



**FOREST SERVICE MANUAL  
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**FSM 2500 - WATERSHED AND AIR MANAGEMENT**

**CHAPTER 2540 - WATER USES AND DEVELOPMENT**

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**Approved:** CORBIN L. NEWMAN  
Acting Deputy Chief

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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 2500-2004-1 to 2520.

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|---|---|----------|
| <b>New Document</b>   | 2540                                      | 20 Pages |
| <b>Superseded Document(s) by Issuance Number and Effective Date</b> | 2540<br>(Amendment 2500-90-1, 06/01/1990) | 16 Pages |

**Digest:**

Converts the format and style of this chapter to the FSM template using the agency's current corporate word processing software. Makes minor typographical and technical corrections throughout the chapter.

2542.05 - Simplifies the definition of public water systems that can participate in a municipal supply watershed agreement to agree with the definition in the Safe Drinking Water Act, as amended, and FSM 7420, Drinking Water.

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## **2541 - NATIONAL FOREST SYSTEM WATER RIGHTS**

### **2541.01 - Authority**

Federal law (Acts of July 26, 1866, and July 9, 1870) protects possessors and owners of rights to water for mining, agriculture, manufacturing or other purposes. The water rights protected are those vested and accrued by priority of possession, and recognized and acknowledged by local customs, laws and court decisions. Subsequent laws and legal decisions specifically affecting National Forest System water rights and uses include:

1. The Desert Land Act. The Desert Land Act of March 3, 1877 (19 U.S.C. 377), as amended (43 U.S.C. 321), permits public appropriation of unappropriated nonnavigable waters on the public domain in the 13 states to which it pertains. In a 1935 ruling, the Supreme Court held that the Act authorizes public acquisition of such water rights by following procedures prescribed by state law (California and Oregon Power Company v. Beaver Portland Cement Company, 295 U.S. 143). However, in 1955 the Supreme Court held that the Desert Land Act does not apply to lands reserved from the public domain (Federal Power Commission v. Oregon, 349 U.S. 935).
2. The Organic Administration Act. Basic authority for watershed management is in the Organic Administration Act of June 4, 1897 (30 Stat. 34, as amended, 16 U.S.C. 475). It states the securing of favorable water flow to be a purpose for establishing National Forests. The Act allows all waters within National Forest boundaries to be used for domestic, mining or irrigation purposes under the laws of the states wherein the National Forests are situated, or under United States laws, rules and regulations. A 1982 Colorado Supreme Court ruling (United States of America v. City and County of Denver, 656 P. 2d1) clarified that the 1897 Act grants only a permissive right to use waters within the National Forest.
3. Judicial Doctrine. The Supreme Court established federal reserved water rights in 1908 (Winters v. United States, 207 U.S. 568). Key provisions of the decision, known as the Winter Doctrine, and subsequent modifying rulings are:
  - a. The United States government implicitly reserves the amount of water needed for reservation purposes.
  - b. Only the amount of water needed for reservation purposes is reserved.
  - c. Groundwater as well as surface water is included.
  - d. The Multiple-Use Sustained-Yield Act does not allow additional retroactive reservation of water.

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- e. Federal reserved water rights, unlike state water rights, are not lost by nonuse and may provide for future needs. The priority date is the date of withdrawal of the reservation.
4. General Exchange Act. The General Exchange Act of March 20, 1922 (42 Stat. 465), as amended (16 U.S.C. 485, 486), provides authority for accepting title to lands within National Forests in exchange for National Forest lands reserved from the public domain. Lands acquired under this act or under other authorities related to the purchase, exchange, or donation of lands added to the National Forest System, do not have reserved status for purposes of claiming water under the reservation principle. This includes nonreserved lands acquired by another Federal agency and subsequently transferred to Forest Service jurisdiction. Such acquired lands may, however, carry with them water rights established under state laws, depending upon the laws and facts involved in each transaction.
5. Organic Act of 1944. A provision of this act (16 U.S.C. 526) authorizes appropriations for Forest Service investigation, establishment, purchase and protection of water rights needed or beneficial for Forest Service administration and public use.
6. McCarran Amendment. This 1952 act (43 U.S.C. 666) allows the United States to be joined as a defendant in lawsuits to:
- a. Adjudicate rights to use river system or other waters.
  - b. Administer such rights if the United States is owner or in the process of acquiring rights.

A 1971 Supreme Court ruling (*United States v. District Court in and for the County of Eagle, Supra 1971*) subjects all United States water rights to general state adjudication regardless of whether the rights are claimed under federal or state law.

### **2541.02 - Objective**

To obtain water needed for the National Forest System, in accord with legal authority and with due consideration for the needs of other water users.

### **2541.03 - Policy**

1. Rely on the reservation doctrine if the land was reserved from the public domain and for the reservation purposes identified in documents or legislation.
2. Obtain water rights under state law if the reservation doctrine does not apply.

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3. Purchase essential water rights not otherwise available.
4. Use water needed for National Forest purposes efficiently, and in water-scarce areas, frugally.

**2541.04 - Responsibility**

**2541.04a - Chief**

The Chief shall:

1. Develop policies, programs, and procedures for obtaining water needed for National Forest System purposes.
2. Develop and maintain liaison and cooperative relationships with others concerned with water use on National Forest System lands.
3. Maintain liaison with the Comptroller General's office and Justice Department.
4. Approve participation in adjudication.

**2541.04b - Regional Foresters**

Regional Foresters shall:

1. Notify states of existing and foreseeable water use under Federal authorities.
2. Obtain water rights according to state procedures when Federal authorities do not apply.
3. Purchase water rights as needed.
4. Review and approve water needs analyses.
5. Participate in adjudications.
6. Provide technical guidance, assistance, and training to forests.
7. Maintain liaison with others, at Regional levels, who are concerned with water use on National Forest System lands.

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8. Annually update the Regional water uses and needs inventory. See chapter 10, FSH 2509.17, Water Uses, Rights, and Requirements System (WURR).
9. Ensure compatible instructions for perfecting water rights when more than one Region must deal with a single state.

### **2541.04c - Forest Supervisors**

Forest Supervisors shall:

1. Prepare and update water uses and needs inventories.
2. Prepare water use notifications, water rights applications, and analyses of water needs.

### **2541.1 - Determining Water Rights and Needs**

The right to use the amount of water needed to manage the National Forest System is provided under authority of Federal laws (sec. 2541.01), or under state law. Determine specific amounts required when claiming water rights under the reservation doctrine, applying for water under state laws or purchasing water rights. Identify specific uses, sources and quantities of water needed. Water rights asserted under the Federal reserved rights doctrine may provide for present and foreseeable future uses.

### **2541.11 - Inventory and Records Maintenance**

The Forest Service Water Uses, Requirements and Rights (WURR) system provides a uniform data file for recording and storing information needed to properly manage water uses and rights. File design and data elements definitions are described in FSH 2509.17, chapter 10, Water Information Management System Handbook. Use WURR and other files such as Landownership Status and Land Use Reporting that form the Landownership Management System (LOMS) (FSM 5490) to track current status of existing water rights and other interests in water. Prepare and maintain inventory records to show (1) valid water rights of private parties on National Forest System lands (2) water rights of the United States including nature of rights such as reserved, riparian, appropriative and so forth; and (3) foreseeable National Forest water requirements. Prepare a map record of water uses keyed to WURR.

### **2541.12 - Instream and Standing Water Requirements**

Determine the amount of water needed for instream and standing water purposes, particularly for the following:

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1. Adjudications. To be certain of meeting public obligations, establish Forest Service claims for instream flows and standing water during state or Federal court proceedings to adjudicate claims.
2. Land Management Planning. Many management objectives are dependent upon certain water flow and lake-level conditions. Determine the amount and location of water needed to meet management objectives.
3. Water Development Projects. Examine instream flow and standing water level needs, and establish requirements whenever a diversion or impoundment threatens to alter existing flows or levels.

Determine quantities of water needed to maintain instream flows for recreation, fish and wildlife and other uses, as well as activities and uses associated with timber production and securing favorable conditions of water flow.

## **2541.2 - Establishing Rights to Water**

### **2541.21 - Claims Under the Reservation Doctrine**

1. Use the Organic Administration Act of 1897 authority to claim reserved water rights for consumptive or nonconsumptive needs on reserved lands directly related to securing favorable conditions of water flow or to furnish a continuous supply of timber. Claim the following:
  - a. Domestic water needed for Ranger Stations, fire stations, work centers, housing, and other facilities constructed and maintained for administering National Forest System programs for watershed protection and timber production.
  - b. Water needed for fire protection and control.
  - c. Water needed for constructing and maintaining access roads for timber production and watershed protection activities.
  - d. Water needed for irrigation of tree nurseries, seed orchards, and other facilities devoted primarily to the supply of timber or watershed protection.
  - e. Water needed for maintaining Forest Service riding and packstock used in the administration of the National Forest System timber resources and for watershed protection.
  - f. Water needed in connection with special uses where the user is engaged in activities carried out for watershed protection or timber production on the National Forest System.



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- g. Water needed in the form of instream flows sufficient to maintain the stability of stream channels for favorable conditions of waterflow and protection against the loss of productive timber lands adjacent to the stream channels. This includes the volume and timing of flows required for adequate sediment transport, maintenance of streambank stability and proper management of riparian vegetation. A procedure for such quantification is located in FSH 2509.17, chapter 30.
2. Other reservation authorities. Claims for reserved rights may be based on purposes authorized by legislation such as the Multiple-Use Sustained-Yield Act of 1960, the Wild and Scenic Rivers Act (82 Stat. 917, 16 U.S.C. 12771 et seq.) or the Wilderness Act (P.L. 88-577, as amended, 16 U.S.C. 1131 et seq.). Because of the legal complexities involved in water rights under these statutes, do not make such claims without prior consultation with the Chief and the Office of the General Counsel.

**2541.21a - Priority Date**

- a. Claim the date of reservation for rights claimed under the Organic Administration Act of 1897.
- b. Claim the effective date of legislative enactment or executive action authority for rights claimed under other authorities.

**2541.21b - Former Public Domain Lands in Question**

Apply the reservation doctrine to withdrawn lands reverted to the United States if title never passed from the United States.

**2541.21c - Other Reservation Lands**

Seek advice from the Office of General Counsel in cases involving former Indian, Military, or other reservation lands. The applicability of water rights and the effective date is dependent on what is acquired and on whether the same or similar use is continued on reserved lands.

**2541.21d - Rights Acquired by Others Prior to Withdrawal**

Determine the location of diversions and amounts appropriated by others prior to land withdrawal from the public domain. Water rights acquired by private parties prior to establishment of the reservation are senior to those of the Forest Service. Do not claim reserved rights if waters were fully and validly appropriated by others prior to withdrawal.

**2541.21e - Limitations**

Do not claim reserved rights on lands acquired by other methods and authorities, such as exchanges, gifts, or purchases.

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**2541.21f - Notification to States of Water Uses for Reservation Purposes**

Inform states of existing and foreseeable water uses needed to carry out the purposes of the reservation. Report both surface and subsurface water uses.

1. Reportable Reserved Rights. Report water uses that consume water to protect and improve the use and productivity of the National Forest System. Do not report evaporation and seepage losses from natural lakes and streams, or water depletions resulting from the temporary water retarding effect of erosion control activities. Claims for reserved water rights for reportable uses and needs may be made only when such uses can be specifically identified as necessary for carrying out the purpose of a reservation. Examples of reportable needs include:

- a. Water impoundments or developments for improvement of the availability of water for wildlife or domestic livestock. Evaporation resulting from such impoundments or developments is reportable.
- b. Water diverted from its source for irrigation of pastures, nurseries, or meadows.
- c. Administrative site water supplies.
- d. Developed water for recreation area use.
- e. Developed water for logging camps.
- f. Water required for developed special uses, such as resorts, summer homes, and cow camps.
- g. Initial filling of conservation pools designed for permanent recreation, fish, or wildlife use in public or privately financed water storage reservoirs.
- h. Initial filling of impoundments developed specifically for recreation, fish, and wildlife habitat.
- i. Flow necessary for fish habitat protection, such as streamflow or lake-level requirements to maintain fish life, including fish ladders and regulated-flow spawning channels, when diversions exist or are anticipated and would result in less than acceptable flows.
- j. Water required for maintenance of streamflows and lake-levels for recreation, water quality, scenic, or esthetic purposes.

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### **2541.21g - Notification Procedures**

Develop notification procedures jointly with the states. Consult with the Office of General Counsel on questions of proper notice and jurisdiction.

### **2541.21h - Analyzing Water Needs**

Base decisions to initiate or expand water use on needs identified in land and resource management planning. Plan, design, and operate new developments for efficient water use.

### **2541.22 - Securing Water Rights for Nonreserved Waters**

Secure water rights in accordance with state laws for water needed on acquired lands, and on reserved lands if the reservation doctrine or other Federal law does not apply to the uses involved.

#### **2541.22a - Quantifying Water Needs Under State Law**

Quantify total water requirements for rights to be acquired. Take into account any seepage, evaporation, and transmission needs and losses associated with the water use.

#### **2541.22b - Application for Appropriative Water Rights**

File all applications to appropriate water in the name of the United States. Assert the date water was put to beneficial use as the priority date.

#### **2541.22c - Payment of State Fees**

Pay state fees required to secure water right provided the fees are clearly not a tax or license. Payments to states for securing water rights under state law may be made by the Forest Service from any benefiting function. Refer questionable filing fees to the Washington Office.

### **2541.3 - Protecting Water Rights**

#### **2541.31 - Protecting Instream Flows**

Notify states of instream flow needs by: (a) filing protests of application for water rights if the exercise of such rights would adversely affect National Forest resources or water rights of the United States, (b) asserting claims to water rights under Federal law insofar as applicable, and (c) filing for water rights under state law where these uses are recognized. In those states that recognize instream flows, but require that related water rights be held in the name of the state (or some state agency), work with the appropriate agency to obtain and protect the needed water flows.

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Notify the Chief or the Office of General Counsel if the appropriate procedure for protecting needed instream flows is difficult to determine.

Where water rights for instream flows cannot be established, use other methods and authorities to ensure the necessary level of protection. Such methods include: (1) special-use permits or easements and (2) agreements and memorandums of understanding.

### **2541.32 - Possessory Interests**

Claim possessory interest in water rights in the name of the United States for water uses on National Forest System lands as follows:

1. Claim water rights for water used directly by the Forest Service and by the general public on the National Forest System.
2. Claim water rights for water used by permittees, contractors, and other authorized users of the National Forest System, to carry out activities related to multiple use objectives. Make these claims if both water use and water development are on the National Forest System and one or more of the following situations exists:
  - a. National Forest management alternatives or efficiency will be limited if another party holds the water right.
  - b. Forest Service programs or activities will continue after the current permittee, contractors or other authorized user discontinues operations.

### **2541.33 - Protesting Claims by National Forest Users**

Protest water rights applications made by users if the water right should be held by the United States.

### **2541.34 - Water Rights and Uses for Other Purposes**

Evaluate projected water requirements of uses of National Forest System lands for purposes such as hotels, power developments, and transmission lines not directly related to Forest Service programs. Assess environmental effects of the use before authorizing the use. If the projected water requirements conflict with existing or potential Forest Service uses and rights or will adversely affect National Forest resources, the potential permittee must seek alternative water sources on develop mitigation plans acceptable to the Forest Service.

The establishment of a water right on National Forest System land does not limit the Regional Forester's authority to regulate land use and occupancy, nor to prevent injury to property of the United States. Although a permittee may make beneficial use of water on National Forest System land, the Regional Forester retains the authority to determine management actions needed to comply with rules and regulations for land use and occupancy.

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### **2541.35 - Special-Use Authorizations for Water Developments**

Special-use authorizations that involve water storage, transmission, or diversion facilities on National Forest System lands (FSM 2729) authorize occupancy of the land only for the specific development purpose. In no case does the United States necessarily relinquish any water right it may have, or waive the right to use such water. Include stipulations in the authorizing documents to ensure the quantities of water needed to fulfill purposes of the National Forest and for environmental needs will be maintained instream. Clearly inform the permittee that the authorization does not confer any legal right to the use of the water, nor does it provide a basis for acquiring such a right as against the United States (FSM 2782 and 2783.12).

### **2541.36 - Participation in State Court Adjudication**

The water rights of the United States, both reserved and acquired rights, are subject to adjudication proceedings in state courts.

The United States must be served under the McCarran Amendment (sec. 2541.01) to become a party of a state adjudication. Proper service on the United States is accomplished by the service of written notice and/or complaint upon the local United States Attorney with a copy of such notice/complaint being sent to the Attorney General of the United States. If the Department of Agriculture or the Forest Service are named parties, then notice/complaint should also be served upon the Department or Service, though this is not required by the Act. When the United States becomes a party to an adjudication in a state court, or if the United States should be joined as a party defendant in the suit, the Department of Justice, through the Office of General Counsel in Washington or through Regional Counsel, may request information as to Forest Service interest in the use of water within or tributary to the areas named in the adjudication proceedings. The affected Region shall prepare and submit to the appropriate Regional Office of the General Counsel, a tabulation in triplicate of existing and foreseeable National Forest water uses and rights claimed both under the reservation doctrine and by the Forest Service under state laws. Maps should be submitted in duplicate showing details as required by the Office of the General Counsel.

Refer initial questions on adjudication proceedings to the Washington Office for advice from the Office of the General Counsel. Once an adjudication is under way, it may be that coordination will be effected through the field offices. Although the Justice Department usually becomes involved in a case only after the United States becomes a party to the adjudication, keep the Justice Department informed, through legal counsel, of measures needed or taken to protect the Government's interests and claims to water rights.

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### **2541.37 - Protests to Water Rights Applications of Others**

Private parties sometimes apply under state law for water rights for water that is in use or may be needed for future use for National Forest purposes under the reservation doctrine. Such applications made for authority to divert, impede, or impound water, may be for waters arising on the National Forest, or for waters either upstream or downstream from a National Forest.

If granting of a water right will conflict with current or future National Forest reservation uses or needs, submit a statement informing the state agency responsible for water rights, that issuing such water rights would conflict with those uses of the United States for National Forest purposes. Make this statement only if granting a water right would adversely affect the present or foreseeable future uses. If states were notified of uses on reserved lands by the Forest Service notification process, a reminder statement will be sufficient (some states have a form available for this purpose). If the rights of the Forest Service have been adjudicated or otherwise finally determined under law, any protests will be guided by such determinations.

The Regions shall provide the state water rights agency with any information essential for proper consideration of applications. Seek advice of the regional attorney or the attorney in charge when protests are made to water right applications which may adversely affect waters reserved for National Forest purposes or in any proceedings where the water rights of the United States will be considered.

### **2541.4 - Managing Water Rights**

Manage water rights to ensure these valuable United States properties are not lost.

Reserved water rights cannot be lost for nonuse. However, they can be made ineffectual if associated water sources are diverted, polluted, impounded, or otherwise made unavailable or unusable. Be alert to any proposal that will adversely affect water supplies needed to carry out purposes of reserved lands. Make appropriate protests concerning any such proposals.

Study and become familiar with specific state water right laws. Water rights obtained under state law, whether appropriated, acquired by assignment of a deed to land, or acquired by separate purchase or exchange of water rights, may be subject to loss if not exercised in accordance with state water laws. State laws often differ regarding the bases of grounds for possible forfeiture of a right to water use. Maximum allowable periods of nonuse and restrictions on changes in purpose or point of diversion or use may vary. In managing appropriated water rights and other interests in water acquired under state law:

1. Maintain water rights in accordance with state forfeiture or abandonment laws and regulations. Apply the water to the purposes and in the manner specified in the water right permit, license, or decree. This includes the amount, time, and designated place of diversion and use.

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2. Maintain in operable condition, all diversions, impoundments, or other facilities required to exercise the associated water right.

If it becomes necessary for the proper management of National Forest System resources to convert a use of water, secured under state water right, to a water use not adequately recognized and protected under state law, consult with the Washington Office and the Office of the General Counsel as to how adequate protection can be obtained.

### **2541.41 - Verification of Water Use**

Verify that each water use authorized by a state water right is used according to provisions of the law of the state in which the use occurs. Comply, and verify compliance with all provisions of permits, licenses, or decrees. Make on-the-ground inspections when necessary where a diversion, impoundment, or other facility is required to exercise the water right.

Verify the existence of water rights on lands or waters to be acquired before taking land adjustment actions. Include documentation that verifies:

1. The water right(s) to be acquired are recognized by the state and areas described by the party from whom they would be acquired. Verify the priority date and the authorized amount, season, period of use, and purpose of use.
2. All state requirements for exercise of the right have been met. Ensure that the water right is not subject to a declaration of forfeiture or abandonment by the state under provisions of state law due to nonuse, unauthorized changes in type of use, place of diversion or use, or other reasons.
3. The water right(s), as described and as recognized under state law, will satisfactorily serve the present and future foreseeable needs of the Forest Service.

### **2541.42 - Purchase and Exchange of Water Rights**

Acquire water rights needed for National Forest uses through purchase or exchange when waters are fully appropriated and Federal rights are not applicable. Follow these procedures:

1. Include purchase costs for water rights in special use fees when such purchases are made specifically to support the permitted use.
2. Secure any appurtenant water rights with lands acquired by exchange.
3. Follow state procedures for changes in water rights, such as place of use, ownership, or purpose of use. As set forth in 2541.4, if state law impedes or precludes the changes required for the proper management of National Forest System resources, consult with the Washington Office and the Office of the General Counsel.



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## **2542 - MUNICIPAL SUPPLY WATERSHEDS**

### **2542.02 - Objective**

To manage National Forest System (NFS) lands for multiple-uses by balancing present and future resource use with domestic water supply needs.

### **2542.03 - Policy**

Identify watersheds providing the principal source of community water during land management planning. Develop prescriptions on a case-by-case basis to ensure desired multiple-use outputs while recognizing domestic water supply needs. Encourage municipalities to provide adequate and appropriate water treatment. Do not rely on management practices to provide pure drinking water. Use only proven techniques in management prescriptions for municipal supply watersheds. Determine increased costs of any unusually restrictive practices required to meet state-approved Best Management Practices for protection of surface water; identify any revenue losses from applying such restrictions. Compute the amount of payment that may be necessary to reimburse the United States for such losses in accordance with [36 CFR 251.9](#). Consider formal agreements under [36 CFR 251.9](#) only when intensified multiple-use management fails to meet the needs of the water user.

### **2542.04 - Responsibility**

#### **2542.04a - Chief**

The Chief shall approve and execute formal agreements that restrict the use of National Forest lands in municipal supply watersheds.

#### **2542.04b - Washington Office, Director, Watershed, Fish, Wildlife, Air and Rare Plants**

The Staff Director shall maintain a National inventory of municipal supply watersheds.

#### **2542.04c - Regional Foresters**

Regional Foresters shall:

1. Maintain a regional inventory of municipal supply watersheds.
2. Review proposed restrictions that exceed coordinating requirements in Forest plans. Direct Forest Supervisors to develop formal agreements if proposed restrictions are found necessary.



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### **2542.04d - Forest Supervisors**

Forest Supervisors shall:

1. Maintain a Forest inventory of municipal supply watersheds.
2. Develop and coordinate measures necessary for management of municipal supply watersheds in the Forest Plan (FSM 1920).
3. Develop formal agreements for municipal supply watersheds.
4. Inform the public of restrictions in municipal supply watersheds.
5. Post restricted municipal supply watersheds.
6. Maintain case folders for municipal supply watersheds.

### **2542.05 - Definition**

Municipal Supply Watershed. A watershed that serves a public water system as defined in the Safe Drinking Water Act of 1974, as amended (42 U.S.C. §§ 300f, et seq.); or as defined in state safe drinking water statutes or regulations.

### **2542.1 - Municipal Supply Watershed Planning**

Evaluate the following in Forest Planning where municipal supply watersheds are an issue or concern:

1. Existing water resource conditions as determined by a hydrologic investigation (FSM 2530).
2. Current uses, values, and management requirements for other National Forest resources.
3. Projection of use in the watershed under multiple-use management practices.
4. Current and proposed handling and treatment of water by the municipality, or other water user, after water is diverted from the municipal supply watershed.
5. An incremental analysis of costs and benefits for alternative land management objectives. Include interests of the municipality in such an analysis.
6. The financial ability of the municipality to provide complete water treatment.

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7. The extent that use within the watershed can be regulated. Include such factors as percent of National Forest land within the watershed, accessibility, private land development, and mining activity.
8. Adjustments of normal multiple-use management practices required to meet municipal water supply needs.
9. Economic effects of modifying normal management practices. Include estimates of added cost for intensified management and loss of net annual revenues that would have been derived from resources withheld from management.

**2542.11 - Requirements in Forest Land Management Plans**

Show municipal supply watersheds as special management areas in Forest plans when management intensity and timing differs from other areas. Forest plans shall include:

1. A statement of objectives for managing the water resources on and flowing from the watershed. Include quality, quantity, and timing criteria for the water resource.
2. A display showing the proportion of total streamflow used for municipal purposes, the location and size of the municipal supply watershed and associated reservoirs, and the type and amount of permitted public use at water-supply reservoirs.
3. Guidelines for protection, management, use, and development, together with coordinating requirements for other uses and activities within the watershed.
4. Guidelines for monitoring uses, activities, and water quality characteristics that may be affected by Forest management activities.
5. An assessment of the contribution that should be made by the water-user toward management efforts, including such activities as operating a water-quality monitoring system and patrols needed to enforce any use restrictions.

**2542.2 - Administration of Municipal Supply Watersheds**

**2542.21 - Notices of Restrictions**

Inform the public of use restrictions imposed on municipal supply watersheds and reasons for restrictions. Include use restriction clauses in all permits, leases, or other documents authorizing use within the watershed. Designate restricted municipal supply watersheds on maps prepared for public use (sec. 2542.11).

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### **2542.22 - Boundary Posting**

Post boundaries at points of entry for municipal supply watersheds closed to public use, or with restrictions on use.

### **2542.23 - Case Folders**

Maintain case folders in Ranger and Supervisor Offices for municipal supply watersheds in accordance with the provisions of the Records Management Handbook (FSH 6209.11).

### **2542.24 - Monitoring**

Monitor use and activities on municipal supply watershed according to Forest Plans (sec. 2542.1).

### **2542.3 - Inventory of Municipal Supply Watersheds**

Maintain up-to-date inventories of all municipal supply watersheds. Include the following information.

1. The standardized watershed code (sec. 2513.2).
2. Region, forest, and district, in standard numeric codes.
3. State and county in standard numeric codes.
4. The source name of the water used.
5. User type.
6. Population group.
7. Amount of water withdrawn.
8. Percent of total annual flow withdrawn.
9. Water treatment.
10. Other sources of water available to the user.
11. Percent of the total water used that originates on National Forest System land.
12. Acres of National Forest within the source watershed.
13. Name of user.

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14. Acres of land administered by the user group within the source watershed.
15. Total acres of the source watershed.
16. Date that any formal agreement was signed.
17. Date of latest amendment to any formal agreement.
18. Physical location of the original of any formal agreement.
19. Basic authority used to designate or identify a municipal watershed.
20. Basic authority used to enter into an agreement between the Forest Service and a user.
21. Other uses of the source area watershed and any constraints placed on multiple-use management.
22. Any contingency plans developed to address emergency situations.

**2542.4 - Formal Agreements for Management of Municipal Supply Watersheds**

Develop formal agreements when needed to protect water supplies. Include the following in agreements developed under [36 CFR 251.9](#):

1. The kind of land uses allowed in the watershed.
2. Necessary restrictions and protective measures in the watershed.
3. Needed assistance in the enforcement of restrictions.
4. The nature of payments to compensate the United States for revenue losses resulting from restrictions.