

**Forest Service Handbook
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**Forest Service Handbook 2709.11 – Special Uses Handbook
Chapter 90 - Communications Site Management**

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Approved by: Tina J. Terrell, Associate Deputy Chief, NFS

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Responsible Staff:

Posting Instructions: Amendments are numbered consecutively by handbook number 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 handbook was 2709.11-2020-5 to FSH 2709.11, Chapter 50.

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

90.1: Adds new paragraph 4 to include Title VIII, Subtitle G, section 8705, of the Agriculture Improvement Act of 2018.

90.2: Relocates paragraph 1 to section 90.3.

90.3: Adds new paragraph 6 to establish a standard 30-year term for communications use authorizations.

90.3 Adds paragraph 7, previously located in section 90.2, requiring collection of land use fees based on fair market value for communications uses.

90.4: Adds new paragraph 4 to establish responsibility for the new tracking system for communications use applications.

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90.5: Updates definition section for clarity.

92: Adds new paragraph 3 to provide for a 30-day review period by holders of communications use authorizations of new or modified communications site management plans.

92.2: Changes section title from “Digital Planning Tool” to “Planning Tools.”

93.1: Corrects cross-reference to flowchart for considering incompatible uses.

93.5: Removes section in its entirety.

94.1: Changes title from “Initial Screening” to “Screening of Communications Use Proposals and Applications,” and revises paragraphs 1, 2, and 4 of that section to implement procedures for expediting requests to co-locate communications uses in or on existing communications facilities.

94.3: Adds new paragraph 4 to establish procedures for recording the data needed to maintain the new tracking system for communications use applications.

94.5: Updates section for clarity.

94.6: Revises section to identify FS-2700-10c, Communications Use Permit for Federal Entities, as the approved form to authorize the use and occupancy of National Forest System lands for a communications facility under the jurisdiction of another federal entity. Updates direction on how to authorize the use and occupancy of a communications facility under the jurisdiction of the Forest Service.

95: Updates section for clarity.

97: Updates exhibit 01 for clarity and consistency with the description of uses in FS-2700-10a and adds a definition for “fiber optic cable.”

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This chapter provides direction on site management for a variety of communications uses (FSM 2728.1) on National Forest System (NFS) lands. Typically, these communications uses occur at an approved communications site and include buildings, towers, and other improvements. Communications uses are divided into two broad categories: broadcast uses and non-broadcast uses. A description of the various types of communications uses on NFS lands is contained in section 97, exhibit 01.

90.1 – Authority

1. Title V of the Federal Land Policy and Management Act (FLPMA) of October 21, 1976 (43 U.S.C. 1761-1772). This act authorizes the use of NFS lands for communications uses. Cite this authority in all authorizations issued for communications uses.
2. Telecommunications Act of 1996 (47 U.S.C. 332). Section 704(c) of this act (sec. 97, ex. 08) requires Federal agencies to facilitate the development and placement of communications equipment on buildings and land they manage when placement does not conflict with the agency's mission or current or planned use of the property.
3. Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012 (47 U.S.C. 1455), as amended by section 606(a), division P, Consolidated Appropriations Act, 2018 (Pub. L. No. 115-141, 132 Stat. 1011). Also known as the MOBILE NOW Act, this Act requires the Forest Service within 270 days of receipt of an application for a communications facility or a communications use to grant or deny the application and to notify the applicant of the grant or denial.
4. Title VIII, Subtitle G, section 8705, of the Agriculture Improvement Act of 2018. This act requires the Forest Service to promulgate regulations providing for streamlining the process for evaluating applications to locate or modify communications facilities on NFS lands.

90.2 – Objectives

The objectives of communications use management are to:

1. Authorize communications uses that meet applicable land management plan direction.
2. Facilitate the orderly development of communications sites.
3. Provide a safe and high-quality communications environment.
4. Contribute to the communications needs of the American public.

90.3 – Policy

1. Communications sites must be approved in a National Environmental Policy Act (NEPA) decision document. The approval may be reflected in a separate NEPA decision

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document or in a national forest land management plan (LMP) or amendment or revision to an LMP. Single uses that involve minor development, such as personal receive-only antennas, resource monitoring equipment, or temporary uses, that are covered under a separate NEPA decision document may not need to be approved as a communications site.

2. All approved communications sites must have a current communications site management plan consistent with the applicable LMP and any separate NEPA decision document. The communications site management plan must provide site-specific direction and guidance to Forest Service personnel, the communications site users, and the public.
3. Communications facilities must be annually inspected to ensure compliance with the corresponding communications use authorization, including the communications site management plan, if applicable.
4. Authorized officers shall not issue communications use authorizations that involve bartering or augmentation of the rent paid to the Forest Service. For example, authorized officers shall not issue communications use authorizations that require the holder to provide use of communications facilities to the Forest Service at no charge or at a reduced rate or that require the holder to construct improvements that are not associated with a communications use. If it is the facility owner's policy not to charge governmental agencies rent, use of that facility may be accepted without charge. However, do not offset any communications use rent due the Forest Service by the facility owner.
5. Within 270 days of acceptance of a proposal as an application for a new communications facility or co-location of a new communications use in or on a facility managed by the Forest Service, or within 270 days of receipt of an application for modification of an existing communications facility or co-located communications use, the authorized officer shall grant or deny the application and notify the applicant in writing of the grant or denial.
6. Issue communications use authorizations for a term of 30 years, unless case-specific circumstances warrant a shorter term.
7. Collect land use fees based on fair market value for communications uses on NFS lands.

90.4 – Responsibility

1. The regional forester is responsible for approving communications site management plans. This responsibility may be delegated to forest supervisors as provided in the Forest Service Manual.

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2. The regional forester is responsible for establishing regional rental rates or procedures for communications uses not covered by the National Rental Fee Schedule for Communications Uses.
3. Following communications site management plan approval, forest supervisors have the authority to issue communications use authorizations in accordance with policy, procedures, and standards in the communications site management plan. The responsibility for issuing communications use authorizations may be delegated to district rangers per Forest Service Manual direction.
4. The National Communications Site Program Manager is responsible for ensuring a tracking system is established in the Special Uses Data System (SUDS) that provides for determining:
 - a. The number of communications use applications received, approved, and denied;
 - b. For applications that are denied, the reasons for denial; and
 - c. The amount of time between receipt and grant or denial of the applications.
5. Following communications site management plan approval, the regional special uses coordinator or the official with delegated authority must provide a signed copy of the approved communications site management plan to the National Communications Site Program Manager. Approved communications site management plans are required for tracking the areas of NFS lands that are approved for communications uses (sec. 96.5).

90.5 – Definitions

Ancillary Use. A communications use that directly supports a primary communications use of a facility owner or occupant, such as microwave technology that supports the two-way radio business of a commercial mobile radio service provider.

Ancillary Improvement. A structure that is subordinate to a communications facility's primary use, such as a generator that provides back-up power to a communications site; a fuel tank that serves a primary or secondary heating, ventilation, and air conditioning or electrical system; a fence; a short linear feature, such as a utility drop or spur road; a generator building; or an outbuilding other than an equipment shelter.

Antenna. Any structure or device used to radiate or receive electromagnetic waves.

Bandwidth. A portion of the frequency spectrum allocated for use by a specific license, measured in kilohertz (KHz) or megahertz (MHz). A small amount of spectrum (15 KHz) is allocated for two-way radio communications, a larger amount (6 MHz) for television broadcasting.

Base Rent. The highest-value use in or on a communications facility that is not otherwise excluded from rent.

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Beam Path. Direction or corridor of energy radiated from a directional antenna, usually in the context of microwave, which requires an unobstructed point-to-point corridor.

Broadcast Use. See section 97, exhibit 01.

Co-Location. Installation of communications equipment in or on an existing communications facility or other structure.

Communications Facility. A building, equipment shelter, or other structure designed to house communications equipment or a tower, mast, or other structure that supports communications equipment.

Communications Site. An area of NFS lands approved for communications uses in an LMP or separate NEPA decision document, which may be limited to a single communications facility but most often encompasses more than one and is identified by name, usually featuring a local prominent landmark such as “Bald Mountain Communications Site.”

Communications Site Corridor. A collection of communications sites or facilities along a route that provides continuous coverage along the route and that is usually associated with cellular wireless technology.

Coverage Ring. The total contiguous land area intended to be served by a communications site or facility.

Customer. An individual or entity that operates communications equipment in or on a communications facility, but does not broadcast or resell communications services.

Communications Use Authorization. The instrument the Forest Service uses to authorize communications uses on NFS lands and which may be a special use permit or lease.

Effective Radiated Power (ERP). The power supplied to an antenna multiplied by the relative gain of the antenna in a given direction, expressed in watts.

Effective Receiver Sensitivity. The minimum input signal required to produce a specified output signal having a specified signal-to-noise ratio.

Equipment Shelter. A term used to describe a communications facility that houses communications radios or other communications equipment.

Facility Manager. The holder of a Forest Service communications use authorization who:

1. Owns a communications facility on NFS lands;
2. Rents or provides space to other communications users in that facility; and

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3. Does not own or operate their own communications equipment in that facility and does not directly provide communications services from that facility.

Persons or entities that manage or administer a communications facility on NFS lands for a facility owner or manager are not facility managers for purposes of Chapter 90.

Facility Owner. The holder of a Forest Service communications use authorization who:

1. Owns a communications facility on NFS lands;
2. May or may not be renting or providing space or equipment to other communications users in that facility; and
3. Owns and operates communications equipment in that facility.

Frequency Assignment. Authorization of a specific frequency, group of frequencies, or frequency band use, such as a particular band width, power, azimuth, duty cycle, or modulation, at a certain location under specific conditions.

Gain. The increase, expressed in decibels (dB), in effective signal power in transmission from one point to another, usually between a transmitter and an antenna.

Harmful Interference. Any transmission, radiation, or induction that degrades, obstructs, or repeatedly interrupts a radio's communications capacity when the radio is operating in accordance with Radio Regulations.

Low Power.

1. Broadcast Use. A low power broadcast translator, low power television, or low power FM radio transmission, as defined by the Federal Communications Commission (FCC) and expressed in watts ERP, but not including a radio or television transmission from a station licensed by the FCC for full service that is operating at low power.
2. Non-Broadcast Use. A use that does not continually transmit and that has a maximum power output of 500 watts ERP or, in the case of cellular mobile service and microwave, does not exceed the applicable ERP limit in FCC regulations.

Microwave. A continuous, unidirectional (point-to-point) communications use that transmits at frequencies between 900 and 30,000 MHz and that typically does not cause interference problems due to its focused transmission pattern.

Multiple-Use Facility. A communications site facility that has multiple communications uses operated directly by the facility owner or that has customers or tenants in or on that facility.

Noise. An undesired disturbance within the useful frequency band.

Noise Floor. Existing magnitude of electronic noise power measured in decibels and referred to in an electronic value, such as in milliwatts.

Non-Broadcast Uses. See section 97, exhibit 01.

Omnidirectional Antenna. An antenna whose radiation pattern is non-directional in azimuth and therefore radiates or receives in 360 degrees.

Point-to-Point Radio Communications. Direct radio communications between two fixed communications facilities, typically, two microwave facilities.

Propagation Analysis. A study to determine total electronic signal coverage, taking into consideration frequency, power output, type of antenna, elevation, vegetation, and topography.

Public Switched Telephone Network (PSTN). A landline telephone network involving telephones that must be connected by cable to a jack in a wall to operate.

Radiation Pattern. A graphical representation of power radiation of an antenna, usually shown for the two principal planes of vertical and horizontal.

Ranally Metro Area (RMA). One of approximately 450 geographical areas in the United States that have a population of 50,000 or more, as identified in the *Rand McNally Commercial Atlas and Marketing Guide*.

Receiver Desensitivity. A consequence of undesired reradiated frequency energy entering a receiver, which reduces its ability to receive weaker signals.

Repeater. A device that simultaneously re-transmits, as opposed to originates, all properly coded input signals received or, in the case of pulses, amplifies, reshapes, retimes, or performs a combination of these functions on an input signal for retransmission.

Reradiation. Energy radiated in a nonlinear manner from a galvanic junction (a contact producing an electrical current) on radio equipment, an antenna, metallic debris, a defective structural component, an unterminated antenna cable, or a passive repeater.

Senior Use. A communications use that predates another communications use and that establishes the communications site designation.

Single-Use Facility. A communications site facility that contains only the single communications use of the facility owner and no tenants or customers in or on the facility.

Site Ring. An area inside a coverage ring that is suitable for locating a cellular facility or multiple cellular facilities.

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Stealth Facility. A communications facility camouflaged or designed to minimize its visibility and impact on the surrounding environment, such as a communications tower constructed to look like a tree to blend in with the existing vegetation, cellular antenna panels designed and painted to blend in with the architecture of a new or an existing building, or an equipment shelter incorporated into the platform of a visitor overlook.

Tenant. An individual or entity that operates communications equipment in or on a communications facility for the purpose of broadcasting or reselling communications services.

Tower. Any of three types of structures (guyed, lattice, or monopole) used to hold or position communications antennas, microwave dishes, or other similar devices used to receive or transmit an electronic signal.

Trunking. A system that allows a number of radio channels to be operated as a single system, allowing service to multiple users.

Wave Guide. A hollow metallic conduit within which electromagnetic waves may be propagated.

91 – Communications Site Designation

1. A communications site may include one location or several along a communications site corridor (sec. 90.5). When a communications site designation is determined in response to a special use proposal, the proponent is responsible for providing the information necessary to complete the appropriate NEPA analysis.
2. Approve communications sites in accordance with land management planning direction in Forest Service Manual (FSM) 1920 or a separate NEPA decision document; environmental policies and procedures in FSM 1950; and special uses management direction in FSM 2700. In making the long-term management decision to designate a communications site, consider future needs of the Forest Service and other public safety users, the communications industry, the impact of new communication technologies, and the public demand for communications services.
3. Include in the analysis of site designation:
 - a. The demand for the site.
 - b. Any alternate locations.
 - c. Availability of suitable non-NFS lands.
 - d. Compatibility of the types of communications uses that may be located at the site.
 - e. Interference from other uses and other sites.

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- f. Areas of coverage.
 - g. Signal paths.
 - h. Relationship to other sites.
 - i. Management guidelines for the area, including visual quality objectives.
 - j. Suitability of the site for the intended use. Suitability of the site is influenced by topographical features, soil or geological factors, location of utilities, environmental and resource considerations, and access.
4. At a minimum, a communications site designation must include:
- a. A legal and geographical description of the site, including the site name.
 - b. A topographical depiction of the site boundary.
 - c. A determination of the largest community or RMA served by the site.
 - d. A designation of the category (broadcast or non-broadcast) and limitations on communications uses at the site. Site designations include:
 - (1) Forest Service only.
 - (2) Governmental entities only.
 - (3) Low Power Non-broadcast.
 - (4) Low Power.
 - (5) High Power.
- For existing communications sites, the most senior category or type of communications use establishes the site designation. For new sites, consider the special use proposal and the future needs of the Forest Service, other governmental entities, and the private sector to determine the site designation. A site may be designated for use by governmental and non-governmental entities or it may be designated for use strictly by governmental entities.
- e. A determination of the other categories or types of communications uses that may or may not be allowed at the site.
 - f. A noise floor level that must be met by all current and future communications uses at the site.
5. If the primary access to a communications site is by a road that crosses private land, strive to acquire legal public access across the private land to the communications site.

Without public access, facility owners and managers and users must obtain their own access from the private landowner or must access the site by helicopter.

91.1 – Site Designation for Cellular Facilities

1. Cellular facilities on NFS lands are often located along travel corridors and near major recreational attractions and facilities. Each cellular facility works as part of a larger system to provide continuous coverage for a given area or route and must be located in such a way as to facilitate that objective.
2. Cellular signal propagation adheres to one basic principle. Generally, taller towers require fewer facilities to cover a given area and can usually accommodate multiple cellular providers. Conversely, shorter towers may require more facilities to cover a given area and are usually not able to accommodate more than one or two cellular providers.
3. Technical limitations, visual concerns, topography, and other resource issues may necessitate the use of either a tall or a short tower or a combination of both to mitigate environmental concerns and to provide adequate coverage for an area. Therefore, it is essential that resource concerns and the technical requirements of the cellular providers must be evaluated for the entire communications site corridor when considering site designation for cellular facilities. In addition, to minimize adverse impacts on NFS lands and non-NFS lands, the location of cellular facilities should be coordinated with the cellular industry; adjoining administrative units (36 CFR 212.1); other Federal, State, and local land management agencies; and city and county planning departments.
4. Consider the following when designating a cellular site or series of cellular sites in a travel corridor and other areas of concentrated communications use:
 - a. Request from cellular licensees an antenna network plan for the entire administrative unit that promotes co-location of facilities where practical and desirable.
 - b. Identify preferred areas in the applicable LMP for new cellular facilities through consideration of environmental concerns, coverage, access, availability of commercial power, and the ability to connect the wireless facility to the public switch telephone network (PSTN) (sec. 90.5) through either an existing or new telephone landline, fiber optic line, or microwave system.
 - c. Identify areas not suitable for placement of cellular facilities.
 - d. Identify existing structures that are suitable for use as a cellular antenna support platform, such as administrative sites, water towers, and electric transmission towers.
 - e. Develop criteria for tower siting and design, such as preferred construction materials and colors, types of towers and equipment shelters, setback requirements,

height restrictions, ancillary equipment locations, utilities, fencing, access roads, and ground screening.

f. Develop incentives to encourage good tower design and co-location of cellular users, such as expedited review of proposals and applications for communications facilities located in preferred areas, use of existing structures, and use of stealth or low-visibility tower and equipment shelter designs.

5. The following provides guidance on processing applications for a cellular communications site or corridor. Consult with all FCC-licensed cellular providers (FLPs) in the area encompassed by a proposed cellular communications site or corridor to determine if there is competitive interest in it.

a. If there is competitive interest from FLPs, issue a prospectus. See 36 CFR 251.58(c)(3)(ii) and FSH 2709.11, section 21.11a, paragraph 2, for more information on processing fees in this context. A lease may be issued to an applicant who is not an FLP through a competitive process because there is demonstrated demand for the communications site or corridor, that is, the interest is not speculative.

b. If the proponent is an FLP and there is no competitive interest from other FLPs, a lease may be issued to the proponent without competition, provided that the proposal is accepted as an application (36 CFR 251.54(e)(1) and (e)(5); FSH 2709.11, sec. 12.2 and 12.3). A lease must not be issued to a third party who is not an FLP without demonstrated demand for the communications site or corridor (para. 5a).

c. If the proponent is not an FLP and there is no competitive interest from FLPs, reject the proposal because there is no demonstrated demand for the communications site or corridor (36 CFR 251.54(e)(1)(i); FSH 2709.11, sec. 12.21, para. 1).

d. If the proponent is not an FLP and there is competitive interest from FLPs, use a competitive process for issuance of the lease (para. 5a). If there is competitive interest from only one FLP, consult with both the proponent and the interested FLP. If the proponent is willing to withdraw the proposal in favor of a proposal from the FLP, the lease may be issued non-competitively to the FLP, provided the FLP meets the initial and second-level screening criteria. If the proponent is not willing to withdraw the proposal, issue a prospectus.

92 – Communications Site Management Plans

1. Site planning is essential for effective administration of a communications site. The communications site management plan contains the principles and technical standards adopted in site designation. The communications site management plan provides direction for day-to-day operations of the communications site and, along with the communications use authorization, is the yardstick by which noncompliance is measured. The communications site management plan must delineate the types of uses that are appropriate at the site and the technical and administrative requirements for management of the site.

2. The communications site management plan should reflect the current situation and the anticipated demand for the site. The goal of site planning is to:

- a. Develop communications sites that are consistent with applicable LMP direction and provide for the needs of the public, including resource concerns, public safety, technical suitability, and compatibility of communications uses.
- b. Facilitate the orderly development of each communications site and provide for a safe and high-quality communications environment. New or revised communications site management plans for existing communications sites must provide for the orderly transition from the existing condition to a preferred development level or condition.
- c. Maximize the efficient use of each communications site, consistent with the principles and technical standards adopted in site designation.
- d. Consider changes and trends in technology, current demand, and projected future demand for the site in the next 5 to 10 years.
- e. Protect the public and Federal employees from harmful radiation by assuring holder compliance with FCC and Occupational Safety and Health Administration standards and guidelines. A national template for communications site management plan is posted at http://www.fs.fed.us/specialuses/special_comm.shtml.

3. The authorized officer shall give existing authorization holders at a communications site 30 days to review and comment on new communications site management plans and modifications to existing communications site management plans that would change how the communications site is managed. Authorization holders are responsible for coordinating the requirements of the applicable communications site management plan with occupants in or on their communications facilities.

92.1 – Supplemental Planning Documents

1. Supplemental planning documents are useful in defining the technical standards of a communications site and should be included in the communications site management plan.
2. Supplemental planning documents may include a frequency plan, an intermodulation analysis, as-built building plans, a record of the electromagnetic noise floor, effective receiver sensitivity specifications, and a radiation hazard analysis.
3. Ensure that supplemental planning documents are reviewed by the appropriate technical expert, such as a registered engineer or a communications specialist, before incorporating them into the communications site management plan.

92.2 – Planning Tools

Forest Service communications site planning tools, links, and a sample communications site management plan are available at http://www.fs.fed.us/specialuses/special_comm.shtml.

93 – Technical Considerations For Communications Uses

93.1 – Compatibility

1. Consider the senior use and the compatibility of other uses when designating a communications site. Exhibit 03 in section 97 shows the compatibility of use types at communications sites. This chart should be used as a guideline for designating sites and authorizing uses at those sites. These compatibility guidelines also apply to tenant and customer uses within existing facilities.
2. Unless specific regional criteria have been established for incompatible uses, separate incompatible uses by at least one mile of horizontal separation. Vertical separation and restricted transmitter power may reduce the horizontal separation requirement.
3. If a proposed use is not compatible with existing uses at a site (sec. 97, ex. 04) or conflicts with the approved communications site management plan and there are no other reasonable alternatives, such as location at a non-Federal site or other Federal site, the authorized officer may allow the proponent to demonstrate that the proposed use will not interfere with the existing uses at the site. To receive further consideration, the authorized officer shall require the proponent, in cooperation with existing users to:
 - a. Establish the existing noise floor level at the site (sec. 93.4), if not already known;
 - b. Document, through procedures and tests approved in advance by the authorized officer, that the proposed use will not degrade the existing noise floor level or interfere with existing uses; and
 - c. Measure the radio frequency radiation (RFR) of the existing site and the cumulative impact of the proposed use.

The proponent shall bear all costs to the Forest Service and to the proponent associated with this process, including costs for radio frequency studies, computer analysis, and on-site testing. A flowchart for considering incompatible uses is displayed in section 97, exhibit 04.

4. Factors that influence compatibility include continuous versus intermittent transmission and transmitting power. Two-way radio systems are designed to spend most of their cycle time listening for weak 3- to 5-watt signals from handheld or mobile radios. For two-way radio systems to hear these weak signals, the ideal noise floor (sec. 93.4) should be between -100 dB and -85 dB. Continuous and high power transmitters may cause the noise floor to be raised to a point which no longer allows the two-way receivers

to distinguish weak incoming traffic from noise. Therefore, a noise floor below -70 dB is generally unsuitable for two-way uses.

5. Paging systems are a typical non-broadcast use that may not be compatible with two-way uses unless the paging system is specifically designed and filtered to prevent an increase in the noise floor and interference with existing uses. Paging systems may be licensed to operate at up to 1500 ERP in the 152 to 153 MHz range and 3500 ERP in the 454 to 455 MHz range. They often operate in an almost continuous transmitting mode.

6. When operating within safe radiation hazard levels, the senior use of a communications site determines the maximum transmitter power output for the site.

a. The maximum power output for low power non-broadcast uses is enumerated in FCC's regulations at 47 CFR Part 90 and is expressed as watts ERP. Currently, the maximum power output for low power non-broadcast uses is 500 watts ERP.

b. Each use must operate at or below the power level authorized by the FCC license for that use, provided the power level does not exceed the power level authorized by the communications site management plan. The power level for a communications site also may be established in the LMP or separate NEPA decision document for that site. Exemptions from power limitations in the communications site management plan, LMP, or NEPA decision document may be considered case by case by the authorized officer, after consultation with the forest or regional communications specialist, completion of any appropriate NEPA analysis, and utilization of the process for evaluating compatibility enumerated in this section and section 97, exhibit 03.

c. In addition to meeting the power level requirement in the applicable FCC license and communications site management plan, existing and new low power non-broadcast uses must be designed, operated, and maintained to meet interference, noise floor, receiver sensitivity, and RFR requirements in the applicable FCC license and communications site management plan.

93.2 – Interference

1. Avoid interference problems through proper communications site designation, appropriate site planning, strict adherence to the terms and conditions of the communications use authorization, annual site inspections, and cooperation among communications site users.

a. The compatibility of communications uses is a function of frequency relationships, geographic separation, the amount and period of power emission, and equipment design characteristics. Problems may be mitigated by judicious use of frequency assignments by the responsible agency, location of incompatible uses at different sites, or use of special equipment, such as filters.

- b. The site designation and the communications site management plan must identify the intended use of the site. Do not authorize uses that are incompatible, unless they are successfully subjected to the process described in section 97, exhibit 04, which concludes with installation, operation, and maintenance of the equipment for the proposed use without measurable interference.
2. Grant senior users at a site priority with respect to resolution of interference complaints, except for non-broadcast uses at a site designated for radio and television broadcasting.
3. Require all users to maintain their equipment to industry standards; to operate their systems in accordance with the terms of their FCC license or National Telecommunications and Information Administration (NTIA) frequency assignment; and to comply with the applicable communications use authorization.
4. Require new users at a communications site to correct, at their expense, interference problems that they create and to cease operation of the suspect equipment until the problem is corrected. Require the suspect equipment to be removed from the communications site if interference problems cannot be resolved or corrected within a reasonable time.
5. Resolve interference problems first by verifying adherence to the requirements in the communications use authorization. It may not always be clear which agency (Forest Service, FCC, or NTIA) is responsible when interference or frequency issues arise. For example, the operation of otherwise approved communications equipment when pulled out of its housing may be a violation of a communications use authorization, rather than a violation of FCC or NTIA rules. The use of unapproved frequencies or power levels may be an authorization violation, as well as an FCC license infraction.
6. Consider including a binding arbitration clause when a new lease is issued or in a new or revised communications site management plan when a high number of users occupy a communications site, there is a history of interference, or the potential for interference is high.
7. When the holder is still in non-compliance with a communications use authorization after notice of the non-compliance has been given and the period for taking corrective action has elapsed, suspend or revoke the authorization in accordance with its terms, Forest Service directives (FSM 2700) and applicable regulations (36 CFR 251.60). Interference problems should be coordinated with the FCC or NTIA, as appropriate (sec. 96.1).

93.3 – Equipment Technical Standards

All equipment on NFS lands used for communications purposes must meet the standards of the American National Standards Institute (ANSI) and the Electronic Industries Association (EIA). Installation must comply with the guidelines in FSH 6609.14, Telecommunications Handbook, Chapters 30 and 40.

93.4 – Noise Floor Limits

1. The rated sensitivity of a radio receiver may seldom be realized during operation at a communications site due to the electromagnetic noise (site noise) received along with the desired radio signals. Some site noise comes from radio broadcast transmitters.
2. Generally, the higher the transmission power output, the greater its contribution to the site's noise level. The degree to which an individual transmitter contributes to the overall site noise level may be measured.
3. To maximize the sensitivity of a receiver, minimize the level of site noise that is received along with the desired signal.
4. At sites where noise has become a problem, establish a noise floor limit. The noise floor limit should be established in cooperation with the users at the site.
5. When a noise floor level is established, require all new and existing users to operate their equipment in a manner that keeps the site noise floor level at or below the established noise floor level.

94 – Processing Communications Use Proposals And Applications

In addition to the screening process described in this section, follow the direction for processing special use proposals and applications found in 36 CFR Part 251, Subpart B, and Chapter 10 of this handbook when considering a communications use proposal or application.

94.1 – Screening of Communications Use Proposals and Applications

1. Encourage proponents of a new communications use at a communications site to co-locate in or on existing authorized communications facilities if the proposed communications use is allowed at that site. After all the requirements in paragraph 2 of this section have been met and the proponent has secured written permission to co-locate from the facility owner or manager, the proponent may co-locate equipment in or on the facility without further approval from the authorized officer.
2. Prior to co-location of communications equipment in or on an existing communications facility by an authorization holder or a prospective occupant, ensure that the holder, either on the holder's behalf or on behalf of the holder's prospective occupant, submit a completed form FS-2700-10, Technical Data Sheet, and a copy of the FCC license, if applicable, to the authorized officer for review. Upon receipt of a completed form FS-2700-10 and a copy of the FCC license, if applicable, the authorized officer shall complete an initial review within 5 business days to determine if the proposed use is consistent with the applicable communications site management plan.

If the authorized officer determines based on the information submitted that the proposed use would not be consistent with the applicable communications site management plan, the authorized officer shall deny the proposed use. If the authorized officer determines

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that the proposed use is consistent with the applicable communications site management plan, the authorized officer shall provide the submitted form FS-2700-10 to other authorization holders at the communications site and give them 5 business days to submit documentation that the proposed use would cause harmful interference with their or any of their occupants' communications uses. If any such documentation is received within 5 business days, the authorized officer shall notify the proponent and provide the proponent an opportunity to mitigate any concerns.

If the proponent is not able to mitigate the concerns to the satisfaction of the authorized officer, the authorized officer shall deny the proposed use. If no such documentation is received within 5 business days, the authorized officer shall notify the proponent within 5 business days of the conclusion of the holders' documentation period that the co-location may proceed. Notification that a proposed use may proceed does not preclude the authorized officer from requiring that the proposed use be removed if it causes harmful interference after it is installed (sec. 93.2).

3. Where it is not possible to co-locate a proposed use in or on existing communications facilities at a communications site, review the proposal within 60 days of receipt, and advise the proponent as to whether the Forest Service will accept the proposal as an application for a new communications facility at the site.

4. Proposed communications uses must:

- a. Be consistent with the laws, regulations, orders, and policies governing NFS lands; other applicable Federal laws; and applicable State and local laws.
- b. Be consistent, or be made consistent, with the applicable LMP and communications site management plan or be consistent with the applicable amended LMP and amended communications site management plan, if an amendment is appropriate and feasible.
- c. Pose no substantial risk to public health or safety.
- d. Not unreasonably conflict or interfere with administrative use by the Forest Service, other scheduled or existing uses of NFS lands, or use of adjacent non-NFS lands.
- e. Not exceed the established noise floor limit.
- f. Be compatible with existing uses at the communications site where the proposed facilities would be located. When a proponent proposes construction of a new communications facility, give authorization holders at the site 30 days (sec. 94.5, para. 3) to provide documentation that the proposed communications facility or associated proposed communications uses would impede existing uses at the site or cause harmful interference with their or any of their occupants' existing communications uses.

- g. Not raise the cumulative radio frequency radiation (RFR) level above the FCC and Occupational Safety and Health Administration's standards for the type of site involved.
5. Reject proposals that do not meet all the requirements in section 94.1, paragraphs 4a through 4g, provided that proposals that do not meet the technical requirements in section 94.1, paragraphs 4a, 4e, and 4f, may be reconsidered at the discretion of the authorized officer using the evaluation process enumerated in section 93.1 and displayed in section 97, exhibit 04, and proposals that do not meet the criteria in section 94.1, paragraph 4g, may be reconsidered after the proposal has been redesigned or mitigation measures have been taken to meet applicable requirements.
6. Notify proponents in writing as to whether their proposal has been accepted for further evaluation or rejected, and if rejected, the basis for the rejection.

94.11 – Initial Screening for Cellular Proposals

1. In addition to the screening process identified in Chapter 10 of this handbook and section 94.1, the authorized officer should require cellular proponents to:
 - a. Provide copies of the coverage rings, search rings, and propagation analysis reports documenting the scope of the proponent's search to use existing communications facilities or other existing improvements, the availability of non-NFS lands for the proposed use, and the rationale for selecting the proposed site or sites under consideration.
 - b. For proposals that involve multiple facilities along a communications site corridor or area of concentrated use (sec. 91.1), coordinate the location of communications facilities with other licensed wireless carriers and, when appropriate, third-party tower companies (sec. 90.5).
 - c. Provide visual analysis, including accurately scaled simulations or digitally reproduced depictions of the proposed communications facility viewed from various locations around the proposed site.
2. When the proponent for a cellular facility is a third-party tower company (sec. 90.5), require the proponent to provide documentation of a commitment from at least one FCC-licensed cellular provider to locate in the proposed facility or facilities.

94.2 – Competitive Interest

1. Issue a prospectus where a proposal passes initial and second-level screening (sec. 94.1 through 94.11) and a determination is made that competitive interest exists at a site or series of sites in a communications site corridor.
2. Consider issuing a prospectus when there is current or anticipated demand for a location at a communications site and there is limited space for expansion.

94.3 – Processing of Applications

For proposals that meet all the initial screening requirements (sec. 94.1 through 94.11), notify the proponent in writing that the proposal has been accepted for further evaluation. In this notice, inform the proponent that:

1. Acceptance of the proposal as an application does not constitute approval of the proposed use.
2. Additional information, such as studies, surveys, and environmental analyses, may be needed to evaluate the application; and
3. The applicant may be required to pay some or all of the costs of processing the application (36 CFR 251.58(c)).

In addition, inform the applicant of the estimated timeframe for making a decision on the application.

4. For each communications use application, maintain a tracking record in SUDS that specifies:
 - a. When the application was received and whether it was approved or denied;
 - b. If the application was denied, the reasons for the denial; and
 - c. The amount of time between receipt of the application and its grant or denial.

94.4 – Decisions on Applications

1. The proposed use may be approved, approved with modifications, or denied.
2. Notify the applicant in writing of an approved application, and include the authorization with the notice, along with a statement that the applicant has 60 days to return the signed authorization.
3. Return an application that is denied to the applicant with a written explanation of the denial.

94.5 – Requirements Before Issuance of an Authorization

Issue an authorization only after:

1. National Environmental Policy Act (NEPA) decision requirements have been met (FSH 1909.15);
2. Coordination with other agencies has been completed, including appropriate coordination with the Federal Aviation Administration concerning tower height,

placement, and lighting and with the U.S. Department of Defense when site activity could affect local military operations;

3. Coordination with existing authorization holders at the site has been completed, including a 30-day comment period on the application and form FS-2700-10, Technical Data Sheet;
4. If applicable, acceptable design measures or other satisfactory resolution of potential incompatibility has been agreed to by the applicant and existing users at the site, including the Forest Service;
5. The applicant has received appropriate authorization from the FCC or NTIA committee; and (Note: Some radio uses do not require FCC licenses); and
6. The building design has been approved by the Forest Service.

94.6 – Issuance of an Authorization

A communications use authorization may authorize one or more communications facilities, provided that all those facilities are located at the same communications site and adjacent to each other.

1. Facility Owners. Use form FS-2700-10b, Communications Use Lease, to authorize the use of NFS lands for a communications facility.
2. Federal Entities. Use form FS-2700-10c, Communications Use Permit for Federal Entities, to authorize the use and occupancy of NFS lands for communications facilities under the jurisdiction of another federal entity.
3. Occupants of a Communications Facility under the Jurisdiction of the Forest Service.
 - a. Occupants (including Federal agencies) in or on a communications facility under the jurisdiction of the Forest Service are each required to have a Special Use Permit (form FS-2700-4). Charge a land use fee from the rent schedule for the type of use and population of the community served by the site, unless the occupant is exempt from a land use fee or the land use fee is waived (FSH 2709.11, Ch. 30, sec. 32.1). Additional terms and conditions from the communications use lease may be incorporated into the special use permit as deemed appropriate by the authorized officer.
4. Resource Monitoring and Other Minor Communications Uses. Use a Special Use Permit, form FS-2700-4, to authorize resource monitoring and other minor communications uses by either governmental or private entities. Additional terms and conditions from the communications use lease may be incorporated into the special use permit, as deemed appropriate by the authorized officer.

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5. Temporary Communications Uses. Use a Special Use Permit, form FS-2700-4, for communications uses that are authorized for less than 1 year. Additional terms and conditions from the communications use lease may be incorporated into the special use permit, as deemed appropriate by the authorized officer. Temporary uses at permanent communications facilities are considered customers or tenants of the facility owner or manager for purposes of authorization and rental calculation. If a temporary use is authorized at an isolated site, issue a Special Use Permit, form FS-2700-4, and determine the land use fee from the published rental fee schedule or based on an appraisal, a minimum fee, or a market analysis.

6. Ancillary Uses and Improvements.

- a. Ancillary uses and improvements owned by a facility owner or manager must be authorized in the same communications use authorization as the communications facility they support. Do not authorize uses or improvements that do not directly serve the communications use under a communications use authorization.
- b. Encourage facility owners and managers not to sell ancillary uses and improvements at their communications facilities. Mixed ownership of ancillary uses and improvements will result in multiple authorizations for the site, increasing the administrative complexity and burden for the Forest Service and possibly adversely affecting tenants' uses.
- c. Require facility owners and managers to give prior written notice to the authorized officer of the sale of any ancillary uses or improvements. When notified of a sale of an ancillary use or improvement, inform the facility owner or manager that the prospective purchaser of the ancillary use or improvement must apply for and obtain a special use permit (form FS-2700-4) under 36 CFR 251.54 and pay any applicable cost recovery fees under 36 CFR 251.58. Apply the rate under "other category" in the rental schedule and use code 831, "other communications improvements," in calculating the land use fee for permits for ancillary uses and improvements.
- d. Require tenants and customers to submit a proposal under 36 CFR 251.54 and to pay any applicable cost recovery fees under 36 CFR 251.58 for authorization of any ancillary improvements that a facility owner or manager will not or may not provide. Evaluate these proposals in accordance with 36 CFR 251.54 and FSH 2709.11, Chapter 10.

94.61 – Mixed Ownership of a Communications Facility

When the components of a communications facility are owned by different entities, issue a separate communications use authorization to each entity. For example, business A owns the tower and business B owns the equipment shelter or building. In this situation, issue a communications use lease (form FS-2700-10b) to business A for the tower and a communications use lease (form FS-2700-10b) to business B for the building. Inventory and calculate rent for each facility separately as provided in section 95.

94.62 – Occupant-Owned Communications Facilities

1. A situation may arise in which an occupant co-locates equipment in or on an existing facility and constructs another facility within the permit or lease area without authorization from the Forest Service. For example, an FCC-licensed cellular carrier may co-locate an antenna on a facility owner's tower and install its own equipment shelter in the permit or lease area without authorization from the Forest Service.
2. These situations occur due to facility owners' and managers' mistaken belief that they not only can allow use of their communications facilities, but also can allow use of the NFS lands covered by their communications use authorization. However, facility owners and managers may rent space only in and on their facilities (clause III.A, communications use lease, form FS-2700-10b). The Forest Service reserves the right to require common use and compatible use of the permit or lease area (form FS-2700-10b, clauses I.G.2 and I.G.4, and form FS-2700-10c, clause I.G).
3. In these situations:
 - a. Require the tenant or customer to remove the unauthorized communications facility; or
 - b. Issue a separate communications use authorization for the unauthorized facility. If a separate communications use authorization is issued, charge the tenant or customer rent for the facility as provided in section 95. In addition, the tenant's or customer's co-located use in or on the facility owner's or manager's facility must be included in the facility owner's or manager's annual certified statement, and that co-located use must be included in the facility owner's or manager's rent calculation.

94.63 – Change in Ownership of a Communications Facility

1. Notice. When a holder of a communications use authorization gives notice of a change in ownership of a communications facility, inform the holder that prior to the sale, the prospective purchaser must apply for a communications use authorization, meet applicable requirements, including technical and financial capability, under 36 CFR 251.54 and FSH 2709.11, section 12.32b, and pay any applicable cost recovery fees under 36 CFR 251.58 to obtain the authorization. Inform the holder as to whether the prospective purchaser is eligible for a communications use authorization, and if so, authorize the use as provided in section 94.63, paragraph 2, 3, or 4, as applicable.
2. Special Use Permit. A special use permit (form FS-2700-4) terminates upon change in ownership of the authorized improvements. Issue a new communications use authorization, as appropriate, to the new owner of the communications facility if deemed eligible by the authorized officer under section 94.63, paragraph 1. Document the issuance of the new permit by using the reissue function in SUDS.
3. Communications Use Lease Where Full Rent is Charged. A communications use lease (form FS-2700-10b) for which full rent is charged is assignable with prior written

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approval from the authorized officer to a purchaser deemed eligible by the authorized officer under section 94.63, paragraph 1. Assignment of a communications use lease to the purchaser should be completed by using the transfer function in SUDS. Provide a copy of the current communications use lease to the purchaser, and complete an amendment to document the assignment.

4. Communications Use Lease Where Partial or No Rent is Charged. A communications use lease is not transferable when the rent is subject to a partial or total waiver or an exemption. When the rent is subject to a partial or total waiver or an exemption, issue a new communications use lease to a purchaser deemed eligible by the authorized officer under section 94.63, paragraph 1. Document issuance of a new lease by using the reissue function in SUDS.

95 – Determining Rent For Communications Uses

1. Basis for Charging Rent. Charge rent for communications use authorizations based on the holder's use and the uses of the holder's occupants. Calculate the rent by determining the use, including the facility owner's or manager's use, with the highest rate in the rental fee schedule, called the base rent, and adding 25 percent of the rate in the rental fee schedule for each of the remaining tenant uses in the facility. Do not include customer uses in the rental calculation.

2. Land Use Fees for a Communications Use Authorization Held by a Federal Entity. Federal agencies that hold a communications use authorization for a communications facility are exempt from paying a land use fee. However, if the federal agency leases space to others, assess a land use fee to the federal agency for the occupants' uses, unless they are exempt from paying a land use fee or the land use fee is waived.

3. Rental Calculation Worksheets. Use the communications site rental calculations worksheets in SUDS to calculate rent for communications uses on NFS lands. Although SUDS automatically calculates the rent, special uses administrators who manage communications sites should know how to calculate the rent, enter data accurately in SUDS, and explain to communications use authorization holders, when asked, the process used to calculate their rent. See section 90.3, paragraph 4, for policy on bartering or augmentation of rent. Exhibit 01 describes the process for calculating rent for single-use facilities (sec. 95.1) and multiple-use facilities (sec. 95.2).

4. Rental Fee Schedule. Use the rental fee schedule for communications uses to calculate the annual rent for communications uses, unless one of the exceptions in section 95.3 is met. The rental fee schedule establishes rent based on the category of communications use and the population of the community served by the communications site. Apply the rates in the rental fee schedule for the following categories of communications uses (see sec. 97, ex. 01, for a description of communications uses):

- a. Television.
- b. AM and FM radio.

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- c. Cable television.
 - d. Broadcast translator, low power television, mobile television, and low power FM radio.
 - e. Commercial mobile radio service (CMRS).
 - f. Cellular telephone. In some situations a wireless carrier may retain and continue to operate analog equipment while adding new equipment to support a separate digital cellular use. The wireless carrier would have a separate FCC license for the analog and digital equipment if the licenses and equipment are for different segments of the electromagnetic spectrum, that is, 700 Mhz, 850 Mhz, and 1900 Mhz. As long as this equipment serves the same customer base, it is considered one use for rental calculation purposes. In addition to cellular telephone uses, include in the cellular telephone category, for rental calculation purposes only, the following wireless uses licensed by the FCC as a CMRS:
 - (1) Enhanced specialized mobile radio.
 - (2) Improved mobile telephone service.
 - (3) Air-to-ground.
 - (4) Offshore radio telephone service.
 - (5) Cell site extender.
 - (6) Local multipoint distribution service.
 - g. Private mobile radio service (PMRS).
 - h. Microwave.
 - i. Other communications uses.
 - j. Wireless Internet Service Provider (ISP), Wi-Fi, and WiMAX. To calculate rent for an ISP serving a population from 1 to 1000, use the applicable Regional Local Exchange Network rate.
 - k. Facility manager.
5. Annual Inventory. To determine the base rent and number of occupants in a communications facility, require facility owners and managers to provide by October 15 of each year a completed Communications Site Tenant/Customer Inventory Certification of Facility Owner or Manager, form FS-2700-10a, listing the types of communications uses they provide and the business names of all occupants in or on the facility and their types of communications uses on September 30 of that year. There is no proration for

uses that have not been located in or on the facility for the entire year, and uses that are removed prior to September 30 are not included. For example, a communications use that is placed in a communications facility on September 29 is considered a use that has been in that facility for the entire year. Conversely, a communications use that is removed from a communications facility on September 29 would not be included in the inventory for that year. Failure to provide the inventory as required may result in enforcement action against the holder of the authorization for noncompliance.

6. Determining the Status of Occupants in Communications Facilities and the Community Served by a Communications Site. The authorized officer, rather than the facility owner or manager, determines whether occupants of communications facilities are tenants or customers for purposes of calculating rent pursuant to the *Rand McNally Commercial Atlas and Marketing Guide*, posted at http://www.fs.fed.us/specialuses/special_comm.shtml, which is updated annually. The authorized officer also determines the RMA or largest community served by the site pursuant to the most recent *Rand McNally Road Atlas Index to Cities* (sec. 91 and 95.1). If the site serves more than one RMA, select the RMA with the largest population. If the site serves populations on both sides of an international boundary, use the value from the table for the larger total population. Note that not all cities with populations greater than 25,000 are listed as RMAs.

a. Consider all facilities (and all uses within the same facility) located at one site as serving the same RMA or community. However, determinations may be made occasionally on a case-by-case basis when one facility at the site serves a different RMA or community than the others. For example, when a site has a mix of high power and low power uses, each of which is authorized by a separate communications use authorization, and only the high power uses are capable of serving an RMA or a community with the greatest population, the population served by the low power uses may be determined separately from the population served by the high power uses, as long as the two types of uses are not co-located. To make this determination, require the facility owner or manager to provide a map prepared by a qualified radio frequency engineer that shows the coverage of the site.

b. Do not modify the population rankings published in the *Rand McNally Commercial Atlas and Marketing Guide* or the population of the community served.

7. Determining Rent For Microwave. The rent for microwave depends on how microwave technology is applied. Charge rent for a microwave use in a single-use facility as provided in section 95.11 and in a multiple-use facility as provided in section 95.23.

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95 - Exhibit 01

Rental Calculation for Communications Site Uses

Step 1: Are there any other occupants in the facility?

If so, this is a multiple-use facility. Proceed to Step 2.

If not, this is a single-use facility. Proceed to Step 3.

Step 2: Inventory the facility: are ALL uses in the facility subject to a rental waiver or an exemption?

If so, proceed to Step 3.

If not, proceed to Step 7.

Step 3: Is the facility owner's use subject to a rental waiver or an exemption?

If so, no rent is charged for that facility.

If not, proceed to Step 4.

Step 4: Identify the community served: does the site serve an RMA?

If so, find the RMA population in http://www.fs.fed.us/specialuses/special_comm.shtml using the Listing of Cities by Population Strata and proceed to Step 5.

If not, ask whether the site serves a community.

If so, find the population of the largest community served by the site as identified in the current *Rand McNally Commercial Atlas and Marketing Guide*, and proceed to Step 5.

If not, use the rent for the type of use for populations identified as "less than 25,000" and proceed to Step 5.

Step 5: Determine the type of use.

Step 6: Calculate the rent based on population (Step 4) and the type of use (Step 5).

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Step 7: Identify the community served: does the site serve an RMA?

If so, find the RMA population at http://www.fs.fed.us/specialuses/special_comm.shtml using the Listing of Cities by Population Strata and proceed to Step 8. If not, ask whether the site serves a community.

If so, find the population of the largest community served by the site as identified in the current *Rand McNally Commercial Atlas and Marketing Guide* and proceed to Step 8.

If not, use the rent for the type of uses for populations identified as “less than 25,000” and proceed to Step 8.

Step 8: From the inventory (Step 2), identify:

- a. Uses that are subject to a rental waiver or exemption; and
- b. The customers at the site.

Step 9: List all tenant uses (all uses, other than those whose rent is subject to a waiver or an exemption, and customer uses (Step 8)), and the facility owner’s or manager’s use, unless that use is subject to a rental waiver or exemption.

Step 10: Determine the highest rent (typically from the rental schedule) for all the uses listed in Step 9 to establish the base rent.

Step 11: Calculate 25 percent of the rent for each remaining tenant use, including 25 percent of the rent for a facility owner’s use, if the facility owner’s rent is not included in the base rent.

Step 12: Calculate total rent as follows:

Total Rent = Base Rent (Step 10) + Total of 25 percent of Rent for All Other Uses (Step 11).

95.1 – Calculating Rent for Single-Use Facilities

1. The authorized officer's determination of the community served by a single-use communications facility may or may not be the community identified in facility owner's or manager's FCC license.
2. Consider the following when determining rent for a single-use facility:
 - a. If the communications site serves an RMA, determine the population of the RMA, and apply that population figure to the appropriate category of use in the rental schedule.
 - b. If the communications facility does not serve an RMA, determine the rent based on the population of the largest community served by the site pursuant to the most current Rand McNally Road Atlas, and the appropriate category of use in the rental schedule.
 - c. If the communications facility does not serve a community, determine the rent based on the lowest rate in the rental schedule for the appropriate category of use.

95.11 – Calculating Rent for Single-Use Microwave Facilities

Charge rent for a single-use microwave facility, unless the microwave facility is located in and authorized by a right-of-way authorization or the use is subject to a rental waiver or exemption (sec. 31).

95.2 – Calculating Rent for Multiple-Use Facilities

1. Rent for multiple-use facilities is calculated by determining the base rent and adding 25 percent of the rent for each tenant use in the facility (sec. 90.5).
2. Assess rent for multiple use facilities using the Communications Site Tenant/Customer Inventory Certification of Facility Owner or Manager, form FS-2700-10a, as follows:
 - a. Determine the Community Served by the Site. Use the process described for a single-use facility (sec. 95.1).
 - b. Determine the Base Rent. Determine the base rent by establishing the community served by the site (sec. 95.1) and highest rent of all the uses (facility owner or manager or occupant) in the facility.
 - c. Determine the Total Rent. Determine the total rent by adding to the base rent 25 percent of the rent for each tenant use in the facility other than the one generating the base rent. Include 25 percent of a facility owner's scheduled rent if it is not used as the base rent. Do not apply the 25 percent rate for customers (sec. 90.5), facility managers when their use is not generating the base rent (sec. 95.22), or occupants

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whose use qualifies for a rental waiver or exemption (sec. 31.2). Consider co-owned AM and FM radio stations and multiple businesses of a facility owner or tenant, such as a separate paging and two-way radio company owned by the same entity and located in the same facility, as separate uses in determining rent.

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95.21 – Rental Fee Calculation for a Facility Owner

Exhibit 01 contains a sample rental fee schedule and examples of rental fee calculations for a facility owner.

95.21 - Exhibit 01

Rental Fee Calculation for a Facility Owner

The rental fee calculations for a facility owner shown in this exhibit are based on the following sample rental fee schedule, which is used for illustrative purposes only.

See http://www.fs.fed.us/specialuses/special_comm.shtml for the current rental fee schedule.

Sample Rental Fee Schedule

POPULATION	TELEVISION	AM/FM RADIO*	CMRS/ FACILITY MANAGER	CELLULAR TELEPHONE and PCS	MICROWAVE	PRIVATE MOBILE RADIO SERVICE	WIRELESS ISP	OTHER	PASSIVE REFLECTOR AND LOCAL EXCHANGE NETWORK
5,000,000 plus	\$53,000.00	\$40,000.00	\$14,000.00	\$13,000.00	\$11,000.00	\$8,000.00	\$11,000.00	\$80	
2,500,000 to 4,999,999	\$35,000.00	\$24,000.00	\$11,000.00	\$10,000.00	\$7,000.00	\$6,000.00	\$7,000.00	\$60	
1,000,000 to 2,499,999	\$21,000.00	\$16,000.00	\$9,000.00	\$9,000.00	\$7,000.00	\$5,000.00	\$7,000.00	\$60	RENT FOR
500,000 to 999,999	\$14,000.00	\$10,000.00	\$5,000.00	\$7,000.00	\$4,000.00	\$3,000.00	\$4,000.00	\$60	THESE USES
300,000 to 499,999	\$7,000.00	\$9,000.00	\$4,000.00	\$5,000.00	\$2,000.00	\$3,000.00	\$2,000.00	\$60	IS DETERMINED
100,000 to 299,999	\$6,000.00	\$4,000.00	\$3,000.00	\$4,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$60	BY EACH
50,000 to 99,999	\$5,000.00	\$2,000.00	\$1,500.00	\$3,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$60	REGION
25,000 to 49,999	\$4,000.00	\$1,000.00	\$1,000.00	\$2,000.00	\$700.00	\$700.00	\$700.00	\$60	
LESS THAN 25,000	\$2,000.00	\$1,000.00	\$700.00	\$2,000.00	\$400.00	\$400.00	\$400.00	\$60	
1,000 OR LESS	N/A	N/A	N/A	N/A	N/A	N/A	REGIONAL RATE LOCAL EXCHANGE NETWORK	N/A	N/A

*Rent for AM radio is 70 percent of the rent for FM radio.

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95.21 - Exhibit 01--Continued

Rental Fee Calculation for a Facility Owner

Example 1 – Facility Owner

A communications facility serves an RMA population of 200,000, with a commercial mobile radio service (CMRS) provider as the facility owner, one television broadcaster, two FM broadcasters, one cellular telephone user, and two private mobile radio service (PMRS) users as occupants in the facility. The rent for this facility is:

\$6,000	base rent (the rent for television is the highest rent for all uses in the facility)
750	(25 percent of the rent for CMRS (facility owner))
1,000	(25 percent of the rent for FM broadcaster #1)
1,000	(25 percent of the rent for FM broadcaster #2)
1,000	(25 percent of the rent for cellular telephone)
+ 0	(no charge for PMRS, which is a customer use)
\$9,750	Total Rent Due

In this example, the facility owner's rent is not the highest value use or base rent.

Example 2 – Facility Owner

A communications facility serves an RMA population of 800,000, with a television station as a facility owner, one FM broadcaster, and three PMRS users as occupants in the facility. The rent for this facility is:

\$14,000	base rent (the rent for television is the highest of the rents for all uses in the facility and is the facility owner's use)
2,500	(25 percent of the rent for the FM broadcaster)
+ 0	(no charge for PMRS, which is a customer use)
\$16,500	Total Rent Due

In this example, the facility owner's rent is the highest-value use or base rent.

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95.22 – Rental Fee Calculation for a Facility Manager

Facility managers provide space for other communications uses; they do not directly provide communications services to others. Therefore, the rent for a facility manager is not included in the rental fee calculation if the facility manager's rent is not the highest-value use or equal to the highest-value use.

Exhibit 01 contains a sample rental fee schedule and examples of rental fee calculations for a facility manager.

95.22 – Exhibit 01

Rental Fee Calculation for a Facility Manager

The rental fee calculations for a facility manager are based on the following sample rental fee schedule, which is used for illustrative purposes only.

See http://www.fs.fed.us/specialuses/special_comm.shtml for the current rental fee schedule.

Sample Rental Fee Schedule

POPULATION	TELEVISION	AM/FM RADIO*	CMRS/ FACILITY MANAGER	CELLULAR TELEPHONE and PCS	MICROWAVE	PRIVATE MOBILE RADIO SERVICE	WIRELESS ISP	OTHER	PASSIVE REFLECTOR AND LOCAL EXCHANGE NETWORK
5,000,000 plus	\$53,000.00	\$40,000.00	\$14,000.00	\$13,000.00	\$11,000.00	\$8,000.00	\$11,000.00	\$80	
2,500,000 to 4,999,999	\$35,000.00	\$24,000.00	\$11,000.00	\$10,000.00	\$7,000.00	\$6,000.00	\$7,000.00	\$60	
1,000,000 to 2,499,999	\$21,000.00	\$16,000.00	\$9,000.00	\$9,000.00	\$7,000.00	\$5,000.00	\$7,000.00	\$60	RENT FOR
500,000 to 999,999	\$14,000.00	\$10,000.00	\$5,000.00	\$7,000.00	\$4,000.00	\$3,000.00	\$4,000.00	\$60	THESE USES
300,000 to 499,999	\$7,000.00	\$9,000.00	\$4,000.00	\$5,000.00	\$2,000.00	\$3,000.00	\$2,000.00	\$60	IS DETERMINED
100,000 to 299,999	\$6,000.00	\$4,000.00	\$3,000.00	\$4,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$60	BY EACH
50,000 to 99,999	\$5,000.00	\$2,000.00	\$1,500.00	\$3,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$60	REGION
25,000 to 49,999	\$4,000.00	\$1,000.00	\$1,000.00	\$2,000.00	\$700.00	\$700.00	\$700.00	\$60	
LESS THAN 25,000	\$2,000.00	\$1,000.00	\$700.00	\$2,000.00	\$400.00	\$400.00	\$400.00	\$60	
1,000 OR LESS	N/A	N/A	N/A	N/A	N/A	N/A	REGIONAL RATE LOCAL EXCHANGE NETWORK	N/A	N/A

*Rent for AM radio is 70 percent of the rent for FM radio.

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Example 1 – Facility Manager

A facility manager's facility serves an RMA population of 82,300 and has three microwave uses and two amateur radio operators in the facility. The rent for this facility is:

\$1,500 base rent (the facility manager's rent is the highest rent of the rents for all the uses in the facility)
250 (25 percent of the rent for microwave use #1)
250 (25 percent of the rent for microwave use #2)
250 (25 percent of the rent for microwave use #3)
+ 0 (no charge for amateur radio, which is a customer use)

\$2,250 Total Rent Due

In this example, the facility manager's rent is the highest-value use or the base rent.

Example 2 – Facility Manager

A facility manager's facility serves a non-RMA community of 8,000 and has a television station, three FM broadcasters, and three PMRS users in the facility as occupants. The rent for this facility is:

\$2,000 base rent (the rent for television is the highest rent of the rents for all the uses in the facility)
250 (25 percent of the rent for FM broadcaster use #1)
250 (25 percent of the rent for FM broadcaster use #2)
250 (25 percent of the rent for FM broadcaster use #3)
0 (no charge for PMRS, which is a customer use)
+ 0 (no charge for the facility manager, whose rent is not the highest of the rents for all the uses in the facility)

\$2,750 Total Rent Due

In this example, the facility manager's rent is not the highest-valued use or the base rent, nor is 25 percent of the facility manager's rent included in the rental fee calculation.

Example 3 – Facility Manager

A facility manager's facility serves a non-RMA community of 27,000. On September 30 there were no occupants in that facility. The rent for this facility is:

The rent for a facility manager with no tenants or customers is the rental fee schedule rate for a facility manager:

\$1,000 Total Rent Due

95.23 – Rental Fee Calculation for Microwave

95.23a – Ancillary Microwave Use

Microwave is often used to support other communications uses, such as television, two-way radio, and cellular. When microwave is used solely to support another communications use in a facility, do not consider microwave as a separate use for rental fee calculation purposes.

95.23b – Commercial Microwave Use

Consider microwave as a separate use for rental fee calculation purposes when one of the following applies:

1. The microwave may be considered a tenant use (sec. 90.5) as with long-line intrastate and interstate public telephone, data transmission not supporting an existing authorized use, and other microwave uses, where the intent is to re-sell, provide, or exchange communications services to others.
2. In addition to serving as an ancillary use, the microwave is used as a common carrier, for example, as a relay or link between cellular facilities owned by other carriers.
3. A portion of the microwave bandwidth is used for commercial purposes, as when a State highway department uses a state-wide microwave system for internal communications between field offices, but also rents a portion of the bandwidth to a commercial paging company.

95.3 – Exceptions to Use of the Rental Fee Schedule

1. Rent that is not established using the rental fee schedule must be based on comparative market surveys, appraisals, or other sound business management principles. Approve and document these alternative rental determinations.
2. The following are exceptions to use of the rental fee schedule:
 - a. The rent or use is not covered by the rental fee schedule.
 - b. The rent has been or is established through a competitive process and is updated in accordance with the terms and conditions of a communications use authorization.
 - c. The regional forester concurs with the authorized officer that the communications site serves a population of one million or more, and that the expected rent for the communications use is more than \$10,000 above the established rental fee schedule.
 - d. The typical market rent exceeds the scheduled rent by 5 times or more.

95.4 – Updating the Rental Fee Schedule

1. The Washington Office Director of Lands shall update the rental fee schedule (http://www.fs.fed.us/specialuses/special_comm.shtml) annually based on the Consumer Price Index–Urban (CPI-U) published in July each year. Annual adjustments based on the CPI-U may not exceed 5 percent. The rental fee schedule must also be updated annually in SUDS.
2. The Washington Office Director of Lands shall review the rental fee schedule no later than 10 years after the date of its implementation (60 FR 55089-55110, Oct. 27, 1995) and at least every 10 years thereafter to ensure that the rates in the schedule reflect market value.
3. The Director of Lands shall review and update the RMA city and population table (http://www.fs.fed.us/specialuses/special_comm.shtml) annually based on the most recent edition of the *Rand McNally Commercial Atlas and Marketing Guide*.

95.5 – Rental Fee Waivers and Exemptions

1. Direction on determining rental fee waivers and exemptions is contained in sections 31.2 through 31.4 of this handbook. Require holders to provide documentation annually supporting their eligibility and the eligibility of any occupants in their facility for a rental waiver or exemption. If the appropriate documentation is not provided in a given year, the holder or occupant shall not qualify for a waiver or exemption and shall be charged the full rent for the holder's or occupant's use, as provided in sections 95 through 95.4.
2. If a State or local governmental entity as a facility owner or manager is subject to a rental fee waiver, and all uses in the facility owner's or manager's facility are also subject to a rental fee waiver or a rental fee exemption or are considered a customer use for rental calculation purposes, and (which is rare) the facility owner or manager is operating the communications facility to generate a profit (that is, is charging some or all of the occupants of that facility rates which exceed the operation and maintenance costs for the facility), charge the facility owner or manager rent based on the highest-value use in the facility, including the facility owner's or manager's use, from the rental fee schedule.

95.51 – Rental Fee Waivers for Nonprofit, Educational Radio, and Television Broadcasters

Waive rent for any radio or television broadcasters, including sectarian radio and television broadcasters, that are licensed by the FCC as noncommercial, educational broadcasters, and that have nonprofit status under section 501(c)(3) of the Internal Revenue Code. Sectarian broadcasters include those television and radio stations whose programming promotes a particular belief, ideology, or cause.

96 – Administration of Communications Sites

96.1 – Jurisdiction

1. Occupancy, Use, and Frequency Assignment.

- a. The Forest Service has jurisdiction over the use and occupancy of NFS lands for communications purposes under the National Forest Management Act (NFMA) (16 U.S.C. 1600 *et seq.*), FLPMA (43 U.S.C. 1701 *et seq.*), and 36 CFR Part 251, Subpart B. The issuance of an FCC license (para. 1b) or an NTIA authorization (para. 1c) does not authorize the use and occupancy of NFS lands. A Forest Service special use authorization is required for the use and occupancy of NFS lands for communications purposes.
- b. The FCC has jurisdiction over the use of non-Federal channels of radio and television transmission under licenses granted by the FCC.
- c. The NTIA has jurisdiction over the use of Federal channels of radio transmission under authorizations granted by the NTIA.

2. Conflict Resolution.

- a. The Forest Service has jurisdiction over resolution of conflicts associated with the use and occupancy of NFS lands, such as those involving location and re-radiation.
- b. The FCC and NTIA are not responsible for resolving conflicts associated with the use and occupancy of NFS lands when entities are operating within the limits of their FCC license or NTIA authorization. However, the FCC or NTIA may be useful in assisting with resolution of interference problems or other frequency conflicts.
- c. Consider including a binding arbitration clause when a new lease is issued or in a new or revised communications site management plan when many users occupy a communications site, there is a history of interference, or the potential for interference is high.

96.2 – General Administration

1. Ensure that each communications site is administered in accordance with the applicable LMP, communications site management plan, and communications use authorization.
2. Require the authorization holder to be responsible for technical inspections and administrative duties associated with the communications facility.
3. Require the holder to provide annual technical inspection reports of communications equipment covered by the authorization to ensure that authorized equipment is operating in accordance with the applicable communications site management plan, the FCC

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license or NTIA authorization, and the manufacturer's specifications and that the equipment is secure, free of rust, properly grounded, and otherwise properly operated and maintained.

4. In situations where the Forest Service is involved in technical inspections, ensure that the inspection is coordinated with the forest or regional communications specialist. The sample checklist for a communications facility inspection (sec. 97, ex. 07) may be used during these inspections.

5. To facilitate communications site administration, the authorized officer shall:

a. Ensure that the holder complies with FCC and NTIA requirements for labeling of equipment and posting of licenses or authorizations.

b. Ensure that each facility is lettered or numbered in accordance with the communications site management plan.

c. Maintain a master file for each communications site that includes the NEPA decision document, a current communications site management plan, and as-built plans provided by the facility owner or manager.

d. Maintain an individual file for each communications facility. At a minimum, these files must contain:

(1) The special use application for the facility.

(2) Form FS-2700-10, Technical Data Sheet.

(3) A NEPA decision document for the communications facility, if applicable.

(4) The special use authorization for the communications facility and any amendments to the authorization.

(5) Form FS-2700-10a, Communications Site Tenant/Customer Inventory Certification of Facility Owner or Manager, listing all tenants and customers in the communications facility and their types of use for the current year.

(6) A rental calculation worksheet, bill for collection, and documentation of any rental waivers or exemptions for the current year.

(7) Inspection documentation.

(8) Correspondence pertaining to the communications facility.

(9) A copy of the facility owner's current FCC license or NTIA authorization.

96.3 – Verifying Facility Inventories

1. Correct billings for communications uses may be accomplished only when rent is calculated from accurate and current certified inventory statements (sec. 95, para. 2) from facility owners and managers prepared on form FS 2700-10a or the equivalent. Certified inventory statements that do not contain the names of all occupants in the facility may result in loss of revenue to the United States. Conversely, certified inventory statements containing the names of occupants that are no longer in the facility may result in over-billing for that facility.
2. Verification of inventories should be routinely conducted by scheduling an on-site inspection of the facility with the facility owner or manager. During the on-site inspection, it may be necessary to have a forest or regional communications specialist or a private communications consultant at the facility to assist in identifying radio equipment operated under an FCC license or NTIA authorization. The FCC Enforcement Bureau may also provide on-site technical support in identifying communications uses at a site. Initiate contact with the FCC Enforcement Bureau through the regional special uses coordinator.
3. Facility inventories may also be verified by:
 - a. Identifying the various types of antennas located on the tower to see if those uses are being reported in the facility owner's or manager's inventory. For example, a visual inspection of the facility may reveal a cellular antenna on the tower, even though no cellular provider is listed in the facility owner's certified inventory for that year.
 - b. In a small community, researching communications providers in the telephone directory and asking them for information about their coverage area and the locations from which that coverage is provided. For example, paging company Y could be called and asked how it provides coverage in area A. Paging company Y could respond that it has equipment on Mt. Smokey on NFS lands and thus is able to reach area A. However, paging company Y is not listed on any facility inventories for Mt. Smokey.
 - c. Using the FCC Wireless Telecommunications Database, accessible through the FCC's homepage at www.fcc.gov. A one-mile radius search of all FCC licensees may be made using the latitude and longitude of the communications site.

96.4 – User Associations

1. User associations are a valuable tool in assisting the authorized officer in the administration of a communications site. Active user associations help resolve issues before they become problems. Therefore, formation of a user association for medium to large communications sites is encouraged.

2. User associations are most effective when there is strong leadership among the users and common issues that require cooperation and or resolution, such as access needs and interference. The Forest Service in most cases is not the appropriate entity to provide this leadership.

96.41 – User Association Authorities and Responsibilities

All decision-making authority for management of a communications site rests with the authorized officer. However, user associations are useful in providing technical support to the authorized officer for compatibility and interference issues and development of standards for the communications site. User associations may also assist in annual site inspections of facilities and equipment. User associations may assume maintenance responsibility for access roads and utilities and be issued the appropriate authorizing instrument to maintain and control them (sec. 94.6, para. 6).

96.42 – User Association Membership

Holders of a communications use authorization should not be required to join the user association for their site as a condition of their authorization. However, if the holder of a communications use authorization does not pay the holder's fair share of the maintenance costs for an improvement for which the user association is responsible, the user association may deny the holder use of that improvement, regardless of whether the holder is a member of the user association, provided that the holder is not denied access to or use of the site.

96.5 – Electronic Documentation

1. Maintain the digital version of the communication site management plan, related digital maps, digital photographs, user tables, and other related information in the I-Web data structure and linked from the Land Type Module under "Communications Sites," SUDS Authorization Module, and Forest Service Features Module (if a Forest Service facility is located at a communications site).
2. Update communications use files in the I-Web database by replacing the file in the existing folder structure utilizing the same naming conventions as in the original. It is the responsibility of the regional special use coordinator to enter this information into the I-Web under "Special Uses/Communications Sites."
3. The I-Web manual called "Communications Site Help" is located at <http://i-web.wo.fs.fed.us/support/mergedProjects/commsites>.

97 – Additional Exhibits

1. Exhibit 01 – Description of Communications Uses. Contains a description of communications uses.
2. Exhibit 02 – Preparation of a Communications Site Management Plan. Contains guidance on preparation of a communications site management plan.

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3. Exhibit 03 – Compatibility Guide for Communications Uses. Contains a guide showing the compatibility of different communications uses, including an index of the use codes for communications uses in SUDS.
4. Exhibit 04 – Evaluation of Proposed Uses for Consistency with the Communications Site Management Plan. Contains a flow chart for determining whether proposed communications uses are consistent with the applicable communications site management plan.
5. Exhibit 05 – Sample Inspection Sheet for Communications Facilities. Contains a sample checklist for communications facility inspections.

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97 – Exhibit 01

Description of and Use Codes for Communications Uses

Broadcast Uses

FM Radio Broadcast (FM – 816) is a use that broadcasts frequency modulation (FM) audio signals for general public reception. This category of use includes radio stations that generate revenue from commercial advertising and public radio stations whose revenues are supported by subscriptions, grants, and donations. Broadcast areas often overlap State boundaries. This category of use relates only to primary transmitters, and boosters serving primary transmitters, and not to any rebroadcast systems such as translators, boosters or microwave relays serving broadcast translators, or holders licensed by the FCC as low power FM radio.

AM Radio Broadcast (AM – 816) is a use that broadcasts amplitude modulation (AM) audio signals for general public reception. This category of use includes radio stations that generate revenue from commercial advertising and public radio stations whose revenues are supported by subscriptions, grants, and donations. Broadcast areas often overlap State boundaries. This category of use relates only to primary transmitters, and not to any rebroadcast systems such as an FM translator that is authorized to rebroadcast the programming of AM stations.

Broadcast Translator (BT – 808) is a use of translators and boosters or microwave relays serving broadcast translators. Broadcast translators receive a television or radio broadcast signal and rebroadcasts it on a different channel or frequency for local reception. In some cases, the translator relays the signal to another amplifier or translator. If a facility owner or manager or an occupant is operating more than one television or radio station in or on a communications facility, each separate use must be reported in the annual certified statement/inventory.

Low Power FM Radio (LPFM – 808) is a LPFM station is limited to non-commercial educational or government entities by the FCC. This category of use includes translators associated with public telecommunication services.

Low Power Television (LPTV – 808) is an LPTV station operating with less than 150 kW of power on Channels 14 through 69 or with 3 kW of power on Channels 2 through 13. An LPTV station may broadcast independently from any television station.

Cable Television (CT – 809) is a use that transmits video programming to multiple subscribers in a community over a wired or wireless network. These systems normally operate as a commercial entity within an authorized franchise area. This category does not include rebroadcast devices, personal or internal antenna systems, such as private systems serving hotels or residences. Microwave facilities that are solely used in conjunction with cable television systems are included in this category.

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Description of Communications Uses

Television Broadcast (TV – 817) is a use that broadcasts UHF and VHF audio and video signals for general public reception. This category of use includes commercial digital television stations (major and independent networks) that generate income through commercial advertisement and educational digital television stations (public and university television stations whose operations are supported by subscriptions, grants, and donations). Broadcast areas may overlap State boundaries. This category does not include LPTV or rebroadcast devices such as translators or transmitting devices such as microwave relays serving broadcast translators.

Non-Broadcast Uses

Cellular Telephone (CEL – 810) is a system of mobile or fixed communication devices that use a combination of radio and telephone switching technology and provide public switched network services to fixed or mobile users, or both within a defined geographic area. The system consists of one or more cell sites containing transmitting and receiving antennas, cellular base station radio, telephone equipment, or microwave communications link equipment utilized as back haul for that site.

The following uses may be categorized as commercial mobile radio service on an FCC license, but for rental fee calculation purposes are all considered to be cellular telephone uses:

- (1) Enhanced specialized mobile radio (ESMR),
- (2) Improved mobile telephone service (IMTS),
- (3) Air-to-ground,
- (4) Offshore radio telephone service,
- (5) Cell site extender,
- (6) Local multipoint distribution service; and
- (7) Personal communication service (PCS).

Commercial Mobile Radio Service (CMRS – 815) is a commercial mobile radio use that provides mobile radio communications services to individual customers. Examples of CMRS include community repeaters, trunked radio (specialized mobile radio), two-way radio dispatch, public switched network (telephone/data) interconnect service, microwave communications link equipment (monitoring devices), and other two-way voice and paging services. When multiple CMRS systems are operated by the same entity in the same facility, only one CMRS use needs to be reported on the annual inventory.

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Facility Manager (FAM – 818) is the holder of a Communications Use Lease who owns a communications facility on NFS lands and rents space in or on the facility to other communications users, but does not own or operate communications equipment and does not directly provide communications services.

Local Exchange Network (LEN – 805) is a radio service that provides basic telephone service, primarily to rural communities.

Microwave (MIC – 803 or 804) is a communication use that (1) provides long-line intrastate and interstate public telephone (including relay of cellular traffic from other cellular sites), television, and data transmissions (common carrier microwave, use code 803) or (2) supports the primary business of pipeline and power companies, railroads, and land resource management companies by providing the companies' internal communication system (business/industrial, use code 804).

Other Communications Use (OT – 801, 802, 814, 831, 832, or 833) is a private communications use such as amateur radio (801); personal/private receive-only antenna designed for the reception of electronic signals to serve private homes (802); natural resource and environmental monitoring equipment used by weather stations, seismic stations, and snow measurement courses (814); or other small, low-power device used to monitor or control remote activities (831). This type of use is personally owned and not operated for profit or by commercial entities.

Federal agencies utilize the category of navigational equipment (833) for electronic signaling for aviation or marine navigation. For example, the FAA, and U.S. Navy, and U.S. Air Force utilize several technologies such as VORTAC and other air traffic control systems. This category also includes other communications improvements not accounted for in the other categories (831) and any communications improvements financed under the Rural Electrification Act (REA) (832).

Although not communications uses, radar and Doppler may be found at communications sites. For inventory and rental fee calculation purposes, determine the communications use category according to the method used to transmit data from the site. For example, if a television station operates a weather Doppler radar and transmits from the site via microwave, the communications use would be industrial microwave (804).

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Description of Communications Uses

Passive Reflector (PR – 807) includes various types of non-powered reflector devices used to bend or ricochet electronic signals between active relay stations or between an active relay station and a terminal. A passive reflector commonly serves a microwave communications system. The reflector requires point-to-point line-of-sight with the connecting relay stations, but does not require electrical power.

Private Mobile Radio Service (PMRS – 806) is a use supporting private mobile radio systems primarily for a single entity for mobile internal communications. PMRS is not sold and exclusively limited to the user in support of business, community activities, or other organizational communication needs. Examples of PMRS include private local radio dispatch, private paging services, and ancillary microwave communications equipment for controlling mobile facilities.

Rural Electrification Act (REA)-Financed Communications Site Improvements (832) may be categorized under one of several of the other use types listed in this exhibit, depending on the type of use. However, the use code for REA-financed facilities is 832, regardless of use. REA-financed facilities are exempt from land use fees (FSH 2709.11, Ch. 30, sec. 34); however, occupants co-located in or on an REA-financed communications facility may not be exempt from rent.

Wireless Internet Service (ISP – 811) utilizes wireless technology to connect subscription users to the internet. The ISP, as a facility owner or as a tenant, is considered an ISP for rental fee calculation purposes. A subscriber of an ISP who has a communications facility on public lands to receive and transmit an ISP signal is considered a PMRS use for rental fee calculation purposes. ISP technology may be licensed or unlicensed, integrated with a cellular provider, or independent. ISP technology provides mobile wireless access to the internet and data transmission directly to devices with integrated technology (e.g., personal computers, laptops, tablets, personal digital assistants (PDAs), and other devices capable of streaming data) and devices with plugin technology (e.g., a Universal Serial Bus (USB) modem or mobile hotspot).

Wired Uses

Fiber Optic Cable (Fiber – 823) is a type of cable with several optical fibers bundled together that are each typically covered in plastic. Fiber optic cable is a high-speed data transmission medium. Digital data are transmitted through the cable via rapid pulses of light. Fiber optic cable is not subject to the communications use rental fee schedule, but rather the linear right-of-way fee schedule.

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Preparation of a Communications Site Management Plan

A communications site management plan is required for all approved communications sites. An approved national template for a communications site management plan is available at https://www.fs.fed.us/specialuses/special_comm.shtml.

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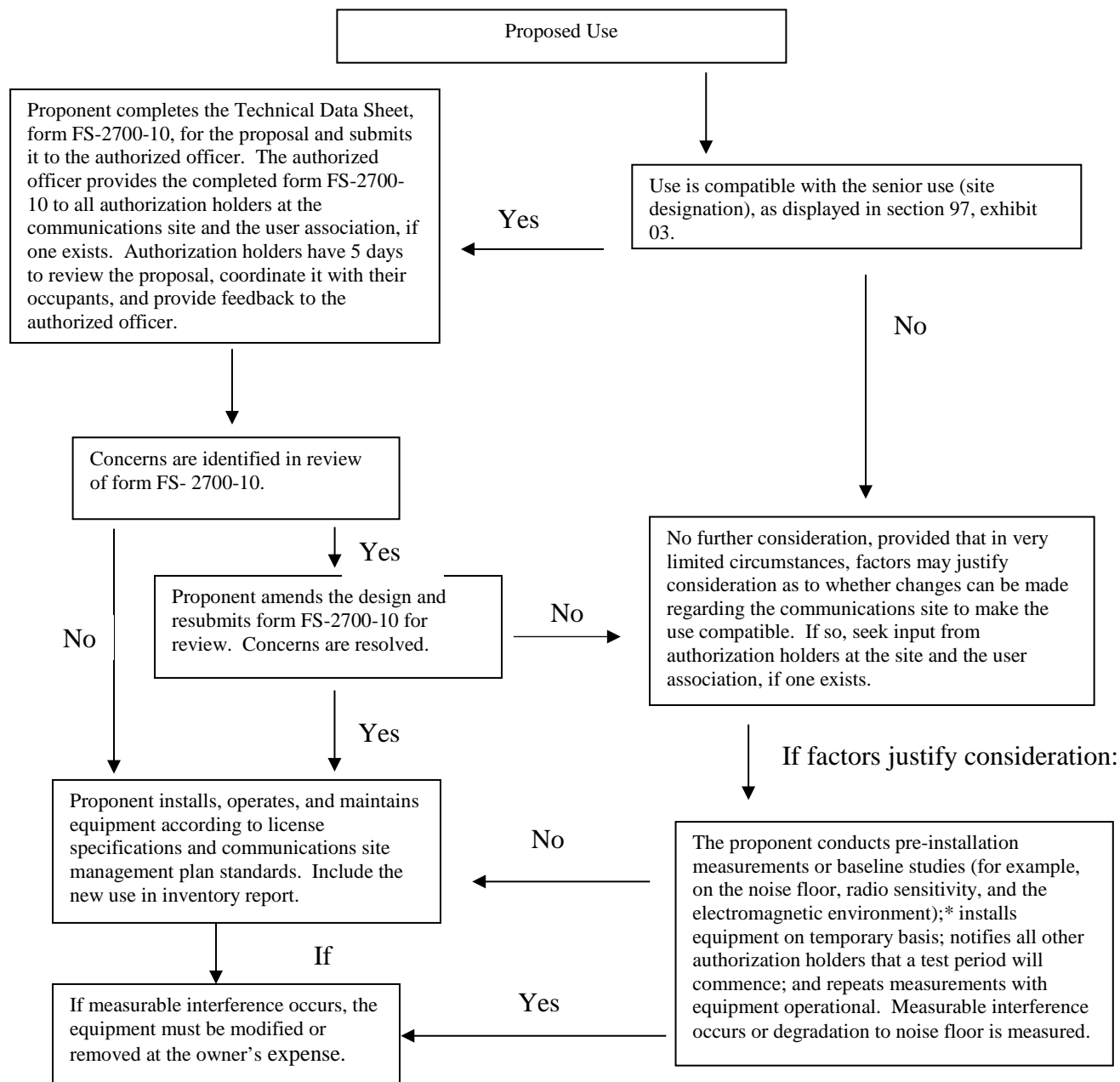
Compatibility Guide for Communications Uses

Categories of Use	SUDS Use Code	Compatible With		FCC Rules (47 CFR) That Govern Each Category of Use
		Broadcast Uses	Non-Broadcast Uses	
BROADCAST				
Television	817	Yes	No	Parts 21, 74, and 100
AM and FM Radio	816	Yes	No	Parts 73, 74, and 100
Cable Television	809	Yes	Yes	Parts 76, 78, and 100
Broadcast Translator, Low Power Television, and Low Power Radio	808	Yes	No	Part 74
NON-BROADCAST				
CMRS, Other Than Paging	815	No	Yes	Parts 20, 21, 23, 25, 26, 80, 87, and 90
Paging	815	No	Can cause interference with other non- broadcast uses	Parts 20, 21, 23, 25, 26, 80, 87, and 90
Facility Manager	818	NA	NA	Not licensed by the FCC
Cellular Telephone and PCS	810	No	Yes	Parts 21, 24, 26, and 27
PMRS	806	No	Yes	Parts 21, 22, 90, and 95
Common Carrier Microwave	803	Yes	Yes	Part 101
Industrial Microwave	804	Yes	Yes	Part 101
Local Exchange Network	805	Yes	Yes	Part 22
Passive Reflector	807	Yes	Yes	Part 22
Wireless ISP	811	No	Yes	Not licensed by the FCC
Other Communications Uses	See below			
Amateur Radio	801	No	Yes	Part 97
Personal Receive Antenna	802	No	Yes	Not licensed by the FCC
Resource Monitoring Site	814	No	Yes	Parts 20 and 90

Forest Service Handbook 2709.11 – Special Uses Handbook
Chapter 90 - Communications Site Management
Amendment: 2709.11-2020-6
Effective date: October 13, 2020

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**Evaluation of Proposed Uses for Consistency with the
Communications Site Management Plan**



* The user association, a majority of authorization holders, and the authorized officer shall determine the minimum pre- and post-installation studies and measurements necessary to protect existing uses from interference or degradation of the noise floor.

Forest Service Handbook 2709.11 – Special Uses Handbook
Chapter 90 - Communications Site Management
Amendment: 2709.11-2020-6
Effective date: October 13, 2020
97 – Exhibit 05

Sample Inspection Sheet for Communications Facilities

A sample inspection sheet for communications facilities is posted
at https://www.fs.fed.us/specialuses/special_comm.shtml.