

**Alpine Satellite Development Plan  
Draft Environmental Impact Statement**

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## **Affected Environment**

*Section 3.0 is devoted to describing the Affected Environment.*

## **Aquatic Environment**

*See Water Resources; Surface Water Quality.*

*See also Section 4H, Other Impact Considerations.*

## **Atmospheric Environment**

*See Climate and Meteorology; Air Quality; Noise.*

*See also Section 4H, Other Impact Considerations.*

## **Air Quality**

Comments/Responses to Draft EIS: 1371

Description of Affected Environment: 194

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Effects of Alternative B: 697

Effects of Sub-Alternative C-1: 793

Effects of Sub-Alternative C-2: 883

Effects of Alternative D: 948

Effects of Preferred Alternative (Alternative F): 1098

Cumulative Effects: 1260

*See also Section 4H, Other Impact Considerations.*

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*See also Appendix C, Federal and State Laws, Regulations and Policies Applicable to the ASDP.*

*See also Section 4H, Other Impact Considerations.*

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### **Birds**

Comments/Responses to Draft EIS: 1393  
Description of Affected Environment: 233  
Effects

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Effects of Sub-Alternative C-1: 817  
Effects of Sub-Alternative C-2: 893  
Effects of Alternative D: 977  
Effects of Preferred Alternative (Alternative F): 1134  
Cumulative Effects: 1268

*See also Endangered and Threatened Species for information on the spectacled eider and Steller's eider.*

*See also Appendix E, BLM Sensitive Species List for Alaska.*

*See also Section 4H, Other Impact Considerations.*

### **Biological Resources**

*See Terrestrial Vegetation and Wetlands; Essential Fish Habitat; Fish; Birds; Mammals; Threatened and Endangered Species.*

*See also Section 4H, Other Impact Considerations.*

### **Bowhead Whale**

*See Threatened and Endangered Species.*

*See also Section 4H, Other Impact Considerations.*

### **Climate and Meteorology**

Comments/Responses to Draft EIS: 1435  
Description of Affected Environment: 188  
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Effects of Alternative A: 496  
Effects of Alternative B: 696  
Effects of Sub-Alternative C-1: 792  
Effects of Sub-Alternative C-2: 882  
Effects of Alternative D: 947  
Effects of Preferred Alternative (Alternative F): 1097  
Cumulative Effects: 1260

*See also Section 4H, Other Impact Considerations.*

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Description of Affected Environment: 329

### Effects

Summary: s-27

Effects of Alternative A: 646

Effects of Alternative B: 758

Effects of Sub-Alternative C-1: 854

Effects of Sub-Alternative C-2: 916

Effects of Alternative D: 1017

Effects of Preferred Alternative (Alternative F): 1213

Cumulative Effects: 1328

*See also Section 4H, Other Impact Considerations.*

## **Endangered and Threatened Species**

Comments/Responses to Draft EIS: 1446

Description of Affected Environment: 276

### Effects

Summary: s-20

Effects of Alternative A: 599

Effects of Alternative B: 745

Effects of Sub-Alternative C-1: 841

Effects of Sub-Alternative C-2: 909

Effects of Alternative D: 1003

Effects of Preferred Alternative (Alternative F): 1177

Cumulative Effects: 1283

*See also Appendix E, BLM Sensitive Species List for Alaska.*

*See also Section 4H, Other Impact Considerations.*

## **Environmental Justice**

Comments/Responses to Draft EIS: 1454

Description of Affected Environment: 327

### Effects

Summary: s-26

Effects of Alternative A: 639

Effects of Alternative B: 757

Effects of Sub-Alternative C-1: 854

Effects of Sub-Alternative C-2: 916

Effects of Alternative D: 1017

Effects of Preferred Alternative (Alternative F): 1206

Cumulative Effects: 1324

*See also Section 4H, Other Impact Considerations.*

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Description of Affected Environment: 218

### Effects

Summary: s-15

Effects of Alternative A: 542

Effects of Alternative B: 720

Effects of Sub-Alternative C-1: 817

Effects of Sub-Alternative C-2: 893

Effects of Alternative D: 976

Effects of Preferred Alternative (Alternative F): 1132

Cumulative Effects: 1289

*See also Appendix N, Essential Fish Habitat Assessment for the ASDP.*

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## **Fish**

Comments/Responses to Draft EIS: 1474

Description of Affected Environment: 213

### Effects

Summary: s-15

Effects of Alternative A: 529

Effects of Alternative B: 715

Effects of Sub-Alternative C-1: 810

Effects of Sub-Alternative C-2: 890

Effects of Alternative D: 971

Effects of Preferred Alternative (Alternative F): 1119

Cumulative Effects: 1265

*See also Section 4H, Other Impact Considerations.*

## **Geology**

Comments/Responses to Draft EIS: 1491

Description of Affected Environment: 155

### Effects

Summary: s-7

Effects of Alternative A: 415

Effects of Alternative B: 676

Effects of Sub-Alternative C-1: 774

Effects of Sub-Alternative C-2: 868

Effects of Alternative D: 926

Effects of Preferred Alternative (Alternative F): 1035

Cumulative Effects: 1255

*See also Section 4H, Other Impact Considerations.*

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### Effects

Summary: s-28

Effects of Alternative A: 649

Effects of Alternative B: 759

Effects of Sub-Alternative C-1: 855

Effects of Sub-Alternative C-2: 917

Effects of Alternative D: 1018

Effects of Preferred Alternative (Alternative F): 1214

Cumulative Effects: 1329

*See also Section 4H, Other Impact Considerations.*

## **Laws and Regulations**

*See Appendix C, Federal and State Laws, Regulations and Policies Applicable to the ASDP.*

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## **Mammals**

Comments/Responses to Draft EIS: 1502

Description of Affected Environment: 259

Effects

Summary: s-17

Effects of Alternative A: 571

Effects of Alternative B: 736

Effects of Sub-Alternative C-1: 833

Effects of Sub-Alternative C-2: 903

Effects of Alternative D: 995

Effects of Preferred Alternative (Alternative F): 1153

Cumulative Effects: 1274

*See Endangered and Threatened Species for information on the Bowhead Whale.*

*See also Section 4H, Other Impact Considerations.*

## **Mitigation Measures**

Comments/Responses to Draft EIS: 1517

Existing and Potential: 368

*See also Sections 4A through 4D, and 4F for potential mitigation measures by resource area.*

*See also Appendix D, Northeast National Petroleum Reserve-Alaska Integrated Activity Plan/Environmental Impact Statement – Record of Decision, for descriptions of existing stipulations.*

## **National Petroleum Reserve-Alaska**

*See Appendix D, Northeast National Petroleum Reserve-Alaska Integrated Activity Plan/Environmental Impact Statement – Record of Decision, for descriptions of existing stipulations.*

## **Noise**

Comments/Responses to Draft EIS: 1526

Description of Affected Environment: 197

Effects

Summary: s-13

Effects of Alternative A: 503

Effects of Alternative B: 698

Effects of Sub-Alternative C-1: 794

Effects of Sub-Alternative C-2: 884

Effects of Alternative D: 950

Effects of Preferred Alternative (Alternative F): 1103

Cumulative Effects: 1262

*See also Section 4H, Other Impact Considerations.*

## **Oil, Seawater, and Hazardous Materials Spills**

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Cumulative Effects: 1239

*See also Section 4H, Other Impact Considerations.*

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## **Paleontological Resources**

Description of Affected Environment: 160

### Effects

Summary: s-9

Effects of Alternative A: 425

Effects of Alternative B: 681

Effects of Sub-Alternative C-1: 779

Effects of Sub-Alternative C-2: 871

Effects of Alternative D: 932

Effects of Preferred Alternative (Alternative F): 1038

Cumulative Effects: 1257

*See also Section 4H, Other Impact Considerations.*

## **Physical Characteristics**

*See Physiography; Geology; Soils and Permafrost; Sand and Gravel; Paleontological Resources; Water Resources; Surface Water Quality; Climate and Meteorology; Air Quality; Noise.*

*See also Section 4H, Other Impact Considerations.*

## **Physiography**

Comments/Responses to Draft EIS: 1546

Description of Affected Environment: 154

### Effects

Summary: s-6

Effects of Alternative A: 413

Effects of Alternative B: 675

Effects of Sub-Alternative C-1: 773

Effects of Sub-Alternative C-2: 867

Effects of Alternative D: 925

Effects of Preferred Alternative (Alternative F): 1034

Cumulative Effects: 1254

*See also Section 4H, Other Impact Considerations.*

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## **Purpose and Need**

*Section 1.1 is devoted to describing the Purpose and Need of the Proposed Action.*



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## **Recreation Resources**

Comments/Responses to Draft EIS: 1567

Description of Affected Environment: 352

### Effects

Summary: s-29

Effects of Alternative A: 662

Effects of Alternative B: 766

Effects of Sub-Alternative C-1: 862

Effects of Sub-Alternative C-2: 920

Effects of Alternative D: 1025

Effects of Preferred Alternative (Alternative F): 1222

Cumulative Effects: 1331

*See also Section 4H, Other Impact Considerations.*

## **Regional Economy**

Comments/Responses to Draft EIS: 1568

Description of Affected Environment: 296

### Effects

Summary: s-24

Effects of Alternative A: 620

Effects of Alternative B: 753

Effects of Sub-Alternative C-1: 850

Effects of Sub-Alternative C-2: 913

Effects of Alternative D: 1013

Effects of Preferred Alternative (Alternative F): 1191

Cumulative Effects: 1293

*See also Section 4H, Other Impact Considerations.*

## **Sand and Gravel**

Comments/Responses to Draft EIS: 1581

Description of Affected Environment: 159

### Effects

Summary: s-9

Effects of Alternative A: 423

Effects of Alternative B: 680

Effects of Sub-Alternative C-1: 778

Effects of Sub-Alternative C-2: 871

Effects of Alternative D: 931

Effects of Preferred Alternative (Alternative F): 1038

Cumulative Effects: 1256

*See also Section 4H, Other Impact Considerations.*

## **Sensitive Species**

*See Endangered and Threatened Species.*

*See also Appendix E – BLM Sensitive Species List for Alaska.*

## **Social Systems**

*See Socio-Cultural Characteristics; Regional Economy; Subsistence; Environmental Justice; Cultural Resources; Land-Uses and Coastal Management; Recreation Resources; Visual Resources; Transportation.*

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## **Socio-Cultural Resources**

Comments/Responses to Draft EIS: 1583

Description of Affected Environment: 287

### Effects

Summary: s-23

Effects of Alternative A: 614

Effects of Alternative B: 752

Effects of Sub-Alternative C-1: 849

Effects of Sub-Alternative C-2: 912

Effects of Alternative D: 1012

Effects of Preferred Alternative (Alternative F): 1186

Cumulative Effects: 1290

*See also Section 4H, Other Impact Considerations.*

## **Soils and Permafrost**

Comments/Responses to Draft EIS: 1587 (Soils), 1546 (Permafrost)

Description of Affected Environment: 157

### Effects

Summary: s-7

Effects of Alternative A: 416

Effects of Alternative B: 677

Effects of Sub-Alternative C-1: 775

Effects of Sub-Alternative C-2: 869

Effects of Alternative D: 928

Effects of Preferred Alternative (Alternative F): 1036

Cumulative Effects: 1255

*See also Section 4H, Other Impact Considerations.*

## **Spectacled Eider**

*See Threatened and Endangered Species.*

*See also Section 4H, Other Impact Considerations.*

## **Steller's Eider**

*See Threatened and Endangered Species.*

*See also Section 4H, Other Impact Considerations.*

## **Subsistence**

Comments/Responses to Draft EIS: 1587

Description of Affected Environment: 300

### Effects

Summary: s-25

Effects of Alternative A: 629

Effects of Alternative B: 754

Effects of Sub-Alternative C-1: 851

Effects of Sub-Alternative C-2: 913

Effects of Alternative D: 1014

Effects of Preferred Alternative (Alternative F): 1199

Cumulative Effects: 1294

*See also Appendix B, ANILCA Section 810 Analysis of Subsistence Impacts.*

*See also Appendix A, Public Testimony/Traditional Knowledge by Resource.*

*See also Section 4H, Other Impact Considerations.*

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## **Surface Water Quality**

Comments/Responses to Draft EIS: 1613

Description of Affected Environment: 184

### Effects

Summary: s-11

Effects of Alternative A: 482

Effects of Alternative B: 694

Effects of Sub-Alternative C-1: 791

Effects of Sub-Alternative C-2: 881

Effects of Alternative D: 946

Effects of Preferred Alternative (Alternative F): 1086

Cumulative Effects: 1258

*See also Section 4H, Other Impact Considerations.*

## **Terrestrial Environment**

*See Physiography; Geology; Soils and Permafrost; Sand and Gravel; Paleontological Resources.*

*See also Section 4H, Other Impact Considerations.*

## **Terrestrial Vegetation and Wetlands**

Comments/Responses to Draft EIS: 1622

Description of Affected Environment: 202

### Effects

Summary: s-13

Effects of Alternative A: 506

Effects of Alternative B: 699

Effects of Sub-Alternative C-1: 795

Effects of Sub-Alternative C-2: 885

Effects of Alternative D: 951

Effects of Preferred Alternative (Alternative F): 1106

Cumulative Effects: 1263

*See also Section 4H, Other Impact Considerations.*

## **Traditional Knowledge**

*See Appendix A, Public Testimony/Traditional Knowledge by Resource*

## **Transportation**

Comments/Responses to Draft EIS: 1619

Description of Affected Environment: 360

### Effects

Summary: s-30

Effects of Alternative A: 669

Effects of Alternative B: 768

Effects of Sub-Alternative C-1: 864

Effects of Sub-Alternative C-2: 922

Effects of Alternative D: 1027

Effects of Preferred Alternative (Alternative F): 1228

Cumulative Effects: 1332

*See also Section 4H, Other Impact Considerations.*

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## **Visual Resources**

Comments/Responses to Draft EIS: 1628

Description of Affected Environment: 356

Effects

Summary: s-29

Effects of Alternative A: 664

Effects of Alternative B: 767

Effects of Sub-Alternative C-1: 863

Effects of Sub-Alternative C-2: 921

Effects of Alternative D: 1026

Effects of Preferred Alternative (Alternative F): 1224

Cumulative Effects: 1331

*See also Section 4H, Other Impact Considerations.*

## **Water Resources**

Comments/Responses to Draft EIS: 1632

Description of Affected Environment: 161

Effects

Summary: s-10

Effects of Alternative A: 426

Effects of Alternative B: 682

Effects of Sub-Alternative C-1: 780

Effects of Sub-Alternative C-2: 872

Effects of Alternative D: 934

Effects of Preferred Alternative (Alternative F): 1040

Cumulative Effects: 1257

*See also Section 4H, Other Impact Considerations.*