

Lincoln National Forest Plan Revision

Inventory Process for Identifying Lands that may or may not be Suitable for Inclusion in the National Wilderness Preservation System

Introduction

When revising the land management plan, the Lincoln National Forest must complete a process to identify and evaluate lands that may be suitable for inclusion in the National Wilderness Preservation System (NWPS) and determine whether to recommend any such lands for wilderness¹. A description of this process can be found in the 2012 Forest Service Planning Rule and Chapter 70 of the Forest Service Land Management Planning Handbook 1909.12. This process includes the following four steps:

1. Inventory. Identify and inventory all lands that may be suitable for inclusion in the National Wilderness Preservation System using a given set of criteria
2. Evaluation. Evaluate the wilderness characteristics of each inventoried area using a given set of criteria
3. Analysis. The forest supervisor will determine which areas to further analyze in the National Environmental Policy Act (NEPA) process
4. Recommendation. The forest supervisor will decide which areas, if any, to recommend to Congress for inclusion in the National Wilderness Preservation System (NWPS).

Lands evaluated and analyzed through this process and the resulting NEPA analysis are only preliminary administrative recommendations; Congress reserves the authority to designate wilderness through legislation.

This document outlines the process used to accomplish the inventory. The primary function of the inventory step is to efficiently and transparently identify all lands on the Lincoln National Forest that may have wilderness characteristics as defined in the Wilderness Act.

The inventory is intended to be broad and inclusive, based on the inventory criteria identified in the Forest Service Handbook and further defined by the Lincoln National Forest through public and government participation². The product of the inventory step is a series of maps that will be made available for public review and feedback and included as part of the Forest Plan Revision official documentation. Lands shown on the preliminary series of inventory maps do not imply designation that conveys or requires a particular kind of management; rather, inclusion in the inventory means an area will go on to be evaluated for wilderness characteristics.

The inventory step of the process has a set of criteria—area size, the existence of roads, and other improvements—which are explained and identified below in the following sections. Areas identified using the inventory criteria will then be evaluated, using a set of evaluation criteria.

¹ FSH 1909.12 Chapter 70, sections 71.21 and 71.22a

² FSH 1909.12 Chapter 70, section 70.61

Steps in the Lincoln National Forest Inventory Process

Community Perspectives on “Substantially Noticeable” Structures

The term “substantially noticeable” is not directly defined in Chapter 70 of the Forest Service Land Management Planning Handbook. The Lincoln National Forest developed a definition of “substantially noticeable” for the other improvements criteria³.

In October 2018, the Lincoln National Forest held community meetings to gather input on the “substantially noticeable criteria” and to provide information on the process and its steps. These meetings occurred the week of October 1, 2018, in the following New Mexico communities: Alamogordo, Carlsbad, Cloudcroft, Ruidoso, and Weed. Community meeting participants provided comments on substantially noticeable structures. They were shown photos and were asked whether the structure in the photo was substantially noticeable. They then provided their reasoning for why it was or was not noticeable and ideas for what could change their answer to the first question. The summary of these public meetings is found on the Lincoln National Forest website [here](#). The feedback provided from the range of participants was considered when developing the Lincoln National Forest definition of “substantially noticeable.”

The Lincoln National Forest has defined substantially noticeable to mean that an improvement is substantially noticeable when it creates a noticeable difference in form, line, color, texture or pattern in the surrounding natural landscape at a size, scale, or concentration that contrasts with the surrounding natural landscape. To be substantially noticeable in the area as a whole, the improvement or concentration of improvements must be more dominant than the surrounding natural landscape scene or visually apparent using aerial imagery at the forest-wide scale of one inch to one mile.

Draft Inventory Criteria

In the Summer of 2019, the Lincoln National Forest posted [Draft Inventory Criteria](#) online and gathered public feedback, asking for comments by July 31, 2019. The Draft Inventory Criteria included three broad categories: size, roads, and improvements. The Lincoln National Forest’s definition of substantially noticeable was included in the Draft Inventory Criteria. Public feedback provided will be helpful in the inventory, evaluation, and analysis steps of this process. No substantive changes were made to the Draft Inventory Criteria from the public feedback received.

Geospatial Analysis and Mapping for Draft Inventory Maps

Roads, Utility Corridors, and Size

As the first step in developing the Inventory Maps, we applied a GIS analysis of existing roads and motorized routes across the Lincoln National Forest. Draft Inventory Criteria shared with the public for roads was described as follows:

Open roads per the forest’s travel management decision are removed from the inventory. Other jurisdiction roads open to the public, such as county roads and state roads, which pass through National Forest System lands will also be removed from the inventory. Removed roads will have a buffer of about 100 feet on either side of the road centerline to account for the road width, right-of-way maintenance, and potential geospatial data inaccuracies.

³ FSH 1909.12 Chapter 70, section 71.22b

Chapter 70 of the Forest Service Land Management Planning Handbook 1909.12 outlines in more detail what road⁴ improvements⁵ should and should not be included in the inventoried areas.

In this first step of mapping, these road improvements were buffered with 100 feet on either side of the road centerline to account for the road width, right-of-way maintenance, and potential geospatial data inaccuracies and not included in an inventory area potentially suitable for wilderness:

1. Permanently authorized roads for which a valid easement or interest has been properly recorded.
2. Open to the public Forest roads maintained to levels 3, 4, or 5. (Level 3 roads are open and maintained for travel by a prudent driver in a standard passenger car. Level 4 and 5 roads are open and provide a moderate to high degree of user comfort and convenience).
3. Open to the public Forest roads maintained to level 2 (roads open for use by high clearance vehicles), if these forest roads receive some type of maintenance to ensure relatively regular and continued use or have been identified for public access and use in a project level or travel planning decision
4. Roads open to the public under other jurisdictions, such as county roads and state roads. These roads may pass through NFS lands.

These road improvements may occur in an inventory area and would be carried forward and considered in the evaluation step:

1. Areas that contain forest roads maintained to level 1 (closed);
2. Areas with any routes that are decommissioned, unauthorized or temporary, or forest roads that are identified for decommissioning in a previous decision document;
3. Areas with forest roads that will be reclassified to level 1 through a previous decision document;
4. Areas with forest roads that have been proposed by the Forest Service for consideration as recommended wilderness through a previous forest planning process; or areas with forest roads that the Responsible Official merits for inclusion in the inventory that were proposed for consideration through public involvement during the assessment or other public or intergovernmental participation opportunity (sec. 70.61);
5. Areas with historical wagon routes, historical mining routes, or other settlement era transportation routes considered part of the historical and cultural landscape of the area.

In the first step in developing the Inventory Maps, we also applied a GIS analysis of powerlines or other utilities with cleared rights-of-way, other permanently installed linear right-of-way structures, buffering them with a 100 foot buffer. These areas with powerlines or other utilities were not included in an inventory area.

After the GIS analysis of roads, powerlines, and other utilities, we applied the size criteria. Areas to be included in the inventory must be federal lands and must meet one of the following size criteria:

1. The area contains 5,000 acres or more.
2. The area contains less than 5,000 acres but is of sufficient size as to make practicable its preservation and use in an unimpaired condition, including but not limited to areas contiguous to

⁴ A forest road is defined as a road wholly or partly within or adjacent to and serving the National Forest System that the Forest Service determines is necessary for the protection, administration, and utilization of the System and the use and development of its resources (36 CFR 212.1).

⁵ Guidance on forest road improvements considered can be found in FSH 1909.12, chapter 70, section 71.22a

an existing wilderness, primitive areas, administratively recommended wilderness, or wilderness inventory of other Federal ownership.

In this first step of the inventory process, we did not identify any areas less than 5,000 acres that are not contiguous to the above land use examples. We only carried forward areas that were 5,000 acres or more or contiguous to an existing wilderness, wilderness study area or wilderness inventory in other ownership into the next steps of the inventory process.

Other Improvements

Lands considered for the inventory may or may not have improvements. Improvements are things that show evidence of human activities such as structures or past management activities. The presence of improvements does not necessarily exclude areas for consideration in the inventory; however, certain improvements may cause an area to be removed at the inventory stage.

After identifying lands within the Lincoln National Forest that meet the size and road improvement criteria⁶ discussed above, we determined whether those lands contain other improvements as described below and in the [Draft Inventory Criteria](#):

Only those improvements that are not substantially noticeable in the area as a whole are included in the inventory. The Lincoln National Forest has defined substantially noticeable to mean that an improvement is substantially noticeable when it creates a noticeable difference in form, line, color, texture or pattern in the surrounding natural landscape at a size, scale, or concentration that contrasts with the surrounding natural landscape. To be substantially noticeable in the area as a whole, the improvement or concentration of improvements must be more dominant than the surrounding natural landscape scene or visually apparent using aerial imagery at the forest-wide scale of one inch to one mile. The list below includes improvements that would be substantially noticeable and would be removed from the inventory. Improvements mapped as point features in geospatial data may be documented as areas, with 100 feet around that single feature to account for footprint and geospatial mapping errors.

- ◆ Surfaced runways or landing pads with permanent structures
- ◆ Vegetation treatments that are substantially noticeable using the definition above such as clear cut forested areas, regeneration harvests, fuel breaks, and areas of pinyon-juniper chaining
- ◆ Vertical structures that (1) extend above the surrounding tree or shrub height, (2) require regular access for maintenance, (3) where the associated ground disturbance is 1 acre or greater, or (4) occur in a concentration
- ◆ Range developments with improvements (such as windmills) that extend above the surrounding tree or shrub height and (1) have associated ground disturbance of 1 acre or greater or (2) occur in a concentration that is substantially noticeable
- ◆ Areas of commercial open pit mining, active mining operations, or gas extraction wells
- ◆ Developed recreation sites (such as ski areas, campgrounds, or interpretive sites) as defined by management areas or special use permit boundaries
- ◆ Powerlines or other utilities with cleared rights-of-way, other permanently installed linear right-of-way structures (such as a tramway), permanent above ground pipelines over 6 inches in diameter

⁶ Guidance on size criteria can be found in FSH 1909.12 Chapter 70, section 71.21. Guidance on forest road improvements considered can be found in FSH 1909.12 Chapter 70, section 71.22a

- ◆ Non-earthen dams, post-fire flooding control improvements (i.e., filter dams made of non-natural materials), and terraced areas
- ◆ Structures with a modern appearance whose primary function of the area is dedicated to housing or a concentration of other permanent building structures including developed recreation improvement structures

Not all improvements that are substantially noticeable were eliminated from the inventory, such as stand-alone structures in the middle of an inventory area. Those substantially noticeable improvements not eliminated during inventory, as well as other improvements not considered substantially noticeable, will be considered during the evaluation step, under the criterion of “apparent naturalness.”

Chapter 70 of the Forest Service Land Management Planning Handbook 1909.12 outlines criteria for other improvements that should and should not be included in the inventory area. When reviewing improvements, we considered the Draft Inventory Criteria shared with the public, the Chapter 70 Handbook Other Improvements Criteria, and the examples listed below. Field knowledge and subject matter expertise were used in final determinations on whether an improvement is included or eliminated from the inventory. Improvements mapped as point features in geospatial data may be documented as areas, with 100 feet around that single feature to account for footprint and geospatial mapping errors.

Table 1. Other Improvements Criteria

Other Improvements Criteria Identified in Planning Directives ⁷	Inventory Criteria and Examples for Lincoln National Forest
Airstrips and Heliports	<p><u>Substantially noticeable:</u> Surfaced runways or landing pads with permanent structures.</p> <p><u>Improvements that may remain and carried forward to evaluation step:</u> Heliports, as these are temporary structures.</p> <p>None identified as substantially noticeable</p>
Vegetation treatments and Timber harvest areas	<p><u>Substantially noticeable:</u> Vegetation treatments that are substantially noticeable using the Lincoln National Forest definition such as clear cut forested areas, regeneration harvests, fuel breaks, and areas of pinyon-juniper chaining Visually apparent using aerial imagery at the forest-wide scale of one inch to one mile</p> <p><u>Improvements that may remain and carried forward to evaluation step:</u> Vegetation treatments that were not visually apparent using aerial imagery at the forest-wide scale of one inch to one mile</p>
Permanently installed vertical structures, such as electronic installations that support television, radio, telephone, or cellular communications, provided their impacts, as well as their maintenance and access needs, are minimal.	<p><u>Improvements that may be eliminated from potentially suitable areas per Forest Service Land Management Planning Handbook direction⁸:</u> Vertical structures that (1) extend above the surrounding tree or shrub height, (2) require regular access for maintenance, (3) where the associated ground disturbance is 1 acre or greater, and/or (4) occur in a concentration. Removed the entire concentration or affected area from inventory.</p> <p><u>Improvements that may remain and carried forward to evaluation step:</u> Other permanently installed vertical structures provided their impacts, as well as their maintenance and access needs, are minimal.</p>

⁷ From FSH 1909.12 Directives, Chapter 70

⁸ FSH 1909.12 Chapter 70, section 71.22b (4)

Other Improvements Criteria Identified in Planning Directives ⁷	Inventory Criteria and Examples for Lincoln National Forest
Areas of mining activity	<p><u>Substantially noticeable:</u> Areas of commercial open pit mining, active mining operations, gas extraction wells.</p> <p><u>Improvements that may remain and carried forward to evaluation step:</u> sand and gravel pits, permit rock collection areas, small mining claims, historic mining evidence, and other areas of mining activity where impacts are not substantially noticeable.</p>
Range improvement areas	<p><u>Substantially noticeable:</u> improvements (such as windmills) that extend above the surrounding tree or shrub height and (1) have associated ground disturbance of 1 acre or greater or (2) occur in a concentration that is substantially noticeable.</p> <p><u>Improvements that may remain carried forward to evaluation step:</u> fences, agricultural water pipelines (typically less than 2 inch diameter), water troughs, earthen tanks, corrals, or trick tanks.</p>
Recreation improvements	<p><u>Improvements that may be eliminated from potentially suitable areas per Forest Service Land Management Planning Handbook direction⁹:</u> Developed recreation sites (for example ski areas, campgrounds, or interpretive sites) as defined by current forest plan management areas, special use permit boundaries, developed site footprint seen on aerial imagery.</p> <p><u>Improvements that may remain and carried forward to evaluation step:</u> Areas with dispersed camping sites and outfitter camps as they are temporary and easily removed. Existing non-motorized, mechanized (bike), or motorized trails, or any user created trails are included in the inventory. Trails are not considered to be a developed recreational improvement in the inventory criteria.</p>
Ground-return telephone lines, electric lines, and powerlines	<p><u>Improvements that may be eliminated from potentially suitable areas per Forest Service Land Management Planning Handbook direction¹⁰:</u> Powerlines or other utilities with cleared rights-of-way, other permanently installed linear right-of-way structures (such as a tramway), or permanent above ground pipelines over 6 inches in diameter (typically industrial grade pipelines).</p> <p><u>Improvements that may remain and carried forward to evaluation step:</u> ground return lines and electric lines if a right-of-way has not been cleared and pipelines under 6 inches in diameter.</p>
Watershed treatment areas (such as contouring, diking, channeling)	<p><u>Substantially noticeable:</u> Non-earthen dams, post-fire flooding control improvements (i.e., filter dams made of non-natural materials), and terraced areas.</p> <p><u>Improvements that may remain and carried forward to evaluation step:</u> Earthen dams, other instream structures, and fish barriers and other watershed treatment areas that are not substantially noticeable.</p> <p>None identified as substantially noticeable</p>
Structures, dwellings, and other relics of past occupation	<p><u>Improvements that may be eliminated from potentially suitable areas per Forest Service Land Management Planning Handbook direction¹¹:</u> Structures with a modern appearance whose primary function of the area is dedicated to housing or a concentration of other permanent building structures including developed recreation improvement structures</p> <p><u>Improvements that may remain and carried forward to evaluation step:</u> Areas with structures, dwellings and other relics of past occupation when they are considered part of the historical and cultural landscape.</p>

⁹ FSH 1909.12 Chapter 70, section 71.22b (7)

¹⁰ FSH 1909.12 Chapter 70, section 71.22b (8)

¹¹ FSH 1909.12 Chapter 70, section 71.22b (11)

Other Improvements Criteria Identified in Planning Directives ⁷	Inventory Criteria and Examples for Lincoln National Forest
Lands adjacent to development or activities that impact opportunities for solitude.	<p><u>Areas that may remain and carried forward to evaluation step:</u> Areas adjacent to development or activities will be included in the inventory. Boundaries will be extended to the edge of development defined by the ground disturbance footprint or as described for each improvement category. Note: An adjacent development or activity that impacts opportunities for solitude will be considered in the evaluation step.</p>
Areas with improvements that have been proposed by the Forest Service for consideration as recommended wilderness as a result of a previous Forest planning process or that the Responsible Official merits for inclusion in the inventory that were proposed for consideration through public or intergovernmental participation opportunities	<p><u>Areas that may remain and carried forward to evaluation step:</u> Include, if identified.</p>

Draft Inventory Maps

After applying the Other Improvements criteria and removing substantially noticeable improvements, we applied size criteria again. We only carried forward areas that were 5,000 acres or more or contiguous to an existing wilderness, wilderness study area or wilderness inventory in other ownership onto the Draft Inventory Maps. The public may submit areas less than 5,000 acres for consideration and the Responsible Official will need to consider and determine whether such areas could be preserved in an unimpaired condition.

The interdisciplinary team assigned each identified inventory area on the Draft Inventory Maps an Identification Number that consisted of the following:

- Uppercase or capital letters for the District the area is located: SBD (Smokey Bear District), SRD (Sacramento Ranger District), GRD (Guadalupe Ranger District).
- The letters are followed by a sequential number, with the numbers continuing across the Districts: SBD44, SRD45.

The Draft Inventory Maps and this process paper will be posted online for public review and feedback.

Final Inventory Maps

We will review public feedback received on the Draft Inventory Maps and this process paper and then produce Final Inventory Maps and an updated process paper. The Final Inventory maps may include any additional areas to be included at the Forest Supervisor’s discretion.

- Regardless of whether they meet the inventory criteria, the Chapter 70 Handbook give the Forest Supervisor authority to include any additional lands along with those identified by the inventory to be included in the evaluation step of the process¹².
- Any such areas identified will be assigned an identification number as described above.

The Final Inventory Maps and inventory process paper will be released after considering the public input and feedback. This is the final step before beginning the evaluation step.

¹² 1909.12 Chapter 70 section 71.2

Inventory Process Documentation

This process used to identify inventory areas is provided in this document for the purpose of presenting a transparent description of how the inventory process will be conducted and how the results of the Inventory Maps were determined.

The Interdisciplinary Team shall record all lands included in the inventory on a map of the planning area. In addition, the Team shall identify on the same map (or a series of maps), at a minimum, the following lands:

1. Existing designated wilderness and primitive areas.
2. Congressionally designated wilderness study areas, and any wilderness proposals pending before Congress. Indicate relevant statutory dates, if any.
3. Areas identified in the Forest Service Roadless Area Conservation Final Environmental Impact Statement (Volume 2, November 2000), or in a Forest Service State-specific roadless rule, or identified as undeveloped or for primitive nonmotorized management in the current land management plan.
4. National Forest System lands statutorily designated for management for nonwilderness purposes. Indicate effective dates, if any.
5. Other areas that the Responsible Official determines would be useful to show on the map to facilitate effective and transparent public participation and input on this topic.