

**Forest Service Handbook  
National Headquarters - Washington Office  
Washington, DC**

**Forest Service Handbook 5609.11 – Boundary Management Handbook  
Zero Code**

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**Superseded Directive:**

**Approved by:** Tina Terrell, Associate Deputy Chief, NFS

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**Responsible Staff:**

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

**Zero Code** - Establishes a new chapter, and replaces direction previously included in FSM 7150 Surveying and sets forth direction to this Handbook.

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## **01 - Authority**

See FSM 5601 for further direction. The authority comes primarily from State licensure, but is also received through special instructions issued by the Bureau of Land Management (BLM) to conduct cadastral surveys.

## **02 - Objective**

To prepare, process, and maintain accurate records relating to land surveys, land descriptions, survey plats, special designated area boundary descriptions, and final maps affecting the public estate managed by the Forest Service as National Forest System lands.

## **03 - Policy**

This direction, along with technical information in the appropriate training materials and the BLM Manual of Surveying Instructions, defines boundary management activities, which includes:

1. Surveying, locating, marking, posting, and maintaining property and boundary lines.
2. Performing the recovery, restoration, and perpetuation of corners to establish and/or re-establish property and property-controlling corners, which are part of the original survey scheme or the Public Land Survey System (PLSS).
3. Maintaining an inventory of corners, property lines, and boundary lines controlling land ownership, including partial interests in land and special designated areas.
4. Documenting all land surveys with survey plats, corners, survey certificates, and/or affidavits in the proper format and maintaining records with the appropriate local entity; BLM State Office, when applicable; and the appropriate Forest Service office.
5. Documenting unauthorized uses, occupations, encroachments, and other encumbrances affecting the public estate identified as a result of a properly executed land survey and research work. Working with the Line Officer (see FSM 1230.6) and staff specialist to investigate and make recommendations for resolution.

## **04 - Responsibility**

See FSM 5604 for further direction.

## **05 - Definitions**

Boundary Line. Is a line common to two or more parcels of land. The parcels of land may be of the same or of different ownership but distinguished at some time in the title history by separate legal descriptions. A boundary line between parcels of land under different

ownership is usually termed a property line. If a boundary line is a line of the United States PLSS, it is given a particular designation, such as a section line or township line.

Boundary Management. The set of land stewardship activities that deal with the physical land survey, identification, marking, maintenance, and defense of the land, title, interests, and resources of the public estate administered by the Forest Service. This includes all National Forest System property lines, special designated area boundary lines, administrative boundary lines, and partial interests in land.

Boundary Surveys. Retracement of cadastral surveys and other land surveys for the purposes of identifying land boundaries based on documents of record and historical evidence. This includes:

1. Planning, locating, establishing, and describing property boundaries; and
2. Certifying land surveys as required by State statutes, local ordinance, professional land surveying standards of practice, and State-licensing requirements.

Cadastral Survey. A land survey which creates, marks, defines, retraces, or re-establishes the boundaries, corners, and subdivisions of land. This term is typically used in PLSS States to define land surveys of PLSS under Federal survey authority by the BLM or their designees.

Corner. A point on the Earth, determined by the surveying process, which defines an extremity on a boundary of land, an angle point on a boundary, or a point at which two or more boundary lines meet. Not the same as a monument, which refers to the physical object placed or referenced at the corner's location on the ground.

Easement. A non-possessory partial interest held by one entity (dominate estate) in land of the fee owner (servient estate) whereby the dominant estate is accorded use of such land for a specific purpose. An easement restricts, but does not abridge, the rights of the fee owner to the use and enjoyment of the land.

External Boundary. An external boundary line is a boundary line between a parcel of National Forest System land, and other non-National Forest System land. This is generally referred to as a property boundary line.

Internal Boundary. A boundary line between two parcels of National Forest System land or a land and resource management boundary which separates regulated and restricted areas and uses, such as special designated areas, from other National Forest System lands.

Land Surveying. The application of specialized knowledge of the principles of mathematics; the related physical and applied sciences; and the relevant requirements of law to correctly measure, locate, and identify areas of land and water or to legally describe, plat, or map those areas for conveyance, acquisition, or recording. State laws further describe the profession of land surveying and should be consulted for each jurisdiction involved.

Maintenance. The act of remarking, reposting, and/or re-monumenting a property or boundary line that has been previously located and marked to Forest Service boundary line standards.

Marking. The act of blazing and painting trees, and placing physical objects such as line posts or monuments, along a boundary line to Forest Service boundary line marking standards. This is done to perpetuate the boundary line location for land and resource management needs on National Forest System lands, and the adjoining non-National Forest System lands.

Monument. The permanent physical object placed or referenced at the corner's location on the ground, set by a land surveyor. The standard for what monument type to use depends on terrain.

National Forest System Lands. Lands of the public estate administered by the Forest Service, title to which is vested in the United States of America. This includes lands reserved from the public domain or acquired lands managed by the Forest Service. This also includes riparian land which may be dry, temporarily or partially covered by water (such as floodplains, marsh land, swamps, streams, sloughs, and estuaries), or lands completely submerged under non-navigable bodies of water. This excludes lands where the Forest Service only administers partial interests, such as conservation easements, mineral rights, and rights-of-way easements (these are identified separately as National Forest System partial interests in lands).

Posting. The act of placing property boundary signs and line posts along a boundary line so it is recognizable for land and resource management activities. The boundary marking standard used depends on the type of activity.

Proclamation Boundary. The boundary encompassing National Forest System lands within the original proclaimed National Forests, along with subsequent executive orders, proclamations, public laws, public land orders, Secretary of Agriculture orders, and Secretary of Interior orders creating boundary modifications thereto. The proclaimed boundary may include other Federal lands, tribal lands, State lands, county and local government lands, and corporate or private lands. It does not indicate Forest Service jurisdiction and management authority or interest in those non-National Forest System lands.

Public Domain Lands. Also referred to as public domain. The term applied to any or all of those areas of land and to such other lands as were later acquired by treaty, purchase, or cession, and are disposed of only under the authority of Congress and have never left the Federal estate. The term “original public domain land” embraces all the area title to which was vested in the United States of America by virtue of its sovereignty.

Public Lands. Any land and interest in land owned by the United States within the several States and territories administered by the Secretary of the Interior through BLM, without regard to how the United States acquired ownership, except:

1. Lands located on the Outer Continental Shelf; and
2. Lands held for the benefit of Indians, Aleuts, and Eskimos.

Public lands includes:

1. The remaining public domain of the United States;
2. Reservations, other than Indian reservations, created from the public domain;
3. Lands withdrawn, reserved, or withheld from private appropriation and disposal under the public land laws, including the mining laws;
4. Outstanding interests of the United States in lands which have been patented or otherwise conveyed under the public land laws;
5. National Forests and National Grasslands;
6. Wildlife Refuges and Ranges; and
7. Surface and subsurface resources of all such lands.

Right-of-Way. This is a partial interest in land that provides a legal right to cross over the lands of another, generally authorized by an easement. The term is also used to describe the physical strip of land upon which the easement is located, and the terms and use.

Special Designated Area Boundary. The boundary between special designated areas and other National Forest System lands. These special designated areas include Wilderness, Wild and Scenic Rivers, National Monuments, National Recreation Areas, and other management areas designated by public law, proclamation, and land orders. Special designated area boundaries have legal standing; define areas that have use restrictions or limitations; and need to be located according to professional land survey standards.

## **06 - Legal Aspects of Boundary Management**

All land surveys have the potential to be challenged in court. Therefore, land surveys must satisfy the requirements for legal evidence, required procedures, and recognized professional land surveying standards acceptable to the courts.

The legal interpretation of real property instruments and evidence is the fundamental controlling factor in the execution of land surveys. It must be clearly distinguished that a survey identifies the written title lines to determine boundaries and does not establish title to the land. There must be no deviation from legal, technical, and professional land surveying principles by Forest Service Land Surveyors.

## **06.1 - Forest Service Land Surveyors**

Forest Service land surveyors, or BLM cadastral surveyors working under a Service First (see sec. 07.1 of this chapter) or similar interagency agreement, who certify and approve land surveys, or recommend acceptance of contract land surveys, shall have a State land survey license in all States in which they work and where the land surveys are performed. This requirement will be a part of the employees' job description.

The Forest Service State-licensed land surveyor acts as an agent of the Forest Service but is personally liable for gross negligence and tort actions. Land surveyors are not judicial officers; however, they may be required to act in a quasi-judicial capacity and must exercise good sense and sound professional judgment in dealing with boundary and title matters.

## **06.2 - Federal Law and Regulations**

See FSM 5601.1 and 5601.2 for direction.

### **06.21 - Bureau of Land Management Manual of Survey Instructions**

The Bureau of Land Management is authorized to issue regulations and policies to implement the land laws of the United States (refer to 07.1 of this chapter). The BLM creates, identifies, and maintains PLSS, and defines the limits of the public domain either by actual cadastral survey or protractors based on official cadastral surveys. All original, dependent, or independent resurveys of PLSS are accomplished under this Federal land survey authority. These laws, regulations, and policies, which are applicable to most Federal lands, are contained in the BLM Manual of Surveying Instructions (BLM Manual). Many States have laws requiring that land surveys under State jurisdiction be performed by State-licensed land surveyors in accordance with the BLM Manual procedures. National Forest System acquired lands previously conveyed out of Federal ownership by a land patent from the General Land Office/BLM and subsequently reacquired by the United States of America for National Forest System management purposes usually come under State land survey jurisdiction.

### **06.22 - Court Jurisdiction**

Land ownership, land surveying, and boundary location conflicts involving the rights, title, and interests of the United States of America which are not administratively resolved are litigated in Federal court. The Forest Service land surveyor is often tasked with providing information for litigation reports in response to active litigation.

## **06.3 - State Law**

See FSM 5601.3 for direction.

### **06.31 - Registration of Land Surveyors**

The laws of the various States regulate the survey of patented and acquired National Forest System lands within each State's boundaries. All States have provisions for the registration and/or licensure of land surveyors. Some State laws provide exemption from registration to Federal employees. However, Forest Service land surveyors engaged in land surveying activities when private and Federal property lines are being surveyed and identified shall be State-licensed land surveyors, or shall work under the guidance, technical supervision, and direction of a State-licensed land surveyor.

### **06.32 - Land Owner Notification for Access and Entry to Private Land**

Land surveying activities often require access and entry on private or other non-National Forest System lands. Refer to State laws which may provide right of entry through these lands for access to controlling monuments during survey activities. Written notice will be provided to the land owner in a timely fashion prior to field survey activities commencing. Refer to section 07.3 of this chapter.

### **06.33 - Survey Standards and Documentation**

State, county, and local laws dictate survey standards and document recordation format and procedures. Forest Service land surveys shall comply with State, county, and local survey and document recordation standards unless Forest Service standards are greater than those required by the State, county, or local governmental units.

### **06.4 - Local Laws and Customs**

Forest Service land surveyors involved in boundary management activities shall be knowledgeable of Federal, State, and local laws and customs affecting land surveys. Any conflicts between Federal, State, or local laws must be resolved in consultation with the Regional Attorney in the Office of the General Counsel.

## **07 - External Relations**

### **07.1 - Bureau of Land Management and Forest Service Cooperative Survey Program**

The Public Land Ordinance of May 20, 1785, and subsequent acts, vest Federal survey authority in the BLM.

The BLM's statutory authority is derived from the General Mining Law of 1872, as amended (30 U.S.C. 22, et. seq.); the original public land authority in 43 U.S.C. 2, 1457; and the Federal Land Policy and Management Act (43 U.S.C. 1701, et. seq.). These statutes, together with the regulations found at 43 CFR 3800, and numerous judicial and administrative decisions that have interpreted them, make up the body of the Mining Law System.



The Forest Service and BLM will continue to document the cooperative survey program under the Memorandum of Understanding concerning Service First by an Interagency Memorandum of Agreement (Agreement). In addition to other provisions identified in this section, the Agreement provides Federal survey authority for BLM-qualified Forest Service land surveyors to accomplish specific land surveying projects under assignment instructions and special instructions issued by the BLM (43 U.S.C. 751). Cadastral surveys requiring Federal survey authority shall be conducted under the provisions of the Agreement, or as a reimbursable BLM survey. Refer to section 07.11 of this chapter for further information.

Federal cadastral survey authority may be exercised on National Forest System lands when the Forest land surveyor determines that any of the following conditions exist:

1. Extensively obliterated or fraudulent townships.
2. Extremely complex, long-term projects.
3. Lands reserved from the public domain which have a high probability of litigation or title claim action.
4. Land surveys for non-rectangular land conveyances that require a patent issued by the BLM, such as segregated, newly lotted, and re-lotted lands.

#### **07.11 - Reimbursable Survey**

A reimbursable survey or fund transfer program for cadastral survey projects can be financed by the Forest Service for surveys performed by BLM. The work may be done entirely by BLM, or a BLM cadastral surveyor may be assigned to a Forest Service unit to accomplish Federal authority cadastral surveys using Forest Service field crews and/or contracting procedures.

Requests for reimbursable surveys are prepared by grants and agreements specialists under the Service First authority. Coordination with the BLM State Office for cadastral surveying services shall be made at the Regional level through the Regional Land Surveyor at the direction of line-officer-approved survey priorities received from Forests and Districts.

#### **07.12 - Training**

The Agreement provides for a cooperative training program between the Forest Service and BLM to develop and implement interagency training opportunities, with a focus on cadastral survey training and other specialized training, as appropriate.

#### **07.2 - Local Jurisdictions**

Forest land surveyors assist Forest Service Line Officers participating in local Government planning activities, and should be familiar with private land subdivisions and developments that lie adjacent, or in close proximity to, National Forest System boundaries. This is to prevent encroachment and unauthorized occupation, use, and development on National Forest System land from planned development on adjoining lands.

### 07.3 - Adjoining Land Owners

It is beneficial for the Forest Service to obtain the cooperation of adjoining land owners. Boundary lines marked in cooperation with adjoining land owners are less likely to be contested. When establishing or maintaining boundary lines with adjacent property owners the authorized Forest Service Line Officer shall:

1. Pursue cost-sharing opportunities for land surveys and boundary marking. This may involve the deposit of funds into a Forest Service account by the adjoining land owner, or use of a State-licensed land surveyor employed by the adjoining land owner with funding contributed by the Forest Service.
2. Make personal or written contact with adjoining land owners, particularly those who are developing their lands or implementing land and resource management activities, to remind them of their obligation and responsibility to ensure their activities do not encroach on adjoining National Forest System lands. This is accomplished by having the property lines marked using a land survey completed by a State-licensed land surveyor.
  - a. Inform adjacent land owners, and private land surveyors, that Forest Service title and survey records are available that may identify or assist in the location of property lines and property corners, such as the corner search record file maintained on each District or Forest on Forest Service form FS-7100-52 (Corner Record (Search)/Corner Record (Perpetuation)).
  - b. Inform land owners that State-licensed land surveyors hired by them to make land surveys may, under certain conditions, be authorized by the Forest Service to set Forest Service monuments at Federal property corners and PLSS corners, provided the Forest Service has previously reviewed and approved the land surveys which established, re-established, or perpetuated these corners. The private land surveyor setting Forest Service monuments, with the approval of the Forest Service State-licensed land surveyor, shall stamp their private land surveyor State registration number at the bottom center of the monument cap on the Forest Service monument.
  - c. Ensure that the land owners are aware that the United States is not bound by, and courts may not recognize, any previous unofficial land surveys, boundary agreements, and incorrect, erroneous, or fraudulent land surveys.
3. Refer questions concerning the legality of a land survey to the Regional Forester for any necessary coordination with the Regional Land Surveyor and the Office of the General Counsel.
4. Before field activities for land surveying begin, contact adjoining and local land owners to acquire permission for access to adjoining and local land for surveying purposes, permission to use and mark corner reference objects, and mark trees along the property line. If contact cannot be established within an acceptable time, or permission is denied, document it and refer the survey proposal to the responsible Line Officer for

approval to proceed. Under these conditions, trees on adjoining land shall not be cut, trimmed, or marked.

5. Contact adjoining land owners to encourage their participation in cost-sharing land survey activities.

6. Take prompt action to ensure that National Forest property boundary signs are removed when National Forest System land that has been previously marked and posted is conveyed out of the public estate. The new landowner may assume the responsibility to remove these Forest Service property boundary signs with approval of the Forest Service.