

FISH AND WILDLIFE SERVICE
NATURAL AND CULTURAL RESOURCES MANAGEMENT

TABLE OF CONTENTS	
Topics	Sections
Overview	1.1 What is the purpose of this chapter? 1.2 What is the overall policy for managing minerals on National Wildlife Refuge System (NWRS) lands? 1.3 What is the scope of this chapter? 1.4 What are the authorities for this chapter? 1.5 What terms do you need to know to understand this chapter?
Responsibilities	1.6 Who in the Service is responsible for managing minerals on NWRS lands?
Extraction or Development	1.7 When does the Service allow the extraction or development of minerals on NWRS lands?

OVERVIEW

1.1 What is the purpose of this chapter? This chapter describes the U.S. Fish and Wildlife Service (Service) policy for managing the development of minerals that exist beneath National Wildlife Refuge System (NWRS) lands.

1.2 What is the overall policy for managing minerals on NWRS lands? After a mineral rights holder demonstrates that a valid mineral right exists, the Service must work to avoid or minimize impacts to resources and uses while providing reasonable access to the mineral rights holder to develop and extract their minerals.

1.3 What is the scope of this chapter? This chapter applies to all NWRS lands. NWRS lands means all lands, waters, and interests in those lands and waters that the Service administers as wildlife refuges, wildlife ranges, wildlife management areas, waterfowl production areas, coordination areas, and other areas for the protection and conservation of fish and wildlife.

1.4 What are the authorities for this chapter? Following are the authorities for this chapter. We have categorized them by those that are directly relevant to the subject matter, and those that are indirectly relevant.

A. Authorities directly relevant to minerals management:

- (1) Alaska Native Claims Settlement Act (ANCSA) (43 U.S.C. 1601-1624).
- (2) Alaska National Interest Lands Conservation Act (ANILCA) (16 U.S.C. 3101-3233).
- (3) Federal Coal Leasing Amendment Act of 1975 (30 U.S.C. 201).
- (4) Geothermal Steam Act of 1970 (30 U.S.C. 1001-1025).
- (5) Materials Act of 1947 (30 U.S.C. 601 and 602).

FISH AND WILDLIFE SERVICE
NATURAL AND CULTURAL RESOURCES MANAGEMENT

Natural and Cultural Resources Management

Part 612 Minerals Management

Chapter 1 Minerals Management Policy

612 FW 1

- (6) Mineral Leasing Act of 1920 (30 U.S.C. 181 et seq.).
- (7) Mineral Leasing Act for Acquired Lands of 1947 (30 U.S.C. 351-360).
- (8) Mining Law of May 10, 1872 (30 U.S.C. 22).
- (9) Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201).

B. Other authorities:

- (1) Archeological and Historic Preservation Act (16 U.S.C. 469–469c).
- (2) Endangered Species Act (ESA) (16 U.S.C. 1531-1543).
- (3) Federal Land Policy and Management Act (FLPMA) (43 U.S.C. 1701-1785).
- (4) Migratory Bird Conservation Act (16 U.S.C. 715-715r).
- (5) Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711).
- (6) National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321–4347).
- (7) National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (16 U.S.C. 668dd-668ee).
- (8) Wilderness Act (16 U.S.C. 1131-1136).

1.5 What terms do you need to know to understand this chapter?

A. Minerals. Following are descriptions of the types of minerals that may be found on NWRS lands:

(1) *Common Variety Mineral Materials.* Common variety mineral materials include sand, stone, gravel, limestone, pumice, pumicite, cinders, clay, and other mineral materials and petrified wood on our lands that may have value for use in trade, manufacture, the sciences, or in mechanical or ornamental arts.

(2) *Leasable Federal Minerals.* Leasable Federal minerals include deposits of oil, gas, coal, potassium, sodium, phosphate, oil shale, native asphalt, solid and semisolid bitumen, bituminous rock that includes oil-impregnated rock or sands from which oil is recoverable only by special treatment after the deposit is mined or quarried, and the deposits of sulphur in Louisiana and New Mexico belonging to the United States that can be acquired under the mineral leasing laws (see 43 CFR 3100.0-3(a)(1)) and that are not subject to purchase under the U.S. mining laws.

(3) *Locatable (Hardrock) Minerals.* Locatable (hardrock) minerals are those that are recognized as minerals by the standard authorities, whether metallic or other substance, are treated within the purview of mining laws, and are not the same as those described above. Examples of

FISH AND WILDLIFE SERVICE
NATURAL AND CULTURAL RESOURCES MANAGEMENT

Natural and Cultural Resources Management

Part 612 Minerals Management

Chapter 1 Minerals Management Policy

612 FW 1

locatable (hardrock) minerals are gold, silver, uranium, lead, zinc, and feldspar (see 43 CFR 3500).

(4) Gas. Gas means any fluid, either combustible or noncombustible, that is produced in a natural state from the earth and that maintains a gaseous or rarefied state at ordinary temperature and pressure conditions.

(5) Oil. Oil means any viscous combustible liquid hydrocarbon or solid hydrocarbon substance that occurs naturally in the earth and is liquid when warmed.

B. Mineral Estate. A mineral estate is defined as the minerals underlying the surface of a tract of land. Under express agreement, a landowner may sell the title to the surface estate and retain the mineral estate underlying the property, sell the mineral estate and retain title to the surface estate, or sell both. The owner of the mineral estate has the right to access and develop that mineral estate.

C. Operator. An operator is any person or entity, agent, assignee, designee, or lessee exercising or proposing to exercise mineral rights on Service-administered lands or waters.

D. Operations. Operations are all existing and proposed functions, work, and activities taking place in connection with the exercise of mineral rights located on Service-administered lands or waters.

E. Operations Permit. An operations permit is a permit that the Service issues to authorize an oil and gas operator to conduct oil and gas operations on Service-administered lands or waters.

F. Rights-of-Way Permit (ROW). An ROW is an authorization document that the Regional Director issues that grants access over and across NWRS lands (see 50 CFR 29.21).

G. Special Use Permit (SUP). An SUP is a document that the Project Leader issues that authorizes access to NWRS lands for economic, public, and other uses that are not specifically allowed on the lands under general or refuge-specific regulations. It describes the conditions of such access (see 50 CFR 25.41-45). In some cases, the terms of a deed or other instrument of conveyance requires an SUP.

RESPONSIBILITIES

1.6 Who in the Service is responsible for managing minerals on NWRS lands? See Table 1-1.

Table 1-1: Responsibilities for Managing Minerals on NWRS Lands	
These employees...	Are responsible for...
A. The Director	Approving or declining to approve national policy on procedures governing all uses of the NWRS, including minerals management policy.

**FISH AND WILDLIFE SERVICE
NATURAL AND CULTURAL RESOURCES MANAGEMENT**

Natural and Cultural Resources Management

Part 612 Minerals Management

Chapter 1 Minerals Management Policy

612 FW 1

Table 1-1: Responsibilities for Managing Minerals on NWRS Lands	
These employees...	Are responsible for...
B. Regional Directors	<p>(1) When Project Leaders refuse a permit request, reviewing and making decisions on any appeals that are filed in accordance with 50 CFR 25.45 (refuge permits); and</p> <p>(2) Ensuring that Project Leaders adhere to law and policy when making decisions concerning minerals management activities.</p>
C. Chief - NWRS	Overseeing the minerals management program.
D. Refuge Headquarters Energy Team	<p>(1) Developing policy and guidance on minerals to ensure consistency across the NWRS;</p> <p>(2) Maintaining national level datasets on oil and gas wells, pipelines, and spill events;</p> <p>(3) Determining and interpreting, with the assistance of the Office of the Solicitor, Federal and State laws, policies, and standards for the protection of Service land and resources from impacts associated with the exercise of mineral rights; and</p> <p>(4) Providing technical assistance with individual projects, as needed.</p>
E. Regional Oil & Gas Coordinators (are located in the NWRS program)	Coordinating with the field offices, other Regional personnel, and Headquarters NWRS staff to ensure the consistent administration of laws, regulations, and policies for minerals management.
F. Regional Divisions of Realty	<p>(1) Determining, in consultation with the Office of the Solicitor, as appropriate, if an operator's demonstration of mineral rights is sufficient and whether there are any limitations on the Service's regulatory authority for the exercise of reserved/excepted rights contained in the deed or instrument of conveyance; and</p> <p>(2) Ensuring that all future acquisitions with the potential for mineral development contain a reference in the deed that informs all parties of the intent of the Service to reasonably regulate such reserved mineral interests to the extent necessary to protect refuge resources and uses, including existing regulations at 50 CFR Part 29, Subparts C and D, and any successor regulations.</p>
G. Project Leaders	(1) Administering all mineral activities on the lands for which they are responsible in compliance with applicable laws, policies, and guidance;

FISH AND WILDLIFE SERVICE
NATURAL AND CULTURAL RESOURCES MANAGEMENT

Natural and Cultural Resources Management

Part 612 Minerals Management

Chapter 1 Minerals Management Policy

612 FW 1

Table 1-1: Responsibilities for Managing Minerals on NWRS Lands	
These employees...	Are responsible for...
	<p>(2) Protecting NWRS lands from unnecessary damage resulting from mineral activities;</p> <p>(3) Coordinating with the Regional Division of Realty to ensure that operators have demonstrated a valid existing right to minerals underneath NWRS lands before allowing access;</p> <p>(4) Reviewing any permit applications that an operator submits to determine whether to approve a permit authorizing access on NWRS lands for mineral extraction and development;</p> <p>(5) Ensuring operators avoid or minimize impacts to refuge resources and uses;</p> <p>(6) Ensuring that refuge staff do not take any actions that could result in an illegal taking of private property;</p> <p>(7) Monitoring an operator’s compliance with the SUP, operations permit, or ROW; and</p> <p>(8) Ensuring operators remove equipment and structures when they are no longer in use and restore surface resources according to the plan or permit after activities end.</p>

EXTRACTION OR DEVELOPMENT

1.7 When does the Service allow the extraction or development of minerals on NWRS lands? The Service only allows the extraction or development of minerals on NWRS lands if there is a ***valid existing right*** to engage in such activities. This right can come in different forms, depending on the type of minerals, and we briefly describe each situation below.

A. Leasable Federal Minerals.

(1) Extracting or developing leasable Federal minerals on NWRS lands, with the limited exception for oil and gas described in section 1.7A(2) below, is not allowed.

(2) Leasing of Federal minerals is generally prohibited. Leasing of Federal oil and gas is only allowed if there is drainage of Federal oil and gas by adjacent development. The Bureau of Land Management (BLM) conducts the leasing in this situation, but it can only occur with the approval of the Secretary of the Interior, and with the Service’s concurrence as to the time, place, and nature of those operations (see 43 CFR 3101.5-1).

B. Non-Federal Oil and Gas Outside of Alaska. When the United States does not own the mineral estate underlying NWRS lands, the owner of the non-Federal oil and gas has the right to sell, lease, explore for, access, and produce the oil and gas underneath the lands. Regulations at 50 CFR Part 29 Subpart D govern the exercise of non-Federal rights on Service

FISH AND WILDLIFE SERVICE
NATURAL AND CULTURAL RESOURCES MANAGEMENT

Natural and Cultural Resources Management

Part 612 Minerals Management

Chapter 1 Minerals Management Policy

612 FW 1

lands outside of Alaska. Regulations at 50 CFR 29.40 go on to state that operators exercising non-Federal oil and gas rights within the NWRS and outside of Alaska must use technologically feasible, least damaging methods to:

- (1) Protect Service-administered lands, waters, and resources;
- (2) Protect wildlife-dependent recreational uses and experiences and visitor or employee health and safety; and
- (3) Conserve NWRS lands for the benefit of present and future generations of Americans.

C. Locatable (Hardrock) Minerals. On most refuges the locatable (hardrock) minerals have been withdrawn from mining. However, if the locatable (hardrock) minerals have not been withdrawn, then they may be prospected for, mined, and removed under the general mining laws. The owner of a valid mining claim has a right to occupy the surface and remove and dispose of these minerals. The Service should work with BLM, the agency responsible for conducting formal mineral examinations, to verify that a valid mining claim exists.

(1) The objectives of managing mining activities on NWRS lands are to:

- (a) Protect wildlife populations, habitat, archeological resources, and natural landscapes;
- (b) Integrate any development and use of valid mineral rights with the proper use, conservation, and administration of wildlife resources on NWRS lands by minimizing, to the fullest extent possible, disturbance or damage caused by mining activities;
- (c) Ensure reclamation of all mined lands to restore their productivity and usefulness in sustaining wildlife; and
- (d) Prevent illegal mining activities or operations on NWRS lands.

(2) The Project Leaders are to seek an SUP that describes conditions for access, minimizes impacts, and administers full restoration efforts. Access to a valid mining claim should avoid or minimize impacts to refuge resources and uses.

D. Common Variety Minerals. If not specifically reserved in a deed, ownership of common variety minerals is generally associated with the surface estate. Therefore, common variety minerals in the NWRS are usually owned by the United States, and their extraction is generally not allowed. However, if the right to common variety minerals has been reserved, the owner of that right can sell, lease, explore for, access, and produce these minerals, but should operate to minimize or avoid impacts to refuge resources and uses as described in 50 CFR 29.32. The Project Leaders are to seek an SUP that describes conditions for access, minimizes impacts, and administers full restoration efforts.

(1) Operators must conduct all exploration, development, and production operations in a way that prevents damage, erosion, pollution, or contamination to the lands, waters, facilities, and vegetation of the area and without interfering with the operation of the refuge or disturbance to its wildlife to the greatest extent practicable.

FISH AND WILDLIFE SERVICE
NATURAL AND CULTURAL RESOURCES MANAGEMENT

Natural and Cultural Resources Management

Part 612 Minerals Management

Chapter 1 Minerals Management Policy

612 FW 1

(2) Physical occupancy of the area must be kept to the minimum space necessary to conduct efficient mineral operations.

(3) Additionally, operators on NWRS lands must:

(a) Comply with all applicable Federal and State laws and regulations for the protection of wildlife and the administration of the area;

(b) Keep all waste and contaminants in the smallest practical area, confined so that they do not escape due to such events as rain or high water. They must be removed from the area as quickly as practical in a way that prevents contamination, pollution, damage, or injury to the lands, waters, facilities, or vegetation of the refuge or to wildlife;

(c) Remove structures and equipment from the area when they are no longer needed; and

(d) When operations end, restore the area as nearly as possible to its condition prior to when operations began.

E. Use of Rights-of-Way for Power or Utilities. Project Leaders must process any requests for rights-of-way for power or utilities on NWRS lands outside of Alaska as described in the Service's rights-of-way regulations at 50 CFR Part 29.

F. Non-Federal Minerals in Alaska. NWRS lands in Alaska are governed by Title XI of ANILCA, and the Department of the Interior's (Department) implementing regulations and standards at 43 CFR Part 36. Additionally, section 22(g) of ANCSA and its implementing regulations (50 CFR 25.21) continue to apply to lands conveyed to Alaska Native Corporations that are within the boundaries of a national wildlife refuge that was in existence on the date of ANCSA's enactment.

(1) ANILCA gives the Service the authority to ensure that operators accessing non-Federal mineral rights underneath NWRS lands in Alaska work cooperatively with the Service through a permitting process outlined in section 1110 and 43 CFR Part 36. This process helps to ensure:

(a) Operators avoid or minimize impacts from their operations to refuge resources and uses, and

(b) Operations are reclaimed to Service standards.

(2) Project Leaders should use the performance-based standards in 50 CFR Part 29 Subpart D, as appropriate, to help them determine how an operator would meet the various requirements of ANILCA and ANCSA to protect NWRS resources and uses for non-Federal oil and gas operations.

/sgd/ Teresa Christopher
ACTING DIRECTOR

Date: December 27, 2016