013N022E28
Copper River	013N	022E	29	C013N022E29
Copper River	013N	022E	30	C013N022E30
Copper River	013N	022E	31	C013N022E31
Copper River	013N	022E	32	C013N022E32
Copper River	013N	022E	33	C013N022E33
Copper River	013N	022E	34	C013N022E34
Copper River	013N	022E	35	C013N022E35
Copper River	014N	019E	01	C014N019E01
Copper River	014N	019E	02	C014N019E02
Copper River	014N	019E	03	C014N019E03
Copper River	014N	019E	11	C014N019E11
Copper River	014N	019E	12	C014N019E12
Copper River	014N	019E	13	C014N019E13
Copper River	014N	020E	01	C014N020E01
Copper River	014N	020E	02	C014N020E02
Copper River	014N	020E	03	C014N020E03
Copper River	014N	020E	04	C014N020E04
Copper River	014N	020E	05	C014N020E05

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	014N	020E	06	C014N020E06
Copper River	014N	020E	07	C014N020E07
Copper River	014N	020E	08	C014N020E08
Copper River	014N	020E	09	C014N020E09
Copper River	014N	020E	10	C014N020E10
Copper River	014N	020E	11	C014N020E11
Copper River	014N	020E	12	C014N020E12
Copper River	014N	020E	13	C014N020E13
Copper River	014N	020E	14	C014N020E14
Copper River	014N	020E	15	C014N020E15
Copper River	014N	020E	16	C014N020E16
Copper River	014N	020E	17	C014N020E17
Copper River	014N	020E	18	C014N020E18
Copper River	014N	020E	19	C014N020E19
Copper River	014N	020E	20	C014N020E20
Copper River	014N	020E	21	C014N020E21
Copper River	014N	020E	22	C014N020E22
Copper River	014N	020E	23	C014N020E23
Copper River	014N	020E	24	C014N020E24
Copper River	014N	020E	25	C014N020E25
Copper River	014N	020E	26	C014N020E26
Copper River	014N	020E	27	C014N020E27
Copper River	014N	020E	28	C014N020E28
Copper River	014N	020E	33	C014N020E33
Copper River	014N	020E	34	C014N020E34
Copper River	014N	020E	35	C014N020E35
Copper River	014N	020E	36	C014N020E36
Copper River	014N	021E	06	C014N021E06
Copper River	014N	021E	07	C014N021E07
Copper River	014N	021E	08	C014N021E08
Copper River	014N	021E	16	C014N021E16
Copper River	014N	021E	17	C014N021E17
Copper River	014N	021E	18	C014N021E18
Copper River	014N	021E	19	C014N021E19
Copper River	014N	021E	20	C014N021E20
Copper River	014N	021E	21	C014N021E21
Copper River	014N	021E	22	C014N021E22
Copper River	014N	021E	26	C014N021E26
Copper River	014N	021E	27	C014N021E27
Copper River	014N	021E	28	C014N021E28
Copper River	014N	021E	29	C014N021E29
Copper River	014N	021E	30	C014N021E30
Copper River	014N	021E	31	C014N021E31
Copper River	014N	021E	32	C014N021E32
Copper River	014N	021E	33	C014N021E33
Copper River	014N	021E	34	C014N021E34

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	014N	021E	35	C014N021E35
Copper River	015N	018E	01	C015N018E01
Copper River	015N	018E	02	C015N018E02
Copper River	015N	018E	03	C015N018E03
Copper River	015N	018E	10	C015N018E10
Copper River	015N	018E	11	C015N018E11
Copper River	015N	018E	12	C015N018E12
Copper River	015N	018E	13	C015N018E13
Copper River	015N	018E	14	C015N018E14
Copper River	015N	018E	15	C015N018E15
Copper River	015N	018E	23	C015N018E23
Copper River	015N	018E	24	C015N018E24
Copper River	015N	019E	01	C015N019E01
Copper River	015N	019E	02	C015N019E02
Copper River	015N	019E	03	C015N019E03
Copper River	015N	019E	04	C015N019E04
Copper River	015N	019E	05	C015N019E05
Copper River	015N	019E	06	C015N019E06
Copper River	015N	019E	07	C015N019E07
Copper River	015N	019E	08	C015N019E08
Copper River	015N	019E	09	C015N019E09
Copper River	015N	019E	10	C015N019E10
Copper River	015N	019E	11	C015N019E11
Copper River	015N	019E	12	C015N019E12
Copper River	015N	019E	13	C015N019E13
Copper River	015N	019E	14	C015N019E14
Copper River	015N	019E	15	C015N019E15
Copper River	015N	019E	16	C015N019E16
Copper River	015N	019E	17	C015N019E17
Copper River	015N	019E	18	C015N019E18
Copper River	015N	019E	19	C015N019E19
Copper River	015N	019E	20	C015N019E20
Copper River	015N	019E	21	C015N019E21
Copper River	015N	019E	22	C015N019E22
Copper River	015N	019E	23	C015N019E23
Copper River	015N	019E	24	C015N019E24
Copper River	015N	019E	25	C015N019E25
Copper River	015N	019E	26	C015N019E26
Copper River	015N	019E	27	C015N019E27
Copper River	015N	019E	28	C015N019E28
Copper River	015N	019E	29	C015N019E29
Copper River	015N	019E	33	C015N019E33
Copper River	015N	019E	34	C015N019E34
Copper River	015N	019E	35	C015N019E35
Copper River	015N	019E	36	C015N019E36
Copper River	015N	020E	07	C015N020E07

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	015N	020E	17	C015N020E17
Copper River	015N	020E	18	C015N020E18
Copper River	015N	020E	19	C015N020E19
Copper River	015N	020E	20	C015N020E20
Copper River	015N	020E	21	C015N020E21
Copper River	015N	020E	22	C015N020E22
Copper River	015N	020E	26	C015N020E26
Copper River	015N	020E	27	C015N020E27
Copper River	015N	020E	28	C015N020E28
Copper River	015N	020E	29	C015N020E29
Copper River	015N	020E	30	C015N020E30
Copper River	015N	020E	31	C015N020E31
Copper River	015N	020E	32	C015N020E32
Copper River	015N	020E	33	C015N020E33
Copper River	015N	020E	34	C015N020E34
Copper River	015N	020E	35	C015N020E35
Copper River	015N	020E	36	C015N020E36
Copper River	016N	015E	01	C016N015E01
Copper River	016N	015E	02	C016N015E02
Copper River	016N	015E	03	C016N015E03
Copper River	016N	015E	11	C016N015E11
Copper River	016N	015E	12	C016N015E12
Copper River	016N	015E	22	C016N015E22
Copper River	016N	015E	23	C016N015E23
Copper River	016N	015E	25	C016N015E25
Copper River	016N	015E	26	C016N015E26
Copper River	016N	015E	27	C016N015E27
Copper River	016N	015E	34	C016N015E34
Copper River	016N	015E	35	C016N015E35
Copper River	016N	015E	36	C016N015E36
Copper River	016N	016E	02	C016N016E02
Copper River	016N	016E	03	C016N016E03
Copper River	016N	016E	04	C016N016E04
Copper River	016N	016E	05	C016N016E05
Copper River	016N	016E	06	C016N016E06
Copper River	016N	016E	07	C016N016E07
Copper River	016N	016E	08	C016N016E08
Copper River	016N	016E	09	C016N016E09
Copper River	016N	016E	10	C016N016E10
Copper River	016N	016E	11	C016N016E11
Copper River	016N	016E	16	C016N016E16
Copper River	016N	016E	17	C016N016E17
Copper River	016N	017E	01	C016N017E01
Copper River	016N	017E	02	C016N017E02
Copper River	016N	017E	03	C016N017E03
Copper River	016N	017E	04	C016N017E04

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	016N	017E	10	C016N017E10
Copper River	016N	017E	11	C016N017E11
Copper River	016N	017E	12	C016N017E12
Copper River	016N	017E	13	C016N017E13
Copper River	016N	017E	14	C016N017E14
Copper River	016N	017E	24	C016N017E24
Copper River	016N	018E	02	C016N018E02
Copper River	016N	018E	03	C016N018E03
Copper River	016N	018E	04	C016N018E04
Copper River	016N	018E	05	C016N018E05
Copper River	016N	018E	06	C016N018E06
Copper River	016N	018E	07	C016N018E07
Copper River	016N	018E	08	C016N018E08
Copper River	016N	018E	09	C016N018E09
Copper River	016N	018E	10	C016N018E10
Copper River	016N	018E	11	C016N018E11
Copper River	016N	018E	12	C016N018E12
Copper River	016N	018E	13	C016N018E13
Copper River	016N	018E	14	C016N018E14
Copper River	016N	018E	15	C016N018E15
Copper River	016N	018E	16	C016N018E16
Copper River	016N	018E	17	C016N018E17
Copper River	016N	018E	18	C016N018E18
Copper River	016N	018E	19	C016N018E19
Copper River	016N	018E	20	C016N018E20
Copper River	016N	018E	21	C016N018E21
Copper River	016N	018E	22	C016N018E22
Copper River	016N	018E	23	C016N018E23
Copper River	016N	018E	24	C016N018E24
Copper River	016N	018E	25	C016N018E25
Copper River	016N	018E	26	C016N018E26
Copper River	016N	018E	27	C016N018E27
Copper River	016N	018E	28	C016N018E28
Copper River	016N	018E	29	C016N018E29
Copper River	016N	018E	30	C016N018E30
Copper River	016N	018E	32	C016N018E32
Copper River	016N	018E	33	C016N018E33
Copper River	016N	018E	34	C016N018E34
Copper River	016N	018E	35	C016N018E35
Copper River	016N	018E	36	C016N018E36
Copper River	016N	019E	07	C016N019E07
Copper River	016N	019E	17	C016N019E17
Copper River	016N	019E	18	C016N019E18
Copper River	016N	019E	19	C016N019E19
Copper River	016N	019E	20	C016N019E20
Copper River	016N	019E	28	C016N019E28

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	016N	019E	29	C016N019E29
Copper River	016N	019E	30	C016N019E30
Copper River	016N	019E	31	C016N019E31
Copper River	016N	019E	32	C016N019E32
Copper River	016N	019E	33	C016N019E33
Copper River	016N	019E	34	C016N019E34
Copper River	016N	019E	35	C016N019E35
Copper River	017N	011E	01	C017N011E01
Copper River	017N	011E	02	C017N011E02
Copper River	017N	011E	03	C017N011E03
Copper River	017N	011E	04	C017N011E04
Copper River	017N	011E	05	C017N011E05
Copper River	017N	012E	01	C017N012E01
Copper River	017N	012E	02	C017N012E02
Copper River	017N	013E	01	C017N013E01
Copper River	017N	013E	02	C017N013E02
Copper River	017N	013E	03	C017N013E03
Copper River	017N	013E	04	C017N013E04
Copper River	017N	013E	05	C017N013E05
Copper River	017N	013E	06	C017N013E06
Copper River	017N	013E	08	C017N013E08
Copper River	017N	013E	09	C017N013E09
Copper River	017N	013E	10	C017N013E10
Copper River	017N	013E	11	C017N013E11
Copper River	017N	013E	12	C017N013E12
Copper River	017N	013E	13	C017N013E13
Copper River	017N	013E	14	C017N013E14
Copper River	017N	013E	15	C017N013E15
Copper River	017N	014E	01	C017N014E01
Copper River	017N	014E	02	C017N014E02
Copper River	017N	014E	03	C017N014E03
Copper River	017N	014E	04	C017N014E04
Copper River	017N	014E	05	C017N014E05
Copper River	017N	014E	06	C017N014E06
Copper River	017N	014E	07	C017N014E07
Copper River	017N	014E	08	C017N014E08
Copper River	017N	014E	09	C017N014E09
Copper River	017N	014E	10	C017N014E10
Copper River	017N	014E	11	C017N014E11
Copper River	017N	014E	12	C017N014E12
Copper River	017N	014E	13	C017N014E13
Copper River	017N	014E	14	C017N014E14
Copper River	017N	014E	15	C017N014E15
Copper River	017N	014E	16	C017N014E16
Copper River	017N	014E	17	C017N014E17
Copper River	017N	014E	18	C017N014E18

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	017N	014E	21	C017N014E21
Copper River	017N	014E	22	C017N014E22
Copper River	017N	014E	23	C017N014E23
Copper River	017N	014E	24	C017N014E24
Copper River	017N	015E	01	C017N015E01
Copper River	017N	015E	02	C017N015E02
Copper River	017N	015E	03	C017N015E03
Copper River	017N	015E	04	C017N015E04
Copper River	017N	015E	05	C017N015E05
Copper River	017N	015E	06	C017N015E06
Copper River	017N	015E	07	C017N015E07
Copper River	017N	015E	08	C017N015E08
Copper River	017N	015E	09	C017N015E09
Copper River	017N	015E	10	C017N015E10
Copper River	017N	015E	11	C017N015E11
Copper River	017N	015E	12	C017N015E12
Copper River	017N	015E	13	C017N015E13
Copper River	017N	015E	14	C017N015E14
Copper River	017N	015E	15	C017N015E15
Copper River	017N	015E	16	C017N015E16
Copper River	017N	015E	17	C017N015E17
Copper River	017N	015E	18	C017N015E18
Copper River	017N	015E	19	C017N015E19
Copper River	017N	015E	20	C017N015E20
Copper River	017N	015E	21	C017N015E21
Copper River	017N	015E	22	C017N015E22
Copper River	017N	015E	23	C017N015E23
Copper River	017N	015E	24	C017N015E24
Copper River	017N	015E	25	C017N015E25
Copper River	017N	015E	26	C017N015E26
Copper River	017N	015E	27	C017N015E27
Copper River	017N	015E	28	C017N015E28
Copper River	017N	015E	29	C017N015E29
Copper River	017N	015E	30	C017N015E30
Copper River	017N	015E	32	C017N015E32
Copper River	017N	015E	33	C017N015E33
Copper River	017N	015E	34	C017N015E34
Copper River	017N	015E	35	C017N015E35
Copper River	017N	015E	36	C017N015E36
Copper River	017N	016E	01	C017N016E01
Copper River	017N	016E	02	C017N016E02
Copper River	017N	016E	03	C017N016E03
Copper River	017N	016E	04	C017N016E04
Copper River	017N	016E	05	C017N016E05
Copper River	017N	016E	06	C017N016E06
Copper River	017N	016E	07	C017N016E07

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	017N	016E	08	C017N016E08
Copper River	017N	016E	09	C017N016E09
Copper River	017N	016E	10	C017N016E10
Copper River	017N	016E	11	C017N016E11
Copper River	017N	016E	12	C017N016E12
Copper River	017N	016E	13	C017N016E13
Copper River	017N	016E	14	C017N016E14
Copper River	017N	016E	15	C017N016E15
Copper River	017N	016E	16	C017N016E16
Copper River	017N	016E	17	C017N016E17
Copper River	017N	016E	18	C017N016E18
Copper River	017N	016E	19	C017N016E19
Copper River	017N	016E	20	C017N016E20
Copper River	017N	016E	21	C017N016E21
Copper River	017N	016E	22	C017N016E22
Copper River	017N	016E	23	C017N016E23
Copper River	017N	016E	24	C017N016E24
Copper River	017N	016E	25	C017N016E25
Copper River	017N	016E	26	C017N016E26
Copper River	017N	016E	27	C017N016E27
Copper River	017N	016E	28	C017N016E28
Copper River	017N	016E	29	C017N016E29
Copper River	017N	016E	30	C017N016E30
Copper River	017N	016E	31	C017N016E31
Copper River	017N	016E	32	C017N016E32
Copper River	017N	016E	33	C017N016E33
Copper River	017N	016E	34	C017N016E34
Copper River	017N	016E	35	C017N016E35
Copper River	017N	017E	02	C017N017E02
Copper River	017N	017E	03	C017N017E03
Copper River	017N	017E	04	C017N017E04
Copper River	017N	017E	05	C017N017E05
Copper River	017N	017E	06	C017N017E06
Copper River	017N	017E	07	C017N017E07
Copper River	017N	017E	08	C017N017E08
Copper River	017N	017E	09	C017N017E09
Copper River	017N	017E	10	C017N017E10
Copper River	017N	017E	11	C017N017E11
Copper River	017N	017E	13	C017N017E13
Copper River	017N	017E	14	C017N017E14
Copper River	017N	017E	15	C017N017E15
Copper River	017N	017E	16	C017N017E16
Copper River	017N	017E	17	C017N017E17
Copper River	017N	017E	18	C017N017E18
Copper River	017N	017E	19	C017N017E19
Copper River	017N	017E	20	C017N017E20

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	017N	017E	21	C017N017E21
Copper River	017N	017E	22	C017N017E22
Copper River	017N	017E	23	C017N017E23
Copper River	017N	017E	24	C017N017E24
Copper River	017N	017E	25	C017N017E25
Copper River	017N	017E	26	C017N017E26
Copper River	017N	017E	27	C017N017E27
Copper River	017N	017E	28	C017N017E28
Copper River	017N	017E	29	C017N017E29
Copper River	017N	017E	30	C017N017E30
Copper River	017N	017E	31	C017N017E31
Copper River	017N	017E	32	C017N017E32
Copper River	017N	017E	33	C017N017E33
Copper River	017N	017E	34	C017N017E34
Copper River	017N	017E	35	C017N017E35
Copper River	017N	017E	36	C017N017E36
Copper River	017N	018E	19	C017N018E19
Copper River	017N	018E	29	C017N018E29
Copper River	017N	018E	30	C017N018E30
Copper River	017N	018E	31	C017N018E31
Copper River	017N	018E	32	C017N018E32
Copper River	017N	018E	33	C017N018E33
Copper River	018N	008E	01	C018N008E01
Copper River	018N	008E	02	C018N008E02
Copper River	018N	008E	03	C018N008E03
Copper River	018N	008E	04	C018N008E04
Copper River	018N	008E	05	C018N008E05
Copper River	018N	008E	06	C018N008E06
Copper River	018N	008E	08	C018N008E08
Copper River	018N	008E	09	C018N008E09
Copper River	018N	008E	10	C018N008E10
Copper River	018N	008E	11	C018N008E11
Copper River	018N	008E	12	C018N008E12
Copper River	018N	008E	13	C018N008E13
Copper River	018N	008E	14	C018N008E14
Copper River	018N	008E	15	C018N008E15
Copper River	018N	008E	16	C018N008E16
Copper River	018N	008E	17	C018N008E17
Copper River	018N	008E	21	C018N008E21
Copper River	018N	008E	22	C018N008E22
Copper River	018N	008E	23	C018N008E23
Copper River	018N	008E	24	C018N008E24
Copper River	018N	008E	25	C018N008E25
Copper River	018N	008E	26	C018N008E26
Copper River	018N	009E	01	C018N009E01
Copper River	018N	009E	02	C018N009E02

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	018N	009E	03	C018N009E03
Copper River	018N	009E	04	C018N009E04
Copper River	018N	009E	05	C018N009E05
Copper River	018N	009E	06	C018N009E06
Copper River	018N	009E	07	C018N009E07
Copper River	018N	009E	08	C018N009E08
Copper River	018N	009E	09	C018N009E09
Copper River	018N	009E	10	C018N009E10
Copper River	018N	009E	11	C018N009E11
Copper River	018N	009E	12	C018N009E12
Copper River	018N	009E	13	C018N009E13
Copper River	018N	009E	14	C018N009E14
Copper River	018N	009E	15	C018N009E15
Copper River	018N	009E	16	C018N009E16
Copper River	018N	009E	17	C018N009E17
Copper River	018N	009E	18	C018N009E18
Copper River	018N	009E	19	C018N009E19
Copper River	018N	009E	20	C018N009E20
Copper River	018N	009E	21	C018N009E21
Copper River	018N	009E	22	C018N009E22
Copper River	018N	009E	23	C018N009E23
Copper River	018N	009E	24	C018N009E24
Copper River	018N	009E	25	C018N009E25
Copper River	018N	009E	26	C018N009E26
Copper River	018N	009E	27	C018N009E27
Copper River	018N	009E	28	C018N009E28
Copper River	018N	009E	29	C018N009E29
Copper River	018N	009E	30	C018N009E30
Copper River	018N	009E	34	C018N009E34
Copper River	018N	009E	35	C018N009E35
Copper River	018N	009E	36	C018N009E36
Copper River	018N	010E	01	C018N010E01
Copper River	018N	010E	02	C018N010E02
Copper River	018N	010E	03	C018N010E03
Copper River	018N	010E	04	C018N010E04
Copper River	018N	010E	05	C018N010E05
Copper River	018N	010E	06	C018N010E06
Copper River	018N	010E	07	C018N010E07
Copper River	018N	010E	08	C018N010E08
Copper River	018N	010E	09	C018N010E09
Copper River	018N	010E	10	C018N010E10
Copper River	018N	010E	11	C018N010E11
Copper River	018N	010E	12	C018N010E12
Copper River	018N	010E	13	C018N010E13
Copper River	018N	010E	14	C018N010E14
Copper River	018N	010E	15	C018N010E15

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	018N	010E	16	C018N010E16
Copper River	018N	010E	17	C018N010E17
Copper River	018N	010E	18	C018N010E18
Copper River	018N	010E	19	C018N010E19
Copper River	018N	010E	20	C018N010E20
Copper River	018N	010E	21	C018N010E21
Copper River	018N	010E	22	C018N010E22
Copper River	018N	010E	23	C018N010E23
Copper River	018N	010E	24	C018N010E24
Copper River	018N	010E	25	C018N010E25
Copper River	018N	010E	26	C018N010E26
Copper River	018N	010E	27	C018N010E27
Copper River	018N	010E	28	C018N010E28
Copper River	018N	010E	29	C018N010E29
Copper River	018N	010E	30	C018N010E30
Copper River	018N	010E	31	C018N010E31
Copper River	018N	010E	32	C018N010E32
Copper River	018N	010E	33	C018N010E33
Copper River	018N	010E	34	C018N010E34
Copper River	018N	010E	35	C018N010E35
Copper River	018N	010E	36	C018N010E36
Copper River	018N	011E	01	C018N011E01
Copper River	018N	011E	02	C018N011E02
Copper River	018N	011E	03	C018N011E03
Copper River	018N	011E	04	C018N011E04
Copper River	018N	011E	05	C018N011E05
Copper River	018N	011E	06	C018N011E06
Copper River	018N	011E	07	C018N011E07
Copper River	018N	011E	08	C018N011E08
Copper River	018N	011E	09	C018N011E09
Copper River	018N	011E	10	C018N011E10
Copper River	018N	011E	11	C018N011E11
Copper River	018N	011E	12	C018N011E12
Copper River	018N	011E	13	C018N011E13
Copper River	018N	011E	14	C018N011E14
Copper River	018N	011E	15	C018N011E15
Copper River	018N	011E	16	C018N011E16
Copper River	018N	011E	17	C018N011E17
Copper River	018N	011E	18	C018N011E18
Copper River	018N	011E	19	C018N011E19
Copper River	018N	011E	20	C018N011E20
Copper River	018N	011E	21	C018N011E21
Copper River	018N	011E	22	C018N011E22
Copper River	018N	011E	23	C018N011E23
Copper River	018N	011E	24	C018N011E24
Copper River	018N	011E	25	C018N011E25

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	018N	011E	26	C018N011E26
Copper River	018N	011E	27	C018N011E27
Copper River	018N	011E	28	C018N011E28
Copper River	018N	011E	29	C018N011E29
Copper River	018N	011E	30	C018N011E30
Copper River	018N	011E	31	C018N011E31
Copper River	018N	011E	32	C018N011E32
Copper River	018N	011E	33	C018N011E33
Copper River	018N	011E	34	C018N011E34
Copper River	018N	011E	35	C018N011E35
Copper River	018N	011E	36	C018N011E36
Copper River	018N	012E	01	C018N012E01
Copper River	018N	012E	02	C018N012E02
Copper River	018N	012E	03	C018N012E03
Copper River	018N	012E	04	C018N012E04
Copper River	018N	012E	05	C018N012E05
Copper River	018N	012E	06	C018N012E06
Copper River	018N	012E	07	C018N012E07
Copper River	018N	012E	08	C018N012E08
Copper River	018N	012E	09	C018N012E09
Copper River	018N	012E	10	C018N012E10
Copper River	018N	012E	11	C018N012E11
Copper River	018N	012E	12	C018N012E12
Copper River	018N	012E	13	C018N012E13
Copper River	018N	012E	14	C018N012E14
Copper River	018N	012E	15	C018N012E15
Copper River	018N	012E	16	C018N012E16
Copper River	018N	012E	17	C018N012E17
Copper River	018N	012E	18	C018N012E18
Copper River	018N	012E	19	C018N012E19
Copper River	018N	012E	20	C018N012E20
Copper River	018N	012E	21	C018N012E21
Copper River	018N	012E	22	C018N012E22
Copper River	018N	012E	23	C018N012E23
Copper River	018N	012E	24	C018N012E24
Copper River	018N	012E	25	C018N012E25
Copper River	018N	012E	26	C018N012E26
Copper River	018N	012E	27	C018N012E27
Copper River	018N	012E	28	C018N012E28
Copper River	018N	012E	29	C018N012E29
Copper River	018N	012E	30	C018N012E30
Copper River	018N	012E	31	C018N012E31
Copper River	018N	012E	32	C018N012E32
Copper River	018N	012E	33	C018N012E33
Copper River	018N	012E	34	C018N012E34
Copper River	018N	012E	35	C018N012E35

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	018N	012E	36	C018N012E36
Copper River	018N	013E	01	C018N013E01
Copper River	018N	013E	02	C018N013E02
Copper River	018N	013E	03	C018N013E03
Copper River	018N	013E	04	C018N013E04
Copper River	018N	013E	05	C018N013E05
Copper River	018N	013E	06	C018N013E06
Copper River	018N	013E	07	C018N013E07
Copper River	018N	013E	08	C018N013E08
Copper River	018N	013E	09	C018N013E09
Copper River	018N	013E	10	C018N013E10
Copper River	018N	013E	11	C018N013E11
Copper River	018N	013E	12	C018N013E12
Copper River	018N	013E	13	C018N013E13
Copper River	018N	013E	14	C018N013E14
Copper River	018N	013E	15	C018N013E15
Copper River	018N	013E	16	C018N013E16
Copper River	018N	013E	17	C018N013E17
Copper River	018N	013E	18	C018N013E18
Copper River	018N	013E	19	C018N013E19
Copper River	018N	013E	20	C018N013E20
Copper River	018N	013E	21	C018N013E21
Copper River	018N	013E	22	C018N013E22
Copper River	018N	013E	23	C018N013E23
Copper River	018N	013E	24	C018N013E24
Copper River	018N	013E	25	C018N013E25
Copper River	018N	013E	26	C018N013E26
Copper River	018N	013E	27	C018N013E27
Copper River	018N	013E	28	C018N013E28
Copper River	018N	013E	29	C018N013E29
Copper River	018N	013E	30	C018N013E30
Copper River	018N	013E	31	C018N013E31
Copper River	018N	013E	32	C018N013E32
Copper River	018N	013E	33	C018N013E33
Copper River	018N	013E	34	C018N013E34
Copper River	018N	013E	35	C018N013E35
Copper River	018N	013E	36	C018N013E36
Copper River	018N	014E	01	C018N014E01
Copper River	018N	014E	02	C018N014E02
Copper River	018N	014E	03	C018N014E03
Copper River	018N	014E	04	C018N014E04
Copper River	018N	014E	05	C018N014E05
Copper River	018N	014E	06	C018N014E06
Copper River	018N	014E	07	C018N014E07
Copper River	018N	014E	08	C018N014E08
Copper River	018N	014E	09	C018N014E09

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	018N	014E	10	C018N014E10
Copper River	018N	014E	11	C018N014E11
Copper River	018N	014E	12	C018N014E12
Copper River	018N	014E	13	C018N014E13
Copper River	018N	014E	14	C018N014E14
Copper River	018N	014E	15	C018N014E15
Copper River	018N	014E	16	C018N014E16
Copper River	018N	014E	17	C018N014E17
Copper River	018N	014E	18	C018N014E18
Copper River	018N	014E	19	C018N014E19
Copper River	018N	014E	20	C018N014E20
Copper River	018N	014E	21	C018N014E21
Copper River	018N	014E	22	C018N014E22
Copper River	018N	014E	23	C018N014E23
Copper River	018N	014E	24	C018N014E24
Copper River	018N	014E	25	C018N014E25
Copper River	018N	014E	26	C018N014E26
Copper River	018N	014E	27	C018N014E27
Copper River	018N	014E	28	C018N014E28
Copper River	018N	014E	29	C018N014E29
Copper River	018N	014E	30	C018N014E30
Copper River	018N	014E	31	C018N014E31
Copper River	018N	014E	32	C018N014E32
Copper River	018N	014E	33	C018N014E33
Copper River	018N	014E	34	C018N014E34
Copper River	018N	014E	35	C018N014E35
Copper River	018N	014E	36	C018N014E36
Copper River	018N	015E	01	C018N015E01
Copper River	018N	015E	02	C018N015E02
Copper River	018N	015E	03	C018N015E03
Copper River	018N	015E	04	C018N015E04
Copper River	018N	015E	05	C018N015E05
Copper River	018N	015E	06	C018N015E06
Copper River	018N	015E	07	C018N015E07
Copper River	018N	015E	08	C018N015E08
Copper River	018N	015E	09	C018N015E09
Copper River	018N	015E	10	C018N015E10
Copper River	018N	015E	11	C018N015E11
Copper River	018N	015E	12	C018N015E12
Copper River	018N	015E	13	C018N015E13
Copper River	018N	015E	14	C018N015E14
Copper River	018N	015E	15	C018N015E15
Copper River	018N	015E	16	C018N015E16
Copper River	018N	015E	17	C018N015E17
Copper River	018N	015E	18	C018N015E18
Copper River	018N	015E	19	C018N015E19

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	018N	015E	20	C018N015E20
Copper River	018N	015E	21	C018N015E21
Copper River	018N	015E	22	C018N015E22
Copper River	018N	015E	23	C018N015E23
Copper River	018N	015E	24	C018N015E24
Copper River	018N	015E	25	C018N015E25
Copper River	018N	015E	26	C018N015E26
Copper River	018N	015E	27	C018N015E27
Copper River	018N	015E	28	C018N015E28
Copper River	018N	015E	29	C018N015E29
Copper River	018N	015E	30	C018N015E30
Copper River	018N	015E	31	C018N015E31
Copper River	018N	015E	32	C018N015E32
Copper River	018N	015E	33	C018N015E33
Copper River	018N	015E	34	C018N015E34
Copper River	018N	015E	35	C018N015E35
Copper River	018N	015E	36	C018N015E36
Copper River	018N	016E	07	C018N016E07
Copper River	018N	016E	17	C018N016E17
Copper River	018N	016E	18	C018N016E18
Copper River	018N	016E	19	C018N016E19
Copper River	018N	016E	20	C018N016E20
Copper River	018N	016E	21	C018N016E21
Copper River	018N	016E	25	C018N016E25
Copper River	018N	016E	26	C018N016E26
Copper River	018N	016E	27	C018N016E27
Copper River	018N	016E	28	C018N016E28
Copper River	018N	016E	29	C018N016E29
Copper River	018N	016E	30	C018N016E30
Copper River	018N	016E	31	C018N016E31
Copper River	018N	016E	32	C018N016E32
Copper River	018N	016E	33	C018N016E33
Copper River	018N	016E	34	C018N016E34
Copper River	018N	016E	35	C018N016E35
Copper River	018N	016E	36	C018N016E36
Copper River	018N	017E	31	C018N017E31
Copper River	018N	017E	32	C018N017E32
Copper River	018N	017E	33	C018N017E33
Copper River	019N	007E	01	C019N007E01
Copper River	019N	007E	02	C019N007E02
Copper River	019N	007E	11	C019N007E11
Copper River	019N	007E	12	C019N007E12
Copper River	019N	007E	13	C019N007E13
Copper River	019N	007E	24	C019N007E24
Copper River	019N	007E	25	C019N007E25
Copper River	019N	008E	01	C019N008E01

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	019N	008E	02	C019N008E02
Copper River	019N	008E	03	C019N008E03
Copper River	019N	008E	04	C019N008E04
Copper River	019N	008E	05	C019N008E05
Copper River	019N	008E	06	C019N008E06
Copper River	019N	008E	07	C019N008E07
Copper River	019N	008E	08	C019N008E08
Copper River	019N	008E	09	C019N008E09
Copper River	019N	008E	10	C019N008E10
Copper River	019N	008E	11	C019N008E11
Copper River	019N	008E	12	C019N008E12
Copper River	019N	008E	13	C019N008E13
Copper River	019N	008E	14	C019N008E14
Copper River	019N	008E	15	C019N008E15
Copper River	019N	008E	16	C019N008E16
Copper River	019N	008E	17	C019N008E17
Copper River	019N	008E	18	C019N008E18
Copper River	019N	008E	19	C019N008E19
Copper River	019N	008E	20	C019N008E20
Copper River	019N	008E	21	C019N008E21
Copper River	019N	008E	22	C019N008E22
Copper River	019N	008E	23	C019N008E23
Copper River	019N	008E	24	C019N008E24
Copper River	019N	008E	25	C019N008E25
Copper River	019N	008E	26	C019N008E26
Copper River	019N	008E	27	C019N008E27
Copper River	019N	008E	28	C019N008E28
Copper River	019N	008E	29	C019N008E29
Copper River	019N	008E	30	C019N008E30
Copper River	019N	008E	31	C019N008E31
Copper River	019N	008E	32	C019N008E32
Copper River	019N	008E	33	C019N008E33
Copper River	019N	008E	34	C019N008E34
Copper River	019N	008E	35	C019N008E35
Copper River	019N	008E	36	C019N008E36
Copper River	019N	009E	02	C019N009E02
Copper River	019N	009E	03	C019N009E03
Copper River	019N	009E	04	C019N009E04
Copper River	019N	009E	05	C019N009E05
Copper River	019N	009E	06	C019N009E06
Copper River	019N	009E	07	C019N009E07
Copper River	019N	009E	08	C019N009E08
Copper River	019N	009E	09	C019N009E09
Copper River	019N	009E	10	C019N009E10
Copper River	019N	009E	11	C019N009E11
Copper River	019N	009E	12	C019N009E12

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	019N	009E	13	C019N009E13
Copper River	019N	009E	14	C019N009E14
Copper River	019N	009E	15	C019N009E15
Copper River	019N	009E	16	C019N009E16
Copper River	019N	009E	17	C019N009E17
Copper River	019N	009E	18	C019N009E18
Copper River	019N	009E	19	C019N009E19
Copper River	019N	009E	20	C019N009E20
Copper River	019N	009E	21	C019N009E21
Copper River	019N	009E	22	C019N009E22
Copper River	019N	009E	23	C019N009E23
Copper River	019N	009E	24	C019N009E24
Copper River	019N	009E	25	C019N009E25
Copper River	019N	009E	26	C019N009E26
Copper River	019N	009E	27	C019N009E27
Copper River	019N	009E	28	C019N009E28
Copper River	019N	009E	29	C019N009E29
Copper River	019N	009E	30	C019N009E30
Copper River	019N	009E	31	C019N009E31
Copper River	019N	009E	32	C019N009E32
Copper River	019N	009E	33	C019N009E33
Copper River	019N	009E	34	C019N009E34
Copper River	019N	009E	35	C019N009E35
Copper River	019N	009E	36	C019N009E36
Copper River	019N	010E	07	C019N010E07
Copper River	019N	010E	08	C019N010E08
Copper River	019N	010E	09	C019N010E09
Copper River	019N	010E	10	C019N010E10
Copper River	019N	010E	11	C019N010E11
Copper River	019N	010E	12	C019N010E12
Copper River	019N	010E	13	C019N010E13
Copper River	019N	010E	14	C019N010E14
Copper River	019N	010E	15	C019N010E15
Copper River	019N	010E	16	C019N010E16
Copper River	019N	010E	17	C019N010E17
Copper River	019N	010E	18	C019N010E18
Copper River	019N	010E	19	C019N010E19
Copper River	019N	010E	20	C019N010E20
Copper River	019N	010E	21	C019N010E21
Copper River	019N	010E	22	C019N010E22
Copper River	019N	010E	23	C019N010E23
Copper River	019N	010E	24	C019N010E24
Copper River	019N	010E	25	C019N010E25
Copper River	019N	010E	26	C019N010E26
Copper River	019N	010E	27	C019N010E27
Copper River	019N	010E	28	C019N010E28

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	019N	010E	29	C019N010E29
Copper River	019N	010E	30	C019N010E30
Copper River	019N	010E	31	C019N010E31
Copper River	019N	010E	32	C019N010E32
Copper River	019N	010E	33	C019N010E33
Copper River	019N	010E	34	C019N010E34
Copper River	019N	010E	35	C019N010E35
Copper River	019N	010E	36	C019N010E36
Copper River	019N	011E	07	C019N011E07
Copper River	019N	011E	08	C019N011E08
Copper River	019N	011E	09	C019N011E09
Copper River	019N	011E	10	C019N011E10
Copper River	019N	011E	11	C019N011E11
Copper River	019N	011E	12	C019N011E12
Copper River	019N	011E	13	C019N011E13
Copper River	019N	011E	14	C019N011E14
Copper River	019N	011E	15	C019N011E15
Copper River	019N	011E	16	C019N011E16
Copper River	019N	011E	17	C019N011E17
Copper River	019N	011E	18	C019N011E18
Copper River	019N	011E	19	C019N011E19
Copper River	019N	011E	20	C019N011E20
Copper River	019N	011E	21	C019N011E21
Copper River	019N	011E	22	C019N011E22
Copper River	019N	011E	23	C019N011E23
Copper River	019N	011E	24	C019N011E24
Copper River	019N	011E	25	C019N011E25
Copper River	019N	011E	26	C019N011E26
Copper River	019N	011E	27	C019N011E27
Copper River	019N	011E	28	C019N011E28
Copper River	019N	011E	29	C019N011E29
Copper River	019N	011E	30	C019N011E30
Copper River	019N	011E	31	C019N011E31
Copper River	019N	011E	32	C019N011E32
Copper River	019N	011E	33	C019N011E33
Copper River	019N	011E	34	C019N011E34
Copper River	019N	011E	35	C019N011E35
Copper River	019N	011E	36	C019N011E36
Copper River	019N	012E	07	C019N012E07
Copper River	019N	012E	08	C019N012E08
Copper River	019N	012E	09	C019N012E09
Copper River	019N	012E	10	C019N012E10
Copper River	019N	012E	11	C019N012E11
Copper River	019N	012E	12	C019N012E12
Copper River	019N	012E	13	C019N012E13
Copper River	019N	012E	14	C019N012E14

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	019N	012E	15	C019N012E15
Copper River	019N	012E	16	C019N012E16
Copper River	019N	012E	17	C019N012E17
Copper River	019N	012E	18	C019N012E18
Copper River	019N	012E	19	C019N012E19
Copper River	019N	012E	20	C019N012E20
Copper River	019N	012E	21	C019N012E21
Copper River	019N	012E	22	C019N012E22
Copper River	019N	012E	23	C019N012E23
Copper River	019N	012E	24	C019N012E24
Copper River	019N	012E	25	C019N012E25
Copper River	019N	012E	26	C019N012E26
Copper River	019N	012E	27	C019N012E27
Copper River	019N	012E	28	C019N012E28
Copper River	019N	012E	29	C019N012E29
Copper River	019N	012E	30	C019N012E30
Copper River	019N	012E	31	C019N012E31
Copper River	019N	012E	32	C019N012E32
Copper River	019N	012E	33	C019N012E33
Copper River	019N	012E	34	C019N012E34
Copper River	019N	012E	35	C019N012E35
Copper River	019N	012E	36	C019N012E36
Copper River	019N	013E	15	C019N013E15
Copper River	019N	013E	16	C019N013E16
Copper River	019N	013E	17	C019N013E17
Copper River	019N	013E	18	C019N013E18
Copper River	019N	013E	19	C019N013E19
Copper River	019N	013E	20	C019N013E20
Copper River	019N	013E	21	C019N013E21
Copper River	019N	013E	22	C019N013E22
Copper River	019N	013E	23	C019N013E23
Copper River	019N	013E	24	C019N013E24
Copper River	019N	013E	25	C019N013E25
Copper River	019N	013E	26	C019N013E26
Copper River	019N	013E	27	C019N013E27
Copper River	019N	013E	28	C019N013E28
Copper River	019N	013E	29	C019N013E29
Copper River	019N	013E	30	C019N013E30
Copper River	019N	013E	31	C019N013E31
Copper River	019N	013E	32	C019N013E32
Copper River	019N	013E	33	C019N013E33
Copper River	019N	013E	34	C019N013E34
Copper River	019N	013E	35	C019N013E35
Copper River	019N	013E	36	C019N013E36
Copper River	019N	014E	25	C019N014E25
Copper River	019N	014E	26	C019N014E26

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	019N	014E	28	C019N014E28
Copper River	019N	014E	29	C019N014E29
Copper River	019N	014E	30	C019N014E30
Copper River	019N	014E	31	C019N014E31
Copper River	019N	014E	32	C019N014E32
Copper River	019N	014E	33	C019N014E33
Copper River	019N	014E	34	C019N014E34
Copper River	019N	014E	35	C019N014E35
Copper River	019N	014E	36	C019N014E36
Copper River	019N	015E	29	C019N015E29
Copper River	019N	015E	30	C019N015E30
Copper River	019N	015E	31	C019N015E31
Copper River	019N	015E	32	C019N015E32
Copper River	019N	015E	33	C019N015E33
Copper River	019N	015E	34	C019N015E34
Copper River	020N	007E	01	C020N007E01
Copper River	020N	007E	02	C020N007E02
Copper River	020N	007E	03	C020N007E03
Copper River	020N	007E	04	C020N007E04
Copper River	020N	007E	10	C020N007E10
Copper River	020N	007E	11	C020N007E11
Copper River	020N	007E	12	C020N007E12
Copper River	020N	007E	13	C020N007E13
Copper River	020N	007E	14	C020N007E14
Copper River	020N	007E	23	C020N007E23
Copper River	020N	007E	24	C020N007E24
Copper River	020N	007E	25	C020N007E25
Copper River	020N	007E	26	C020N007E26
Copper River	020N	007E	35	C020N007E35
Copper River	020N	007E	36	C020N007E36
Copper River	020N	008E	01	C020N008E01
Copper River	020N	008E	02	C020N008E02
Copper River	020N	008E	03	C020N008E03
Copper River	020N	008E	04	C020N008E04
Copper River	020N	008E	05	C020N008E05
Copper River	020N	008E	06	C020N008E06
Copper River	020N	008E	07	C020N008E07
Copper River	020N	008E	08	C020N008E08
Copper River	020N	008E	09	C020N008E09
Copper River	020N	008E	10	C020N008E10
Copper River	020N	008E	11	C020N008E11
Copper River	020N	008E	12	C020N008E12
Copper River	020N	008E	13	C020N008E13
Copper River	020N	008E	14	C020N008E14
Copper River	020N	008E	15	C020N008E15
Copper River	020N	008E	16	C020N008E16

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	020N	008E	17	C020N008E17
Copper River	020N	008E	18	C020N008E18
Copper River	020N	008E	19	C020N008E19
Copper River	020N	008E	20	C020N008E20
Copper River	020N	008E	21	C020N008E21
Copper River	020N	008E	22	C020N008E22
Copper River	020N	008E	23	C020N008E23
Copper River	020N	008E	24	C020N008E24
Copper River	020N	008E	25	C020N008E25
Copper River	020N	008E	26	C020N008E26
Copper River	020N	008E	27	C020N008E27
Copper River	020N	008E	28	C020N008E28
Copper River	020N	008E	29	C020N008E29
Copper River	020N	008E	30	C020N008E30
Copper River	020N	008E	31	C020N008E31
Copper River	020N	008E	32	C020N008E32
Copper River	020N	008E	33	C020N008E33
Copper River	020N	008E	34	C020N008E34
Copper River	020N	008E	35	C020N008E35
Copper River	020N	008E	36	C020N008E36
Copper River	020N	009E	04	C020N009E04
Copper River	020N	009E	05	C020N009E05
Copper River	020N	009E	06	C020N009E06
Copper River	020N	009E	07	C020N009E07
Copper River	020N	009E	08	C020N009E08
Copper River	020N	009E	09	C020N009E09
Copper River	020N	009E	16	C020N009E16
Copper River	020N	009E	17	C020N009E17
Copper River	020N	009E	18	C020N009E18
Copper River	020N	009E	19	C020N009E19
Copper River	020N	009E	20	C020N009E20
Copper River	020N	009E	21	C020N009E21
Copper River	020N	009E	28	C020N009E28
Copper River	020N	009E	29	C020N009E29
Copper River	020N	009E	30	C020N009E30
Copper River	020N	009E	31	C020N009E31
Copper River	020N	009E	32	C020N009E32
Copper River	020N	009E	33	C020N009E33
Copper River	020N	009E	34	C020N009E34
Copper River	021N	005E	01	C021N005E01
Copper River	021N	005E	02	C021N005E02
Copper River	021N	005E	03	C021N005E03
Copper River	021N	005E	04	C021N005E04
Copper River	021N	005E	05	C021N005E05
Copper River	021N	005E	06	C021N005E06
Copper River	021N	005E	07	C021N005E07

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	021N	005E	08	C021N005E08
Copper River	021N	005E	09	C021N005E09
Copper River	021N	005E	10	C021N005E10
Copper River	021N	005E	11	C021N005E11
Copper River	021N	005E	12	C021N005E12
Copper River	021N	006E	01	C021N006E01
Copper River	021N	006E	02	C021N006E02
Copper River	021N	006E	03	C021N006E03
Copper River	021N	006E	04	C021N006E04
Copper River	021N	006E	05	C021N006E05
Copper River	021N	006E	06	C021N006E06
Copper River	021N	006E	07	C021N006E07
Copper River	021N	006E	08	C021N006E08
Copper River	021N	006E	09	C021N006E09
Copper River	021N	006E	10	C021N006E10
Copper River	021N	006E	11	C021N006E11
Copper River	021N	006E	12	C021N006E12
Copper River	021N	006E	13	C021N006E13
Copper River	021N	006E	14	C021N006E14
Copper River	021N	006E	15	C021N006E15
Copper River	021N	006E	24	C021N006E24
Copper River	021N	006E	25	C021N006E25
Copper River	021N	007E	01	C021N007E01
Copper River	021N	007E	02	C021N007E02
Copper River	021N	007E	03	C021N007E03
Copper River	021N	007E	04	C021N007E04
Copper River	021N	007E	05	C021N007E05
Copper River	021N	007E	06	C021N007E06
Copper River	021N	007E	07	C021N007E07
Copper River	021N	007E	08	C021N007E08
Copper River	021N	007E	09	C021N007E09
Copper River	021N	007E	10	C021N007E10
Copper River	021N	007E	11	C021N007E11
Copper River	021N	007E	12	C021N007E12
Copper River	021N	007E	13	C021N007E13
Copper River	021N	007E	14	C021N007E14
Copper River	021N	007E	15	C021N007E15
Copper River	021N	007E	16	C021N007E16
Copper River	021N	007E	17	C021N007E17
Copper River	021N	007E	18	C021N007E18
Copper River	021N	007E	19	C021N007E19
Copper River	021N	007E	20	C021N007E20
Copper River	021N	007E	21	C021N007E21
Copper River	021N	007E	22	C021N007E22
Copper River	021N	007E	23	C021N007E23
Copper River	021N	007E	24	C021N007E24

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	021N	007E	25	C021N007E25
Copper River	021N	007E	26	C021N007E26
Copper River	021N	007E	27	C021N007E27
Copper River	021N	007E	28	C021N007E28
Copper River	021N	007E	29	C021N007E29
Copper River	021N	007E	30	C021N007E30
Copper River	021N	007E	31	C021N007E31
Copper River	021N	007E	32	C021N007E32
Copper River	021N	007E	33	C021N007E33
Copper River	021N	007E	34	C021N007E34
Copper River	021N	007E	35	C021N007E35
Copper River	021N	007E	36	C021N007E36
Copper River	021N	008E	01	C021N008E01
Copper River	021N	008E	02	C021N008E02
Copper River	021N	008E	03	C021N008E03
Copper River	021N	008E	04	C021N008E04
Copper River	021N	008E	05	C021N008E05
Copper River	021N	008E	06	C021N008E06
Copper River	021N	008E	07	C021N008E07
Copper River	021N	008E	08	C021N008E08
Copper River	021N	008E	09	C021N008E09
Copper River	021N	008E	10	C021N008E10
Copper River	021N	008E	11	C021N008E11
Copper River	021N	008E	12	C021N008E12
Copper River	021N	008E	13	C021N008E13
Copper River	021N	008E	14	C021N008E14
Copper River	021N	008E	15	C021N008E15
Copper River	021N	008E	16	C021N008E16
Copper River	021N	008E	17	C021N008E17
Copper River	021N	008E	18	C021N008E18
Copper River	021N	008E	19	C021N008E19
Copper River	021N	008E	20	C021N008E20
Copper River	021N	008E	21	C021N008E21
Copper River	021N	008E	22	C021N008E22
Copper River	021N	008E	23	C021N008E23
Copper River	021N	008E	24	C021N008E24
Copper River	021N	008E	25	C021N008E25
Copper River	021N	008E	26	C021N008E26
Copper River	021N	008E	27	C021N008E27
Copper River	021N	008E	28	C021N008E28
Copper River	021N	008E	29	C021N008E29
Copper River	021N	008E	30	C021N008E30
Copper River	021N	008E	31	C021N008E31
Copper River	021N	008E	32	C021N008E32
Copper River	021N	008E	33	C021N008E33
Copper River	021N	008E	34	C021N008E34

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	021N	008E	35	C021N008E35
Copper River	021N	008E	36	C021N008E36
Copper River	021N	009E	18	C021N009E18
Copper River	021N	009E	19	C021N009E19
Copper River	021N	009E	20	C021N009E20
Copper River	021N	009E	29	C021N009E29
Copper River	021N	009E	30	C021N009E30
Copper River	021N	009E	31	C021N009E31
Copper River	021N	009E	32	C021N009E32
Copper River	022N	005E	01	C022N005E01
Copper River	022N	005E	02	C022N005E02
Copper River	022N	005E	03	C022N005E03
Copper River	022N	005E	04	C022N005E04
Copper River	022N	005E	05	C022N005E05
Copper River	022N	005E	06	C022N005E06
Copper River	022N	005E	07	C022N005E07
Copper River	022N	005E	08	C022N005E08
Copper River	022N	005E	09	C022N005E09
Copper River	022N	005E	10	C022N005E10
Copper River	022N	005E	11	C022N005E11
Copper River	022N	005E	12	C022N005E12
Copper River	022N	005E	13	C022N005E13
Copper River	022N	005E	14	C022N005E14
Copper River	022N	005E	15	C022N005E15
Copper River	022N	005E	16	C022N005E16
Copper River	022N	005E	17	C022N005E17
Copper River	022N	005E	18	C022N005E18
Copper River	022N	005E	19	C022N005E19
Copper River	022N	005E	20	C022N005E20
Copper River	022N	005E	21	C022N005E21
Copper River	022N	005E	22	C022N005E22
Copper River	022N	005E	23	C022N005E23
Copper River	022N	005E	24	C022N005E24
Copper River	022N	005E	25	C022N005E25
Copper River	022N	005E	26	C022N005E26
Copper River	022N	005E	27	C022N005E27
Copper River	022N	005E	28	C022N005E28
Copper River	022N	005E	29	C022N005E29
Copper River	022N	005E	30	C022N005E30
Copper River	022N	005E	31	C022N005E31
Copper River	022N	005E	32	C022N005E32
Copper River	022N	005E	33	C022N005E33
Copper River	022N	005E	34	C022N005E34
Copper River	022N	005E	35	C022N005E35
Copper River	022N	005E	36	C022N005E36
Copper River	022N	006E	01	C022N006E01

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Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	022N	006E	02	C022N006E02
Copper River	022N	006E	03	C022N006E03
Copper River	022N	006E	04	C022N006E04
Copper River	022N	006E	05	C022N006E05
Copper River	022N	006E	06	C022N006E06
Copper River	022N	006E	07	C022N006E07
Copper River	022N	006E	08	C022N006E08
Copper River	022N	006E	09	C022N006E09
Copper River	022N	006E	10	C022N006E10
Copper River	022N	006E	11	C022N006E11
Copper River	022N	006E	12	C022N006E12
Copper River	022N	006E	13	C022N006E13
Copper River	022N	006E	14	C022N006E14
Copper River	022N	006E	15	C022N006E15
Copper River	022N	006E	16	C022N006E16
Copper River	022N	006E	17	C022N006E17
Copper River	022N	006E	18	C022N006E18
Copper River	022N	006E	19	C022N006E19
Copper River	022N	006E	20	C022N006E20
Copper River	022N	006E	21	C022N006E21
Copper River	022N	006E	22	C022N006E22
Copper River	022N	006E	23	C022N006E23
Copper River	022N	006E	24	C022N006E24
Copper River	022N	006E	25	C022N006E25
Copper River	022N	006E	26	C022N006E26
Copper River	022N	006E	27	C022N006E27
Copper River	022N	006E	28	C022N006E28
Copper River	022N	006E	29	C022N006E29
Copper River	022N	006E	30	C022N006E30
Copper River	022N	006E	31	C022N006E31
Copper River	022N	006E	32	C022N006E32
Copper River	022N	006E	33	C022N006E33
Copper River	022N	006E	34	C022N006E34
Copper River	022N	006E	35	C022N006E35
Copper River	022N	006E	36	C022N006E36
Copper River	022N	007E	01	C022N007E01
Copper River	022N	007E	02	C022N007E02
Copper River	022N	007E	03	C022N007E03
Copper River	022N	007E	04	C022N007E04
Copper River	022N	007E	05	C022N007E05
Copper River	022N	007E	06	C022N007E06
Copper River	022N	007E	07	C022N007E07
Copper River	022N	007E	08	C022N007E08
Copper River	022N	007E	09	C022N007E09
Copper River	022N	007E	10	C022N007E10
Copper River	022N	007E	11	C022N007E11

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	022N	007E	12	C022N007E12
Copper River	022N	007E	13	C022N007E13
Copper River	022N	007E	14	C022N007E14
Copper River	022N	007E	15	C022N007E15
Copper River	022N	007E	16	C022N007E16
Copper River	022N	007E	17	C022N007E17
Copper River	022N	007E	18	C022N007E18
Copper River	022N	007E	19	C022N007E19
Copper River	022N	007E	20	C022N007E20
Copper River	022N	007E	21	C022N007E21
Copper River	022N	007E	22	C022N007E22
Copper River	022N	007E	23	C022N007E23
Copper River	022N	007E	24	C022N007E24
Copper River	022N	007E	25	C022N007E25
Copper River	022N	007E	26	C022N007E26
Copper River	022N	007E	27	C022N007E27
Copper River	022N	007E	28	C022N007E28
Copper River	022N	007E	29	C022N007E29
Copper River	022N	007E	30	C022N007E30
Copper River	022N	007E	31	C022N007E31
Copper River	022N	007E	32	C022N007E32
Copper River	022N	007E	33	C022N007E33
Copper River	022N	007E	34	C022N007E34
Copper River	022N	007E	35	C022N007E35
Copper River	022N	007E	36	C022N007E36
Copper River	022N	008E	06	C022N008E06
Copper River	022N	008E	07	C022N008E07
Copper River	022N	008E	17	C022N008E17
Copper River	022N	008E	18	C022N008E18
Copper River	022N	008E	19	C022N008E19
Copper River	022N	008E	20	C022N008E20
Copper River	022N	008E	21	C022N008E21
Copper River	022N	008E	27	C022N008E27
Copper River	022N	008E	28	C022N008E28
Copper River	022N	008E	29	C022N008E29
Copper River	022N	008E	30	C022N008E30
Copper River	022N	008E	31	C022N008E31
Copper River	022N	008E	32	C022N008E32
Copper River	022N	008E	33	C022N008E33
Copper River	022N	008E	34	C022N008E34
Copper River	022N	008E	35	C022N008E35
Copper River	023N	005E	18	C023N005E18
Copper River	023N	005E	19	C023N005E19
Copper River	023N	005E	20	C023N005E20
Copper River	023N	005E	21	C023N005E21
Copper River	023N	005E	22	C023N005E22

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	023N	005E	23	C023N005E23
Copper River	023N	005E	24	C023N005E24
Copper River	023N	005E	25	C023N005E25
Copper River	023N	005E	26	C023N005E26
Copper River	023N	005E	27	C023N005E27
Copper River	023N	005E	28	C023N005E28
Copper River	023N	005E	29	C023N005E29
Copper River	023N	005E	30	C023N005E30
Copper River	023N	005E	31	C023N005E31
Copper River	023N	005E	32	C023N005E32
Copper River	023N	005E	33	C023N005E33
Copper River	023N	005E	34	C023N005E34
Copper River	023N	005E	35	C023N005E35
Copper River	023N	005E	36	C023N005E36
Copper River	023N	006E	17	C023N006E17
Copper River	023N	006E	18	C023N006E18
Copper River	023N	006E	19	C023N006E19
Copper River	023N	006E	20	C023N006E20
Copper River	023N	006E	21	C023N006E21
Copper River	023N	006E	22	C023N006E22
Copper River	023N	006E	23	C023N006E23
Copper River	023N	006E	25	C023N006E25
Copper River	023N	006E	26	C023N006E26
Copper River	023N	006E	27	C023N006E27
Copper River	023N	006E	28	C023N006E28
Copper River	023N	006E	29	C023N006E29
Copper River	023N	006E	30	C023N006E30
Copper River	023N	006E	31	C023N006E31
Copper River	023N	006E	32	C023N006E32
Copper River	023N	006E	33	C023N006E33
Copper River	023N	006E	34	C023N006E34
Copper River	023N	006E	35	C023N006E35
Copper River	023N	006E	36	C023N006E36
Copper River	023N	007E	28	C023N007E28
Copper River	023N	007E	29	C023N007E29
Copper River	023N	007E	30	C023N007E30
Copper River	023N	007E	31	C023N007E31
Copper River	023N	007E	32	C023N007E32
Copper River	023N	007E	33	C023N007E33
Copper River	023N	007E	34	C023N007E34
Copper River	023N	007E	35	C023N007E35
Copper River	028S	059E	01	C028S059E01
Copper River	028S	059E	02	C028S059E02
Copper River	028S	059E	10	C028S059E10
Copper River	028S	059E	11	C028S059E11
Copper River	028S	059E	12	C028S059E12

Legal Descriptions for the ESA Section 7 Consultation

Meridian	Township	Range	Section	Fixed-Length MTRS Code
Copper River	028S	059E	13	C028S059E13
Copper River	028S	059E	14	C028S059E14
Copper River	030S	059E	19	C030S059E19
Copper River	030S	059E	20	C030S059E20
Copper River	030S	059E	21	C030S059E21
Copper River	030S	059E	28	C030S059E28
Copper River	030S	059E	29	C030S059E29
Copper River	030S	059E	30	C030S059E30
Copper River	030S	059E	31	C030S059E31
Copper River	030S	059E	32	C030S059E32
Copper River	040S	065E	25	C040S065E25
Copper River	040S	065E	36	C040S065E36
Copper River	040S	066E	29	C040S066E29
Copper River	040S	066E	30	C040S066E30
Copper River	040S	066E	31	C040S066E31
Copper River	040S	066E	32	C040S066E32
Copper River	041S	066E	01	C041S066E01
Copper River	041S	066E	02	C041S066E02
Copper River	041S	066E	03	C041S066E03

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

September 19, 2011

Myron E. Fedak
Exxon Mobil Development Company
Alaska Pipeline Project, U.S. Manager
3201 C Street, Suite 505
Anchorage, AK 99503

Re: Alaska Pipeline Project (APP)
Request for Species List and Review
Reference Number: LT-ETAK-0366

Attn: Ryan Childs

Dear Mr. Fedak:

The National Marine Fisheries Service (NMFS) received your letter requesting information on threatened or endangered species and Essential Fish Habitat (EFH) associated with the Alaska Pipeline Project (APP) Proposed Project Area. TransCanada Alaska Company, LLC, Foothills Pipe Lines, Ltd., and ExxonMobil Alaska Midstream Gas Investments LLC, are proposing to treat, transport, and deliver gas from the Alaska North Slope (ANS) to markets in North America.

Background

NMFS has attended APP's technical workshops regarding various aspects of project; met with APP, the Federal Energy and Regulatory Commission (FERC), and the Office of the Federal Coordinator (OFC), Alaska Natural Gas Pipeline Projects; reviewed APP's Preliminary Draft Resource Reports No. 1 and No. 10; and participated in monthly project calls organized by the OFC.

The proposed project involves: construction of about 58 miles of buried 32-inch diameter Point Thomson Gas Transmission Pipeline and associated aboveground, ancillary, and auxiliary facilities from the processing facilities at Point Thomson field to a Gas Treatment Plant (GTP) near Prudhoe Bay; a GTP to process gas from the existing Central Gas Facility near Prudhoe Bay and from the Point Thomson field to deliver up to 4.5 billion cubic feet per day of residue gas, depending on final subscriptions and gas source; and about 745 miles of buried 48-inch diameter Alaska Mainline and associated aboveground, ancillary, and auxiliary facilities from a GTP to the Alaska-Yukon border, including provisions for gas delivery points within Alaska. APP also proposes to construct: eight compressor stations, two meter stations, various mainline block valves, and pig launcher and receiver facilities; and associated ancillary and auxiliary infrastructure such as additional temporary workspace, access roads, helipads, construction camps, pipe storage areas contractor yards, borrow sits, and dock modifications in Alaska.

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FERC has designated APP as the non-federal representative to conduct informal endangered species consultation (if appropriate). After discussions with FERC and APP and reviewing project descriptions and alternatives, it is apparent that some aspects of the proposed project may still change, including the possibility of an alternative route to Valdez. The following information is based on the project description in your August 8, 2011 letter and the preliminary draft route provided at this time and accounts for species that may be present in the marine areas off of Prudhoe Bay.

Essential Fish Habitat

Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires federal agencies to consult on all actions or proposed actions authorized, funded, or undertaken by the agency that may adversely affect EFH. If a federal action agency determines that an action will not adversely affect EFH, no consultation is required, and the federal action agency is not required to contact NMFS about their determination.

EFH has been designated in waters used by anadromous salmon and various life stages of marine fish under NMFS' jurisdiction. Six fishery management plans exist for fisheries in Alaska. They cover groundfish in the Gulf of Alaska, groundfish in the Bering Sea and Aleutian Islands, crab in the Bering Sea and Aleutian Islands, salmon, scallops and federally managed species in the Arctic. Please visit our web site at http://www.fakr.noaa.gov/habitat/efh.htm and our National EFH Mapper at http://www.habitat.noaa.gov/protection/efh/habitatmapper.html for additional information on EFH.

Threatened and Endangered Species

NMFS has management responsibility for all marine mammals in Alaska except sea otter, walrus, and polar bear. Section 7(a)(2) of the Endangered Species Act (ESA) directs federal interagency cooperation "to insure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species" or result in the destruction or adverse modification of critical habitat. Please visit our web site http://www.nmfs.noaa.gov/pr/species/esa/, for additional information regarding protected species and the ESA and critical habitat within Alaska.

Under section 7(a)(3) of the Act, FERC must determine if this work may affect threatened or endangered species, or their designated critical habitat, for which NMFS bears responsibility. If FERC determines the project may affect listed species, the next step for FERC would be to prepare a biological assessment as provided in section 7(c) of the ESA and federal regulations at 50 C.F.R. § 402.12. The purpose of this assessment is to evaluate the potential effects of the action on these resources and determine whether the proposed action is likely to adversely affect listed species and/or critical habitat. The action agency (FERC) has 180 days in which to complete the biological assessment. If the assessment finds that the proposed action is not likely to adversely affect listed species or adversely modify or destroy critical habitat, and NMFS concurs in writing, the consultation process ends and no further action is necessary. If the action is likely to adversely affect listed species or critical habitat, FERC should then request formal consultation on the action from NMFS. NMFS must then complete formal consultation and

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prepare a Biological Opinion of the action within 135 days. It is important to note that, after initiation of consultation under section 7(a)(2), there can be no irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternatives which would avoid violating section 7(a)(2) of the Act.

Endangered bowhead whales may be found in or adjacent to the proposed APP Project area and their presence would be considered seasonal or occasional occurrences.

On December 10, 2010 NMFS proposed to list four subspecies of ringed seals, found in the Arctic Basin and the North Pacific, and two distinct population segments of bearded seals in the Pacific Ocean, as threatened under ESA. Please visit our web site at http://alaskafisheries.noaa.gov/protectedresources/seals/ice.htm or 50 CFR Part 223 for further information.

NMFS has not identified Critical Habitat for listed species in the proposed project area. If any new species are listed, however, new critical habitat areas may be proposed in the future.

Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) prohibits, with few exceptions, injury, harm or harassment of marine mammals. Under the 1994 Amendments to the MMPA, harassment is defined as any act of pursuit, torment, or annoyance which has the potential to injure or disturb a marine mammal causing disruption of behavioral patterns including migration, breathing, nursing, breeding, feeding or sheltering.

Please be aware that gray, beluga, and killer whales and spotted and ribbon seals may also be present in the area and are protected under the MMPA.

We hope this information is useful in fulfilling your requirements under section 7 of the ESA and section 305(b)(2) of the MSA. NMFS encourages FERC and APP to continue to utilize early coordination efforts with us regarding any possible ESA, MMPA, and/or MSA concerns or questions. Should you have any questions, please contact LT Amy Cox by email at amy.b.cox@noaa.gov, or by telephone at (907) 271-6620.

Sincerely,

James W. Balsiger, Ph.D.
For Administrator, Alaska Region

cc: brad.smith@noaa.gov
jeanne.hanson@noaa.gov
candace.nachman@noaa.gov

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jmckim@arcticgas.gov
frances_mann@fws.gov
jennifer_spegan@fws.gov
ryan.childs@exxonmobil.com

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Amy Cox
September 9, 2011

G:\sf\2011\Amy Cox\APP Species List draft2 09-09-2011-AC-1.docx

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ALASKA REGION PROTECTED RESOURCES DIVISION CLEARANCE SHEET

DATE: 9/10/11 TITLE APP Species List (Alaska Pipeline Project)

(✓) **F/AKR2 - Task Coordinator – Amy Cox**

AC — (Name) — 9-9-11 (Date)

(✓) **F/AKR3 - Protected Resources – Kaja Brix**

Kenn S Reven for Kaja Brix — (Name) — 09-13-11 (Date)

(✓) **F/AKR – Habitat – Jon Kurland**

(Name) — 9/10/11 (Date)

(✓) **GCAK – General Counsel –**

(Name) — 9/16/11 (Date)

(✓) **F/AKR –Deputy Administrator – Robert D. Mecum**

FOR RDM — (Name) — 9/19/11 (Date)

(✓) **F/AKR – Administrator - James W. Balsiger, Ph.D.**

FOR JWB — (Name) — 9/19/11 (Date)

***F/AKR2: ENTER DATE ACTION MUST BE RECEIVED IN CENTRAL OFFICE OR FILED AT OFR.** * _____ (Date)

HQ _____ (Name) _____ (Date)

***Web Marina Lindsey *FAKR Records**

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Office of Federal Coordinator

ALASKA PIPELINE PROJECT
Federal Energy Regulatory Commission
&
Alaska Natural Gas Transportation Projects – Office of the Federal Coordinator
Meeting
August 10, 2009 (11:30 am ADT)

Participants

William Doyle (Office of the Federal Coordinator – OFC)
Christa Gunn (OFC)
Michael (Mike) Boyle (Federal Energy Regulatory Commission – FERC)
James (Jim) Martin (FERC)
Laurence (Larry) Sauter, Jr. (FERC)
Myron Fedak (APP)
Bryan Trimm (APP)

Meeting Location

TransCanada Alaska office
601 West 5th Avenue, Suite 305, Anchorage, Alaska 99501

Highlights

- Introductory meeting between FERC and OFC staff and ExxonMobil staff involved in U.S. Environmental, Regulatory and Land issues.
- FERC staff indicated strong desire to control the development (quality) of the Resource Reports (FERC Application) to ensure a complete application is filed as the basis for a Final Environmental Impact Statement (EIS) to facilitate completion of FERC approvals within the legally prescribed time period.
- FERC staff seeks early and constant involvement in ERL planning with initial emphasis on proposed field studies and analysis to support the October 2012 FERC Application; FERC staff stated concerns that the project could be challenged to acquire all of the environmental and regulatory information (heavy emphasis on field studies over multiple years), including route alternatives, to meet the October 2012 filing date.
- FERC staff indicated a preference for a single EIS that will address the APP and the competing Denali Pipeline projects as both projects are tentatively scheduled to submit their respective FERC applications at the same time; FERC sees this approach facilitating FERC staff leveling; initial APP response highlighted potential for application submittal/processing delays from one project proponent adversely impacting the other project; all agreed for further discussions on topic.
- FERC staff raised the need to engage Frank Richards (State of Alaska, Department of Transportation and Public Facilities [DOTPF]) to support required infrastructure improvements prior to pipeline construction; FERC staff indicated that addressing infrastructure issues is a critical path item; APP stated that infrastructure requirements are currently under evaluation.
- FERC staff stated that they will start providing the project with lists of expected deliverables so that FERC expectations are identified early.
- OFC staff indicated that they are preparing a comprehensive list of U.S. Federal, State of Alaska, and local permits with their respective data/information requirements associated with the construction of the APP; anticipate OFC to provide list by December 2009.

Action Items

1. Contact Mike Boyle (FERC) to arrange September 2009 APP and FERC Senior Management Meeting (BAT due August 18).
2. Contact FERC in 2 months to discuss early deliverables to be submitted for FERC review (MEF due mid-October).
3. Contact FERC in 3 to 4 months to discuss the scope-of-work associated with the upcoming environmental field studies (MEF due mid-December)

Pipeline and Hazardous Material Safety Administration

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U.S. Department of Transportation
Pipeline and Hazardous Materials
Safety Administration

1200 New Jersey Ave, S.E.
Washington, D.C. 20590

March 3, 2010

Mr. Paul J. Pike
Senior Project Executive
ExxonMobil Development Company
Greenspoint 4, GP4-450
16945 Northchase Drive
Houston, TX 77060-1905

Re: Alaska Pipeline Project - Federal Energy Regulatory Commission Docket PF09-11-000

Dear Mr. Pike:

The Pipeline and Hazardous Materials Safety Administration (PHMSA) is writing to request information about the nature of the proposed Alaska Pipeline Project (APP Project) and TransCanada/Exxon Mobil plans for the submission of special permit applications for the project pursuant to 49 C.F.R. § 190.341. As you are aware, a special permit is an order by which PHMSA waives compliance with one or more of the Federal Pipeline Safety Regulations under the standards set forth in 49 U.S.C. 60118(c) and 49 C.F.R. § 190.341, subject to conditions and limitations set forth in the order. A special permit may be issued to a pipeline operator (or prospective operator) for specified facilities that, absent waiver, would be subject to the regulation.

PHMSA appreciates the project briefings provided by the APP project team over the past several months. Based on these briefings, it is our understanding that you intend to request special permits regarding certain aspects of the proposed pipeline. To avoid project delays, PHMSA requests that the APP Project submit any special permit applications as soon as possible. PHMSA advises the APP Project to submit its applications before making design-related decisions that could require special permits.

Additionally, to facilitate our review of the project for compliance with the gas pipeline safety regulations at 49 C.F.R. Part 192 and any special permit application(s), please provide the safety and environmental information listed in the informal preliminary information requests enclosed with this letter as Enclosures A and B. Depending on your response, PHMSA may request additional information, including, but not limited to: data, reports, studies, documents, and independent third party analyses. PHMSA expects a detailed safety and environmental review to take a minimum of 12 months or more, depending upon the extent and nature of the request, any requirements for additional information or studies, and the quality of submittal documents.

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PHMSA is required to conduct an environmental review in accordance with the National Environmental Policy Act. An overview of the preliminary environmental information needed to support the anticipated special permit applications is provided in Enclosure B. Your timely submission of permit applications and detailed safety and environmental information will enable PHMSA to properly analyze potential risks to public safety and to the environment that could result from our decision to grant or deny a special permit.

Please contact Dennis Hinnah at 907-271-4937, or Alan Mayberry, Director of Engineering and Emergency Support, at 202-366-5124, if you have any questions.

Sincerely,

Jeffrey D. Wiese
Associate Administrator for Pipeline Safety

Cc: With Enclosures

Vice Admiral Thomas Barrett, USCG (Ret.)
Deputy Federal Coordinator
Office of the Federal Coordinator
188 West Northern Lights Boulevard, Suite 600
Anchorage, AK 99503

Mr. William P. Doyle
Director of Permits, Scheduling & Compliance
Office of the Federal Coordinator
Alaska Natural Gas Transportation Projects
1717 H St., NW, Suite 801
Washington, DC 20006

Mr. Mike Boyle
Project Manager
Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426

Mr. Mark Myers
Alaska Gasline Inducement Act Coordinator
550 W. 7th Ave, Suite 1400
Anchorage, AK 99501-3561

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Ms. Serena Sweet
Project Manager
U.S. Army Corps of Engineers
CEPOA-RD-S
P.O. Box 6898
Elmendorf AFB, AK 99506-0898

Ms. Julie McKim
Project Manager
U.S. Army Corps of Engineers
CEPOA-RD
P.O. Box 6898
Elmendorf AFB, AK 99506-0898

Mr. Ron Dunton
U.S. Department of the Interior
Bureau of Land Management
Alaska State Office
222 W 7th Avenue, #13
Anchorage, AK 99513-7504

Mr. Andy Jenkins
TransCanada PipeLines Limited
Vice President, Major Projects
450 - 1st Street SW
Calgary, Alberta, T2P 5H1
Canada

Mr. Joe Zhou
TransCanada PipeLines Limited
Manager, Pipeline Engineering
Alaska Pipeline Project
450 - 1st Street SW
Calgary, Alberta, T2P 5H1
Canada

Enclosure A

Information Request for the Proposed Alaska Pipeline Project (APP Project)

1.0 Introduction

This document outlines preliminary information PHMSA will need to begin both review of project compliance with 49 Code of Federal Regulations (CFR) Part 192 and consideration of anticipated special permit applications. It is not an exhaustive listing of required information, but identifies initial information needs on the types of issues PHMSA believes might require more extensive review.

Gas pipeline operators must comply with 49 CFR Part 192 (the Regulations) and the industry codes and standards incorporated by reference into the Regulations, when designing, constructing, inspecting, testing, and operating natural gas pipelines. Compliance with the Regulations, codes, and standards provides a substantial basis for concluding that pipelines have been designed, fabricated, constructed, inspected, and tested in a manner that will protect public safety.

If an operator (or prospective operator) of a pipeline facility wishes to deviate from one or more Regulations, the operator may apply for a special permit to do so. Pursuant to 49 USC 60118(c) PHMSA has the authority to issue orders (special permits) granting a waiver of compliance with the Regulations with respect to such pipeline facility on terms PHMSA considers appropriate if PHMSA determines that the special permit is not inconsistent with pipeline safety. PHMSA often places conditions on special permits designed to address any safety issues that are identified during the special permit review process. The procedures for processing special permits are set out in 49 CFR § 190.341.

PHMSA anticipates that the APP Project will propose alternative design methods, most notably the use of a Reliability Based Design approach addressed in Supplement to ASME B31.8R-2008. The use of Reliability Based Design is not recognized under current Regulations. In addition, PHMSA anticipates the APP Project will apply for special permits to waive other regulations including, but not limited to, requirements regarding post construction pressure tests, depth of cover, and valve spacing.

Use of design, material, construction, operational and integrity management approaches not recognized under current Regulations will have potential effects on many functional areas, including specified design attributes, fabrication, construction, operation, monitoring, and integrity management. This information request outlines our preliminary information needs in each functional area. Within each functional area, the criteria being assessed are identified together with the underlying technical requirement (code, standard, rule, etc.). The required information associated with the criteria statement is then identified. There is also a general set of

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required information that enables definition of the scope of anticipated special permit (waiver) requests.

This information request is not comprehensive. As design and operating intent matures, it is expected that additional information will be identified in these functional areas:

- General Requirements (Section 2)
- Design Requirements (Section 3)
- Material and Fabrication Requirements (Section 4)
- Construction Requirements (Section 5)
- Corrosion Control Requirements (Section 6)
- Testing Requirements (Section 7)
- Operation and Maintenance (O&M) Requirements (Section 8)
- Integrity Management Requirements (Section 9)

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2.0 General Requirements

2.1 Applications for Special Permits (Waivers)

2.1.1 Criterion: In order to understand the impact of anticipated special permits, PHMSA must be provided with sufficient information early in the design phase of the pipeline.

Basis: Federal Law 49 U.S.C. 60118(c); 49 C.F.R. § 190.341.

(a) Required Information: A summary of codes, consensus industry standards and special assurance practices (design, operational, maintenance, and integrity management) that the APP Project will apply to the full life cycle of the Project.

(b) Required Information: An overview summary of the extent to which the design will comply with, go beyond, and/or deviate from, existing regulatory requirements.

(c) Required Information: A listing of all regulations (including consensus industry standards and other material incorporated into the regulations by reference [Re: 49 CFR § 192.7]), by specific section, that will be the subject of a special permit request. For any regulation/requirement not listed, it will be assumed that the APP Project intends full compliance in accordance with the pipeline safety regulations contained in 49 CFR Part 192. The nature of the deviation from the requirement must be identified. If you do not submit any applications for a special permit when replying to this request, please note when you will submit special permit requests. For each regulation for which a special permit (waiver) will be sought, the applicable pipeline segments to which these special permits apply must be identified. If the deviation applies to the entire pipeline, identify as "all segments."

(d) Required Information: It is anticipated that one condition of any special permit would be full-time oversight by federal PHMSA inspectors, both in the APP Project's headquarters design and operations offices and at construction camps. This oversight will require suitable office space and/or accommodations both at headquarters offices and at all construction camps, and unfettered access by federal inspectors to documents, records, and activities subject to federal oversight. The APP Project should commit to satisfy these conditions.

(e) Required Information: Identify the pipeline stationing and mile posts for the location or locations of the applicable special permit segment(s).

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2.2 Quality Management System

2.2.1 Criterion: The unique challenges associated with the APP Project's proposed project, including the anticipated need for special permits from established pipeline safety regulations, places a greater burden on the APP Project's quality and management systems to assure pipeline integrity, safety, and environmental protection for the life of the pipeline. A robust quality management system is essential to meet these objectives and to provide PHMSA with the confidence in the pipeline design, operational, maintenance, and integrity management plans to approve anticipated special permits.

Basis: 49 CFR § 192.13

(a) Required Information: Provide the prospective Quality Management System plan/program. Please indicate whether you will conform to, and implement, API Specification Q1. Please describe and justify any exceptions taken to API Specification Q1.

2.3 Construction Quality Assurance and Quality Control

2.2.1 Criterion: The unique challenges associated with the APP Project's proposed project, including the anticipated need for special permits from established pipeline safety regulations, places a greater burden on the APP Project's quality of construction to assure pipeline integrity, safety, and environmental protection for the life of the pipeline. A robust construction quality assurance and quality control process is essential to meet these objectives.

Basis: 49 CFR § 192.13

(a) Required Information: Provide the APP Project's construction quality assurance and quality control plans and procedures. Please identify and indicate your commitment to conform to, and implement, applicable construction quality standards.

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3.0 Design Requirements

3.1 Reliability Based Design

3.1.1 Criterion: It is implicit in 49 CFR 192 that operators are to apply stress-based design practices for pipeline design. Since many specific regulations assume this approach and are predicated on a stress-based design, the application of other design practices requires a special permit. Use of a Reliability Based Design and Assessment (RBDA) approach requires review of extensive information in order to reach the conclusion that pipeline safety is not compromised.

Basis: 49 CFR Part 192, Subpart C.

(a) Required Information: Provide pipeline design criteria and identify associated limit states associated with each criterion for applicability to the reliability based model.

(b) Required Information: Identify all target reliability values associated with pipeline and component design and provide the basis for their determination, including specific identification of any assumptions used and the basis for validity of each assumption. Also identify where target values have been increased to improve the margin of safety.

(c) Required Information: Provide the model used to determine the reliability of the pipeline, including the value of the applicable limit states and the associated limit state functions. Include the basis for any non-conservative inputs, such as wall thickness, when compared to similar values that would be derived from a design determined using methods that comply with 49 CFR 192 requirements. Include the basis for any segmentation of the pipeline for purposes of establishing the reliability target.

(d) Required Information: Identify any time-dependent inputs that could affect model results, such as population density determinations. For such time-dependent inputs, provide programs or procedures that will evaluate these inputs and their impact on the model.

(e) Required Information: Provide the basis for the use of empirical or test data when developing the reliability model, including documented evidence that the data used is representative for its intended purpose. Justify applicability of the data

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used to new pipeline construction and operation in the service conditions expected.

(f) Required Information: Provide the basis for key assumptions and any simplifications in the model.

(g) Required Information: Provide a listing of the hazards considered by the model, including natural phenomena hazards (e.g., seismic, slope instability, freeze-thaw effects), and the basis for their contribution to the probability of pipeline failure.

(h) Required Information: Provide the basis for uncertainty that exists with the model and identify safety margins applicable to the pipeline.

(i) Required Information: If any risks, such as environmental risks, are not considered by the model, give the basis for elimination of such risks.

3.2 Strain Based Design

3.2.1 Criterion: It is implicit in 49 CFR Part 192 that operators are to apply stress-based design practices for pipeline design. Since many specific regulations assume this approach and are predicated on a stress-based design, the application of other design practices requires a special permit. Use of a Strain Based Design approach requires review of extensive information in order to reach the conclusion that pipeline safety is not compromised.

Basis: 49 CFR Part 192, Subpart C.

(a) Required Information: Identify applicable threats and limit states for which strain based design techniques will be used for each pipeline segment.

(b) Required Information: Because a comprehensive consensus industry standard has not yet been developed for strain based design, it is incumbent upon the APP Project to establish, document, and justify the design process/procedure, design criteria, and safety margins. The APP Project must submit its formal design process description and design criteria. This material must include the basis for all design criteria, how the criteria were established, data used to determine acceptability of design criteria, justification for design/safety factors incorporated into the design criteria, and means incorporated in the design or operation to verify the consistency of operational conditions with design basis assumptions. This applies to line pipe (including special

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pieces/joints such as induction bends) and pipeline components (such as compressor stations, valves, pressure vessels, etc.)

(c) Required Information: Identify the design basis natural phenomena and/or outside force events/hazards applicable to each pipeline segment, the associated magnitude of these events/hazards, and the bases for any assumed values. This includes seismic events (earthquake zones and fault zones), frost heave, freeze/thaw cycles, landslides, soil creep, soil collapse, severe weather events, volcanic loadings and any other credible outside force scenario. APP should submit the design criteria, including design margin/safety factors, to address each event/hazard.

3.3 Additional Design Requirements for Alternative MAOP

3.3.1 Criterion: It is our understanding that the APP Project's strain based design approach and methodology for post-construction verification of pipeline integrity will likely apply for a special permit from MAOP and/or class location requirements of Subparts J and/or L. Even if a special permit is not requested, the APP Project may desire to operate at the alternative MAOP allowed in Part 192. In either case, the additional design requirements of 49 CFR §§ 192.112 and 192.620 apply.

Basis: 49 CFR §§ 192.112 and 192.620

(a) Required Information: Provide information that demonstrates compliance with 49 CFR §§ 192.112 and 192.620 for applicable pipeline segments.

(b) Required Information: Provide a detailed pipe fracture control plan that demonstrates compliance with 49 CFR § 192.112(b).

3.4 Depth of Cover

3.4.1 Criterion: Known deviations from depth of cover requirements must be documented and reviewed for acceptability. In these cases, the APP Project must apply for a special permit.

Basis: 49 CFR § 192.137(c)

(a) Required Information: Provide a description of the locations where the pipeline will be exposed and buried. Where buried, identify the depth of cover. Identify any design features which provide additional protection to the pipeline due to deviations from required depth of cover. Identify the segments and

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locations by milepost to which these additional protective features will be provided.

3.5 Valve Spacing

3.5.1 Criterion: Regulations require minimum block valve spacing based on the class location in which the segment is located.

Basis: 49 CFR § 192.179

(a) Required Information: The APP Project should identify the criteria and technical basis for establishing block valve spacing and location.

3.6 Pipeline Components

3.6.1 Criterion: The unique challenges of the APP Project's project could also have significant affect on the design of compressor stations and other components of the pipeline system, besides line pipe.

Basis: 49 CFR Part 192, Subpart D

(a) Required Information: The APP Project should identify the criteria, specifications, and technical basis for designing pipeline components other than line pipe, including as a minimum all items listed in Subpart D.

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4.0 Material and Fabrication Requirements

4.1 Steel Pipe Manufacturing Specification and Quality

4.1.1 Criterion: The proposed pipeline will operate at pressures well above those typical for US pipeline operation and therefore require very heavy wall pipe. In addition, there have been recent examples of sub-standard steel being installed in new pipelines in the lower 48 states. The steel and pipe must meet all technical and quality standards. In addition, the APP Project has indicated its intent to request a special permit from post-construction pressure testing. As a result, additional activities or requirements to assure pipe quality are imperative.

Basis: 49 CFR § 192.55 and Appendix B; and PHMSA Advisory Bulletin in 74 CFR 23930, May 21, 2009, Docket No. PHMSA-2009-0148; and PHMSA "Interim Guidelines for Confirming Pipe Strength in Pipe Susceptible to Low Yield Strength" dated September 10, 2009

(a) Required Information: Provide all specifications that will be used to manufacture the steel and pipe.

(b) Required Information: Identify all consensus industry standards which will be used for manufacturing, and testing the properties of, the steel and pipe.

(c) Required Information: Provide a description of the APP Project's quality oversight process with respect to the manufacture of steel and pipe. This should include the process used to qualify the selected steel mill(s) and pipe manufacturing facilities and the process by which the APP Project will provide quality oversight of steel and pipe manufacturing process.

(d) Required Information: Provide a description of testing that will be performed to verify the quality and material properties of the pipe. This should include a listing of all material properties to be tested and acceptance criteria for all properties. Because the APP Project has indicated that a special permit will be requested for post-construction pressure testing, PHMSA would expect that 100% of pipe joints be tested to verify material properties. If a sampling approach is used to verify pipe material properties, the APP Project must submit an engineering and technical justification for assuring that all pipe joints meet material specifications. Because of recent problems at other construction projects with pipe steel not meeting specified minimum yield strength (SMYS) specifications, the APP Project

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should explicitly address its processes and procedures for assuring that all pipe joints meet minimum material property specifications.

(e) Required Information: Provide a process description for analyzing and dispositioning material properties and flaws. If applicable, provide the basis for determining the use of Engineering Critical Assessment methodology to address the acceptability of material flaws.

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5.0 Construction Requirements

5.1 Qualification of Welding Procedures

5.1.1 Criterion: Existing PHMSA regulations specify minimum requirements for welding of pipe. Welding of pipe in arctic environment presents challenges.

Basis: 49 CFR Part 192, Subpart E

(a) Required Information: Provide any special processes, procedures, or additional requirements used to qualify the weld procedure in accordance with API 1104. In particular, if strain based design is used, the destructive testing used to qualify the weld procedure should be both a hoop stress overstress test and a bending/mechanical deformation overstrain test. Include a description of all special processes (e.g., backwelding).

(b) Required Information: If API 1104, Appendix A will be used for welding and weld non-destructive testing, the APP Project must outline guidance documents for the testing of weld and non-destructive testing (NDT) procedures for various pipe steel suppliers and pipe manufacturers. The guidance must document how pipeline welders and NDT technicians will be qualified. The guidance document must outline how Appendix A will be developed into construction procedures that give guidance to Construction Personnel and Quality Assurance Personnel to properly handle pipe lifting and lower-in operations with out invalidating API 1104, Appendix A.

(c) Required Information: Provide a description of how the weld procedures account for very heavy wall pipe, the extreme arctic environment, and any other unique condition not typically encountered in pipeline construction in the lower 48 states. Factors such as pre-weld heat treatment, post-weld heat treatment, maintenance of heat on weld, and maximum time allowed between passes should be explicitly addressed. Demonstrate how the shop qualified weld procedure or procedure qualified in a controlled environment is appropriate for the field environment.

(d) Required Information: Provide a description of how the weld procedures account for the potential difficulties encountered with weld site preparation and pipe fit-up for any field-cut factory bends and pipe wall thickness variances. This information should include, but not be limited to, fit-up tolerance for alignment of pipe ends, joint design, accounting for wall thickness variance,

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(e) Required Information: Provide a description of how the weld procedures will be qualified and field implemented for conducting backwelding and repair welding to meet API 1104.

5.2 Qualification of Welders

5.2.1 Criterion: Existing PHMSA regulations specify minimum requirements for welder qualification. Welding of pipe in arctic environment presents challenges.

Basis: 49 CFR Part 192, Subpart E

(a) Required Information: Provide a description of the process for qualifying individuals to weld on the pipeline. Explicitly describe any special features of the welder qualification process that address very heavy wall pipe, the extreme arctic environment, and any other unique condition not typically encountered in typical pipeline construction in the lower 48 states.

5.3 Weld Acceptance Testing and Acceptance Criteria

5.3.1 Criterion: Because the APP Project has indicated it intends to request a special permit from post-construction pressure testing, weld acceptance testing and acceptance criteria are critical.

Basis: 49 CFR Part 192, Subpart E

(a) Required Information: Provide the specific written weld test program and weld acceptance criteria. Because the APP Project has indicated it intends to request a special permit from post-construction pressure testing, PHMSA would expect that 100% of welds would be nondestructively tested. The APP Project should describe and justify its weld acceptance criteria, using API 1104 as the basis; in particular, the APP Project should describe and justify if it intends to incorporate alternative acceptance criteria from Appendix A of API 1104 and use of any other proposed standards. The APP Project should describe the pipe conditions where backwelding will be used including for fittings, heavy wall pipe and transitions.

5.4 General Construction in Arctic Conditions

5.4.1 Criterion: Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with Part 192. If the APP Project intends to request a special permit from post-construction pressure testing, additional measures are needed to assure that

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the pipeline does not sustain integrity-threatening damage during construction. In addition, extreme arctic conditions pose unique challenges to pipeline construction.

Basis: 49 CFR Part 192, Subpart G

(a) Required Information: The APP Project should submit its plans and processes for quality oversight of construction activities, including QC inspection of all construction activities.

(b) Required Information: The APP Project should submit its plan regarding how it will address the unique challenges of the arctic environment during pipeline construction (e.g., discontinuous permafrost, stability of disturbed permafrost, pinch points). The APP Project should address if and how it will apply API RP 2N to its pipeline construction activities.

(c) Required Information: The APP Project should submit its plan to assure pipe coating durability and integrity during pipe lowering, backfilling, and horizontal directional drills. The plan should describe all pipeline installation activities including procedures for handling pipe, lowering pipe into the ditch, type of backfill material to be used, and backfill procedures.

(d) Required Information: PHMSA expects that all construction personnel would be covered under the APP Project's Construction OQ program for the Alternative MAOP Rule, since mistakes during construction could lead to threats to pipeline integrity. The APP Project should describe all construction and verification related tasks to be included in its Construction OQ program. Helpful information for compliance with the Alternative MAOP Rule can be found at: http://primis.phmsa.dot.gov/maop/index.htm .

(e) Required Information: The APP Project should submit its plan regarding how it will address the unique challenges of the arctic environment during the time period between completion of construction for each segment and operational startup. PHMSA would expect the pipeline to be maintained and monitored sufficiently to prevent damage from outside forces, corrosion, etc. prior to being placed into service. The APP Project should address how it will monitor the pipeline for potential damage (including strain conditions) that could occur to the pipeline segments during long periods of disuse prior to placing the pipeline system into service.

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5.4.2 Criterion: Regulations require that pipeline and components must have sufficient supports to preclude undue strain, including but not limited to, that caused by temperature-induced contraction/expansion or by high internal pressures.

Basis: 49 CFR § 192.161

(a) Required Information: Provide design and construction requirements for support structures.

5.5 Recent Construction Issues

5.5.1 Criterion: PHMSA has identified problems at recent construction projects in the lower 48 states that could present special challenges during construction in an arctic environment. PHMSA expects the APP Project to proactively develop its construction processes and procedures to avoid these problems.

Basis: 49 CFR Part 192, Subpart E

(a) Required Information: Provide a description of plans, processes and procedures to address/prevent the following problems: field cuts of factory or induction bends (sized for segmenting), poor weld fit-up, poor quality welding, poor backfill material, damaged or improperly installed coating, damaged pipe from improper bending in the field, hydrogen assisted cracking, damage or over-strain during lowering in ditch and backfill, and poor quality NDT.

5.6 Additional Construction Requirements for Alternative MAOP

5.6.1 Criterion: It is our understanding that the APP Project's strain based design approach and methodology for post-construction verification of pipeline integrity will necessitate the need to apply for a special permit from MAOP and/or class location requirements of Subparts J and/or L. Even if a special permit is not requested, the APP Project may desire to operate at the alternative MAOP allowed in Part 192. In either case, additional construction requirements of 49 CFR §§ 192.384 and 192.620 apply.

Basis: 49 CFR §§ 192.384 and 192.620

(a) Required Information: Provide information that demonstrates compliance with 49 CFR §§ 192.384 and 192.620 for applicable pipeline segments.

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6.0 Corrosion Control Requirements

6.1 External Corrosion Control

6.1.1 Criterion: An effective corrosion control program is essential to long term pipeline integrity.

Basis: 49 CFR Part 192, Subpart I

(a) Required Information: Submit plans for managing external corrosion, including coating system, cathodic protection (CP), surveillance, monitoring, and periodic assessment (i.e., ILI assessment). The plans should provide comprehensive details of the CP system design, installation, operation, maintenance, and performance (including minimum performance specifications). PHMSA expects plans to include interference surveys to identify and mitigate all sources of interference (e.g., telluric currents, nearby pipelines, high voltage electric transmission lines, third party structures, etc.) and how they impact CP of the pipeline.

(b) Required Information: Submit plans for managing internal corrosion, including moisture control, inhibitors, coupons, monitoring, and periodic assessment (i.e., ILI assessment).

(c) Required Information: Submit plans for managing atmospheric corrosion on non-buried pipe, including monitoring and periodic assessment (i.e., ILI assessment).

6.2 Internal Corrosion Control

6.2.1 Criterion: An effective corrosion control program is essential to long term pipeline integrity.

Basis: 49 CFR Part 192, Subpart I

(a) Required Information: Describe your program to monitor for and mitigate the presence of, deleterious gas stream constituents, including, as applicable:

i. Provisions for use of filter separators or separators and gas quality monitoring equipment,
ii. Use of gas quality monitoring equipment including moisture analysis, chromatograph, and periodic hydrogen sulfide sampling
iii. Use of cleaning pigs and inhibitors, and sample accumulated liquids
iv. Use of corrosion coupons for internal corrosion monitoring

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(b) Required Information: Describe your program to address deleterious gas stream constituents including the following as applicable:

i. Provisions to limit carbon dioxide and limits
ii. Provisions to restrict the presence of free water and limits
iii. Provisions to limit hydrogen sulfide and limits

(c) Required Information: Describe your program for review of the effectiveness of your mitigation and monitoring efforts, including anticipated frequency of formal review

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7.0 Testing Requirements

7.1 Post Construction Pressure Test

Criterion: Each pipeline must be pressure tested to substantiate material strength, proposed MAOP, and that it is leak-tight. It is our understanding that the APP Project intends to request a special permit from this requirement. This is a critical aspect of pipeline regulations that verifies pipeline integrity prior to being placed into service. Other provisions of the pipeline safety regulations are predicated upon a successful demonstration of pipeline strength by pressure test. Any special permit from conducting a pressure test that fully complies with 49 CFR Part 192, Subpart J would require a substantial justification, including mitigation measures to assure an equal or greater level of pipeline safety.

Basis: 49 CFR Part 192, Subpart J

(a) Required Information: The APP Project should describe its proposed alternative methods to verify the strength and leak-tightness of the pipeline prior to being placed into service. As part of this information, the APP Project should describe additional compensatory measures related to pipeline design, construction, inspection, and testing of materials, operational measures and components to assure pipeline integrity. A comprehensive quality assurance and verification program description will ultimately be required of the APP Project

(b) Required Information: If the APP Project chooses to conduct a pressure test in conformance with Subpart J, describe the test plans and procedures to be used. The procedures should address the specific challenges associated with conducting the pressure test in arctic conditions.

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8.0 Operation and Maintenance (O&M) Requirements

8.1 MAOP

8.1.1 Criterion: Existing regulations require that MAOP be established based on test pressure and assuring that the hoop stress does not exceed SMYS (with safety margin) for the class location in which the pipeline segment is located. If the APP Project applies for a special permit from the regulations pertaining to the MAOP, and/or class location, PHMSA would expect the applicable provisions of 49 CFR § 192.620 to apply. Even if a special permit is not requested, the APP Project may desire to operate the pipeline in accordance with the alternative MAOP allowed by Part 192. In either case, the APP Project should describe its program for complying with 49 CFR § 192.620.

Basis: 49 CFR Part 192, Subparts J and L; 49 CFR § 192.620

(a) Required Information: Describe and justify your alternative process for establishing the MAOP of the pipeline, if applicable.

(b) Required Information: Describe and justify your program for complying with the O&M requirements contained in 49 CFR § 192.620(d) for operating at alternative MAOP, if applicable.

8.2 Strain Monitoring

8.2.1 Criterion: With a traditional stress based design, assuring that the pipe hoop stress is not exceeded is a relatively simple matter of enforcing the MAOP. With a strain based design, long term assurance that design basis strain loading conditions are not exceeded requires the effective use of strain gauges and an effective monitoring program. PHMSA would expect that the APP Project's additional preventive measures would include a formal program for monitoring strain and ROW conditions. PHMSA would expect additional monitoring in earthquake zones and fault zones, hill/mountain side cut areas, discontinuous permafrost and permafrost areas including freeze/thaw areas. Because of the anticipated special permit to use strain based design, and the proximate threat of outside forces, PHMSA expects the APP Project to implement a robust strain monitoring program.

Basis: 49 CFR Part 192, Subpart L

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(a) Required Information: Describe and justify the systems, tools, and plans for continually monitoring and analyzing localized strain on the pipeline, along with procedures for implementing preventive and mitigative measures to proactively address conditions that could cause design basis strain limits to be exceeded. PHMSA would expect such a program to include periodic ILI assessment with tools capable of identifying pipe deformation and other anomalies indicative of pipe movement, deformation, or other strain conditions.

8.3 Reliability Based Assessment

8.3.1 Criterion: It is implicit in 49 CFR Part 192 that operators are to apply stress-based design practices for pipeline design. Since many specific regulations assume this approach and are predicated on a stress-based design, the application of other design practices requires a special permit. Use of a Reliability Based Design and Assessment (RBDA) approach requires review of extensive information in order to reach the conclusion that pipeline safety is not compromised. A key aspect of RBDA is the periodic assessment of pipeline condition and integrity to assure that limit states are not exceeded during the life of the pipeline.

Basis: 49 CFR Part 192, Subparts C, J, L, and O.

(a) Required Information: Provide a description of the program for monitoring pipeline integrity and the material condition of the pipeline, including assessment methodology, acceptance criteria for anomalies/defects, and frequency of assessment. PHMSA would expect such a program to include an ILI assessment program and a comprehensive strain monitoring program.

(b) Required Information: Provide a description of the operational approach that will be used as the dense gas phase transitions between gaseous, liquid and supercritical fluid. PHMSA would expect the approach to include normal and abnormal operations and associated monitoring and mitigation.

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9.0 Integrity Management Requirements

9.1 Failure Impact Zone

9.1.1 Criterion: Covered pipeline segments must comply with the integrity management requirements of 49 CFR Part 192, Subpart O. In addition, ASME B31.8S provides guidance for managing pipeline integrity. An important aspect of managing pipeline integrity is understanding the consequences of an explosion and/or fire that could occur following a failure. It is our understanding that the APP Project intends to request a special permit from key requirements such as design and pressure testing. As part of granting such a special permit, PHMSA would expect the APP Project to develop rigorous and robust failure impact zone analysis for the entire pipeline.

Basis: 49 CFR Part 192, Subpart O and ASME B31.8S

(a) Required Information: Identify the covered pipeline segments as defined by Subpart O. Identify how the covered segments are identified, including how the potential impact radius (PIR) is determined. This should include justification for derivation of the PIR formula in accordance with ASME B31.8S for the unique operating parameters contemplated, including very large pipe diameter, very high operating pressure, and very rich gas.

(b) Required Information: The APP Project should identify and justify how it will use the methodology in ASME B31.8S (or other methodology) to identify the leak or failure impact zone of an explosion and/or fire resulting from a leak or failure of the pipeline. The APP Project should also analyze and provide a report on the potential consequences arising from injury to any persons in proximity to the pipeline, population density, proximity of population with limited or impaired mobility, damage to property in proximity to the pipeline, damage to the environment, potential for secondary failures, and the impact on public convenience and necessity. The report should include a justification for the threshold heat flux and shock wave used to evaluate each type of damage receptor and consider fire duration. Note that consequences may vary based on the richness of the gas transported and as a result of how the gas decompresses. The richer the gas, the more important defects and material properties are in modeling the characteristics of the failure. Because of the unique circumstances in Alaska, it is important to assure that the impact of an explosion or fire on nearby critical infrastructure is minimized. This includes, but is not limited to, the Trans Alaska Pipeline System (TAPS), bridges, electric power transmission lines, etc. In additional, the APP Project should

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analyze the effects of un-ignited gas releases and impacts resulting from interruption of service.

9.2 Periodic Integrity Assessments

9.2.1 Criterion: The integrity management rule requires that pipeline integrity be assessed at least every 7 years. It is our understanding that the APP Project intends to request a special permit from key requirements such as design and pressure testing. As part of granting such a special permit, PHMSA would expect the APP Project to conduct integrity assessments for the entire pipeline more frequently than the minimum required in Subpart O.

Basis: 49 CFR Part 192, Subpart O and ASME B31.8S

(a) Required Information: Describe the planned integrity assessment methods, frequency, and how they address all threats applicable to the entire pipeline.

9.3 Preventive and Mitigative Measures

9.3.1 Criterion: The integrity management rule requires that pipelines in high consequence areas have additional preventive and mitigative measures, beyond those otherwise required by 49 CFR Part 192. It is our understanding that the APP Project intends to request a special permit from key requirements such as design and pressure testing. PHMSA would expect the APP Project to develop rigorous and robust preventive and mitigative measures for the entire pipeline to assure long term pipeline integrity.

Basis: 49 CFR Part 192, Subpart O and ASME B31.8S

(a) Required Information: Describe the planned preventive and mitigative measures, and how they address all threats applicable to the pipeline.

(b) Required Information: Correlate preventive and mitigative measures to the proposed application of RBDA and its associated catalog of design limits. The information must demonstrate how the APP Project, using RBDA, confirms consistency with the integrity management requirements.

9.4 Risk Analysis

9.4.1 Criterion: The integrity management rule requires operators to conduct a risk analysis for pipeline segments in high consequence areas and use the risk analysis results to schedule and prioritize integrity assessments, identify threats, and determine preventive and mitigative measures to manage those threats. It is our understanding that the APP Project intends to

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request a special permit from key requirements such as design and pressure testing. As part of granting such a special permit, PHMSA would expect the APP Project to develop and implement a rigorous and robust risk analysis methodology for the entire pipeline to assure long term pipeline integrity.

Basis: 49 CFR Part 192, Subpart O and ASME B31.8S

(a) Required Information: Describe the planned risk analysis methodology, and how it will be used to manage all threats applicable to the entire pipeline and assure pipeline integrity.

(b) Required Information: The APP Project should describe the methodology for using risk analysis results to identify the risk drivers for each pipeline segment and how those risk drivers will be used to determine the most effective integrity assessment and/or mitigation option. In doing so, the APP Project should analyze the unique circumstances associated with each special permit request as well as the failure impact zone to identify how to manage the threats and prevent or mitigate the consequences of a leak or failure, when the special permit conditions are in place, using the most effective engineering, integrity assessment and operational measures for risk mitigation.

(c) Required Information: The APP Project should describe how it will validate its risk analysis methodology to assure that the methods used have produced results that are usable and consistent with the operator's and industry's experience. The APP Project should describe how it will analyze and monitor operational, maintenance or other activities to identify areas that are inaccurately represented by the risk analysis process, and use that information to modify and continually improve its risk analysis process.

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Enclosure B

Guidance for Special Permit Applicants on Providing Environmental Information

The processing of an Alaska gas pipeline special permit (SP) application will involve an environmental analysis in accordance with the National Environmental Policy Act of 1969 (NEPA), the President's Council on Environmental Quality regulations implementing NEPA (40 CFR 1500-1508), and Department of Transportation (DOT) policy. To the extent PHMSA's grant or denial of your special permit request may constitute a Federal action under NEPA, in addition to analyzing any potential risks to public safety, PHMSA also analyzes any potential risks to the environment that could result from such grant or denial. Specifically, PHMSA evaluates whether the special permit would significantly impact the likelihood of a pipeline spill or failure as compared to the environmental status quo in the absence of the special permit.

PHMSA's environmental analysis must be incorporated into FERC's Environmental Impact Statement (EIS) for the project, as required by the Alaska Natural Gas Pipeline Act of 2004 (ANGPA) (15 USC 720b). ANGPA imposes time limitations on the FERC EIS, making the early submission of special permit applications critical. Once FERC determines that the project certificate application is complete, it must complete a draft EIS within one year. If PHMSA does not receive special permit applications and all necessary supporting information well in advance of the completion of FERC certificate application, it is likely that there will be insufficient time to properly conduct our safety and environmental analyses before the EIS deadlines.

To facilitate PHMSA's environmental analysis, the special permit applicant needs to provide certain environmental information. The purpose of this form is to provide guidance to the applicant on what information should be provided. Any information submitted by the applicant is subject to being made public.

I. Purpose and Need

[Describe pipeline and specify county and state where the affected segments located]

[Cite regulation(s) for which special permit (waiver) is sought. Paste relevant portion of regulation(s) here.]

[State the unique circumstances and reasons for your special permit request. Explain how the special permit will benefit you and the public.]

II. Site Description and Affected Environment

Describe the right-of-way and the type of environment in the vicinity of the affected pipeline segments including:

[Provide map if available]

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[Describe extent to which landowners, businesses, and residential areas are in the vicinity including parks]

[Describe surface waters in the vicinity including wetlands]

[Describe drinking water aquifers in the vicinity]

[Describe soils and vegetation in the vicinity]

[Describe wildlife habitats including fisheries in the vicinity]

[Describe any geologic hazards]

[Describe any cultural resources that may be affected if a special permit were granted]

[Describe any socioeconomic impacts or special impacts on Native Americans, if any,, if a special permit were granted]

[Describe the existing infrastructure that is within the Potential Impact Radius of the pipeline]

III. Mitigation Measures

[Describe the alternative mitigation measures you are offering to implement in lieu of compliance with the regulations for which you are seeking a special permit.]

IV. Analysis and Investigation of Alternatives

[Explain the basis for the particular set of alternative mitigation measures listed in section III above. Explain whether the measures will ensure that a level of safety and environmental protection equivalent to compliance with existing regulations is maintained.]

[Discuss how the special permit would affect the risk or consequences of rupture or failure (positive, negative, or none)]

[Discuss any effects on pipeline longevity and reliability such as life-cycle and periodic maintenance. Discuss any technical innovations as well]

[Discuss how the special permit would impact human safety]

[Discuss whether the special permit would affect land use planning]

[Discuss any pipeline facility, public infrastructure, and environmental impacts associated with implementing the special permit. In particular, discuss how any environmentally sensitive areas could be impacted]

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[Evaluate alternatives to the special permit and any beneficial or adverse consequences of such alternatives.]

NOTE: The APP Project should include the pipeline stationing and mile posts (MP) for the location or locations of the applicable *special permit segment(s)*.

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ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	ALASKA PIPELINE PROJECT – PHMSA MEETING
	Meeting Subject:	APP – PHMSA Engagement Process
	Date of Meeting:	21 October 2010; 8:30 - 17:00
	MoM Number:	MM-ETCA-PHMSA-001

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
Adm. Tom Barrett	OFC	Jack Beattie	APP
Julie McKim	OFC	Mike Cook	APP
		Myron Fedak	APP
Bill Flanders	PHMSA	John Greenslade	APP
Jeff Gilliam	PHMSA	Larry Harms	APP
Dennis Hinnah	PHMSA	Phil Kormann	APP
Steve Nanney	PHMSA	Dan Lillig	APP
Colleen Ouzts	PHMSA	Keith Meyer	APP
Steve Stout	PHMSA (Cycla)	Joe Zhou	APP
		John Zurcher	APP

AGENDA ITEMS:

Item	Agenda Item and Discussion	Leader	Duration
1.	Introductions & Safety Moment	JoeZ	8:30 – 8:45
2.	Concept of Information Delivery Plan (IDP) *Understanding of PHMSA role*: DennisH stated that Alaska State agencies also use PHMSA; SteveN stated that PHMSA will support state agencies as well as FERC at hearings; AdmTB mentioned that the comments of other agencies made during the review period will have to be addressed by PHMSA, leading to an iterative process. *Other discussion:* SteveN voiced the concern that APP might not provide PHMSA with certain information until it is too late because APP could be unaware of PHMSA's processes and requirements. JeffG mentioned that it is important for PHMSA to have enough information about the APP Design Approach and Materials Engineering to provide input into the NEPA process All agreed on the concept and structure of the Information Delivery Plan as presented	JoeZ and LarryH	8:45 – 9:15

APP PROPRIETARY
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MINUTES OF MEETING

APP – PHMSA ENGAGEMENT PROCESS

3.	<u>Content of IDP – Design Approach</u> *Relevant Pipeline experience:* KeithM mentioned that the ANGST design approach included a strain limit that was approved by regulators. MikeC mentioned that a number of ExxonMobil pipelines have used strain based design, including a large diameter multi-phase pipeline offshore Sakhalin. *Pipeline Zones (cont./discont. permafrost):* Adm TB asked how the project would account for climate change and if there was a design contingency for the permafrost line moving north. He recommended APP to address this issue before being asked by other interested parties. DennisH inquired about the effect of the pipeline on the permafrost between the period after construction and before start of chilled operations. *Permafrost Load Effects:* BillF was concerned about frost heave effect at start-up and did not see the strain demand accumulating slowly as suggested by APP. JohnG responded that field observations and calculations indicated a slow build-up of strain in the pipe and that more information on this topic would be made available to PHMSA. SteveN asked about an approximate magnitude of the strain demand. JohnG responded that the work done to-date indicated a demand well under 1% and capacity much larger than that. *Strain Based Design Development:* JeffG pointed out that there could be an opportunity for PHMSA to partner with APP on TSC (Tensile Strain Capacity) research. He also requested more information about the testing program. JohnG responded that information would be made available in future meetings as part of the IDP.	JohnG	9:15 – 11:00

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MINUTES OF MEETING

APP – PHMSA ENGAGEMENT PROCESS

4.	Content of IDP – Pipeline Materials *Program Overview*: JeffG asked whether APP had any specifics yet on the NDT philosophy. DanL responded that one goal of the philosophy is to find limits for NDT defect detection to determine flaw size for modeling; another focus is to find detection methods for weld misalignment. Further information would be made available in future meetings as part of the IDP. DennisH pointed out the challenges for CP in an Arctic environment. DanL responded that CP would be a topic to be addressed in future meetings as part of the IDP. *Special Topics in Materials Engineering* JeffG asked if APP could share their design assumptions for the open season cost estimate. JoeZ responded that design assumption can be made available for PHMSA review. (=> ACTION ITEM). SteveN handed out a sheet with links on PHMSA's website and recommended APP review these along with the FAQ to understand what PHMSA has in mind.	DanL	9:15 – 11:00
5.	Content of IDP – Quality Management System (QMS) JeffG advised that PHMSA expects to be involved in significant oversight and witnessing for all phases of the project as well as any research and testing of materials, design, and construction. Adm TB advised that contractors are more likely to deliver quality the first time when economic incentives are in place	JoeZ	9:15 – 11:00
6.	Content of IDP – Integrity Management Program (IMP) JeffG advised APP to invest in a good IMP. He mentioned the Kern River pipeline as a good example of integrating data with GIS. SteveN pointed out that operators who intend to operate at 80% SMYS need to satisfy PHMSA's requirements before they are allowed to operate at the pressure corresponding to 80% SMYS. DennisH advised that PHMSA would expect detailed CP design and installation at time of pipeline installation.	JoeZ	9:15 – 11:00

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MINUTES OF MEETING

APP – PHMSA ENGAGEMENT PROCESS

7.	Content of IDP – Other Technical Areas of Engagement PHMSA expects that any crack arrestor design be sufficiently tested to insure its suitability for the Arctic environment. SteveN stated that he believes cracks in welds are a big threat for this pipeline and expects APP to specifically address this concern. PHMSA recommended that APP review and specifically address recent issues PHMSA experienced with pipeline construction, e.g. systemic problems with welding, misalignment, expanded pipe, segmented induction bends, etc. PHMSA would like APP to show how corrosion control techniques such as DCVG, ACVG, and CIS work in the Arctic environment. PHMSA stated that non-shielding coatings are required. PHMSA would like to understand the fleet of ILI tools to be used on this project including any crack detection tools for girth welds. PHMSA recommend APP show the proximity of its pipeline in relation to TAPS. JoeZ responded that this would be addressed at a routing workshop.	JoeZ	9:15 – 11:00
8.	Compliance Process JoeZ introduced the concept of tailoring engagement between APP and PHMSA to the need to understand compliance with 49CFR192, e.g. limited engagement on design elements that meet the requirements as directly stated etc., and progressively more engagement on design elements that comply but are not normally encountered by PHMSA. The concept was agreed to in principal. *Further Discussion:* SteveN asked about the status of a response to PHMSA's letter from March 2010. JoeZ answered that APP would like to provide a response after the initial IDP development meetings with PHMSA were completed as some of the issues addressed in the letter would be addressed during those meetings. JeffG recommended APP review the Kern River special permit conditions and special permit conditions document. He pointed out that any special permit applications would be reviewed by PHMSA during the FERC review and not after. APP asked if PHMSA knew of any special permits that triggered delay in a NEPA review. SteveN and JeffG responded that they were not aware of such a situation	JoeZ	11:00 – 12:30
9.	Information Sharing Protocol and Confidentiality Protection MyronF handed out draft documents outlining the confidentiality requirements of APP. JeffG remarked that he would take the documents to Jeff Wiese for review. On the topic of having a data room in Calgary, JeffG thought that this option would not work well for PHMSA due to the international travel involved in using the facility. JeffG will respond to APP with PHMSA's thoughts about how to handle the information exchange. (=> ACTION ITEM)	JoeZ and MyronF	1:30 – 2:30

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MINUTES OF MEETING

APP – PHMSA ENGAGEMENT PROCESS

10.	Discussion and Planning for further meetings PHMSA requested to have the agenda for upcoming meetings as soon as possible. The next meetings were set as follows: Nov.9, 2010 in Chicago – IDP development for Materials Engineering First or second week of December 2010 in Anchorage – IDP development for Design Approach Jan 12, 2010 in Houston – IDP development for QMS and IMP	JoeZ	2:30 – 4:00

ACTION ITEMS:

Item	Action Item	Action By	Date Req.
1	Provide design assumptions for open season cost estimate for PHMSA review in Houston or Calgary	JoeZ	Tbd by PHMSA
2	Convey PHMSA preference on information exchange to APP	JeffG	at January meeting
3	Organize logistics of next 3 meetings including final dates etc.	PhilK	asap

DRAFT

ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	ALASKA PIPELINE PROJECT – PHMSA MEETING
	Meeting Subject:	Information Delivery Plan Development - Materials Engineering
	Date of Meeting:	09 November 2010; 8:30 - 17:00
	MoM Number:	MM-ETCA-PHMSA-002

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
Joe Zhou	APP	Alan Glover	APP
John Greenslade	APP	Phil Kormann	APP
Dan Lillig	APP		
Mike Cook	APP		
Larry Harms	APP		
Brian Rothwell	APP	Steve Nanney	PHMSA
Keith Meyer	APP	Steve Stout	PHMSA (Cycla)

AGENDA ITEMS:

Item	Agenda Item and Discussion	Leader	Duration
1.	Introductions & Safety Moment SN gave an update on PHMSA's preparation for the review of the project. PHMSA is in the process of contracting specialists not available in-house which is a 6-month process. Specialists are expected to be in place by summer 2011.	DL	8:30 – 8:45
2.	Overview – IDP Development & Materials Engineering	DL	8:45 – 9:15
3.	Materials Engineering (1) – Materials Engineering Overview DL presented an overview of the design basis, activities, and status of the various material design areas. JZ pointed out that a number of slides are marked confidential/privileged. SN advised that PHMSA will designate an attorney to review shared material for confidential/privileged designation and to advise of any concerns. SN pointed out that fracture arrestor design would be part of the normal process whereas spacing in excess of what is outlined in 49 CFR 192 would be subject of a special permit.	DL	9:15 – 9:45
4.	Materials Engineering (2) – Logistics	DL	10:00 – 12:00
5.	Materials Engineering (2) – Introduction to Heave Strain Demand SN requested that the remediation concept for pipe subjected to heave strain be introduced at the Jan 2011 mtg (QMS/IMP)	JG	10:00 – 12:00
6.	Materials Engineering (2) – Linepipe DL pointed out that most of the potential pipe suppliers are located outside the USA.	AG	10:00 – 12:00
7.	Materials Engineering (2) – Small scale and full scale testing DL pointed out that some of the testing may happen outside the USA. PHMSA staff were offered opportunity to witness testing if interested.	AG	10:00 – 12:00

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MINUTES OF MEETING

INFORMATION DELIVERY PLAN DEVELOPMENT - MATERIALS ENGINEERING

8.	Materials Engineering (2) – Components SN pointed out that information about the low pressure capability of valve actuators would be required SN remarked that induction bends would be a focus of PHMSA, based on recent industry experience.	DL	10:00 – 12:00
9.	Materials Engineering (3) – Fracture Control Ductile fracture propagation: SN explained some of the background of 49 CFR 192.112. He suggested that APP submit a design basis to evaluate compliance with this clause	BR	1:00 – 2:30
10.	Materials Engineering (3) – Corrosion Prevention SN wondered whether the CP would reach the steel in case the multilayer coating disbonded. DL expressed confidence that the 3LPE was CP friendly and that joint coatings are being evaluated for that purpose.	DL	1:00 – 2:30
11.	Materials Engineering (4) – Welding and NDT SN mentioned to consider detection of low hydrogen cracking in the NDT procedure as well as the quality of film to be used. AG explained that much of the rigour in the design of NDT procedures and specifications has been driven by developing best practices for AUT.	AG	2:45 – 4:15
12.	Materials Engineering Plan Summary	DL	2:45 – 4:15
13.	IDP Development Discussion SN suggested we have enough engagement early so that there are no surprises later. One area highlighted was how APP plans to qualify welding of pipe with different manufacturers/plate suppliers to one another as required in API 1104	DL	4:15 – 4:30

ACTION ITEMS:

Item	Action Item	Action By	Date Req.
1	Prepare a draft white paper documenting APP's preliminary plans for fracture control including references and supporting evidence	DL	Jan.31, 2011
2	Prepare a draft white paper with proof of CP friendliness of 3LPE and HPCC – info to PHMSA, including operating experience.	DL	Jan.31, 2011
3	Provide briefing documents for discussion on the subjects of NDT and welding; to be submitted preferably before any testing.	DL	June, 2011
4	Develop an API 1104 briefing document	DL	June, 2011
5	Prepare a sample design philosophy associated with potential special permits (either arrestor spacing or coatings) for PHMSA's review.	DL	For Dec.13, 2010 mtg
6	Email a draft agenda for the Dec 13, 2010 mtg to SN	PK	Nov.16, 2010

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ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	ALASKA PIPELINE PROJECT – PHMSA MEETING
	Meeting Subject:	Information Delivery Plan Development – Quality and Integrity Management
	Date of Meeting:	15 February 2011; 9:00 - 16:00
	MoM Number:	MM-ETCA-PHMSA-0003

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
Jeff Gilliam	PHMSA	Jack Beattie	APP
Dennis Hinnah	PHMSA	Mike Cook	APP
Vincent Holohan	PHMSA	John Greenslade	APP
Joshua Johnson	PHMSA	Larry Harms	APP
Max Kieba	PHMSA	Josef Kopec	APP
Kenneth Lee	PHMSA	Phil Kormann	APP
Steve Nanney	PHMSA	Dan Lillig	APP
Joseph Sieve	PHMSA	Keith Meyer	APP
Steve Stout	PHMSA (Cycla)	Glenn Murphy	APP
		Gabe Nahas	APP
William P. Doyle	OFC	Brian Rothwell	APP
Frank Richards	OFC	Joe Zhou	APP
		John Zurcher	APP

AGENDA ITEMS:

Item	Agenda Item and Discussion	Leader	Duration
1.	Introductions & Safety Moment	PK	9:00 – 9:15
2.	Action Items from Previous Meetings APP presented a suggested format for recording items and responses requested during APP-PHMSA meetings Discussion of the current list of such items was not held during this meeting but delegated to S. Nanney and P. Kormann S. Nanney noted that items to be recorded would be of technical nature rather than regulatory/permitting	PK	9:15 – 9:45
3.	APP Quality Management APP introduced its approach to quality management on the project. • It was noted that audit requirements cover “primary pressure containment components” • It was noted that the mainline pipe will likely arrive coated in Alaska • It was noted that current material tests will be used to guide development of specifications • It was noted that materials that go into a fabricated assembly will themselves be subject to project material traceability requirements. S. Nanney mentioned his experience with a project that used incorrectly heat-treated material in a fabricated assembly.	GN	10:15 – 11:30

APP PROPRIETARY
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MINUTES OF MEETING

INFORMATION DELIVERY PLAN DEVELOPMENT - QUALITY AND INTEGRITY MANAGEMENT

4.	APP Integrity Management APP introduced its approach to integrity management on the project. • Subpart L will be addressed in the Integrity Management Plan • It was noted that the dormant period may introduce thaw settlement – however that concern would not be in the same location as a potential frost heave segment • Concerns were noted over the ability of ILI to accurately measure strain	JK, GM, JG	11:30 – 11:50 1:00 – 1:30
5.	Analysis of Possible Impacts on Existing Infrastructure near APP Route • The PIR formula for 49 CFR 192.903 was discussed. It was agreed that the effect would increase beyond the base formulation and that APP will give further info when the gas composition is known • The Thermal Radiation Analysis was presented. Additional modeling of the geometry of the flame jet (“Straight up”) was mentioned • The structural analysis for TAPS was presented. • S. Nanney noted that his area of concern was effect of heat on VSMs and potential loss of support under TAPS pipeline. APP noted that the analysis on potential impact on VSM will continue and an update will be provided once the work has been completed. • It was agreed that APP and PHMSA need to work together to communicate potential impacts to other infrastructure owners and the public.	KM, BR	1:30 – 2:30
6.	Planning for Test Witnessing The test schedule was presented. Participation of PHMSA staff in witnessing tests was discussed. APP extended invitation to PHMSA representatives for test witnessing provided that logistics can be arranged in advance.	DL	2:30 – 2:45
7.	APP Discussion of PHMSA Letter from March 2010 Each section of the letter received from PHMSA 3/2010 was reviewed and the corresponding APP status noted • Crack arrestor spacing, coatings, and strain based design were noted for ongoing discussion on the need of spacing permit. • D. Hinnah suggested that APP consider a follow-up letter noting which project design elements mentioned in the letter are no longer being considered	JZ	2:45 – 3:30

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MINUTES OF MEETING

INFORMATION DELIVERY PLAN DEVELOPMENT - QUALITY AND INTEGRITY MANAGEMENT

8.	Planning for Future Meetings Project Technical Working Groups were discussed and PHMSA staff were assigned as the lead contacts in the areas of: • Coatings (includes JJ) • SCADA (includes MK) • Metallurgy (includes JJ and VH) • Welding (includes KL) • Crack Arrest (includes JJ and VH) • Strain Based Design (includes SN and JG) Other PHMSA staff : J Sieve will contribute overall support; D. Hinnah and S. Nanney should be copied on all technical correspondence. Next meeting is scheduled for May 12, 2011 in Washington, D.C. This meeting will include review of progress made by the Technical Working Groups and review information delivery plan proposed by APP. J. Gilliam noted that a decision on compliance status of Strain Based Design is not possible at this time, and that it best be delayed until October 2011 when more information will be available. J. Zhou suggested that an alternative to informing all stakeholders about the use of strain limits in evaluating route threats may best be addressed in Resource Report #11 of the FERC application. The submission of the 1st draft of Resource Report #11 is scheduled in December, 2011.	PK	3:30 – 4:00

ACTION ITEMS:

Item	Action Item	Action By	Date Req.
2	Any file attachments should have reference number in the name. Email item tracking list to S. Nanney.	KM PK	Next meeting asap
3	Make quality procedures for primary pressure containment components available for PHMSA review Enable participation by PHMSA technical staff (e.g. Kenneth Lee) in full scale tests	GN DL	Unspecified See agenda item 6
4	Provide some background material to PHMSA about ILI ability to track strain	JGreen	April, 2011
5	Review scope for Proximity Analysis to ensure VSM concerns are addressed Review flame configurations other than modeled to-date	KM BR	March 2011 June, 2011
6	J. Gilliam requested the schedule for small-scale testing	DL	unspecified
7	APP to consider follow-up response letter	JZ	March 2011
8	Prepare a meeting schedule for the Technical Working Groups	DL, PK	Mar.15, 2011

DRAFT

FERC Docket No. PF09-11-000

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
450 - 1st Street S.W.
Calgary, AB Canada
T2P5H1

Ref No. L-ETCA-PHMSA- 0362

March 4, 2011

Joshua Johnson
Pipeline and Hazardous Materials Safety Administration

Re: APP-PHMSA Working Group Meetings on Coatings and Fracture Control on March 24, 2011

Dear Mr. Johnson:

During our meeting on February 24, 2011 we agreed on the formation of working groups and a series of meetings to discuss technical issues. Our first meeting on March 24 will address topics related to coatings and fracture control. It is envisioned that each work group will meet for a half-day. We will send you a proposed agenda for your review and comments and more detailed travel information next week.

We have booked a meeting room in the Embassy Suites Hotel Rosemount, Chicago, IL. (phone 847-678-4000) for the entire day. This is the same venue we used for the Materials Engineering presentation on Nov.9, 2010. We have not made any room reservations for your group as we understand that you are likely on a more favourable government room rate plan.

Sincerely,

Phil Kormann
APP Technical Compliance Lead

cc: Steve Nanney (PHMSA)
Dennis Hinnah (PHMSA)
Project files

DRAFT

Agenda: Working Group Meetings - Coatings & Fracture Control

Thursday, March 24, 2011

Embassy Suites O`Hare, Chicago IL

Meeting Purpose and Objectives

- Develop common understanding of APP plans for the two topics of coating systems and fracture control
- Develop common understanding of the application of regulatory requirements to APP plans for these two topics.
- Establish the path forward on these two topics.
- Focus of the meeting is on open communication through discussions

Agenda

8:45 – 9:00	Introductions and Safety Moment
9:00 - 10:00	Coating System Selection – Discussion after short presentation
10:00 -11:00	Mainline Coating Systems - Discussion after short presentation
11:00 -12:00	Coatings Open Discussion
Noon - 1:00	Lunch
1:00 -2:00	Field Coating Systems - Discussion after short presentation
2:00 - 3:30	Fracture Control - Discussion after short presentation
3:30 - 4:00	Fracture Control Open Discussion
4:00 – 5:00	Wrap-Up

Breaks will be held throughout the day

APP Attendees	PHMSA Attendees
Robert Worthingham John Lafontaine Brian Rothwell Karl Henize Ignacio Monterrubio Dan Lillig Robin Gordon Keith Meyer John Zurcher	Dennis Hinnah Steve Nanney Joshua Johnson

ALASKA PipelineProject

An Unincorporated Joint Project

FERC Docket No. PF09-11-000

Alaska Pipeline Project
450 - 1st Street S.W.
Calgary, AB Canada
T2P5H1

Ref No. L-ETCA-PHMSA- 0369

March 16, 2011

Steve Nanney
Pipeline and Hazardous Materials Safety Administration

Re: APP-PHMSA Working Group Meetings on Coatings, Fracture Control, Welding, and Metallurgy on April 19 and 20, 2011

Dear Mr. Nanney:

I am confirming our discussion from today that we all agreed to move the meetings planned for Chicago on March 24 to Washington, D.C., on April 19 and 20, 2011. This move will combine two separate meeting dates for greater efficiency.

The first day will address topics related to coatings and fracture control as detailed in the attached agenda. The second day will address welding and metallurgy, and we would like to request that you provide us with a list of your topics of interest that we may prepare an agenda that meets your needs. In the interest of time, would you be able to provide this list next week?

It is envisioned that each work group will meet for a half-day. This schedule should leave us with ample time for detailed technical discussions.

Thank you for providing your office for the meetings.

Sincerely,

Phil Kormann
APP Technical Compliance Lead

cc: Joshua Johnson (PHMSA)
Dennis Hinnah (PHMSA)
Project files

DRAFT

Agenda: Working Group Meetings - Coatings & Fracture Control

Tuesday, April 19, 2011

DOT Offices, Washington, D.C.

Meeting Purpose and Objectives

- Develop common understanding of APP plans for the two topics of coating systems and fracture control
- Develop common understanding of the application of regulatory requirements to APP plans for these two topics.
- Establish the path forward on these two topics.
- Focus of the meeting is on open communication through discussions

Agenda

8:45 – 9:00	Introductions and Safety Moment
9:00 - 10:00	Coating System Selection – Discussion after short presentation
10:00 -11:00	Mainline Coating Systems - Discussion after short presentation
11:00 -12:00	Coatings Open Discussion
Noon - 1:00	Lunch
1:00 -2:00	Field Coating Systems - Discussion after short presentation
2:00 - 3:30	Fracture Control - Discussion after short presentation
3:30 - 4:00	Fracture Control Open Discussion
4:00 – 5:00	Wrap-Up

Breaks will be held throughout the day

Agenda: Working Group Meetings - Welding & Metallurgy

Wednesday, April 20, 2011

DOT Offices, Washington, D.C.

Meeting Purpose and Objectives; Agenda:

To be determined before the end of March

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APP Attendees	PHMSA Attendees
Robert Worthingham John Lafontaine Brian Rothwell Karl Henize Ignacio Monterrubio Dan Lillig Robin Gordon Keith Meyer John Zurcher others as required	Dennis Hinnah Steve Nanney Joshua Johnson others as required

ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	ALASKA PIPELINE PROJECT – PHMSA MEETING
	Meeting Subject:	Information Delivery Plan
	Date of Meeting:	12 May 2011; 10:00 - 13:00 Washington, DC – PHMSA Office
	MoM Number:	MM-ETCA-PHMSA-0005

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
Jeff Gilliam	PHMSA	Rhys Birthwright	APP
Dennis Hinnah (phone)	PHMSA	Mike Cook	APP
Joshua Johnson	PHMSA	John Greenslade	APP
Steve Nanney	PHMSA	Larry Harms (phone)	APP
Robert Smith (phone)	PHMSA	Mel Johnson	APP
Steve Stout	PHMSA (Cycla)	Phil Kormann	APP
		Dan Lillig	APP
		Keith Meyer	APP
Frank Richards (phone)	OFC	Joe Zhou	APP

AGENDA ITEMS:

Item	Agenda Item and Discussion	Leader	Duration
1.	Introductions & Safety Moment	PK	9:00 – 9:15
2.	Action Items from Previous Meetings • APP presented the summary of the Materials Meeting held with PHMSA in the PHMSA DC offices on April 19-20, 2011. • Mel Johnson summarized the meeting between APP-PHMSA held in the PHMSA DC offices on May 5, 2012 to discuss the general schedule and information delivery plan	PK	9:15 – 9:45
3.	Information Delivery Plan (IDP) APP introduced the Information Delivery Plan (IDP) to PHMSA in a ppt. • The information developed for the IDP was presented as hierarchical in nature, with the project general approach at the highest levels, ending with the detailed data residing at the lowest level. • The IDP is modeled after this hierarchical level – involving delivery of the associated reports to PHMSA in a progressive timeframe generally descending down to the more detailed levels • A number of reports were noted for delivery in the areas of Strain based Design, Materials, Quality, and IMP • J Gilliam noted that he was very disappointed that the IDP presentation did not include a Gantt chart which he expected after discussion during the May 5 meeting • S Nanney noted that he could not see a clear relation between the information that he requested for Strain Based Design in the letters PHMSA sent to APP • J Gilliam noted that he would like the schedule of material testing included in the Gantt chart –clarifying that this was to refer to the pipeline material tests and not to the soil testing • The discipline leaders present, Dan Lillig and J Greenslade, noted that all reports are not yet included in the IDP but that the plan would be finalized by the June deadline	PK	10:15 – 12:45

APP PROPRIETARY
DRAFT

MINUTES OF MEETING

INFORMATION DELIVERY PLAN DEVELOPMENT

4.	Planning for Future Meetings Next meeting is scheduled for the week of June 12, 2011 in Anchorage – if there is time available for PHMSA. This meeting will include review of the IDP plan as discussed during this meeting.	PK	12:45 – 13:00

ACTION ITEMS:

Item	Action Item	Action By	Date Req.
2	none	none	none
3	APP to prepare a detailed Gantt chart which showing all reports and their delivery dates. This chart would also include other project scheduled activities as well. A "map" showing the relation between PHMSA (S. Nanney) requested information and the various APP reports. Completion of the IDP, adding reports as required.	PK	June 13, 2011
4	Date and time for next meeting in Anchorage (week of June 12)	SN	As soon as available

DRAFT

ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	ALASKA PIPELINE PROJECT – PHMSA MEETING
	Meeting Subject:	Information Delivery Plan (IDP)
	Date of Meeting:	13 June 2011; 8:30 - 12:00 Anchorage, AK – PHMSA Office
	MoM Number:	MM-ETCA-PHMSA-0006

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
Jeff Gilliam	PHMSA	Myron Fedak	APP
Dennis Hinnah	PHMSA	Dave Johnson	APP
Alan Mayberry	PHMSA	Mel Johnson	APP
Steve Nanney	PHMSA	Phil Kormann	APP
		Paul Pike	APP
		Jon Schmidt (phone)	APP
Frank Richards	OFC	Joe Zhou	APP

AGENDA ITEMS:

Item	Agenda Item and Discussion	Leader	Duration
1.	Introductions & Safety Moment	PK	8:30 – 8:45
2.	Synopsis of Meeting with PHMSA May 12, 2011 • Mel Johnson summarized the meeting between APP-PHMSA held in the PHMSA DC offices on May 12, 2011 to discuss the outline and draft of the proposed information delivery plan • Paul Pike stated that APP will apply for a special permit (SP) for strain based design if requested by PHMSA . He also stated that special permit applications for coatings and fracture control may be submitted if the project decides to chose designs other than those prescribed in the Regulations • Mel Johnson stated that the action items from the May 12, 2011 meetings have been addressed and are ready for discussion under the next meeting agenda item.	MJ	8:45 – 9:00
3.	Presentation of IDP Materials APP presented the four parts of the updated IDP: IDP list, IDP information description, cross-reference of IDP list with PHMSA letter from March 2010, and cross-reference of IDP list with PHMSA letter from March 2011. • The IDP structure and content were accepted as a sufficient to close the loop on PHMSA information requests as stated in the two above letters	JZ PK	9:00 – 10:00

APP PROPRIETARY
DRAFT

MINUTES OF MEETING

INFORMATION DELIVERY PLAN DEVELOPMENT

4.	Discussion • Both parties acknowledged that this project presents a unique situation in as much as project-regulator interaction is taking place well in advance of a FERC EIS. • Much discussion centered around the PHMSA-led Environmental Assessment (EA) that would be required if an SP application were submitted. APP believes that any EAs from individual agencies would be folded into the FERC-led EIS stipulated by ANGPA. PHMSA believes that their EA needs to be completed before the EIS. • Timing of SP application: PHMSA reiterated that an application should be received by them as early as possible but no later than 2011 to allow them to comment on the safety and integrity of the SP with a high confidence level before the EIS starts. APP wondered if the SP could be worked by PHMSA during the EIS period and findings issued together with the EIS. Further discussion took place around the level of information to be provided with an SP application given that some potentially required information would not be available until after the EIS commences.	all	10:00 – 11:45
5.	Planning for Future Meetings • Bi-monthly technical meetings were proposed and agreed upon. Next technical meeting is scheduled for the week of August 22, 2011 in Anchorage – one objective of this meting is to further define the level of detail to be submitted with an 'early' SP application • An APP-PHMSA management meeting will be scheduled for the week of Sept.12, 2011 in Washington, D.C. The objective of this meeting is to clarify outstanding issues regarding the timing of a SP application and the EA.	all	11:45 – 12:00

ACTION ITEMS:

Item	Action Item	Action By	Date Req.
2	none	none	none
3	• APP to update the Gantt charts similar to the one for compressive strain capacity program which shows the individual full scale tests. • APP and PHMSA to jointly review the IDP list and information description in detail and update as required.	PK PK and SN	By Aug. mtg TBD
4	PHMSA will review timing of EA with their attorneys as well as a possible October 2012 timing of SP application	PHMSA	By Sept. 2011 mtg
5	• Schedule August technical meeting with agenda • Schedule September management meeting with agenda	PK PK	By end of July By mid-August

DRAFT

STATE AGENCY CORRESPONDENCE

Alaska Department of Fish and Game

DRAFT

MEMORANDUM

State of Alaska
Department of Fish and Game

D R A F T #3

To: Jonne Slemons
Pipeline Liaison & Surveillance Supervisor
Gas Pipeline Office
Habitat and Restoration Division
Anchorage

Date: March 22, 2002
File No:
Telephone Number: 459-7289
Fax Number: 456-3091

From: Alvin G. Ott, Regional Supervisor
Habitat and Restoration Division
Department of Fish and Game
Fairbanks

Subject: Buried vs. Above-Ground Mode of Gas Pipeline

The following summarizes our concerns about the impacts of a buried gas pipeline on fish and wildlife and their habitat along the proposed corridor. Our working assumptions are:

1. The pipeline will follow the general route of the Trans-Alaska Pipeline System to Delta Junction and then east to Canada;
2. It will be operated at a temperature below freezing;
3. The only areas not buried will be some major river crossings (e.g., Tanana River);
4. Select non-frost susceptible gravel will be needed for bedding/padding.

We don't know at this time if a gravel workpad will be used or is a snow/ice road will be built to support construction. We summarize potential impacts to fish and wildlife resources and their habitat from a chilled-buried pipeline that probably would not be experienced with an elevated pipeline. We organize these into five general categories: (a) mechanical disruption of habitat; (b) increased sedimentation; (c) changes in water parameters; (d) disturbance; and (e) closure (e.g., rehabilitation following completion of use).

<u>Mechanical Disruption</u>

- Ditching through stream banks, especially in unstable, ice-rich soils, can cause mass thermo-karsting, resulting in loss of riparian habitat, potential changes in stream morphology, and increased sedimentation, with resultant loss of aquatic habitat;
- Ditch can intercept sheet flow leading to thermal degradation and draining of wetland complexes, with the ditch acting as a canal carrying water with a high sediment load into nearby streams and wetlands and eroding backfill material from the pipeline ditch;
- Most good quality gravel needed for bedding/padding of the pipeline must come from floodplain sources. Gravel removal can impact high quality floodplain riparian habitat through loss of willows and other vegetation used by moose, caribou, muskoxen,

ptarmigan, and other species, by creating conditions that lead to fish entrapment, causing changes in stream morphology that reduce fish use, and creating conditions that lead to increased aufeis formation;

- Rehabilitation, especially in ice-rich soils, is extremely difficult and may require long-term thermal stabilization (including use of thermo-siphons) before the habitat can return to its former stability and productivity;
- Ditch spoil disposal sites will replace natural habitat with artificial habitat that may not be as productive;
- Presence of a long section of open ditch during some wildlife sensitive periods (e.g., caribou rutting and post-calving migrations, moose migration between summer and winter range) can result in deflection of movements or in the worse case, animal entrapment.

Increased Sedimentation

- In ice-rich soils, removal of insulating cover caused by ditching and burial in stream banks can increase sedimentation in fish streams, and wetlands and other waterbodies that feed into fish streams;
- The chilled pipeline can create ice dams at streams and cross-drainages that can cause subsequent massive erosion and sedimentation;

Changes in Water Parameters

In addition to increased sedimentation that may adversely affect aquatic habitat and the fish and aquatic mammals (e.g., mink, river otter, beaver) that depend on it, a buried pipeline can affect other water parameters.

- Ice dams created by the chilled pipe at stream crossings can reduce water flow into fish overwintering areas either by diverting it or by locking it up in aufeis;
- The chilled pipe can lower water temperature, resulting in changes in the timing of spawning for those species that rely on water temperature cues for migration and spawning, and can accelerate freeze-up in fall when fish are cued to out-migrate to overwintering areas, potentially preventing fish from reaching suitable overwintering areas;
- The chilled pipe can lower background water temperatures with direct effects on the time required for fish eggs to develop (e.g., small decreases in water temperature could delay hatching to a time period not conducive to survival of the alevins);

Disturbance

- Blasting of the pipeline ditch in areas where trenching machines cannot be used, such as river crossings where burial depth would exceed the capacity of the trenching machine, can result in mortality of adult fish and overwintering eggs;
- Blasting during wildlife sensitive life stages (e.g., Dall sheep lambing, raptor nesting, bear denning) can impact reproduction and/or survival.

Closure

- At closure (e.g., abandonment) what would be needed to ensure that the ditch area remains stable since the abandoned buried pipe will no longer be chilled, and thawing, at least in some areas, would be expected.

In conclusion, we strongly recommend that a thorough technical review of the proposed construction mode (buried chilled gas pipeline) be conducted and that a valid comparison of impacts on fish and wildlife and their habitats between the buried and above-ground modes be completed.

COMPANY PROPRIETARY / PRIVILEGED AND CONFIDENTIAL

ExxonMobil

ALASKA PIPELINE PROJECT
An Unincorporated Joint Project

TransCanada

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	**Alaska Pipeline Project**
	Meeting Subject:	Fish Survey Presentation—ADF&G
	Date of Meeting:	May 6, 2010, 9 am – 12 pm
	MoM Number:	**TBD**

ATTENDED BY:	**ORGANIZATION:**	**ATTENDED BY:**	**ORGANIZATION:**
Al Ott	ADF&G	Dave Erikson	ERSS
Jack Winters	ADF&G	Stewart Seaberg	ERSS
Bryan Trimm	ERL		

AGENDA ITEMS:

Item	**Agenda Item**	**Leader**	**Duration**
1.	Overview of 2010 Field Studies	Dave Erikson	
2.	Questions	Dave Erikson	
3.			
4.			

ACTION ITEMS:

Item	**Action Item**	**Action By**	**Date Req.**
1	Data mine through ADF&G files for relevant information (e.g. documentation, pictures and reports on Badami pipeline crossing of the Sagavanirktok River, ADF&G has info on lakes in the Prudhoe/Deadhorse area)	ERSS	6/15/2010
2	Data mine at ARLIS for relevant reports (e.g. report on BP's trenching trials @Washington Creek)	ERSS	6/15/2010
3	Send ADF&G list of streams for review to see if existing fishery data is adequate (i.e. Salcha River has significant amount of fishery data, fish sampling would be unnecessary)	ERSS/ERL	5/25/2010
4	Send ADF&G a map of potential lakes—they will review and provide information	ERSS/ERL	5/25/2010
5	Invite ADF&G to conduct field inspections with project engineers to look at potential stream crossing problem areas	ERL/ERSS	5/25/2010
6	Send ADF&G stream survey schedule—they will review to maximize sampling efficiencies	ERSS/ERL	5/25/2010
7	Invite ADF&G to assist field crews during initial surveys to critique sampling protocols	ERL/ERSS	5/25/2010
8	Study Plan should be coordinated with FERC and NMFS for Essential Fish Habitat requirements	ERSS/ERL	5/25/2010
9	All stream survey crew personnel must have current sport fishing license	ERSS	6/15/2010
10	Check the 26 major crossings identified during TAPS as high priority (based on size not fishery resources)	ERSS	6/15/2010

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Fish Survey Presentation

DISCUSSION ITEMS:	
1	After introductions, Bryan Trimm gave a brief summary of the APP and the status of the project to date
2	A community meeting in Fairbanks is planned for the APP around June 9. The meeting will be announced through local media
3	**ADF&G's biggest concerns** were expressed as: • Long-term erosion and sedimentation of fish habitat resulting from burying a large diameter pipe in ice rich soils • Frost bulb from chilled pipe interfering with stream flow and ground water flow • How are we going to restore sheet flow and cross drainage in ice rich soils and permafrost • Interference with ground water flow. • Surface restoration
4	When TAPS was proposed, burying the pipeline was viewed as more desirable and cost effective. Experience now says buried pipeline may require significantly more cost to maintain and have more long-term environmental impacts to rivers and streams. • Re-established pipe trench can act as a conduit for water, resulting in stream bank and trench unraveling increasing sedimentation to streams
5	Badami pipeline crossing of the Sagavanirktok River exemplifies this problem (ADF&G has documentation, pictures and reports on this problem) • BP's Trenching trials @Washington Creek have similar problems (reports may be available at ARLIS) • Worst-case stream crossing would be an important fish stream deeply incised through permafrost: How can streambanks be effectively stabilized and restored? • Chilled pipeline will likely not mitigate potential soil and permafrost disturbances
6	**High Value Fish Habitat –** Rivers and streams with the highest value fish habitat include: • North Slope - Sag, Atigun, Upper Toolik and Upper Kuparuk Rivers • North of Yukon - Jim and Upper Koyukuk Rivers as well as Prospect, Happy, Mary Angel and Dan Creek • South of Yukon - Chena, Chatanika, Salcha, Tanana, Delta Rivers, Lower Gerstel, and Lower Robertson • Check the 26 major crossings identified during TAPS as high priority (based on size not fishery resources)

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7	**Overwintering Fish Habitat** – Key issue if considering winter stream crossings. • Radio telemetry may be necessary to find overwintering fish habitat • There are known overwintering habitat (OWH) near TAPS including the ▪ Sagavanirktok River east and west channels OWH for broad whitefish ▪ Sag may be only OWH along Pt. Thomson route ▪ Putuligayuk River and the Little Put River are suspected OWH ▪ Salcha, Little Salcha, Chatanika, Chena and Jim Rivers OWH for both anadromous and resident fish ▪ Smaller creeks with OWH include Ox, Marie, Happy, Dan, and Mary Angel Creeks, and Shaw Creek
8	**Fish Spawning Habitat** – Anadromous fish spawning streams will likely have a timing window under ADF&G Title 16 authority. Resident fish spawning areas may have timing widow under the State ROW Lease and Federal ROW Grant. • Anadromous fish spawning in Tanana and Jim Rivers arrive late July • Spawning is possible, but not documented, in many of the major crossings • Generally juvenile chinook salmon are distributed beyond chum salmon spawning areas • Grayling spawning May 1 through June 30 • Chum spawning in Little Salcha, Shaw, Hess and French Creeks downstream of TAPS
9	**Stream Survey Protocols** – Discussion of protocol with various sampling techniques including electrofishing, minnow trapping, seining, fyke nets, hook and line. • Electrofishing may not work well in low conductivity and beaded streams of North Slope • Grayling may not be attracted to salmon roe typically used in minnow traps • Seining would be limited to lower velocity streams and pool habitats • Fyke nets can be effective in slower moving streams • Maximum distribution of anadromous fish in corridor streams expected in mid August • ADF&G can review list of streams to see if existing fishery data is adequate (i.e. Salcha River has significant amount of fishery data, fish sampling would be unnecessary) • Documentation is most important for new areas not previously surveyed

10	**Lake Studies –** Identifying adequate winter water sources water for ice roads on the North Slope will be very challenging. Alternatives, such as snow fencing (to hold windblown snow) and ice chips from lakes will likely be needed in addition to winter water sources. • ADF&G has information on some lakes in the Prudhoe/Deadhorse area • ADF&G will review a map of potential lakes and provide information • Lakes with outlet stream directly connected to known fish habitat assumed to support fish. Bathymetry will only be conducted in these lakes, no fish sampling necessary • Winter water withdrawal from the Sag River will not be permitted
11	**Miscellaneous** • ADF&G recommends the pipeline stay on west side of Sag River to avoid repeated crossings • Tanana River will be a very challenging crossing; both fisheries and engineering concerns • ADF&G has developed issue paper on buried pipeline experiences and concerns • Fort Hamlin Creek (~15 miles north of Yukon River) is good example of deeply incised permafrost stream • Presence of sculpins is a good sign of fish overwintering areas • Consider spoil disposal in shallow lakes to create island for waterfowl nesting, US Fish and Wildlife Service may not support this • Alyeska may need some organic spoils to rehab sites • ADF&G offered to conduct field inspections with project engineers to look at potential stream crossing problem areas • ADF&G offered to review stream survey schedule to maximize sampling efficiencies • ADF&G offered to assist field crews during initial surveys to critique sampling protocols • Study Plan should be coordinated with FERC and NMFS for Essential Fish Habitat requirements • All field crew personnel must have current sport fishing license • Studies show caribou generally move north/south on the coastal plain. Elevated pipe would have to be a minimum height to accommodate caribou movements • Consider lake disposal areas for overburden. Many lake would be more productive if they were shallower

12	Al Ott asked:
	• How many crossing of TAPS?
	  o Answer: unknown but several are expected
	• What is the width of the pipeline corridor?
	  o Answer: Present corridor width undefined. Approximate alignment centerline has been mapped but will change due to environmental, engineering, cultural constraints
	• Length of the stream being surveyed during the 2010 fish surveys?
	  o Answer: Estimate about 300 feet of stream with detailed habitat analysis at the proposed crossing site

AGENCY ISSUES	
1	ADF&G's biggest concerns were expressed as: • Long-term erosion and sedimentation of fish habitat resulting from burying a large diameter pipe in ice rich soils • Frost bulb from child pipe interfering with stream flow and ground water flow • How are we going to restore sheet flow and cross drainage in ice rich soils and permafrost • Interference with ground water flow. • Surface restoration
2	Consider spoil disposal in shallow lakes to create island for waterfowl nesting, US Fish and Wildlife Service may not support this
3	Studies show caribou generally move north/south on the coastal plain. Elevated pipe would have to be a minimum height to accommodate caribou movements
4	Consider lake disposal areas for overburden. Many lake would be more productive if they were shallower
5	Lakes with outlet stream directly connected to known fish habitat assumed to support fish. Bathymetry will only be conducted in these lakes, no fish sampling necessary

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All Submission Summaries with ID from 38 and Less Than 38

ID	Submission			Submission Text	Issues
38	**ADFG Comments on APP Permitting (buried pipeline)** Jack Winters ADF&G, Habitat Division Fairbanks Regional Office (Area III) 1300 College Road Fairbanks , AK 99701 jack.winters@alaska.gov 05/12/2010			Bryan, Attached are two documents we briefly discussed on Thursday. One is a draft 2002 memorandum regarding our concerns about buried gaslines. The other is a draft list of data requirements that was assembled for a potential buried gasline from Beluga through Rainy Pass to the proposed Donlin Creek mine in the Kuskokwim River drainage. I hope these may be of use to you. We look forward to more discussions as this project moves forward.	**(75) PRD 1 -- Project design/description** ADF&G has based their preliminary impact assessment on the following assumptions: 1.The pipeline will follow the general route of the Trans-Alaska Pipeline System to Delta Junction and then east to Canada; 2.It will be operated at a temperature below freezing; 3.The only areas not buried will be some major river crossings (e.g., Tanana River); 4. Select non-frost susceptible gravel will be needed for bedding/padding. Follow up with ADF&G if these assumptions are incorrect or they become invalid due to design changes. **(76) PRD -- Project design/description** Request follow up in regards to whether a gravel workpad will be used or if a snow/ice road will be built to support construction. **(77) ENE 6 -- Environmental effects** Mechanical Disruption - Ditching through stream banks, especially in unstable, ice-rich soils, can cause mass thermo-karsting, resulting in loss of riparian habitat, potential changes in stream morphology, and increased sedimentation, with resultant loss of aquatic habitat. **(78) ENE 6 -- Environmental effects** Mechanical Disruption - Ditches may intercept sheet flow leading to thermal degradation and draining of wetland complexes, with the ditch acting as a canal carrying water with a high sediment load into nearby streams and wetlands and eroding backfill material from the pipeline ditch. **(79) ENE 6 -- Environmental effects** Mechanical Disruption - Most good quality gravel needed for bedding/padding of the pipeline must come from floodplain sources. Gravel removal can impact high quality floodplain riparian habitat through loss of willows and other vegetation used by moose, caribou, muskoxen, ptarmigan, and other species, by creating conditions that lead to fish entrapment, causing changes in stream morphology that reduce fish use, and creating conditions that lead to increased aufeis formation. **(80) ENE 6 -- Environmental effects** Mechanical Disruption - Rehabilitation, especially in ice-rich soils, is extremely difficult and may require long-term thermal stabilization (including use of thermo-siphons) before the habitat can return to its former stability and productivity. **(81) ENE 7 -- Environmental effects** Mechanical Disruption - Ditch spoil disposal sites will replace natural habitat with artificial habitat that may not be as productive. **(82) ENE 7 -- Environmental effects** Mechanical Disruption - Presence of a long section of open ditch during some wildlife sensitive periods (e.g., caribou rutting and post-calving migrations, moose migration between summer and winter range) can result in deflection of movements or in the worse case, animal entrapment. **(83) ENE 6 -- Environmental effects** Increased Sedimentation - In ice-rich soils, removal of insulating cover caused by ditching and burial in stream banks can increase sedimentation in fish streams, and wetlands and other waterbodies that feed into fish streams. **(84) ENE 6 -- Environmental effects** Increased Sedimentation - The chilled pipeline can create ice dams at streams and cross-drainages that can cause subsequent massive erosion and sedimentation. **(85) ENE 6 -- Environmental effects**

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Changes in Water Parameters - Ice dams created by the chilled pipe at stream crossings can reduce water flow into fish overwintering areas either by diverting it or by locking it up in aufeis.

(86) ENE 7 -- Environmental effects
Changes in Water Parameters - The chilled pipe can lower water temperature, resulting in changes in the timing of spawning for those species that rely on water temperature cues for migration and spawning, and can accelerate freeze-up in fall when fish are cued to out-migrate to overwintering areas, potentially preventing fish from reaching suitable overwintering areas.

(87) ENE 7 -- Environmental effects
Changes in Water Parameters - The chilled pipe can lower background water temperatures with direct effects on the time required for fish eggs to develop (e.g., small decreases in water temperature could delay hatching to a time period not conducive to survival of the alevins).

(88) ENE 7 -- Environmental effects
Disturbance - Blasting of the pipeline ditch in areas where trenching machines cannot be used, such as river crossings where burial depth would exceed the capacity of the trenching machine, can result in mortality of adult fish and overwintering eggs.

(89) ENE 7 -- Environmental effects
Disturbance - Blasting during wildlife sensitive life stages (e.g., Dall sheep lambing, raptor nesting, bear denning) can impact reproduction and/or survival.

(90) PRD 1 -- Project design/description
Closure - At closure (e.g., abandonment) what would be needed to ensure that the ditch area remains stable since the abandoned buried pipe will no longer be chilled, and thawing, at least in some areas, would be expected.

(91) ENE 1 -- Environmental effects
ADF&G strongly recommends that a thorough technical review of the proposed construction mode (buried chilled gas pipeline) be conducted and that a valid comparison of impacts on fish and wildlife and their habitats between the buried and above-ground modes be completed.

(92) PRD 1 -- Project design/description
T 16 Permit data needs - List of all stream/waterbody crossings and the location (GPS coordinates, station #, milepost)

(93) FDS 3 -- Field studies
T 16 Permit data needs - Fish sampling to determine if fish are present, if fish are present a T16 permit will be needed for crossings, inwater work, water use, gravel removal, etc. Data collection should be rigorous such that if fish are not detected it can reasonably be concluded the fish use also is negligible

(94) FDS 3 -- Field studies
T 16 Permit data needs - Fish species present and life history stage (young of the year, juvenile, adult, etc.)

(95) FDS 3 -- Field studies
T 16 Permit data needs - Number of fish and species collected with effort and gear provided

(96) PRD 1 -- Project design/description
T 16 Permit data needs - Alignment of pipeline at each fish stream/waterbody crossing

(97) FDS 3 -- Field studies
T 16 Permit data needs - Stream width, bank height, streambed materials, streambank materials, descriptive information with digital photographs (cross sectional profile of the crossing, across the stream from both banks, should characterize the floodplain with the survey, at least survey bankfull width, and upstream and downstream views of the crossing)

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					(98) PRD 1 -- Project design/description T 16 Permit data needs - pipe burial depth (scour criteria), sag bend in relation to stream bank location, bedding and padding requirements, concrete river weights or other means to keep the pipe submerged **(99) PRD 1 -- Project design/description** T 16 Permit data needs - pipe crossing method, horizontal directional drilling, trenching (ditchwitches, backhoes, blasting) and proposed construction timing **(100) PRD 1 -- Project design/description** T 16 Permit data needs - stream crossing construction methods to provide for fish passage and minimize instream sediment **(101) PRD 1 -- Project design/description** T 16 Permit data needs - streambank restoration guidelines and criteria if trenching ends up as the construction method **(102) -- Not Assigned** T 16 Permit data needs - monitoring plan post construction to determine remedial work needed, if any, including a plan for how remedial work (refilling subsided ditch) will be conducted **(103) PRD 1 -- Project design/description** T 16 Permit data needs - number and location of instream material sites needed (if any) for camp pads, laydown areas, fuel storage areas, bedding and padding material **(104) FDS 3 -- Field studies** T 16 Permit data needs - scientific collection permit for fish sampling efforts, add all individuals to the permit that may be involved with sampling **(105) FDS 3 -- Field studies** T 16 Permit data needs - consider aerial surveys to determine if salmon spawning areas are in the pipeline right of way area or in close proximity upstream or downstream, timing would have to be determine based on the area and species expected (coho salmon are present in many of the streams that are tributary to the Kuskokwim River, there also are chum salmon, chinook salmon, and sheefish) **(106) FDS 3 -- Field studies** T 16 Permit data needs - consider the use of multiple gear types for fish sampling including electrofishing, minnow traps (although these may not be very effective in the Kuskokwin drainage based on past work), fyke nets (they can be set and allowed to fish one day before checking, quite often these will capture fish not found by other methods), and visual surveys **(107) FDS 3 -- Field studies** T 16 Permit data needs - consider a late spring, prior to breakup, field reconnaissance trip with the primary purpose of identifying liquid water (there are many springs and upwellings in the Kuskokwim River tributaries) either visually, or by drilling through the ice/aufeis, assuming winter water has fish is usually a fairly good assumption **(108) FDS 3 -- Field studies** T 16 Permit data needs - consider basic water quality (dissolved oxygen, temperature, pH, conductivity) for open water and winter work **(109) FDS 3 -- Field studies** T 16 Permit data needs - remote sensing techniques can be used to look for ice fields. Once snow cover is gone in spring, persistence of ice fields indicates the present of springs. Springs/aufeis = fish wintering/spawning and can present substantial construction issues

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"Burr, John M (DFG)"
<john.burr@alaska.gov>
06/08/2010 10:45 AM

To "Piorkowski, Robert J (DFG)" <robert.piorkowski@alaska.gov>
cc Karen_M_Brown@URSCorp.com, stewart.seaberg@asrcenergy.com
bcc
Subject RE: Alaska Pipeline Project Fish Collection Permit Application Processing

Bob.

I reviewed the sampling protocol (attached to a different email message) and the protocol looks fine to me. I will approve the work as described. To my knowledge, a permit has not yet been drafted for this huge project, true?

John M. Burr
Yukon Area Biologist
Alaska Dept. Fish and Game
(907) 459-7220
john.burr@alaska.gov

From: Karen_M_Brown@URSCorp.com [mailto:Karen_M_Brown@URSCorp.com]
Sent: Friday, June 04, 2010 11:13 AM
To: Bosch, Daniel E (DFG); Hochhalter, Samuel J (DFG); Somerville, Mark A (DFG); sseaberg@asrcenergy.com; David_Erikson@URSCorp.com; Piorkowski, Robert J (DFG); Scanlon, Brendan P (DFG); Burr, John M (DFG); Brase, Audra L (DFG)
Cc: rod.hoffman@exxonmobil.com
Subject: Alaska Pipeline Project Fish Collection Permit Application Processing

Good Morning All
At the suggestion of Bob Piorkowski, I am supplying each of you with the original documents as a PDF for the Alaska Pipeline Project Fish Collection Permit application.
Please see the Cover Letter, Fish Resource Permit Application, and the Stream Survey Locations (Table 1) attached.
I will send as separate emails the Stream Survey Field Protocols, and the 2 Stream Survey Figures.

We will be heading out to the field on the 17th of June, and we are hoping these documents will assist in expediting permit approval.

Stewart Seaberg is our lead fisheries biologist and is heading up the Stream Survey program for the project.
Stewart's contact information: stewart.seaberg@asrcenergy.com and can be reached at 907-339-7639

Dave Erikson is the Alaska Pipeline Project Field Program Manager. Dave can be reached at David_Erikson@urscorp.com 907-343-0245

I am the Permitting Manager for the project, and my contact information is listed below.

Please contact Stewart or Dave directly with any questions or comments. If you can not reach Dave or

Stewart, please feel free to contact me, and I will assist in getting your questions or comments answered.

We appreciate all your efforts in helping to expedite approval of the permit.
Karen

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Karen M. Brown
Senior Environmental Scientist
URS Corporation
911 W. 8th Avenue, Suite 300
Anchorage, Alaska 99501
Direct: 907.343.0247
Fax: 907.276.7679

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MEMORANDUM
Department of Fish and Game

STATE OF ALASKA
Division of Habitat

TO:	Alvin G. Ott Operations Manager Department of Fish and Game Division of Habitat	DATE: TELEPHONE: FAX:	August 12, 2010 459-7289 459-7303
FROM:	Jack Winters JW Habitat Biologist Department of Fish and Game Division of Habitat	SUBJECT:	TransCanada/APP Dalton Highway Site Visit 10 August 2010

On August 10, 2010, I accompanied TransCanada (TC) pipeline engineers and several ExxonMobil contractors on a drive up the Dalton Highway to Fort Hamlin Hills Creek to look at sites where permafrost might pose difficulties to construction of a buried gasline. This trip came about after a meeting with Byran Trimm (ExxonMobil) last month here at ADF&G where we discussed our concerns regarding fish, wildlife, water quality, revegetation, streambank stability and other issues related to buried pipelines. Byran wanted to have some of the Calgary engineers hear some of these concerns first hand and to see some areas where permafrost might be an issue, thus the site visits. During the site visits, I explained details of the site, ADF&G concerns, situations that occurred during TAPS construction, and construction activities at other locations. As the group often split and wandered in several directions, not all TC and ExxonMobil staff heard the entirety of each discussion. I hope that collectively the TC and ExxonMobil staff can put together the pieces of the discussions that they heard and get a good overall picture of the concerns we have with burying a pipeline over considerably varied terrain.

The first stop was the Washington Creek pipeline trenching trials site. We walked throughout the site for about an hour, looking at the individual test trenches and the degree to which each had rehabilitated, as well as the areas where erosion had occurred in the summer of 2002. We talked about pre-disturbance conditions, site settlement, erosion potentials and controls, concerns about moving water from one side of the trench to the other, sediment retention issues, and repair of settled or eroded ditch once construction equipment has left the area. Low pressure vehicles were proposed to deal with summer access to repair disturbed areas. I countered that even low pressure vehicles will have significant limitations, particularly early in the summer when soil still may contain abundant moisture.

At one point I asked if a workpad was going to be used. The answer was that no workpad was needed for the installation of the pipe. Their proposed method is to blade the organic mat off to one side of the 150 to 200 ft wide right-of-way, travel and work on the exposed mineral soil, and then blade the organics back over the disturbed area once the pipe was in the ground. I explained in many areas this would not work as the soil would not support heavy equipment and travel In the work area, and that storm water discharge, permafrost degradation, erosion, and siltation to streams would be major issues with this approach. I noted that extensive rehabilitation would be required and that for some locations this would

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be for an extended time frame. I noted that state, federal, and private land managers will likely have significant problems with this approach to construction.

A workpad using their definition means bringing in material from an outside source to fill and level the work area. To them, using cut and fill to level the work area for backhoes and trenchers to work is not considered a workpad. I countered that in Alaska, cut and fill to make a level work area is considered a work pad.

The second stop was at the TAPS Crossing of Hot Cat Creek, about Dalton Highway MP 33.5. At the TAPS crossing, the elevated pipe approaches the creek from the north, crosses the creek (which runs through a culvert buried in the workpad), and then transitions to buried line up a very steep grade. The goal here was to present the engineers a site with steep slopes leading to a creek. We discussed the potential for winter creek flow and the need to do late winter instream drilling to determine if surface and subsurface flow are present, potentials for aufeis formation (the result of seeing a thaw pipe in the workpad culvert) either during construction or operation and the potential to impact TAPS or the Dalton Highway, soil stabilization difficulties, and rehabilitation potentials. Some juvenile Arctic grayling were seen in the creek just upstream of the workpad crossing.

The third stop was at the Dalton Highway Crossing of Fort Hamlin Hills Creek (MP 72.5). This site is an incised creek in ice-rich permafrost soils where TAPS was elevated. Again, TC indicated trenching across the stream should not pose any problems. Discussions similar to those at Hot Cat Creek were held here.

We also travelled a road on the south side of the Yukon River to a point where it overlooks a proposed pipeline crossing about 3 to 4 miles upstream of the Yukon River Bridge.

I kept recommending the need to start discussing proposed alignments, construction methods, material needs, erosion control methods, soil and bank stabilization options, revegetation options, and other issues with agencies as soon as possible, to discover and hopefully eliminate potential problems before engineering and design options become finalized. Heads were nodded in agreement, but it will be interesting to see how soon any meetings are scheduled. There clearly needs to be a number of meetings to line out terminology (what is a workpad-what is not), proposed construction techniques, and other aspects of this project before final designs are submitted for permit issuance.

Participants in this day trip:

URS under contract to ExxonMobil (Jim Glaspell [Environmental], Nancy Darigo [Geologist], Russ [Driver/Bear Guard])
TransCanada Alaska Pipeline Project (Joe Zhou [manager, pipeline engineering], Richard Fafara [construction planning/cost estimation], Jim Oswell [permafrost engineer])
Dovre under contract to ExxonMobil (Rod Hoffman)
Northern Engineering and Scientific under contract to TransCanada (Beez Hazen)
State of Alaska, Department of Fish and Game (Jack Winters)
ExxonMobil (Larry Harms [Alaska Pipeline Project EIS Project Manager])

ExxonMobil

ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

TransCanada

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	**Alaska Pipeline Project**
	Meeting Subject:	Review of 2010 fish studies and discuss potential studies for 2011
	Date of Meeting: MoM Number:	December 3, 2010

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
Rod Hoffman	APP	Jack Winters	ADF&G
Dave Erikson	APP-ERSS	Al Ott	ADF&G
Stewart Seaberg	APP-ERSS	John Burr	ADF&G

AGENDA ITEMS:

Item	Agenda Item	Leader	Duration
1.	Review 2010 Fish collection report	S. Seaberg	1 hr
2.	Discuss potential 2011 winter and summer studies	D. Erickson	1.5 hr
3.	Determine ADFG knowledge that may be of use to project.	R. Hoffman	1 hr

ACTION ITEMS:

Item	Action Item	Action By	Date Req.
1	Develop fish sample point maps to facilitate ADF&G review of data collected in 2010.	ERSS	Not specified
2	Develop approach to determine appropriate winter habitat survey for 2011.	ERSS	Not specified
3	Provide example ADF&G pipeline project stream crossing permits	ADF&G	Complete
4	Develop ADF&G requested route map.	ERSS	When project allows.

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REVIEW OF 2010 FISH STUDIES - DISCUSS POTIENTIAL STUDIES FOR 2011

ADF&G December 3, 2010

Meeting Summary:	
Item	**Topics**
1	2010 Studies: Re ADF&G concerns on pipe trenching, burial and stream crossings: ADF&G informed about current very high level of engineering, with specifics yet to be determined. Base case is line burial, but specifics on stream crossing not yet determined. Specifics would have to be determined before Title 16 permits can be obtained. Efforts to avoid sensitive areas in pipeline routing summarized. ADF&G advised North Slope tundra lakes are not all at same elevation, and could get drainage from one lake to another via ditch. Side note on ADF&G permafrost trip with APP memo – distribution determined by SPCO.
2	2010 Studies: Reviewed catch information and methods used. Discussed identification difficulty to species level in some sites. Discussed sampling methods and limitations. ADF&G recommended Plexiglas fish holder for taking pictures of catch for documentation and to assist in positive identification. ADF&G reports difficulty catching Dolly Varden in minnow traps on North Slope. ADF&G can interpret APP data better with sampling points on maps showing stream name and TAPS MP number. ADF&G feels it can keep map data confidential if stamped. After conducting a thorough review of 2010 fish survey data and crossing locations, ADF&G may have recommendations on sampling and potential repeat sampling sites for the 2011 fish surveys.
3	2011 Winter studies: Discussed scarcity of actual background data but availability of antidotal information from knowledgeable personnel from ADF&G, JPO, DOT, and TAPS. Discussed approaches to assessing potential habitat from reconnaissance for aufeis, sampling under ice for the presence of water, looking under ice with camera or periscope for fish, setting traps or nets, and doing fish tag studies. ADF&G did not express strong opinion about winter sampling, and even agreed they did not need that level of information currently but would need even more detailed information for eventual permitting. ADF&G provided names of potentially knowledgeable personnel to be interviewed. Also shared simple ice boring approaches. Discussed APP-ERSS developing an approach (i.e., 1. Id known under water flow and habitat-no need to sample, 2. Interview knowledgeable personnel to determine potential follow up sample or verification sites, 3. Perform reconnaissance level surveys for aufeis and/or water under ice, 4. Look for fish under ice, 5. Sample for fish under ice, 6. Potential to tag fish and track movement under ice.). A Fish Resource Permit from ADF&G is not required for an overwintering reconnaissance survey if fish are not captured. ADF&G reported very low pH waters in part of APP study area that would not allow fish use of area. Current winter information driven more by FERC and NEPA requirements.
4	2011 Lake Studies: Discussed methods and permit limits. Regional biologist can help get fish collection time extended over 24 hrs if need to assure better catch information. Would allow leaving fyke nets longer which has had greater catch success. ADF&G also suggested using satellite photos for lake studies – shallow lake melt 1st. Deep lakes will still have ice in middle.
5	ADF&G Knowledge – in addition to that mentioned above: EFH – NMFS mostly defers to ADF&G in Alaska.

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Alaska Department of Transportation and Public Facilities

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Meeting Minutes

Meeting Date: 24 September 2009

Meeting Time: 9:00 am

Meeting Location: State of Alaska, Department of Transportation and Public Facilities
4111 Aviation Avenue, Anchorage, Alaska

Attendees		
Name	*Affiliation*	*Title*
Leo von Scheben	Alaska DOT&PF	Commission
Frank Richards	Alaska DOT&PF	Dept Commissioner, Highways & PF
John Reeves	Alaska DOT&PF	Gas Pipeline Transportation, Projects Coordinator
Jeff Ottesen	Alaska DOT&PF	Division of Program Development
Roger Healy	Alaska DOT&PF	Division of Design & Engineering Services
Mary Siroky	Alaska DOT&PF	Legislative Liaison/Special Assistant to Commission
Richard Fafara	Transcanada	Execution & Logistics
Rick Harrelson	EMDC	Pipeline Execution
Duncan Saville	EMDC	Infrastructure & Logistic
Allan Hardison	EMDC	APP Logistics Advisor

Meeting Objective/Purpose: Meeting was requested by Alaska DOT&PF in letter dated 13 August 2009 (attached) to receive APP's recommendations and comments/support related to planned road improvement projects which could facilitate the building of the APP (GTP & Pipeline).

Key Meeting Points:

- ✓ Alaska DOT&PF welcomed everyone to the meeting. Introductions were made by all participants.
- ✓ Frank Richards provided background to request for the meeting (Special Note: Many of the points of Mr. Richards comments are confirmed in HDR report – attached).
  - o Alaska Highway Funding. Most of Alaska's highway funding is provided by the federal Highway Funds Trust. Mr. Richards explained that in the past that

the State of Alaska had previously received $6 in return for each $1 that Alaska had placed into the Highway Funds Trust (via fuel taxes), but that he believed that this amount would be much reduced in the future (due to federal budget deficits and overall reduced economic activity).

- Federal Funding for Highways. Federal Funding is provided by the Surface Transportation Act, and this act is to expire at the end of September 2009. Congress will generally extend for three month periods (rolling) until new legislation approved. This is expected to further slow funding from federal government.
- State Funding for Highways. The State of Alaska has no actual transportation budget and all funding generally comes from the Alaska State general fund. DOT&PF must go to State Legislature each year and request funding. Funds from the state legislature are in competition with all other transportation projects (diversity included in requirements could be boardwalks in villages as well as improvements to Dalton Highway or improvements to "safety corridors". The state has been having significant problems with "safety corridors" on the Seward Highway and Parks Highway due to significant number of deaths on these heavily traveled roads. As such, much funding is going toward improvements to these areas.
- Potential for further funding reductions in Fairbanks. Mr. Richards office (Mr. Ottesen suggested that in the effort to improve air quality in Fairbanks, additional funding restrictions could occur if the city of Fairbanks remains in violation of the US Clean Air Act. DOT&PF suggested that APP could contact Alice Edwards at State of Alaska, Department of Environmental Conservation for more info.
- Constituency Influences. There are very few voting constituents for improvements to the state's highway system which would facilitate transportation of materials and equipment for the APP.
- State's Objective to Facilitate Gas Pipeline Project. Mr. Richards confirmed DOT&PF's objective to facilitate road and highway improvements which would facilitate construction of a gas pipeline through the Gasline Initiative. The meeting was called to directly seek input from APP regarding said improvements. Mr. Richards did make clear that if the APP had specific requests for improvements that his department would present those to the state legislature for funding. However, Mr. Richards stated that if his department made the request to the legislature, then he would like to make clear to the legislature that the DOT&PF and APP were in complete agreement on the necessity of the upgrades; i.e. that APP would provide support to his department to present to the legislature.
- No direct financial assistance requested. Mr. Richards expressly confirmed that the state would not ask for direct reimbursement for any improvements made to support the gas pipeline program.
- Elimination of weight restrictions during "spring breakup/spring thaw" of Alaska's highways. Mr. Richards confirmed that his office is investigating the elimination of road restrictions during spring breakup to facilitate heavier truck loading (and associated increased cost) during spring breakup.

- Stand alone Gas Pipeline Route Alternative Analysis. DOT&PF had recently received subject report, and advised that it might be available from Harry Noah's office in Juneau through the FIO (Alaska Governor's Office special natural gas pipeline appointee)
- Focal Point for continued working relationship. Mr. Richards confirmed that John Reeves with DOT&PF would be the APP's focal point for continued cooperation and working together for potential improvments.
- **Action:** DOT&PF and APP will begin a regularly scheduled cooperation session beginning in early December 2009. Richard Fafara to coordinate with John Reeves.
- Request to meet in conjunction with Denali. To reduce duplicity in resource requirements at DOT&PF, Mr. Richards asked if the APP would meet with the DOT in a joint session with members of the Denali pipeline program.
- **Action:** APP deferred response to this question, but committed to provide subsequent formal response. Richard Fafara to action and expedite formal letter response from APP to DOT&PF
- Sharing information on Material Sites. Mr. Richards suggested that DOT&PF would budget to initiate aggregate material site studies south of Fairbanks and would share the information on aggregate material sites with APP. DOT&PF cautioned that some material sites have naturally occurring asbestos in the sites, and that it would be a prudent safety precaution to share information.
- **Action:** Richard Fafara to coordinate this sharing of info via regularly established coordinating meetings referenced above.

✓ APP input to Meeting. APP team thanked the DOT&PF for the opportunity to have the meeting and work with DOT&PF toward highway development opportunities which would enhance the construction of the APP. The APP team confirmed that the APP schedule was generally being planned around AGIA established schedule. The APP team confirmed to the DOT&PF that the execution plans for the program are not yet specifically develop in sufficient detail to be able to comment on the potential benefit of the development projects. The team noted that any and all maintenance and improvement programs that would improve the safety and effectiveness of the Parks, Dalton, Richardson, and Alaska Highways would be of benefit to the program. APP team confirmed Exxon and TransCanada commitment to Safety. APP team confirmed that the APP was being designed around the known limitations of the Alaska highway system (i.e. existing weight and dimensional limitations), and that APP team was of the opinion that the APP could be constructed under general existing highway conditions.

✓ Meeting Wrap-up. APP confirmed to respond to DOT&PF regarding the action items established in the meeting and to expedite response to working with the Denali program. APP thanked the DOT&PF for the meeting, and meeting was adjourned.

During the discussions, Commissioner von Scheben commented "at this time, it sounds like the APP does not need any major infrastructure upgrades" The APP confirmed that at this preliminary stage of the project, it appears major infrastructure upgrades were not required. However, the ongoing maintenance activities (grading, and calcium chloride application) by DOT&PF were a major benefits to the project.

When APP asked if we can provide any assistance the DOT&PF budgeting efforts, they suggested voices of support in front of the legislature in January (date to de confirmed) by Tony Palmer or Mel Johnson would be beneficial.
Action - Richard Fafara to confirm date and coordinate with Tony and Mel.

State Historic Preservation Office

SHPO offices, AK DNR, Anchorage, Alaska
March 19, 2009. 11:00 AM to noon at SHPO office

Attendees:

TransCanada Team:	*Agency Staff:*
Karen Etherington (TransCanada)	**Judith Bitner** (SHPO)
Chris Humphrey (AECOM)	**Stefanie Ludwig** (SHPO)
Jon Schmidt (AECOM)	
Karen Brown (URS)	

Meeting Objectives

The goals of this meeting were to discuss: 1) an update on the APP; 2) address questions from staff; and, 3) discuss the next steps to obtain information needs to support the cost estimate for open season.

Data Discussion

The previous cultural survey work done on TAPS in the 1970s needs to be updated and sites re-mapped. Most of that work did not survey the site locations and did not have benefit of current GPS technology. Eligibility determinations were never completed as well.

It will be important to use an archeologist/cultural specialist to do the site research that is familiar with the old TAPS data sets and what is required to update the studies.

The SHPOs office has electronic database (AHRS) and site file cards for studies completed, but the reports themselves reside with the company that paid for the studies. So if someone wants to review the actual reports, they have to request permission from that company that paid for the cultural resources surveys. But the site file cards are useful to put into a GIS data layer that we can use in routing work.

The SHPOs office has a catalog of reports that have been completed across the state. That will tell us what kind of work may or may not have been completed in our study corridor.

For the GTP, the NSB might have some additional data or studies there. Some federal and state landowners might also have data from studies they commissioned.

Agency Issues, Concerns, and Recommendations:

During construction of TAPS, most cultural resources field work was just ahead of the equipment and field data and artifacts are still sitting somewhere not analyzed and no reports completed. During TAPS renewal, the SHPOs office couldn't add that that work needed to be completed, but Alyeska did use GIS to map the known sites along their route.

Recommended that project cost estimates in time and budget for completing the cultural reports (not done for TAPS). Also, need to include contingency planning for discovery of cultural resources during construction.

SHPO's accepted approach is to 1-avoid, 2-minimize, and as a last resort 3-mitigate.

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Any future geotechnical survey work needs to make sure field surveys of the areas have been completed prior to filing for the permit

For snow roads, need to review the DNR permit on the conditions to see if they adequately address SHPO concerns about ground disturbance.

The SHPOs office will complete 106 consultation with the FERC for this project as well as a state process they have to complete to satisfy the state agencies who issue permits. They used to be, but now are hardly ever, involved in the government-to-government consultations, only when they have to assess the eligibility of TCPs.

They feel, based upon our review of studies and sites, we should ID 'sensitive' areas that can be incorporated into the construction routing and planning.

They had one concern about compressor station siting on state lands and how that might affect the viewshed of cultural areas.

Action Items:

None.

FERC Docket No. PF09-11-000

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0373

August 31, 2011

Judith E. Bittner
State Historic Preservation Officer
Alaska Office of History and Archaeology
550 West 7th Avenue, Suite 1310
Anchorage, AK 99501-3565

Subject: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Ms. Bittner:

TransCanada Alaska Company, LLC and Foothills Pipe Lines, Ltd., working cooperatively with ExxonMobil Alaska Midstream Gas Investments LLC as the Alaska Pipeline Project ("APP"), are collectively developing a project to treat, transport, and deliver gas from the Alaska North Slope to markets in North America. The purpose of this letter is to initiate formal consultation with the Alaska Office of History and Archaeology (OHA)regarding compliance with relevant cultural resources and historic preservation regulations.

The APP will comprise the following major jurisdictional components in Alaska:

- About 58 miles of buried 32-inch-diameter Point Thomson Gas Transmission Pipeline and associated aboveground, ancillary, and auxiliary facilities from the processing facilities at the Point Thomson field to a gas treatment plant (GTP) near Prudhoe Bay;
- A GTP that would process gas from the existing Central Gas Facility also near Prudhoe Bay and from the Point Thomson field to deliver up to 4.5 billion cubic feet per day of residue gas, depending on final subscriptions and gas source; and
- About 745 miles of buried 48-inch-diameter Alaska Mainline and associated aboveground, ancillary, and auxiliary facilities from a GTP to the Alaska-Yukon border, including provisions for gas delivery points within Alaska.

As part of the project, the APP will also construct eight compressor stations, two meter stations, various mainline block valves, and pig launcher and receiver facilities; and associated ancillary and auxiliary infrastructure such as additional temporary workspace, access roads, helipads, construction camps, pipe storage areas, contractor yards, borrow sites, and dock modifications in Alaska. APP will also use existing airstrips. A project overview map is attached for general reference.

As required by Title 18 Code of Federal Regulations (CFR) Part 380.12, APP is preparing an application to the Federal Energy Regulatory Commission (FERC) for a Certificate of Public Convenience and Necessity under Section 7(c) of the Natural Gas Act, consistent with the Alaska Natural Gas Pipeline Act of 2004.

The FERC will be the lead federal agency responsible for implementation of the National Environmental Policy Act, and the National Historic Preservation Act (NHPA, 16 United States Code 470). Pursuant to 36 CFR 800, 18 CFR Parts 380.12, 380.14, Appendix A to Part 380, and pursuant to the FERC's Guidelines for Reporting on Cultural Resources Investigations for

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Pipelines (December 2002), APP is asked to consult with the State Historic Preservation Office, Alaska Native Organizations, and/or land-managing agencies early in the project planning.

On May 26, 2010, APP met with representatives of the OHAand the Bureau of Land Management (BLM) to discuss the survey protocols for the project in preparation for the beginning of field work in 2010. On April 21, 2011, APP met with representatives of the OHA, BLM, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, and U.S. Coast Guard to again discuss the project and the Section 106 process. Specific items that were discussed and agreed upon at these meetings included:

- that APP would focus on field surveys for the first 3 years and not mitigation; mitigation planning would occur later in the Section 106 process;
- the area of potential effect (APE) for direct impacts was defined as the entire length of the Alaska Mainline Pipeline corridor, the Point Thompson Gas Transmission Pipeline corridor, potential GTP sites, and any ancillary facility locations;
- that a Programmatic Agreement (PA) would be advanced and signed by the time the FERC issues the Final Environmental Impact Statement (FEIS) to cover project changes, unsurveyed tracts, and unanticipated discoveries post-FEIS;
- a sensitivity model would be developed to determine areas of high and low probability;
- survey methods and artifact collection were discussed; and
- Phase I surveys would be completed in 2010 and 2011 on accessible lands with the potential for additional surveys in 2012; any required Phase II surveys would be completed at a later date where needed.

APP initiated cultural resources surveys in June 2010, conforming to the methodologies that were discussed during the May 26, 2010 meeting. However, no formal consultation has been initiated with the OHA regarding the project; therefore, with this letter APP, acting as the FERC's designated non-federal representative for purposes of complying with Section 106 of the NHPA, respectfully requests your input regarding compliance with the relevant historic preservation laws.

APP appreciates your assistance with this request. If you have any questions or will require any additional information, please contact Terry Wolverton at (907) 929-4103 or by email to terry.wolverton@exxonmobil.com.

Regards,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Co.
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Attachment: Project Overview Map

cc: Mike Thompson, SPCO
Laurie Boros, FERC
Julie McKim, OFC

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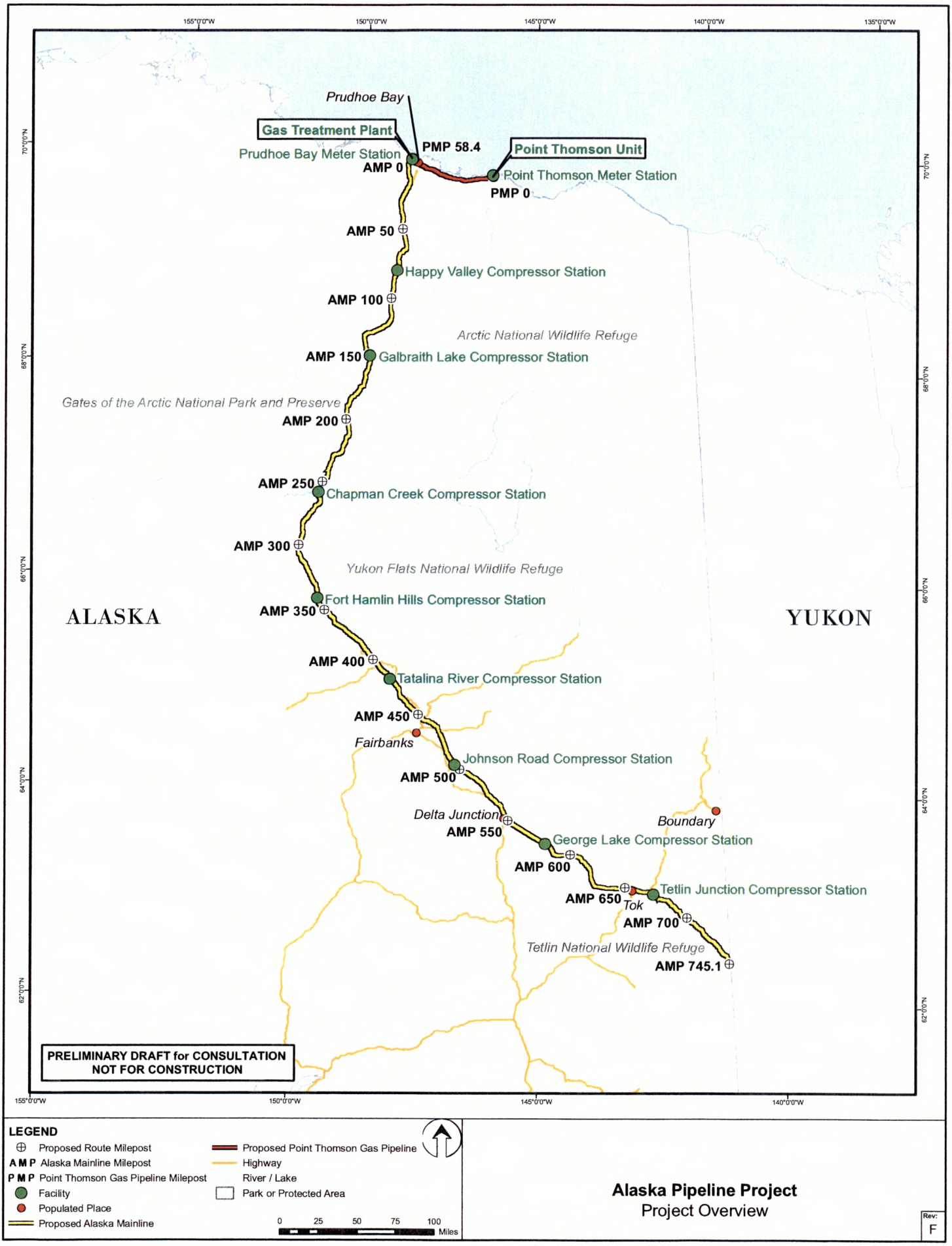
155°0'0"W
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145°0'0"W
140°0'0"W
135°0'0"W
70°0'0"N
69°0'0"N
68°0'0"N
67°0'0"N
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64°0'0"N
63°0'0"N
62°0'0"N
Prudhoe Bay
Gas Treatment Plant
Prudhoe Bay Meter Station
AMP 0
PMP 58.4
Point Thomson Unit
Point Thomson Meter Station
PMP 0
AMP 50
Happy Valley Compressor Station
AMP 100
Arctic National Wildlife Refuge
AMP 150
Galbraith Lake Compressor Station
Gates of the Arctic National Park and Preserve
AMP 200
AMP 250
Chapman Creek Compressor Station
AMP 300
Yukon Flats National Wildlife Refuge
Fort Hamlin Hills Compressor Station
AMP 350
ALASKA
YUKON
AMP 400
Tatalina River Compressor Station
AMP 450
Fairbanks
Johnson Road Compressor Station
AMP 500
Delta Junction
AMP 550
Boundary
George Lake Compressor Station
AMP 600
AMP 650
Tok
Tetlin Junction Compressor Station
AMP 700
Tetlin National Wildlife Refuge
AMP 745.1
PRELIMINARY DRAFT for CONSULTATION
NOT FOR CONSTRUCTION
LEGEND
Proposed Route Milepost
AMP Alaska Mainline Milepost
PMP Point Thomson Gas Pipeline Milepost
Facility
Populated Place
Proposed Alaska Mainline
Proposed Point Thomson Gas Pipeline
Highway
River / Lake
Park or Protected Area
0 25 50 75 100 Miles
Alaska Pipeline Project
Project Overview
Rev: F

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ALASKA PipelineProject

Ref No. LT-ETAK-0011

September 19, 2011

Ms. Judy Bittner
Office of History and Archaeology
550 West 7th Ave., Suite 1310
Anchorage, AK 99501

Subject: Preliminary Field Survey Results, Alaska Pipeline Project

Dear Ms. Bittner,

The Alaska Pipeline Project concluded fieldwork for the 2011 field season last week, and we are currently preparing a comprehensive report summarizing the results of our 2010 and 2011 cultural resources inventory efforts. This report will be submitted to your office in the spring of 2012. As an interim measure, a summary report documenting the work completed through 2010 has been prepared, and is attached for your files. If you have any questions on this report, or would like any additional information on this project, please do not hesitate to contact me at 503-475-2426.

Sincerely,

Michael S. Kelly
Cultural Resources Studies Lead
Alaska Pipeline Project
Environmental and Regulatory Support Services

cc: Project files

URS Corporation
670 West Fireweed, Suite 200
Anchorage, AK 99503
Phone: 907.562.3366
Fax: 907.562.1297
www.urscorp.com

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State Pipeline Coordinator's Office

ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	**Alaska Pipeline Project**
	Meeting Subject:	Regulatory Review Meeting
	Date of Meeting:	February 2, 2011
	MoM Number:	MM-ETAK-0061 Rev A

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
Mike Thompson, State Pipeline Coordinator	Alaska Dept. of Natural Resources – State Pipeline Coordinator's Office		
Anne Brown, Deputy State Pipeline Coordinator	Alaska Dept. of Natural Resources – State Pipeline Coordinator's Office		
Steve McDaniel	APP		
Ryan Childs	APP		

AGENDA ITEMS:

Item	Agenda Item	Leader	Duration
1.	SPCO issues the State right-of-way lease and in doing so brings in expertise from the other state agencies for review of the lease application. Mike serves as primary contact. APP point-of-contact for now is Ryan Childs who will bring in other APP resources as necessary; Ryan's primary role is federal agency coordination but until APP fills state agency coordination position he will serve in that position also.	McDaniel/Thompson	5 min
2.	SPCO forwarded a request from the AGIA coordinator's office that APP make allowance for SPCO's pipeline engineer to attend a joint APP-USDOT meeting in Washington, DC on the 16th. Ryan and Steve will take back the request to APP management	Thompson	5 min
3.	The APP presentation included an overview of the project, information on the EIS/CPCN application process and phased permitting, and a list of topics to guide the meeting discussion with SPCO.	Childs	35 min
4.	By providing the SPCO information for the lease on the timeline of deliverables shown in the presentation, SPCO believes there is adequate time for providing a lease to APP in time to support construction of GTP infrastructure in late 2014.	Thompson	5 min
5.	Earlier submittal of the actual lease application than 3Q2013 would be advisable in order to ensure the lease decision is issued in timely manner. This sets the timing for submittal of the lease before issuance of the DEIS but the two different processes don't have to necessarily follow the same timeframe. An earlier submittal would allow more time on the back-end of the lease process in case the Commissioner's want to hold a second round of public notice.	Thompson	5 min

APP PROPRIETARY
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MINUTES OF MEETING

6.	There is a mandatory 60-day public notice period after the SPCO finds that the lease application is complete. This should be seen as a notice period rather than a "comment" period. There is a 30 day notice period after the Commissioner's decision. Although comments may be provided to SPCO during the notice period, a response is at discretion of SPCO.	Thompson	5 min
7.	SPCO and APP should decide on formatting of information submittals during the lease pre-application timeframe to expedite the process. A good guide is the approach used by Steve in developing the Pt. Thompson lease.	Thompson	5 min
8.	As the lease development process occurs, If there is concern regarding start of GTP construction, then SPCO can explore options to bifurcate that portion of the lease and allow it to progress sooner than the pipeline portion of the project. This is also true for the mining, land, and water aspects.	Thompson	5 min
9.	There really hasn't been experience of competing projects needing the same rights-of-way lease from the SPCO. The primary "pinchpoints" discussed at the FERC Routing Workshop on 12/14 are on federal lands. Since the leases are non-exclusive, even if there are multiple leases for the same location, the first project under construction could determine its own centerline location. SPCO would expect competing users of the same lease area to accommodate each other directly. SPCO will explore the issue further with their counsel.	Thompson/Brown	10 min
10.	Under HB 369 legislation, a rights-of-way for the state gas line is provided once the SPCO office deems the application compete. So far there is not a complete application.	Thompson	5 min
11.	SPCO and APP need to complete the assignment of the Request for Services Agreement from TransCanada to ExxonMobil. Process somewhat stalled on both sides mostly due to staffing issues.	Brown	5 min

ACTION ITEMS:

Item	Action Item	Action By	Date Req.
1	Childs/McDaniel to provide decision regarding APP-sponsored attendance by SPCO pipeline engineer at the DOT-APP meeting in DC.	Childs/McDaniel	2/10/11
2	McDaniel and Brown to focus on finalizing assignment of RSA.	McDaniel	2/18/11

APP PROPRIETARY DRAFT

FERC Docket No. PF09-11-000

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0403

September 20, 2011

Mr. Mike Thompson
State Pipeline Coordinator
411 West 4th Avenue, Suite 2C
Anchorage, Alaska 99501
Attn: Jodi Delgado-Plikat
SPCO Communications Coordinator

Re: Preliminary Field Survey Results, Alaska Pipeline Project

Dear Mike:

We respectfully request that your office document and distribute the attached referenced material(s) to the addressee as per SPCO Communication Protocols.

Item(s)	Document Number	Title
1.	LT-ETAK-0011	Preliminary Field Survey Results, APP
2.	USAG-UR-SRZZZ-000011	2010 Cultural Resource Field Study Results

Note: These results are Confidential and Privileged and exempt from the Freedom of Information Act and the Alaska Public Records Act and is only to be made available to other entities with the express written permission of TransCanada/ExxonMobil. Please note the referenced field study results is marked **"CONTAINS PRIVILEGED INFORMATION-DO NOT RELEASE."**

Thank you for your attention to this submittal. Should you have any questions or desire further information, please contact me at 907-929-4103 or terry.wolverton@exxonmobil.com.

Sincerely,

Terry Wolverton
State Permit Advisor

Enclosure(s)

cc: Project files
Myron E. Fedak (APP)
Irene Garcia (APP)
Ryan Childs (APP)

TransCanada

ExxonMobil

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LOCAL CORRESPONDENCE

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0377

September 15, 2011

Ms. Catherine Edwardson, Tribal Administrator
Alatna Village Council
P.O. Box 70
Alatna, AK 99720

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Ms. Edwardson,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

- Approximately 58 miles of buried 32-inch diameter gas transmission pipeline along with associated facilities connecting the Point Thomson field to a gas treatment plant (GTP) near Prudhoe Bay.
- A GTP that would condition the gas for pipeline transmission, delivering up to 4.5 billion cubic feet per day of gas.
- Approximately 745 miles of buried 48-inch diameter Alaska Mainline and associated aboveground facilities between the GTP near Prudhoe Bay and the Alaska-Yukon border, along with provisions for gas delivery (off-take) points within Alaska.

As part of the project, APP also will construct eight compressor stations, two meter stations, various mainline block valves, pig launcher and receiver facilities, and other associated infrastructure such as additional temporary workspace, access roads, helipads, construction camps, pipe storage yards, borrow sites and dock modifications in Alaska. APP will use existing airstrips. For your reference, APP has attached a project overview map.

APP will be proceeding with this project under a number of federal laws including, among others, the Natural Gas Act, the Alaska Natural Gas Pipeline Act of 2004, the National Environmental Policy Act, and the National Historic Preservation Act. Because the APP is seeking a Certification of Public Convenience and Necessity from the Federal Energy Regulatory Commission (FERC), that agency will serve as the lead federal agency responsible for compliance with the statutes identified above, including the National Historic Preservation

Act. APP will be using FERC's "pre-filing" process, and anticipates that it will be providing FERC with its draft Environmental Resource Reports in December, 2011, and thereafter transmitting the final Resource Reports as part of APP's overall completed application in October, 2012.

The National Historic Preservation Act can be found at 16 U.S.C. 470, and regulations governing historic preservation consultation are located at 18 CFR 380, as well as 36 CFR 800. In addition, FERC has issued Guidelines for Reporting on Cultural Resource Investigations for Pipelines in October, 2002, which can be found at FERC's website, www.ferc.gov.

Ultimately, FERC will be responsible for determinations of APP's potential effect on historic properties. However, APP is also involved in this process, and is expected to consult with the State Historic Preservation Office, Alaska Native organizations and land managing agencies in planning for the project. As a result, this letter serves to initiate informal consultation with your organization to address issues involving the project's potential impact on historic properties including archaeological sites, burials and traditional cultural properties. Earlier, FERC initiated government-to-government consultation in a letter dated June 15, 2011. FERC will complete additional consultations through its issuance of the August 1, 2011 Notice of Intent to Produce an Environmental Impact Statement, as well as additional correspondence with eligible entities.

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Sincerely,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

TransCanada

ExxonMobil

DRAFT

ALASKA PipelineProject

Alaska Section

DRAFT

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0378

September 15, 2011

Mr. Peter David, 1st Chief
Alatna Village Council
P.O. Box 70
Alatna, AK 99720

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Mr. David,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

- Approximately 58 miles of buried 32-inch diameter gas transmission pipeline along with associated facilities connecting the Point Thomson field to a gas treatment plant (GTP) near Prudhoe Bay.
- A GTP that would condition the gas for pipeline transmission, delivering up to 4.5 billion cubic feet per day of gas.
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As part of the project, APP also will construct eight compressor stations, two meter stations, various mainline block valves, pig launcher and receiver facilities, and other associated infrastructure such as additional temporary workspace, access roads, helipads, construction camps, pipe storage yards, borrow sites and dock modifications in Alaska. APP will use existing airstrips. For your reference, APP has attached a project overview map.

APP will be proceeding with this project under a number of federal laws including, among others, the Natural Gas Act, the Alaska Natural Gas Pipeline Act of 2004, the National Environmental Policy Act, and the National Historic Preservation Act. Because the APP is seeking a Certification of Public Convenience and Necessity from the Federal Energy Regulatory Commission (FERC), that agency will serve as the lead federal agency responsible for compliance with the statutes identified above, including the National Historic Preservation

Act. APP will be using FERC's "pre-filing" process, and anticipates that it will be providing FERC with its draft Environmental Resource Reports in December, 2011, and thereafter transmitting the final Resource Reports as part of APP's overall completed application in October, 2012.

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Sincerely,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0379

September 15, 2011

Mr. Gilbert Vent, Tribal Administrator
Allakaket Village Council
P.O. Box 50
Allakaket, AK 99720

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Mr. Vent,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

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for compliance with the statutes identified above, including the National Historic Preservation Act. APP will be using FERC's "pre-filing" process, and anticipates that it will be providing FERC with its draft Environmental Resource Reports in December, 2011, and thereafter transmitting the final Resource Reports as part of APP's overall completed application in October, 2012.

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Sincerely,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

TransCanada

ExxonMobil

DRAFT

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0380

September 15, 2011

Mr. Gordon Bergman, 1st Chief
Allakaket Village Council
P.O. Box 50
Allakaket, AK 99720

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Mr. Bergman,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

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Sincerely,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0381

September 15, 2011

Mr. Timothy Ahgook, President
Nagsragmiut Traditional Council
P.O. Box 21066
Anaktuvuk Pass, AK 99721

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Mr. Ahgook,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

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Sincerely,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0382

September 15, 2011

Ms. Doreen Lampe, President
Inupiat Community of the Arctic Slope
P.O. Box 1121
Barrow, AK 99723

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Mr. Lampe,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

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Sincerely,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0383

September 15, 2011

Mr. Price Leavitt, Executive Director
Inupiat Community of the Arctic Slope
P.O. Box 934
Barrow, AK 99723

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Mr. Leavitt,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

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Sincerely,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0384

September 15, 2011

Mr. Thomas Olemaun, President
Native Village of Barrow
P.O. Box 1130
Barrow, AK 99723

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Mr. Olemaun,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

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Sincerely,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

TransCanada

ExxonMobil

DRAFT

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0385

September 15, 2011

Naomi Costello, Secretary/Treasurer
Evansville Tribal Council
P.O. Box 26087
Bettles Field, AK 99726

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Ms. Costello,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

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TransCanada ExxonMobil

DRAFT

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Sincerely,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0386

September 15, 2011

Mr. Frank Thompson, 1st Chief
Evansville Tribal Council
P.O. Box 26087
Bettles Field, AK 99726

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Mr. Thompson,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

- Approximately 58 miles of buried 32-inch diameter gas transmission pipeline along with associated facilities connecting the Point Thomson field to a gas treatment plant (GTP) near Prudhoe Bay.
- A GTP that would condition the gas for pipeline transmission, delivering up to 4.5 billion cubic feet per day of gas.
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Sincerely,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0387

September 15, 2011

Charles Miller, Tribal Administrator
Dot Lake Village Council
P.O. Box 2251
Dot Lake, AK 99737

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Mr. Miller,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

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Sincerely,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

TransCanada

ExxonMobil

DRAFT

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0388

September 15, 2011

Mr. William Miller, President
Dot Lake Village Council
P.O. Box 2262
Dot Lake, AK 99737

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Mr. Miller,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

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Sincerely,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

TransCanada

ExxonMobil

DRAFT

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0389

September 15, 2011

Ms. Jo Ann Polston, 1st Chief
Healy Lake Traditional Council
P.O. Box 74090
Fairbanks, AK 99707

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Ms. Polston,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

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Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0390

September 15, 2011

Mr. Randy Mayo, 1st Chief
Stevens Village Native Council
P.O. Box 16
Stevens Village, AK 99774

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Mr Mayo,

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ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

TransCanada

ExxonMobil

DRAFT

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0391

September 15, 2011

Fenton Rexford, Executive Director
Native Village of Kaktovik
P.O. Box 137
Kaktovik, AK 99747

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Mr. Rexford,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

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Myron E. Fedak

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ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0392

September 15, 2011

Isaac Akootchook, President
Native Village of Kaktovik
P.O. Box 130
Kaktovik, AK 99747

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Mr. Akootchook,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

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Myron E. Fedak

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ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

TransCanada

ExxonMobil

DRAFT

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0393

September 15, 2011

Ms. Lori Baker, 1st Chief
Minto Village Council
P.O. Box 58026
Minto, AK 99758

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Ms. Baker,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

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Sincerely,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

ALASKA PipelineProject
An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0394

September 15, 2011

Ms. Belinda Thomas, President
Northway Village Council
P.O. Box 516
Northway, AK 99764

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Ms. Thomas,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

- Approximately 58 miles of buried 32-inch diameter gas transmission pipeline along with associated facilities connecting the Point Thomson field to a gas treatment plant (GTP) near Prudhoe Bay.
- A GTP that would condition the gas for pipeline transmission, delivering up to 4.5 billion cubic feet per day of gas.
- Approximately 745 miles of buried 48-inch diameter Alaska Mainline and associated aboveground facilities between the GTP near Prudhoe Bay and the Alaska-Yukon border, along with provisions for gas delivery (off-take) points within Alaska.

As part of the project, APP also will construct eight compressor stations, two meter stations, various mainline block valves, pig launcher and receiver facilities, and other associated infrastructure such as additional temporary workspace, access roads, helipads, construction camps, pipe storage yards, borrow sites and dock modifications in Alaska. APP will use existing airstrips. For your reference, APP has attached a project overview map.

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Sincerely,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

TransCanada

ExxonMobil

DRAFT

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0395

September 15, 2011

Ms. Bernice Kaigalak, President
Native Village of Nuiqsut
P.O. Box 89169
Nuiqsut, AK 99789

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Ms. Kaigalak,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

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Sincerely,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

TransCanada

ExxonMobil

DRAFT

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0396

September 15, 2011

Mr. Earnest Arnold, Tribal Administrator
Native Village of Tanacross
P.O. Box 76051
Tanacross, AK 99776

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Mr. Arnold,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

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TransCanada ExxonMobil

DRAFT

Act. APP will be using FERC's "pre-filing" process, and anticipates that it will be providing FERC with its draft Environmental Resource Reports in December, 2011, and thereafter transmitting the final Resource Reports as part of APP's overall completed application in October, 2012.

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Sincerely,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

TransCanada

ExxonMobil

DRAFT

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0397

September 15, 2011

Mr. Roy Denny, 1st Chief
Native Village of Tanacross
P.O. Box 76009
Tanacross, AK 99776

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Mr. Denny,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

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Sincerely,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0398

September 15, 2011

Mr. Donald Adams, President/1st Chief
Tetlin Village Council
P.O. Box 797
Tok, AK 99780

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Mr Adams,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

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Sincerely,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0399

September 15, 2011

Ms. Kristie Young, Tribal Administrator
Tetlin Village Council
P.O. Box 797
Tok, AK 99780

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Ms. Young,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

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Sincerely,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

FERC Docket No. PF09-11-000

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0400

September 15, 2011

Ms. Nora David, 1st Chief
Mentasta Lake Traditional Council
P.O. Box 6019
Mentasta Lake, AK 99780

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Ms. David,

As you are aware, TransCanada and ExxonMobil are working collectively as the Alaska Pipeline Project (APP) to construct and operate a project that would treat, transport and deliver gas from the Alaska North Slope to markets in North America. The scope of this project includes the following components in Alaska:

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TransCanada ExxonMobil

DRAFT

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Sincerely,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

TransCanada

ExxonMobil

DRAFT

ALASKA PipelineProject

An Unincorporated Joint Project

Alaska Pipeline Project
c/o ExxonMobil
3201 C Street, Suite 505
Anchorage, AK 99503

Ref No.: LT-ETAK-0401

September 15, 2011

Ms. Angie David, Tribal Administrator
Mentasta Lake Traditional Council
P.O. Box 6019
Mentasta Lake, AK 99780

Re: Request for Consultation under Section 106 of the National Historic Preservation Act

Dear Ms. David,

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- Approximately 745 miles of buried 48-inch diameter Alaska Mainline and associated aboveground facilities between the GTP near Prudhoe Bay and the Alaska-Yukon border, along with provisions for gas delivery (off-take) points within Alaska.

As part of the project, APP also will construct eight compressor stations, two meter stations, various mainline block valves, pig launcher and receiver facilities, and other associated infrastructure such as additional temporary workspace, access roads, helipads, construction camps, pipe storage yards, borrow sites and dock modifications in Alaska. APP will use existing airstrips. For your reference, APP has attached a project overview map.

APP will be proceeding with this project under a number of federal laws including, among others, the Natural Gas Act, the Alaska Natural Gas Pipeline Act of 2004, the National Environmental Policy Act, and the National Historic Preservation Act. Because the APP is seeking a Certification of Public Convenience and Necessity from the Federal Energy Regulatory Commission (FERC), that agency will serve as the lead federal agency responsible for compliance with the statutes identified above, including the National Historic Preservation

Act. APP will be using FERC's "pre-filing" process, and anticipates that it will be providing FERC with its draft Environmental Resource Reports in December, 2011, and thereafter transmitting the final Resource Reports as part of APP's overall completed application in October, 2012.

The National Historic Preservation Act can be found at 16 U.S.C. 470, and regulations governing historic preservation consultation are located at 18 CFR 380, as well as 36 CFR 800. In addition, FERC has issued Guidelines for Reporting on Cultural Resource Investigations for Pipelines in October, 2002, which can be found at FERC's website, www.ferc.gov.

Ultimately, FERC will be responsible for determinations of APP's potential effect on historic properties. However, APP is also involved in this process, and is expected to consult with the State Historic Preservation Office, Alaska Native organizations and land managing agencies in planning for the project. As a result, this letter serves to initiate informal consultation with your organization to address issues involving the project's potential impact on historic properties including archaeological sites, burials and traditional cultural properties. Earlier, FERC initiated government-to-government consultation in a letter dated June 15, 2011. FERC will complete additional consultations through its issuance of the August 1, 2011 Notice of Intent to Produce an Environmental Impact Statement, as well as additional correspondence with eligible entities.

APP appreciates your assistance with this invitation. If you would like to communicate directly with the FERC natural gas archaeological staff to discuss the agency's cultural resource review, or these consultation processes, please contact Laurie Boros, FERC archaeologist, at (202) 502-8046 or by email at laurie.boros@ferc.gov. If you have any questions regarding APP, please contact Lisa Gray at (907) 564-3622 or by email at lisa.l.gray@exxonmobil.com, or you can contact Bryan Trimm at (907) 564-3609, or by email at bryan.a.trimm@exxonmobil.com.

Sincerely,

Myron E. Fedak

Myron E. Fedak
ExxonMobil Development Company
Alaska Pipeline Project
U.S. Manager – Environment, Regulatory and Land

Enclosure: Map

cc: Project files

MULTI-AGENCY MEETING SUMMARIES

Office of Federal Coordinator, AGIA State Pipeline Coordinator, and JPO/State Pipeline Coordinator, Anchorage, Alaska
March 16, 2009. 10:00 AM-11:30 at TC office

Attendees:

TransCanada Team:	*Agency Staff:*
Karen Etherington (TransCanada)	**Mark Meyers** (AGIA Coordinator)
Chris Humphrey (AECOM)	**Mike Thompson** (JPO/SPCO)
Jon Issacs (URS)	**Ian Laing** (Alaska Dept of Revenue)
	Shana Joy (Alaska DNR)
	Christa Gunn (OFC)

Meeting Objectives

The goals of this meeting were to discuss: 1) an update on the APP; 2) review a winter construction video; 3) address questions from staff; and, 4) discuss the next steps to obtain information needs to support the cost estimate for open season.

Data Discussion

Denali has requested ANGTS data via Freedom of Information Act (FOIA) request to JPO. Mike Thompson is making a determination on providing the requested information.

General discussions on the ability to harmonize the environmental methods (NEPA, science, monitoring, etc.) and approaches for US and Canada pipeline segments.

Agency Issues, Concerns, and Recommendations:

Future multi-agency coordination for meetings, etc will be primary function SPCO, AGIA, and OFC once they evolved their respective roles and responsibilities.

Both BLM and State DNR ROW review and approval process may impose additional project stipulations beyond agency specific permitting requirements. Alaska DNR Commissioner will have primary responsibility for do state ROW determination analysis.

Downhole injection of CO_2 for GTP will require consideration of impacts on existing producing reservoirs and potential value/tax implications of sequestered CO_2 "product".

Endangered Species Act (ESA) actions will fall under the US Secretary of the Interior. ESA is expected to play significant role in all energy related project and will be key tool for project interveners.

GHG (Greenhouse Gas) and Climate change will be issues more predominant in this EIS than in the past history because of the administration change.

Action Items:

Requested copies of meeting minutes from March agency meetings and that those summaries include questions asked by each agency.

Would like to seem more information on project schedule specific to the NEPA EIS as it becomes available.

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Alaska Department of Fish and Game (ADFG), US Fish and Wildlife Service (USFWS), Fairbanks, Alaska
March 18, 2009. 1:00-3:00 PM at ADFG office

Attendees:

TransCanada Team:	*Agency Staff:*
Karen Etherington (TransCanada)	**Tony Booth** (Tetlin NWR, USFWS)
Chris Humphrey (AECOM)	**Tom McLain** (USFWS)
Jon Schmidt (AECOM)	**Fred Bue** (ADFG)
Jim Glaspell (URS)	**Jack Winters** (ADFG)
	Larry Bright (USFWS)

Meeting Objectives

The goals of this meeting were to discuss: 1) an update on the APP; 2) review a winter construction video; 3) address questions from staff; and, 4) discuss the next steps to obtain information needs to support the cost estimate for open season.

Content of Key Messages Conveyed and Questions Raised:

- How many compressor stations?
- Will the gas be chilled? Do we know the type of frost bulb that would be created?
- How is the pipeline designed for faults and seismicity?
- Will we work with agencies to design the crossing methods?
- Will we have any elevated aerial crossings?
- How do we construct in wetlands without affecting groundwater flow that is critical to a lot of salmon streams (they are concerned about compaction)?
- What is Canadian support look like?
- Which project will be built, Denali or TransCanada's?
- Are we going to avoid the Tetlin National Wildlife Refuge (NWR)?
- When will we have routes available for review?

Data Discussion

The agencies would like to see a reference spreadsheet of all the data we have acquired (GIS and paper data) along with the metadata associated with it. Agencies will eventually want to see sharing of GIS data and work collaboratively on designing field studies for data gaps.

If we will impact Tetlin or Yukon Flats NWRs, Tony Booth and Rob Jess, should be contacted respectively for data on resources. Other resource data requests from USFWS should go through Larry Bright.

All habitat data requests from ADF&G should go through Jack Winters.

Agency Issues, Concerns, and Recommendations:

Field survey needs to support permit applications, FERC resource reports and EIS should be developed collaboratively with USFWS and ADFG (and other resource agencies).

Need to understand the disposition and any future use of the current Federal ROW grant for ANGTS, especially in Tetlin NWR. Avoiding NWR lands on new ROW is preference. The old route crossed Tetlin NWR, so they will need to know soon if we intend to cross that refuge.

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Agencies wanted to know when and how they can see proposed routes and provide input. Suggested this could be included in technical workshop session (see below) in the fall 2009 timeframe.

A lot of the streams have incised sediment banks that won't be easy to restore after construction if an open cut method is used. It will be a big maintenance issue and restoration problem.

It was discussed and decided that technical workshops would be helpful to agencies for:

- Construction methods/logistics and impacts
- Stream crossing studies required and issues for design
- Data review to rank/prioritize streams
- Discuss and decide construction methods based on the above studies

State may be interested in doing fisheries studies work, but concerned about resources in the agency with all the projects going on. Agency resource constraints also discussed in regards to the NEPA EIS work.

Any work done by USFWS that is subject to cost recovery, will be administered by BLM.

Action Items:

Jack Winters will be the primary contact for ADFG
Larry Bright will be the primary contact for FWS

Follow up regarding defining and scheduling of any technical workshops sessions.

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Alaska Department of Natural Resources (DNR), Alaska Department for Environmental Conservation (DEC) Water, DNR Forestry, Fairbanks, Alaska March 18, 2009. 9:00-11:00 AM at DNR office

Attendees:

TransCanada Team:	*Agency Staff:*
Karen Etherington (TransCanada)	**Chris Milles** (DNR DMLW)
Chris Humphrey (AECOM)	**Dianna Leinberger** (DNR)
Jon Schmidt (AECOM)	**Jeanne Proulx** (DNR DMLW)
Jim Glaspell (URS)	**AJ Wait** (DNR DMLW)
	Ed Meggert (DEC)
	Tom DeRuyter (DEC)
	Mark Eliot (DNR Forestry)

Meeting Objectives

The goals of this meeting were to discuss: 1) an update on the APP; 2) review a winter construction video; 3) address questions from staff; and, 4) discuss the next steps to obtain information needs to support the cost estimate for open season.

Content of Key Messages Conveyed and Questions Raised:

- When would TransCanada file for a ROW?
- What components are included in LNG project? Pipeline but not LNG terminal in Valdez.
- When would you need camps, both survey and construction?
- What kind of field studies would we do in 2010?
- Will TransCanada require access all along the ROW like TAPS has, including a gravel road the whole length?
- Do we know the number of compressor stations?
- Do we know how many construction camps and stockpile sites that will be needed?
- Does DNR allow resource pits in rivers? Some, but not large volumes and would depend on Fish and Game comments/concerns.

Data Discussion

Alaska DOT is doing an inventory of permitted borrow pits. DNR's commissioner has also asked for an inventory. Applicants however, usually say how much they need and where they want to take it from.

DNR Northern Region (Fairbanks) will handle temporary use permits, material site sales contracts, etc for all areas north of Summit Lake. All area south of there will go through South Central region, Anchorage office (Rick Thompson, and Clark Cox).

Gary Prokosch, DNR's water Resources Section Chief, is primary contact for water use permit information.

Agency Issues, Concerns, and Recommendations:

The state would process the ROW application through the JPO/SPCO per requirements of Alaska Statute AS 38.35, the "Alaska Right-of-Way Leasing Act. JPO would also issue title report for ROW land status. DNR Northern region MLW division would have input but would not have primary role in adjudicating the resulted permits and approvals. This would include any mineral mining permits. The DNR Northern

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Region Fairbanks office would permit anything up to the point of filing for a ROW, including any geotechnical investigations or survey camps.

DNR Forestry is keenly interested in what TransCanada wants to do with slash, timber and brush from the ROW on state lands during construction. They would prefer they get to sell the merchantable timber and can even offer stockpile sites to get the timber off the ROW and allow DNR time to make the sale.

They will also want access across the ROW onto state lands both during construction and in operations. This would be for the public as well as ADNR staff.

The railroad proposed between North Pole and Delta Junction is potentially in our proposed corridor, and we would have to coordinate with them on placement on state lands, especially through gaps or other tight areas. There is also a proposed extension from Delta Junction to the Canadian border, but DNR has not seen much on that for a while. ADNR will let TransCanada know once the railroad has filed something with them.

It is critical that TransCanada engage a local title attorney or land status specialist as there is considerable confusion in some parts of Alaska on land ownership. This would include any future geotechnical permit requests.

Any future geotechnical permit applications need to consider a normal processing time of 60 to 90 days.

Any fuel storage below 420,000 gallons (Contingency plan [C-plan] level), DEC spill response personnel will handle the review of the SPCC as well as implement their own requirements above the federal standard for state land.

Action Items:

Follow –up with DNR Gary Prokosch on water use permitting data.

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ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	**Alaska Pipeline Project**
	Meeting Subject:	Regulatory Review Meeting
	Date of Meeting:	February 16, 2011
	MoM Number:	MM-ETAK-0077

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
Mike Thompson	SPCO	Ryan Childs	APP
Anne Brown	SPCO		
Jeff Bruno	SPCO		
Jason Walsh	SPCO		
Earle Williams	BLM		
Dave Muschovic	BLM		
Ron Dunton	BLM		

AGENDA ITEMS:

Item	Agenda Item	Leader	Duration
1.	Mike presented two Powerpoint presentations of the rights-of-way leasing programs applicable to the Project. The first was more focused on the JPO's role, while the second provided a comparison/contrast of the State and Federal pipeline leasing process. Mike will make the presentations available.	Thompson	30 mins
2.	Ryan briefly went over the FERC application process and timeframe for application, EIS development, Cert. of Public Convenience and Necessity (CPCN) receipt and subsequent construction.	Childs	10 mins
3.	Mike went over the timelines for submittal/review of an application under the state process and emphasized the need to provide a complete application as early as possible, preferably as close to the filing of the FERC application as possible.	Thompson	5 mins
4.	Dave Muschovic went over the timing of the submittal/review of an application under the federal process.	Mushovic	5 mins
5.	There was brief, general discussion of the AGIA's and SPCO's role	Thompson/Dunton	5 mins
6.	Ryan asked about typical BLM requirements for visual impacts analysis. Ron indicated that the TAPS corridor is already classified for a pipeline ROW under the corridor resource plan	Childs/Dunton	5 mins
7.	Ryan asked about existing vegetation categorization data for the Project area. The BLM has a vegetation catalog for the TAPS ROW. Mike mentioned there might be a possibility for APP to assist (financially) in an invasive species survey going on the TAPS ROW and get information directly. If APP interested, he can put Project in contact with Rob Ellison	Childs/Thompson	5 mins
8.	There was discussion of gravel needs for the project (pads, roads, etc.) and the process/timing for acquisition from federal lands	Mushovic/Childs	5 mins
9.	There was a general brief discussion of the draft Resource Report submittal to the FERC and possible public comments	Childs/Dunton	5 mins
10.	There was a general brief discussion of the Tetlin Nat. Wildlife Refuge and understanding of the broader ROW issues associated with it.	Mushovic/Childs	5 mins

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MINUTES OF MEETING

11.	Ryan briefly discussed interagency Technical Workshops that are being scheduled for first week in March.	Childs	5 mins

ACTION ITEMS:

Item	Action Item	Action By	Date Req.
1	Mike to provide Ryan with a copy of the Powerpoint presentations.	TBD	
2			

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ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	**Alaska Pipeline Project**
	Meeting Subject:	Prudhoe Bay Dredge Material Disposal
	Date of Meeting: **MoM Number:**	March 1, 2011

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
Serena Sweet Burdie Budnik	USACE, Alaska District	Ryan Childs	ExxonMobil / ERL
Chris Meade	EPA, Region 10		
Bill Doyle Julie McKim	OFC		
Karen Brown	URS / ERSS		

AGENDA ITEMS:

Item	Agenda Item	Leader	Time
1.	Overview of dredging, disposal, and dock improvements project • Options for dock improvements • Options for dredge channel • Options for disposal (habitat enhancement, ocean disposal, West Dock fill)	Karen Brown	1400
2.	Dredge material can be disposed as fill under Section 404 CWA (baseline to territorial sea); from baseline to 12+ miles into the high seas under Section 103 MPRSA If there is an overlap and we can find beneficial uses (CWA 404) and still require ocean disposal (MPRSA103), then MPRSA (as described in Section 106a) will be used to permit the project. Permitting under 404 requires compliance with 404(b)1 guidelines.	Chris Meade	1410
3.	The MPRSA Section 102 process is lengthy. It takes over 2 ½ years to get a site designation and NEPA must be followed for site designations.	Serena Sweet	1420
4.	103 Alternative Site Selection could take less time, same testing criteria must be met as in Section 102. MPRSA Section 103 permit can be issued for 5 years and one 5-year extension can be granted If we can fit under MPRSA and no other projects need to use the site, permitting can be accomplished under 103.	Chris Meade	1425
5.	The dredge and disposal will be permitted along with the pipeline and GTP unless there is independent utility. Because there will be one EIS, it appears to not have independent utility. Needs to analyze in Resource Reports (RR) 1 and 10. RR 10 needs to describe all options including the Preferred Alternative.	Serena Sweet	1430
6.	This project is different from other projects. Usually the dredging is one big site or multiple sites that will use one dump site. It is usually not a small part of a much larger project like this one, so there is usually a focused EIS.	Chris Meade	
7.	We may need to look at more than one disposal site. Winter and summer disposal sites may be different.	Chris Meade	
8.	We need to make sure we are within the same timing as the permitting for the larger project.	Ryan Childs	
9.	USACE will weigh in formally about the alternatives and permitting timelines after the draft Resource Reports are reviewed. All options need to be included in the EIS. Permitting under MPRSA 103 will be concurrent with the CWA 404 permitting (same timeline) and included in the same decision document.	Serena Sweet	

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MINUTES OF MEETING

10.	A good reference document is the "General Approach to Designation Studies for Ocean Dredged Material Disposal Sites" (1984). Chris will provide to Serena. (Serena will provide to Karen)	Chris Meade	
11.	If we permit under MPRSA Section 103, the EPA can designate the site under Section 102 if others are interested in using the disposal site for the right reason. .	Chris Meade	
12.	If the dredge material is used as fill, then we need to follow the sampling requirements under CWA 404(b)1 guidelines, Public interest factors should be considered. Realistically, we will probably have a combination of uses. Actual benefits need to be enumerated.	Serena Sweet	
13.	We should look at an upland disposal site as an option. Expect that the public and agencies will comment about on shore disposal. Another project looked at using dredge material as fill on a pad which was never permitted.	Serena Sweet	1445
14.	History for the on shore disposal site: A project proposed using dredge material as fill on a pad in Deadhorse, but it did not work because of potential for salt in wetlands.	Julie McKim	
15.	Delong Mountain (also not permitted) studies the same issues	Chris Meade	
16.	What are the criteria for beneficial use?	Ryan Childs	
17.	Follow 404(b)1 guidelines	Julie McKim	
18.	Next step is to discuss the sampling and analysis program.	Ryan Childs	
19.	Does MPRSA require a Section 401 Water Quality Certification?	Karen Brown	
20.	401 Certification is not required for MPRSA permit, but the project still must meet State Water Quality Guidelines	Chris Meade	
21.	Could on-shore options include disposing at PUT 23?	Karen Brown	
22.	Yes, but would require modification to BP's Mining Rehabilitation Plan which can take time.	Julie McKim	1500
23.	Meeting adjourned		1500

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ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	**Alaska Pipeline Project**
	Meeting Subject:	APP Construction Overview Workshop, Hilton Hotel, Anchorage, AK
	Date of Meeting: **MoM Number:**	March 1, 2011

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
Jack Winters, Lee McKinley	ADF&G	Richard Fafara, Jack Beattie, Joe Zhou, Glenn Johnston, Jim Oswell, Joanne Unger	APP Engineering
George Mayberry	ADHS&EM	Cory Wilder, Rod Read, Ray Boivin	WP Engineering
Eric Hatleberg, Pat Anderson	AGIA	Jon Schmidt, Myron Fedak, Larry Harms, Laurent Pardigon, Bryan Trimm, Rod Hoffman, Ryan Childs	ERL
Beez Hazen	APP	Jim Glaspell, John Westlund, Nancy Darigo	ERSS
John Hayse, Robert Van Lonkhuyzen, Ron Kolpa, William Vinikour	Argonne National Labs	Brian Thompson, Malcolm Nason	DOD-USAF / -Eielson
Kelly Nicolello	ASFMO	Roger Healy	DOT&PF
Paul Roehl, Sean Mack	BIA	Christie Psyk, Gayle Martin, Mark Jen, Tami Fordham	EPA
Dave Mushovic, Earle Williams, Gary Foreman	BLM	Danny Laffoon, David Hanobic, David Swearington, Jim Martin, Jim May, John Peconom	FERC
Adele Fetter, William Ashton	DEC	Amy Cox	NMFS
Trent Hubbard	DGGS	Bill Doyle, Bill White, Frank Richards, Heather Ptak, Julie McKim, KC Elliot	OFC
Nina Brudie, Sandra Singer	DNR, DMLW	Dennis Hinnah	PHMSA
Keven Kleweno	RCA	Judith Bittner, Chris Grundeman, Jeff Bruno, Katie Farley, Pat Jarrett	SPCO
Tommy Stearns	TSA, Pipeline Safety	Birdie Budnik, Serena Sweet, Shannon Morgan	USACE
Frances Mann, Jordan Muir	USFWS	Carl Markon	USGS

AGENDA ITEMS:

Item	Agenda Item	Leader	Time
1.	Introduction – this meeting is a follow-on to one we had in December.	Harms	0835
2.	Safety - evacuation/alarm procedures	Hotel rep - Wick	
3.	Overview of agenda as in presentation binder/handout provided: Scope Preliminary construction schedule Construction overview Erosion and sedimentation control Wetland and waterbody crossings Discussion	Harms	0840

APP PROPRIETARY
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MINUTES OF MEETING

4.	Overview of Workshop Purpose and Desired Outcome, per presentation handout: • Purpose - to provide information on principals of large diameter, buried pipeline construction for both summer and winter activities. • Desired Outcome – opportunity for regulators to refresh/get understanding of pipeline construction, and ask critical questions of processes used during construction.	Harms	
5.	Confidentiality – note for next 2 meetings due to modelling results, etc. Asking everyone attending to sign agreement.	Harms	
6.	Safety moment – head rests in rearend collisions; make sure that it's adjusted properly.	Harms	
7.	Introductions – went around room, about 60-80 people.	All	0845
8.	APP Presentation - followed powerpoint file "Construction overview presentation FINAL 02242011.ppt", p.5-10: Construction safety; overview of pipeline system – Pt. Thomson to mainline (note about certain confidential slides left out of handout), water crossings, compressors, take-offs, etc.; preliminary construction schedule (confidential), 2016-2020, by spread, 4 winter spreads with different contractors, summer construction following 1st winter, then more winter, commissioning; preliminary construction plan.	Farfara	0850
9.	Several questions from audience: Will you hydrotest after backfilling the trench? Yes.	audience/ Fafara	
10.	Composition of gas? Gas coming out of GTP will be stripped of CO2 and H2S; will be pipeline quality gas to meet tariff specifications.	audience/ Zhou	
11.	Bullet Item in Presentation: Provide benefits to the surrounding community and establish positive relationships. Expect agencies to question the kinds of benefits that the project will provide to the surrounding communities.		
12.	Will brush clearing involve grubbing or remove root mass? We will cut trees and leave root mass in place; depending on where we are will dictate if we remove root mass or not.	audience (Argonne)/ Fafara	
13.	Follow-on question to brush clearing, will we be doing a vegetation management program, and keep ROW clear from that point forward? Most of the construction ROW will be allowed to grow back in, but we'll maintain strip in herbaceous cover for monitoring from the air.		
14.	Will there be access roads to ROW to support construction and operation, especially when not close to TAPS? We'll use existing roads and upgrade if needed for construction; in other areas may need to construct new access roads; Operations is usually limited to access at permanent above-ground facilities.	audience (Argonne) Wilder/ Johnston	
15.	Any sense of how many access roads for whole length? Don't have number on top of head; dozens, one every 10 miles or so, plus permanent graded access roads to compressor stations about every 70 miles.		
16.	Continue with presentation, p.11: pipeline construction overview.	Fafara	0905
17.	Question: are we assuming that all construction will be accomplished within typical 50 +100 ft ROW? We'll touch on different widths required in future slides; this is just a schematic.	audience/ Fafara	
18.	Presentation, p.12: winter ROW.	Fafara	0910
19.	Question: where will we put snow on ROW? Will blow off ROW Into surrounding vegetation; we like to blade snow and loose organics and stockpile over ditch line in non-permafrost areas, insulates and makes trenching easier.	audience (Jim Marin – FERC)/ Fafara	
20.	Presentation, p.13-20: photos addressing ROW width, pass around 1" wall pipe sample, heavy pipe, major equipment, coating, transport, infrastructure.	Fafara	

APP PROPRIETARY DRAFT

MINUTES OF MEETING

21.	Question: have we developed emergency planning/emergency response on how to operate camps? Not specifically. Now working on preliminary planning, cost estimating; those plans will be done later once we have better idea how many camps there will be.	audience/ Fafara	
22.	Question: where will pipe be manufactured? Currently in development process; we're engaging a large number of mills to decide list of vendors; have assumed international market for cost estimating purposes; North America is now not able to produce all, but working on developing those capacities.	audience/ Zhou	
23.	Presentation, p.21-26: surveying, clearing, leave root mass in place, buffers, merchantable timber stockpiled/salvaged to landowners; rest mulched/spread across ROW, geotechnical verification program (GVP).	Fafara	0920
24.	Question: will geotechnical information be available to public; DGGS may be interested in looking at logs? The information will be used by pipeline engineering and construction teams; it is possible that the information could be shared with the public.	Trent Hubbard (DGGS)/ Fafara/Zhou	
25.	Question: what kind of spacing for borings? Every 100-300 ft depending and landforms. Not a definitive spacing, will be based on terrain/soil conditions, fairly close, every few 100 ft; will determine in field after clearing and delineation based on ground conditions.	audience/ Fafara/Zhou	
26.	Presentation, p. 27-48: ice pad construction, frost packing, roach to prevent ditch line freezing, ROW width, soil stripping in summer construction, grading, erosion control, side hill cuts.	Fafara	0925
27.	Topsoil Stripping: Noted that there will be no stockpiling within wetlands.		
28.	Question: what does in-field bending do to structural integrity of 1" pipe? Mandrel is placed inside pipe; for each bend, it's hydraulically lowered, fills void of pipe interior; when pipe is bent, this prevents deformation; integrity not impaired.	audience/ Fafara	
29.	Question: any impacts to exterior coating from bending? No, extra measures to protect coating; lined with neoprene; for less than -40F plan to use triple layer pipe coating; there are varying degrees of difficulty; pipe drivers very skilled, set very carefully.		
30.	Presentation, p.49: cold weather bending, different coating if very cold.	Fafara	0940
31.	Further answer to coating questions: Coatings have limitations on bending; we would be well within specifications of products; would not see any significant change in pipe integrity; it's a well proven practice. There are limitations on how cold the weather can be for different products; can still safely bend though; product specifications well established for selection of coatings.	Zhou	
32.	Presentation, p.50-71 : line-up, welding, well choreographed activity, weld shelters, coating process, ultrasonic weld testing, weld coating, coating inspections, trenching machines, blasting.	Fafara	0945
33.	Break		0955
34.	Response to questions heard during break: on grading, bending activities; North Slope doesn't have to deal with this as much; those issues can be addressed further at end of presentation.	Fafara	1010
35.	Presentation, p.72-77: boulders, blasting, excavating to make ~1-1/2 miles/day progress, ditch cross-section.	Fafara	
36.	Question: what does Class 1,2,3 mean in footnote? Refers to density of population along pipeline within 660 feet of either side of the pipeline.	audience/ Johnston	
37.	Presentation, p.78-86: lowering-in, tie-ins, welding, backfill/padding, grain size limitations with coatings to protect from rock, hydrostatic testing, leaks rare.	Fafara/ Johnston	

APP PROPRIETARY DRAFT

MINUTES OF MEETING

38.	Question: will we be testing in both summer and winter? Yes, is why freeze depressant additive is necessary to prevent water from freezing.	audience/ Fafara	
39.	Presentation, p.87- 99: ROW cleanup, restoration, diversion berms, less grading activities in thaw sensitive areas, compressor stations, restricted ROW areas, shooflies to bypass extreme topography, highway/other pipeline crossings, usually go below but option to lower existing pipe in some cases, extra space needed for crossings.	Fafara	
40.	Question: do we anticipate coating systems will have corrosion protection? Yes, corrosion protection will have 2 parts: coating and cathodic protection.	audience/ Zhou	
41.	Question: will TAPS crossings require lowering of TAPS, and do we expect any interruptions of TAPS? No lowering TAPS. We'll cross TAPS both above and below ground depending on situation, but no interruptions in their service. Site-specific crossing plans will be developed with TAPs.	audience/ Johnston	
42.	Question: how will you handle pipe laying in wetlands/peat? Different techniques for winter and summer construction; this topic will be covered in wetlands procedures later, but in many cases, will do in winter; will also be covered more in Thursday's workshop.	audience/ Wilder	
43.	Presentation: p.100-106: erosion and sedimentation control, guidances, slopes, permafrost, different tools would apply in different situations and AK regions.	Wilder	1040
44.	Question: will GVP borings be used to refine ESC plan? Yes, now we're using existing borehole data to do preliminary planning; with confirmation boreholes would adjust plan prior to construction, people in field would have flexibility to adapt and use different tools.	audience (Jim Martin – FERC)/ Wilder	
45.	Presentation, p.107-152 : ESC options/tools, ditch plugs, with increase in TEI use more suite of tools, BMP typical drawings, temporary and permanent tools, water control, jute mats, revegetation, groundwater control, wetland and waterbody overview, frost driving.	Wilder	
46.	Question: have you identified Native allotments we might be crossing? Yes, it's work in progress; we're about ½-way done in looking at land status. Follow-on comment: reason asking is these are fee properties under BIA; can't force owners to accept pipeline crossing land if they don't want to have it; suggest starting early, can take a couple years. Trimm: we're working diligently to avoid crossing them; we are aware of issue and working to eliminate them.	Paul Roehl (BIA)/ Wilder/Trimm	
47.	Presentation, p. 153-166 : wetlands crossings, bouyancy control, weights/anchors, river crossing methods, HDD.	Wilder	1110
48.	Open for discussion/questions:		
49.	Where crossing a water body above ground, will we do something more to maintain gas temperature, like insulation? No, would not insulate pipe, since flowing cold gas, but would evaluate case by case; might insulate to avoid surface icing.	audience/ Wilder	
50.	How are we dealing with pipe expansion/ contraction for temperature changes? Generally would put slack in line for expansion; but when buried, expect pipe to be close enough to ambient soils temperature, and more constrained, so expect minimal expansion, don't get as much as with aboveground pipelines. In aerial crossings, would need more bends to accommodate.	audience/ Johnston/ Wilder	
51.	Where would mainline block valves go; at compressor stations and downline; automatic or manual? Will be located per DOT code; no more than 20 miles between mainline block valves. Will be automatic for low pressure detection.	audience/ Zhou	

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52.	What kind of unzipping technology would we use? Referring to fracture control; current design calls for crack arrestors to be installed at specified spacing; sometimes use fiberglass bands glued to pipe; spacing of those arrestors in discussion with PHMSA.	audience/ Zhou	
53.	How to mitigate danger to pipe cover in HDD? Use extra tough epoxy bonded coatings, sometimes 2 or 3 layers depends on pipe specifications.	audience (Mays – Argonne)/ Wilder	
54.	What are we using to determine thermal condition of ground for erosion control? At present, the use of legacy data, TAPs data, terrain mapping and some borehole information is used to determine relative ground temperature and thermal state. GVP data will be used to verify those data sources prior to construction.	audience/ Wilder/ Oswell/ Johnston	
55.	Would thrust blocks be used to prevent lateral movement of pipeline in subsurface/ changes in pipe flow direction? No, would not need that with this pipeline; gas does not have mass sufficient o cause this problem.	audience/ Wilder	
56.	What are seismic protection elements? About ½ of pipeline has been mapped for fault crossings; would use aboveground crossings at active faults, aboveground expansion loops similar to TAPS, to allow pipeline to move around.	audience/ Wilder	
57.	Regarding site restoration on North Slope, will we let ice road melt away or have permanent gravel pad road? Plan is to demobilize prior to melting, then go back and breach roach over pipeline wherever filled in with snow/ice, so when breakup comes, have drainage; after move equipment, would allow road to thaw, no permanent gravel road.	audience/ Wilder	
58.	Concluding remarks: reminder that tomorrow is ROW prep. Bring name tags as ticket; sign confidentiality agreement to release material. Tomorrow will be deeper layers of detail, similar to Thursday for waterbody crossings. Appreciate participation and great questions.	Harms	1135

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ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/ MINUTES (MoM)		
	Project Name:	**Alaska Pipeline Project**
	Meeting Subject:	APP Pipeline ROW Preparation and Maintenance Workshop, Hilton Hotel, Anchorage, AK
	Date of Meeting: MoM Number:	March 2, 2011

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
Jack Winters, Lee McKinley	ADF&G	Richard Fafara, Jack Beattie, Joe Zhou, Glenn Johnston, Jim Oswell, Joanne Unger	APP Engineering
George Mayberry	ADHS&EM	Rod Read, Cory Wilder, Ray Boivin	WP Engineering
Eric Hatleberg, Marie Crosley, Mark Morones, Pat Anderson	AGIA	Jon Schmidt, Myron Fedak, Larry Harms, Laurent Pardigon, Bryan Trimm, Rod Hoffman, Ryan Childs	ERL
Beez Hazen	APP	Jim Glaspell, John Westlund, Nancy Darigo	ERSS
John Hayse, Robert Van Lonkhuyzen, Ron Kolpa, William Vinikour	Argonne National Labs	Dave Mushovic, Earle Williams, Gary Foreman	BLM
Adele Fetter	DEC	Trent Hubbard	DGGS
Nina Brudie, Sandra Singer	DNR, DMLW	Roger Healy	DOT
Gayle Martin, Mark Jen	EPA	Danny Laffoon, David Hanobic, David Swearington, Jim Martin, Jim May, John Peconom	FERC
Amy Cox	NMFS	Bill Doyle, Frank Richards, Heather Ptak, Julie McKim	OFC
Jeff Bruno, Katie Farley, Pat Jarrett	SPCO	Serena Sweet	USACE
Jennifer Spegon, Jordan Muir	USFWS		

AGENDA ITEMS:

Item	Agenda Item	Leader	Time
1.	Hotel Safety	Hotel rep -Whit	0835
2.	Introduction - overview of morning, agenda, workshop purpose, and desired outcome: • Purpose - inform regulators on general approach to ROW preparation and associated thermal and geological issues surrounding installation and operations of a chilled natural gas pipeline. • Desired outcome - agency understanding/ feedback on proposed ROW preparation methods, selection criteria, approach to geohazards, and BMPs. • Really want o encourage questions. SMEs available to answer; if cant, want to make sure we have clear view of potential subjects moving forward to work with the right folks.	Harms	
3.	Safety moment – down side of hand sanitizers if children around; contain alcohol; is a poison.	Harms	

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4.	APP Presentation - followed the powerpoint file "ROW Preparation final presentation 022411.ppt" in handout, p.5-14: Route classification; landforms, soils, topography, permafrost distribution; try to pick best route to minimize issues; statewide permafrost map; terrain mapping gives estimate of ice content based on terrain type and legacy borehole data; our best level of detail until GVP; showed LiDAR video example, with extra work space needed across creeks and highway; can rotate sun around in LiDAR to show fault scarps.	Johnston/ Wilder	
5.	Question: what is width of corridor? In narrow areas 300 feet; wider at creek crossings probably 600 feet+; varies in special areas like Atigun Pass.	audience/ Wilder/ Beattie	
6.	Question: where is actual centerline on DEM bare earth model; is corridor shown same as ROW? ROW will be within yellow lines/corridor; haven't figured out exact ROW within study corridor.		
7.	Continue with Presentation, p.15 -20: route classifications, ROW preparation methods for different terrains; definition of thaw sensitive - loss of shear strength and/or settlement. Point Thomson line preparation, no access, need for travel lane, ice/snow work pad, ditch through ice pad; 8" nominal and 2" allowance for unevenness.	Johnston	
8.	Question: how wide will ice pad be within ROW? It will be full width of ROW.	Argonne-Mays/ Johnston	
9.	Presentation, p.21: cross slope on North Slope, leave organic layer intact, build up down slope side with imported material (gravel and snow).	Johnston	
10.	Question: if importing gravel, will it be removed or leave in place? We would leave in place and distribute/feather across ROW on down slope side.	ADF&G-Winters/ Johnston	
11.	Question: what are contingencies for lack of snow? We're doing study of water sources; 1st 60 miles not a bad supply; south of that it's sparse; is reason why we're intending to use either snow/ice or gravel.		
12.	Question: in matrix of 1st two construction segments, APP spoke to preserving ground ice; will we use native soil to backfill trench? Yes, will use native soil, but where there's high ice content, expect melting and settlement 1st summer, and intent is to bring in additional import fill to make up for settlement.	audience/ Johnston	
13.	Question: how is top soil being separated from subsoil? For winter construction, very difficult to separate once active layer is frozen to subsoil; in Canada we've tried it with very limited success except for loose organics on surface; so would salvage loose organics for spreading back after construction, but rest would lump together.		
14.	Question: is it just the 20' ditch width where soils would be removed? Yes, but width would vary depending on excavation method.		
15.	Question: have we experienced problems with re-growth where no topsoil or organic matter? Re-growth depends on type of soil; if dealing with rocky terrain, rocky material returned to surface. Typically spend 1st spring/summer re-vegetating, then continue during maintenance trying to reestablish vegetation to deal with erosion control. Understand best method for erosion control is quick re-vegetation.		
16.	Question: if using ditch machine on Point Thomson line, can you run it on a 1st pass just to remove organics (about 1 foot), then rerun next to get rest? It's a possibility, depending on type of ditcher. If toothed type, difficult; if chain ditcher, possible; looking at different approaches; in AGPPT trenching trials, that was one of the goals, tried it, and found one of the difficulties is fine-tuning ditch machine to do it. TransCanada originally developed a machine that would allow removal of organics. This is something to study.	ADF&G-Winters/ Johnston / Read	
17.	Presentation, p.22-23: conventional grading.	Johnston	
18.	Question: so plan is to strip topsoil from entire ROW width? Only in agricultural land. Follow-on comment: which is limited. Yes, we recognize that.	ADF&G-Winters/ Johnston	

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19.	Presentation, p.24-32: cross slope in winter, thaw stable, example of Norman Wells conventional preparation; freezing/surface leveling, intent to preserve as much organics as possible; frost driving; crossing wetlands with geogrid/timber/import fill and remove after; push or pull pipeline through thick organics/wetlands.	Johnston	
20.	Question: what percentage of route is comprised of this sort of ROW (deep organics with high water table)? Don't have a sense of that yet; analyzing data now; can't imagine it's a lot.	audience/ Johnston	
21.	Presentation, p.33-34 : continue with peat wetlands example in summer; winter wetlands crossing, plan to use freeze/leveling, standard technique for Northern Alberta to get stable ground surface.	Johnston	
22.	Question: would spoil removed be placed back in ditch for previous wet wetlands case, shown using yo-yo (Sauerman) dredging? Yes, spoil stored outside the wetland by the cable dragline operation would be put back into the wetland as backfill.	audience/ Johnston	
23.	Presentation, p.35-38: freeze/leveling in wetlands; water crossing in winter -example with snow bridge; ROW preparation toolbox.	Johnston	
24.	Question: yesterday there was a big discussion on groundwater in trench on slopes where it would be removed; can you explain further? We don't want groundwater running down slopes; is why we place ditch plugs within ditch around the pipe on longitudinal slopes to prevent water running along pipe, in combination with diversion berms on the surface to move water off ROW. Depends on terrain and stability of permafrost soils. Where we have drainage across ROW, have to reestablish it after construction. This would take place over a series of years if dealing with permafrost, as we may have to wait for settlement to see where water is flowing, and see if need to reestablish drainage across ROW.	audience/ Johnston	
25.	Presentation, p.39: schedule drivers: blasting, avalanches; thermal considerations in ROW.	Johnston	
26.	Question: on schedule, is Spread 1 starting at north end and moving down? Yes, it's north to south.	audience/ Johnston	
27.	Follow-on Question: so when would clearing for 1-6 occur? ... Spreads on the north slope do not require clearing the winter ahead of construction. Others would be winter prior to construction once we hit the treeline.		
28.	Presentation, p.40-42: clearing trees changes ground termperature, permafrost starts melting just from clearing; need to understand that settlement, pick best construction mode, and plan for it in O&M; pipe influences only specific area within ROW; thermal modeling done for different terrains/slopes; dormant period, mitigation techniques to reduce rate of thaw; show CRREL work.	Johnston	
29.	Question: are indications of permafrost at CRREL actual conditions or modeled? It's actual observations and measured data, not modeled.	audience / Johnston/ Hazen	
30.	Question: does CRREL site deal with anything to mitigate the effects of clearing such as gravel roads? Correct no mitigation or management measures for settlement. This was done to determine what happens as a result of vegetative clearing alone.		
31.	Question: is CRREL example continuous or discontinuous permafrost, because seems like you should plan for worst case conditions? This represents worse case; there's been additional work published about site: -1C, its warm permafrost , about 10% thaw strain, can see distortion on ground there now; Northwest Pipeline built a test site on portion of that location.	DGGS-Hubbard/ Hazen	
32.	Presentation, p.43-45: APP modeling using CRREL to calibrate; showed amount of thaw and settlement at construction; temperature profile of pipe; up to 45F, average up to max of around 32F; pressure decays and cools gas from Joule-Thompson effect; modeling after 25 years operations – get little blip in thaw profile from cold gas flowing in pipe but not much; model assumes no re-growth over 25 yrs - pessimistic view – but points to benefit of re-vegetation; included climate change 0.5C/yr; assumed ROW not stripped, but cleared with disturbed organics.	Johnston/ Read	

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33.	Question: is maximum thaw at L1 (on p. 45) come from natural thaw over 25 years, primarily from climate change? Yes, that is correct, Follow-on comment: so climate change is adding about 5' of thaw over 25 yrs? Yes, blue line represents climate change alone; rest is additional due to ROW clearing.	audience/ Johnston	
34.	Presentation, p.46: key issues; clarification of frost heave, frost bulb, as move downstream of compressor stations, thermokarsting, beaded streams, similarities to limestone karsting with loss of material.	Johnston/ Fedak/ Read	
35.	Question: would we gather GVP data right after clearing? Yes. Follow-on question: so you would have data a year in advance, which would tell you depth of organic layer? Yes.	audience/ Johnston	
36.	Question: what kind of information will we be collecting about soils as you're digging trench? We'd be doing as-builts to log soil conditions for the terrain we're crossing. If it's rock, its rock. If in other areas such as permafrost, would do more detailed as-built, both for pipeline integrity purposes and ROW maintenance.	DGGS - Hubbard/ Johnston	
37.	Presentation, p.47-49: ROW after reclamation; throughout life of project regular inspections by air or ground; have plan in place to look for what needs to be fixed, do planned interventions, and unplanned investigations.	Johnston	1000
38.	Break		
39.	Presentation, p.50-54 : geohazards - both natural that occur along route and interactions between pipe and environment; objectives lead to toolbox for mitigation; ranking process, algorithms; geohazards categories.	Read	1020
40.	Question: since subsoil is displaced by pipe, do we plan to mound that in anticipation of subsidence? Yes, 48" pipe takes up space and need to know if we have enough to fill ditch if ice rich or not enough; typically end up with roach/crown.	audience/ Read/ Fafara	
41.	Question: would some of frozen soil thawing be mitigated by feathering topsoil across mound? Yes.		
42.	Question: do we have a sense of how much thaw/heave displacement you can have before you have to go in and replace pipe? Yes, capacity to accommodate deformation or relieve strain is part of ongoing assessment through strain-based design.	audience/ Read	
43.	Presentation, p. 55-60: timeline for issues resolution; iterative process; progress to date; summary poster; thresholds for mitigation.	Read	
44.	Question: does susceptibility take into account geohazard severity and probability? Yes, both severity and the likelihood it's going to affect one of the pipeline elements (pipe, ROW, etc). Just because it occurs, it may or may not be an issue for the pipe.	audience/ Read	
45.	Presentation, p.61: mitigation toolboxes, back reference to ESC discussed yesterday; clarify primary tool for dealing with permafrost is strain-based design, i.e., designing pipe to deal with heave/ settlement before it moves.	Read/ Johnston	
46.	Question: on subject of accommodating movement, yesterday talked about bending pipe; doesn't bending take up some of the allowed strain? Field bending is to allow pipe to be at a constant burial depth in the ditch following land contours, so would be done regardless of whether there is potential for SBD issues; field bending not done to accommodate SBD; so is independent of heave/thaw design.	DGGS-Hubbard/ Read	
47.	Question: what mechanisms/methods do you use to get water from one side of ditch to the other; for example, 1st 50 miles on North Slope, water will want to flow north compared to elsewhere? Yes, there are a number of things we can do, e.g., breach roach; is an issue to be considered. On North Slope where permafrost very cold, intent is to preserve permafrost and minimize differential settlement so not much of a roach would be required over pipe.	ADF&G-Winters/ Read/ Zhou	

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48.	Follow-on Question: have you looked at elevated pipe to avoid cross drainage problem? That's a bigger issue than just dealing with cross-drainage. We did consider it, and with few exceptions, pipe will be buried. Material selection for high pressure gas line has more stringent requirements for safety and fracture control than an oil pipeline; may be a little different from what you may be used to from TAPS perspective. Short sections will be elevated: at fault crossings and certain water bodies.		
49.	Presentation, p.62: summary; ROW will behave independently of pipe; settlements will be what we see if just cleared and didn't install pipe.	Read	
50.	Open for Discussion: We've done a lot of thinking about design/O&M, but we're not here just to present information, but also to hear your ideas for what has worked, what hasn't. We have time until FERC filing, so there's time to continue dialog; not just today, but as project moves forward; want to do project responsibly. We've talked about a whole bunch of toolboxes under development, probably ESC is most advanced in evaluation; will be part of RR7; need agency feedback on whether tools work; if agency experience is different, please let APP know.	Beattie/ Read	
51.	Comment: encouraging folks to speak up; there's a whole bunch of agencies in room today and tomorrow, so if questions/concerns, ask them.	ADF&G-Winters	
52.	Question: recalling inclusion of additional compressor stations from an earlier meeting, how does that change assessment of impacts? If stations are added to expand capacity, temperature profiles and location will change along ROW; However current design only has 8 compressor stations.	Argonne-Mayer/ Read/ Harms	
53.	Follow-on question: I mean in terms of environmental assessment itself; would we have to do a reanalysis if plan is for 12 compressor stations instead of 8; if that is a real situation, should it be looked at it up front so you can bound the environmental evaluation? As we understand question, if added compressors, would we be looking at different cumulative effects for example, but change in number of compressor stations is not happening after settle on design. 8 stations are for 4.5 BCF; not related to expansion of pipeline capacity, but are current design for base case.		
54.	Question: any coordinated activity between APP and Point Thomson? No, APP only going to flange at outlet of their project. FERC regulations in 2005 mandated a firewall between 2 projects related to commercial issues. Our involvement with that project is limited to pipe design. Both projects using same legacy data, but Pt. Thomson pipeline is very different technically due to different sizes and impacts. When their draft EIS is publically available, we'll have that.	audience/ Harms	
55.	Comment: Point Thomson project description is publically available on EIS website. Difference between oil and gas; VSMs different type of impact from burying pipe. Beyond technical comparisons, would encourage us to look at long-term effects/re-vegetation issues in deciding whether to bury or elevate the pipeline. There have been a lot of trenches on North Slope that fill up and are hard to re-vegetate; don't dismiss VSMs yet.	OFC-McKim	
56.	Question: on subject of geotechnical reports, do we expected to use GVP model for routing selection within 300-ft corridor; to say where need more information, or move route because of it? Yes, APP used DEM for route selection, trying to avoid steep slopes, etc where we could; there are some limitations, can't do slalom down valley, but would use DEM to do both geotechnical evaluation and slight micro-routing resulting from geotechnical boreholes. As we learn and gather data on alignment, does not preclude us from moving corridor if we need to.	audience/ Read/ Wilder	
57.	Question: are we looking at wildlife information in moving corridor? Yes, that is one of the criteria we've used, along with other environmental surveys and cultural surveys.	Harms	

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58.	Concluding remarks: We want to make sure everyone is on same page as far as what we're planning; if not, we'll be revisiting it. If there are certain issues/concerns we haven't heard, raise those: either it wasn't something we talked about, or maybe we haven't looked at it as deeply as we should, and will do. This is an opportunity to dialog and start to address items from both parties' perspectives.	Harms/ Fedak	1135

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ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	**Alaska Pipeline Project**
	Meeting Subject:	APP Waterbody Crossing Technical Workshop with Agencies, Hilton Hotel, Anchorage, AK
	Date of Meeting: **MoM Number:**	March 3, 2011

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
Jack Winters, Lee McKinley	ADF&G	Richard Fafara, Jack Beattie, Joe Zhou, Glenn Johnston, Jim Oswell	APP Engineering
Eric Hatleberg, Pat Anderson, Mark Morones	AGIA	Ray Boivin, Cory Wilder, Rod Read	WP Engineering
Beez Hazen	APP	Jon Schmidt, Myron Fedak, Larry Harms, Laurent Pardigon, Bryan Trimm, Rod Hoffman, Ryan Childs	ERL
John Hayse, Robert Van Lonkhuyzen, Ron Kolpa, William Vinikour	Argonne National Labs	Jim Glaspell, Chris Humphrey, John Westlund, Nancy Darigo	ERSS
Bob Karlen, Dave Mushovic, Earle Williams, Gary Foreman	BLM	Amy Cox	NMFS
Adele Fetter, William Ashton	DEC	Bill Doyle, Frank Richards, Heather Ptak, Julie McKim	OFC
Nina Brudie, Sandra Singer	DNR, DMLW	Chris Grundeman, Jeff Bruno, Katie Farley, Pat Jarrett	SPCO
Christie Psyk, Gayle Martin, Mark Jen, Tami Fordham, Ted Rockwell, Timothy Mayers	EPA	Birdie Budnik, Serena Sweet	USACE
Danny Laffoon, David Hanobic, David Swearington, Jim Martin, Jim May, John Peconom, Kelley Parse	FERC	Frances Mann, Jennifer Spegon, Jewel Bennett, Jordan Muir	USFWS

AGENDA ITEMS:

Item	Agenda Item	Leader	Time
1.	Introduction –overview of workshop objectives and agenda (from handout): • Summary of water crossings • Waterbody classifications • Selection criteria • Installation methods • Bank reclamation • Waterbodies of concern • Steps forward	Harms	0835
2.	Safety Moment – sun dangers, sun protection	APP	

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3.	Overview of Purpose and Desired Outcome • Purpose - provide regulators APP waterbody classification, 2010 and proposed 2011 field work summary, waterbody crossing selection criteria, typical construction procedures, and waterbodies of interest. • Desired outcome - agency understanding of selection criteria, construction methods, discussion of waterbodies of interest, and path forward.	Harms	
4.	APP Presentation - followed the handout "Waterbody Crossing Workshop" dated 3 March 2011 and concurrent Powerpoint (PPT) slides 6-33: definitions, waterbody classifications, data sources, field work 2010-2011, routing adjustments, construction methods, waterbody crossing selection factors, schematics and photo examples for open cut method,	Oswell	
5.	Question: How long does actual in-stream excavation take after pipe has been readied? Example shown is about 12 hours; this project would be 1 to 3 daysdepending on depth of cover needed over pipe.	Oswell, Fafara	
6.	FERC Question: Do not see installed erosion controls in photos; point out what APP would do differently? Photos are not TC or EM project; appropriate erosion controls could include straw bales along perimeters, sometimes concrete jersey barriers for large spoil piles and steep slopes. Would also maintain vegetated buffer along existing banks until just before crossing excavated; do have to maintain opening for access bridge; In example photos, contractor may have considered need for erosion controls as low during winter construction, frozen conditions, no rainfall.	Oswell	
7.	Question: Is the timber lagging around the pipe treated wood; is it expected to deteriorate over time? Lagging is not treated; timber lagging is spruce 2 by 4 strapped around pipe, and it stays in place when pipe is buried.	Oswell	
8.	PPT slides 34-36		
9.	Question: Is concrete coating done on site? Yes; the concrete coating is sprayed on in yards or on the ROW.	Oswell	
10.	PPT slide 37: advantages/disadvantages of open cut method		
11.	Ted Rockwell Question: Notice that embankment for temporary bridge is still in place after pipe installation; how is site cleaned up so that it does not erode sediment into stream at breakup; will each stream have a plan for how crossing will occur? Can't tell from photo if bridge will be left In place for ongoing construction access, or removed; if bridge is pulled, disturbed area would be graded, stabilized, and erosion controls and riprap installed; yes, each stream will have an identified crossing method and erosion/sediment control measures that will be used as well as reclamation measures to be implemented.	Oswell	
12.	Question: March 2 workshop indicated that trenching in uplands could expect some subsidence in permafrost backfill; how will that be addressed in stream crossings? Do not expect subsidence within river thaw bulb; unfrozen materials are not subject to thaw settlement and if any frost bulb develops around the pipe, will prevent settlement; depth of cover will be checked during operations to verify that sufficient depth of cover is maintained.	Oswell	
13.	Question: Is there any concern for lagging deteriorating; will the pipe become unsupported?. No; amount of potential settlement would be very small as the lagging is 2" by 4"..	Oswell	

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14.	Question: Is the 12-24 hours estimated for waterbody crossing the in-water work, or total crossing operation? The 12-24 hours for this example is for in-water work only; possibly 7-14 days total for clearing workspace, grading, pipe preparation. The work will be done by specialized crews separate from mainline construction. In most smaller streams, crossing time is less than 48 hours actually in the water.	Oswell	
15.	FWS Question: How will pipeline inspections be done, how often; how will APP access the ROW during operations; will there be a transportation plan for operations access; to do the NEPA document, need to know how often the inspection will be conducted? Some locations will access using existing roads, other areas may need helicopter access; depends on specific location; APP will have plan for access to entire ROW, but not a transportation plan per se; key details will not be in FERC application, but the magnitude, personnel involved, scale, frequency of inspections elements will be addressed in application for impact assessment.	Zhou, Fedak	
16.	FWS Question: Can we expect some statement of vehicles crossing stream, what time of year, type of vehicles, frequency (into operations, after construction)? During operation there will not be vehicles accessing along the ROW, except where a prepared driving surface exists; primarily aerial inspection; some waterbody crossings would be flagged for more regular inspection, possibly once/year; in general, would not drive the ROW.	Johnston	
17.	Question: Assume that during 1st and 2nd year following construction there would be close inspection for subsidence? Yes, but not just at water crossings; inspection will be along the entire length of ROW.	Oswell, Johnston	
18.	Comment by Jim Martin: FERC inspections are often done aerially, although there may be locations where ground access is available; equipment access over river is likely temporary; equipment bridges are maintained and cleaned during construction, then removed	FERC	
19.	PPT slides 38-75: dry ditch method schematics and photos	Oswell	0925
20.	Question: Is the equipment bridge always going to be on the downstream side of the work space? Not necessarily; no particular reason it needs to be.	Oswell	
21.	Question: Is there a spill response plan for each waterbody crossing? Yes.		
22.	PPT slides 76-77: dry ditch advantages/ disadvantages; HDD		
23.	Ted Rockwell Question: Regarding the disadvantages in last bullet (PPT.76, “nominally higher risk of unsuccessful installation vs. open cut”), can you elaborate? The issue is not pipe integrity failure - it is constructability failure. Most common concerns relate to soil conditions; must meet the assumptions/criteria for dry ditch crossings; coarse, gravelly soils will allow water under aqua dams; running sand substrate can cause flume supports to collapse; there are practical limits to flume length; a weather event that unexpectedly increases volume of flow to be handled can cause dry crossing failure.	Fafara, Boivin	

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24.	Question: Can you speak to need for settling ponds, whether lined/unlined, adequate containment, etc? Short answer is that APP will make sure there's adequate containment and it will vary for each crossing; where water needs to be pumped into sedimentation pond, by the time it passes through sediment control structure, it's clean; pond will be sized for the expected volume with a factor of safety to allow for additional inflow.		
25.	Break		945
26.	PPT slides 77-82: HDD limitations, methods, drilling mud, process, schematics and photos	Oswell	1005
27.	Question: Can you describe what happens in an HDD operation on surface with guide cables, more details? Have some photos coming up later in presentation; will address.	Trimm, Oswell	
28.	PPT slides 82 -84: HDD schematics	Oswell	
29.	Question: Will it be a water-based or oil-based drilling mud? It will be water-based.	Oswell	
30.	PPT slides 85-88: HDD drilling mud, disposal, schematics, photos	Oswell	
31.	Question: What is the distance between entry and exit holes in photo (slide 88)? It is about 4700 ft, just shy of a mile.	Fafara	
32.	PPT slide 89- 99: HDD false ROW, selection factors for season of operation, casing diameters, pilot hole, reamers, advantages/disadvantages	Oswell	
33.	FERC staff Question: Can you identify where most frac-outs occur and how can you minimize? Frac-outs occur where soil is fractured above the pipe trajectory; HDD was not deep enough to overcome drilling mud pressure; occurs most commonly in fractured bedrock or gravel that was not identified during preconstruction geotechnical investigation (really need 5-7 boreholes to verify geology and presence of permafrost); highest drilling mud pressures occur at the bottom of the trajectory; may also see frac-out near the river banks and under river; for this crossing in PPT example, the HDD pipe was 170 feet below valley profile; function of the land profiles and pressure in the hole; also affected by homogeneity of the materials encountered in the HDD; once HDD drilling has commenced it does not stop for frac-out – drill quickly and move beyond the weak zone where drilling mud is being lost; HDD drillers can monitor internal borehole pressure and volume of drilling mud being handled to identify when frac-out is in progress.	Oswell, Boivin, Johnston	
34.	Question: If fractured bedrock is identified in advance, could HDD be dismissed as a viable option? Yes; pre-construction geotechnical drilling would look for fractures; also need to know where there is permafrost and temperature of the permafrost.	Darigo, Oswell	
35.	FWS Question: What is the rate of failure, in general, for HDDs? Geotech investigations before HDD confirms that site is feasible, rules out those with higher probability of problems; once HDD operation starts, there can still be a failure due to constructability; rate of success is likely better than 75%; HDD for smaller diameter lines has a very high rate of success; larger diameter lines have higher risk of failure; success is dependent on extent of up front planning.	Oswell, Boivin	
36.	Question: What kind of machine can pull a mile of this pipe? A big one; we're not limited by length of production pipe as much as the pull capacity and the stress put on the drill stem.	Oswell	

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37.	Question: Are there alternatives to make sure the product pipe can hold up to the HDD pull pressures? Pipe is designed for these stresses; pipeline steel and welds are designed to withstand the pull-back stresses; also can use pipe thrusters to push the pipe into the exit hole during at the same time as the pipe string is being pulled; may also use water as a supplemental buoyant; drilling mud is maintained in the borehole during pull-back to reduce friction; after HDD pipe is installed, it is checked for problems with coating, but if something is found in underground section it can't be repaired; FERC will be reviewing HDD geotechnical reports, which usually have contingencies for two situations - 1) if a frac-out occurs, and 2) if we can't complete the HDD; sometimes have the option to step off to the side and try the HDD again, or prepare an alternate plan for an open cut; however, HDD site is not always the best location for open cut; for these reasons, HDD operations often occur early in construction process to allow time to implement contingencies.	Oswell, Fafara, Johnston	
38.	Ted Rockwell Question: Is there any need for different size construction access road for HDD, or is it essentially same as rest of route; regarding access road vs. construction traffic along ROW, would you need larger access road for size of HDD drill rig? Road dimensions are probably the same since it's a 48" pipe everywhere; at HDD sites access roads would be planned to accommodate largest piece of equipment, which could be drill rig or cranes.	Johnston	
39.	PPT slides 100-103: aerial crossings, reasons for use, limitations.	Oswell,	
40.	Question: Is it feasible to suspend gas pipeline on a road bridge, or are there safety concerns with that? Yes, it's feasible. There's nothing in the code that would prevent it, but there may be homeland security concerns, for example with Yukon River bridge having everything on one bridge.	Beattie	
41.	PPT slides 104- 116: aerial crossings advantages/disadvantages; bore method – horizontal push, applications, soil conditions, methods, large excavation; methods summary.	Oswell	1050
42.	EPA Question: Is there a preferred method for Yukon and Tanana River crossings? Yes, have selected methods in preliminary plans. For 1st Tanana crossing north of Delta, an HDD is being considered but still have some concerns to be addressed; at 2nd Tanana crossing, HDD under consideration but looking at aerial crossing option as well; Yukon River is considering an HDD or aerial crossing option, and crossing locations both upstream and downstream of highway bridge are being examined.	Boivin, Oswell	
43.	Question: Is there more than one crossing of Tanana River, how planned, and where is it? Yes; 2nd crossing near Tok is currently planned for HDD just downstream of highway bridge.	Boivin, Oswell, Wilder	
44.	PPT slide 117: path forward	Oswell	
45.	FWS Question: Is main reason there are no aerial crossings presently planned by APP due to higher cost; how does TAPS compare to APP in terms of number of aerial crossings; are there some areas TAPS has aerial crossing, but APP will not? TAPS has a number of aerial crossings; APP currently not planning for any aerial crossings, except as options - that could change; APP is a buried gas pipeline with safety and security concerns when it is exposed aerially, and it is inherently different than the warm oil TAPS pipeline; also, the HDD technology that is now quite mature in the pipeline industry was not available at the time of TAPS construction; APP has more construction options.	Oswell, Schmidt, Zhou	

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46.	FWS Question: Will APP explain why they chose certain waterbody crossing methods over others in the EIS? Don't know if that would be discussed in Resource Report 1 or 10; Resource Report 2 may have more details; FERC application will have methodology for decision making	Oswell, Fedak	
47.	FWS Question: What about culvert installations? No question that we'll have them along access roads; will either use bridges or culverts depending on site-specific conditions; haven't done site-specific engineering yet.	Oswell	
48.	Question: Is there any need for valves on both sides of river crossings for the gas pipeline? For gas pipeline, typically do not need valves on both sides of waterbody crossings (gas release vs. oil release); There are requirements for specific spacing between valves along pipeline route; don't need spill contingency plan for APP as product (natural gas) would be released to air.	Oswell, Zhou	
49.	Break		1105
50.	PPT slides 118-138: reclamation measures, back reference to BMPs presented in workshop 1 March 2011; information sources and company experience; special study area crossings; ; frost bulb issues	Boivin	1120
51.	Question: How will APP handle stream crossings and wetlands on first 100 miles on North Slope with winter construction? Cory Wilder discussed in workshop on 2 March 2011; refer to that presentation for additional information.	Boivin	
52.	PPT slide 139: Wrap-up: circle back to purpose and where headed; main purpose today was to present where we are, where we are going; need to continue discussions on watercourse crossings; site specific drawings will be developed for major waterbodies, but not the detail needed for permitting at this time; will be changes to project design during course of project; modifications will be added to DEIS; following FEIS, will finalize designs, locations, and additional information needed beyond the NEPA analysis. Thanks to OFC folks for administering workshops.	Harms	1150
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ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	**Alaska Pipeline Project**
	Meeting Subject:	Field Studies Overview, GTP Dredging
	Date of Meeting:	March 30, 2011
	MoM Number:	MM-ETAK-0097

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
Amy Cox	NMFS	Bob Eadie (teleconference)	APP
Jewel Bennett	USFWS	Jeff Chapman (teleconference)	APP
Frances Mann	USFWS	Rykki Tepe (teleconference)	APP
Jennifer Spegon	USFWS	Glen Walker (teleconference)	APP
Julie McKim	OFC	Mike Gray	ERSS
Ryan Childs	APP	Jim Glaspell	ERSS
Rod Hoffman	APP	Karen Brown	ERSS
Steve Shaner	APP	Dave Erikson	ERSS

AGENDA ITEMS:

Item	Agenda Item	Leader	Duration
1.	Overview of regulatory pathway as a "scene-set" for environmental data collection efforts, whether existing literature or field studies	Childs	5 mins
2.	Overview of major existing data sources in the areas of fisheries, hydrology, wetlands, wildlife, and vegetation, and stressed that APP is still seeking information from other and unpublished sources, including agencies. Agencies agreed to check for other data sources back at their offices. Discussion regarding where information will be located in Resource Reports. Stressed area of project with least existing info. is Delta Junction to border	Erikson/McKim/ Cox/Bennett/Mann /Spegon/Childs	5 mins
3.	High-level overview of 2010 field study protocols for fisheries, hydrology, and wetlands. APP offered copies of the protocols to agencies; they'd appreciate copies.	Erikson/Childs	10 mins
4.	General overview of field studies scope for fisheries, hydrology, and wetlands in 2010.	Erikson	10 mins
5.	Discussion about 2010 fisheries field study and hydrology field studies and ongoing overwintering study. Inquiry regarding any un-mapped anadromous streams; one new identified – tributary to existing known. Amy asked who APP worked with at ADF&G; Dave – J. Winters and B. Piorkowski for Fish Collection Permit, regional biologists as well for fisheries protocols.	Erikson/Mann/Cox	10 mins
6.	2010 Wetlands field study overview including scope, methodology, problematic areas (burned areas) and mapping efforts.	Erikson	10 mins
7.	Jewel noted that observations of increase/decrease of wetlands over course of permitting due to climate change could be useful information for the EIS. Jennifer mentioned day two of recent workshops discussed changes in microenvironment and Ryan also mentioned engineering effort to predict thawing issue and effect on permafrost and revegetation generally. Jewel and Fran both mentioned possibility of habitat changes affecting species distribution and migration and that this could be an expected inquiry from agencies, etc. during EIS development.	Bennett/Spegon/ Mann/Childs	10 mins

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8.	Transition to 2011 field studies discussion. Ryan mentioned additional field studies and potential land access issues as the area from Delta Junction to the border involves more privately-held lands. Plan to utilize existing literature and other data to fill in gaps due to lack of access. Trying to build upon lessons learned from 2010 with regard to logistics, team size, etc.	Childs/Erikson	5 mins
9.	Dave outlined combination fisheries/hydrology/wetland field studies effort Probability of helicopter transport for lake studies, esp., as best method to move boats. Lake studies protocols currently being developed. General interest by agencies in reviewing them.	Erikson/Bennett/ Mann/Cox	5 mins
10.	Discussion regarding raptors, esp. eagles. For bald eagles, the USFWS on their web site has a permit application that allows the disturbance of bald eagles or to remove a nest (unoccupied). However, no such provisions for golden eagles. The permit generally takes between 60 to 90 days, sometimes longer if application not complete. USFWS has to meet the preservation standard to maintain or increase the population. The study has to include an area greater than the footprint. Fire Island Wind Project just received a permit allowing for removal of 2 nests.	Mann/Bennett/ Spegon/Erikson/ Hoffman	10 mins
11.	Discussion regarding raptor surveys. Surveys could take place this year or next. Best time to perform surveys is before leaf-out. Jewel mentioned BLM did raptor surveys north of Fairbanks along Dalton Highway corridor, not sure of availability of info. Ryan questioned the need for surveys at this point, suggested existing info. should be good enough for EIS development, with pre-construction surveys absolutely necessary. Rod pointed out majority of winter construction with some summer construction. All agreed winter construction can help mitigate impacts; however, USFWS can review the literature review data to ensure it is sufficient. APP mentioned existing data from AGPPT study in 2001 that likely follows the corridor, but does not include material off-ROW areas. Fran/Jewel mentioned need to consider where blasting occurs and off-ROW areas, such as borrow sites. Jim mentioned eagle nests were mapped using information from the TAPS corridor, and BLM American Council of Engineering Companies for last year's helicopter surveys. Ryan mentioned not all material sites known fully identified right now.	Mann/Bennett/ Childs/Hoffman/ Glaspell/Erikson	15 mins
12.	USFWS would like to see a summary when we have it with focus on the 300-ft corridor and ½ mile corridor in area where blasting is proposed. If there is an eagle nest near the border of the 300-ft corridor then there could be a problem. Some areas might be more critical, such as compressor stations. Should also include areas where off-ROW activities might occur, such as borrow sites, with a broad enough survey area to accommodate changes. APP suggested that the existing data from the 2001 AGPPT study could provide this data, and USFWS agreed that the 2 mile wide corridor used in the study would be acceptable. The summary should also include consideration of winter/summer construction timing. On Tetlin, the service has info. regarding eagle nests on the refuge, but in general a project proponent has to do the necessary surveys.	Bennett/Mann	10 mins
13.	Another wildlife study component is threatened/endangered species. APP plans to use USFWS data on Steller's and spectacled eiders. The 300-ft corridor attempts to avoid lakes so maybe not as much of an issue.	Erikson/Bennett	5 mins

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14.	Marine Mammal Protection Act is handled by NMFS headquarters in Washington D.C. If needed, plan for 9 months for an Incidental Harassment Authorization. It is an elaborate process that involves mitigation, monitoring, public comment, etc.*See Note at bottom of document* NMFS has completed a couple of Biological Opinions for other arctic oil and gas activities that may contain good data and references. Status reviews of the species may also be helpful resources. NMFS is proposing to list ringed and bearded seals as threatened, but it could take up to a year. If listed, one year later a determination of critical habitat should occur. Brad Smith with NMFS is working on bowhead whales. Amy will check with him to see what recent information NMFS has.	Cox	10 mins
15.	Pacific walrus is listed as a candidate species in addition to the yellow-billed loon for USFWS. Listing is warranted, but precluded by other species considered more at risk. FERC should conference with USFWS about candidate species so if they are listed, the issue has been covered.	Bennett	5 mins
16.	Vegetation mapping will use existing data and consists of a literature review, aerial photos interpretation and wetlands mapping, but is not a field program. We would like input on rare plant communities. Ambient noise monitoring will occur at some locations. Air monitoring will occur in the Prudhoe Bay area near the site of the proposed Gas Treatment Plant GTP. The units are ready to be deployed. Air monitoring will be conducted at compressor stations as needed. Cultural resources field studies are also occurring. Contaminated sites will be a desktop study using existing databases and interactive video. A field team may conduct a site assessment in Tetlin National Wildlife Refuge. Sampling to occur in possible dredge channel location this summer, including benthic and sediment samples, to complete the dredged material characterization required for the Marine Protection, Research, and Sanctuaries Act (MPRSA).	Childs	10 mins
17.	Discussion regarding GTP execution/dredging after being joined teleconference by Bob Eadie, Jeff Chapman, Glenn Walker, and Rykki Tepe (all APP). Ryan gave brief overview of infrastructure improvement needs (roads/dock/causeway/barge channel) for GTP construction/execution. Bob Eadie provided more detailed description of the dredging activities. Up to one million cubic yards in first year of dredging with maintenance dredging every year before sealifts. Overdredging first year will help offset sloughing and depth considerations caused by wind conditions. May need to put in test trenches to determine the amount of maintenance dredging anticipated.	Eadie/Childs	20 mins
18.	Amy Cox wants to make sure breach in causeway not affected given the history to get it installed. Bob mentioned we had looked at option of using Dockhead 3 because it wouldn't require as much dredging, but it would have required filling breach because bridge at breach cannot accommodate size/weight of modules for GTP.	Cox/Eadie	5 mins
19.	Looked at numerous disposal options. Considered no dredging; however, modules would have to be small, which would require additional workers, time, and large increase in cost. Considered beneficial use, however dredge materials not suitable for engineering fill, and near shore could have impact on fisheries. Gull island enhancement not suitable because of impacts to polar bear and common eider habitat. Offshore disposal most likely option, permitted by USACE under MPRSA Sec. 103.	Brown	5 mins
20.	Amy Cox interested in size of disposal area. Our actual disposal would occur within the larger disposal area, area of disposal varies by thickness of dredge disposal. Thinner layer over a larger area sounds more favorable from an initial thought for USFWS and NMFS. Amy will seek further input from her office.	Cox/Bennett	5 mins

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21.	Jewel mentioned that an S. Jewett from University of Alaska – Fairbanks has done a lot of work regarding dredge disposal. He says the nearshore area where the ice is grounded each winter has practically no benthic community so impacts might be less close to shore than in deeper water.	Bennett	5 mins
22.	In response to possible contamination inquiry, Karen indicated that BP Exploration Alaska currently tests for contaminants and hasn't seen any above cleanup level. APP doesn't anticipate finding any either, but testing will be included in our sampling effort.	Brown/Bennett	5 mins
23.	Bob mentioned APP will be using marine mammal observers and don't anticipate any impacts or delays in barging during the construction period. Amy mentioned that vessel traffic itself doesn't necessarily constitute a take. APP can check with Jolie Harrrison in DC office (which handles MMPA) about possible noise level concerns/mitigation for the summer sampling program. Brad Smith and Amy Cox in the Anchorage office would also be good resources for ESA.	Eadie/Cox	5 mins
24.	Jewel mentioned that Prudhoe Bay has Pacific walrus and polar bear. APP needs to make sure all our activities are covered under the current and pending Incidental Take Regulations (ITRs) for the Beaufort and Chukchi Seas. Craig Perham is the contact. Suggested APP work with Alaska Oil and Gas Association to make our activities are included in the next set of ITRs. There are options to supplement the ITRs if we don't think our activities are covered.	Bennett	5 mins

ACTION ITEMS:

Item	Action Item	Action By	Date Req.
1	Provide copies of the protocols to the agencies.	ERSS	
2	Report back to APP (Ryan) with any additional data sources	NMFS & USFWS	
3	Check with NMFS DC Office on noise concerns for summer sampling program at dredging location.	URS	
4	Ryan check with AOGA on ITRs	APP - Ryan Childs	

*Since the Meeting, Amy Cox of NMFS double-checked on the timing for a decision on an IHA and has provided additional information: Please note that decisions on LOA applications (includes two comment periods, possible public hearings, and consultations) may take from 8-18 months. IHA decisions normally involve one comment period and, depending on the issues and species involved, can take anywhere from 4-8 months. It is suggested to plan for at least 9 months for the IHA to be safe.

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ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	**Alaska Pipeline Project**
	Meeting Subject:	APP 106 Framework Meeting, OFC offices, Anchorage, AK
	Date of Meeting:	April 21, 2011
	MoM Number:	

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
Heather Ptak, Julie McKim	OFC	James Helfinstine (by phone)	USCG
Dave Mushovic, Bill Hedman, Robert King	BLM	Debra Corbett	USFWS
Robert Jacobson	USACE	Ryan Childs, Jon Schmidt	APP ERL
Alan DePew, Richard VanerHoen, Dave McMachon	OHA/SHPO	Burr Neely	ERSS

AGENDA ITEMS:

Item	Agenda Item	Leader	Time
1.	Introduction –overview of meeting objectives and agenda (from handout):	Schmidt/Childs	
2.	Safety Moment – Yard work	Schmidt	
3.	Overview of Pipeline • R. King: What about the off-takes, what will be built. Not known at this time, APP is providing in the preliminary version of RR 1 and 10 that taps will be within the pipeline ROW • J. Helfinstine: number of roads doesn't look right. What is presented are major crossings and only preliminary information, not all the roads that will be used, just those crossed. • D. Muchovic: yes, these are the major crossings, not all the roads that will be used in construction.	Schmidt	
4.	GTP Overview No questions		
5.	Project Overview No questions		
6.	Roles and Responsibilities R. Jacbson: Who is the FERC archaeologist? Right now Laura Boros has been tentatively identified as the lead archaeologist, not sure who ANL is using. Ellen St. XXX is the lead for FERC's government to government consultation. R. King: DOI has a new policy coming out on consultation, has FERC incorporated that into the 106 process? Not aware they have nor has this been seen by FERC or APP—Dave pointed out it is draft and hasn't been finalized yet. B. Hedma: Who's advising FERC on G-t-G? Heather—FERC sent out a G-t-G plan in 2009 for agency comment and review. R. King: Others category, has the project considered potential Native allotments and the inclusion of BIA? Yes, to date APP has avoided Native allotments.	Childs/Ptak/ Schmidt	

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7.	APP 106—Short Term D. Mushovic: 106 review times are critical, agencies need to have enough time built into the reviews for it to be meaningful. B. Hedman: They can get them done as outlined so far. B. Neely gave an overview of the 2010 field program and proposed 2011 work. D. Mushovic: very concerned about the material sites, they could require a lot of work even if previously used. This was acknowledged and APP would like to work with the agencies to determine which sites require additional work and which don't as they are defined.	Schmidt/Childs/ Neely	
8.	APP 106—Long Term No questions		
9.	GTP timeline No questions		
10.	Programmatic Agreement • BLM and SHPOs office indicated they have examples PAs for long term projects that we could look at for examples (TAPs renewal was one). Same for Unanticipated Discovery Plans • Agencies also indicated they'd like to see some examples of FERC led PAs too. B. Hedman: When would the PA be done? The goal would be to complete and have signed by the FEIS • APE discussion ensued about direct and indirect impacts and it was pointed out that through the course of this year, the APE definition will get worked out as facilities and locations are defined.	Schmidt/Childs/ Neely	
11.	Discussion/Next Steps • SHPOs office would also like to receive the shapefiles like was sent to BLM. This will help speed up their review and assessment. They will have their GIS system up and running by next month. • Discussion ensued about reports by oil companies kept confidential from other projects and the agencies concerns about double-testing the same sites and potentially ruining site integrity. It was suggested then that APP sit down with BLM and the SHPO to review survey plans and the agencies would then indicate where they should and should not test to avoid over sampling the sites. • Agencies would like to see a 106 roadmap based upon the discussion today, but were in alignment with the approach on schedule and work flow and development of an PA. • SHPO indicated it would help their review and speed up assessment of need for Phase II work if they also received the data to put into the HRS system.	Schmidt/Childs/ Neely	
12.			

Item	**ACTIONS**		
1	Relay agency concensus on 106 framework to FERC	Schmidt/Childs	April 26, 2011
2	Discuss 2011 survey plans with BLM and SHPO offices	Childs/Neely	May 2011
3	Develop 106 roadmap for agency review	ERL	?
4	Obtain PA examples and Unanticipated Discovery Plan examples from agencies	OFC/Childs	April, 2011

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ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	**Alaska Pipeline Project**
	Meeting Subject:	APP Dredging Workshop with Agencies, Marriott Hotel, Anchorage, AK
	Date of Meeting: MoM Number:	May 12, 2011
	Meeting Notes by:	J. Schmidt, B. Trimm, J. Glaspell, N. Darigo

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
About 50 people	State and Federal agencies, Argonne	Bob Eadie, Juan Raul Lopez, Patty Biewlaski, Evan Olson, Larry Harms, Bryan Trimm, Ryan Childs, Terry Wolverton, Nancy Schierhorn, Ruth Ivory-Moore, Jack Colonell, Jon Schmidt, Jim Glaspell, Karen Brown, Nancy Darigo	APP/ERL/ERSS
		Rick Rhoads, Dilip Trevedi	Moffatt & Nichol
		Allison Iverson (DNR-DOG) Joe Kemp (SPCO) Pat Anderson (AGIA-Pingo Intl.) Marie Crosley (AGIA) Lee McKinley (ADF&G) Jonne Slemons (DNR-DOG) John Easton (DNR-DOG) Bruce Buzby (DNR-DOG) Wyn Menefee (DNR-DMLW)	State Agencies
		Danny Lafoon (FERC) Jewel Bennett (USFWS) Ted Rockwell (EPA) Mark Jen (EPA) Gayle Martin (EPA) Chris Meade (EPA) Birdie Budnik (USACE) Amy Cox (NMFS) Frank Richards (OFC) Heather Ptak (OFC) Julie McKim (OFC) Mike Holley (USACE) Fran Mann (USFWS)	Federal Agencies
		Rob McWhorter Ron Kolpa	Argonne National Lab.

Item	Agenda Item	Leader	Time

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1.	Introduction – overview of agenda and workshop objectives and outcomes (from handout): • Introduction • General dredging overview • GTP overview • Execution considerations • Project schedule • Alternatives considered • APPs GTP scope of work • Regulatory overview • Next steps • Summary and discussion	Childs	0930
2.	Safety Moment – blind spots	Childs	
3.	Questions during General Dredging Overview presentation **HP (OFC)**: What is the typical bucket size? 3 – 50 cubic yards. For APP, we'd be considering something on the bigger end, like the Manson clamshell at Port of Anchorage which is 37 cy. **FM (FWS)**: What is the longest distance you can pump the spoil material? Up to about 20 miles with booster pumps. **ND (URS)**: What are the teeth like on the cutterhead for sandy soil (as opposed to rock head in slide)? More s-shaped and not teeth. **RK (Argonne)**: What is the power of the pumps used in hydraulic dredging? 2,500 to 16,000 horsepower **RM (Argonne)**: What do you mean by debris? Stumps, trees, large rocks, etc. **FM (FWS)**: If no debris or large currents, can any of the dredging methods be used? You have to go back to the primary criteria used to determine dredging, which would include such things as distance to disposal, disposal options, etc. Bob Eadie also added that time available for dredging (weather window, productivity) is also a consideration. **CM (EPA)**: Have you considered winter dredging? Yes, but the size of the channel (width) and volume of material make it too difficult to consider.	Rhoads	

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4.	<u>Questions during GTP Overview presentation</u> **TR (EPA)**: What do you do with the water removed from the gas stream? It will be included in the water for the injection wells onsite. Is the water collected, stored and injected onsite? Yes. **RM (Argonne):** Can you separate the gas streams for treatment processing on site? Yes, but not very efficient to have a set of trains for each gas stream. **JE (DNR)**: How is the gas sent back to the shippers? Via pipeline with the CO2 and H2S; BP will pick it up from us at the edge. **JE (DNR):** Are there any petroleum products in the gas stream? None anticipated; planning on a dry gas from the producers; should not be any liquids drop out. **TR (EPA)**: The new 850-bed construction camp, is it on the 155-acre pad? Yes. **GM (EPA)**: On the aerial photo showing the GTP plant footprint, is that water off to the right? Yes – Putuligayuk River. **WM (DNR)**: In addition to the pad, are there any upgrades to existing roads? Yes, will get to that in a minute. **JM (OFC)**: How tall is the communication tower shown on the artist rendering? No taller than the proposed GTP facilities, but don't have the exact height; flares are 250 feet, and some modules are 150 feet. **RK (Argonne)**: Are you making power with the gas turbines? Yes. I mean are you making electricity? Yes. **JS (DNR):** Does the H2S go back with the CO2 to the producers? Yes. **GM (EPA)**: Is there a reason you have so much open space on the GTP site? A lot of the open space shown in the final constructed facility is used during construction for laydown areas and equipment storage, so it will all be used during construction. Raul mentioned future trains that could be built onsite. There is also a minimum spacing required between housing and employee facilities and the plant equipment for safety reasons. **HP (OFC)**: Does the 155-acre footprint include construction space? Yes. **DNR:** Does the 155 acres include road improvements? No. **RM (Argonne)**: Are there custody transfer measurements taken between the producers and the GTP? Yes, meter stations are on the inlet and outlet of all streams on the GTP. **JB (FWS)**: How many sources of gas is this facility designed to process? Two at the present time. Would any future gas stream use the existing pipelines? Possibly. **DNR:** Would each incoming gas stream have its own meter station? Yes. **RK Argonne:** Is there no gas storage at the GTP site? No. What if the pipeline had to be shut in due to disruption - do we vent? The system is designed to accommodate pipeline shut downs and the GTP in turn would tell the producers to shut in the supply. Emergency venting, if required, would be sent to the flares for burning to relieve the system of any buildup. But this is an emergency case and not normal operating conditions.	Lopez	

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	JM (OFC): How much fill is needed to make the pad for the GTP? Not sure of the exact number, approximately 1 million cubic yards. **AI (DNR)**: What happens with the gas pipeline during shutdown mode? Pipeline maintains pressure; it is not vented; scheduled or emergency maintenance would be done one processing train at a time to avoid shutting down the gas pipeline. **RM (Argonne)**: If TAPs has to shut down, would there be no gas flow? Don't know. Depends on producers, but not necessarily. **GM (EPA):** Where is the gravel coming from? How long to move this much material? It would come from the existing mine at Put 23 south of the existing facilities. Studies have been done to show it has this much material and is not very far. It would be brought in over the course of one winter season via ice road. **AC (NOAA):** Do we have any special water handling? Yes, need to dewater the gas. Are there any water needs at the GTP? Yes, both for consumption and housing facilities, but also in the process to remove CO2. What are your sources for this water? Still examining, but may build a reservoir, possibly at Put 23. Does wastewater go in the 2 wells? Yes, into the disposal wells along with other waste. **TR (EPA):** Where is the gravel pit that will become water source – location and size? We're still working on that; will be in next version of Resource Reports.	Lopez (cont.)	
5.	<u>Questions during Project Execution presentation</u> **DNR**: What is the quantity of the dredge material? About 1 million cubic yards. But let's say it's between 1 and 1.5 million cubic yards. **CM (EPA)**: What is the maintenance dredging volume? Not sure at this time, maybe 100,000 cy. Will there be multiple maintenance dredging seasons? Only two contemplated at this time. **TR (EPA)**: What is the cross-hatched area along the shore? That was a potential beneficial use location that was examined but then discounted, due to having to build a gravel berm or sheet piling and not enough time to fully mature and age spoils to use for project. Is circle next to Gull Island another place we looked? Yes. **GM (EPA)**: What is the red hatching indicated on the nautical chart of potential spoil disposal locations? Polar bear critical habitat no activity zone. **DNR**: Have any sediment quality samples been taken? Yes, in the past some have been taken; we have access to existing data and have used it to identify our own needs. Based on the information we have, the material is suitable for disposal, but APP will be undertaking their own sampling this year. **FM (FWS)**: Is building an island discounted because of the silt content? Not entirely; it also has to do with the nesting eiders that will be present when we would need to deposit the material there. There are also issues with polar bears, logistics, and the material not being suitable; would need a lot more buildup of infrastructure to contain it. **DNR**: What is the water depth where you propose to dispose of the spoil? In between the 20 to 25 foot contour.	Eadie	

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	GM (EPA): Are the green lines the limit of the dredging proposed for the channel? Yes. **GM (EPA):** Have you considered smaller modules to avoid dredging entirely? Yes, but it would result in additional manpower to put together the more numerous modules, more barges than probably exist to transport the additional, smaller modules, and not enough time or cost to pull it together if broken down into pieces small enough not to do any dredging. **DL (FERC):** Will you be conducting turbidity and sedimentation modeling at the dredging and disposal areas to determine how far the sediment plume would go? We will be examining the requirements for that in the permitting discussions. **JM (OFC):** Why is the channel 260 feet wide when the barges are only 140 feet wide? The channel is wide enough to accommodate the navigation needed with the winds expected off the coast. There has to be safety involved in navigating modules these large and that create their own sail in the winds expected. May consider increasing width of dredged channel. **Argonne:** Is the channel then wide enough? At this time, yes. **BB (USACE)**: Was onshore disposal examined? Yes, the saline content of the sediments was considered too high for onshore disposal, not appropriate for wetlands, and it's not sandy enough for beach replenishment. **TR (EPA):** For each dredging season, have you figured out the fuel required for the vessels and equipment and where it will be stored and how it will be transferred to the dredging equipment? Yes, the channel will be dredged in one season, less than 30 days. So the dredger likely won't need to refuel during the dredging. Different dredgers will be brought in for the maintenance dredging and likely will also not need to refuel. There was a discussion about the need to document the logistics to show where and how equipment will be moved in, fueled, serviced, etc.; may or may not need to refuel at base of West Dock; working with a logistics company on it. **TR (EPA):** Would you over-winter the dredge ahead of time? Not sure yet. We may mobilize pipe and other stuff ahead of time. Initial dredging is planned for 2015; then dredge would be gone after initial season. Would mobe maintenance dredge in later seasons with different equipment. **CM (EPA):** Will over-dredging be needed? What would the depth of over-dredging be? Currently anticipating about 2 feet or about 150,000 cubic yards of over-dredging; we'd have to characterize it further.	Eadie (cont.)	

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6.	Questions during Regulatory presentation **CM (EPA)**: The potential variance of turbidity standards for the 401 water quality certificate, is that for the whole pipeline or the GTP? The context here is for the GTP. **FM (FWS)**: Following up on Danny's (FERC's) comments about turbidity and sedimentation modeling, it will be needed at the disposal site to see how far the sedimentation will carry and what it could impact. Yes, agreed. Ryan Childs will be meeting with agencies at a break-out session today in afternoon to look at options and details of APP dredging study. **AC (NOAA)**: Will there be other users of the disposal area? It would only be for our project and has limited timeframe for authorization up to 5 years under Section 103. If someone else wants to use the disposal area after APP has constructed the GTP, then they would be required to undergo their own permitting to use the site. **COE:** Confirmed that the alternative site selection is good for up to 5 years. Can do it for up to 7 years, but typical is 5 years. **RM (Argonne)**: Has it been determined yet if more than one year of sampling will be required? Not yet. This year our driver is to collect majority of remaining field studies needed to move forward with FERC application by 2012, but could still do additional studies later for any followup or more specific studies that might be necessary. **GM (EPA)**: Will you collect infaunal and epifaunal biological data at both the dredge and the disposal areas? Yes, the plan this summer is to do both infaunal and epifaunal at the disposal site to look collectively at all data needed for permit, but recognize in dredge area probably have to go back once channel is finalized by engineers. Intent is to build on existing data. **DL (FERC)**: Any ballast water discharge or intake for the barges? Not at this time. **CM (EPA)**: What is the composition % of CO2 and H2S going back to the producers? About 98-99% CO2, 1000 ppm H2S, and 1% hydrocarbon content. What will the producers do with the CO2? Final plans for disposition are up to the producers.	Childs	
7.	Adjourn		1230

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ALASKA PIPELINE PROJECT

An Unincorporated Joint Project

MEETING AGENDA/MINUTES (MoM)		
	Project Name:	**Alaska Pipeline Project**
	Meeting Subject:	APP Dredging Workshop Breakout Session with Agencies, Marriott Hotel, Anchorage, AK
	Date of Meeting: MoM Number:	May 12, 2011, 1:45PM
	Meeting Notes by:	J. Glaspell, N. Darigo

ATTENDED BY:	ORGANIZATION:	ATTENDED BY:	ORGANIZATION:
Subset of agency staff who participated in the morning dredging workshop session presentation by APP		Bob Eadie, Raul Lopez, Ryan Childs, Terry Wolverton, Jack Colonell, Jim Glaspell, Karen Brown, Nancy Darigo, Dave Erikson	APP/ERL/ERSS
		Danny Lafoon (FERC) Ted Rockwell (EPA) Mark Jen (EPA) Gayle Martin (EPA) Chris Meade (EPA) Birdie Budnik (USACE) Heather Ptak (OFC) Julie McKim (OFC) Mike Holley (USACE)	Federal Agencies

Item	Agenda Item	Leader	Time
1.	Introduction – Overview of purpose of breakout session, and objectives of discussion APP summer 2011 plans for dredge channel sediment sampling and offshore disposal area study. • Marine study purpose and approach – Dave Erikson • Permitting options and intent – Karen Brown • Open discussion of options and requirements with agency representatives	Childs	1345
2.	• APP planning to characterize sediments in proposed dredge channel area. • At potential offshore disposal area, summer 2011 planning for benthic sampling. • Bottom grab samples for infauna, sediment chemistry, current monitoring buoys, bathymetric survey, limited trawl passes for demersal fish and epibenthic invertebrates. • Some hydrocarbon chemistry. • Water column/water quality samples.	Erikson	
3.	• Intent is to collect all data needed for an offshore disposal permit, but not dredge channel. • For dredged channel area, engineering needs physical characteristics of sediment for planning of appropriate equipment and logistics. • After proposed dredge channel location is refined, additional studies will be done to collect pertinent information in area to be dredged.	Brown	
4.	• Dredge area sampling map passed around table.	Darigo	

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5.	Questions from participants **GM (EPA);** How are benthic samples being collected? Van Veen/ bottom grab samples; bottom trawl for epibenthics; no traps, no diving. **CM (EPA):** Could EPA review the sampling and analysis plan – not required by law to have COE review but interested in sampling protocol? Yes; definitely want agency feedback on sampling protocols and area of proposed study. **TR (EPA):** EPA has guidance on sampling protocols. **CM (EPA):** Guide has been provided to Julie McKim; EPA is not prepared to take on an ocean survey at this time; same criteria have to be met whether it's for Section 102 or 103; use same parameters that EPA would use to designate a disposal site. **KB (APP):** Some of the guidance parameters don't apply to the Beaufort site; for example, may not have to do night sampling; APP is tailoring it for our environment. **CM (EPA):** Be sure to look at broader nationwide guidance from EPA. There may also be specific issues that may come up in our environment that aren't in regs; for example, subsistence big deal here but not in L48; we'd want to see that. Will want to see rationale if not doing certain tests. **KB (APP):** APP recognizes we will need a LOA, Plan of Cooperation; sediment sampling target is currently mid-August; benthic and water quality currently planned for mid-July 2011. **RC (APP):** Subsistence data gathering is a responsibility of APP community outreach; Mark Jennings will be the responsible individual for APP. **CM (EPA):** There are protocols for characterizing dredged material, an inland testing manual, and an ocean testing manual. The regional manual from 2008 for Washington state does not apply directly (excludes AK); ok to borrow from it as long as national guidance is followed; other dredging and dredge disposal guidance is from 1998 national manual. **TR (EPA):** Is APP looking at potential contaminated sediments in dredge channel? If so, dredge material sampling should follow ocean testing manual. **ND (APP):** Some samples from the proposed dredge channel will be tested; one of the guidance documents identifies frequency of sampling. **HP (OFC):** When will the detailed dredge sampling for contaminants be done? **KB (APP):** Probably in the year immediately before initial dredging. **DL (FERC):** Still will need additional information for EIS impact evaluation. **RC (APP):** Review needs to be included in the EIS. **TR (EPA):** Permit level of detail needs to be included for alternatives to proposed project, if alternatives are agency directed. Do we want to roll the dice and risk that another alternative may be selected by agencies? **KB (APP):** There is considerable background information available - it is not a resource information frontier. **RC (APP):** Trying to understand what ERSS needs to provide for planned field study effort for 2011; what is time frame for getting information to agencies? **KB (APP):** July 15th is the planned start date for offshore sampling work; hope to have draft sampling plan nearing completion within a week and have serious discussion on details. **CM (EPA)/ MH (COE):** CM out next week; MH out week after. **CM (EPA):** In relation to dredge materials testing, lot of similarities between manuals; both are 4-tiered; one of fundamental differences is that CWA gives COE much more flexibility in what is required; ocean dumping is much more prescriptive; bioassay is needed unless APP can meet one of three exclusion criteria. **KB (APP):** ERSS contractor PENTEC has previously done this type of sampling before, so we want to include them in the discussions.	Childs, APP, agencies	

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	CM (EPA): APP has described proposed action and preferred alternative; is APP planning to sample other alternative disposal locations? **KB (APP):** Don't think so this season; we've done quite a bit of work to zero in on proposed disposal area with GTP engineering folks. For disposal area sampling this season, APP will need to coordinate with USCG and West Dock users group; planning on doing up- and down-current sites, plus reference area, but not alternative areas. **CM (EPA):** We'll have to consult within EPA/COE to see if more than 1 area would need to be sampled. Ocean dump criteria question - regardless of whether EPA does a 102 site selection or COE permits a 103 site, if ocean disposal is needed the preference is for a disposal site located beyond the continental shelf break. Do we know how far out it is? **ND (APP):** About 50 miles, but what is the agency definition of continental shelf break? **CM (EPA):** EPA will have to get back to APP; Mike Holly (USACE) indicated that his agency does not have definition for continental shelf break. **TR (EPA):** Work is currently ongoing to define outer continental shelf from State Department perspective (using % slope for a certain distance beyond a certain depth); work is not being done by NOAA; Information Exchange Meeting in Anchorage several months ago addressed this as an issue; probably worth looking at these discussions and concepts for a continental shelf definition. **RC (APP):** Since several regulators will be out of office for a while (Meade, Holly), what time frame are we looking at to continue discussions and share information? **KB (APP):** Important item right now is keeping an open dialogue and exchange of information. **MH (USACE):** We'll be relying heavily on Chris' (EPA's) analysis. **TR (EPA):** Some information like thermoclines may be appropriate to consider in sampling plan, as it affects fish movements. **CM (EPA):** Use regulations as a guide, and if deviation is deemed pertinent, give reason why and get agency buy-in. **TR (EPA):** Night time sampling - we don't get "night" in Arctic, but darkness is important to laminaria (kelp) on boulder patch and under ice; don't assume that night time testing is not needed; important to lay out logic train for reasonable reader to agree/disagree. **HP (OFC):** Will the sampling protocols be ready next week? **KB (APP):** No, but APP would like feedback on all these items before Chris Meade returns from vacation last week of May 2011. **TR (EPA):** Benthic sampling – there's more going on in substrate, even in grounded ice areas; don't fall prey to urban myths about benthic community value in grounded ice areas; question 20-year old assumptions. **DE (APP):** APP will be using Van Veen grab benthic samples in dredge area (top 4-6"). **CM (EPA):** Has APP developed a list of chemicals/contaminants of concern (metals, hydrocarbons)? **ND (APP):** APP using the results of previous studies; about 10% of the proposed dredge area sediment samples will be subjected to more intensive analysis. **CM (EPA):** Will APP be testing for any persistent bioaccumulatives? **ND (APP):** Plan for bioassay is to hold some samples in storage in the event that testing has "hits". **CM (EPA):** APP has provided a sufficient exchange of informal information to agencies, but at this point we need to review documents with details that will let agencies provide comments. **DE (APP):** What is agency feel regarding how "different" disposal locations need to be as disposal alternatives?	Childs, APP, agencies (cont.)	

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	CM (EPA): Alternatives should be responsive to project issues (subsistence, navigation, etc). **TR (EPA):** If he was reviewing APP alternatives, Ted would ask why disposal is proposed within the barrier islands when we've spent 30 years protecting it, rather than outside the barrier islands. EIS will have to look at alternative outside barrier islands. Why not move it to the other side of islands? Onshore alternatives need to be addressed, but can be readily dismissed; take a look in broad terms how APP would describe where the material is being disposed offshore; is alternative adequately covered. **MH (USACE):** Not every alternative needs to be studied and sampled. **GM (EPA):** Were other alternatives considered for the dredge and disposal sites? **RC (APP):** Resource Report #10 currently has limited information, and is likely that RR that will be expanded the most; a comprehensive RR will address all alternatives in Dec 2011. **KB (APP):** We have talked about some beneficial use alternatives with USFWS and NMFS, and ended up dismissing them. **CM (EPA):** Concern is making sure the right information is gathered, and also how it is presented; all parts of MPRSA may be addressed, but the data will be dispersed among all the RRs (makes it difficult for EPA to comprehensively evaluate compliance with ocean dumping criteria). Suggest putting it all in an appendix that specifically addresses ocean dumping criteria. **DL (FERC):** We'd be open to that. **TR (EPA):** Making the decision for 102 or 103 will be interesting; appendices will be valuable to steer the public to. **JM (OFC):** If APP is on the 103 path, how does EPA concur with COE decision? **MH (USACE):** Process would be as prescribed. Do a 255 public notice and 10 other pieces of information; there are so many days to review and ask for more information; EPA can concur, decline to concur (no answer), or fail to concur (move forward without EPA concurrence). Section 103 is much more streamlined than 102, which has to go through rulemaking.	Childs, APP, agencies (cont.)	
6.	Wrap up - Our next step is to finalize sampling plan and maybe do some phone calls back and forth.	Childs	1515

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