

**Forest Service Manual
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**Forest Service Manual 2500 – Watershed and Air Management
Zero Code**

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

2509.18: Removes FSH 2509.18 “Soil Management Handbook” from the directives system.

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2501 - Authority

2501.1 - Laws

A number of Federal laws direct or authorize watershed management on lands of the National Forest System. Some of these laws provide broad authority. Others deal more narrowly with specific watershed management activities.

Laws that pertain particularly to various watershed management functions on National Forest System lands are cited under authorities in pertinent chapters of this title. Other laws are as follow:

1. Organic Administration Act of June 4, 1897, as Amended. (16 U.S.C. 475). This act contains the initial, basic authority of watershed management on National Forest System lands. The purpose for the establishment of National Forests, as stated in the act, includes securing favorable conditions of waterflows.

See FSM 2541.01 for reference to this act as it deals with water rights.

2. Weeks Act of March 1, 1911, as Amended. (16 U.S.C. 480, 500, 513-19, 521, 552, 563). This act directs the Secretary of Agriculture to recommend for purchase such forested, cutover, or denuded lands within the watersheds of navigable streams as may be necessary to regulate the flow of navigable streams.

3. Federal Power Act of June 10, 1920, as Amended. (41 Stat. 1063; 16 U.S.C. 776-779, 802, 817, 818). This act empowers the Federal Power Commission (now the Federal Energy Regulatory Commission) to issue licenses for constructing, operating, and maintaining various project works for the development, transmission, and use of power involving any water bodies over which the Congress has jurisdiction (FSM 2770.1).

4. Clarke-McNary Act of June 7, 1924, as Amended. (43 Stat. 653). This act authorizes the Secretary of Agriculture to determine the location of public lands that are chiefly valuable for streamflow protection and that can be economically administered as parts of National Forests.

5. Bankhead Jones Farm Tenant Act of July 22, 1937, as Amended. (7 U.S.C. 1010-1012). This act directs the Secretary of Agriculture to develop a program of land conservation and land use to correct maladjustments in land use and thus assist in controlling soil erosion, mitigating floods, preventing impairments of dams and reservoirs, conserving surface and subsurface moisture, protecting the watersheds of navigable streams, and protecting the public lands, health, safety, and welfare. Land Utilization Project lands, now largely included in National Grasslands and National Forests, were acquired under this act prior to the repeal of land acquisition authority by the Act of October 23, 1962.

6. Watershed Protection and Flood Prevention Act of August 4, 1954, as Amended. (68 Stat. 666; Pub.L. 83-566; 16 U.S.C. 1001). This act authorizes the Secretary of

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Agriculture to cooperate with the States and their political subdivisions and local public agencies in preventing watershed damages from erosion, floodwater, and sediment, and in furthering the conservation, development, utilization, and disposal of water. The act also authorizes the Secretary to cooperate with other Federal, State, and local agencies in making investigations and surveys of the watersheds of rivers and other waterways as a basis for planning and developing coordinated programs, and to pursue additional works of improvement on the 11 watersheds authorized by the Flood Control Act of December 22, 1944, as amended.

7. Federal Water Pollution Control Act of July 9, 1956, as Amended. (33 U.S.C. 1151). The purpose of this act is to enhance the quality and value of the water resource, and to establish a national policy for the prevention, control, and abatement of water pollution. Among the important provisions are authority for the State and Federal Governments to establish water quality standards; provision for water pollution grants for research and development, control programs, construction of treatment works, and comprehensive programs for water pollution control; enforcement measures against pollution from Federal facilities; and provision for the control of pollution by oil, hazardous substances, or sewage from vessels. The basic act (Pub.L. 84-660), is amended by the Federal Water Pollution Control Act/Amendments of 1961 (Pub.L. 87-88); Water Quality Act of 1965 (Pub.L. 89-234); Clean Water Restoration Act of 1966 (Pub.L. 89-753Z); Title I, Water Quality Improvement Act of 1970 (Pub.L. 91-224); Title I, National Environmental Policy Act of 1969 (Pub.L. 91-224); Federal Water Pollution Act of 1969 (Pub.L. 91-224); Federal Water Pollution Control Act Amendments of 1972 (Pub.L. 92-500); Clean Water Act of 1977 (Pub.L. 95-217).

8. Joint Surveys of Watershed Areas Act of September 5, 1962. (Pub.L. 87-639; 76 Stat. 438). This act authorizes the Secretary of the Army and the Secretary of Agriculture to conduct joint investigations and surveys of watersheds for flood prevention or the conservation, development, utilization, and disposal of water and for flood control and allied purposes; to prepare joint reports on such investigation and surveys for submission to the Congress; and for other purposes, provided these do not affect compliance with Pub.L. 83-566.

9. Wilderness Act of September 3, 1964. (78 Stat. 895; 16 U.S.C. 1131-1136). Under subsection 4(d)(4) of this act, the President may, within a specific area within a designated National Forest wilderness area, authorize prospecting for water resources. The President may also authorize the establishment and maintenance of reservoirs, water-conservation works, power projects, transmission lines, and other facilities needed in the public interest, including the road construction and maintenance essential to the development and use of these authorized facilities.

Subsection 4(d)(7) provides that nothing in the act shall constitute an express or implied claim or denial on the part of the Federal Government as to exemption from State water laws.

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10. Federal Water Project Recreation Act of July 9, 1965. (16 U.S.C. 460). This act provides uniform policies for investigating, planning, and constructing Federal water projects to protect and enhance where possible, recreation and fish.

11. Water Quality Act of 1965. (79 Stat. 903.) This act amends the Federal Water Pollution Control Act of July 9, 1956 (Pub.L. 91-224). It provides for the Federal Government to cooperate with State agencies or municipalities preventing or controlling pollution of waters over which they have jurisdiction.

12. Clean Water Restoration Act of 1966. (80 Stat. 1246.) This act provides for development of cooperative water quality control and abatement plans under the leadership of the Secretary of the Interior. This is an amendment to the Federal Water Pollution Control Act.

13. Water Quality Improvement Act of 1970 Approved April 3, 1970. (84 Stat. 91.) A major feature of Title I of this amendment of the Federal Water Pollution Control Act requires Federal agency compliance with water quality standards. Section 21 requires State certification of the adequacy of applicants' plans for Federal permits.

14. Federal Water Pollution Control Act Amendments of 1972. (Pub.L. 92-500, 86 Stat. 816, 33 U.S.C. 1251). This Act revises and reenacts previous Federal Water Pollution Control Acts of 1970, 1965, 1956, and 1948. The objective is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. Current goals include eliminating pollutant discharges into waters of the United States and providing surface water suitable for uses.

The act charges each State with primary responsibility for point source (section 402) and nonpoint source (section 208) pollution control. It specifies that effluent limits be set for point source discharges and that nonpoint sources of pollution be identified as appropriate and procedures be set forth to control them to the extent feasible.

Section 404 of this act provides for a permit program to regulate discharge from dredge and fill activities. This is administered by the Corps of Engineers. Portions of this regulatory program may be delegated to States.

Section 313 requires Federal agencies to comply with State and local requirements related to control and allotment of pollution to the extent that any person is subjected to such requirements.

15. Forest and Rangeland Renewable Resources Planning Act of 1974, as Amended. (88 Stat. 476; 16 U.S.C. 1601-1614). The Resources Planning Act (RPA) requires an assessment of present and potential productivity of the land. The act requires a program based on an assessment that is in full accord with the concepts of multiple use and sustained yield, including an evaluation of the balance between economic and environmental quality. The act contains many references to suitability and capability of specific land areas, to maintenance of productivity of the land, and to the need to protect

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and, where appropriate, improve the quality of the soil and water resources. The act specifies that substantial and permanent impairment of productivity must be avoided and has far-reaching implications for watershed management (including monitoring, inventories, condition and trends, and support services) on the National Forests.

16. National Forest Management Act of 1976. (16 U.S.C. 1600-1602, 1604, 1606, 1608-1614). This act substantially amends the Forest and Rangeland Renewable Resources Planning Act of 1974. The act strengthens the references pertaining to suitability and compatibility of land areas, stressed the maintenance of productivity and the need to protect and improve the quality of soil and water resources, and avoid permanent impairment of productive capability of the land.

In addition, the National Forest Management Act (NFMA) amends section 18 of the Knutson-Vandenburg Act (KV). This amendment authorizes the use of KV funds to protect and improve the future productivity of the renewable resources of the National Forests, including soil and water.

17. Clean Water Act of 1977. (33 U.S.C. 1251, 1254, 1323, 1324, 1329, 1342, 1344; 91 Stat. 1566). This act amends the Federal Water Pollution Control Act of 1972. Section 313 is strengthened to stress Federal agency compliance with Federal, State and local substantive and procedural requirements related to the control and abatement of pollution to the same extent as required of nongovernmental entities.

Activities that may be exempt from 404 permits or that are covered under the general permit are identified. These include normal silviculture, forest roads using best management practices, and streambank erosion control.

Section 404t was added to reinforce the States role in controlling discharge of dredge and fill material in navigable waters under their jurisdiction, including any Federal activity.

18. Annual Appropriations. Funding authority for the Forest Service to conduct burned area emergency rehabilitation is in the annual Appropriations Act for Interior and Related Agencies, which provides for the use of Fire Suppression and Fire Operations (WFSU) for this purpose (FSH 6509.11g, ch. 50).

19. Agricultural Credit Act of 1978. (P.L. 95-334; 16 U.S.C. 2201-2205). Section 403 of this act authorizes certain emergency conservation programs to control wind and water erosion, rehabilitate agricultural lands, conserve and enhance water supplies, and reduce hazards to life and property in the event of natural disasters. Section 403 authorizes a program of assistance for emergency measures to retard runoff and prevent erosion as necessary to safeguard lives and property when natural occurrences cause sudden impairment of a watershed. The Soil Conservation Service provides overall administrative direction and guidance for Emergency Watershed Protection and transfers funds to the Forest Service at the national level (7 CFR 624; FSM 3540).

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20. Acts Relating to Allowable Uses on Specific Watershed Lands. Certain Federal laws pertain to allowable uses on specific watershed lands within particular Regions and National Forests. Specific acts by Regions are:

a. Region 1. The Act of July 20, 1939 (53 Stat. 1071), regarding unappropriated public lands chiefly valuable for the protection of watersheds in existing or new National Forests in Montana.

b. Region 3.

(1) The Act of January 19, 1933 (47 Stat. 771), regarding the City of Prescott watershed lands in the Prescott National Forest, Arizona.

(2) The Act of June 13, 1939 (53 Stat. 817), regarding Bonita watershed lands in the Lincoln National Forest, New Mexico.

c. Region 4.

(1) The Act of September 19, 1914 (38 Stat. 714-716), regarding Salt Lake City watershed lands in the Wasatch National Forest, Utah.

(2) The Act of May 26, 1934 (48 Stat. 808-809), regarding Salt Lake City watershed lands in the Wasatch National Forest, Utah.

(3) The Act of September 14, 1962 (76 Stat. 545), regarding watershed lands in the Wasatch National Forest, Utah.

d. Region 5.

(1) The Act of May 29, 1928 (45 Stat. 956), regarding Los Angeles County watershed lands in the Angeles National Forest, California.

(2) The Act of April 20, 1936 (49 Stat. 1234), regarding Santa Barbara County watershed lands in the Los Padres National Forest, California.

e. Region 6.

(1) The Act of 1977 (19 Stat. 1425), which repealed earlier laws of 1904 and 1909 regarding the Bull Run Watershed, sets quality water as the primary objective for the watershed. Other objectives are permissible as long as there is no interference with the primary objective. The Secretary is authorized to control access to the watershed.

(2) The Act of March 4, 1921 (41 Stat. 1366-1367), regarding the City of Yakima (North Fork Rattlesnake Creek) watershed lands in Snoqualmie National Forest, Washington. See FSM 2501.2, Executive Order 3793, relating to the same lands.

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f. Region 9. The Act of April 3, 1970 (84 Stat. 91), regarding cooperative plans and projects to eliminate or control pollution within all or any part of the watersheds of the Great Lakes.

g. Region 10.

(1) The Act of July 27, 1939 (53 Stat. 1131), regarding the City of Ketchikan watershed lands in the Tongass National Forest, Alaska.

(2) The Act of October 17, 1940 (54 Stat. 1197), regarding the City of Petersburg watershed lands in the Tongass National Forest, Alaska. See FSM 2501.3 for the description of 36 CFR 251.35 relating to these same lands.

(3) The Act of March 22, 1944 (58 Stat. 119), regarding the city of Sitka watershed lands in the Tongass National Forest, Alaska.

2501.2 - Executive Orders

Executive orders of direct application to watershed management on National Forest System lands are:

1. Executive Order 3793 of February 20, 1923. This order relates to the use of the North Fork Rattlesnake Creek watershed on the Snoqualmie National Forest to protect the water supply of Yakima, Washington. See FSM 2501.1, paragraph 20e(2), for the Act of March 1921, relating to these same lands.
2. Executive Order 10584 of December 18, 1954, as Amended by Executive Order 10913 of January 18, 1961. This order, as amended, prescribes the rules and regulations for administration of the Watershed Protection and Flood Prevention Act (Pub.L. 566) of August 4, 1954, as amended (FSM 1021).
3. Executive Order 11514 of March 5, 1970, as Amended by Executive Order 11991, May 24, 1977. This order states that the Federal Government shall provide leadership in protecting and enhancing the quality of the nation's environment to sustain and enrich human life. This order provides for monitoring, evaluation, and control on a continuing basis of the activities of each Federal agency so as to protect and enhance the quality of the environment.
4. Executive Order 11574 of December 23, 1970. This order implements a permit program under section 13 of the Refuse Act of March 3, 1899, to regulate the discharge of pollutants and other refuse matter into the navigable waters of the United States or their tributaries and the placing of such matter upon their banks.
5. Executive Order 11988 of May 24, 1977. This order requires that each agency shall provide leadership and take action to:

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- a. Minimize adverse impacts associated with the occupancy and modification of flood plains and reduce risks of flood loss,
- b. Minimize impact of floods on human safety, health, and welfare, and
- c. Restore and preserve the natural and beneficial values served by floodplains.

See FSM 2527 for implementing direction.

6. Executive Order 11990 of May 24, 1977. This order requires each agency to take action to minimize destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. See FSM 2527 for implementing direction.

7. Executive Order 12088 of October 13, 1978. This order establishes agency responsibility for ensuring the prevention, control, and abatement of environmental pollution with respect to Federal facilities and activities under the control of the agency.

2501.3 - Regulations

1. Delegations of Authority for Watershed Management. The Assistant Secretary has delegated authority to the Chief of the Forest Service in Title 7, Code of Federal Regulations, section 2.60 (7 CFR 2.60), for the following functions that directly relate to watershed management on National Forest System lands:

- a. The responsibility, under such general principles, criteria, and procedures as may be established by the Soil Conservation Service, for making preliminary examinations and surveys under the flood prevention program; for conducting surveys and investigations under the small watershed protection program; for making surveys, investigations, and studies under the program for flood prevention and agricultural phases of the conservation, development, utilization, and disposal of water; and for the collection of data necessary to the preparation of comprehensive river basin reports in the watershed or basin on all National Forest System and other lands administered by the Forest Service; rangelands within National Forest boundaries and rangelands adjacent to National Forests administered in conjunction with such Forests under formal agreement with the owner or lessee; and other Forest lands.
- b. The responsibility for installing watershed improvements on all National Forest System and other lands administered by the Forest Service; rangelands within National Forest boundaries and rangelands adjacent to National Forests administered in conjunction with such Forests under formal agreement with the owner or lessee.

2. Municipal Water Supplies. This regulation concerning municipal water supplies at 36 CFR 251.9 authorizes the Chief of the Forest Service to enter into agreements with municipalities to restrict the use of National Forest System lands from which water is derived to protect the municipal water supplies (FSM 2542).

3. Watershed Lands on the Tongass National Forest. This regulation at 36 CFR 251.35 pertaining to watershed lands of the city of Petersburg, Tongass National Forest, Alaska closes the municipal supply watershed of the town of Petersburg to entry except by permit. Timber may be removed under conditions that safeguard the water supply.

2501.4 - Office of Management and Budget Circulars

1. Circular A-67 of August 28, 1964. This OMB circular prescribes guidelines for coordination of Federal activities in the acquisition of water data from streams, lakes, reservoirs, estuaries, and ground waters. The Department of the Interior operates a national network for acquiring and coordinating Federal water data. See FSM 2534.5 for direction relating to cooperative programs for water data acquisition.
2. Circular A-106 of December 31, 1974. This OMB circular pertains to the control of environmental pollution from existing Federal "facilities," and the control of nonpoint pollution. Section 313 of the Clean Water Act of 1977 interprets facilities as applying to land managed by the Federal Government.

2502 - Objectives

1. To protect and, where appropriate, enhance soil productivity, water quality and quantity, and timing of waterflows.
2. To maintain favorable conditions of streamflow and a continuous production of resources from National Forest System watersheds.

2503 - Policy

1. Implement watershed management activities on the National Forests in accordance with the general objectives of multiple-use and the specific objectives in the Forest land management plan for the area involved.
2. Design all management activities of other resources to minimize short-term impacts on the soil and water resources and to maintain or enhance long term productivity, water quantity, and water quality.

2504 - Responsibility

2504.1 - Chief

The Chief specifically retains the authority to:

1. Assign responsibility for preparing environmental assessment reports and for construction liaison on inter-Regional water development projects.

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2. Approve position papers, environmental assessment reports, and report recommendations for inter-Regional, non-Forest Service water resource development proposals subject to Federal construction, license, or approval.
3. Approve master agreements and memorandums of understanding, and agreements with national or inter-Regional agencies concerned with water resources.
4. Approve formal cooperative agreements for municipal supply watersheds.
5. Assign responsibility for liaison with field representatives of other agencies in matters pertaining to activities coordinated under the auspices of the Interagency Advisory Committee on Water Data (FSM 2532, OMB Circular A-67).

2504.2 - Director, Watershed and Air Management, Washington Office

The Director, Watershed and Air Management Staff has the responsibility to:

1. Develop, recommend, and implement national direction, standards, and guidelines for all phases of the Forest Service soil and water resource management program.
2. Coordinate inter-Regional watershed management activities.
3. Negotiate national level agreements with cooperating agencies and groups involved in water resource development projects and proposals on National Forest System lands.
4. Coordinate National Forest System management objectives and policies with those of other agencies cooperating in soil and water resource development proposals.

2504.3 - Regional Foresters

Regional Foresters have the responsibility to:

1. Provide Regional direction, guidance, and training for all activities associated with watershed management.
2. Conduct environmental assessments and prepare position papers and environmental assessment reports for non-Forest Service water resource development proposals that involve National Forest System lands and that are subject to Federal construction, license, or approval. Approve position papers and reports for such development proposals that are not inter-Regional in character.
3. Prepare position papers and environmental assessment reports for inter-Regional non-Forest Service water resource development projects where assigned primary responsibility by the Chief.

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4. Cooperate at State and Regional levels with Federal and State agencies in the management and use of soil and water resource programs and permits related to National Forest System lands.
5. Enter into cooperative agreements with State and Federal agencies concerning Forest Service participation or cooperation in flood forecasting and warning, and in the collection of weather, streamflow, and water quality data.
6. Determine the extent of Forest Service interests in inter-State water compacts under development and inform the Federal representative of these interests.
7. Prepare formal cooperative agreements with municipalities for municipal-supply watersheds under 36 CFR 251.9 for approval by the Chief.
8. Develop and disseminate technical information concerning watershed management, application of soil and water science, and environmental protection practices; and ensures their use through assistance, training, and inspection.

2509 - Handbooks

2509.1 - Internal Service-Wide Handbooks

2509.13 - Burned-Area Emergency Rehabilitation Handbook (FSH)

This handbook contains guidelines for conducting burned-area surveys and for evaluating the need for emergency rehabilitation for the prevention of further watershed damage following wildfire. It includes information about when and how to use various emergency rehabilitation measures and procedures for reporting findings and recommendations.

2509.16 - Water Resource Inventory Handbook (FSH)

This handbook describes the process to be followed for conducting water resource inventories.

2509.2 - Internal Unit Handbooks

2509.21 - National Forest System Water Rights Handbook (FSH)

These unit handbooks provide direction and guidance for following established procedures unique to each Region.

2509.22 - Soil and Water Conservation Handbook (FSH)

These unit handbooks include procedures and identify practices for the conservation of soil and water resources.

2509.23 - Riparian Area Handbook (FSH)

These unit handbooks include procedures for identification, description, mapping, and evaluation of riparian areas.

2509.24 - National Forest System Watershed Codes Handbook (FSH)

These unit handbooks contain a list of unit watersheds, their corresponding 10-digit Water Resource Council hydrologic codes, and instructions for assigning codes.

2509.25 - Watershed Conservation Practices Handbook (FSH)

These unit handbooks provide interdisciplinary direction on measures for protection of soil, aquatic, riparian, and water systems. Practices covered in the handbooks should meet or exceed State Best Management Practices. The handbooks may include practices and standards for such areas as hydrologic function, riparian areas, sediment control, soil productivity, and water purity.