

CHAPTER 2
ALTERNATIVES INCLUDING
THE PROPOSED ACTION

Alternatives Including the Proposed Action

This chapter describes the six alternatives considered in detail in this DEIS. It also describes the alternatives not analyzed in detail. It concludes by comparing the six alternatives.

The terms central to understanding the alternatives described in this chapter are defined below. These terms and others used in the analysis are also defined in the glossary.

Alaska Roadless Areas (ARA) = Areas identified in the set of ARA maps which the Alaska Roadless Rule applies to. These represent new roadless designations and are tied to new roadless rule language.

ARA Categories = Areas identified with varying degrees of exceptions and prohibitions, designed based on land management priority.

Exceptions = Activities that would be allowed in different categories of ARAs.

Prohibitions = Activities that would not be allowed in different categories of ARAs.

Features Common to Multiple Alternatives

2016 Tongass Land and Resource Management

Except for the timber land suitability determinations described below, none of the alternatives would make any changes to the Forest Plan including the following:

- Goals and Objectives;
- Land Use Designations or Management Prescriptions;
- Forest-wide Standards and Guidelines;
- Plan Components developed under the 2012 Planning Rule; and/or
- Projected Timber Sale Quantity (PTSQ), Projected Wood Sale Quantity (PWSQ), and the Young-growth Transition.

None of the alternatives authorize any site-specific projects or other ground-disturbing activities. Specific projects that include timber harvest, road construction, and/or road reconstruction must undergo site-specific environmental analysis when they are proposed to comply with NEPA. None of the alternatives considered in this DEIS waive any applicable requirements regarding site-specific environmental analysis, public involvement, consultation with Alaska Native tribes, Alaska Native corporations, and other agencies, or compliance with other applicable laws.

Activities that are not otherwise prohibited are permissible in roadless areas under all alternatives, including the no-action alternative (2001 Roadless Rule), if not restricted by other law, regulations, and/or policies.

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Timber Suitability

Alternatives 2, 3, 4, 5, and 6 would result in an administrative change to the timber land suitability determinations made in the 2016 Forest Plan. Specifically, lands identified as suitable for timber production that were deemed unsuitable solely due to roadless designation in the Plan would be designated as suitable for timber production. This administrative change would apply to lands removed from the roadless inventory and to lands identified as “Community Priority” or “Timber Priority” in Alternatives 3 and 4, respectively. This change to the Tongass suitability determinations does not preclude future suitability determinations as part of Forest Plan amendment or revision processes.

Project-Specific Activities

None of the alternatives authorize site-specific projects or ground-disturbing activities. Projects that include timber harvest, road construction, and/or road reconstruction would undergo environmental analysis when they are proposed to comply with the NEPA. None of the alternatives considered in this DEIS waive any applicable requirements regarding environmental analysis, public involvement, consultation with tribes and other agencies, or compliance with other applicable laws.

Ongoing Projects

None of the alternatives would revoke, suspend, or modify any project or activity in which a decision was made prior to the effective date of any final Alaska Roadless Final Rule.

Existing Land Use Authorizations

All of the alternatives allow for the continuation of existing land use authorizations for activities in roadless areas. “Authorizations” refer to land uses allowed under a special use authorization, contract, or similar legal instrument. “Existing authorizations” are those that are issued before the effective date of the final rule.

2001 Inventoried Roadless Area Mapping Updates

Administrative corrections are made to inventoried roadless area (IRA) boundaries based on ownership changes and mapping corrections. Corrections that apply to alternatives 2, 3, 4, and 5 entail:

- Removing about 136,000 acres from the roadless inventory that were either misidentified in 2001 (i.e., designated Wilderness identified as IRA), had ownership changes since 2001 due to land adjustments, or resulted from corrections due to mapping alignment errors.
- Adding about 3,000 acres to roadless areas due to changes in ownership or boundary alignment errors.

Proposed Definitions

Alternatives 2, 3, 4, and 5 would include definitions for clarity. The following are select definitions of terms that the agency would like specific comments on:

- Alaska Native -- Federally recognized tribes or individuals that are enrolled or eligible to enroll as a member of a federally recognized tribe.
- Alaska Roadless Areas -- Lands within the Tongass National Forest designated pursuant to this subpart and identified in a set of maps maintained by the national headquarters office of the Forest Service.
- Commercial Old Growth Timber Harvest -- Trees, portions of trees, and other forest products originating from an old growth stands on National Forest System lands that may be sold for the purpose of achieving the policies set forth in the Multiple-Use Sustained-Yield Act of 1960 as amended, the Forest and Rangeland Renewable Resources Planning Act of 1974 as amended, and the program thereunder. (See 36 CFR 223.1).

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- Public utility system -- A system that provides a community or communities with services for public use or consumption such as municipal water, wastewater treatment, natural gas, telephone, and/or electricity.
- Road -- As defined at 36 CFR 212.1, the term means a motor vehicle route over 50 inches wide, unless identified and managed as a trail.
- Road construction and reconstruction -- As defined at 36 CFR 212.1, the terms mean supervising, inspecting, actual building, and incurrence of all costs incidental to the construction or reconstruction of a road.
- Roadless Area Characteristics -- Resources or features that are often present in and characterize Alaska Roadless Areas, including
 - 1) Physical Environment -- Roadless areas provide high-quality or undisturbed soil, water, and air.
 - 2) Water -- Roadless areas provide a variety of water resources including public drinking water sources, fish and aquatic resources, and hatchery aquatic resources.
 - 3) Diversity -- Roadless areas support a diversity of plant and animal communities including stands of old-growth forests.
 - 4) Habitat -- Roadless areas are expansive areas where high-quality intact habitat exists and ecosystems function with all their native species and components. Roadless areas serve as habitat for threatened, endangered, proposed, candidate, and sensitive species and for those species dependent on large, undisturbed areas of land.
 - 5) Remoteness -- Roadless areas provide economic opportunity due to rich primitive, semi-primitive motorized, and semi-primitive non-motorized classes of dispersed recreation.
 - 6) Landscape -- Roadless areas provide reference landscapes of relatively undisturbed areas that serve as a barometer to measure the effects of development on other parts of the landscape.
 - 7) Scenery -- Roadless areas have natural-appearing landscapes with high-scenic qualities that people value.
 - 8) Cultural -- Roadless areas are rich in traditional cultural properties and sacred sites. In Alaska indigenous peoples have been on national forests for more than 10,000 years and the forests have cultural significance.
 - 9) Locally-unique characteristics. Roadless areas represent geographic areas with additional locally-unique characteristics specific to Alaska including: (a) important source of subsistence resources including terrestrial wildlife, waterfowl, mammals, fish, and plant-based resources; (b) rich habitat that supports multiple species of fish for personal, subsistence, sport, recreation, and commercial harvest; and (c) supports diverse economic opportunity that is especially important for rural community well-being.
- Timber harvest -- The cutting, removal, and sale of trees.
- Vital Forest transportation system linkages -- Necessary additions to the permanent road network.

Proposed Alaska Roadless Boundary Correction and Modification Provisions

Alternatives 2, 3, 4, and 5 include administrative correction and modification provisions for inclusion in the proposed Alaska Roadless Rule to provide for future boundary and classification changes. Administrative corrections would be limited to adjustments that remedy clerical errors, typographical errors, mapping errors, improvements in mapping technology, conformance to statutory changes, or incorporation of changes due to land adjustments. This provision would apply to both the Tongass National Forest as well

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as the Chugach National Forest. The Regional Forester may issue administrative corrections after a 30-day public notice and opportunity to comment period.

Modifications would be changes to Alaska Roadless Area (ARA) boundaries and classifications not considered to be an administrative correction. The Regional Forester would provide at least a 45-day public notice and opportunity to comment period for all modifications.

This same provision is included in Alternative 6, but only for the Chugach National Forest.

Alaska Roadless Area Land Management Categories

Alternatives 2, 3, 4, and 5 provide for a variety of management approaches within roadless areas through ARA land management categories which include Land Use Designation (LUD) II Priority, Watershed Priority, Roadless Priority, Community Priority, and Timber Priority. The management categories prohibit timber harvest, road construction, and road reconstruction with a range of exceptions that are applied differentially across the alternatives. A brief description of each management category follows.

LUD II Priority (Alternatives 2, 4, and 5)

To eliminate overlapping direction, LUD II Priority ARAs would be managed exclusively in accordance with statutory direction. These lands will be managed in a roadless state to retain their wildland character as defined in the Tongass Timber Reform Act (TTRA; Title II, Section 201) and the National Defense Authorization Act for Fiscal Year 2015 (Public Law 113-291, 128 Stat. 3729, Section 3720(f)).

Approximately 870,000 acres of the Tongass are congressionally designated as LUD II (826,000 acres currently designated as IRA under the 2001 Roadless Rule and 44,000 acres currently not designated as IRA). Alternatives 2 and 4 propose to designate all of the congressionally designated LUD II acres as LUD II Priority ARA. Alternative 5 proposes to apply the LUD II Priority ARA only to LUD II areas that are currently designated as IRA.

Notably, Alternative 3 proposes to remove all LUD II areas from roadless designation rather than designating LUD II lands into an ARA. LUD II areas under Alternative 3 would continue to be managed as directed by their congressional designations.

Watershed Priority (Alternatives 2 and 3)

The Watershed Priority ARA is more protective than the 2001 Roadless Rule as it offers fewer exceptions for timber harvest, road construction/reconstruction. It also provides for activities specific to aquatic habitat improvement. Approximately 3,214,000 acres in Alternative 2 would be managed under this ARA. The Watershed Priority ARA is applied to areas identified in the 2016 Forest Plan as Tongass 77 (T77) Watersheds and The Nature Conservancy (TNC)/Audubon Conservation Priority Areas.

Additionally, for Alternative 3, commercial old-growth timber harvest would be prohibited on NFS lands in T77 and TNC/Audubon Conservation Areas including those that extend beyond ARA boundaries.

Roadless Priority (Alternatives 2, 3, 4, and 5)

The Roadless Priority ARA is similar to the 2001 Roadless Rule but is less restrictive and addresses Alaska-specific concerns. Specifically, it provides for infrastructure development to connect and support local communities, and road construction/reconstruction for access to renewable energy and leasable minerals. The leasable minerals exception provides for geothermal, oil, gas, and/or coal development. In addition, the Roadless Priority ARA includes specific exceptions that, while they are allowed under the 2001 Roadless Rule, are included to improve overall clarity.

Community Priority (Alternative 3)

The Community Priority ARA allows for small-scale timber harvest and associated road construction/reconstruction. In addition, it allows for infrastructure development to connect and support local communities and traditional Alaska Native cultural uses. In all cases, activities within Community Priority ARAs would have to be consistent with the underlying Forest Plan LUD requirements. This is to

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say that even if a timber harvest, road building, or other activity would be permissible under the Alaska Roadless Rule, it may not be allowable because of Forest Plan requirements specific to the LUD that applies to the area. This ARA applies to approximately 241,000 acres and is only proposed in Alternative 3 adjacent to five communities: Sitka, Wrangell, Juneau, Ketchikan, and Yakutat. However, based on cooperating agency input, the Community Priority ARA should have also been applied around the communities of Hydaburg and Kake and will be accommodated in the FEIS

This ARA was developed to address specific desires of some communities to retain roadless designations while allowing for small timber operators in the community, infrastructure development to support the communities, and provide for traditional Alaska Native cultural uses. The Forest Service is seeking public input on this ARA, specifically with respect to whether this designation should be applied to other communities/areas. The Forest Service could consider applying the Community Priority ARA either adjacent to communities or within community areas as requested by non-profit community associations organized under State of Alaska law (Alaska Statute 10.20.005), municipal governments, or tribal governments.

Timber Priority (Alternative 4)

The Timber Priority ARA allows timber harvest, road construction, and road reconstruction to facilitate timber management and provide economic opportunity. This ARA applies to approximately 856,000 acres and is only considered in Alternative 4.

T77 Watersheds and TNC/Audubon Conservation Priority Areas – Additional Regulatory Protections (Alternative 3)

Watershed protection is a key element of roadless management. Watersheds are highly valued sources of municipal drinking water, support fisheries and wildlife habitat, and can act as keystones for economic activities. In Alternative 3, areas identified in the 2016 Forest Plan as T77 watersheds and TNC/Audubon Conservation Priority Areas (high-priority watershed areas) that are outside of designated roadless areas would be afforded added protection through the Alaska Roadless Rule regulation. Specifically, old-growth timber harvest would be prohibited. A prohibition on old-growth harvesting currently exists through the Forest Plan. But Alternative 3 examines establishing regulatory continuity between these roadless and watershed management systems given how extensively they overlap (the listed watersheds comprise over half of the Tongass' roadless areas, and approximately 90 percent of the watershed areas are within roadless area boundaries). Thus, the old-growth harvest prohibition would be extended beyond the designated roadless area boundaries in order to maintain the balance and integrity of the watershed protection system. As with all roadless rule provisions, the new prohibition would supersede the current and future forest plans, with the plan continuing to provide management direction in other regards. In this manner, Alternative 3 affords high-priority watershed areas greater regulatory protection than under the 2001 Roadless Rule. Young-growth timber harvest outside of ARAs within these high-priority watershed areas is not prohibited. This would apply to about 377,000 acres outside of roadless areas.

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**Table 2-1
Roadless Rule Language Associated with the Five Alaska Roadless Area Management Categories**

ARA	Timber harvest within Alaska Roadless Areas would be prohibited except where the Responsible Official determines:	Road construction and reconstruction within Alaska Roadless Areas would be prohibited except where the Responsible Official determines:
LUD II Priority	<p>Timber harvest may occur in Alaska Roadless Areas designated as LUD II Priority if the Responsible Official determines that timber harvest is consistent with the legislated management restrictions established in Section 201 of the Tongass Timber Reform Act or timber harvest is conducted pursuant to reserved or outstanding rights, or as provided for by statute or treaty.</p>	<p>A road may be constructed or reconstructed in an Alaska Roadless Area designated as LUD II Priority if the Responsible Official determines that the road construction or reconstruction is consistent with the legislated management restrictions established in Section 201 of the Tongass Timber Reform Act or a road is needed pursuant to reserved or outstanding rights, or as provided for by statute or treaty.</p>
Watershed Priority	<p>(1) Timber harvest is conducted pursuant to reserved or outstanding rights, or as provided for by statute or treaty;</p> <p>(2) The cutting, customary trade, and removal of trees for the purposes of Alaska Native customary and traditional uses, that does not degrade water quality, fish habitat, fish production, fish passage, aquatic diversity, or soil productivity;</p> <p>(3) Timber harvest is needed for one of the following purposes and will maintain or improve one or more of the roadless area characteristics: (i) To maintain, restore or improve fish and wildlife habitat; or (ii) To maintain or restore the characteristics of ecosystem composition and structure;</p> <p>(4) Timber harvest is incidental to trail or recreation development that does not degrade water quality, fish habitat, fish production, fish passage, aquatic biodiversity, or soil productivity; or</p> <p>(5) Timber harvest is needed to protect public health and safety in cases of an imminent threat of flood, fire, or other catastrophic event that, without intervention, would cause the loss of life or property.</p>	<p>(1) A road is needed pursuant to reserved or outstanding rights, or as provided for by statute or treaty. To the maximum extent permissible under such authorities, roads authorized pursuant to this provision will be limited to situations where no other feasible routes exist or it can be demonstrated that routing through the ARA area is environmentally preferable and site-specific measures are designed to minimize effects on water quality, fish habitat, fish production, fish passage, aquatic biodiversity, or soil productivity;</p> <p>(2) The Secretary of Agriculture determines that a Federal Aid Highway project, authorized pursuant to Title 23 of the United States Code, is in the public interest or is consistent with the purposes for which the land was reserved or acquired and no other reasonable alternative exists;</p> <p>(3) A road is needed to conduct a response action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to conduct a natural resource restoration action under CERCLA, Section 311 of the Clean Water Act, or the Oil Pollution Act;</p> <p>(4) Road realignment is needed to prevent irreparable resource damage that arises from the design, location, use, or deterioration of a road and that cannot be mitigated by road maintenance. Road realignment may occur under this paragraph only if the road is deemed essential for public or private access, natural resource management, or public health and safety;</p> <p>(5) Road reconstruction is needed to implement a road safety improvement project on a classified road determined to be hazardous on the basis of accident experience or accident potential on that road; or</p> <p>(6) A road is needed to protect public health and safety in cases of an imminent threat of flood, fire, or other catastrophic event that, without intervention, would cause the loss of life or property.</p>

Table 2-1 (Continued)

Roadless Rule Language Associated with the Five Alaska Roadless Area Management Categories

Roadless Priority	<p>(1) Timber harvest is conducted pursuant to reserved or outstanding rights, or as provided for by statute or treaty;</p> <p>(2) Timber harvest is needed for mineral exploration and mine development, subject to existing laws and regulations;</p> <p>(3) Timber harvest is needed for the cutting, customary trade, and removal of trees for the purposes of Alaska Native customary and traditional uses;</p> <p>(4) Timber harvest is needed for one of the following purposes and will maintain or improve one or more of the roadless area characteristics:</p> <p style="margin-left: 20px;">(i) To maintain, restore, or improve fish and wildlife habitat; or</p> <p style="margin-left: 20px;">(ii) To maintain or restore the characteristics of ecosystem composition and structure, and processes;</p> <p>(5) Timber harvest is needed for personal or administrative use, as provided for in 36 CFR part 223;</p> <p>(6) Timber harvest is needed within a designed experimental forest for research or administration;</p> <p>(7) Timber harvest is needed for the construction, expansion, utilization, or maintenance of a public utility system, such as municipal water and wastewater systems, biomass heating and energy systems, and hydroelectric and other renewable energy projects and related infrastructure, including transmission lines;</p> <p>(8) Timber harvest is needed for public health and safety, including removal of hazard trees; or</p> <p>(9) Timber harvest is incidental to the implementation of a management activity not otherwise prohibited by this subpart, including the construction, expansion, or maintenance of authorized fishways, fish hatcheries, or aquaculture facilities.</p>	<p>(1) A road is needed pursuant to reserved or outstanding rights, or as provided for by statute or treaty;</p> <p>(2) The road is needed for the construction, expansion, or maintenance of essential public facilities such as airports, marine access points, and communication equipment;</p> <p>(3) A road is needed to provide access to Alaska Native cultural site(s) if requested by an affected federally-recognized tribe(s);</p> <p>(4) A road is needed for one of the following reasons and no other feasible routes exist or it can be demonstrated that routing through the ARA is the least environmentally damaging practicable alternative:</p> <p style="margin-left: 20px;">(i) a Federal Aid Highway project, authorized pursuant to Title 23 of the United States Code, that the Secretary of Agriculture determines is in the public interest or is consistent with the purposes for which the land was reserved or acquired; or</p> <p style="margin-left: 20px;">(ii) transportation needs identified by the State of Alaska's Southeast Alaska Transportation Plan that are needed for the connection of communities and development of the regional transportation system;</p> <p>(5) A road is needed to conduct a response action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to conduct a natural resource restoration action under CERCLA, Section 311 of the Clean Water Act, or the Oil Pollution Act;</p> <p>(6) A road is needed within a designated experimental forest for research or administration, or to provide administrative access to a designated experimental forest;</p> <p>(7) Road realignment is needed to prevent irreparable resource damage that arises from the design, location, use, or deterioration of a road and cannot be mitigated by road maintenance. Road realignment may occur under this paragraph only if deemed essential for authorized public or private access, natural resource management, or public health and safety;</p> <p>(8) A road is needed to protect public health and safety in cases of an imminent threat of flood, fire, or other catastrophic event that, without intervention, would cause the loss of life or property;</p> <p>(9) A road is needed for the construction, expansion, or maintenance of a public utility system, such as municipal water and wastewater systems, biomass heating and energy systems, and hydroelectric and other renewable energy projects and related infrastructure, including transmission lines;</p> <p>(10) A road is needed in conjunction with the construction, expansion, or maintenance of an authorized fishway, fish hatchery, or aquaculture facility; or</p> <p>(11) Road reconstruction is needed to implement a road safety improvement project on a classified road determined to be hazardous on the basis of accident experience or accident potential on that road.</p>
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Table 2-1 (Continued)

Roadless Rule Language Associated with the Five Alaska Roadless Area Management Categories

<p>Community Priority</p>	<p>(1) Timber harvest is conducted pursuant to reserved or outstanding rights, or as provided for by statute or treaty;</p>	<p>(1) A road is needed pursuant to reserved or outstanding rights, or as provided for by statute or treaty, and no other feasible routes exist or it can be demonstrated that routing through the ARA area is environmentally preferable and site-specific measures can be designed to minimize effects on water quality, fish habitat, fish production, fish passage, aquatic biodiversity, or soil productivity;</p>
	<p>(2) The cutting, customary trade, and removal of trees is for the purpose of Alaska Native customary and traditional uses;</p>	<p>(2) A road is needed to provide access to Alaska Native cultural site(s) if requested by an affected federally-recognized tribe(s);</p>
	<p>(3) Timber harvest is undertaken as a micro sale, salvage sale, or small commercial sale less than one million board feet of timber;</p>	<p>(3) A road is needed for micro sales, salvage sales, and small commercial sales less than one million board feet of timber;</p>
	<p>(4) Timber harvest is needed for one of the following purposes and will maintain or improve one or more of the roadless area characteristics: (i) To maintain, restore or improve fish and wildlife habitat; or (ii) To maintain or restore the characteristics of ecosystem composition and structure;</p>	<p>(4) Road realignment is needed to prevent irreparable resource damage that arises from the design, location, use, or deterioration of a road and that cannot be mitigated by road maintenance. Road realignment may occur under this paragraph only if the road is deemed essential for public or private access, natural resource management, or public health and safety;</p>
	<p>(5) Timber harvest is needed to protect public health and safety in cases of an imminent threat of flood, fire, or other catastrophic event that, without intervention, would cause the loss of life or property;</p>	<p>(5) A road is needed to conduct a response action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to conduct a natural resource restoration action under CERCLA, Section 311 of the Clean Water Act, or the Oil Pollution Act;</p>
	<p>(6) Timber harvest is needed for personal or administrative use, as provided for in 36 CFR part 223;</p>	<p>(6) A road is needed to protect public health and safety in cases of an imminent threat of flood, fire, or other catastrophic event that, without intervention, would cause the loss of life or property;</p>
	<p>(7) Timber harvest is needed for the construction, expansion, utilization, or maintenance of a public utility system, such as municipal water and wastewater systems, biomass heating and energy systems, and hydroelectric and other renewable energy projects and related infrastructure, including transmission lines; or</p>	<p>(7) The road is needed for the construction, expansion, or maintenance of public facilities such as airports, marine access points, and communication equipment;</p>
	<p>(8) Timber harvest is incidental to the implementation of a management activity not otherwise prohibited by this subpart, including trail or recreation development; and the construction, expansion, or maintenance of authorized fishways, fish hatcheries, or aquaculture facilities.</p>	<p>(8) Road reconstruction is needed to implement a road safety improvement project on a classified road determined to be hazardous on the basis of accident experience or accident potential on that road;</p>
		<p>(9) The Secretary of Agriculture determines that a Federal Aid Highway project, authorized pursuant to Title 23 of the United States Code, is in the public interest or is consistent with the purposes for which the land was reserved or acquired and no other reasonable alternative exists;</p>
		<p>(10) A road is needed for the construction, expansion, or maintenance of a public utility system, such as municipal water and wastewater systems, biomass heating and energy systems, and hydroelectric and other renewable energy projects and related infrastructure, including transmission lines;</p>
	<p>Timber Priority</p>	<p>(11) A road is needed in conjunction with the construction, expansion, or maintenance of an authorized fishway, fish hatchery, or aquaculture facility; or Permanent or temporary roads may be constructed, reconstructed, or maintained within Timber Priority Alaska Roadless Areas.</p>

Alternatives Considered in Detail

Based on information obtained during scoping, Cooperating Agency input, and consultation with Alaska Native tribes, the Forest Service developed six alternatives for detailed analysis, including the no action and proposed action alternatives. These alternatives respond to the three key issues identified in Chapter 1. Large-scale color maps showing roadless areas by IRA or ARA (Map 1 to 6) are included on the thumb drive version of the DEIS, in the map packet that accompanies the DEIS paper copy, and on this project's website: <https://www.fs.usda.gov/project/?project=54511>. In addition, electronic versions of these maps, also showing the lands that would be suitable for timber production (Maps 7 to 12), are included on the thumb drive and website.

Alternative 1 – No Action

Alternative 1 is the no action alternative as required by NEPA and reflects a continuation of current land management pursuant to the 2001 Roadless Rule (see Map 1 in map packet or on thumb drive). This alternative continues general prohibitions on tree harvest (and sale), road construction, and road reconstruction within IRAs with limited exceptions (Table 2-2).

Under Alternative 1, roadless areas consist of 110 IRAs identified in the 2001 Roadless Rule. These IRAs were originally mapped in 1996 for the Tongass Forest Plan Revision and the provisions of the 2001 Roadless Rule (as provided for by the Court's reinstatement Order) would apply to those IRAs (summarized below). As a result of ownership changes and boundary alignment corrections these IRAs currently encompass 9.2 million acres⁹ of NFS land. Provisions of the 2001 Roadless Rule remain intact across the 110 IRAs, encompassing approximately 55 percent of the Tongass.

Under Alternative 1, IRA boundary modifications would continue to require rulemaking except for minor administrative corrections.

Table 2-3 summarizes the key elements of Alternative 1.

⁹ The original acreage of inventoried roadless areas on the Tongass was approximately 9.34 million acres. As a result of ownership changes and boundary alignment corrections, including shoreline mapping adjustments, the current acreage is 9.2 million acres.

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**Table 2-2
Roadless Rule Language Associated with the 2001 Roadless Rule (Alternative 1)**

	Road construction and reconstruction is prohibited in IRAs except where the Responsible Official determines:
<p>2001 Roadless Rule</p> <p>Timber cutting, sale, or removal is prohibited in IRAs except where the Responsible Official determines:</p> <ol style="list-style-type: none"> (1) The cutting, sale, or removal of generally small diameter timber is needed for one of the following purposes and will maintain or improve one or more of the roadless area characteristics as defined in § 294.11 of the 2001 Roadless Rule. <ol style="list-style-type: none"> (i) To improve threatened, endangered, proposed, or sensitive species habitat; or (ii) To maintain or restore the characteristics of ecosystem composition and structure, such as to reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period; (2) The cutting, sale, or removal of timber is incidental to the implementation of a management activity not otherwise prohibited by the 2001 Roadless Rule; (3) The cutting, sale, or removal of timber is needed and appropriate for personal or administrative use, as provided for in 36 CFR part 223; or (4) Roadless characteristics have been substantially altered in a portion of an IRA due to the construction of a classified road and subsequent timber harvest. Both the road construction and subsequent timber harvest must have occurred after the area was designated an IRA and prior to January 12, 2001. Timber may be cut, sold, or removed only in the substantially altered portion of the IRA. 	<ol style="list-style-type: none"> (1) A road is needed to protect public health and safety in cases of an imminent threat of flood, fire, or other catastrophic event that, without intervention, would cause the loss of life or property; (2) A road is needed to conduct a response action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to conduct a natural resource restoration action under CERCLA, Section 311 of the Clean Water Act, or the Oil Pollution Act; (3) A road is needed pursuant to reserved or outstanding rights, or as provided for by statute or treaty; (4) Road realignment is needed to prevent irreparable resource damage that arises from the design, location, use, or deterioration of a classified road and that cannot be mitigated by road maintenance. Road realignment may occur under this paragraph only if the road is deemed essential for public or private access, natural resource management, or public health and safety; (5) Road reconstruction is needed to implement a road safety improvement project on a classified road determined to be hazardous on the basis of accident experience or accident potential on that road; (6) The Secretary of Agriculture determines that a Federal Aid Highway project, authorized pursuant to Title 23 of the United States Code, is in the public interest or is consistent with the purposes for which the land was reserved or acquired and no other reasonable and prudent alternative exists; or (7) A road is needed in conjunction with the continuation, extension, or renewal of a mineral lease on lands that are under lease by the Secretary of the Interior as of January 12, 2001, or for a new lease issued immediately upon expiration of an existing lease. Such road construction or reconstruction must be conducted in a manner that minimizes effects on surface resources, prevents unnecessary or unreasonable surface disturbance, and complies with all applicable lease requirements, land and resource management plan direction, regulations, and laws. Roads constructed or reconstructed pursuant to this paragraph must be obliterated when no longer needed for the purposes of the lease or upon termination or expiration of the lease, whichever is sooner.

Table 2-3
Key Element Summary for Alternative 1

Roadless Areas

- Includes inventoried roadless areas identified in the 2001 Roadless Rule, currently about 9.2 million acres.

Prohibition on Tree Cutting¹

- Tree cutting is excepted for generally small-diameter timber that will maintain or improve one or more roadless area characteristics, improve sensitive species habitat, or maintain or restore characteristics of ecosystem composition and structure.
- Tree cutting excepted if incidental to the implementation of a management activity not otherwise prohibited.
- Tree cutting excepted if needed and appropriate for personal or administrative use.
- Tree cutting excepted if roadless characteristics have been substantially altered in a portion of an IRA due to the construction of a classified road and subsequent timber harvest was conducted prior to January 2001.

Prohibition on Road Construction and Reconstruction¹

- Road construction/reconstruction excepted if needed to protect public health and safety, to conduct Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) response action, pursuant to reserved or outstanding rights, to prevent irreparable resource damage, to implement a road safety improvement project.
- Road is needed pursuant to reserved or outstanding rights, or as provided for by statute or treaty;
- Road construction/reconstruction is excepted if needed for a Federal Aid Highway project that meets certain criteria and is approved by the Secretary of Agriculture.
- Road construction/reconstruction is excepted if needed in conjunction with the continuation, extension, or renewal of a mineral lease on lands that are under lease by the Secretary of the Interior as of January 12, 2001, or for a new lease issued immediately upon expiration of an existing lease.

Tongass Land and Resource Management Plan

- No changes to Goals and Objectives, Land Use Designations, or Management Prescriptions, Forest-wide Standards and Guidelines, Plan Components developed under the 2012 Planning Rule, PTSQ, PWSQ, and the Young-growth Transition.
- No change to Lands Suitable for Timber Production.

¹ See detailed descriptions of prohibitions/exceptions in 2001 Roadless Rule.

Alternative 2

Alternative 2 provides limited additional timber harvest opportunity while maximizing roadless area designations. It removes approximately 113,000 acres from roadless designation that have been substantially altered as identified by known prior road construction or timber harvest including both development and non-development LUDs. These areas are generally known as “roaded roadless” areas but include additional areas considered to be substantially altered. Alternative 2 also maximizes the geographic scope of roadless area designation by adding 133,000 acres as ARAs.

The 133,000 acres of added roadless areas include portions of congressionally-designated LUD II areas not included as IRAs under the 2001 Roadless Rule, currently unroaded small islands, and unroaded areas greater than 5,000 acres as identified by prior forest planning efforts. Adding additional roadless designations to unroaded islands provides for long-term, continued recreational and outfitter and guide opportunities on these islands.

After removals and additions, Alternative 2 consists of 9.22 million inventoried roadless acres or about 20,000 more roadless acres than under Alternative 1. The 9.22 million acres are designated to three ARA land management categories including LUD II Priority, Watershed Priority, and Roadless Priority (see Map 2 in map packet or on thumb drive).

Alternative 2 applies the most protective ARA, Watershed Priority, to 3.25 million acres, primarily identified as T77 Watersheds and TNC/Audubon Conservation Priority Areas. The Watershed Priority ARA is considered most protective because it includes fewer exceptions than the 2001 Roadless Rule, while still allowing activities needed for fisheries protection, maintenance, or improvement.

2 Alternatives Including the Proposed Action

Alternative 2 converts a net of 18,000 old-growth acres and 10,000 young-growth acres, previously identified as unsuitable timber lands, to suitable timber lands.

Table 2-4 summarizes the key elements of Alternative 2.

Table 2-4
Key Element Summary for Alternative 2

Roadless Areas

- Establishes 9.22 million acres of ARAs, including 5.11 million acres in Roadless Priority, 3.25 million acres in Watershed Priority, and 0.86 million acres in LUD II Priority categories.

Prohibition on Timber Harvest¹

- Under the Roadless Priority ARA timber harvest exceptions are written slightly broader than under the 2001 Roadless Rule to better address Alaska's unique economic development needs.
- Under the Watershed Priority ARA, timber harvest exceptions are slightly narrower than under the 2001 Roadless Rule and are designed to address aquatic and terrestrial habitat needs that are unique to Alaska's rural economic conditions and subsistence activities.
- Under the LUD II Priority ARA, timber harvest exceptions are slightly broader than under the 2001 Roadless Rule and are designed to align the Alaska Roadless Rule with congressional intent.

Prohibition on Road Construction and Reconstruction¹

- Under the Roadless Priority ARA road construction/reconstruction exceptions are slightly broader than under the 2001 Roadless Rule.
- Under the Watershed Priority ARA road construction/reconstruction exceptions are slightly narrower than under the 2001 Roadless Rule.
- Under the LUD II Priority ARA road construction/reconstruction exceptions are slightly broader than under the 2001 Roadless Rule.

Tongass Land and Resource Management Plan

- No changes to Goals and Objectives, Land Use Designations or Management Prescriptions, Forest-wide and Guidelines, Plan Components developed under the 2012 Planning Rule, PTSQ, PWSQ, and the Young-growth Transition.
- Change to Timber Land Suitability: A net of 18,000 old-growth acres and 10,000 young-growth acres previously identified as unsuitable timber lands would become suitable timber lands.

¹ See detailed descriptions of prohibitions/exceptions in Table 2-1.

Alternative 3

Alternative 3 provides moderate additional timber harvest opportunities. Alternative 3 maintains roadless designations for T77 Watersheds and TNC/Audubon Conservation Priority Areas inside roadless areas and also prohibits old-growth harvest in these areas outside of roadless areas (similar to the Forest Plan). Additional timber harvest opportunity is provided by removing substantially-altered roadless areas (including roaded roadless, similar to Alternative 2) and extending the bounds of these areas to logical end points of existing road and timber harvest systems (about 212,000 acres), generally defined as the nearest watershed boundary (i.e., ridgeline of 14th-field hydrologic unit) from an existing road system. Removing these areas from the roadless inventory represents the logical extensions of substantially altered acres from existing infrastructure and likely encompasses the more economically feasible locations for future timber harvest with the least impact to roadless characteristics. Additional timber harvest opportunity is provided by the designation of Community Priority¹⁰ ARA: Yakutat, Juneau, Sitka, Ketchikan, and Wrangell.¹¹ However, based on cooperating agency input, the Community Priority should have also been applied around the communities of Hydaburg and Kake. Application of the Community

¹⁰ Timber harvest in Community Priority ARAs would be limited to micro sales, salvage sales, and small commercial sales less than one MMBF in size.

¹¹ The Forest Service is seeking public input on this management category, specifically with respect to whether this designation should be applied to other communities/areas.

Alternatives Including the Proposed Action 2

Priority to Hydaburg and Kake will occur in the FEIS, contingent on additional public comments during the DEIS comment period.

Alternative 3 removes approximately 1.2 million acres from roadless designation including both development and non-development LUD acres. Alternative 3 adds 105,000 acres to ARAs as Roadless Priority including unroaded small islands and unroaded areas greater than 5,000 acres as identified by prior forest planning efforts. Adding additional roadless designations to unroaded islands provides for long-term, continued recreational and outfitter and guide opportunities on these islands.

Alternative 3 applies the most protective ARA, Watershed Priority, to 3.21 million acres primarily identified as T77 Watersheds and TNC/Audubon Conservation Priority Areas. The Watershed Priority ARA is considered most protective because it includes fewer exceptions than the 2001 Roadless Rule, while still allowing activities needed for fisheries protection, maintenance, or improvement. Additionally, for Alternative 3, commercial old-growth timber harvest would be prohibited on NFS lands in T77 and TNC/Audubon Conservation Areas including those that extend beyond ARA boundaries. The remaining roadless areas include 4.65 million acres in Roadless Priority and 0.24 million acres in Community Priority (see Map 3 in map packet or on thumb drive).

Alternative 3 proposes a net decrease of 1.1 million roadless acres, as compared to the no action alternative, and includes both development and non-development LUDs. Roadless area designation would be removed from the 826,000 congressionally-designated LUD II acres that are currently within an IRA. The removal of roadless designation from congressionally-designated LUD II acres represents the majority of the decrease in designated roadless acres proposed under Alternative 3. Removing roadless designation from LUD II acres affirms original congressional intent that LUD II areas be managed “in a roadless state to retain their wildland character” (USDA Forest Service 2016a).

Alternative 3 would convert a net of 76,000 old-growth acres and 14,000 young-growth acres, previously identified as unsuitable timber lands, to suitable timber lands.

Table 2-5 summarizes the key elements of Alternative 3.

Table 2-5
Key Element Summary for Alternative 3

Roadless Areas

- Establishes 8.1 million acres of ARAs, including 4.65 million acres in Roadless Priority, 3.21 million acres in Watershed Priority and 0.24 million acres in Community Priority.

Prohibition on Timber Harvest¹

- Under the Roadless Priority ARA timber harvest exceptions are written slightly broader than under the 2001 Roadless Rule to better address Alaska’s unique economic development needs.
- Under the Watershed Priority ARA, timber harvest exceptions are slightly narrower than under the 2001 Roadless Rule and are designed to address aquatic and terrestrial habitat needs that are unique to Alaska’s rural economic conditions and subsistence activities.
- Under the Community Priority ARA, timber harvest exceptions are broader than under the 2001 Roadless Rule and allow for small-scale timber harvest.
- Commercial old-growth timber harvest would be prohibited on T77/TNC-Audubon Conservation Priority Areas that largely coincide with ARA, but extend beyond ARA boundaries. This includes all T77/TNC-/Audubon Conservation Priority Areas, both inside and outside of designated roadless areas.

Prohibition on Road Construction and Reconstruction¹

- Under the Roadless Priority ARA, road construction/reconstruction exceptions are slightly broader than under the 2001 Roadless Rule.
- Under the Watershed Priority ARA, road construction/reconstruction exceptions are slightly narrower than under the 2001 Roadless Rule.
- Under the Community Priority ARA, road construction/reconstruction exceptions are broader than under the 2001 Roadless Rule.

2 Alternatives Including the Proposed Action

**Table 2-5 (continued)
Key Element Summary for Alternative 3**

Tongass Land and Resource Management Plan

- No changes to Goals and Objectives, Land Use Designations or Management Prescriptions, Forest-wide and Guidelines, Plan Components developed under the 2012 Planning Rule, PTSQ, PWSQ, and the Young-growth Transition.
 - Change to Timber Land Suitability: A net of 76,000 old-growth acres and 14,000 young-growth acres, previously identified as unsuitable timber lands, would become suitable timber lands.
-

¹ See detailed descriptions of prohibitions/exceptions in Table 2-1.

Alternative 4

Alternative 4 provides significant additional timber harvest opportunity while maintaining roadless designations for Scenic Viewsheds and T77/TNC-Audubon Conservation Priority Areas that are in roadless areas. Approximately 375,000 acres are removed from roadless designation, including substantially-altered areas and logical extensions of substantially-altered acres (similar to Alternatives 2 and 3), along with selected additional locations for economic timber sales. These acres are also converted from unsuitable to suitable timber lands, resulting in significant additional timber harvest opportunity. Protection is maintained for Scenic Viewsheds, and most T77 Watersheds and TNC/Audubon Conservation Priority Areas by designating them as Roadless Priority ARAs.

Additionally, Alternative 4 adds 32,000 acres as LUD II Priority ARA. These added roadless acres are LUD II areas that were not designated as IRA under the 2001 Roadless Rule. No additional lands would be added to ARAs.

The net result of removals and additions under Alternative 4 is 8.86 million roadless acres, which are designated into three categories of ARAs: LUD II Priority, Roadless Priority, and Timber Priority (see Map 4 in map packet or on thumb drive). This alternative was developed to provide for a high level of timber management opportunities thus, timber management is permitted in the Timber Priority ARA, which consists of the Timber Production and Modified Landscape LUDs, as identified in the Forest Plan.

Alternative 4 proposes a net decrease of 343,000 roadless acres as compared to the no action alternative. However, the total net decrease is substantially higher when also including Timber Priority ARA acres, yielding a combined decrease of 1.09 million total acres.

Alternative 4 converts a net of 158,000 old-growth acres and 15,000 young-growth acres previously identified as unsuitable timber lands to suitable timber lands.

Table 2-6 summarizes the key elements of Alternative 4.

Table 2-6
Key Element Summary for Alternative 4

Roadless Areas

- Converts inventoried roadless areas to 8.86 million acres of ARAs, including 7.25 million acres in Roadless Priority, 0.75 million acres in Timber Priority, and 0.86 million acres in LUD II Priority categories.

Prohibition on Timber Harvest¹

- Under the Roadless Priority ARA timber harvest exceptions are written slightly broader than under the 2001 Roadless Rule to better address Alaska's unique economic development needs.
- Under the Timber Priority ARA there are no timber harvest prohibitions.
- Under the LUD II Priority ARA, timber harvest exceptions are slightly broader than under the 2001 Roadless Rule and are designed to align the Alaska Roadless Rule with congressional intent.

Prohibition on Road Construction and Reconstruction

- Under the Roadless Priority ARA road construction/reconstruction exceptions are slightly broader than under the 2001 Roadless Rule.
- Under the Timber Priority ARA there are no road construction/reconstruction prohibitions.
- Under the LUD II Priority ARA road construction/reconstruction exceptions are slightly broader than under the 2001 Roadless Rule.

Tongass Land and Resource Management Plan

- No changes to Goals and Objectives, Land Use Designations or Management Prescriptions, Forest-wide and Guidelines, Plan Components developed under the 2012 Planning Rule, PTSQ, PWSQ, and the Young-growth Transition.
- Change to Timber Land Suitability: A net of 158,000 old-growth acres (mostly in Timber Priority ARAs) and 15,000 young-growth acres previously identified as unsuitable timber lands would become suitable timber lands.

¹ See detailed descriptions of prohibitions/exceptions in Table 2-1.

Alternative 5

Alternative 5 provides maximum additional timber harvest opportunity by removing all Timber Development, Modified Landscape, and Scenic Viewshed LUDs identified by the Forest Plan from roadless designation, including T77 Watersheds and TNC/Audubon Conservation Priority Areas within aforementioned development LUDs. Areas with mineral potential, as identified by the Forest Plan's minerals overlay, are also removed from roadless designation (see Map 5 in map packet or on thumb drive).

In total, 2.30 million acres would be removed from roadless area designation including mineral overlay acres and the majority of development LUDs including conservation-designated acres. The remaining 6.91 million roadless acres are designated to two ARAs: LUD II Priority and Roadless Priority (see Map 5 in map packet or on thumb drive). Alternative 5 also converts a net 165,000 old-growth acres and 17,000 young-growth acres previously identified as unsuitable timber lands to suitable timber lands.

Table 2-7 summarizes the key elements of Alternative 5.

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Table 2-7
Key Element Summary for Alternative 5

Roadless Areas

- Converts inventoried roadless areas to 6.91 million acres of ARAs, including 6.08 million acres in Roadless Priority and 0.83 million acres in LUD II Priority categories.

Prohibition on Tree Cutting¹

- Under the Roadless Priority ARA timber harvest exceptions are written slightly broader than under the 2001 Roadless Rule to better address Alaska's unique economic development needs.
- Under the LUD II Priority ARA timber harvest exceptions are slightly broader than under the 2001 Roadless Rule.

Prohibition on Road Construction and Reconstruction¹

- Under the Roadless Priority ARA road construction/reconstruction exceptions are slightly broader than under the 2001 Roadless Rule.
- Under the LUD II Priority ARA, timber harvest exceptions are slightly broader than under the 2001 Roadless Rule and are designed to align the Alaska Roadless Rule with congressional intent.

Tongass Land and Resource Management Plan

- No changes to Goals and Objectives, Land Use Designations or Management Prescriptions, Forest-wide and Guidelines, Plan Components developed under the 2012 Planning Rule, PTSQ, PWSQ, and the Young-growth Transition.
 - Change to Timber Land Suitability: A net of 165,000 old-growth acres and 17,000 young-growth acres previously identified as unsuitable timber lands would become suitable timber lands.
-

¹ See detailed descriptions of prohibitions/exceptions in Table 2-1.

Alternative 6 (Preferred Alternative)

Alternative 6 is the preferred alternative and provides maximum additional timber harvest opportunity as the full exemption alternative, which was requested by the State of Alaska's petition (Appendix A). It removes all 9.2 million inventoried roadless acres on the Tongass from roadless designation. Acres removed from roadless designation would continue to be managed by the Forest Plan (see Map 6 in map packet or on thumb drive).

Alternative 6 would exempt the Tongass from the 2001 Roadless Rule with the following provision

- (a) The 2001 Roadless Area Conservation Rule as published in the Federal Register on January 12, 2001 (66 FR 3244) shall not apply to the Tongass National Forest.

Alternative 6 converts a net total of 165,000 old-growth acres and 20,000 young-growth acres previously identified as unsuitable timber lands to suitable timber lands and includes an administrative correction and modification provision for the Chugach National Forest only. Table 2-8 summarizes the key elements of Alternative 6.

Table 2-8
Key Element Summary for Alternative 6

Roadless Areas
<ul style="list-style-type: none">Removes all 9.2 million acres of inventoried roadless acres on the Tongass from roadless designation.
Prohibition on Timber Harvest¹
<ul style="list-style-type: none">Roadless Rule prohibitions on timber harvest activities would no longer be applicable.
Prohibition on Road Construction and Reconstruction¹
<ul style="list-style-type: none">Roadless Rule prohibitions on road construction/reconstruction prohibitions would no longer be applicable.
Tongass Land and Resource Management Plan
<ul style="list-style-type: none">No changes to Goals and Objectives, Land Use Designations or Management Prescriptions, Forest-wide and Guidelines, Plan Components developed under the 2012 Planning Rule, PTSQ, PWSQ, and the Young-growth Transition.Change to Timber Land Suitability: A net of 165,000 old-growth acres and 20,000 young-growth acres previously identified as unsuitable timber lands would become suitable timber lands.

¹ See detailed descriptions of prohibitions/exceptions in Table 2-1.

Preferred Alternative

The U.S. Department of Agriculture has identified Alternative 6 as the preferred alternative. The Forest Service is seeking public input on the DEIS and preferred alternative.

Alternatives Considered but Eliminated from Detailed Analysis

Sometimes alternatives are suggested or proposed that on examination do not adequately respond to the purpose of and need for the action, are technically or economically cost prohibitive, are not ripe for consideration, are remote or speculative, are substantially similar in design to an existing alternative, would have substantially similar effects as an existing alternative, or the authority does not exist to approve such actions (Forest Service Handbook 1909.15, Section 14.4). In such cases, these alternatives are usually eliminated from detailed analysis. Alternatives that were considered and eliminated from detailed analysis are described below, along with the rationale for their elimination.

- Giving management of the Tongass to the State of Alaska. This alternative was eliminated from detailed study because it does not respond to the purpose and need, which is to consider options for a state-specific roadless rule that will better incorporate the economic interest concerns and statutory requirements while conserving roadless area characteristics.
- Co-management of the Tongass with tribal partners. This alternative was eliminated from detailed study because it does not comport with existing legal authorities.
- Congressional changes to 2001 Roadless Rule in Alaska. This alternative was eliminated because it is outside the authority of the USDA. Legislative proposals to address the 2001 Roadless Rule in Alaska have periodically occurred in the past and have not been enacted. In addition, nothing in any alternative would prevent future congressional changes to the 2001 Roadless Rule or an Alaska state-specific rule.
- Use of the 2003 or 2008 roadless inventories as ARAs. This alternative was eliminated based on review of those inventories and the determination that those inventories contain many unmanageable polygons. Unroaded areas greater than 5,000 acres from those inventories were incorporated into Alternatives 2 and 3.

Comparison of the Alternatives

This section briefly compares the environmental consequences of the six alternatives with respect to the key issues described in Chapter 1. This comparison is based on the effects analyses presented in

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Chapter 3. For reference, Table 2-9 summarizes the acres by ARAs, the acres removed or added from roadless designation, and the total old-growth acres that are suitable for timber production under Alternative 1 and the five action alternatives. Table 2-11, at the end of this section, summarizes the environmental consequences for each alternative in a comparative format. Nine categories are used for the Qualitative ratings in Table 2-11 as follows (from most adverse to most beneficial):

- Substantial Adverse Effect
- Moderate Adverse Effect
- Minimal Adverse Effect
- Very Minimal Adverse Effect
- Neutral/No Effect
- Very Minimal Beneficial Effect
- Minimal Beneficial Effect
- Moderate Beneficial Effect
- Substantial Beneficial Effect

**Table 2-9
Roadless Areas by Alternative and Management Category**

Roadless Category (acres)	Alternative					
	1	2	3	4	5	6
	No Action	Roaded Roadless	Logical Extension	Partial Dev. LUDs ¹	All Dev. LUDs	Full Exemption
Total Roadless Area	9,200,000	9,220,000	8,103,000	8,857,000	6,905,000	0
ARA Management Categories						
LUD II Priority	N/A	856,000	0	856,000	828,000	0
Watershed Priority	N/A	3,250,000	3,208,000	0	0	0
Roadless Priority	N/A	5,114,000	4,653,000	7,252,000	6,078,000	0
Community Priority	N/A	0	241,000	0	0	0
Timber Priority	N/A	0	0	749,000	0	0
Change in Roadless Area Acres						
Roadless Area Removed	0	113,000	1,202,000	375,000	2,298,000	9,200,000
Roadless Area Added	0	133,000	105,000	32,000	3,000	0
Net Change	0	20,000	-1,098,000	-343,000	-2,295,000	-9,200,000
Old-Growth Acres Suitable for Harvest						
Total Acres	230,000	247,000	305,000	388,000	395,000	395,000
Net Change	0	18,000	76,000	158,000	165,000	165,000
T77 & TNC/ Audubon Conservation Priority Areas Outside of Roadless given Long-term Regulatory Protection						
Total Acres	0	0	377,000	0	0	0

N/A = not applicable

¹ Includes Timber Production and Modified Landscape LUDs, but not Scenic Viewshed.

Key Issue 1 – Roadless area conservation

Roadless area protection is defined in terms of both the acres designated as roadless and the degree of protection provided by each alternative. In terms of acres designated, Alternatives 1 and 2 provide the highest degree of regulatory protection with 9.2 million acres or more designated as roadless and Alternative 6 provides the lowest with zero acres of designated roadless given regulatory prohibitions. Alternative 5 removes all regulatory roadless designations within development LUDs¹² and has the second lowest number of acres designated roadless with 6.9 million acres.

Alternatives 3 and 4 are intermediate in terms of the acres designated as roadless. However, the roadless designations provided in development LUDs by Alternative 4 is lower than for Alternative 3 because all Timber Priority ARA lands under Alternative 4 are in development LUDs and Alternative 3 would

¹² Note that, with the exception of the Timber Priority management category, roadless designation on development LUDs provides the highest degree of protection, because these are areas that are mostly likely to be developed if they were not designated roadless. Most non-development LUDs have Forest Plan restrictions which limit their potential for development.

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designate T77 Watersheds and TNC/Audubon Conservation Priority Areas as Watershed Priority ARAs. In addition, the removal of roadless designation from LUD II acres accounts for a large share of the reduction in designated roadless area acres under Alternative 3. These acres would retain their congressional protections and be managed to preserve roadless area characteristics (Table 2-10). Therefore, protection of roadless characteristics is much greater under Alternative 3 compared with Alternative 4.

The roadless rule language under Alternative 1 would be unchanged from the 2001 Roadless Rule (as reinstated by the District Court). The rule language would be modified under Alternatives 2, 3, 4, and 5; under Alternative 6, the 2001 Roadless Rule would fully exempt the Tongass. The Roadless Priority and LUD II Priority management categories would be very slightly more permissive in terms of road construction, salvage timber harvest, and mineral development, and would be slightly more permissive in terms of energy and transportation project development. The Watershed Priority ARA would be slightly less permissive relative to all of the development types and the Community Priority and Timber Priority categories under Alternatives 3¹³ and 4, respectively, would be substantially more permissive of development types, especially timber harvest and road construction.

As a result, Alternatives 1, 2, and 3 would provide the greatest protection of roadless characteristics. Alternative 1 would protect the most acres and existing management direction would provide the highest degree of protection, with the existing general prohibitions remaining in place for all areas. Alternative 2 would offer similar levels of protection, with a small net gain in total designated roadless acres. The roaded roadless and other substantially altered areas that would be removed under Alternative 2 have limited roadless characteristics, and increased regulatory protection would be added for the Watershed Priority ARA. Alternative 3 would offer the next most protection of roadless area characteristics. Roaded roadless and other substantially altered areas along with logical extension areas would be removed under Alternative 3 (as well as LUD II areas), and most ARAs would be managed as Roadless Priority or Watershed Priority ARAs. Additionally, T77 Watersheds and TNC/Audubon areas outside of roadless would be given regulatory protection from old-growth harvest. About 3 percent of ARAs under Alternative 3 would be designated as Community Priority, which allows limited timber harvest opportunity. Alternatives 4 through 6 would provide the least amount of roadless designations, with Alternative 6 removing all acres from regulatory roadless designation.

¹³ Timber harvest in Community Priority ARAs would be limited to micro sales, salvage sales, and small commercial sales less than one MMBF in size.

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Table 2-10

Roadless Area Characteristics

2001 Roadless Rule Characteristics, Modified for Alaska

Biological Values

- Diversity of plant and animal communities and protection of old-growth forests
- Habitat – Roadless areas are expansive areas where high-quality intact habitat exists and ecosystems function with all their native species and components. Roadless areas serve as habitat for threatened, endangered, proposed, candidate, and sensitive species and for those species dependent on large, undisturbed areas of land.

Physical Values

- Environment – high-quality or undisturbed soil, water, and air.
- Water – Roadless areas provide a variety of water resources including public drinking water sources, fish and aquatic resources, and hatchery aquatic resources.

Social Values

- Remoteness – Roadless areas provide economic opportunity due to rich primitive, semi-primitive motorized, and semi-primitive non-motorized classes of dispersed recreation.
- Landscape – reference landscapes of relatively undisturbed areas that serve as a barometer to measure the effects of development on other parts of the landscape.
- Scenery – natural-appearing landscapes with high-scenic qualities that people value.
- Cultural – rich in traditional cultural properties and sacred sites.
- Locally-unique characteristics – geographic areas with additional locally-unique characteristics specific to Alaska including: 1) important sources of subsistence resource; 2) rich habitat that supports multiple species of fish for personal, subsistence, sport, recreation, and commercial harvest; and 3) supports diverse economic opportunity that is especially important for rural community well-being.

Source: USDA Forest Service 2000, modified to reflect the unique characteristics of Alaska.

Key Issue 2 – Support local and regional socioeconomic well-being, Alaska Native culture, rural subsistence activities, and economic opportunity across multiple economic sectors

Support for Southeast Alaska resource-based industries and local/regional socioeconomic well-being is compared among the alternatives by industry/category in the following subsections.

Forest Products Industry

The 2016 Forest Plan established an average annual PTSQ of 46 MMBF prior to the young-growth transition. The old-growth contribution to the PTSQ is expected to start out high and decrease over time as more young growth becomes economic to harvest. During the first decade, an average of about 12 MMBF of young growth and 34 MMBF of old growth was expected to be sold annually. From Year 11 through Year 15 an average of about 28 MMBF of young growth and 18 MMBF of old growth were expected to be sold annually. Old-growth volume offered was projected to decrease until it reaches 5 MMBF per year (expected to occur about Year 16), at which point it is to be stabilized at 5 MMBF per year to support small operators and specialty products such as wood for musical instruments. Young growth sales are expected to continue to increase at a rapid rate after Year 16 and are expected to reach an upper limit of 98 MMBF about Year 18. If less than the average annual PTSQ figure of 46 MMBF is sold in the early years of a decade, the Forest Plan allows the difference to be added to the sale quantity for the remainder of the decade. During the initial two years of implementing the 2016 Forest Plan, the total volumes sold were 30.7 MMBF (fiscal year 2017) and 9.0 MMBF (fiscal year 2018).

None of the action alternatives would result in changes to the PTSQ and the timber objectives of the Forest Plan would continue to require transitioning to primarily young-growth harvest. Therefore, harvest levels are not expected to vary significantly among the alternatives. However, the alternatives do vary in terms of the amount and location of acres suitable for timber production. Greater acreage of suitable land

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would provide greater flexibility in the selection of future timber sale areas, as well as the potential for more flexibility in sale design, depending on the planning areas selected. This improved flexibility could, in turn, improve the Forest Service's ability to offer economic sales that meet the needs of industry. This greater flexibility could be beneficial during the first two decades of the 2016 Forest Plan (the transition period), when most old-growth harvest would take place.

Under Alternative 1, about 230,000 acres of old growth and 334,000 acres of young growth are currently suitable for timber production. The young-growth suitable acres would increase slightly (3 through 6 percent) under the action alternatives. For old growth, however, the suitable acreage increase would range from 7 percent for Alternative 2 to 72 percent for Alternatives 5 and 6. For Alternatives 3 and 4 the increase would be 33 percent and 69 percent, respectively. Suitable old-growth acres would be added in three broad categories or areas: roaded roadless and other substantially altered areas (Alternatives 2 through 6); logical extension areas and areas adjacent to roads (Alternatives 3 to 6); and areas more distant from roads (Alternatives 4 through 6). In addition, suitable old-growth acres would be added in Community Priority ARAs, which are associated with five communities (Alternative 3).¹⁴ The substantially altered areas removed, the areas immediately adjacent (logical extensions), and the Community Priority ARAs are assumed to be more economical to harvest due to their proximity to existing infrastructure. The additional acres added under Alternatives 4 through 6 are farther from existing infrastructure and thus less likely to be economic to harvest.

Recreation and Tourism

Changes in land management have the potential to affect outfitter/guide operations which provide commercial recreation opportunities on the Forest. Impacts to existing outfitter/guide use are likely to be greatest where changes in roadless designations allow development in areas that are used for outfitter/guide activities dependent on high scenic integrity and undisturbed landscapes. Changes in roadless area designations could also affect outfitter/guide use in other adjacent or nearby areas as outfitter/guides displaced from one location seek other places to take clients. Some use areas are presently at capacity, which could exacerbate potential displacement effects. Changes in roadless area management could affect the Forest's ability to meet outfitter/guide demand, especially for operators seeking more remote areas.

The outfitter/guide analysis prepared for this DEIS used changes in suitable old-growth acres in conjunction with information on existing outfitter/guide use to focus on potentially affected areas. The resulting analysis identified 15 outfitter/guide use areas where potential conflicts between existing outfitter/guide use and future management activities could occur. In most of these areas, existing outfitter/guide use occurs near areas where development has occurred in the past, either near or along shorelines and/or Forest road systems. Similarly, in most cases, timber harvest that could already occur in these areas (under Alternative 1) have the potential to conflict with existing outfitter/guide use.

Viewed in terms of increases in acres suitable for harvest, impacts under Alternatives 2 and 3 would be nonexistent to very minimal in all areas, with increases in designated roadless acres and reductions in suitable acres occurring in some areas under these alternatives. In most of these areas, by expanding the acres available for harvest, Alternatives 4, 5, and 6 could add to these potential impacts by increasing the geographic extent of the acres affected. These potential impacts caused by an increase in geographic extent due to possible increase in road miles needed.

Salmon Harvesting and Processing

None of the alternatives are expected to have a significant change to the commercial fishing or fish-processing industries. Riparian Management standards and guidelines established in the 2016 Forest Plan would remain in place under all of the alternatives. While there would be some variation in the level of protection, these variations are not expected to affect the fishing industry. The future of the fishing

¹⁴ Timber harvest in Community Priority ARAs would be limited to micro sales, salvage sales, and small commercial sales less than one MMBF in size.

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industry in Southeast Alaska is more likely to depend upon occurrences outside of the Tongass National Forest such as hatchery production, offshore harvest levels, and changes in ocean conditions.

Mining and Mineral Development

Locatable minerals development is possible within designated roadless areas under all alternatives. The General Mining Act of 1872 authorizes and governs prospecting and mining for economic minerals on federal public lands, including designated roadless areas. Changes in roadless management are, therefore, not expected to affect existing or future locatable mineral exploration or mining activities on the Forest.

Under the 2001 Roadless Rule roadbuilding is prohibited for any new leasable mineral projects, including geothermal projects, within IRAs. Changes in management under Alternatives 2 to 6 would allow road development to differing degrees. Within Roadless and Timber Priority ARAs, roads would be permissible for leasable projects. The Tongass has no recent or current leasable mineral activity and the anticipated demand for leasable minerals is expected to remain low. As a result, changes in designated roadless management are expected to have limited impacts on mineral development.

Infrastructure Development

With some exceptions, federal and state road development is limited in IRAs. Exceptions include roads with reserved or outstanding rights, roads provided for by statute or treaty, or road development related to a Federal Aid Highway. Roadless designation would be removed to various degrees under the action alternatives with corresponding implications for regional highway development. In most cases, changes in roadless management, as well as changes in the number of acres managed as roadless, would be more permissive with respect to regional road systems.

Tree Harvest for Alaska Native Cultural Purposes

Alternative 1 does not provide specific exceptions for timber cutting associated with Alaska Native cultural uses. However, Alternatives 2, 3, 4, and 5 do support Alaska Native culture through explicit rule language that allows increased access to cutting, customary trade, and removal of trees for the purposes of Alaska Native customary and traditional uses. This increased access is provided in the Roadless, Watershed, and Community Priority ARAs. Alternative 2 would rank the highest for providing access among the action alternatives containing roadless lands, followed by Alternatives 3, 4, and 5, in that order. Alternative 6 would rank the highest overall, because it would have no restrictions related to roadless designations; but it would provide no protections for designated roadless characteristics, which are important for Alaska Native cultural purposes. Alternative 1 would rank the lowest in terms of providing direct support for Alaska Native tree harvest for cultural purposes.

Rural Subsistence Activities

The action alternatives are expected to have minimal effects on rural subsistence activities. Timber harvest levels are expected to remain the same for all alternatives, with similar or only slightly different miles of road construction/reconstruction also anticipated. While there would be some new road access under all alternatives in the long run, nearly all new roads constructed under the alternatives would be closed following harvest. These roads would, therefore, not be available for use by highway vehicles or high-clearance vehicles. They may, however, be available for access by other methods and could, as a result, have the potential to affect existing subsistence patterns. Although overall road miles would be similar, based on the relative distribution of acres suitable for harvest, road miles are expected to be slightly higher for Alternatives 4, 5, and 6. The effects on particular groups of subsistence users or resources are difficult to predict at the programmatic level, but the slight difference in road miles is expected to result in little to no difference to rural subsistence activities between alternatives.

Community Effects

Effects on communities are not expected to be affected in a major way under the action alternatives relative to Alternative 1. The largest effect is expected to be under Alternatives 4, 5, and 6 because these alternatives would result in larger increases in suitable timber within many community areas, especially in those that are more remote (see Appendix E). Of particular concern in this regard are those communities with economies that are dominated by the visitor industry (see Table E-2 in Appendix E). Based on an evaluation of employment and business licenses by community, along with the amount of suitable timber within community areas, the following observations can be made:

- Alternatives 1 and 2 are expected to generally result in no effect on communities. However, because of the nature of this EIS, the effects on any community cannot be identified until specific projects are proposed.
- Alternative 3 is expected to have very minimal effects, both adverse and beneficial. Community Priority ARAs in this alternative may be beneficial to communities by adding more flexibility and control by the communities of adjacent designated roadless areas.
- Alternatives 4, 5, and 6 (especially Alternatives 5 and 6) are expected to result in an increased potential for effects on communities, especially in those communities where the visitor industry sector is the most important. This is primarily because of potential effects on the natural environment within the community areas, which in turn may affect visitor use. The smaller and less diversified communities may have a greater risk of effects. Because of the nature of this EIS, the effects on any community cannot be identified until specific projects are proposed, but it is expected that they would range from no effect to a minimal effect for these alternatives.

Key Issue 3 – Conserve terrestrial habitat, aquatic habitat, and biological diversity

Old-Growth Habitat

Relative to old-growth habitat conservation, all of the alternatives would have old-growth harvest levels similar to the level authorized by the 2016 Forest Plan. There may be slightly more high-volume and large-tree POG harvested under the action alternatives than was predicted for the Forest Plan because of the increased options for creating economic timber sales. However, this is speculative and depends on harvest levels reaching predicted decadal levels, as well as on being able to economically access these stands. In addition, the proportion of high-volume and large-tree POG in the added suitable acres under the action alternatives is lower than the proportion in the Alternative 1 suitable acres.

The transition to young-growth management would continue to slow the long-term decrease in deer habitat capability due to the reduction in POG harvest, under all of the alternatives. Because long-term POG harvest and road densities are not expected to differ significantly among alternatives, effects on old-growth-dependent wildlife species are expected to be almost identical to those predicted under the 2016 Forest Plan FEIS.

Young Growth in Special Habitats

Young growth suitable for timber harvest occurs in a number of special habitats under the Forest Plan, including Riparian Management Areas, Beach and Estuary Fringe, and the Old-growth Habitat LUD. Young growth on specific portions of these areas may be harvested under required silvicultural prescriptions following specific guidelines. The suitable acres of young growth on these special habitats would increase slightly under the action alternatives, but only slightly because the majority of existing young-growth stands are not in designated roadless areas. Therefore, little to no difference among the alternatives is expected.

2 Alternatives Including the Proposed Action

Road Density

Although slightly more road miles may be developed under the action alternatives, the average road densities on NFS lands and the percent of Wildlife Analysis Areas with road density less than 0.7 miles per square mile are expected to be similar to that predicted under the Forest Plan. Although it is impossible to precisely predict future road miles under the alternatives, it is likely that Alternatives 1 and 2 would be virtually the same, Alternative 3 may have slightly more road miles, and Alternatives 4, 5, and 6 would have the most road miles because they add more remote suitable timber acres, which may require the development of new road systems. This assumes that more distant areas would be harvested under Alternatives 4, 5, and 6. Harvest in these areas is generally considered less likely to be economic due to the need to build more roads.

Fish Habitat

Overall effects to fish habitat are expected to be negligible under all alternatives, because of the strong protections to fish habitats provided by Forest Plan LUDs, Forest-wide standards and guidelines including the riparian management strategy, and the lack of old-growth harvest or associated road construction allowed in the T77 watersheds and TNC /Audubon Conservation Priority Areas. Alternative 3 provides additional long-term regulatory protection for T77 watersheds and TNC/Audubon Conservation Priority Areas by prohibiting old-growth harvest by regulation. Localized effects on fish habitat may occur, but these are expected to be minimal overall.

Species-Specific Effects

The transition to young-growth management would continue to slow the long-term decrease in deer habitat capability due to the reduction in POG harvest, under all of the alternatives. Because long-term POG harvest and road densities are expected to be similar to those under the Forest Plan, effects on old-growth-dependent wildlife species are expected to be almost identical to those predicted by the 2016 Forest Plan FEIS.

**Table 2-11
Comparison of Alternatives**

Resource/Category	Unit of Measure	Alternative					
		1	2	3	4	5	6
		No Action	Roaded Roadless	Logical Extension	Partial Dev LUDs	Full Dev LUDs	Full Exemption
Key Issue 1 – Roadless Area Conservation							
Overall Protection of Roadless Characteristics on the Tongass	Qualitative ¹	Neutral/No Effect	Neutral/No Effect	Very Minimal Adverse Effect	Minimal Adverse Effect	Moderate Adverse Effect	Moderate Adverse Effect
Total Roadless Area	Acres	9,200,000	9,220,000	8,103,000	8,857,000	6,905,000	0
Roadless Priority	Acres	N/A	5,114,000	4,653,000	7,252,000	6,078,000	0
LUD II Priority	Acres	N/A	856,000 ²	0	856,000 ²	828,000 ²	0
Watershed Priority	Acres	N/A	3,250,000	3,208,000	0	0	0
Community Priority	Acres	N/A	0	241,000	0	0	0
Timber Priority	Acres	N/A	0	0	749,000	0	0
Roadless Area Removed	Acres	0	113,000	1,202,000	375,000	2,298,000	9,200,000
Roadless Area Added	Acres	0	133,000	105,000	32,000	3,000	0
Roadless Area in Development LUDs ³	Acres	2,168,000	2,134,000	1,935,000	1,875,000 ⁴	21,000 ⁵	0
Key Issue 2 Support local and regional socioeconomic well-being, Alaska Native culture, rural subsistence activities, and economic opportunity across multiple economic sectors							
Forest Products Industry	Qualitative	Neutral/No Effect	Very Minimal Beneficial Effect	Minimal Beneficial Effect	Minimal Beneficial Effect	Minimal Beneficial Effect	Minimal Beneficial Effect
Recreation/Tourism (Visitor) Industry	Qualitative	Neutral/No Effect	Neutral/No Effect	Very Minimal Adverse Effect	Minimal Adverse Effect	Minimal Adverse Effect	Minimal Adverse Effect
Fisheries Industry	Qualitative	Neutral/No Effect	Neutral/No Effect	Neutral/No Change	Neutral/No Effect	Neutral/No Effect	Neutral/No Effect
Minerals Development Potential							
Locatable	Qualitative	Neutral/No Effect	Neutral/No Effect	Neutral/No Effect	Neutral/No Effect	Neutral/No Effect	Neutral/No Effect
Leasable	Qualitative	Neutral/No Effect	Very Minimal Beneficial Effect	Very Minimal Beneficial Effect	Moderate Beneficial Effect	Moderate Beneficial Effect	Moderate Beneficial Effect
Renewable Energy Project Development Potential	Qualitative	Neutral/No Effect	Minimal Beneficial Effect	Minimal Beneficial Effect	Minimal Beneficial Effect	Minimal Beneficial Effect	Minimal Beneficial Effect
Potential for Development of State Roads and Other Transportation Projects	Qualitative	Neutral/No Effect	Minimal Beneficial Effect	Minimal Beneficial Effect	Moderate Beneficial Effect	Moderate Beneficial Effect	Moderate Beneficial Effect

2 Alternatives Including the Proposed Action

**Table 2-11 (continued)
Comparison of Alternatives**

Resource/Category	Unit of Measure	Alternative					
		1	2	3	4	5	6
		No Action	Roaded Roadless	Logical Extension	Partial Dev LUDs	Full Dev LUDs	Full Exemption
Land Suitable for Timber Production							
Old Growth	Acres	230,000	247,000	305,000	388,000	395,000	395,000
Young Growth	Acres	334,000	344,000	348,000	349,000	351,000	354,000
Increase in Suitable Old Growth							
In Roaded Areas	Acres	0	18,000	18,000	18,000	18,000	18,000
In Logical Extensions of Roaded Areas	Acres	0	0	50,000	50,000	50,000	50,000
In Community Priority Areas	Acres	0	0	8,000	0	0	0
In Areas More Distant from Roads	Acres	0	0	0	91,000	98,000	98,000
TOTAL	Acres	0	18,000	76,000	158,000	165,000	165,000
Increase in High-Volume Suitable Old Growth							
In Roaded Areas	Acres	0	6,000	6,000	6,000	6,000	6,000
In Logical Extensions of Roaded Areas	Acres	0	0	20,000	20,000	20,000	20,000
In Community Priority Areas	Acres	0	0	2,000	0	0	0
In Areas More Distant from Roads	Acres	0	0	0	30,000	33,000	33,000
TOTAL	Acres	0	6,000	28,000	55,000	59,000	59,000
Support for Alaska Native Culture due to improved access to tree harvest for cultural purposes	Qualitative	Neutral/No Effect	Minimal Beneficial Effect	Minimal Beneficial Effect	Minimal Beneficial Effect	Minimal Beneficial Effect	Minimal Beneficial Effect
Support for Subsistence Activities	Qualitative	Minimal Adverse and Beneficial Effects	Minimal Adverse and Beneficial Effects	Minimal Adverse and Beneficial Effects	Minimal Adverse and Beneficial Effects	Minimal Adverse and Beneficial Effects	Minimal Adverse and Beneficial Effects
Community Effects - overall level of potential change for communities	Qualitative	Neutral/No Effect	Neutral/No Effect	Very Minimal Adverse and Beneficial Effects	Minimal Adverse and Beneficial Effects	Minimal Adverse and Beneficial Effects	Minimal Adverse and Beneficial Effects
Key Issue 3 – Protection of terrestrial and aquatic wildlife habitat and ecosystem diversity							
Percent of existing productive old growth harvested after 100 years	Percent ⁶	1	Similar to Alt. 1	Similar to Alt. 1	Similar to Alt. 1	Similar to Alt. 1	Similar to Alt. 1

Alternatives Including the Proposed Action 2

**Table 2-11 (continued)
Comparison of Alternatives**

Resource/Category	Unit of Measure	Alternative					
		1	2	3	4	5	6
		No Action	Roaded Roadless	Logical Extension	Partial Dev LUDs	Full Dev LUDs	Full Exemption
Percent of original productive old growth remaining after 100 years (92% in 2015)	Percent	91	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1
Percent of original high volume productive old growth remaining after 100 years (83% in 2015)	Percent	83	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1
Percent of original large-tree productive old growth remaining after 100 years (82% in 2015)	Percent	81	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1
YG Harvest in Beach and Estuary Fringe after 100 years (all prescriptions)	Acres	3,546	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1	Very Minimal Increase
YG Harvest in Riparian Management Areas after 100 years (all prescriptions)	Acres	882	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1	Very Minimal Increase	Very Minimal Increase
YG Harvest in Old Growth Habitat LUD after 100 years (all prescriptions)	Acres	1,796	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1	Minimal Increase
Average road density on NFS lands after 100 years (0.20 mile/square mile in 2016)	Miles/Sq. Mile	0.23	Similar to Alt.1	Similar to Alt.1	Very Minimal Increase	Very Minimal Increase	Very Minimal Increase
Average road density on All lands within Tongass boundary after 100 years (0.33 mile/sq.mi.in 2016)	Miles/Sq. Mile	0.45	Similar to Alt.1	Similar to Alt.1	Very Minimal Increase	Very Minimal Increase	Very Minimal Increase
Percent of WAAs with road density on NFS lands <0.7 mile/sq. mile after 100 years (85% in 2016)	Percent	83	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1
Percent of WAAs with road density on All lands <0.7 mile/sq. mile after 100 years (79% in 2016)	Percent	72	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1
Total area/potentially suitable old-growth area in T77 & TNC/Audubon Conservation Priority Areas outside of roadless given long-term protection	Acres	0/0	0/0	377,000/49,000	0/0	0/0	0/0

2 Alternatives Including the Proposed Action

**Table 2-11 (continued)
Comparison of Alternatives**

Resource/Category	Unit of Measure	Alternative					
		1 No Action	2 Roaded Roadless	3 Logical Extension	4 Partial Dev LUDs	5 Full Dev LUDs	6 Full Exemption
Species-Specific Effects							
Goshawks – Likelihood of maintaining viable, well-distributed populations after 100 years	Rating ⁶	Very High	Very High	Very High	Very High	Very High	Very High
Marten – Likelihood of maintaining viable, well-distributed populations after 100 years	Rating	Very High	Very High	Very High	Very High	Very High	Very High
Wolf – Likelihood of maintaining viable, well-distributed populations after 100 years	Rating	Very High	Very High	Very High	Very High	Very High	Very High
Brown Bear – Likelihood of maintaining viable, well-distributed populations after 100 years	Rating	Very High	Very High	Very High	Very High	Very High	Very High
Endemic Mammals – Likelihood of maintaining viable, well-distributed populations for all endemics after 100 years	Rating	Moderate to High	Moderate to High	Moderate to High	Moderate to High	Moderate to High	Moderate to High
Deer habitat capability on NFS Lands after 100 years in Terms of Percent of Original (1954) Habitat Capability (89% currently)	Percent	88	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1	Similar to Alt.1

Notes:

¹ Nine categories are used for the Qualitative ratings. See the beginning of the *Comparison of Alternatives* section for a complete listing.

² Total acres in LUD II Priority for Alternatives 2 and 4 is actually 870,000. The acres listed for LUD II Priority are based on the 2001 Roadless Rule GIS layer, which used a slightly different shoreline and did not include large lakes.

³ Note that, with the exception of the Timber Priority ARA, roadless designation on development LUDs provides the highest degree of protection, because these are areas that are mostly likely to be developed if they were not designated roadless. Most non-development LUDs have Forest Plan restrictions which limit their potential for development. Development LUDs include Timber Management, Modified Landscape, Scenic Viewshed, and Experimental Forest LUDs.

⁴ Note the 1,875,000 acres of designated roadless under Alternative 4 includes 749,000 acres of Timber Priority. If Timber Priority is excluded because it does not provide protection from timber harvest, the designated roadless area in development LUDs is 1,125,000 acres.

⁵ These roadless development LUD acres in Alternative 5 are all in Experimental Forest.

⁶ Under Key Issue 3, the action alternatives are compared with acres, miles/sq. mile, or percent, from the 2016 Forest Plan FEIS. “Similar to Alternative 1” means “same as Alt.1 with some very slight variation”. It is essentially the same as no difference or very slight difference.

Under Key Issue 3, the Rating is also from the 2016 Forest Plan FEIS and it relates to the “likelihood of maintaining viable, well-distributed populations after 100 years” for a species or species group. Similar ratings are also given for the action alternatives.