



**DRAFT ENVIRONMENTAL BASELINE STUDIES
2005 STUDY PLANS**

CHAPTER 16. LAND USE

JUNE 2005

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ACRONYMS

AASHTO	American Association of State and Highway Transportation Officials
ABA	Acid Base Accounting
ACHP	Advisory Council on Historic Preservation
ACLS	Alternative Cleanup Levels
ADEC	Alaska Department of Environmental Conservation
agl	above ground level
AHRS	Alaska Heritage Resource Survey
APE	Area of Potential Effect
ARD/ML	Acid Rock Drainage/Metal Leaching
ASCI	Alaska Stream Condition Index
BEESC	Bristol Environmental & Engineering Services Corporation
CC	Comprehensive Stations with Continuous Stage Monitoring
CH2M	CH2M HILL, Inc.
CIR	Color Infrared
CWOC	Comprehensive Stations without Continuous Stage monitoring
DECD	Alaska Department of Economic and Community Development
DNR	State of Alaska Department of Natural Resources
DO	Dissolved Oxygen
DOT&PF	State of Alaska Department of Transportation & Public Facilities
DQOs	Data Quality Objectives
EC	Environmental Consequences
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
EBR	Environmental Baseline Document
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FSP	Field Sampling Plan
GIS	Geographic Information System
GPS	Global Positioning System
HGM	Hydrogeomorphic
IM	Initial Monitoring Station
BMR	Baseline Monitoring Report
mg/L	milligrams per liter
mm	millimeters

MRLs	Method Reporting Limits
NDM	Northern Dynasty Mines Inc.
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOAA	National Oceanic & Atmospheric Administration
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
ORP	Oxidation Reduction Potential
PJD	Preliminary Jurisdictional Determination
PSD	Prevention of Significant Deterioration
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
SHPO	State Historic Preservation Officer
SOPs	Standard Operating Procedures
SWANCC	Solid Waste Agency of Northern Cook County v. U.S. Army Corp of Engineers
SWE	Snow-Water equivalent
TOC	Table of Contents
TPH	Total Petroleum Hydrocarbons
USACE	United States Army Corp of Engineers
USFWS	United States Fish & Wildlife Service
USGS	United States Geological Survey
WMP	Water Monitoring Plan

16. LAND USE

Kevin Waring Associates will develop the baseline description of land use for the area potentially affected by project development and operations at the mine site, transportation and utility corridor, and port.

16.1 Objectives of Study

The objective of the land-use element is to provide baseline information about existing land-use and tenure patterns, land-use and management plans, and land management regimes in the project vicinity and other nearby areas that may be affected by project development and operations. This element covers public and private lands. It includes local governmental land-use and coastal-management plans and related regulations, federal and state land-management plans, and land-management plans and activities of major private landowners such as Native regional and village corporations. Because transportation systems and land use are closely linked, the study will also consider transportation plans as they relate to land use.

16.2 Proposed Study Plan

16.2.1 Study Area/Scope

The study area for the land-use element comprises the proposed project facilities (mine site, transportation and utility corridor, port) and their immediate vicinity and other parts of the Lake and Peninsula Borough, Kenai Peninsula Borough (west side of Cook Inlet and, possibly, Homer), and Bristol Bay Borough and the area west of the mine site to the Mulchatna and Nushagak Rivers where land-use patterns may be affected as a result of the proposed project. The study will cover publicly- and privately-owned lands. Alaska Native regional and village corporations are major landowners in the study area. The study will consider all actual and allowed land uses except subsistence land uses, which will be addressed in the separate subsistence baseline study.

16.2.2 Methods/Approach

The method for this study element mainly entails compilation and evaluation of relevant and current official land-use and management plans, regulatory measures, studies and documents, and transportation plans. As needed, documentary resources will be supplemented with interviews of key public officials and private parties with responsibility or authority for land-use plans and management in the study region. Existing land uses, and planned and permitted land uses will be mapped for later assessment of project effects on land-use patterns. No field work is proposed.

Several major initiatives are currently underway to develop updated or new land-use, coastal-management, and transportation plans. Of particular note, the Alaska Department of Natural Resources is revising the Bristol Bay Area Plan for state lands in the Bristol Bay region. Also, recent state legislation requires all participating local coastal-management districts to revise their coastal-management plans by

July 1, 2005, and that process is underway. There are four coastal-management districts (the Lake and Peninsula, the Bristol Bay, and the Kenai Peninsula boroughs, and the Bristol Bay Coastal Service Area) in the study area.

The results of these major initiatives will be added to the information base as they become available. They include:

- Alaska Department of Natural Resources' Bristol Bay Area Plan (draft August 2004, final mid-2005),
- Kenai Peninsula Borough's Comprehensive Plan Update (April 2005) and Coastal Management Plan Update (July 2005),
- Lake and Peninsula Borough's Coastal Management Plan Update (draft late 2004, final July 2005),
- Alaska Department of Community and Economic Development's Community Profile Maps for Lake and Peninsula Borough villages (Fall 2004),
- Alaska Department of Transportation and Public Facilities' (DOT&PF's) Revised Southwest Alaska Transportation Plan (draft June 2004),
- DOT&PF's Iliamna Airport Master Plan (draft late 2004), and
- Bureau of Land Management's Ring of Fire Resource Management Plan and Environmental Impact Statement (September 2005).

The general management plans for Lake Clark National Park and Preserve (1984) and Katmai National Park and Preserve (1987) are aged, but remain the primary management documents for those federal areas.

16.2.3 Major Tasks/Activities

The study tasks outline an orderly process for collecting, evaluating, and presenting relevant information on existing land use and tenure, land-use plans and management regimes, and transportation plans in the study area. Key tasks and activities include the following:

- Delineate the study area, including the project vicinity and other areas of land use potentially affected by the project.
- Collect and critically review land-use and tenure information, public and private land-use and management plans, applicable land-use regulations and codes, land studies and reports, transportation plans, and other relevant documents.
- Identify and monitor ongoing land-use and transportation planning activities, incorporating new information as it becomes available.
- Interview local, state, and federal agencies that exercise land planning, management, or regulatory authority within the land-use study area.

- Interview representatives of major private landowners (e.g., Native regional and village corporations) on their land planning/management goals, policies, and practices for their landholdings.
- Map information on existing land-use patterns and tenure, and planned and permitted land uses in the study area.
- As appropriate, integrate land-use information related to recreation use in the land-use study area and obtained for the recreation study element.
- Coordinate with the GIS project team to develop illustrative maps and geo-graphics.
- Prepare a baseline description of existing land tenure and uses in the land-use study area, with appropriate illustrative map graphics.

16.3 Deliverables

The following deliverables will be prepared:

- 2004 progress report.
- 2005 plan of study.
- Initial environmental evaluation report.
- Baseline description and GIS maps and graphics of existing and planned land tenure, uses, and related management policies.