

Appendix C

Public Participation and List of Supporting Documents

The effects of Federal land management laws, policies, and practices on the use of Federal lands for development of minerals on non-Federal lands has not been studied widely. Special attention was therefore given to developing the information necessary to support problem analysis and evaluation.

Non-Federal lands constitute approximately two-thirds of the total national land base potentially available for domestic minerals development. Information gathering in the contiguous United States focused on States with large Federal landholdings, such as Nevada where 87 percent of the land is federally owned. (Figure C-1.) Primary emphasis was given to Western States; a sample of Eastern States was included for completeness.

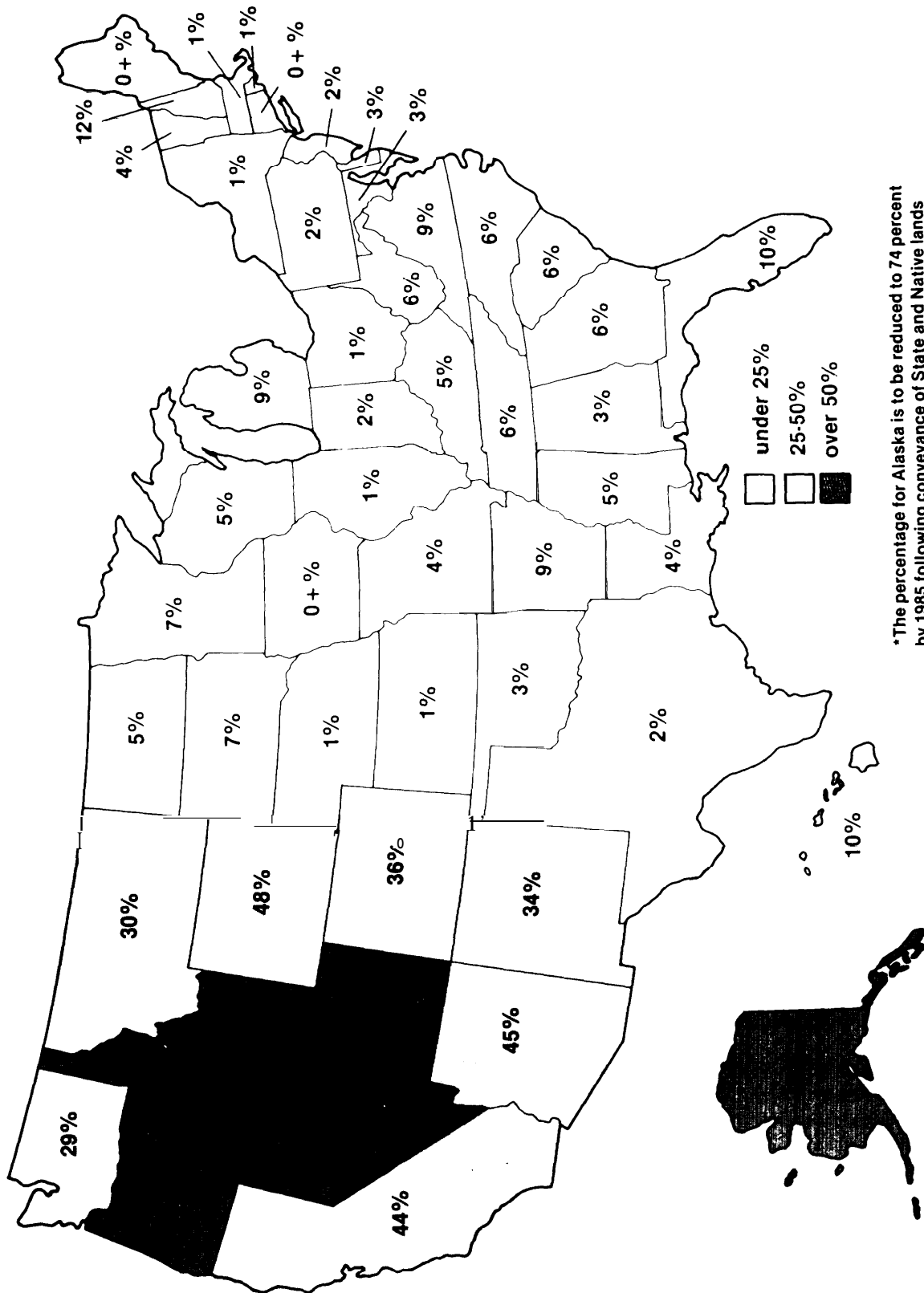
Certain States were selected for intensive analysis. In the West, Nevada and Arizona were analyzed. Information was also gathered in Colorado and Wyoming. Within the Eastern States, North Carolina was analyzed in depth. Additional information was obtained in New Jersey, Delaware, South Carolina, and Virginia. Alaska was analyzed intensively because access across Federal to non-Federal land was a prominent issue dur-

ing congressional consideration of Alaska National Interest Lands legislation.

In order to complete this assessment, OTA had to conduct basic information gathering because of the dearth of published material on problems of access to non-Federal minerals. Several approaches were used to obtain the necessary information: field interviews, study area analyses, and workshops. Analysis of access issues could not have been accomplished without such information gathering and the cooperation of nearly 600 individuals and groups that were concerned or affected by Federal land management decisions. Among the groups interviewed were non-Federal landowners; Alaska Native Corporations; mining interests, including mining corporations, small mining businesses and small miners; conservation and environmental organizations; the academic community; and representatives of Federal, State, and local governments. Professional and technical organizations such as the Association of State Geologists also provided information. Contacts were maintained with these groups throughout the study.

OTA information gathering was augmented by contractor and consultant reports which assisted in the problem evaluation and

Figure C.1.—Percentage of Federal Land by State (1978)



*The percentage for Alaska is to be reduced to 74 percent by 1985 following conveyance of State and Native lands

analysis phase of the assessment. OTA staff independently verified the information obtained by contractors and consultants. The following is a list of working papers prepared for this assessment.

- Minerals Accessibility to Non-Federal Lands in Arizona**, W. Drescher, T. Eyde, and J. Poole, Univ. of Arizona.
- Impact of Federal Land Management and Disposal Laws on Transportation Related Mineral Accessibility to Non-Federal Lands in Nevada**, D. Bryan.
- Assessment of Mineral Accessibility to Non-Federal Lands in North Carolina**, Geological Resources, Inc.
- Mineral Accessibility on Non-Federal Lands—Problem Evaluation**, Harbridge House, Inc.
- The Potential Relationship Between U.S. Balance of Payments and Alaska Minerals Development**, J. Whitney.
- Effects on the Federal Regulatory Framework on Minerals Exploration and Mine Development on Domestic Public and Private Lands**, J. Whitney.
- Mineral Exploration and Development Problems Arising From Public-Private Severed Estate Problems in the United States: An Industry Perspective**, J. Whitney.
- National Access Restrictions for Key Mineral Commodities—Analysis of Case Studies**, J. Whitney.
- Coastal Zone Management and Access to Onshore Minerals on Non-Federal Lands—A Threshold Assessment**, B. Theberge and Scott Whitney.
- Effects of the Federal Coastal Zone Management Act of 1972 on Access to Minerals on Non-Federal Lands**, Earth Satellite Corp.
- Transportation Access Across Federal to Non-Federal Land for Hardrock Mineral Development—Policy Alternatives for Congressional Consideration**, Harbridge House, Inc.
- Evaluation of Minerals Transportation Access Problems for Non-Federal Minerals Exploration and Development in Alaska**, J. Whitney.
- Survey of Minerals Transportation Availability for Selected Hardrock and Energy Minerals**, Pan Technology, Inc.
- The Federal Regulatory Framework: Effects on Minerals Exploration and Mine Development on Domestic Public and Private Lands**, J. Whitney.

These working papers are on file at OTA. Persons wishing to review these working papers should contact the Materials Group, Office of Technology Assessment, Washington, D.C. 20510.

Other working papers prepared for the assessment were published by OTA as: Analysis of Laws Governing Access Across Fed-

eral Lands, Volume II, Working Papers (OTA-M-76). This volume includes the following papers:

- Assessment of Transportation Access Requirements for Minerals Exploration and Mine Development and Operation in Alaska**, J. Whitney and D. Bryan.
- Assessment of Environmental Penalties Introduced by Transportation Access to Alaska Non-Federal Mineral Resources**, B. Shaine.
- The Economic Importance of the Small Miner and Small Mining Businesses in Alaska**, C. Hawley and J. Whitney.

OTA relied heavily on field interviews in the contiguous United States during the early phases of the assessment. Problems associated with access use of Federal lands for exploration and development of minerals on non-Federal lands were identified in consultation with representatives of various National, State, and local interest groups. OTA gratefully acknowledges the assistance of the following individuals and groups that made technical contributions to the assessment:

Arizona

- A&S Sand and Gravel Company
- Allied Concrete Products, Inc.
- AMAX Inc.
- American Agriculture International, Inc.
- American Materials, Inc.
- Anamax Mining Company
- Arizona Conservation Council
- Arizona Mining Association
- Arizona Rock and Sand Corporation
- Arizona Rock Products Association
- Arizonans for a Quality Environment
- Bureau of Land Management, Advisory Board
- Bureau of Land Management, Phoenix Grazing District
- Bureau of Land Management, Safford Grazing District
- Bureau of Mines, U.S.
- Cinder/pumice operators*
- Cities Service Minerals Corporation
- Citizens of Flagstaff*
- Coconino County Planning Dept.
- Columbia Sand and Gravel Company
- CONOCO
- Construction Materials Inc.
- Continental Copper Company

*Notes a desire not to be identified by name or that records of interview are unavailable.

Flagstaff Chamber of Commerce
 Forest Service, U.S.
 Gee-Services of Arizona
 Hecla Mining Company
 Inspiration Consolidated
 Kerr-McGee Corporation
 Mesa Sand and Rock Company
 Mineral Property Owners*
 National Park Service, U.S.
 Nature Conservancy
 Navajo Community College
 Newmont Mining
 Occidental Minerals Corporation
 Papago Indian Tribe, Director of Mines
 Peabody Coal Company
 Perry Exploration Company
 Phoenix Chamber of Commerce
 Phoenix Rock and Sand Corporation
 Pima County Assessors' Office
 Ranchers*
 Santa Fe Pacific Land Company
 Small Mining Interests*
 Southern Arizona Environmental Council
 Southwest Economic Information Center
 Southwest Exploration Associates
 St. Joe American Corporation
 State of Arizona
 Bureau of Geology and Mineral Technology
 Governor's Commission on Arizona Environment
 Land Department
 Mineral Resources Department
 State Legislature, House and Senate Natural
 Resources Committees
 University of Arizona, Council for Environmental
 Studies
 University of Arizona, Office of Arid Lands
 Stop Mining Around Residential Tucson
 The Superior Companies
 The Tanner Companies
 Tucson Sand and Soil Company
 Twitty, Seville and Mills, Attorneys-at-Law
 Union Rock and Sand Company
 Valley Concrete and Materials
 Valley National Bank
 Wallaby Enterprises
 Western Prospector and Miner Newspaper
 White Mountain Apache Indian Tribe, Tribal
 Chairman

California

National Audubon Society
 National Wilderness Federation
 State of California
 Division of Mines and Geology

Colorado

Bureau of Land Management, U.S.
 Chambers of Commerce
 Citizens of Grand Junction*
 Colorado Counties, Inc.
 Colorado National Bank
 Colorado Oil and Gas
 Consolidated Coal Company
 Department of Energy, U.S.
 Eagle County Planning Commission
 Forest Service, U.S.
 National Audubon Society
 Environmental Consultant*
 Sand and Crushed Stone Operators*
 State of Colorado
 Bureau of Mines
 Geological Survey

Delaware

Barber Sand and Gravel
 Contractors Sand and Gravel
 Delaware Brick Co.
 Delaware Sand and Gravel
 New Castle County Planning and Zoning Commission
 Soil Conservation Service, Sussex County District
 State of Delaware
 Office of Management, Budget, and Planning
 Department of Natural Resources and
 Environmental Control
 State Geological Survey
 Sussex County Planning Office
 Whittington's Sand and Gravel Company

District of Columbia

Bureau of Mines, Liaison Officers for Maryland and
 Delaware
 Conservation Foundation
 Department of Commerce, U.S.
 OCZM, South Atlantic Regional Manager
 Department of the Interior, U.S.
 Environmental Policy Center
 Friends of the Earth
 Sierra Club
 Wilderness Society

Indiana

Indiana Department of Natural Resources, Geological
 Survey

Iowa

Iowa Geological Survey

*Notes a desire not to be identified by name or that records of interview are unavailable.

Maryland

Arundel Corporation
 Campbell Sand and Gravel Company
 Charles County Sand and Gravel
 Contee Sand and Gravel Company
 National Sand and Gravel Association
 Stancill's Inc.
 State of Maryland
 Conservation Education Council
 Department of Natural Resources
 Office of Coastal Zone Management
 Geological Survey

Michigan

Michigan Department of Natural Resources

Minnesota

Minnesota Geological Survey

Missouri

Missouri Department of Natural Resources

Montana

Forest Service, U.S.
 Anaconda Company

Nevada

Air Force, U.S.
 American Selco
 Anaconda Company
 Arrow Ready Mix
 Basic Industries
 Bendix
 Bureau of Indian Affairs, U.S.
 Bureau of Land Management, U.S.
 Bureau of Mines, U.S.
 Bureau of Reclamation, U.S.
 Carlin Gold Mines
 C.B. Concrete Company
 Cities Service
 Citizens Against Bureaucracy
 Citizens for Mining
 Consulting Economic Geologist*
 Consulting Geologist*
 Consulting Mining Engineer*
 Desert Protective Council
 Duval, Inc.
 Eagle Picher Industries
 Environmental Representatives*
 Exploration Geologists of Nevada
 Exploration Resources
 Forest Service, U.S.
 Freeport Exploration

Galli Exploration
 Hecla Mining Company
 Homestake Mining
 IMCO Services
 Inspiration Development
 International Minerals and Chemicals Corporation
 Lake Mead Recreation Area Representative*
 Las Vegas Building Materials
 Law Firm*
 Lawrence Livermore Laboratory
 Milchem Citizens for Mining
 Mining Engineer*
 Naval Air Station, U.S.
 Nevada Association of Conservation Districts
 Nevada Mining Association
 Newmont Exploration
 Pacific Coast Building Products
 Phillips Petroleum
 Ranchers Exploration and Development Corporation
 Sierra Club, Toiyabe Chapter
 Silica Miners
 Silver King Mines
 Siskon Corporation
 Small Miners*
 South Pacific Land Company
 State of Nevada
 Conservation and Natural Resources Division
 Division of State Lands
 Superior Oil
 Union Carbide
 University of Nevada, Mackay School of Mines
 Virgin Valley Opal Miners Association
 Washoe County Representative*
 Washoe Jeep Squadron, Nevada Open Land
 Organized Council
 Wells Cargo, Inc.

New Jersey

ASARCO
 Atlantic County Citizens Council on Environment
 Bureau of Mines, U.S.
 Citizens*
 Jessie S. Morie and Son, Inc.
 New Jersey Zinc Company
 Ralph Clayton and Sons Sand and Gravel
 State of New Jersey
 Bureau of Geology and Topography
 Department of Environmental Protection
 Department of Transportation
 Implementation and Involvement Group, Office of
 CZM
 Tuckahoe Sand and Gravel Company

New Mexico

New Mexico Bureau of Mines and Mineral Resources

*Notes a desire not to be identified by name or that records of interview are unavailable.

North Carolina

Appalachian Regional Commission
 Army Corps of Engineers, U.S.
 Basnight Construction Company
 Becker Sand and Gravel Company
 Borden Brick and Tile Company
 Boren Clay Products Company
 Bureau of Mines, U.S.
 Carolina Silica Corporation
 Chambers of Commerce*
 City and Town Representatives*
 Clark Stone Company
 Coastal Zone Management and Planning Council
 College of Abermarle
 Cotton Patch Mines
 Cranberry Magnetite Corporation
 Crowell Constructors, Inc.
 Cumberland Paving Company
 Dare County Representatives*
 Dickerson, Inc.
 Earl L. Saunders Excavation
 Ecologist-forester*
 E. L. Wade Construction Company
 Feldspar Corporation
 First Colony Farms Inc.
 Fish and Wildlife Service, U.S.
 Foote Mineral Company
 Forest Service, U.S.
 Glendon Pyrophyllite Company, Inc.
 Harris Mining Company
 Hays Corporation
 Hitchcock Corporation
 Hodges Equipment Company
 IMC Chemical Group, Inc.
 Jacob's Creek Stone Company
 J. L. Colville Construction Company
 King's Mountain Mica Company
 Lawson United Feldspar & Mineral Company
 Lithium Corporation of America
 Martin-Marietta Aggregates
 Maymead Lime Company, Inc.
 Melson Sand Company
 Nantahala Talc and Limestone
 National Park Service—Blue Ridge Parkway, U.S.
 National Park Service—Great Smoky Mountain, U.S.
 National Park Service—Outer Banks, U.S.
 National Sand and Gravel Association
 Nello L. Teer Company
 Newsome Sand and Gravel
 North Carolina Aggregates Association
 North Carolina Granite Corporation
 Outer Banks Contractors, Inc.
 Perry and Daniels Inc.
 PHB Emerald Corporation
 Phelps Dodge Exploration
 Piedmont Minerals Company, Inc.

Pine Hall Brick and Pipe Company
 Powhatan Mining Company
 Retired Persons*
 Soil Conservation Service, U.S.
 Solite Corporation
 Southern Aggregates, Inc.
 State of North Carolina
 Coastal Resources Advisory Council
 Department of Transportation
 Economic Coastal Management Office
 Economic Coastal Resources Commission
 Geologists*
 Highway Department Field Office Representatives*
 Land Quality Section
 Mines & Quarry Division, Dept. of Labor
 Natural and Economic Resources Department
 North Carolina Commission of Indian Affairs
 Site Planning, Parks, and Recreation Division
 Statesville Brick Company
 Stetson and Daniels, Inc.
 Texasgulf, Inc.
 University of North Carolina, Minerals Research
 Laboratory
 University of North Carolina, Zoology Department
 Wake County Planning Department
 Wake Stone Corporation
 Washington Chamber of Commerce

Oklahoma

Oklahoma Geological Survey

Oregon

Oregon Department of Geology and Mineral
 Industries

South Carolina

Addco Mining Company
 Ashe Brick Company
 Coastal Zone Advisory Committee
 Coastal Zone Management Agency
 Conservation Interests*
 Gifford-Hill and Company, Inc.
 Land Associates
 Martin-Marietta Aggregates
 National Oceanic and Atmospheric Administration,
 U.S.
 South Carolina Coastal Council
 South Carolina Heritage Trust Advisory Committee
 South Carolina State Development Board
 U.S. Peat Corporation
 Waccamaw Clay Products
 W. R. Grace and Company

Utah

Utah Geological and Mineral Survey

*Notes a desire not to be identified by name or that records of interview are unavailable.

Virginia

American Mining
Baillo Sand Company, Inc.
Bureau of Land Management, U.S.
Chickahominy Sand & Gravel
Citizens*
Corps of Engineers, U.S.
Eastern Wildlife Refuge Representatives*
Environmental Consulting Firms*
Fish and Wildlife Service, U.S.—Great Dismal Swamp
Refuge
Forest Service, U.S.
Geological Survey, U.S.
Gunter and Son, Inc.
J. C. Jones Sand Company
National Park Service, U.S.
Old Dominion University
R. A. Crewes Sand Pit
Sand and Gravel Operators*
State of Virginia
Attorney General Office

Coastal Resource Management Program
Commerce and Resources Department
Conservation and Economic Development
Department
Marine Resources Commission
Mineral Resources Division
Suffolk County Government, Office of City Manager
Virginia Institute of Marine Sciences
William and Mary College

Wyoming

Bureau of Land Management, U.S.
Citizens of Jackson Hole*
Forest Service, U.S.
Ranchers*
State of Wyoming
Environmental Quality Department
Land Commission
Wyoming Conservation Commission
Wyoming Oil and Gas Conservation Commission
University Associate Professor*

*Notes a desire not to be identified by name or that records of interview are unavailable.