



**Pebble Project**  

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**NORTHERN DYNASTY MINES INC.**

**DRAFT ENVIRONMENTAL BASELINE STUDIES**

**2004 PROGRESS REPORTS**

**CHAPTER 18. SOCIOECONOMICS**

**JUNE 2005**

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## ACRONYMS

ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
ADOT/PF	Alaska Department of Transportation and Public Facilities
agl	above ground level
AHRS	Alaska Heritage Resource Survey
ANCSA	Alaska Native Claims Settlement Act
APE	area of potential effect
ASTt	Arctic Small Tool tradition
BBNA	Bristol Bay Native Association
BLM	Bureau of Land Management
BP	before present
<sup>14</sup> C	Carbon 14
CRM	cultural resources management
DEM	digital elevation model
EIS	environmental impact statement
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FR	Federal Register
GIS	geographic information system
GMU	Game Management Unit
GPS	global positioning system
GLM	general linear model
LIDAR	light detection and ranging
M.A.	Master of Arts
MCHTWG	Mulchatna Caribou Herd Technical Working Group
mi <sup>2</sup>	square mile(s)
MMS	Minerals Management Service
MODIS	moderate resolution imaging spectroradiometer
mph	miles per hour
NASA	National Aeronautics and Space Administration
NDM	Northern Dynasty Mines Inc.
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NPS	National Park Service

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NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NWR	National Wildlife Refuge
PSD	Prevention of Significant Deterioration
QA	quality assurance
QAPP	quality assurance project plan
SHPO	State Historic Preservation Officer
SRB&A	Stephen R. Braund & Associates
SWE	snow water equivalent
USC	United States Code
USDA	United States Department of Agriculture
USFS	United States Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VHF	very high frequency

## 18. SOCIOECONOMICS

### 18.1 Introduction

This report presents the findings of the 2004 socioeconomics baseline study. Because the study did not begin until mid-October 2004, the work effort scheduled for 2004 was minimal. Consequently, results reported here for the year are limited to initial research and data gathering.

### 18.2 Study Objectives

The objective of the socioeconomic baseline study is to describe the baseline socioeconomic conditions in the study area as a basis for next assessing the impacts of alternatives for project development and operation on the socioeconomic environment.

### 18.3 Study Area

The socioeconomic baseline description must be sufficiently broad and detailed in geographic and topical scope to facilitate assessment of the impact of project alternatives on areas and issues of concern under the National Environmental Policy Act (NEPA) guidelines for preparing an Environmental Impact Statement (EIS). Further, the findings of the baseline study may inform decisions about some project aspects (e.g., workforce recruitment, job rotation, workforce housing options) that could have substantial implications for the socioeconomic environment.

While potential impacts on the socioeconomic environment originate from the project facilities (mine site, road corridor, port site) and their operation and logistics, the actual study area for the socioeconomic baseline description lies largely outside the project area proper. The most meaningful and practical geographic units for purposes of the socioeconomic baseline study and subsequent assessment of socioeconomic impacts are the communities and regions potentially affected by the project.

The four small communities (Iliamna, Newhalen, Nondalton, and Pedro Bay) nearest the proposed project facilities would be linked by road to the project and to each other. The communities of Igiugig, Kokhanok, and Port Alsworth are also situated in close geographic relationship to project facilities. These seven communities, and their residents and local institutions, would most directly experience socioeconomic impacts. Therefore, they comprise the primary study area of core communities that warrant the most extensive and detailed description and analysis in the socioeconomic baseline study.

Beyond the primary study area, socioeconomic impacts will be mediated mainly through the economic system and through the local and regional government institutions responsible for addressing incremental demands for community services and facilities that would stem from the proposed project. The scale and importance of such socioeconomic impacts will be modulated by community proximity and access to project facilities and operations, population size, and developmental status of community infrastructure. On this basis, secondary and tertiary study areas have been defined for socioeconomic study.

Communities in the secondary area are judged likely to experience proportionally greater socioeconomic impacts than communities in the tertiary area. The rural communities of the Lake and Peninsula Borough (except the seven primary communities), the Bristol Bay Borough, and the Dillingham census area are small in population, with generally less well-developed community infrastructure. These communities and associated regions share definite institutional ties to the project vicinity through such regional entities as the Bristol Bay Native Association, the Bristol Bay Native Corporation, and the Southwest Alaska Municipal Conference. Their economies also have been adversely affected by recent trends in Alaska's commercial salmon-fishing-and-processing industry. For these reasons in common, these communities and regions were assigned to the secondary study area.

The tertiary study area extends to the Kenai Peninsula Borough, the Municipality of Anchorage, and the Matanuska-Susitna Borough. These populous and developed regions have potential to supply a substantial portion of the project workforce. By the same token, they also have the capacity to absorb socioeconomic impacts with proportionately less disruption. Because the City of Homer in the Kenai Peninsula Borough could be chosen as a staging area and marine-logistics center for project development, relevant features of that community will be described in the baseline study.

## 18.4 Scope of Work

Research for this study was begun in mid-October 2004. The study is being conducted by Kevin Waring Associates. The McDowell Group, a Juneau-based consulting firm, was added to the project team in December to prepare the economic element of the socioeconomics baseline study. The study is being conducted according to the approach described in the *Draft Environmental Baseline Studies, Proposed 2004 Study Plan* (Northern Dynasty Mines Inc., 2004).

Work completed in the 2004 study involved mainly collection and review of documents; compilation and analysis of population, economic, and other socioeconomic data regarding land use, ownership, and management; and beginning preparation of preliminary-draft report elements.

## 18.5 Methods

Much of the information required for the description of socioeconomic baseline conditions is obtainable from published and unpublished data sources, supplemented by interviews of local public officials and similar informants. The method of research makes full use of these available resources. However, certain selected information essential to the baseline description and later assessment of project alternatives is neither routinely available nor up-to-date. In particular, current detailed information about the employment, employability, and household incomes of residents of the primary communities is lacking, but needed to make a realistic assessment of potential project impacts on their economic status. Up-to-date information about workforce availability and skills in communities in the secondary study area is similarly needed to assess socioeconomic impacts therein. The study program specifies research tasks to assemble this essential information.

When feasible, certain field data-collection tasks may be coordinated with field work undertaken as part of other project baseline studies — e.g., ADF&G household subsistence surveys — or may be implemented in collaboration with appropriate local organizations.

## 18.6 Results and Discussion

Because the study did not begin until mid-October 2004, there are no results to discuss.

## 18.7 Summary

Not applicable at this time.

## 18.8 References

A preliminary bibliography of sources has been compiled, but it is premature to identify a list of references to be cited for the baseline study.