

# CONTENTS

## VOLUME 2

1	Introduction .....	1-1
1.1	Purpose and Need .....	1-1
1.2	Scope of the Decision and Analysis .....	1-2
1.3	Description of the TAPS and Its Surrounding Area .....	1-3
1.4	Relationships of the TAPS to BLM Policies, Plans, and Programs .....	1-5
1.5	References for Chapter 1 .....	1-5
2	Alternatives .....	2-1
2.1	Introduction .....	2-1
2.2	Proposed Action — Renew Federal Grant for 30 Years .....	2-1
2.2.1	Projected TAPS Operation .....	2-1
2.2.2	Requirements and Responsibilities under the Federal Grant .....	2-2
2.2.3	Projected BLM Oversight .....	2-3
2.3	Time-Dependent Alternative: Renew Federal Grant for less than 30 Years .....	2-5
2.4	No-Action Alternative: Do Not Renew Federal Grant .....	2-5
2.5	Alternatives and Issues Considered but Eliminated from Detailed Analysis .....	2-5
2.6	Comparison of Alternatives .....	2-16
2.7	References for Chapter 2 .....	2-16
3	Affected Environment .....	3.1-1
3.1	TAPS Background .....	3.1-1
3.1.1	History .....	3.1-1
3.1.2	Existing Infrastructure .....	3.1-3
3.1.2.1	Infrastructures Directly along the TAPS ROW .....	3.1-5
3.1.2.2	Infrastructures for Other Components of the Alaska North Shore Oil Production and Transportation System .....	3.1-19
3.2	Physiography and Geology .....	3.2-1
3.2.1	Arctic Coastal Plain .....	3.2-1
3.2.2	Arctic Foothills .....	3.2-1
3.2.3	Brooks Range .....	3.2-4
3.2.4	Chandalar Ridge and Lowland Section .....	3.2-4
3.2.5	Kokrine-Hodzana Highlands and Yukon-Tanana Uplands .....	3.2-5
3.2.6	Tanana Lowland .....	3.2-5
3.2.7	Northern Foothills and Alaska Range .....	3.2-5
3.2.8	Gulkana Upland .....	3.2-6
3.2.9	Copper River Lowland .....	3.2-6
3.2.10	Chugach Mountains .....	3.2-7
3.3	Soils and Permafrost .....	3.3-1
3.3.1	Descriptions of Soils and Permafrost Conditions by Physiographic Province .....	3.3-2
3.3.1.1	Arctic Coastal Plain .....	3.3-2
3.3.1.2	Arctic Foothills .....	3.3-2
3.3.1.3	Brooks Range .....	3.3-2
3.3.1.4	Chandalar Ridge and Lowland Section .....	3.3-2
3.3.1.5	Kokrine-Hodzana Highlands and Yukon-Tanana Uplands .....	3.3-3
3.3.1.6	Tanana Lowland .....	3.3-3
3.3.1.7	Northern Foothills and Alaska Range .....	3.3-4

## CONTENTS (Cont.)

3.3.1.8	Gulkana Upland.....	3.3-4
3.3.1.9	Copper River Lowland.....	3.3-4
3.3.1.10	Chugach Mountains.....	3.3-4
3.3.2	Geomorphic Processes Related to Soils and Permafrost.....	3.3-5
3.3.2.1	Mass Wasting Processes.....	3.3-5
3.3.2.2	Permafrost Degradation and Aggradation.....	3.3-5
3.3.3	Existing Contaminated Sites.....	3.3-7
3.4	Seismicity.....	3.4-1
3.4.1	Seismicity and Faults.....	3.4-1
3.4.2	Seismic Hazards, Designed Seismic Zones, and Ground Motions.....	3.4-2
3.5	Sand, Gravel, and Quarry Resources.....	3.5-1
3.6	Paleontology.....	3.6-1
3.7	Surface Water Resources.....	3.7-1
3.7.1	Hydrological Regions.....	3.7-1
3.7.1.1	North of the Brooks Range.....	3.7-1
3.7.1.2	South Side of the Brooks Range.....	3.7-2
3.7.1.3	Interior.....	3.7-2
3.7.1.4	Alaska Range.....	3.7-3
3.7.1.5	Glennallen to Valdez.....	3.7-3
3.7.2	Existing Conditions and Historical Impacts.....	3.7-3
3.7.2.1	Erosion and Sedimentation.....	3.7-4
3.7.2.2	Flooding.....	3.7-6
3.7.2.3	Surface Water Use along the ROW.....	3.7-7
3.7.2.4	Contingency Plans.....	3.7-8
3.7.2.5	Surface Water Quality along the ROW.....	3.7-9
3.7.2.6	Historical Spills of Crude Oil.....	3.7-11
3.8	Groundwater Resources.....	3.8-1
3.9	Physical Marine Environment.....	3.9-1
3.9.1	Location and Description.....	3.9-1
3.9.2	Bathymetry.....	3.9-2
3.9.3	Hydrography and Circulation.....	3.9-2
3.10	Marine Water Chemistry.....	3.10-1
3.10.1	General Marine Water Chemistry.....	3.10-1
3.10.2	Nutrients.....	3.10-1
3.11	Anthropogenic Influences on Physical Marine Environment.....	3.11-1
3.11.1	Discharges from the Valdez Marine Terminal.....	3.11-1
3.11.1.1	Conditions.....	3.11-1
3.11.1.2	Mitigation.....	3.11-3
3.11.2	Trace Elements.....	3.11-3
3.11.2.1	Conditions.....	3.11-3
3.11.2.2	Mitigation.....	3.11-4
3.11.3	Hydrocarbons.....	3.11-4
3.11.3.1	Conditions.....	3.11-4
3.11.3.2	Mitigation.....	3.11-5

## CONTENTS (Cont.)

3.11.4	TAPS-Related Marine Transportation .....	3.11-6
3.11.4.1	Tanker Traffic.....	3.11-6
3.11.4.2	Ship Escort/Response Vessel System .....	3.11-6
3.11.4.3	Valdez Marine Terminal Operations .....	3.11-6
3.11.4.4	Procedures for Tanker Operations .....	3.11-7
3.11.5	Exxon Valdez Spill.....	3.11-8
3.11.5.1	Background.....	3.11-8
3.11.5.2	Current Conditions.....	3.11-9
3.11.6	Tsunamis .....	3.11-9
3.12	Climate and Meteorology .....	3.12-1
3.12.1	Wind .....	3.12-1
3.12.2	Temperature and Humidity .....	3.12-1
3.12.3	Precipitation and Evaporation .....	3.12-2
3.12.4	Fog.....	3.12-2
3.12.5	Severe Weather.....	3.12-2
3.12.6	Atmospheric Dispersion Characteristics .....	3.12-2
3.12.7	Climate Change in Alaska .....	3.12-6
3.12.7.1	Introduction .....	3.12-6
3.12.7.2	Historical Climate Trends in Alaska.....	3.12-6
3.13	Air Quality .....	3.13-1
3.13.1	Existing Emissions .....	3.13-1
3.13.1.1	Criteria Pollutants .....	3.13-5
3.13.1.2	Hazardous Air Pollutants .....	3.13-9
3.13.1.3	Other Emissions .....	3.13-9
3.13.2	Existing Air Quality .....	3.13-9
3.13.2.1	Criteria Pollutants .....	3.13-9
3.13.2.2	Hazardous Air Pollutants .....	3.13-18
3.13.2.3	Visibility.....	3.13-18
3.13.2.4	Acid Deposition.....	3.13-21
3.14	Noise.....	3.14-1
3.15	Transportation.....	3.15-1
3.15.1	Aviation Transportation Systems.....	3.15-1
3.15.2	Marine Transportation Systems .....	3.15-2
3.15.3	Rail Transportation Systems .....	3.15-2
3.15.4	Road Transportation Systems .....	3.15-3
3.16	Hazardous Materials and Waste Management.....	3.16-1
3.16.1	Hazardous Material Usage .....	3.16-1
3.16.2	Hazardous Waste .....	3.16-1
3.16.3	Solid Waste .....	3.16-2
3.16.4	Wastewater.....	3.16-2
3.16.5	Special Wastes.....	3.16-3
3.17	Human Health and Safety .....	3.17-1
3.17.1	Occupational.....	3.17-1
3.17.2	Public.....	3.17-2
3.17.2.1	Body Burdens of Key Contaminants.....	3.17-2
3.17.2.2	Cancer Rates among Alaska Natives .....	3.17-6
3.17.2.3	Background on Human Health Risk Assessment.....	3.17-8

## CONTENTS (Cont.)

3.17.2.4	Hazardous Air Pollutants in Ambient Air and Potential Health Hazards.....	3.17-8
3.17.2.5	Existing Site Contamination.....	3.17-10
3.18	Terrestrial Vegetation and Wetlands .....	3.18-1
3.18.1	TAPS ROW.....	3.18-1
3.18.1.1	Lowland Tundra.....	3.18-1
3.18.1.2	Upland Tundra.....	3.18-9
3.18.1.3	Boreal Forest.....	3.18-13
3.18.1.4	Coastal Forest.....	3.18-16
3.18.2	Beaufort Sea.....	3.18-17
3.18.3	Prince William Sound .....	3.18-18
3.19	Fish, Reptiles, and Amphibians .....	3.19-1
3.19.1	Fish.....	3.19-1
3.19.1.1	TAPS ROW.....	3.19-1
3.19.1.2	Beaufort Sea.....	3.19-31
3.19.1.3	Prince William Sound .....	3.19-33
3.19.2	Reptiles and Amphibians.....	3.19-37
3.20	Birds.....	3.20-1
3.20.1	TAPS ROW.....	3.20-1
3.20.1.1	Waterfowl, Seabirds, and Shorebirds.....	3.20-1
3.20.1.2	Raptors .....	3.20-4
3.20.1.3	Grouse and Ptarmigan.....	3.20-5
3.20.1.4	Passerines.....	3.20-5
3.20.2	Beaufort Sea.....	3.20-5
3.20.3	Prince William Sound .....	3.20-7
3.21	Terrestrial Mammals.....	3.21-1
3.21.1	TAPS Row.....	3.21-1
3.21.1.1	Moose.....	3.21-1
3.21.1.2	Caribou .....	3.21-2
3.21.1.3	Musk Ox.....	3.21-6
3.21.1.4	American Bison.....	3.21-6
3.21.1.5	Dall Sheep .....	3.21-8
3.21.1.6	Sitka Black-Tailed Deer .....	3.21-8
3.21.1.7	Mountain Goat .....	3.21-9
3.21.1.8	Brown Bear .....	3.21-9
3.21.1.9	Black Bear .....	3.21-10
3.21.1.10	Gray Wolf.....	3.21-10
3.21.1.11	Other Species .....	3.21-11
3.21.2	Beaufort Sea.....	3.21-11
3.22	Threatened, Endangered, and Protected Species .....	3.22-1
3.22.1	TAPS Row.....	3.22-1
3.22.1.1	Spectacled Eider .....	3.22-7
3.22.1.2	Steller's Eider .....	3.22-8
3.22.1.3	Eskimo Curlew.....	3.22-8
3.22.1.4	Arctic Peregrine Falcon .....	3.22-9
3.22.1.5	American Peregrine Falcon.....	3.22-9
3.22.2	Beaufort Sea.....	3.22-10
3.22.2.1	Bowhead Whale.....	3.22-10
3.22.2.2	Gray Whale.....	3.22-11

## CONTENTS (Cont.)

3.22.2.3	Beluga Whale .....	3.22-12
3.22.2.4	Pacific Walrus .....	3.22-12
3.22.2.5	Spotted Seal .....	3.22-13
3.22.2.6	Ringed Seal .....	3.22-13
3.22.2.7	Bearded Seal .....	3.22-14
3.22.2.8	Polar Bear .....	3.22-14
3.22.3	Prince William Sound .....	3.22-15
3.22.3.1	Humpback Whale .....	3.22-16
3.22.3.2	Fin Whale.....	3.22-16
3.22.3.3	Steller Sea Lion .....	3.22-17
3.22.3.4	Harbor Seal.....	3.22-18
3.22.3.5	Sea Otter .....	3.22-19
3.23	Economics .....	3.23-1
3.23.1	North Slope Oil Production and World Oil Prices .....	3.23-1
3.23.2	National Economic Issues .....	3.23-1
3.23.2.1	Domestic Oil Production and National Energy Security .....	3.23-2
3.23.2.2	Balance of Trade .....	3.23-2
3.23.2.3	Federal Tax Revenues .....	3.23-2
3.23.2.4	Marine Transportation .....	3.23-2
3.23.3	State Economic Issues .....	3.23-3
3.23.3.1	Population.....	3.23-3
3.23.3.2	Gross State Product .....	3.23-3
3.23.3.3	Employment and Unemployment .....	3.23-5
3.23.3.4	Personal Income.....	3.23-5
3.23.3.5	State and Local Government Revenues and Expenditures .....	3.23-7
3.23.3.6	Public Services .....	3.23-10
3.23.4	Alaska Regional Economic Issues .....	3.23-12
3.23.4.1	Population.....	3.23-12
3.23.4.2	Employment and Unemployment .....	3.23-12
3.23.4.3	Personal Income.....	3.23-13
3.23.4.4	Local Government Revenues and Expenditures .....	3.23-14
3.23.4.5	Education.....	3.23-15
3.23.5	Village Economies .....	3.23-15
3.23.6	Subsistence .....	3.23-18
3.23.7	Alaska Native Corporations .....	3.23-19
3.24	Subsistence .....	3.24-1
3.24.1	Introduction.....	3.24-1
3.24.2	Community Harvest Patterns.....	3.24-3
3.24.2.1	North Slope.....	3.24-5
3.24.2.2	Yukon River Drainage .....	3.24-13
3.24.2.3	Copper River Basin .....	3.24-23
3.24.2.4	Prince William Sound and Lower Cook Inlet .....	3.24-33
3.24.3	Access to Subsistence Resources .....	3.24-41
3.24.4	Sport Harvests Versus Subsistence.....	3.24-43
3.25	Sociocultural Systems .....	3.25-1
3.25.1	Alaska Native Sociocultural Systems .....	3.25-1
3.25.1.1	Major Alaska Native Sociocultural Systems along the TAPS.....	3.25-3
3.25.1.2	Alaska Native Claims Settlement Act .....	3.25-16
3.25.1.3	Overview of Modern Alaska Native Sociocultural Concerns and Benefits .....	3.25-18
3.25.2	Non-Native Rural Alaskan Sociocultural Systems .....	3.25-20

## CONTENTS (Cont.)

3.26	Cultural Resources .....	3.26-1
3.26.1	Archaeological Context .....	3.26-1
3.26.2	Known Cultural Resources .....	3.26-1
3.26.3	Traditional Cultural Properties .....	3.26-5
3.26.4	Historic Structures .....	3.26-5
3.27	Land Uses and Coastal Zone Management .....	3.27-1
3.27.1	Land Ownership and Uses .....	3.27-1
3.27.1.1	Land Ownership .....	3.27-1
3.27.1.2	Land Uses .....	3.27-2
3.27.1.3	Special Land Uses .....	3.27-3
3.27.2	Coastal Zone Management .....	3.27-3
3.28	Recreation, Wilderness, and Aesthetics .....	3.28-1
3.28.1	Recreation .....	3.28-1
3.28.2	Wilderness .....	3.28-5
3.28.3	Aesthetics .....	3.28-6
3.29	Environmental Justice .....	3.29-1
3.29.1	Minority Populations .....	3.29-2
3.29.2	Low-Income Populations .....	3.29-3
3.30	References for Chapter 3 .....	3.30-1

## TABLES

### VOLUME 2

2-1	TAPS ROW Renewal FEIS Summary of Direct and Indirect Effects .....	2-17
3.1-1	Summary of Major Features of the Trans Alaska Pipeline System .....	3.1-4
3.1-2	Location and Characteristics of Water Wells along the TAPS ROW .....	3.1-8
3.1-3	Typical Sanitary Discharges from Pump Stations and Mobile Contingency Camp Facilities .....	3.1-9
3.1-4	Features and Capabilities of the TAPS Control System .....	3.1-13
3.1-5	Salient Aspects of the TAPS Fire Protection Response Teams .....	3.1-13
3.1-6	TAPS Oil Spill Major Contingency Equipment .....	3.1-15
3.1-7	Summary of Facilities at Valdez Marine Terminal .....	3.1-18
3.2-1	Physiographic Provinces Crossed by the TAPS ROW .....	3.2-2
3.2-2	Geologic Time Line .....	3.2-2
3.2-3	Special Terms Used in Section 3.2 .....	3.2-3
3.3-1	27 Active Contaminated Sites along the TAPS .....	3.3-8
3.3-2	Active Contaminated Sites at the Valdez Marine Terminal .....	3.3-11
3.4-1	Seismic Design Zones for Design Contingency Earthquake .....	3.4-3
3.4-2	Design Ground Motions for Design Contingency Earthquake .....	3.4-4
3.4-3	Peak Ground Acceleration and the Design Ground Acceleration for a Design Contingency Earthquake .....	3.4-4
3.4-4	Engineering Design Criteria of Pipeline for Ground Movement for Active Fault Zone Crossings .....	3.4-5
3.5-1	Active TAPS Operations Material Sites on Public Lands .....	3.5-2
3.6-1	Marine Invertebrate Fossils .....	3.6-3
3.6-2	Paleontological Sites near the TAPS ROW .....	3.6-3
3.7-1	Historical Activities Performed for River Control along the ROW .....	3.7-5
3.8-1	Six Contaminated Sites along the TAPS ROW .....	3.8-4
3.11-1	Monitoring Schedules at Valdez Marine Terminal Required by NPDES Permit .....	3.11-3
3.12-1	Summary of Climatic and Meteorological Data at Six NWS Stations along the TAPS .....	3.12-3

## TABLES (Cont.)

3.13-1	Stationary Emission Sources Installed at TAPS Pump Stations .....	3.13-2
3.13-2	Stationary Emission Sources Installed at Valdez Marine Terminal .....	3.13-4
3.13-3	Estimated Potential Emissions of Criteria Pollutants from Existing TAPS Facility Sources.....	3.13-6
3.13-4	Comparison of Estimated Potential Emissions from TAPS Facilities with Those from Major Facilities Located in Adjacent Areas .....	3.13-7
3.13-5	Estimated 2001 Emissions of Criteria Pollutants and VOCs from Vehicles Used for TAPS Operation .....	3.13-8
3.13-6	Estimated Potential Emissions of Hazardous Air Pollutants from TAPS Facility Sources .....	3.13-10
3.13-7	Inventory and Emissions of Ozone Depleting Substances from TAPS Facilities .....	3.13-11
3.13-8	National Ambient Air Quality Standards, Alaska Ambient Air Quality Standards, and Maximum Allowable Increments for Prevention of Significant Deterioration .....	3.13-12
3.13-9	Monitored and Modeled Ambient Data for Criteria Pollutants in and around TAPS Facilities.....	3.13-15
3.13-10	Ambient Air Quality Trends in the Prudhoe Bay Area.....	3.13-19
3.13-11	Ambient Concentrations of Hazardous Air Pollutants in the Valdez Area Prior to Installation of Tanker Vapor Recovery System at the Valdez Marine Terminal .....	3.13-20
3.14-1	Direction and Distance of Nearest Human Residence and Town from Each TAPS Facility .....	3.14-3
3.15-1	Average Daily Traffic Counts on the Richardson Highway for the Year 2000 .....	3.15-4
3.17-1	Annual Incidence Rates of Occupational Injuries and Illnesses to TAPS Employees and Contractors, 1995-2001 .....	3.17-3
3.17-2	Measures of PCBs in Tissues of Alaska Natives and Western Canadian Inuit.....	3.17-5
3.17-3	Measures of Mercury in Tissues of Alaska and Canadian Natives .....	3.17-7
3.17-4	Valdez Area Ambient VOC Concentrations and Risk-Based Guideline Levels.....	3.17-11
3.18-1	Wetland Systems and Classes along the TAPS ROW, Beaufort Sea, and Prince William Sound.....	3.18-2
3.18-2	Vegetation Types and Associated Landforms Found in Each Major Vegetation Zone Crossed by the TAPS ROW.....	3.18-3
3.19-1	Fish Species Occurring within Major Regions along the TAPS ROW .....	3.19-2
3.19-2	Fish Streams along the TAPS Corridor .....	3.19-8
3.20-1	Important Waterfowl Concentration Use Areas near the TAPS ROW .....	3.20-3



## TABLES (Cont.)

3.21-1	Important Moose Habitat Areas near the TAPS ROW.....	3.21-2
3.21-2	Harvest Summaries for Alaska Wildlife within the Game Management Units That Are Crossed by or Occur near the TAPS ROW.....	3.21-3
3.21-3	Caribou Herd Size, Harvest Summaries, and Limiting Factors for Herds Occurring near the TAPS ROW .....	3.21-4
3.22-1	Threatened, Endangered, and Protected Species That Could Occur in the Vicinity of the TAPS or in the Beaufort Sea or Prince William Sound.....	3.22-2
3.23-1	Trends in North Slope Oil Production and World Crude Prices.....	3.23-2
3.23-2	Alaska Population Statistics, 1970–2000.....	3.23-3
3.23-3	Alaska Gross State Product by Industry .....	3.23-4
3.23-4	Total Employment in Alaska by Industry.....	3.23-6
3.23-5	Unemployment Rates .....	3.23-7
3.23-6	State Personal Income and Alaska Permanent Fund Dividend.....	3.23-8
3.23-7	State Government Revenues .....	3.23-9
3.23-8	Local Government Revenues .....	3.23-10
3.23-9	State Government Expenditures.....	3.23-11
3.23-10	Local Government Expenditures .....	3.23-11
3.23-11	State Public Service Employment Data, 2000.....	3.23-12
3.23-12	Pipeline Corridor Region Population .....	3.23-13
3.23-13	Pipeline Corridor Region Employment by Industry, 1999.....	3.23-14
3.23-14	Pipeline Corridor Region Unemployment Rates.....	3.23-15
3.23-15	Pipeline Corridor Region Personal Income.....	3.23-16
3.23-16	Pipeline Corridor Region Local Government Tax Revenues, 2000.....	3.23-17
3.23-17	Pipeline Corridor Region Local Government Expenditures, 2000.....	3.23-18
3.23-18	Pipeline Corridor Region Local Education Data, 1999 .....	3.23-18
3.24-1	Subsistence Resource Pounds Harvested per Capita in Directly Affected and Other Selected Rural Communities, Selected Recorded Year.....	3.24-7
3.24-2	Percent Households in Directly Affected and Other Selected Rural Communities Participating in Subsistence Harvest, Selected Recorded Year.....	3.24-11
3.25-1	Directly Affected Villages in the Vicinity of the TAPS .....	3.25-5

**TABLES (Cont.)**

3.25-2	Selected Characteristics of Regional Sociocultural Systems, Shortly after Contact, in the Vicinity of the TAPS.....	3.25-7
3.25-3	Non-Native Rural Communities in the Vicinity of the TAPS .....	3.25-21
3.26-1	Prehistoric Context for Areas along the TAPS ROW.....	3.26-2
3.26-2	Alaska Historic Time Line .....	3.26-3
3.26-3	Cultural Resources Located along the TAPS .....	3.26-4
3.27-1	Conservation System Units in the Vicinity of TAPS.....	3.27-5
3.28-1	Visual Resources, Viewpoints, and Overlooks along the TAPS ROW Corridor.....	3.28-7
3.29-1	Minority and Low-Income Percentages for the State of Alaska, 29 Block Groups Intersecting the TAPS, and 45 Communities Likely To Be Affected Directly by Continued TAPS Operation, 2000 .....	3.29-4

## FIGURES

### VOLUME 2

3.1-1	Water Use at TAPS Facilities, 1994–1999 .....	3.1-7
3.1-2	Operations Control Center at Valdez Marine Terminal.....	3.1-12
3.1-3	Valdez Marine Terminal.....	3.1-17
3.9-1	Changes in Temperature and Salinity Distributions in Port Valdez .....	3.9-3
3.11-1	Annual Flow and Levels of Benzene, Toluene, Ethylbenzene, and Xylene and Total Suspended Solids for Valdez Marine Terminal Treated Ballast Water Discharges .....	3.11-2
3.12-1	Trends in Annual Average Temperatures at Six National Weather Service Stations along the TAPS.....	3.12-5
3.24-1	Example Combination of Subsistence Resources on the North Slope.....	3.24-6
3.24-2	Example of the Seasonality of the Subsistence Harvest on the North Slope .....	3.24-6
3.24-3	Variability in Anaktuvuk Pass Caribou Harvest Over Time.....	3.24-11
3.24-4	Variability in Nuiqsut Subsistence Harvest Over Time .....	3.24-12
3.24-5	Example Combination of Subsistence Resources in the Yukon River Drainage .....	3.24-14
3.24-6	Example of the Seasonality of the Subsistence Harvest in the Yukon River Drainage.....	3.24-15
3.24-7	Variability in Alatna/Allakaket Subsistence Harvest Over Time .....	3.24-16
3.24-8	Variability in Alatna Subsistence Harvest of Large Mammals Over Time .....	3.24-16
3.24-9	Variability in Allakaket Subsistence Harvest of Large Mammals Over Time.....	3.24-17
3.24-10	Variability in Evansville/Bettles Subsistence Harvest Over Time .....	3.24-18
3.24-11	Variability in Evansville Subsistence Harvest of Large Mammals Over Time .....	3.24-19
3.24-12	Variability in Tanana Subsistence Harvest of Large Mammals Over Time .....	3.24-22
3.24-13	Example Combination of Subsistence Resources in the Copper River Basin .....	3.24-24
3.24-14	Example of the Seasonality of the Subsistence Harvest in the Copper River Basin.....	3.24-25
3.24-15	Variability in Chitina Subsistence Harvest Over Time .....	3.24-26
3.24-16	Variability in Copper Center Subsistence Harvest Over Time.....	3.24-27
3.24-17	Variability in Gakona Subsistence Harvest Over Time.....	3.24-28
3.24-18	Variability in Glennallen Subsistence Harvest Over Time .....	3.24-29

**FIGURES (Cont.)**

3.24-19	Variability in Gulkana Subsistence Harvest Over Time .....	3.24-30
3.24-20	Variability in Kenny Lake Subsistence Harvest Over Time .....	3.24-31
3.24-21	Variability in Tonsina Subsistence Harvest Over Time.....	3.24-33
3.24-22	Example Combination of Subsistence Resources in Prince William Sound .....	3.24-34
3.24-23	Example of the Seasonality of the Subsistence Harvest in Prince William Sound .....	3.24-35
3.24-24	Variability in Chenega Bay Subsistence Harvest Over Time.....	3.24-36
3.24-25	Variability in Cordova Subsistence Harvest Over Time.....	3.24-38
3.24-26	Variability in Nanwalek Subsistence Harvest Over Time.....	3.24-38
3.24-27	Variability in Port Graham Subsistence Harvest Over Time.....	3.24-40
3.24-28	Variability in Tatitlek Subsistence Harvest Over Time.....	3.24-41
3.24-29	Approximated Sport and Subsistence Harvests of Caribou in Uniform Coding Units that Intersect Subsistence Use Areas of Rural Communities Examined in this EIS .....	3.24-45
3.24-30	Approximated Sport and Subsistence Harvests of Mountain Goats in Uniform Coding Units that Intersect Subsistence Use Areas of Rural Communities Examined in this EIS .....	3.24-45
3.24-31	Approximated Sport and Subsistence Harvests of Moose in Uniform Coding Units that Intersect Subsistence Use Areas of Rural Communities Examined in this EIS .....	3.24-46
3.24-32	Approximated Sport and Subsistence Harvests of Dall Sheep in Uniform Coding Units that Intersect Subsistence Use Areas of Rural Communities Examined in this EIS .....	3.24-46
3.24-33	Sport Fishing Indicators North of Atigun Pass, 1983-1999.....	3.24-48
3.24-34	Sport Fishing Indicators between Atigun Pass and the Yukon River, 1995–1999 .....	3.24-49
3.24-35	Variability in Subsistence Harvests of Salmon in Communities Examined in the EIS, Grouped by Region .....	3.24-49