

**Forest Service Manual
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**Forest Service Manual 2800 – Minerals And Geology
Zero Code**

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Posting Instructions: Amendments are numbered consecutively by title and calendar year. Post by document; remove the entire document and replace it with this amendment. Retain this transmittal as the first page(s) of this document. The last amendment to this title was 2800-2008-1 to FSM 2880.

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Digest: Following is an explanation of the changes throughout the directive by section.

2809.15: Adds new descriptive paragraph to handbook contents.

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The availability of mineral and energy resources within the national forests and grasslands significantly affects the development, economic growth, and defense of the Nation. The mission of the Forest Service in minerals management is to encourage, facilitate, and administer the orderly exploration, development, and production of mineral and energy resources on National Forest System lands to help meet the present and future needs of the Nation.

The direction in this chapter applies specifically to the management of mineral and energy resources. Although there is a significant relationship between minerals and geology, the unique nature of geologic resources and services can be more clearly understood by describing the authorities, objectives, policies, and responsibilities separately from those for mineral and energy resources. For this reason, direction specific to the geology program is set forth under the zero code section of Forest Service Manual 2880.

2801 - Authority

The authority to manage the exploration and development of mineral and energy resources within National Forest System (NFS) lands is jointly shared between the Secretary of Agriculture and the Secretary of the Interior. The administration of the general mining laws and the mineral leasing acts is primarily the responsibility of the Department of the Interior. Certain mineral leasing acts require the consent of the Secretary of Agriculture and are subject to such conditions prescribed to ensure the adequate utilization of the lands for the purposes for which they were acquired or are being administered.

The Forest Service has entered into interagency agreements with the Department of the Interior agencies to cooperate and coordinate in managing federally owned minerals within NFS lands (FSM 2801.3). The Forest Service is responsible for managing the occupancy and use of the surface by persons conducting these activities and to manage the disposal of certain mineral materials.

2801.1 - Surface Management Authorities

2801.11 - Statutory Authorities

The following statutory authorities provide the Forest Service the authority to manage surface resources in conjunction with mineral exploration and development on National Forest System (NFS) lands:

1. Organic Administration Act of June 4, 1897, (30 Stat. 11, as amended; 16 U.S.C. 473-475, 477-482, 551). This act provides the Secretary of Agriculture the authority to regulate the occupancy and use of NFS lands. It provides for the continuing right to conduct mining activities under the general mining laws if the rules and regulations covering NFS lands are complied with. This act recognizes the rights of miners and prospectors to access NFS lands for all proper and lawful purposes, including prospecting, locating, and developing mineral resources.

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2. Multiple-Use Sustained-Yield Act of June 12, 1960, (74 Stat. 215; 16 U.S.C. 528-531). This act requires that NFS lands be administered in a manner that considers the values of the various resources when making management decisions and specifically provides that nothing in the act be construed to affect the use or administration of the mineral resources on NFS lands.

3. Wilderness Act of September 3, 1964, (78 Stat. 890; 16 U.S.C. 1121, 1131-1136). This act provides that, subject to valid rights existing prior to January 1, 1984; wilderness areas are withdrawn from all forms of appropriation and disposition under the mining and mineral leasing laws. Subsequent acts designating additional NFS lands as wilderness may contain specific provisions concerning mineral activities. Patents issued under the mining laws for mining claims staked after passage of this act within wilderness areas shall reserve the surface rights to the United States. The act provides for reasonable access to valid mining claims and other valid occupancies inside wilderness areas. The act also requires the survey of wilderness areas by the U.S. Geological Survey on a planned, recurring basis consistent with the concept of wilderness preservation to determine the mineral values that may be present.

4. National Environmental Policy Act of January 1, 1970, (83 Stat. 852; 42 U.S.C. 4332). This act requires Federal agencies to use a systematic interdisciplinary approach to ensure the integrated use of natural and social sciences in planning and decision making. It also requires an analysis of probable environmental effects of proposed Federal actions. Generally, decisions on mineral and energy development are subject to this law.

5. Forest and Rangeland Renewable Resources Planning Act of August 17, 1974, (88 Stat. 476; 16 U.S.C. 1600-1614). This act directs the assessment of all resources on NFS lands to determine the desired level of future production from Forest Service programs. Once approved, the policy statement and recommended program serve as a guide to future Forest Service planning and a basis for future budget proposals.

6. National Forest Management Act of October 22, 1976, (90 Stat. 2949; 16 U.S.C. 1600-1614). The act requires the Forest Service to establish a comprehensive system of land and resource planning, including the development and maintenance of a comprehensive and detailed inventory of lands and resources. The act also specifies the use of a systematic interdisciplinary approach to achieve integrated consideration of the physical sciences into planning for the management and use of NFS lands and resources.

2801.12 - Regulations

The following regulations provide the Forest Service the authority to manage surface resources in conjunction with mineral exploration and development on the National Forest System (NFS) lands:

1. Title 36, Code of Federal Regulations, Part 219. These regulations implement the National Forest Management Act of 1976 (16 U.S.C. 1600 et seq.), requires consideration of the relationship of nonrenewable resources, such as minerals, to renewable resources, and sets forth the minimum requirements for integrating the nonrenewable mineral resource into a forest plan.
2. Title 36, Code of Federal Regulations, Part 228. These regulations sets forth rules and procedures governing use of the surface of NFS lands in conjunction with operations authorized by the general mining laws, oil and gas leasing, and mineral material disposal laws.

2801.2 - Mineral Management Authorities

2801.21 - Statutory Authorities

The following statutory authorities provide direction under which exploration and development of mineral and energy resources on National Forest System (NFS) lands may be conducted:

1. General Mining Law of May 10, 1872, (17 Stat. 91, as amended; 30 U.S.C. 22 et seq.). This act sets forth the principles of discovery, right of possession, assessment work, and patent for hardrock minerals on lands reserved from the public domain. The law applies to lode, placer, millsite claims, and tunnel sites. Except as otherwise provided, all valuable mineral deposits, and the lands in which they are found, are free and open to exploration, occupation, and purchase under regulations prescribed by law (FSM 2810).
2. Mineral Resources on Weeks Law Lands Act of March 4, 1917, (39 Stat. 1134, as amended; 16 U.S.C. 520). This act authorizes the Secretary of Agriculture to issue permits and leases for prospecting, developing, and utilizing hardrock minerals on lands acquired under the authority of the act (FSM 2820). This authority was later transferred to the Secretary of the Interior (FSM 2801.23, para. 1).
3. Clarke-McNary Act of June 7, 1924, (43 Stat. 653 as amended; 16 U.S.C. 499, 505, 568, 568a, 569, 570). All lands to which title is accepted under section 7 of this act become national forest lands, subject to all laws applicable to the lands acquired under the Weeks Law Lands Act of March 1, 1911.
4. Mineral Lands Leasing Act of February 25, 1920, (41 Stat. 437, as amended; 30 U.S.C. 181 et seq.). This act authorizes the Secretary of the Interior to issue leases for the disposal of certain minerals (coal, phosphate, sodium, potassium, oil, oil shale, gilsonite,

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and gas). The act applies to NFS lands reserved from the public domain, including lands received in exchange for timber or other public domain lands, and lands with minerals reserved under special authority (FSM 2822.11, para. 3).

5. Materials Act of July 31, 1947, (61 Stat. 681, as amended; 30 U.S.C. 601-604). This act provides for the disposal of mineral materials on the public lands through bidding, negotiated contracts, and free use (FSM 2850).

6. Mineral Leasing Act for Acquired Lands of August 7, 1947, (61 Stat. 913; 30 U.S.C. 351-359). This act extends the provisions of the mineral leasing laws to federally owned mineral deposits on acquired NFS lands and requires the consent of the Secretary of Agriculture prior to leasing (FSM 2820).

7. Mining Act of July 23, 1955, (69 Stat. 368; 30 U.S.C. 601 et seq.). This act requires the disposal of common varieties of sand, stone, gravel, pumice, pumicite, and cinders under the provisions of the Materials Act of July 31, 1947, and gives to the Secretary of Agriculture the authority to dispose of these materials (FSM 2850). It also provides that rights under any mining claim located under the mining laws are subject to the right of the United States to manage and dispose of surface resources (FSM 2810).

8. Geothermal Steam Act of December 24, 1970, (84 Stat. 1566; 30 U.S.C. 1001-1025). This act provides the Secretary of the Interior the authority to lease NFS lands for geothermal steam development, subject to the consent and conditions the Secretary of Agriculture may prescribe (FSM 2820).

9. Mining and Minerals Policy Act of December 31, 1970, (84 Stat. 1876; 30 U.S.C. 21a). This act states that the continuing policy of the Federal Government is to foster and encourage private enterprise in the development of economically sound and stable domestic mining and minerals industries and the orderly and economic development of domestic mineral resources.

10. Federal Coal Leasing Amendments Act of August 4, 1976, (90 Stat. 1083; 30 U.S.C. 201 et seq.). This act amended the Mineral Lands Leasing Act of February 25, 1920, (para. 3) by specifying that coal leases on NFS lands may be issued only after the consent of the Secretary of Agriculture and adherence to conditions the Secretary may prescribe. The act also provides that no lease shall be issued unless the lands involved in the lease have been included in a comprehensive forest land and resource management plan and the sale is compatible with the plan. The act authorizes the issuance of a license to conduct exploration for coal (FSM 2820).

11. Federal Land Policy and Management Act of October 21, 1976, (90 Stat. 2713; 43 U.S.C. 1701 et al; 7 U.S.C. 1212a; 16 U.S.C. 478a, 1338a). This act defines procedures for the withdrawal of lands from mineral entry. It reserves to the United States the rights to prospect for, mine, and remove the minerals in lands conveyed to others and requires the recordation of claims with the Bureau of Land Management.

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12. Surface Mining Control and Reclamation Act of August 3, 1977, (91 Stat. 445; 30 U.S.C. 1201-1328). This act provides for cooperation between the Secretary of the Interior and states in the regulation of surface coal mining. It also restricts or prohibits surface coal mining operations on NFS lands, subject to valid existing rights and compatibility determinations (FSM 2820).

13. Energy Security Act of June 30, 1980, (94 Stat. 611; 42 U.S.C. 8855). This act directs the Secretary of Agriculture to process applications for leases and permits to explore, drill, and develop resources on NFS lands, notwithstanding the current status of the forest land and resource management plan.

14. National Materials and Minerals Policy, Research and Development Act of October 2, 1980, (94 Stat. 2305; 30 U.S.C. 1601-1605). This act restates congressional intent to promote policies that provide for an adequate and stable supply of materials while considering long-term needs, a healthy environment, and natural resource conservation. The act also requires the Secretary of the Interior to improve the availability and analysis of mineral data in Federal land use decisionmaking.

15. Omnibus Parks and Public Lands Management Act of 1996, (110 Stat. 4093, 16 U.S.C. 497c, subpart j). This act automatically withdraws from all forms of appropriation under the mining laws and from disposition under all laws pertaining to mineral and geothermal leasing all lands located within the boundaries of ski area permits.

2801.22 - Executive Orders

The following Executive orders provide direction for the exploration, development, and distribution of mineral and energy resources on NFS lands:

1. Executive Order 13211 issued May 18, 2001, (E.O. 13211). This Executive order titled “Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use” requires Federal agencies to prepare and submit a Statement of Energy Effects to the Office of Management and Budget describing the effects of certain regulatory actions on energy supply, distribution, or use.
2. Executive Order 13212 issued May 18, 2001, (E.O. 13212). This Executive order titled “Actions to Expedite Energy-Related Projects” requires Federal agencies to take actions, to the extent consistent with applicable law, to expedite projects that will increase the production, transmission, or conservation of energy.

2801.23 - Reorganization Plan

The Reorganization Plan No. 3 of 1946 (60 Stat. 1097; 5 U.S.C. Appendix). This transferred the functions of the Secretary of Agriculture with respect to permits and leases for hardrock minerals on acquired Weeks Law land to the Secretary of the Interior. However, the Secretary of Agriculture consent to the issuance of permits or leases is required (FSM 2820).

2801.3 - Interagency Agreements

The Forest Service has entered into interagency agreements with agencies within the Department of the Interior to cooperate and coordinate in the management of federally owned minerals within National Forest System (NFS) lands. The principal agreements include:

1. The November 8, 1946, agreement with the Bureau of Land Management (BLM) detailing procedures for mineral leases and permits administered under section 402 of the President's Reorganization Plan No. 3 of 1946 (FSM 1531.12c).
2. The May 18, 1957, memorandum of understanding with the BLM describing work procedures for land applications, mining claims, and patents (FSM 1531.12a).
3. The March 4, 1977, cooperative agreement with the U.S. Geological Survey concerning oil and gas operations (FSM 1531.42a).
4. The May 20, 1980, memorandum of understanding with the BLM describing the coordination of activities under the federal coal management program (FSM 1531.07d).
5. The November 26, 1980, cooperative agreement with the U.S. Geological Survey for operations under solid mineral leases and permits (FSM 1531.42f).
6. The December 3, 1981, memorandum of understanding with the U.S. Geological Survey and the BLM for the geothermal steam leasing program (FSM 1531.42b).
7. The July 31, 1990, memorandum of understanding with the Office of Surface Mining Reclamation and Enforcement describing the management of surface coal mining operations on NFS lands (FSM 1531.07i).
8. The November 11, 1991, interagency agreement with the BLM describing the procedures by which the Forest Service could authorize the BLM to offer NFS lands for oil and gas leasing (FSM 1531.12q).
9. The November 19, 1991, interagency agreement with the BLM describing the procedures for coordinated administration of oil and gas operations on Federal leases within the NFS (FSM 1531.12r).

2802 - Objectives

1. Encourage and facilitate the orderly exploration, development, and production of mineral and energy resources on National Forest System lands to maintain a viable, healthy minerals industry.
2. Ensure that exploration, development, and production of mineral and energy resources are conducted in an environmentally sound manner and that these activities are integrated with the planning and management of other National Forest resources.

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3. Eliminate or prevent occupancy and activities that are not reasonably incident to and required for the mineral operation.
4. Ensure that mineral-related activities are processed and administered in accordance with laws, regulations, and policy.
5. Promote self-sufficiency in mineral and energy resources essential for economic growth and the national defense.

2803 - Policy

1. Process mineral applications, operating plans, leases, licenses, permits, and other use authorizations in an efficient and timely manner.
2. Integrate mineral resource programs and activities with the planning and management of renewable resources through forest land and resource management plans (FSM 1922), recognizing mineral development may occur concurrently or sequentially with other resource uses.
3. Plan for and provide access and occupancy on National Forest System (NFS) lands for mineral resource activities that are consistent with the forest land and resource management objectives and the rights granted through statutes, leases, licenses, and permits.
4. Consider strategic and critical minerals, the value of the mineral resource that may be foregone, and the value of the resource or improvement being protected (FSM 2760) before withdrawing NFS lands from mineral entry.
5. Ensure that valid existing rights have been established before allowing mineral or energy activities in congressionally designated or other withdrawn areas.
6. Coordinate and cooperate with other Federal and State agencies having authority and expertise in mineral-related activities and strive to reduce or eliminate duplicative efforts that impact the public and other governmental entities.
7. Ensure Forest Service-wide consistency in processing proposals and developing operating and reclamation standards.
8. Strive to reduce or eliminate duplicative efforts that impact the public and other governmental entities.
9. Ensure that lands disturbed by mineral and energy activities are reclaimed for other productive uses consistent with forest land and resource management plans.
10. Ensure that private mineral rights are protected when resource management decisions are made that affect NFS lands.

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11. Ensure that only qualified Forest Service employees (FSM 2890) administer the minerals program and that only qualified geologists, mining engineers, or petroleum engineers prepare reports and conduct site visits on NFS lands that require a mineral or geologic examination.

2804 - Responsibility

2804.1 - Washington Office, Director of Minerals and Geology Management

The Washington Office, Director of Minerals and Geology Management has the responsibility to:

1. Recommend policy standards and guidelines to the Chief for the implementation of minerals and energy management policies.
2. Maintain effective working relationships with other Federal minerals management agencies, the minerals industry, and other constituents.
3. Establish priorities with the U.S. Geological Survey and other Federal agencies for mineral assessment work to be done on National Forest System lands.
4. Provide for national minerals training with the assistance and support of the National Minerals Training Steering Team (FSM 2891.04)

2806 - Minerals Resource Survey

This section establishes the standards for data collection and interpretation for integrating mineral resource information into other resource actions, such as forest land and resource management planning (FSM 1920), site specific National Environmental Policy Act analysis, land disposal and acquisition decisions, and so forth. The preparation of these inventories, assessments, and appraisals should be coordinated with the U.S. Geological Survey and other Federal agencies.

The mineral resource survey must provide the following:

1. Inventory. The inventory identifies mineral and energy resources, documents historic and current mineral and energy activity, and generally describes the geologic environment.
2. Assessment. The assessment documents the favorableness for occurrence of undiscovered mineral and energy resources, delineated separately for each commodity or commodity grouping that may be of significance to the forest land and resource management planning, and the extent of the expected deposit and the likelihood it could occur.

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3. Appraisal. The appraisal evaluates the factors that affect the marketability of identified mineral and energy resources or the development potential of undiscovered resources. It must also consider current market price, past trends, and projections over the timeframe of the plan, extraction and processing costs, amount imported, and sensitivity to national security. If the resource is currently sub-economic, the appraisal must estimate the economic conditions necessary to promote development.
4. Activity Forecast. An activity forecast projects:
 - a. The most probable types of activities (prospecting, exploration, development, production, and reclamation) that are expected to occur within the planning timeframe.
 - b. Where the activity is most likely to occur.
 - c. Access and occupancy constraints that may be applied under different alternatives.
 - d. An assumed level of exploration and development fully compatible with the goals, objectives, management emphasis, and intensity of each forest land and resource management plan alternative. Prepare forecasts for those commodities that are expected to be of significance to the forest land and resource management plan.

2809 - Handbooks

2809.15 - Minerals and Geology Handbook

This handbook contains procedures, specific instructions, and technical information for locatable minerals staffs and district rangers about the necessity for and application of surface use determinations. It includes detailed explanations, instructions, and format of surface use determination reports, and information about changes or additions to proposed plans of operations and modifications of existing operations.

It also describes qualifications, standards, and process for safe practices of personnel at work projects and activities associated with minerals and geology programs, mine and minerals surveys, health and safety guidance for personnel involved with the administration of uranium activities, and the administration of oil and gas activities.