



United States Department of Agriculture

Draft Record of Decision for the Final Environmental Impact Statement and Forest Plan

Flathead National Forest

Flathead, Lake, Lewis and Clark, Lincoln, Missoula, and Powell Counties, Montana



Forest Service

Northern Region

December 2017

"... for the greatest good of the greatest number for the longest time."
—Gifford Pinchot, founding Chief of the Forest Service, 1905

Cover (images described clockwise from upper left):

- South Fork of the Flathead River, Spotted Bear Ranger District
- Forwarder working on the Paint Emery Resource Management Project, Hungry Horse-Glacier View Ranger District
- Two hikers
- Snowmobiler
- View from trail to Pentagon Cabin in the Bob Marshall Wilderness (photo by Peter Borgesen)
- Fireweed
- White-tailed deer (photo by John Littlefield)

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at [How to File a Program Discrimination Complaint](#) and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov. USDA is an equal opportunity provider, employer, and lender.

Table of Contents

Introduction..... 1

Forest Setting1

Purpose and Need and Proposed Action3

Engagement of State and Local Governments, other Federal Agencies, and Indian Tribes.....4

Public Engagement.....4

Preliminary Decision 5

Rationale for the Decision6

Alternatives Considered8

Environmentally preferred alternative10

Components of the decision12

Role of Science.....25

Findings Required by Other Laws and Regulations27

Conflicts with Other Agency or Government Goals or Objectives46

Implementation 47

How the Plan Revision Applies to Approved Projects and Activities47

Station Director Concurrence47

The Effective Date of the Plan Revision.....47

Pre-Decisional Administrative Review or Objection Opportunities 47

Contact Person49

Responsible Official 49

List of Tables

Table 1. Management area acres and percent allocation (single allocation based upon established hierarchy) 12

Table 2. Management area allocation for wilderness inventory area..... 20

Table 3. List of eligible wild and scenic rivers and their segments, preliminary classification, outstandingly remarkable values, and length 22

Table 4. Recommended special areas on the Flathead National Forest 24

Terms and Abbreviations

Term	Full name
1986 forest plan	Flathead National Forest Land and Resource Management Plan (1986)
2012 planning rule	National Forest System land management planning rule (effective 2012)
assessment	assessment of the Flathead National Forest
amendment forests	collective term for the Helena-Lewis and Clark, Kootenai, and Lolo National Forests
draft Grizzly Bear Conservation Strategy	Draft NCDE Grizzly Bear Conservation Strategy (USFWS, 2013)
the Forest	Flathead National Forest
forest plan	Flathead National Forest Revised Land Management Plan (2017 revision)
Northern Region	USDA Forest Service Northern Region (also known as Region 1)

List of Abbreviations

CFR	Code of Federal Regulations
d.b.h.	diameter at breast height
DC	desired condition (forest plan component)
DCA	demographic connectivity area
EIS	environmental impact statement
FW	forestwide (forest plan component)
GA	geographic area
GDL	Guideline (forest plan component)
GIS	geographic information system
INFISH	Inland Native Fish Strategy
MA	management area
mi	mile
mmbf	million board feet
mmcf	million cubic feet
MFWP	Montana Fish Wildlife and Parks
NCDE	Northern Continental Divide Ecosystem
NEPA	National Environmental Policy Act
NFS	National Forest System
NRLMD	Northern Rockies Lynx Management Direction
PACFISH	Pacific Fish Strategy
PCA	primary conservation area
PIBO	PACFISH/INFISH Biological Opinion
STD	standard (forest plan component)
TMDL	total maximum daily load
USDA	United States Department of Agriculture
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service

Introduction

This draft record of decision documents my preliminary decision and rationale for selecting alternative B modified as described in the final environmental impact statement (EIS) for the 2017 revision of the Flathead National Forest Land and Resource Management Plan. The decision implements the Forest Service's 2012 Land Management Planning Rule (36 CFR 219) and facilitates goals of the U.S. Department of Agriculture, including promoting sound land stewardship in partnership with communities. In making my preliminary decision on the revised forest plan, I am following the pre-decisional administrative review process (objection process) as described in Subpart B of 36 CFR 219. A final record of decision will be issued following the objection process.

This draft record of decision has been prepared according to Forest Service National Environmental Policy Act (NEPA) procedures (36 CFR 220) and includes the following:

- the rationale for approval;
- an explanation of how the plan components meet the sustainability requirements of planning rule 36 CFR 219.8, the diversity requirements of 36 CFR 219.9, the multiple use requirements of CFR 219.10, and the timber requirements of 36 CFR 219.11;
- a statement of how the plan revision applies to approved projects and activities (36 CFR 219.15);
- documentation of how the best available scientific information was used to inform planning, the plan components, and other plan content, including the plan monitoring program (36 CFR 219.3);
- concurrence by the appropriate research station director with any part of the plan applicable to any experimental forests or experimental ranges (36 CFR 219.2(b)(4)); and
- the effective date of the plan, amendment, or revision.

For ease of discussion throughout this document, the Flathead National Forest is referred to as “the Forest” when referencing the single administrative unit, the staff that administers the unit, or the National Forest System (NFS) lands within the unit. The 2017 revision of the Flathead National Forest Land and Resource Management Plan is referred to as the “revised forest plan.”

The assessment, the plan—including the monitoring program, public notices, and environmental documents associated with the plan—and the plan decision documents are all available online at www.fs.usda.gov/goto/flathead/fpr. The planning record includes documents that support analytical conclusions made and alternatives considered throughout the planning process. The planning record is available at the Flathead National Forest supervisor's office.

Forest Setting

The Forest, located in the northern Rocky Mountains amidst the mountains and valleys of northwest Montana, includes approximately 2.4 million acres of public land in portions of Flathead, Lake, Lewis and Clark, Lincoln, Missoula, and Powell Counties. The Forest is uniquely positioned in the heart of the Crown of the Continent, with a complex of wilderness, roaded, and unroaded areas that border Glacier National Park and a remote area of British Columbia. The Forest is an important connector of habitats for wildlife. This highly scenic region draws visitors from around the world who support a multi-million-dollar tourism and recreation economy.

Located in one of the fastest-growing population centers in Montana, the Forest supports approximately 1,500 jobs, resulting in 50 million dollars of labor income. Forest products and recreation are currently equal in their relative role in the economy (14.8 million dollars each of labor income), with recreation supporting nearly twice as many jobs (approximately 627) as the higher-paying jobs (approximately 335) in the forest products sector.

The Flathead Valley has long been the center of a forest products industry that creates jobs and products and plays an important role in the local economy. Although the number of mills and the volume of the timber harvest has declined in recent decades, the industry continues to be important to the local economy and provide a critical market for timber. Flathead County and adjoining Lake, Lincoln, and Sanders Counties derive a higher percentage of their employment from timber-related industries compared with the State or the nation.

The Forest has outstanding developed and dispersed recreation opportunities that provide for a broad and diverse range of year-round activities that range from developed ski resorts to over a million acres of designated wilderness and another nearly 500,000 acres of inventoried roadless acres. Jobs in the recreation sector bring revenue into the local economy, in which 20 percent of the jobs are tied to tourism-related industries.

There are two regionally significant ski areas (Whitefish Mountain Resort and Blacktail Mountain Ski Area). These ski areas contribute significantly to the local economy by creating jobs and attracting visitors. Motorized and nonmotorized travel and recreation are popular in the Forest (including mountain biking, hiking, snowmobiling, and driving for pleasure), hunting, fishing, camping, Nordic and downhill skiing, whitewater boating, and other water- and lake-related opportunities. Many river-based and backcountry outfitters and guides and other recreation-based companies are dependent on the Forest for their livelihood. As the largest land jurisdiction in Flathead County, the Forest serves as the backdrop for residents and plays a key role in supporting the social and economic sustainability of local communities, the State of Montana, and the broader region.

The plan area is the traditional homeland of the Kootenai and Salish peoples and, to a lesser extent, the Blackfeet people. The Confederated Salish and Kootenai Tribes of Montana, which includes the Kootenai, the Bitterroot Salish, and the Pend d'Oreille peoples, have reserved treaty rights in the plan area under the Hellgate Treaty of 1855. These treaty rights include hunting, gathering, and grazing rights on Federal lands within the plan area. The Flathead Indian Reservation, which is home to the Confederated Salish and Kootenai Tribes, shares a border with the Forest along the Forest's southwestern boundary.

The Forest contains over a million acres of designated wilderness, including the Bob Marshall Wilderness, Great Bear Wilderness, and Mission Mountains Wilderness, as well as one designated wild and scenic river, the Flathead River, which has three forks—the North Fork, South Fork, and Middle Fork.

The Forest is also critically important for fish and wildlife species. The northwestern portion of the Crown of the Continent has the highest density of grizzly bears in inland North America. The Forest is part of the Northern Continental Divide Ecosystem for grizzly bears, one of seven grizzly bear ecosystems in the continental United States.

The North and Middle Forks of the Flathead River and the South Fork of the Flathead River above Hungry Horse Reservoir have abundant, intact riparian and wetland habitats and are among the least impacted riparian systems in the Flathead subbasin because such a large portion of their watersheds are within protected areas. Bull trout and westslope cutthroat trout migrate as adults from Flathead Lake to natal streams on the Forest to spawn.

A perfect example of the uniqueness of the Flathead National Forest is reflected in the large quantities of the huckleberry plant that grow wild throughout the Forest. The huckleberry fruit is widely sought after by both humans and wildlife. Much like the huckleberry plant, people and wildlife are drawn to the beautiful and productive landscapes found within the boundaries of the Flathead National Forest to connect with the land and sustain themselves and their families.

Purpose and Need and Proposed Action

The proposed action is to revise the 1986 Flathead National Forest Land and Resource Management Plan (USDA, 1986). The National Forest Management Act directs the development, amendment, and revision of land management plans to provide for the multiple use and sustained yield of the products and services on Forest Service lands, including outdoor recreation, range, timber, watershed, wildlife and fish, and wilderness (16 U.S.C. 1604(e)). The 2012 planning rule guides this planning using a collaborative and science-based approach to promote the economic, social, and ecological sustainability of national forests and grasslands and other administrative units of the NFS.

The existing forest plan is more than 30 years old, dramatically exceeding the 10-15 year duration of plans directed by the National Forest Management Act. Since the 1986 forest plan was completed, there have been changes in ecological, social, and economic conditions in the area, as well as changes in resource demands, availability of new scientific information, and promulgation of new policy, including the 2012 planning rule. These changes necessitate a plan revision to ensure that management direction is responsive to current issues and conditions. In particular, the plan revision addresses the following topics:

- increasing demand for recreation opportunities and their importance in supporting local economies;
- fire and fuels management direction that emphasizes active vegetation management near communities;
- new analyses needed of timber production opportunities, an important historical driver for local economies;
- conservation of wildlife and aquatic habitat, including updating grizzly bear habitat management direction and Inland Native Fish direction; and
- new policy and public interest in identifying areas for recommended wilderness and wild and scenic rivers.

The Forest Service is also concurrently amending the forest plans of the Helena, Lewis and Clark, Kootenai, and Lolo National Forests (also referred to as “the amendment forests”) to incorporate habitat management direction for the Northern Continental Divide Ecosystem (NCDE) grizzly bear population. The Flathead National Forest is proposing to incorporate the NCDE grizzly bear habitat management direction as part of its plan revision process. The draft record of decision for the amendments is available online (www.fs.usda.gov/goto/flathead/gbamend).

Nature of forest plan decisions

A forest plan establishes plan components in the form of desired conditions, objectives, standards, guidelines, and land suitability to ensure ecological integrity while providing people and communities with a range of social and economic benefits. The plan provides overall guidance for project- and activity-level decisionmaking and sets consistent expectations for the types of activities permissible on the Forest.

This forest plan decision is strategic in nature. It does not authorize projects or activities, commit the Forest Service to take action, or dictate day-to-day administrative activities needed to carry on the Forest Service’s internal operations (e.g., personnel matters, law enforcement, or organizational changes). The

forest plan programmatic management direction will be implemented through the design, execution, and monitoring of site-specific activities such as relocating a trail, conducting a prescribed burn, or harvesting timber. The decisions for these activities will be consistent with the strategic decisions made in the revised forest plan and are subject to separate analysis under NEPA.

Engagement of State and Local Governments, other Federal Agencies, and Indian Tribes

Local tribes and communities depend on the economic, social, and ecological benefits provided by the Forest. The Forest supports jobs and economies, local traditional ways of life, healthy wildlife populations, and clean air and water, among other benefits. Many of the issues and concerns facing the Forest, such as wildfire, require a cohesive management approach across the landscape. It is therefore essential that the representatives of local tribes, counties, as well as other Federal agencies are actively involved in the plan revision.

In addition to the opportunities described in the section on public engagement below, which are available to governmental entities, the Forest worked directly with State and local governments, other Federal agencies, and Indian tribes throughout the planning process.

Interagency meetings were convened as necessary from the beginning of the revision process to provide updates on the planning process as well as to ensure consistency with county, state, federal, and tribal policies, and interests to the extent practicable (USDA, 2017). The planning record exhibits from these meetings (planning record exhibits 00004-00021, 00307-00314; also available at <http://www.merid.org/FNFplanrevision.aspx>) demonstrate a commitment on the part of the Forest to meaningfully engage with interested and affected agencies as well as the cooperation of these entities in the development of this revised forest plan.

Public Engagement

The Forest began public participation when developing the assessment of the Flathead National Forest. To facilitate local participation, the Forest contracted with the U.S. Institute for Environmental Conflict Resolution in 2012 to develop a collaborative stakeholder engagement process. The U.S. Institute for Environmental Conflict Resolution met with Forest Service employees and a representative group of key stakeholders to determine their willingness to engage in a collaborative process convened by a neutral third party. The Meridian Institute was selected to serve in that capacity and facilitated numerous topical work groups, an interagency group, and meetings to bring together all work groups and interested citizens. Beginning with a news release July 19, 2013, as part of the public involvement process, the Forest led field trips and held open houses to discuss existing information and trends related to a variety of conditions found on the Forest. From October 2013 through June 2014, the Forest hosted monthly public meetings with the intent to collaboratively develop plan components that the Forest could consider in the development of a proposed action (see the Meridian website, <http://www.merid.org/FNFplanrevision.aspx>). The dialogue and recommendations from this public involvement process were used to help develop the forest plan revision proposed action.

The notice of intent on the proposed action was published in the Federal Register on March 6, 2015 (USDA, 2015). The notice of intent asked for public comment on the proposal for a 60-day period (until May 5, 2015). The comment period was subsequently extended by 10 days (until May 15, 2015). In addition, as part of the public involvement process, the agency held seven open houses to provide opportunities to better understand the proposed action so that meaningful public comments could be provided by the end of the scoping period. Using the comments from the public, State and local

governments, other Federal agencies, and tribes, the interdisciplinary team developed a list of issues to address. The list was then organized by issue applicability, i.e., whether the issue was specific to the revision effort or specific to the amendment effort or applied to both. Issues that involve the amendment effort are discussed further in section 5.4 of the final EIS, Issues Used for Alternative Development.

Based upon the issues identified from the scoping process on the proposed action, the Forest prepared and published a draft EIS, with a notice of availability published in the Federal Register in June 2016. This publication of the notice of availability of the draft documents in the Federal Register began the public comment period on the draft forest plan, amendments, and draft EIS. Two open houses were held in Kalispell and Missoula during the 120-day comment period. In addition to the open houses, the planning team continued to provide information throughout the comment period to address questions. The interagency group continued to meet to discuss and provide input with respect to each agency's concerns.

The comment period ended on October 3, 2016, for the draft EIS, draft revised forest plan, and draft forest plan amendments. The 120-day comment period resulted in over 33,000 comments, including 568 unique letters and 33,112 form letters (these are letters identified as having overlapping content and comments) from 18 organizations. The comments were aggregated into unique concern statements, and responses were developed and are included as appendix 8 to the final EIS. The public comments and the interdisciplinary team's responses were critical to improving the analysis in the final EIS, refining plan direction, and aiding in developing the draft record of decision.

Some of the specific changes made to the selected alternative based upon public and interagency engagement included (1) moving the recommended wilderness boundary up the slope on the Swan Front to address concerns related to fire and fuels; (2) selecting management area 6c (general forest high-intensity vegetation management) for most of the suitable timber acres within the wildland-urban interface in the Swan Valley to address concerns related to fire and fuels; (3) carrying forward all the focused recreation area management areas from all alternatives to emphasize the potential for increased recreation opportunities available on the Forest; (4) selecting a plan component that makes mechanized transport and motorized use unsuitable in areas being recommended for wilderness; and (5) adding an area of recommended wilderness in Bunker Creek that has unique unroaded and wilderness characteristics.

Another key component of the involvement and transparency of the public involvement efforts associated with this planning effort has been the information made available to the public through the use of the forest plan revision website (www.fs.usda.gov/goto/flathead/fpr). The Forest also utilized collaborative mapping tools, an online forum for gathering public comments and input on specific areas of the Forest, throughout the planning process and specifically for input on the wilderness inventory and evaluation process. The availability to provide equal opportunities to anyone who wanted to participate in the planning process was greatly enhanced through our ability to provide web-based information for the public to comment on the process as well as plan components. The forest plan revision website provides links to documents and the record of all the previous public involvement efforts.

Preliminary Decision

Based upon my review of all alternatives and my consideration of the effects to the ecological, social, and economic environment, I have decided to select alternative B modified for the Flathead National Forest revised forest plan. The selected alternative is based on alternative B from the draft EIS, with modifications in response to comments, and includes features of all alternatives considered. Alternative B modified is the result of engagement with State and local governments, other Federal agencies, and Indian tribes, as well as robust and unique public engagement efforts since 2013.

Rationale for the Decision

The following narrative describes why I have decided to select alternative B modified for the Flathead National Forest revised forest plan. Following the discussion of the rationale for the decision are descriptions of the alternatives considered, the environmentally preferred alternative, and the components of the decision—how the new, integrated management direction in the selected alternative meets the requirements of the 2012 planning rule. In addition, findings required by other laws and regulations are described.

I chose alternative B modified as the revised forest plan because:

- It has the best mix of management areas that reflects what I heard the public wanted; it includes areas for active management of timber products and fuel reduction, focused recreation areas, recommended wilderness areas, wild and scenic rivers, and backcountry areas that ranged from nonmotorized to motorized.
- Under the revised forest plan, the Forest will contribute approximately \$55 million in labor income and 1,600 local jobs to the local communities, which is an increase of \$5 million and 100 jobs over current management.
 - ◆ Forest products (primarily from timber harvest) will contribute approximately \$14.8 million in labor income (\$4.2 million more than under the existing forest plan) and 335 jobs.
 - ◆ The Forest had more than one million recreation visits in 2015; these generated \$14.8 million in local income and 627 jobs.
- Under the revised forest plan, the estimated amount of total wood products produced (which includes sawtimber and non-sawtimber) is similar to or above current levels. The Forest will produce an estimated sawtimber volume of 27.3 million board feet per year over the next decade. Approximately 3,140 acres would be treated with commercial timber harvest to improve vegetation conditions. With a higher budget, the annual amount of timber volume could increase to a maximum of 38 million board feet per year.
- It provides for an active vegetation management strategy to promote the resilient forest conditions that provide desired wildlife habitat conditions.
- Eight areas totaling 190,403 acres are recommended for inclusion in the National Wilderness Preservation System; six of these expand existing designated wilderness areas.
- It contains specific direction to promote partnerships to get more work accomplished on the ground.
- It increases access to public lands through new trail construction for mountain bikes and new trail connectors to provide high-elevation motorized loop trails for off-road vehicles.
- It improves snowmobiling opportunities in and around popular snowmobile riding areas.
- It includes “focused recreation areas” that are designed to meet increased demands for recreation near local communities and to benefit local economies. These areas will offer increased visitor contact and education; and opportunities for new rental cabins, new trails, new boat ramps, and improved campgrounds; and improved maintenance of trails, roads, and facilities.
- It updates management direction for wildlife and aquatic species, including lynx, grizzly bear, and bull trout, which will allow for improved and more efficient habitat management while addressing the need to actively manage the vegetation within their respective habitats.
- It updates grizzly bear direction to no longer require the Forest to close roads or trails currently open to public motorized vehicle use. This new direction largely maintains the on-the-ground habitat

conditions contributing to an NCDE grizzly bear population that is growing and expanding in distribution, but does not continue the direction from amendment 19 of the 1986 forest plan. Given the improved condition of NCDE grizzly bear population and its habitat, it is not necessary to further reduce public access by about 518 miles.

- It maintains and provides for as much flexibility as possible for active management in the wildland-urban interface. It largely reflects the recommendations from the Whitefish Range Partnership for management of the North Fork geographic area. The Whitefish Range Partnership, a group of diverse citizens representing local industry, recreation, and environmental interests, weighed heavily in the decision for the management of the North Fork geographic area.
- It provides for key ecosystem services such as clean water and flood control; clean air; cultural/heritage values, inspiration, spiritual values, and solitude; hunting, trapping, fishing, and wildlife viewing; production of wood products and availability of special forest products such as firewood and huckleberries; and research and education.
- It includes 24 rivers identified as eligible for inclusion in the National Wild and Scenic Rivers System.

Updated management direction from the 1986 forest plan

Recreation on the Forest plays an important role in supporting local economies. New management direction for recreation includes the identification of areas suitable for motorized and nonmotorized recreation. I expect this decision to add higher-quality motorized over-snow vehicle use opportunities in the Challenge-Skyland and Canyon Creek and Big Creek areas of the Forest. The addition of the focused recreation management areas on nearly 61,000 acres is expected to accommodate the increasing demand for additional motorized and nonmotorized recreation opportunities.

Motorized road access is expected to continue to support recreation demands and contribute to the recreation economy while addressing desired ecological conditions for soils, water, fish, and wildlife. The revised management direction would allow some additional motorized trail access to occur in grizzly bear management zone 1, outside of the Salish demographic connectivity area. Alternative B modified would provide the opportunity for wheeled motorized vehicle use (suitable on designated roads and trails) on about 1,427 miles of NFS roads and 226 miles of NFS trails open to public motorized use for a total of 1,653 miles. Motorized over-snow vehicle use would be suitable on 31 percent of the Forest, and mechanized transport (e.g., mountain bikes) would be suitable on approximately 47 percent of the Forest.

I felt that management direction on the remaining areas (42 percent) that are not in designated wilderness, recommended wilderness, or a backcountry nonmotorized area needed to reflect more active land management. This means that where we have lands determined to be suitable for timber production within the wildland-urban interface, I generally favored the higher-intensity management area prescriptions of management areas 6b and 6c. The active management allocations may have more potential for environmental and social conflict effects, but I am confident that the allocation of the management areas along with the plan direction associated with the management of these areas are sufficient to mitigate and minimize the potential environmental effects in these areas.

Updated management direction for wildlife and aquatic species including lynx, grizzly bear, and bull trout will allow for improved and more efficient habitat management while addressing the need to actively manage the vegetation within their respective habitats.

Habitat conditions and management actions on the Forest have made important contributions to the increased grizzly bear population size and distribution and to the stable to upward trend of the grizzly bear population. Given these improved conditions, it is not necessary to further reduce public access as

prescribed by amendment 19 of the 1986 forest plan. Supporting a healthy grizzly bear population will continue to depend on coordinated, effective management of the grizzly bear's habitat, as provided for in the revised forest plan.

Updated direction for vegetation includes the identification of desired conditions for species composition and forest structure as well as for landscape patterns and ecological processes such as the role of fire across the Forest. Management direction for vegetation is more comprehensive, with the goal of sustaining the full complement of native plant and animal species and their supporting habitats. The plan direction reflects our best estimate of conditions that would maintain or restore resilient forest conditions and ecosystem integrity while addressing current and anticipated human uses of and desires for the Forest, such as its timber products or scenic values.

Management of wildland fire and managing fuels and expected fire behavior was an important consideration throughout the planning process. Maintaining and providing for as much flexibility as possible for active management in the wildland-urban interface was a key consideration in selecting the management areas as well as the forestwide management direction. The identification of management area 6c (general forest high-intensity vegetation management) within the suitable base as well as moving recommended wilderness boundaries away from the wildland-urban interface is a reflection of this intent.

Alternative B modified includes eight areas totaling approximately 190,403 acres that are recommended for inclusion in the National Wilderness Preservation System and 24 eligible rivers and streams recommended for inclusion in the National Wild and Scenic Rivers System. Alternative B modified largely reflects the recommendations from the Whitefish Range Partnership for management of the North Fork geographic area. The discussions of this collaborative group, as well as the comments from the public at large, assisted me in the decision to not allow mechanized transport and motorized use in recommended wilderness areas. This is also why I did not select alternative C; under this alternative, impacts to motorized and mechanized transport users in areas recommended for wilderness were significant, in my opinion, and the amount of areas that would have been prohibited to these users was unacceptable. Alternative B modified also includes management area 6c (general forest high-intensity vegetation management) in areas such as the Swan Valley, where the residents have voiced concerns over fire management and their safety due to fuel loading and access concerns. I believe that including management area 6c in areas within the wildland-urban interface as well as adjusting the recommended wilderness boundary slightly so it is farther up the slope will serve to address these important concerns identified by a portion of the community.

Alternatives Considered

In addition to the selected alternative, I considered the no-action alternative and two other alternatives, which are discussed below. All reasonable alternatives to the proposed action must meet the purpose and need for change and address one or more of the significant issues. I identified those alternatives that met both the purpose and need for change and created a reasonable range of outputs, costs, management requirements, and effects from which to choose. A more detailed comparison of these alternatives can be found in the final EIS in chapter 2. Refer to section 2.4.6 for a discussion of alternatives considered but eliminated from detailed study.

All alternatives in this document adhere to the principles of multiple use and the sustained yield of goods and services required by the Code of Federal Regulations (36 CFR § 219.1 (b)). Forestwide, geographic area, and management area direction identified in the revised forest plan would apply to all action alternatives, with some exceptions, specifically in regards to grizzly bear, suitability of activities in recommended wilderness areas, timber objectives, and suitability for motorized over-snow vehicles. The primary difference between alternatives is in allocation of acres by management area to meet the purpose

of and need for change and address one or more of the identified issues. The following are the same under all alternatives:

- Management area and forestwide direction for desired conditions, standards, and guidelines remain constant for all action alternatives, with a few exceptions noted in section 2.4.
- Existing developed recreation sites and recreation residence special-use permits are allowed under all alternatives. Alternatives do not make decisions to remove or to create developed recreation sites.
- Management direction for and location of utility and road rights-of-way, easements, and communication sites remain constant under all alternatives.
- Lands within the National Wilderness Preservation System and related plan components remain constant for all alternatives.
- Designated and eligible wild and scenic rivers remain constant under all action alternatives.

Alternative A, the no-action alternative, reflects the 1986 forest plan, as amended, and accounts for current laws and regulations. New information, inventories (e.g., lands suitable for timber production), and technologies (e.g., the Spectrum model) were used to evaluate this alternative. Output levels were recalculated for this alternative based on forest plan amendments and new sources of information. The no-action alternative retains the 1986 management direction, as amended, including management area prescriptions. This alternative serves as the baseline for comparison with the action alternatives.

Alternative C has more acres of recommended wilderness than the other alternatives and less emphasis on active vegetation management. Primitive or semiprimitive nonmotorized recreational settings would be increased by identifying motorized use and mechanized transport as not suitable in recommended wilderness areas. This alternative also adds several forest plan components (the same as those under alternative 3 in volume 3 of the final EIS for the amendment forests) that provide additional protections for grizzly bear habitat.

Alternative D emphasizes active vegetation management, including timber harvest, to achieve desired conditions. There is an expected higher level of vegetation management intensity with more acres of management area 6c, although the total acreage suitable for timber production is similar to the modified proposed action. There is more emphasis on semiprimitive motorized and roaded recreation settings. No recommended wilderness is included in alternative D. In this alternative, additional focused recreation areas (management area 7) are included, such as an area featuring off-highway single-track motorized recreational opportunities as well as additional areas of nonmotorized settings.

Federal agencies are required by NEPA to rigorously explore and objectively evaluate all reasonable alternatives and to briefly discuss the reasons for eliminating any alternatives that were not developed in detail (40 CFR 1502.14). Public comments received in response to the proposed action provided suggestions for alternative methods for achieving the purpose and need. Some of these alternatives may have been outside the scope of this revision effort or duplicative of the alternatives considered in detail. Over 15 alternatives (or alternative variations) were considered but dismissed from detailed consideration for reasons summarized in chapter 2 of the final EIS.

After considering the analysis in alternatives A through D, and the alternatives considered but eliminated from detailed study, I believe a reasonable range of alternatives has been carefully evaluated in compliance with NEPA. Although consideration of budget constraints reduced the variation in the effects of the actions across the alternatives, the analysis in the final EIS covered a full spectrum of management intensity ranging from an emphasis on natural ecological process in alternative C to a more managed,

commodity output and motorized recreation emphasis in alternative D. All action alternatives are realistic, implementable, and responsive to the forest plan revision topics.

Environmentally preferred alternative

NEPA regulations require agencies to specify the alternative or alternatives that are considered to be environmentally preferable (40 CFR 1505.2(b)). Forest Service NEPA regulations define an environmentally preferable alternative as “the alternative that will best promote the national environmental policy as expressed in NEPA’s section 101. Ordinarily, the environmentally preferable alternative is that which causes the least harm to the biological and physical environment; it is also the alternative which best protects and preserves historic, cultural, and natural resources” (36 CFR 220.3).

I find, based upon the laws and regulations guiding NFS management, that alternative B modified is the environmentally preferred alternative. When compared to the alternatives analyzed in detail, it best contributes to, and moves the Forest towards, ecological, social, and economic sustainability and desired conditions that will benefit future generations (see the explanation of how the plan components meet the requirements of the 2012 planning rule, including the section titled “Findings required by other laws and regulations” of this record of decision). Although alternative C would allow the fewest acres available for mechanical ground-disturbing activities and the fewest acres allowing motorized use, it does not address the six goals of NEPA as well as alternative B modified does. I base my finding on the following comparison showing how the alternatives address the goals of section 101 of NEPA.

1. Fulfill the responsibilities of each generation as trustees of the environment for succeeding generations.

Alternative B modified emphasizes moving forest conditions towards desired future conditions while contributing to ecological, social, and economic sustainability. Alternative B modified provides the most movement towards vegetation desired conditions while providing sustainable levels of timber harvest similar to current levels. The higher timber harvest levels under Alternative B modified versus alternative C provides the Forest’s sustainable share of products and uses demanded by the public, with a higher probability of improving and restoring vegetation for future generations than alternative C. Alternative A would provide the least improvement towards desired conditions. Alternative D emphasizes more active vegetation management, including timber harvest, to achieve desired conditions. However, because of an emphasis on production of wood products, it does not move towards vegetation desired conditions as much as alternative B modified. There are more acres suitable for timber production in this alternative, particularly acres of management area 6c, with an expected higher level of management intensity. Alternative B modified provides more areas of recommended wilderness than alternative D and provides plan components to protect the wilderness characteristics of these areas.

2. Assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings.

Alternative B modified achieves maintenance of a safe, healthful, productive, and aesthetically and culturally pleasing Forest better than the other alternatives because it provides the best mix of resource utilization, active and passive management, and motorized and nonmotorized recreation uses along with the safeguards provided by standards and guidelines for maintaining water quality, scenery, and wildlife habitat. Alternative B modified provides recommended wilderness with additions and reductions to alternative B as suggested by the public. Alternative B modified also provides timber harvest levels similar to current alternative A levels and maintains multiple-use access to important recreational areas better than alternative C. Although alternative D provides

higher levels of timber harvest and access opportunities, it does not provide the levels of recommended wilderness that are currently enjoyed and desired on the Forest.

3. Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.

The beneficial uses that are most varied between alternatives and that I considered in this finding are wood fiber production and a reasonable range of motorized and nonmotorized recreation opportunities. Alternative B modified achieves a higher level of reasonable, sustainable beneficial uses than alternative C. Alternative D provides higher levels of wood fiber production and motorized recreation allocations, but it does so at the expense of nonmotorized recreation allocations. Although the beneficial uses of alternative A are similar, alternative B modified also provides the most movement of vegetation towards desired conditions, which will provide for more resistant and resilient forests. This improves the health of our forests and watersheds, enhances wildlife habitat, and reduces undesirable and unintended consequences.

4. Preserve important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice.

Part of preserving our historic and cultural national heritage is recognizing that *humans* are a natural aspect of our national heritage—humans have utilized the physical and cultural resources offered by the Forest for thousands of years. Recognizing this, I find that the best way to preserve this heritage, and an environment that supports diversity and variety of choice, is to manage for a national forest that provides for physical resource use and the appropriate protection of cultural resources. Based upon the public engagement efforts, tribal consultation, and the effects of each alternative displayed in the final EIS, I find that alternative B modified meets this goal better than the other alternatives. It improves on alternative A and provides the best assortment of multiple uses between alternative C's emphasis on wilderness values and protection of backcountry and alternative D's emphasis on achieving desired conditions through mechanical means.

5. Achieve a balance between population and resource use, which will permit high standards of living and a wide sharing of life's amenities.

The public demands a variety of products and uses that can be provided by their national forests. National forest system lands and resources are evaluated as important local resources that contribute to the quality of life in the region. The final EIS alternative analysis compares the various values the public uses to determine their quality of life, varying from economic resource extraction values (timber harvest and minerals) to less tangibly defined resources such as wilderness character and semiprimitive recreation opportunities. The challenge is in defining the balance sought in this goal, and I find that alternative B modified achieves that balance. Alternative B modified provides more resource use than alternative C but more opportunities for semiprimitive recreation opportunities than alternative D.

6. Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

I find alternative B modified enhances the quality of renewable resources and provides sustainable use of renewable resources. The standards and guidelines and the management area allocation under alternative B modified provide for levels of resource use that are similar to current levels of alternative A while providing protection measures for backcountry and recommended wilderness areas. Alternative C emphasizes more passive management and a greater amount of backcountry and

recommended wilderness, but it does so at the expense of resource utilization and does not achieve as much vegetation restoration as alternative B modified.

Components of the decision

The revised forest plan provides for an integrated set of plan components that are identified forestwide as well as within particular geographic areas and management areas. The Forest has six geographic areas with unique characteristics and associated plan components to serve as a place-based approach to providing multiple uses.

The revised forest plan allocates 7 broad management area categories across the Forest that have been further refined into 16 management areas (see table 1). Each management area has management direction specific to individual parcels of land within the Forest that represents a management emphasis for that parcel of land. The management area direction includes desired conditions, standards, guidelines, and suitability of certain uses within that management area.

Table 1. Management area acres and percent allocation (single allocation based upon established hierarchy)

Management Area	Management Area Name	Acres ^a (percent)
1a	Designated wilderness	1,072,040 (45%)
1b	Recommended wilderness	190,403 (8%)
2a	Designated wild and scenic rivers	17,592 (1%)
2b	Eligible wild and scenic rivers	20,473 (1%)
3a	Administrative areas	435 (< 1%)
3b	Special areas	1,579 (< 1%)
4a	Research natural areas	7,820 (< 1%)
4b	Experimental and demonstration forests	11,544 (< 1%)
5a	Backcountry nonmotorized year-round primitive	149,258 (6%)
5b	Backcountry motorized year-round (motorized vehicle use only on designated roads, trails, and areas)	50,002 (2%)
5c	Backcountry motorized over-snow vehicle opportunities (on designated routes and areas)	107,656 (4%)
5d	Backcountry motorized wheeled vehicle use on designated roads, trails, and areas from April 1 to November 30	9,854 (< 1%)
5a-d	Backcountry total	316,770 (13%)
6a	General forest low-intensity vegetation management	123,693 (5%)
6b	General forest medium-intensity vegetation management	297,674 (12%)
6c	General forest high-intensity vegetation management	271,895 (11%)
6a-c	General forest total	693,262 (28%)
7	Focused recreation areas	60,888 (3%)
--	Forest Acres total	2,392,807

a. Acres and percentages are from GIS data set. The official acres for NFS lands and wilderness areas can be found in the land area report, <http://www.fs.fed.us/land/staff/lar-index.shtml>.

Note. In instances where management area allocations overlap (e.g., an area that is management area 1b, recommended wilderness, may also be management area 4a, a research natural area), the acres were calculated based upon the following hierarchy: (1) designated wilderness, (2) designated wild and scenic rivers, (3) recommended wilderness, (4) research natural areas, (5) eligible wild and scenic rivers, (6) experimental and demonstration forests, and (7) special areas.

Contribution to social and economic benefits

Forestwide plan components guide the Forest's contributions to social and economic sustainability, with an emphasis on timber production and recreational opportunities, partnerships and coordination, cultural resources and uses, areas of tribal importance, and research and education. Desired conditions speak to managing the Forest by working closely with partner agencies, tribes, Federal, State, and county government, universities, local schools, nongovernmental organizations, and private landowners to achieve joint management goals.

The multiple uses of the Forest contribute to local, regional, and national economies. Desired conditions and objectives enhance or maintain the multiple uses and ecosystem services provided by the Forest. The benefits to people (i.e., the goods and services provided) include carbon sequestration and climate regulation; forest products such as wood products and huckleberries; water quality and quantity and flood control; clean air; outdoor recreation; scenery; fish and wildlife, i.e., habitat for these species; cultural/heritage values, inspiration, spiritual values, and solitude; hunting, trapping, fishing, and wildlife viewing; and research and education.

Sustainable Recreation

Forestwide plan components guide the Forest's sustainable recreation, including recreation settings, opportunities, access, and scenic character. The plan establishes objectives for increasing and enhanced recreational opportunities and identifies focused recreation areas. Sustainable recreation is partly derived by the mapping of desired recreation opportunity spectrum classes that range from primitive to urban settings. How these desired recreation opportunity classes are assigned on the landscape contributes to social, economic, and ecological sustainability. There are a number of objectives for increasing and enhancing recreational opportunities, such as adding rental cabins to the national reservation system, building two new mountain biking trails close to communities, constructing new motorized trail connectors that provide high-elevation loop opportunities, and improving developed campgrounds.

Focused recreation areas are near communities or in areas that can provide additional recreation opportunities to meet increased demands for recreation and are intended to benefit local economies. In these areas, recreation would be enhanced through increased trail, road, and facility maintenance; increased visitor contact and education; and/or adding rental cabins to the national reservation system, constructing new trails and boat ramps, and improving campgrounds.

The forest plan helps connects people to nature by focusing on interpretation and education to enrich visitors' experience of the Forest, engaging youth in hands-on outdoor experiences, and developing recreational opportunities close to communities. The plan calls for making the best use of new technologies such as social media, the Internet, self-guided media using smartphones, and other devices to help maintain relevancy for the audience.

Timber

The revised forest plan includes the identification of suitability of areas for the appropriate integration of resource management and uses, including lands suited and not suited for timber production (36 CFR 219.7(c)(2)(vii) and 219.11). The suitability of lands is not identified for every use or activity, following guidance provided at 36CFR 219.7(e)(1)(v). Suitability was determined for various activities or uses by management area, geographic area, or forestwide for a particular resource (i.e., riparian management zones).

The lands suitable for timber production and the role of timber harvest in meeting ecosystem management and social and economic objectives has changed since the Flathead's 1986 forest plan was developed. The 2012 planning rule requires the Forest to undertake a process to identify lands within the plan area that are

suitable for timber production. The revised forest plan presents new plan components for lands suitable for timber production and for lands where timber harvest is allowed. These plan components are intended to facilitate an active vegetation management program of work to meet ecosystem and socioeconomic objectives.

Lands suitable for timber production were determined following 36 CFR 219.11(a) and Forest Service Handbook direction (1909.12 chap. 61). Under alternative B modified, approximately 465,200 acres (19 percent of the Forest) were found to be suitable for timber production, with the remaining approximately 1,927,600 acres not suitable for timber production. The forest plan also identified areas not suitable for timber production but where timber harvest is allowed for such purposes as protection or enhancement of biodiversity or wildlife habitat, fuels management, insect and disease mitigation, salvage, recreation or scenic-resource management, or to research or administrative studies. Approximately 447,200 acres (19 percent of the Forest) are not suitable for timber production but allow timber harvest.

The planning rule requires land management plans to provide information regarding possible actions that may occur on the plan area during the life of the plan, including the planned timber sale program, timber harvesting levels, and the proportion of probable methods of forest vegetation management practices expected to be used (16 U.S.C. 1604(e)(2) and (f)(2)). The plan revision addresses this requirement through the allocation of management areas, objectives reflecting anticipated budget levels, and disclosure of possible management actions and strategies (see appendix C of the forest plan).

Timber harvest is conducted to provide for societal goods and to maintain or move vegetation on the Forest towards desired conditions. Under alternative B modified, the projected timber sale quantity for the first decade would be 27.3 million board feet per year and the projected wood sale quantity would be 6.3 million cubic feet per year. Alternative B modified reflects the desire to maintain as much management flexibility as possible on the acres identified as suitable for timber production while ensuring that the management activities on these lands and all lands are maintaining and moving towards the desired conditions. In order to continue this strategy, it is vitally important to continue to have a local timber industry that assists the Forest in this management through the commercial sale of forest products. I believe alternative B modified best represents this strategy, although I do remain concerned that our ability to meet identified outputs will be difficult in the face of declining budgets and increasing cost of litigation related to forest management activities. As required by the 2012 planning rule, the estimated timber outputs take into account the fiscal capability of the planning unit and are consistent with all plan components. They are based on the Flathead National Forest's average budget levels for fiscal year 2012 through fiscal year 2014. However, the estimates of timber outputs may be larger or smaller on an annual basis, or over the life of the plan, if budget or other constraining factors change in the future. Modeling of the projected timber sale quantity under an *unlimited budget* and consistent with all plan components resulted in an average annual volume output in the first decade of 38 million board feet (7.6 million cubic feet).

Maximum quantity of timber

The revised forest plan identifies the maximum quantity of timber that may be removed from the plan area (36 CFR 219.7 and 219.11 (d)(6)). Based on Forest Service Handbook direction (1909.12 chap. 64.3), this maximum is termed the sustained yield limit and is the volume of timber that could be produced in perpetuity on lands that *may be suitable* for timber production. Lands that *may be suitable* for timber production are those that are legally available and technically feasible for harvest (forested lands with no potential for irreversible soil or watershed damage and where regeneration can be ensured). The timber suitability analysis identified 737,400 acres on the Forest that *may be suitable* for timber production. The calculation of the sustained yield limit is not limited by forest plan desired conditions,

other plan components, or the Forest's fiscal and organizational capabilities. The sustained yield limit was determined to be 25.4 million cubic feet average annual volume.

Contribution to ecological benefits

The ecological sustainability analysis process used in developing the revised forest plan followed the requirements of 36 CFR 219.8 and 219.9, along with Forest Service Handbook 1909.12 chapters 10 and 20. Throughout this process, the best available scientific information and public engagement efforts were used to provide the basis and support for each step, including disclosing data gaps and scientific uncertainty.

Desired conditions, objectives, standards, and guidelines are provided in the forest plan that address the composition, structure, function, and connectivity of vegetation types, forestwide and by potential vegetation types. Potential vegetation types are described, as are system drivers, ecological processes, and stressors and threats.

Plan components are designed to provide for the maintenance and improvement of vegetation conditions within the fire-adapted ecosystems that are prevalent on the Forest. Plan components are based on promoting vegetation and ecosystem conditions that reflect the natural range of variation and are resilient in the face of future stressors and threats such as fire, drought, or invasive species. Managing for resilient forest conditions will also benefit other resources, such as wildlife, as described in the next section. Resilient forests and ecosystems also provide social and economic benefits, such as by enhancing the diversity of recreational experiences and contributing to a sustainable production of timber.

The revised forest plan will maintain the existing high quality of the water, wildlife, and forest resources across the entire Forest. Large, relatively undeveloped areas are maintained, mainly within designated wilderness and inventoried roadless areas, which together comprise about 65 percent of the Forest area. These areas have limited human impacts, and the vegetation will continue to be influenced largely by natural disturbances such as fire or insect activity. Accordingly, these disturbances will largely determine the vegetation conditions and patterns that will exist, and the associated wildlife habitat conditions and diversity. In my selection of alternative B modified, I recognize the importance of these large undeveloped areas and their role in maintaining our existing water quality, wildlife habitat and security, and the diversity of forest conditions that we currently enjoy on the Forest.

I recognize that there is inherently less certainty and control over the natural disturbances and the forest conditions that may occur within the large undeveloped areas. Fire will be an important management tool in these areas, as well as across the Forest as a whole. The role of fire, both planned and unplanned ignitions, as a tool to achieve desired vegetation and wildlife habitat conditions is articulated in the plan, and direction related to its use and management is provided. Direction is also provided for fuels management to protect identified values, such as in wildland-urban interface areas. The revised forest plan includes direction for landscape-scale treatments to broaden the use of prescribed fire and for cooperating on developing community wildfire protection plans.

Diversity of plant and animal communities

Managing for vegetation conditions that reflect a natural range of variation and are resilient in the face of future stressors and threats benefits plant and animal species by providing habitat conditions that support the full diversity of native species, including federally designated threatened, endangered, candidate, and proposed species and species of conservation concern (see appendix 6 of the final EIS for lists of these species).

The ecological sustainability analysis process used in developing the revised forest plan followed the requirements of 36 CFR 219.8 and 219.9, along with Forest Service Handbook 1909.12 chapters 10 and 20. This process addressed at-risk species via ecosystem sustainability and integrity (final EIS appendix 6), consistent with Forest Service authority and the inherent capability of the plan area (219.9). Using a complementary ecosystem and species-specific approach, also called coarse filter/fine-filter, at-risk terrestrial and aquatic species, species groups, ecological systems and watersheds were considered in the planning process (including in the development of forest plan alternatives, management strategies, as well as in the monitoring program. Effects to at-risk species, including threatened and endangered species and species of conservation concern, are disclosed in sections 3.2 (aquatics), 3.5 (plants), and 3.7 (animals) of the final EIS. These sections describe the ecological conditions, key ecosystem characteristics, and forest plan components that will maintain at-risk species, and they reference the applicable appendices. I have reviewed the ecosystem plan components and included species-specific plan components where needed to maintain viable populations within the plan area, and I have also reviewed the effects disclosed in the final EIS.

Alternative B modified has forestwide plan components to maintain the long-term persistence of species federally designated as threatened, endangered, proposed, or candidate species (USFWS, 2017b) (the most recent list is available here: https://www.fws.gov/montanafieldoffice/Endangered_Species/Listed_Species/Forests/Flathead_sp_list.pdf). Effects to federally threatened and endangered species are disclosed in more detail in the biological assessment (Kuennen, Van Eimeren, & Trechsel, 2017) and associated biological opinion (USFWS, 2017a), which are posted on the Forest's planning website. The Forest consulted with the USFWS on threatened, endangered, and proposed species and received a concurrence letter and biological opinion in November 2017 (USFWS, 2017a). The USFWS also provided the Forest with its conclusions on recovery of the grizzly bear, Canada lynx, bull trout, and water howellia under section 7(a)(1) of the Endangered Species Act (see the section below on the Endangered Species Act for more details). Proposed species are not addressed under section 7(a)(1), but the Forest has plan components to maintain or contribute to their long-term persistence. The revised forest plan contains components that are designed to contribute to the recovery of the federally listed threatened or endangered species on the Forest and their designated critical habitat. These components include desired conditions, habitat maintenance and restoration objectives, standards, guidelines, suitability, and a monitoring program. Although activities may affect *individuals* of federally listed species, plan components are designed to contribute to the recovery of *populations* of federally listed species. New projects will implement reasonable and prudent measures and terms and conditions included in the programmatic biological opinion and revised forest plan unless modified by future consultation with the USFWS.

The regional forester of the USDA Forest Service Northern Region identified 29 species of conservation concern on the Flathead National Forest (see the link to the Northern Region SCC website on the Forest's forest plan revision website, www.fs.usda.gov/goto/flathead/fpr), which are plant and animal species that are known to occur in the plan area and for which there are substantial concerns for the persistence of the species. Several data sources, including but not limited to NatureServe and the Montana Natural Heritage Program, provided the best available scientific information to identify these species and associated ecological conditions. Most habitat needs of species of conservation concern are met by plan components for aquatic and terrestrial ecosystems (coarse filter). For some species or species groups, the revised forest plan has plan components to meet species-specific needs.

Ecosystem plan components for plant and animal species (coarse filter)

Forestwide plan components address maintaining and/or restoring key ecosystem characteristics associated with terrestrial and aquatic ecosystems and rare aquatic and terrestrial plant and animal communities. The forest plan

- identifies and provides plan components to maintain, improve, or restore key characteristics of ecosystems, such as vegetation composition, structure, ecological processes, and connectivity;
- identifies at-risk species: 8 threatened, candidate, or proposed species and 29 species of conservation concern (26 plant species and 3 animal species);
- where appropriate, combines the at-risk species with species groups and links the species groups with the key ecosystems and ecosystem characteristics (see chapter 2 of the revised forest plan and sections 3.3 and 3.7 and appendix 6 of the final EIS); and
- includes plan components to provide habitat conditions for species that are used or enjoyed by the public for hunting, fishing, subsistence, or viewing.

Alternative B modified emphasizes a mix of management areas, geographic area plan components, and forestwide plan components to maintain, improve, and restore wildlife habitat. I find that the management direction in the revised forest plan addresses key aquatic and riparian ecosystem characteristics and their integrity and would maintain, improve, and restore ecosystem resilience in light of a changing climate and uncertain future environment. Along with fish habitat and water quality, wildlife habitat is emphasized in riparian management zones. Riparian management zones are not suitable for timber production. Outside of riparian management zones, forests in management areas 6b and 6c, some management area 7 lands, and the Miller Creek Demonstration Forest (management area 4b) are suitable for timber production. In areas suitable for timber production, the production of timber is not the sole nor primary driver of project-level activities; timber management, along with prescribed burning and other management tools, is used to make progress towards desired conditions and maintain habitat conditions for at-risk plant and animal communities while restoring highly diverse ecosystems that provide for ecological integrity as well as socioeconomic needs.

The selected alternative includes 693,262 acres in general forest low-, medium-, or high-intensity vegetation management (management areas 6a, 6b, or 6c) and 60,888 acres in focused recreation areas (management area 7). These areas comprise about 31 percent of the Forest and emphasize a more active vegetation management approach to achieve desired conditions for vegetation and other resources. The selected alternative includes 1,072,040 acres in designated wilderness (management area 1a), about 190,403 acres in recommended wilderness (management area 1b), and about 316,770 acres (13 percent) in backcountry (management areas 5a through 5d) to provide habitat security and connectivity of large land areas for species that are sensitive to higher levels of human disturbance. These management areas comprise about 66 percent of the Forest and emphasize natural processes with little human disturbance.

Plan components related to vegetation and potential vegetation types emphasize the close interrelationship between vegetation conditions and key ecosystem characteristics for diverse wildlife (e.g., old-growth, early successional stages of the forest, burned forest and dead or decadent tree habitat, riparian habitat, and habitat connectivity). Additionally, while meeting the requirements of 36 CFR 219.8 and 219.9, the plan provides for ecosystem services and multiple uses, including outdoor recreation, range, timber, watershed, wildlife, and fish. Plan components for wildlife are integrated with plan components for ecosystem services and multiple uses (36 CFR 219.10).

Species-specific plan components for at-risk species (fine filter)

The 2012 planning rule defines a viable population of a species as one that continues to persist over the long term with sufficient distribution to be resilient and adaptable to stressors and likely future

environments (36 CFR 219.19). As stated in the 2012 planning rule, sometimes a combination of stressors, lack of authority, and the inherent capability of the land limit the Forest Service's ability to manage fish and wildlife habitat to maintain viability within the boundaries of a single unit. Such is the case with three low-density and/or wide-ranging species; the grizzly bear, Canada lynx, and wolverine (p. 21169).

I have reviewed ecosystem plan components and species-specific plan components for federally listed species in the revised forest plan. As required by 36 CFR 219.9(b)(1), I find that the revised forest plan will provide the ecological conditions necessary to contribute to the recovery of federally listed threatened and endangered species and to conserve proposed and candidate species. The Canada lynx, Grizzly bear, bull trout, and water howellia are listed as threatened. The status of the wolverine and meltwater stonefly is proposed species, and the status of the whitebark pine is a candidate species. My conclusions are based on the analysis documented in section 3.7.5 of the final EIS, the biological assessment (Kuennen et al., 2017), and the USFWS biological opinion and concurrence letter (USFWS, 2017a) (see the Endangered Species Act section of this draft record of decision for more details).

I have reviewed ecosystem plan components and included species-specific plan components for species of conservation concern as needed. In accordance with 36 CFR 219.9(b)(1), I find that the revised forest plan will provide the ecological conditions necessary to maintain viable populations of all identified species of conservation concern within the plan area, with the exception of two terrestrial species—the black swift and the flammulated owl. For the black swift and flammulated owl, I find that the revised forest plan includes plan components, including standards and guidelines, to maintain, improve, and restore ecological conditions within the plan area to contribute to maintaining a viable population of these two species within their range. My conclusions are based on the biological analysis and evaluation documented in sections 3.2, 3.5, and 3.7.4 of the final EIS.

Preliminary administrative recommendations

The revised forest plan includes recommendations to Congress for lands suitable for inclusion in the National Wilderness Preservation System. In addition, 24 rivers have been identified as having outstandingly remarkable values and been determined eligible for inclusion in the National Wild and Scenic Rivers System (36 CFR 219.7(2)(v) and (vi)).

The recommended wilderness recommendation is a preliminary administrative recommendation that will receive further review and possible modification by the Chief of the Forest Service, the Secretary of Agriculture, and the President of the United States. Congress has reserved the authority to make final decisions on wilderness designation. Plan implementation is not dependent upon subsequent action-related recommendations for wilderness designation.

The information considered in making this preliminary administrative recommendation for each area recommended for inclusion in the National Wilderness Preservation System is available in appendix G of the revised forest plan.

Recommended wilderness

The question of which areas, if any, to recommend for wilderness has easily been the most significant issue in this planning process and has generated the most comments and interest. Although there is no obligation to recommend any acres for wilderness to congress for consideration, I find that the 190,403 acres being recommended have the social and ecological characteristics that warrant their consideration for inclusion in the National Wilderness Preservation System. I understand the concerns from all sides of the issue, from those wanting additional acres and those wanting no additional areas to be managed as wilderness with the associated restrictions. As a land manager, I believe these lands being recommended

represent the highest-quality areas on the Forest that are capable of maintaining the unique social and ecological characteristics that make them eligible for wilderness designation while minimizing the effects to those concerned with the inherent tradeoffs that come with managing these areas to maintain their wilderness characteristics. The revised forest plan includes programmatic management direction to maintain and protect the social and ecological characteristics that provide the basis for each area's suitability for inclusion in the National Wilderness Preservation System. This alternative includes the following plan component: "Mechanized transport and motorized use are not suitable in recommended wilderness areas." This programmatic plan component was included in alternative B modified because it will serve to guide the future management of the areas being recommended for wilderness and will protect and maintain the ecological and social characteristics that provide the basis for wilderness recommendation. It is important to note that this plan is a programmatic plan and that site-specific decisions are needed to make progress towards many of the desired conditions and objectives found throughout the plan. This suitability determination for mechanized transport and motorized use is the appropriate first step in ensuring the protection and maintenance of these areas. Although a number of comments questioned the management of recommended wilderness areas as the creation of "de facto wilderness areas" in lieu of action by Congress, the Forest Service has an affirmative obligation to manage recommended wilderness areas for the social and ecological characteristics that provide the basis for that recommendation until Congress decides whether or not to designate the areas as wilderness. I am not creating wilderness; rather, I am trying not to establish or authorize continued uses that would affect the wilderness characteristics of these areas and possibly jeopardize their designation as wilderness in the future.

These areas do not currently have extensive existing mechanized transport use (96 miles of trails) or motorized over-snow vehicle use (344 acres), and this plan component would not allow future additional motorized use or mechanized transport to occur within the recommended wilderness areas.

The following recommended wilderness areas are included in alternative B modified:

- In the North Fork geographic area, there is one area recommended for wilderness: Tuchuck-Whale (79,821 acres).
- In the Swan Valley geographic area, there is one area recommended to be added to the Mission Mountains Wilderness: Elk Creek (1,442 acres). There is one area recommended to be added to the Bob Marshall Wilderness: Swan Front (42,534 acres).
- In the Middle Fork geographic area, there are two areas recommended for wilderness: Java-Bear Creek (1,824 acres): and Slippery Bill-Puzzle (12,393 acres).
- In the Hungry Horse geographic area, there is one area recommended for wilderness: Jewel Basin (18,462 acres).
- In the South Fork geographic area, there are two areas recommended for wilderness to be added to the Bob Marshall Wilderness: Limestone-Dean (15,026 acres) and Bunker-Alcove (18,901 acres).

Plan components for these areas protect and maintain the ecological and social characteristics that provide the basis for each area's suitability for inclusion in the National Wilderness Preservation System. In appendix G, factors for each recommended wilderness area identify the ecological and social characteristics that provide the basis for each area's suitability for inclusion in the National Wilderness Preservation System as well as the wilderness characteristics for each area.

About 70 percent of the lands within the wilderness inventory were not recommended for inclusion in the National Wilderness Preservation System. About 61 percent of these lands that were not recommended are within inventoried roadless areas. All lands within the wilderness inventory were evaluated for

wilderness characteristics, but not all lands within the inventory were allocated as recommended wilderness. The final EIS analyzed various management area allocations of these lands within the wilderness inventory through the alternatives, and the analysis shows the trade-offs between different management area allocations of these lands. The management area direction for lands within the inventory that were not allocated to recommended wilderness (management area 1b), as well as forestwide and geographic area plan components, will guide future site-specific project direction. Therefore, these lands will not be managed specifically to protect wilderness characteristics. The following table shows each wilderness inventory area and how the area was allocated either to recommended wilderness (management area 1b) or a different management area. The second column in table 2 reflects the actual amount of recommended wilderness in the wilderness inventory area. The third column reflects all of the management areas that are within the wilderness inventory area. Because recommended wilderness can have dual or multiple management area allocations (i.e., wild and scenic river or research natural areas within a recommended wilderness), the percentages in this column may not total 100 percent. Overall, the majority of these lands (45 percent) are within backcountry management areas 5a-5d, which provide for semiprimitive nonmotorized and semiprimitive motorized recreation opportunities that augment the spectrum of recreation settings from primitive to rural on the Forest. The other management area allocations are as follows: 6a (9 percent), 6b (9 percent), and 2a or 2b (4 percent). It is important to note that the initial inventory was intended to be reasonably broad and inclusive, based upon the inventory criteria, and that the inventory was not and is not a designation that conveys or requires a particular kind of management. The management direction from this plan decision as well as from the Roadless Conservation Rule is the direction that will be followed for the wilderness inventory areas.

Table 2. Management area allocation for wilderness inventory area

Wilderness inventory area name	Percent of wilderness inventory area that is recommended for wilderness¹ and name of the recommended wilderness area(s)	Other management area allocations²
Beaver Lake	0	5c (15%), 6a (68%), 6b (17%)
Bob North	38 percent Limestone-Dean recommended wilderness area Alcove-Bunker recommended wilderness area	2a (2%), 2b (5%), 5a (35%), 5c (14%), 6a (3%), 6b (4%)
Canyon	0	5a (47%), 5c (12%), 6a (12%), 6b (3%), 7 (26%)
Coal	0	5a (66%), 5c (8%), 6a (10%), 6b (16%)
Cold Creek	0	5c (23%), 6b (77%)
Crane Porcupine	0	6a (59%), 6b (39%) 6c (2%)
Demers	0	2a (1%), 5a (73%), 6b (25%)
Elk Creek	18 percent Elk Creek recommended wilderness area	2b (14%), 5a (26%), 6b (43%)
Essex	8 percent Java-Bear Creek recommended wilderness area	2a (8%), 5a (19%), 5c (36%), 6a (20%), 6b (4%), 6c (5%) 7 (1%)
Fatty Creek	0	3b (2%), 5a (3%), 5c (31%), 6b (63%)
Glacier Creek	0	2b (32%), 3b (47%), 6a (1%), 6b (20%)

¹ This reflects the actual amount (dual or multiple allocation) of management area 1b (recommended wilderness).

² This reflects all of the management areas within the wilderness inventory area

Wilderness inventory area name	Percent of wilderness inventory area that is recommended for wilderness¹ and name of the recommended wilderness area(s)	Other management area allocations²
Hungry Horse Reservoir East	0	5a (51%), 5c (24%), 6a (10%), 6b (15%)
Hungry Horse Reservoir West	11 percent Alcove-Bunker recommended wilderness area Jewel Basin recommended wilderness area Swan Front recommended wilderness area	2b (2%), 5a (11%), 5b (27%), 5c (25%), 5d (5%), 6a (8%), 6b (8%), 6c (2%), 7 (1%)
Jim Creek	0	5c (31%), 6b (69%)
Le Beau	0	2b (13%), 4a (52%), 6a (5%), 6c (4%)
Lindbergh Lake	0	2b (4%), 5a (45%), 5c (11%), 6b (40%)
Meadow Lake	0	2b (2%), 5a (49%), 5c (17%), 6b (27%), 6c (6%)
North Fork Coal Creek	0	5c (26%), 6b (74%)
Piper Creek	0	5a (20%), 5c (80%),
Puzzle	51 percent Slippery Bill-Puzzle recommended wilderness area	5a (7%), 5c (26%), 6a (9%), 6b (7%)
Sky West	0	5a (12%), 5c (49%), 6a (32%), 6b (6%)
Swan Face	76 percent Swan Front recommended wilderness area	2b (5%), 5a (4%), 5c (4%), 6a (4%), 6b (2%), 6c (5%)
Tuchuck	78 percent Tuchuck-Whale recommended wilderness area	2b (2%), 4a (6%), 5c (1%), 6a (14%),
Whale	72 percent Tuchuck-Whale recommended wilderness area	2b (7%), 5a (4%), 5c (4%), 6a (11%), 6b (3%)
Woodward	0	5c (42%), 6b (58%)

Eligible wild and scenic rivers

The revised forest plan includes 24 rivers identified as eligible for inclusion in the National Wild and Scenic Rivers System (36 CFR 219.7(2)(v) and (vi)). The National Wild and Scenic Rivers System was created by Congress in 1968 (Public Law 90-542; 16 U.S.C. 1271 et seq.) to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. The Wild and Scenic Rivers Act protects the special character of designated rivers while also recognizing the potential for their appropriate use and development.

Selected rivers in the United States are preserved for possessing outstandingly remarkable values, which include scenic, recreational, geologic, fish and wildlife, historic, cultural, and other similar values. Designated rivers or river segments are preserved in their free-flowing condition and are not dammed or otherwise impeded. Designation as a wild and scenic river does not confer the same type of protection as a wilderness area designation. However, wild and scenic designation protects the water quality and free-flowing nature of rivers in non-Federal areas, something the Wilderness Act and other Federal designations cannot do.

Eligible wild and scenic rivers (or river segments) are assigned one or more preliminary classifications: wild, scenic, or recreational. These preliminary classifications are based on the developmental character of the river on the date of designation and dictate the level of interim protection measures to apply. Wild rivers are the most remote and undeveloped, whereas recreational rivers often have many access points and nearby roads, railroads, and bridges and may have undergone some impoundment or diversion in the past. The title of a river's classification is not necessarily related to the value that made it worthy of designation. That is, a river with a scenic classification does not necessarily have scenery as an outstandingly remarkable value.

I have determined that the following 24 rivers are free-flowing and have outstandingly remarkable values and are eligible wild and scenic rivers or river segments. The river name, river segment, preliminary classification, outstandingly remarkable values for which it is eligible, and length of the river segment are indicated in table 3 **Error! Reference source not found.**

Table 3. List of eligible wild and scenic rivers and their segments, preliminary classification, outstandingly remarkable values, and length

River	Segment	Preliminary Classification	Outstandingly Remarkable Values	Length (miles)
Aeneas Creek	Headwaters to Hungry Horse Reservoir	Scenic	History, prehistory, recreation, scenery	5
Big Salmon Creek	Lena Lake to South Fork of the Flathead River, including Big Salmon Lake	Wild	Recreation, geology, fish, prehistory	19
Clack Creek	Headwaters to Middle Fork of the Flathead River	Wild	Geology, scenery	8
Danaher Creek	Headwaters to Youngs Creek	Wild	Scenery, recreation, fish, wildlife, history, prehistory, botany, natural areas	23
Elk Creek	Headwaters to NFS boundary	Scenic	Fish	10
Gateway Creek	Headwaters to Strawberry Creek	Wild	Scenery, geology, history	5
Glacier Creek	Headwaters to outlet of Glacier Slough	Wild segment: within Mission Mountains Wilderness Scenic segment: wilderness boundary to outlet of Glacier Slough	Geology, wildlife, scenery	6
Graves Creek	Headwaters to Hungry Horse Reservoir	Wild segment: within Jewel Basin Scenic segment: from boundary of Jewel Basin Hiking Area to Hungry Horse Reservoir	Prehistory	10
Le Beau Creek	Headwaters to Le Beau research natural area boundary	Wild	Scenic, geological, natural area	4
Lion Creek	Source to Lion Creek trailhead	Scenic	Wildlife	11

River	Segment	Preliminary Classification	Outstandingly Remarkable Values	Length (miles)
Little Salmon Creek	Headwaters to South Fork of the Flathead River	Wild	Scenery, fish, prehistory	19
Logan Creek	From NFS Road 539 to Tally Lake	Recreational	Scenic, recreational	4
Schafer Creek	Headwaters to Middle Fork of the Flathead River	Wild	Prehistory, history	11
Spotted Bear River	Headwaters to South Fork of the Flathead River	Wild segment: headwaters to end of Blue Lake Recreational segment: Blue Lake to South Fork of the Flathead River	Recreation, wildlife, geology	35
Strawberry Creek	Headwaters to Middle Fork of the Flathead River	Wild	Fish	14
Lower Swan River	Swan River State Forest to Swan Lake ¹	Recreational	Wildlife	11
Upper Swan River	Crystal Lake to confluence with Lindbergh Lake	Wild	Recreation	2
Twin Creek (also known as Upper Twin Creek)	Nanny Creek to confluence with South Fork of the Flathead	Wild segment: From Nanny Creek to confluence with North Creek Recreational segment: North Creek to confluence with South Fork of the Flathead River	Geology, scenery	6
Whale Creek	Headwaters to NFS boundary	Scenic segment: Headwaters to confluence with Shorty Creek Recreational segment: Shorty Creek to NFS boundary	Wildlife, fish	21
White River	The entire White River	Wild	Geology, fish, history, prehistory, scenery	24
Nokio Creek	Nokio Creek along NFS Road #114 to confluence with Yakinikak Creek;	Scenic	Prehistory	3
Yakinikak Creek	Yakinikak Creek to confluence with Thoma Creek (stream becomes Trail Creek);	Scenic	Prehistory	8
Trail Creek	Trail Creek to NFS boundary	Scenic	Fish, prehistory, geology, wildlife	2
Youngs Creek	Headwaters to South Fork of the Flathead	Wild	Fish, recreation, prehistory, history, scenery	23
TOTAL	--	--	--	278

1. Plan direction for management area 2b is only for NFS lands. About 6 miles of this segment is on the Swan River State Forest (non-NFS lands), where plan direction is not applicable.

Special areas

The Forest has one existing designated special area, the Condon Creek Botanical Area. Thirteen special areas are recommended for designation in the revised forest plan. All special areas are recommended based on their special botanical features, and some areas have associated hydrologic or geological features. The boundaries of the fen special areas include a 300-foot buffer (riparian management zone) surrounding each fen.

After consideration of the value of the special features of each of the proposed areas listed in table 4, I recommend their designation as management area 3b in the revised forest plan.

Table 4. Recommended special areas on the Flathead National Forest

Name	Special character and features	Acres ¹
The following 10 fens: Bent Flat, Gregg Creek, Lost Creek, Meadow Lake, Porcupine, Sanko Creek North, Sanko Creek South, Trail Creek, Trout Lake, Windfall	These fens, located across the Forest, have distinctive characteristics that warrant designation as special areas, including highly diverse flora and a number of rare plant species. They represent the different types of fens on the Forest and the unique features associated with this wetland type. Northern bog lemmings have been observed at some of these fens.	555 acres (range in size from 23 to 145 acres ¹)
Glacier Slough	One of the largest wetlands in the Swan Valley, with a diversity of wetland- and riparian-associated plant and animal species and adjacent forests of mixed conifer species.	1,690 ¹
Johnson Terrace	Includes mossy forb meadow on shallow residual soils over a Precambrian argillite bedrock dip slope that is inundated with water in the spring and dries out during the summer. Many diminutive plants are restricted to this type of ephemeral spring habitat. In addition to botanical features, contains geologic/topographic features that harbor a relatively rare diversity of plant species.	331
Fatty Creek Cedars	Moist, riparian-associated western red cedar forest type supporting stands dominated by very large, old cedar trees and associated unique assemblages of understory plants. Provides aesthetic values associated with "ancient" cedar groves. Groves such as this are relatively rare on the Forest due to the limited area with suitable site conditions for their development, past fire disturbance, and removal through previous logging or development activities.	261
Total acres		2,837

1. Acres include a 300-foot-wide buffer surrounding the fen or wetland feature.

Plan monitoring program

The revised forest plan includes a monitoring program (36 CFR 219.7 (c)(2)(x) and 219.12). The plan monitoring program (chapter 5 of the revised forest plan) addresses the most critical components related to informed management of the Forest's resources within the financial and technical capability of the agency. Every monitoring question links to one or more desired conditions, objectives, standards, or guidelines. However, not every plan component has a corresponding monitoring question.

This monitoring program is not intended to depict all monitoring, inventorying, and data-gathering activities undertaken on the Forest, nor is it intended to limit monitoring to just the questions and indicators listed in chapter 5 of the forest plan. Consideration and coordination with broader-scale monitoring strategies adopted by the regional forester, multi-party monitoring collaboration, and cooperation with state and private forestry as well as research and development, as required by 36 CFR 219.12(a), will increase efficiencies and help track changing conditions beyond the Forest boundaries to improve the effectiveness of the plan monitoring program. In addition, project and activity

monitoring may be used to gather information for the plan monitoring program if it will provide relevant information to inform adaptive management.

The monitoring program sets out the plan monitoring questions, plan components, and associated indicators. The monitoring program will be guided by a monitoring guide (to be developed) that will provide more detailed information on the monitoring questions, indicators, frequency and reliability, data sources and storage, and cost. For example, we anticipate that Forest Inventory and Analysis data will be used to monitor vegetation conditions and that data will be updated about every 10 years. However, data sources and frequency of updates may change, so the specifics will be included in a monitoring guide. It is important to note that not all monitoring questions are expected to be evaluated biennially.

Role of Science

The 2012 planning rule requires the responsible official to use the best available scientific information to inform the development of the proposed plan, including the plan components, the monitoring program, and plan decisions. The foundation from which the plan components were developed for the revised forest plan was the expertise of the planning team members, who have a combined level of experience of well over 100 years working on the Forest. This interdisciplinary team of resource professionals compiled and evaluated the relevant information for the assessment of the Forest (USDA, 2014) and the best available scientific information and analyses contained therein. From this foundation, the interdisciplinary team used and updated the best available scientific information to develop the proposed action (May 2015), the alternatives, and the analysis and comparison of alternatives in the draft EIS (May 2016). This information includes material that was readily available from public sources (libraries, research institutions, scientific journals, and online literature). It also includes information obtained from other sources, such as participation and attendance at scientific conferences, scientific knowledge from local experts, findings from ongoing research projects, workshops and collaborations, professional knowledge and experience, and information received during public participation periods. The interdisciplinary team utilized and updated a geographic information system database to evaluate complex spatial effects resulting from implementation of the alternatives (such as the recreation opportunity spectrum and effects to wildlife habitat by species). The interdisciplinary team used an optimization model to estimate the long-term flow of timber from the plan area. This model is widely used by private and State land managers. The model is widely accepted as an accurate way of modeling timber harvest schedules.

Resource specialists considered what is most accurate, reliable, and relevant in their use of the best available scientific information. The best available scientific information includes the publications listed in the literature cited or references sections of the Flathead National Forest's assessment and draft EIS as well as any additional information that was used, updated, and/or included in the final EIS or the planning record prior to the record of decision. The final EIS provides documentation of how the best available scientific information was used to inform planning, the plan components, and other plan content, including the plan monitoring program (36 CFR 219.3). The References section of the final EIS includes the best available scientific information used to inform planning but may also include science that is discussed in order to address opposing science, as required by NEPA. Additionally, the Forest may have incorporated some portions of the documents referenced, but not others, as indicated in individual sections of the final EIS. Cooperation between county, State, and Federal agencies and tribes contributed to the best available scientific information. For example, the Forest coordinated with other national forest and regional specialists; Montana Fish, Wildlife and Parks; the Montana Natural Heritage Program, and the USFWS on lists of species known to occur on NFS lands managed by the Forest, species habitat associations, and development of the revised forest plan and its alternatives. Examples of other plans that were considered during the development of the revised forest plan include the Flathead and Missoula County growth policies (FBOCC, 2012; MBCC, 2016), Montana's Statewide Wildlife Action Plan

(MTFWP, 2015), as well as other state management plans (e.g., Montana Fish, Wildlife and Parks elk, wolf, bald eagle, common loon, grizzly bear, (<http://fwp.mt.gov/doingBusiness/reference/managementPlans/wildlifeMgmt.html>); the Montana Department of Natural Resources and Conservation habitat conservation plan that addresses grizzly bear, Canada lynx, bull trout, westslope cutthroat trout, and riparian management areas (MTDNRC, 2010); and tribal plans related to wildlife management and climate change (CSKT, 2013).

The planning principles and guidance presented in the Aquatics section of the plan are based on the Integrated Scientific Assessment for Ecosystem Management (Quigley, Haynes, & Graham, 1996). The analyses developed as part of the Interior Columbia Basin Ecosystem Management Project and current best available science were used. The recovery plan for the coterminous U.S. population of bull trout (USFWS, 2015b), the Columbia Headwaters Recovery Unit Implementation Plan for bull trout (USFWS, 2015a), and the Conservation Strategy for Bull Trout on USFS Lands in Western Montana (USDA-USFWS, 2013) were instrumental in developing plan components and the conservation watershed network for native fish. Research by scientists at the USDA Forest Service Rocky Mountain and Pacific Northwest Research Stations on climate change and native fish provided the impetus to be forward thinking.

Unpublished information provided by cooperative Forest Service monitoring efforts (e.g., forest carnivore monitoring by Swan Valley Connections) was reviewed, as was information provided by interest groups with local wildlife expertise (e.g., Flathead Audubon, American Bird Conservatory). Some members of the public (including wildlife interest groups from across the nation) submitted scientific information during scoping, and this information was also reviewed. In addition, the two wildlife biologists, the aquatics specialist, and the vegetation specialist on the planning team each have more than 20 years of experience working with the vegetation, wildlife, and aquatic species and habitats of the northern Rocky Mountains, including the Flathead National Forest. Their local knowledge and experience of the ecosystems in the plan area contributed to the best available scientific information.

Much of the recreation and roads information and plan direction is derived from the Forest Service infrastructure database (INFRA) as well as the National Visitor Use Monitoring surveys. The infrastructure database is a collection of web-based data entry forms, reporting tools, and mapping tools that enable national forests to manage and report the best available information about their inventory of constructed features (e.g., roads, trails). The National Visitor Use Monitoring data is an NFS-wide monitoring survey that collects Forest-specific recreation use surveys every five years through the use of exit surveys.

Much of the information with respect to social and economic conditions and trends contained in the assessment and final EIS was taken from the Economic Profile System-Human Dimension Toolkit (Headwaters Economics), developed in partnership with the Bureau of Land Management and the Forest Service. This database uses published statistics from Federal data sources, including but not limited to the U.S. Bureau of Economic Analysis, the U.S. Bureau of Labor Statistics, and the U.S. Census Bureau. Other significant sources of information used in developing plan direction in this area were publications on Montana's forest products industry developed by the University of Montana Bureau of Business and Economic Research; Northwest Economic Development District publications; data on Forest Service programs, salary and non-salary expenditures, and employment from Forest Service corporate databases; and the results of an analysis of the contribution of Forest programs and expenditures to jobs and labor income using Forest Service corporate data and data from IMPLAN (an economic impact model) for the year 2015. Public comments and expert input contributed to the development of plan components related to social and economic conditions.

In addition, the recreation/wilderness specialist, regional economist, and regional social scientist on the planning team collectively have 35 years of experience working with the social and economic resources in the USDA Forest Service Northern Region. Their knowledge and experience of the social and economic resources in the plan area contributed to the best available scientific information.

For all these reasons, based on my review of the final EIS and the planning record, I have determined that the most accurate and reliable scientific information available that is relevant to the issues considered in this forest plan revision has been used to inform the planning process and has been applied to the issues considered in the revision, as required by 36 CFR 219.3.

Findings Required by Other Laws and Regulations

American Indian Religious Freedom Act

Agencies must make a good faith effort to understand how Indian religious practices may come into conflict with other Forest uses and consider any adverse impacts on these practices in their decisionmaking. The entire Forest is within aboriginal territory of the Confederated Salish and Kootenai Tribes.

No effects on American Indian social, economic, or subsistence rights are anticipated as a result of the forest plan revision. No matter which alternative is chosen for implementation, the Forest Service is required to consult with tribes when management activities may impact treaty rights and/or cultural sites and cultural use. Desired conditions for areas of tribal importance for all action alternatives of the revised forest plan are to (1) recognize and maintain culturally significant species and the habitat necessary to support healthy, sustainable, and harvestable plant and animal populations to ensure that reserved rights of tribes are not significantly impacted or diminished; and (2) recognize, ensure, and accommodate tribal member access to the Forest for the exercise of treaty rights and to provide opportunities for the practice of traditional, cultural, and religious activities such as plant gathering and ceremonial activities that are essential to sustaining their way of life, cultural integrity, social cohesion, and economic well-being.

Archaeological Resources Protection Act

The purpose of this act is to provide protection for archaeological resources found on public lands and Indian lands of the United States. The legislation provides civil and criminal penalties for those who remove or damage archaeological resources in violation of the prohibitions contained in the act. The act prohibits the removal of archaeological resources on public lands or Indian lands without first obtaining a permit from the affected Federal land manager or Indian tribe and requires Federal agencies to develop plans to survey lands under their management to determine the nature and extent of archaeological and cultural resources.

The revised forest plan is strategic and programmatic in nature, providing guidance and direction to future site-specific projects and activities. Compliance with Section 106 of the National Historic Preservation Act and 36 CFR 800 regulations requires assessments to establish the presence of historic properties within the area of potential effect for any site-specific activities and also to meet the intent of this act. In addition, the Forest will continue to consult with tribes during site-specific management activities that may impact cultural sites and cultural use. The plan's desired conditions, objectives, and guidelines include provisions that take into consideration American Indian rights and interests and cultural resources. Therefore, the revised forest plan is fully compliant with this act.

Clean Air Act

At the scale of a programmatic plan such as this, the overall level of activities proposed under this decision is not anticipated to degrade air quality or violate State implementation plans. This finding is based on information presented in the final EIS. Conformity determinations and more detailed air quality impact analyses will be made at subsequent levels of planning and analysis when emissions can be more accurately quantified and reasonably forecasted and local impacts assessed.

Clean Water Act

Implementation of this revised forest plan is expected to maintain and improve water quality and satisfy all State water quality requirements. I base this finding on the extensive standards and guidelines contained in the plan, the application of State-approved “best management practices” specifically designed to protect water quality, and the discussion of water quality and beneficial uses contained in chapter 3 of the final EIS. Examples include the management direction protecting riparian management zones and the requirements for road design. Additionally, project-level analysis for subsequent activities under the plan will be required to demonstrate compliance with Clean Water Act and State water quality standards.

Endangered Species Act

The purpose of the Endangered Species Act is to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved and to provide for the conservation of such endangered species and threatened species. Section 7(a)(1) of the act requires Federal agencies to carry out programs for the conservation of listed species. In addition, the Endangered Species Act requires Federal agencies to ensure that any agency action does not jeopardize the continued existence of the species (Endangered Species Act, section 7(a)(2)). The Endangered Species Act also requires the USFWS and the Forest Service, respectively, to base their biological opinion and subsequent agency action on the use of the best scientific and commercially available data (16 U.S.C. 1536(a)(2)).

In accordance with section 7(c) of the Endangered Species Act, the Forest obtained a final list of proposed, threatened, endangered, and candidate species identified by the USFWS on November 17, 2017 (USFWS, 2017b). Based upon a consultation agreement with the USFWS and in accordance with Forest Service direction for listed species, a biological assessment for all federally listed and proposed terrestrial, aquatic, and plant species and their designated critical habitats was completed (Kuennen et al., 2017).

The biological assessment found that implementation of the revised forest plan *may affect, and is likely to adversely affect*, Canada lynx and grizzly bear. The biological assessment also determined that implementation of the revised forest plan may *adversely affect* designated critical habitat for Canada lynx. The biological assessment outlines the specific reasons why implementation of the revised forest plan may have effects to individuals of these species or short-term adverse effects on these species but still result in overall net benefits.

The biological assessment found that implementation of the revised forest plan *may affect, and is likely to adversely affect*, bull trout. The biological assessment also determined that the revised forest plan may *adversely affect* designated critical habitat for bull trout. The biological assessment outlines the specific reasons why implementation of the revised forest plan may have short-term adverse effects on these species and critical habitat but still result in overall net benefits.

The Forest Service received a biological opinion for the grizzly bear, Canada lynx, bull trout, Canada lynx critical habitat, and bull trout critical habitat (USFWS, 2017a). The biological opinion concluded that although implementation of the revised forest plan, as proposed, may have adverse effects on individual

members of a species, it is not likely to jeopardize the continued existence of Canada lynx, grizzly bear, or bull trout and is not likely to destroy or adversely modify Canada lynx or bull trout critical habitat.

Given the protection provided to potential habitat for Spalding's catchfly and the conservation measures that include evaluation of potential site-specific impacts during project planning, the programmatic revised forest plan would have *no effect* on potential habitat for Spalding's catchfly. The proposed framework programmatic action will have *no effect* on the meltwater lednian stonefly. The Forest does not conduct activities in this species' habitat. The biological assessment determined that implementation of the revised forest plan *may affect, but is not likely to adversely affect*, water howellia. The conservation strategy for water howellia (Shelly, 1997) will be retained in the revised forest plan, and it includes direction to maintain both occupied habitat and suitable but unoccupied pond habitats for the species. The biological assessment also determined that the revised forest plan *may affect, but is not likely to jeopardize* the North American wolverine (*Gulo gulo*). In their biological opinion cover letter, the USFWS concurred with the determinations made for water howellia and North American wolverine. Therefore, pursuant to 50 CFR § 402.13(a), formal consultation on these species is not required.

Grizzly bear

The best available scientific information shows that the NCDE grizzly bear population has substantially increased in size to more than double the recovery plan goal of 391 bears (Kendall et al., 2009). Grizzly bears are well distributed throughout the NCDE recovery zone. In 2004, at least one female bear was detected in each of the 23 bear management units and an additional 12 were detected outside the recovery zone (Kendall et al., 2009). Costello et al. (2016) evaluated occupancy of the 23 bear management units in the NCDE by females with offspring during 2004 to 2014. Using the six-year running tally as set forth in the recovery plan (USFWS, 1993), the authors documented full occupancy of the recovery zone starting in 2009 and continuing through 2014 (Costello et al., 2016). The NCDE population has expanded its distribution to more than double the size of the recovery zone (Costello et al., 2016). Proctor et al. (2012) showed that the U.S. population is well-connected to the grizzly bear population across the international boundary in Alberta and British Columbia. Genetic analysis by Mickle et al. (2016) found evidence that reconnection and increasing genetic diversity is occurring at the eastern and southern periphery of the NCDE. Based on this information, we have a high degree of confidence that the NCDE grizzly bear population currently is self-sustaining and has sufficient distribution to be resilient and adaptable to likely future stressors (see section 3.7.5 of the final EIS, subsection "Grizzly bear," for more details).

Plan components include limits on new developed recreation sites, new grazing allotments, vegetation management guidelines, and mitigation for mineral development on some lands. The revised forest plan will maintain the baseline conditions for motorized road access across the Forest that contribute to the continued recovery of the grizzly bear but will not require additional closure of roads and trails currently open to public motorized vehicle use. This new direction largely maintains the on-the-ground conditions that have contributed towards the habitat conditions supporting an increasing grizzly bear population within the NCDE but does not continue the direction from amendment 19 of the 1986 forest plan (to increase habitat security to meet the 19 percent total motorized access density, 19 percent open motorized access density, and 68 percent security core in each bear management unit subunit). Although I acknowledge that this direction has been beneficial, the overall ecological conditions (both habitat and species populations) do not warrant additional programmatic access restrictions to improve grizzly bear habitat. There may be other site-specific resource concerns that warrant access restrictions throughout the life of this plan, but I don't anticipate significant new access restrictions above the anticipated 30-60 miles identified for multiple resource benefits as an objective in the revised forest plan.

The Forest consulted with the USFWS on the revised forest plan. After reviewing the current status of the grizzly bear, the environmental baseline for the action area (NFS lands on the Flathead National Forest), the effects of the action, and the cumulative effects, the USFWS concluded that the effects of the proposed Flathead National Forest revised forest plan are not likely to jeopardize the continued existence of the grizzly bear. No critical habitat has been designated for this species, and therefore none will be affected. Based on the best available scientific information reviewed in the consultation, the USFWS determined that adverse effects on individual grizzly bears as a result of the proposed action will not negatively impact the recovery of the NCDE grizzly bear population. Further, the USFWS stated their expectation that direction in the revised forest plan will result in conditions that support grizzly bear use of NFS lands in the NCDE. The proposed action may result in adverse effects on some individual grizzly bears using the action area now and into the future. However, considering the large size of the NCDE recovery zone, the favorable land management direction within the recovery zone/primary conservation area, and the robust status of the NCDE grizzly bear population, adverse effects on grizzly bears as a result of implementing the revised forest plan would not have negative effects on the status of the NCDE grizzly bear population. Therefore, the USFWS concluded that the proposed action is not reasonably expected to reduce appreciably the likelihood of both the survival and recovery of NCDE grizzly bears (USFWS, 2017a, pp. III-78-83).

The biological opinion considered the effects to grizzly bears from implementation of the revised forest plan direction as guided by the revised forest plan components (e.g., management area allocation, suitability, desired condition, standards, and guidelines). In the biological opinion, the USFWS documented how the proposed action reduces the potential for adverse effects and incidental take to occur as a result of Forest management. The amount or extent of incidental take resulting from access management and motorized over-snow vehicle use is discussed in the USFWS biological opinion. Reasonable and prudent measures are those measures necessary and appropriate to minimize incidental take resulting from proposed actions (USFWS, 2017a, pp. III-83-89).

Under the terms of section 7(b)(4) and section 7(o)(2) of the Endangered Species Act, taking related to the effects of motorized access route densities and over-snow motorized use on grizzly bears must be in compliance with the reasonable and prudent measure and the incidental take statement contained in the USFWS biological opinion. The following reasonable and prudent measure is nondiscretionary and must be implemented by the Flathead National Forest in order for the exemption in section 7(o)(2) of the Act to apply:

1. Minimize or reduce the potential for mortality and displacement of grizzly bears due to the proposed action.

The USFWS provided the Forest Service with incidental take for motorized access and motorized over-snow vehicle use during the den emergence time period. In order to be exempt from the prohibitions of section 9 of the Endangered Species Act, the Forest Service must comply with the following terms and conditions that implement the reasonable and prudent measure described above (USFWS, 2017a, p. 90). The following terms and conditions are nondiscretionary:

1. The Forest Service shall comply with standards FW-STD-IFS-01, FW-STD-IFS-02, FW-STD-IFS-03, FW-STD-IFS-04, and FW-STD-REC-05 in the Flathead revised forest plan.
2. The Forest Service shall comply with guidelines FW-GDL-IFS-01 and FW-GDL-IFS-02 in the Flathead revised forest plan. If projects will be unable to comply with the above guidelines, the Forest Service shall contact the USFWS immediately to determine further consultation needs.

3. Concurrent, temporary increases in open motorized route density or total motorized route density, or concurrent temporary decreases in secure core for new projects (as described in the glossary in appendix 3 of the biological opinion) on NFS lands shall not occur in more than three adjacent bear management subunits on the Flathead National Forest.

4. The Forest Service shall continue to implement food/attractant storage and handling programs in the action area. This includes ensuring that all Forest Service employees and contractors adhere to appropriate protocols and providing educational material to the public on measures to avoid conflicts and/or food conditioning of grizzly bears.

If the level of take exempted under the biological opinion for the revised forest plan would be exceeded, reinitiation of consultation or project-specific consultation would be required (as appropriate). To remain in compliance with the terms and conditions and to demonstrate that the Forest Service is adequately reducing the potential for and minimizing the effect of any incidental take of grizzly bears, the Forest Service shall adhere to the reporting requirements stipulated in the “Monitoring” components of the proposed action. Specifically, these components are presented as MON-NCDE-01 through MON-NCDE-08 in appendix 4 of the biological opinion and in appendix D of the biological assessment (Kuennen et al., 2017, pp. 318-319). The stipulated biennial monitoring reports shall be provided to the USFWS Ecological Services Office in Helena, Montana.

Additionally, if a human-caused grizzly bear mortality is discovered on NFS lands, the USFWS’s Grizzly Bear Recovery Office in Missoula, Montana, shall be notified within 24 hours. Reporting human-caused grizzly bear mortalities on NFS lands may be done by MFWP, but the Forest Service remains responsible for ensuring that the USFWS has received all appropriate information.

Sections 7(a)(1) of the Endangered Species Act directs federal agencies to use their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. During the course of this consultation, the USFWS noted several elements of the Flathead National Forest’s revised forest plan that will contribute to the conservation of endangered, threatened, proposed, and candidate species. The revised forest plan will provide habitat conditions on the Flathead National Forest that supported a stable to increasing population of grizzly bears in the NCDE. The revised forest plan will be beneficial to grizzly bears by requiring food/attractant storage order(s) on NFS lands, limiting motorized access, limiting new developed recreation sites, limiting new grazing allotments, and requiring a “no surface occupancy” stipulation for new oil and gas leases in the recovery zone/primary conservation area. These and other plan components for minerals, recreation, livestock grazing, lands, and vegetation management activities will ensure that grizzly bear habitat needs are provided for in future site-specific projects. Additional plan components for zone 1 will be beneficial to the NCDE grizzly bear population by supporting grizzly bear occupancy in areas beyond the original recovery zone/primary conservation area. The ongoing efforts by the Forest Service to cooperate with other Federal, State, local, and tribal agencies and private landowners in the NCDE also are important in supporting coordinated grizzly bear conservation efforts.

The biological opinion identifies the following conservation recommendations that, in addition to the proposed action and other ongoing conservation actions, will support the recovery of listed species. These conservation recommendations are discretionary agency activities meant to minimize or avoid adverse effects to listed species (USFWS, 2017a, pp. III-91-92). The conservation recommendations are:

1. Maintain and/or install grizzly bear informational signs at major access points that provide the public with the following information: potential grizzly bear presence; proper sanitation/food storage techniques; and distinguishing characteristics between grizzly bears and black bears.
2. Participate in ongoing interagency efforts to identify, map, and manage linkage areas that may be important in providing landscape connectivity within and between grizzly bear ecosystems across all land ownerships for grizzly bears.
3. Plan recreational development and recreational/operation uses in a manner that facilitates grizzly bear movement and maintains habitat effectiveness.
4. Plan and manage developments on NFS lands in a manner that allows for grizzly bear use of key habitats in the primary conservation area and zone 1.
5. In cooperation with other agencies, identify areas where grizzly bears concentrate during specific time periods to take advantage of concentrated and/or diverse food sources. Where grizzly bear use is known or likely to occur and where practicable, plan activities in a fashion that minimizes displacement of grizzly bears.

Canada lynx and their critical habitat

The selected alternative would carry forward the objectives, standards, guidelines, and monitoring in the Northern Rockies Lynx Management Direction (NRLMD) record of decision that were developed to conserve the Canada lynx, with two Forest-specific modifications: (1) modification of VEG S6 to add an exception category aimed at protecting mature rust-resistant whitebark pine trees and (2) modification of the areas identified as suitable for motorized over-snow vehicle use.

The decision applies to lynx habitat on NFS land presently occupied by Canada lynx, as defined by the amended Lynx Conservation Agreement between the Forest Service and the USFWS (USFWS, 2006). The Forest is listed as occupied lynx habitat. The population of Canada lynx on the Forest is unknown, but the lynx is known to be distributed throughout portions of the Flathead National Forest included in the study area delineated by Squires and others in 2013 (Squires et al., 2013). During 2010 to 2015, 15 individual adult or subadult lynx were captured and fitted with radiotelemetry collars on the Forest. Noninvasive sampling techniques have also been used to obtain DNA, resulting in additional lynx detections across the Forest (see section 3.7.5 in the final EIS, subsection “Canada lynx,” for more details). The amended Lynx Conservation Agreement explains that as new criteria for mapping lynx habitat become available, lynx habitat maps may be refined. Site-specific application of mapping criteria may also lead to changes in what is mapped as lynx habitat. As a result, the areas subject to the agreement may change.

With this decision, the Forest is updating its site-specific map of lynx habitat based upon the best available scientific information. The updated map of lynx habitat includes lands capable of providing the physical and biological features to support the conservation and recovery of Canada lynx, consistent with the amended Lynx Conservation Agreement (USFWS, 2006) and the Canada Lynx Conservation Assessment and Strategy (ILBT, 2013). The Forest has fully coordinated these updates with the USFWS and with the USDA Forest Service Northern Region and has published its lynx habitat map in planning documents available for public comment. The Forest Service is clarifying in this decision that NRLMD standards VEG S1, S2, S5, and S6 do not apply in portions of the Forest in the warm-dry potential vegetation type nor in the dry ponderosa pine/Douglas-fir portion of the warm-moist potential vegetation type because these vegetation types are not defined as lynx habitat.

The Forest consulted with the USFWS on the revised forest plan. After reviewing the current status of the Canada lynx, the environmental baseline for the action area (NFS lands on the Flathead National Forest), the effects of the action, and the cumulative effects, the USFWS concluded that the effects of the proposed Flathead National Forest revised forest plan are *not likely to jeopardize* the continued existence of the Canada lynx. Their conclusion is based on the literature and information referenced in the biological opinion (USFWS, 2017a), meetings and discussions with the Forest, discussions with Canada lynx experts, the information in the biological assessment (Kuennen et al., 2017), and information in USFWS files. The USFWS determined that although adverse effects are likely to some individual lynx, the proposed action is expected to support and sustain lynx populations within the Flathead National Forest. Therefore, the USFWS concluded that the proposed action is not reasonably expected to reduce appreciably the likelihood of both the survival and recovery of lynx populations in the wild (USFWS, 2017a, pp. IV-80-83).

After reviewing the current status of designated lynx critical habitat, the environmental baseline for the action area, the effects of the action, and the cumulative effects, the USFWS concluded that the effects of the proposed Flathead National Forest revised forest plan are *not likely* to result in the destruction or adverse modification of designated Canada lynx critical habitat. The USFWS (2017a) determined that the revised forest plan will not preclude continued adequate amounts of snowshoe hare habitat needed to sustain lynx in the lynx analysis units within the action area, and thus critical habitat in the lynx analysis units would remain functional. When added to the status of the critical habitat units, the effects of the revised forest plan are such that lynx Critical Habitat Unit 3 will continue to serve its intended conservation role for lynx, and the physical or biological features, including the primary constituent element components essential to the conservation of lynx, will not be altered to a point that precludes or significantly delays development of these features. The USFWS concluded that the adverse effects of the revised forest plan on primary constituent element 1a are limited in severity and in scale to the extent that critical habitat would continue to produce adequate densities of snowshoe hares and adequate levels of cover to support persistent lynx populations across critical habitat unit 3. The critical habitat units would retain their current ability for the primary constituent element to be functionally established. Thus, the USFWS concluded that although the Flathead National Forest revised forest plan may result in some level of adverse effects to lynx critical habitat, the level of adverse effects are not reasonably expected to alter the physical and biological features to an extent that appreciably reduces the conservation value of critical habitat for the lynx distinct population segment (USFWS, 2017a, p. IV-84). Therefore, the proposed action is not likely to result in the destruction or adverse modification of designated Canada lynx critical habitat.

The biological opinion considered the effects to Canada lynx and their critical habitat from implementation of the revised forest plan as guided by the proposed plan elements (goals, objectives, desired condition, standards, and guidelines). The revised forest plan includes specific elements for the conservation of lynx and lynx habitat but does not authorize specific actions. The revised forest plan (as proposed) contains sufficient specificity through its suite of elements to permit an adequate analysis of the effects of projects and activities on lynx. As a result, the USFWS was able to make a determination that the extent of adverse effects on lynx as a result of the revised forest plan does not rise to levels that are likely to jeopardize lynx. However, this biological opinion does not provide a detailed analysis for effects of specific projects. This consultation represents the first tier of a tiered consultation framework, with each subsequent project that may affect lynx or lynx critical habitat as implemented under the revised forest plan being the second tier of consultation. These second-tier consultations would reference back to this biological opinion to ensure that the effects of specific projects under consultation are commensurate with the effects anticipated in this biological opinion. With each subsequent second-tier consultation, the cumulative total of acres treated under the exemptions and/or exceptions to the vegetation standards would be tracked (USFWS, 2017a, p. IV-88).

In the biological assessment (Kuennen et al., 2017), the Forest provided estimates of the number of acres that could be treated through (a) fuels treatment projects within the wildland-urban interface conducted under the exemptions from vegetation standards VEG S1, S2, S5, and S6 and (b) precommercial thinning and non-commercial felling projects for “resource benefit” allowed under exceptions to VEG S5 and S6 (detailed in the biological opinion). The Forest has proposed carrying forward existing direction of the NRLMD, using the 2007 projections for acres of wildland-urban interface to be treated for fuel reduction under exemptions. Further, the Forest is proposing one Forest-specific modification and additional acres for precommercial thinning and noncommercial felling for other resource benefits under the vegetation standard exceptions (see revised forest plan appendix A). The USFWS anticipates that take associated with implementation of the proposed action would occur through vegetation management when projects are conducted in lynx habitat under the exemptions and exceptions to the revised forest plan vegetation standards VEG S1, S2, S5, and S6, as described and analyzed in the biological opinion. Projects conducted under the exceptions and exemptions may reduce the quality of habitat that produces snowshoe hares. The USFWS determined that many, but likely not all, of the projects conducted under the exemptions or exceptions could significantly reduce the capacity of affected snowshoe hare habitat to produce hares and so could result in take (USFWS, 2017a, pp. IV-87-91). The USFWS biological opinion anticipated the amounts of take (beginning on the date of the signed record of decision for this proposed action to 15 years later or during the life of the revised forest plan, whichever comes first): (1) up to 93,723 acres in the wildland-urban interface on the Forest (the remainder of 103,800 acres consulted on in 2007 minus treatment of 10,077 acres the Forest consulted on under wildland-urban interface exemptions since 2007) and (2) up to 15,460 acres on the Forest treated under the exceptions to VEG S5 and S6 for other resource benefits.

Section 9 of the Endangered Species Act and Federal regulations pursuant to section 4(d) of the Act, respectively, prohibit the take of endangered and threatened species without special exemption. Under the terms of section 7(b)(4) and section 7(o)(2) of the Act, taking must be in compliance with the reasonable and prudent measure and the incidental take statement contained in the USFWS biological opinion. Reasonable and prudent measures are those measures necessary and appropriate to minimize incidental take resulting from proposed actions. The USFWS believes that the following reasonable and prudent measures are necessary and appropriate to minimize impacts of incidental take of lynx:

RPM #1: The Forest shall minimize harm of lynx from fuels management by ensuring that the acres impacted are not concentrated in several adjacent lynx analysis units.

RPM #2: The Forest shall minimize harm of lynx from precommercial thinning and other vegetation management projects by ensuring that female lynx home ranges, as represented by lynx analysis units, either retain sufficient foraging habitat (when sufficient foraging habitat already exists in a lynx analysis unit) or do not substantially reduce foraging habitat (when sufficient foraging habitat does not already exist in a lynx analysis unit).

RPM #3: The Forest shall monitor and report the progress of the action and the impact on the species.

To be exempt from the prohibitions of section 9 of the Endangered Species Act, the Forest must comply with the following terms and conditions, which implement the reasonable and prudent measures described above, and outline required reporting and monitoring requirements. These terms and conditions are nondiscretionary (USFWS, 2017a, pp. IV-89-93).

The following terms and conditions implement reasonable and prudent measure #1:

The Forest Service shall ensure that new or future projects conducted under the exemptions from standards VEG S1, S2, S5, and S6 on the Flathead National Forest:

1. Do not occur in greater than 93,723 acres in the wildland-urban interface.
2. Do not result in more than three adjacent lynx analysis units that do not meet the standard VEG S1 of no more than 30 percent of a lynx analysis unit that is not yet snowshoe hare habitat.
3. Projects allowed per the exemptions or exceptions to VEG S5 and S6 shall not occur in any lynx analysis unit exceeding VEG S1, except for protection of structures.

The following term and conditions implement reasonable and prudent measure #2:

The Forest Service shall ensure that vegetation management projects conducted under exceptions to VEG S5 and S6 on the Flathead National Forest adhere to the following:

4. Timber management projects (as defined in appendix 5 of the biological opinion) shall not regenerate more than 15 percent of lynx habitat on Forest lands within a lynx analysis unit in a 10-year period.
5. Do not occur in greater than 15,460 acres.

The following term and conditions implement reasonable and prudent measure #3:

6. In support of the monitoring and reporting requirements of the NRLMD, the Flathead National Forest shall provide to the USFWS and the USDA Forest Service Northern Region (Region 1) Office in Missoula summaries of the reporting requirements listed below. The summaries shall be submitted to the USFWS Montana Ecological Services Office in Helena, Montana, by April 1 of each year or other date through mutual agreement. The summaries shall document the following information related to fuel treatment and vegetation management projects occurring in lynx habitat:
 - a. Individual fuels treatment and vegetation management projects conducted in lynx habitat under the exemptions and exceptions to the vegetation standards VEG S1, S2, S5, and S6 may reduce the quality or quantity of snowshoe hare habitat. Some projects are likely to result in detectable and measurable effects to lynx (the USFWS biological opinion's analysis found that this may rise to the level of take), while other projects will not result in a detectable, measurable effect to lynx (i.e., may affect, but not likely to adversely affect). The acreages of all projects will be tracked and aggregated to ensure that over the life of the revised forest plan, the number of acres impacted does not exceed the acres projected to be treated and the effects analyzed in the biological opinion. This approach to tracking and monitoring ensures that the proposed action is implemented as proposed and is consistent with the USFWS analysis. In addition, given the long time span of the proposed action, this process provides information that can help determine whether consultation reinitiation ever becomes necessary.

If the level of take exempted under the biological opinion for the revised forest plan would be exceeded, reinitiation of consultation or project-specific consultation would be required (as appropriate).

Sections 7(a)(1) of the Endangered Species Act directs Federal agencies to use their authorities to further the purposes of the act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or

avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. The recommendations provided here relate only to the proposed action and do not necessarily represent complete fulfillment of the agency's section 7(a)(1) responsibilities. The biological opinion identifies the following conservation recommendations that, in addition to the proposed action and other ongoing conservation actions, will support the recovery of listed species. The conservation recommendations are:

1. In areas of intermingled land ownership, work with landowners to pursue conservation easements, habitat conservation plans, land exchanges, or other solutions to reduce the potential of adverse impacts on lynx and lynx habitat.
2. When highway or forest highway construction or reconstruction is proposed in linkage areas, identify potential highway crossings.
3. Participate in interagency efforts to understand the effects of climate change, wildlife, and post-fire treatments in lynx habitat.
4. The USFWS commends the Forest Service for initiating and implementing important efforts to increase our understanding of lynx and lynx habitat through completion of the Science Report, lynx habitat mapping, and linkage zone identification and for assuming leadership roles on both the Lynx Biology Team and the Lynx Steering Committee. The USFWS recommends that the Forest Service continue to be a leader in these arenas, in coordination/cooperation with other Federal, State, or private entities.

Bull trout and bull trout critical habitat

The USFWS biological opinion (USFWS, 2017a) concluded that the effects of implementing the revised forest plan is *not likely to jeopardize* the continued existence of the bull trout and is *not likely to destroy or adversely modify* its critical habitat.

After reviewing the current status of bull trout, the environmental baseline (including effects of Federal actions covered by previous consultations) for the action area, effects of the action, and cumulative effects, the USFWS concluded that the Flathead National Forest's revised forest plan, as proposed, is not likely to jeopardize the continued existence of the bull trout. This conclusion is based on the magnitude of the project effects to reproduction, distribution, and abundance in relation to the listed population.

Minimization of the effects of land management activities on bull trout and their habitats is controlled through the management direction provided for in the revised forest plan. Baseline conditions are expected to improve where active watershed restoration is implemented in combination with conservation of those watersheds currently in proper functioning condition. Adverse effects are expected to occur in all four core areas as a result of forest management activities that would be reasonably expected to be implemented over the life of the revised forest plan. Effects to bull trout and their habitat would primarily be attributable to short-term sediment generation through management activities authorized by the plan. The level of effects is not expected to result in discernible negative impacts to core area populations. As a result, the USFWS concluded that implementation of the proposed action is not likely to appreciably reduce the reproduction, numbers, or distribution of bull trout at the scale of any of the affected core areas and, by extension, in the Flathead Lake Geographic Region and the Columbia Headwaters Recovery Unit. Therefore, the USFWS concluded that implementation of the revised forest plan will not appreciably reduce either the survival and recovery and would not jeopardize bull trout at the rangewide scale of the listed entity, the coterminous population of the United States (USFWS, 2017a, pp. II-68-69).

After reviewing the current status of the four critical habitat subunits in the action area (Flathead Lake North Fork Flathead River, Flathead Lake Middle Fork Flathead River, Flathead Lake South Fork Flathead River, and Swan River and Lakes) and their relationships to the bull trout core area, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, the USFWS concludes that although these effects will temporarily lower the function of spawning and rearing habitat in the action area due to some level of unavoidable sediment loading, these effects are unlikely to significantly change the functional capacity of the critical habitat subunits described above. On that basis, it is the USFWS's biological opinion that implementation of the Flathead National Forest's revised forest plan, as proposed, is not likely to destroy or adversely modify bull trout critical habitat (USFWS, 2017a, p. II-70).

The biological opinion identifies management direction that allows for future activities that may adversely affect bull trout and designated bull trout critical habitat, including vegetation management; road construction, use, and maintenance; unplanned and prescribed fires; grazing; recreation; and mining. The proposed action reduces the potential for incidental take to occur as a result of these actions. The mere potential for future take from these actions is not a legitimate basis for providing an exemption for take. Subsequent consultation, as appropriate, on the specific actions developed pursuant to the revised forest plan will serve as the basis for determining if an exemption from the section 9 take prohibitions is warranted. If so, the USFWS will provide reasonable and prudent measures and terms and conditions, as appropriate, to minimize the impacts of the take on bull trout in accordance with 50 CFR 402.14(i).

In order to monitor the impacts of incidental take, the Forest Service must report the progress of the action and its impact on the species to the USFWS as specified in the incidental take statement (50 CFR 402.14 (i)(3)). The biological opinion does not contain an explicit incidental take statement. However, the Forest, in this revised forest plan, proposes a culvert monitoring plan that affects some former projects. As stated in the biological opinion (USFWS, 2017a, pp. 71-72), the USFWS hereby revises the reporting requirements on those and future affected projects in the following manner.

The USFWS agrees that the Culvert Monitoring Plan Version 1.0 will replace the culvert monitoring requirements contained in the terms and conditions issued in the following past biological opinions:

- Amendment 19 Revised Implementation (November 2010)
- Robert Wedge Post-Fire Project (November 2004)
- West Side Reservoir Post-Fire Project (November 2002)
- Moose Post-Fire Project (November 2002)
- Spotted Beetle Project (March 2002)

The specific term and condition in each biological opinion is presented in the Culvert Monitoring Plan (see Kuennen et al., 2017, table 1 in appendix D). From this date forward, the USFWS will consider the terms and conditions presented in table 1 of the culvert monitoring plan as being amended such that adherence to the Culvert Monitoring Plan Version 1.0 (and any subsequent version agreed to by the USFWS) will function in lieu of existing culvert monitoring requirements. The USFWS stated their belief that a more comprehensive, forestwide culvert monitoring and remediation effort will benefit native fish and wildlife species. The USFWS approval of the Culvert Monitoring Plan and amendment of existing terms and conditions is based on the following:

- Current monitoring requirements are spread throughout the Forest in a handful of bull trout watersheds. The Culvert Monitoring Plan will monitor culvert conditions in *all* bull trout watersheds across the Forest.
- The Culvert Monitoring Plan includes remedial actions that shall be taken by the Forest if a failing culvert is found. Remedial actions will be developed in coordination with the USFWS.
- The Culvert Monitoring Plan includes an adaptive management strategy. This strategy will optimize the monitoring effort by allowing changes to be made based on past years' data, changes in watershed conditions, or major climatic events (e.g., floods, fire). The adaptive management process will be carried out in coordination with the USFWS.
- Annual reporting requirements are included in the Culvert Monitoring Plan. These requirements include an annual meeting between the USFWS and the Forest, which will ensure an annual assessment of the effectiveness of implementation.
- As part of the adaptive management strategy, the Culvert Monitoring Plan indicates that if at any time implementation cannot be effectively achieved, the Forest will revert back to the original term and condition monitoring requirements (as presented in Kuennen et al., 2017, table 1 of appendix D).

Additionally, section 7(a)(1) of the Endangered Species Act directs Federal agencies to use their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat to help implement recovery plans or to develop information.

During the course of consultation on the revised forest plan, the USFWS noted several elements that will contribute to the conservation of endangered, threatened, proposed, and candidate species. These elements are:

- The revised forest plan will implement the Aquatic Riparian Conservation Strategy. The goal of the Aquatic Riparian Conservation Strategy is to maintain or restore watershed conditions.
- Implementation of the revised forest plan will also include the establishment of a conservation watershed network. This process seeks watersheds identified as native fish strongholds with appropriately functioning aquatic habitats. Conservation watershed network watersheds are 10th to 12th code hydrological unit codes intended to protect stronghold populations of native salmonids and complement restoration efforts. Through revised forest plan direction, conservation watershed network watersheds will maintain high-quality habitat and functionally intact ecosystems that are contributing to and enhancing the conservation and recovery of bull trout.
- The ongoing efforts by the Forest Service to cooperate with other Federal, State, local, and tribal agencies and private landowners in the action area are important in supporting coordinated bull trout conservation efforts.

The biological opinion on the revised forest plan identifies the following conservation recommendations that, in addition to the proposed action and other ongoing conservation actions, will support the recovery of listed species (USFWS, 2017a, pp. II-72-74). These conservation recommendations are discretionary agency activities meant to minimize or avoid adverse effects to listed species. The conservation recommendations are:

1. Section 2672.2 of the Forest Service Manual states: “The Forest Service must manage habitats at levels that accomplish the recovery of federally listed species so that protective measures under the [Endangered Species] Act are no longer necessary.” The Bull Trout Conservation Strategy (USDA-USFWS, 2013) was intended, in part, to “help direct resources to the most important opportunities, where FS management has the potential to increase habitat quality and connectivity.” The Bull Trout Conservation Strategy should be considered for management opportunities to improve habitat conditions that are conducive to the recovery of bull trout.
2. When planning future projects at the watershed scale, consider actions designed to improve the functional condition of habitat baseline conditions (e.g., FUR to FAR) for bull trout.
3. Work cooperatively with other State and Federal agencies to address the potential impacts of non-native fish species (e.g., lake trout) in the Swan Lake and Flathead Lake core areas. Consider actions that include the suppression and removal of non-native fish species.
4. Consider implementation of recovery actions identified in the USFWS Bull Trout Recovery Plan (USFWS, 2015b) and the associated Columbia River Headwaters Recovery Unit Implementation Plan (USFWS, 2015a).

To summarize the biological opinion, the USFWS concluded that the Flathead National Forest’s revised forest plan demonstrates a commitment to conservation of threatened and endangered species and will continue to contribute to the recovery of these species. Upon review of revised forest plan components that will be carried forward and of the components that are being proposed, the USFWS concluded that the features of the revised forest plan can be considered elements of a program for the conservation of endangered species and threatened species, as described in section 7(a)(1) of the Endangered Species Act. Further, the USFWS concluded that this proposed action demonstrates the Forest Service’s commitment to the conservation of threatened and endangered species on NFS lands.

In conclusion, as the responsible official, I conclude that the revised forest plan includes broad management direction including desired conditions, standards, guidelines, suitability, and objectives that will aid recovery of federally listed species, meeting our responsibilities under the Endangered Species Act section 7(a)(1). The forest plan components comply with the requirements of the Act and for each federally listed species and their designated critical habitat. For these reasons, I find this decision to be in compliance with the requirements of the Endangered Species Act.

Environmental justice

Minority and low-income populations (also known as environmental justice populations) are present in the communities surrounding the Forest. Under all the alternatives, the Forest and management activities would contribute to social and economic sustainability by providing key benefits to environmental justice communities, improving quality of life, and providing opportunities for income and jobs. The Forest would continue to provide for traditional, cultural, and spiritual values that are of particular interest to Native American tribes. No populations in the plan area would experience significant adverse human health impacts or environmental effects due to management actions proposed under any of the alternatives.

Federal Land Policy and Management Act

This act allows the granting of easements across NFS lands. The forest plan is strategic and programmatic in nature, providing guidance and direction to future site-specific projects and activities. The forest plan does not create, authorize, or execute any site-specific activity, although it does provide for the consideration of granting easements and rights-of-way. Forestwide desired conditions include strategic

easements to provide reasonable public and administrative access. Therefore, the revised forest plan is consistent with this act.

Invasive species

Executive Order 13751 (amends Executive Order 13112) directs Federal agencies to prevent the introduction of invasive species; to detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner; to monitor invasive species populations accurately and reliably; to provide for restoration of native species and habitat conditions in ecosystems that have been invaded; to conduct research on invasive species and develop technologies to prevent introduction; to provide for environmentally sound control of invasive species; and to promote public education on invasive species and the means to address them. All of these actions are subject to the availability of appropriations. Forest Service Manual 2900, Invasive Species Management, sets forth Forest Service policy, responsibilities, and direction for the prevention, detection, control, and restoration of effects from aquatic and terrestrial invasive species (including vertebrates, invertebrates, plants, and pathogens).

The revised forest plan is strategic and programmatic in nature, providing guidance and direction to future site-specific projects and activities. The revised forest plan does not create, authorize, or execute any ground-disturbing activity, although it does provide for the consideration of certain types of activities that may have the potential to affect the dispersal of invasive species. The revised forest plan includes forestwide desired conditions, objectives, and guidelines that stress the need to treat new invaders and utilize best management practices that limit the introduction and spread of invasive species due to management activities. In addition, other direction serves to protect watershed, soil, riparian, and aquatic conditions in ways that will reduce management-caused disturbances that otherwise might increase weed spread or introduction. In addition, the monitoring program includes indicators associated with invasive plant species and the effectiveness of treatments. Therefore, the revised forest plan is fully compliant with Executive Order 13112.

Migratory Bird Treaty Act and Executive Order 13186

Executive Order 13186 (January 10, 2001), Responsibilities of Federal Agencies to Protect Migratory Birds, was issued by President Bill Clinton in furtherance of the purposes of the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Acts, the Fish and Wildlife Coordination Act, the Endangered Species Act, and NEPA. This order requires including the effects of Federal actions on migratory birds as part of the environmental analysis process. On December 8, 2008, the Forest Service signed a memorandum of understanding with the USFWS to complement the executive order (USDA-USFWS, 2008), and the Forest Service agreed to (a) incorporate migratory bird habitat and population objectives and recommendations into the agency planning process, in cooperation with other governments, State and Federal agencies, and non-Federal partners, and (b) strive to protect, restore, enhance, and manage the habitat of migratory birds and prevent the further loss or degradation of remaining habitats on NFS lands.

The Forest observes conservation strategies within the Partners in Flight Bird Conservation Plan (Casey, 2000). The use of this plan supports the goal of maintaining long-term sustainability of migratory bird species and their habitats as specified by this act and executive order. The revised forest plan includes forestwide direction related to key stressors for migratory birds and their habitats, including direction to maintain or improve forest resilience, composition, and structure. Future site-specific activities or projects with the potential to impact migratory bird habitat will be analyzed with site-specific NEPA processes and will comply with revised forest plan direction. Therefore, the revised forest plan is fully compliant with the Migratory Bird Treaty Act and Executive Order 13186.

Multiple-Use Sustained-Yield Act

Consistent with the Multiple-Use Sustained-Yield Act of 1960 (16 U.S.C. 528-531), the Forest Service manages NFS lands to sustain the multiple use of its renewable resources in perpetuity while maintaining the long-term health and productivity of the land. Resources are managed through a combination of approaches and concepts for the benefit of human communities and natural resources. As demonstrated in the final EIS and as required by the act, the revised forest plan guides sustainable, integrated management of the resources of the Forest in the context of the broader landscape, giving due consideration to the relative values of the various resources in particular areas. Therefore, the revised forest plan is fully compliant with this act.

National Environmental Policy Act

NEPA requires that Federal agencies prepare detailed statements on proposed actions that may significantly affect the quality of the human environment. NEPA's requirement is designed to serve two major functions:

- to provide decisionmakers with a detailed accounting of the likely environmental effects of proposed actions prior to adoption
- to inform the public of, and allow comment on, such efforts

The Forest Service has developed, gathered, and reviewed an enormous amount of information regarding the potential effects of each of the alternatives considered in the final EIS. This information expands and refines the data, analyses, and public input described in the NEPA documents associated with the draft plan and draft EIS (May 2016). My decision also considers the large amount of public input, including public meetings, comments on the Internet website, and comments received during the 120-day comment period for the draft EIS.

All substantive comments, written and oral, made on the 2016 draft EIS have been summarized and responded to in appendix 8 of the final EIS. During the course of this effort, the public involvement has led to changes in the analysis and the alternatives. I find that the environmental analysis and public involvement process the final EIS is based on complies with each of the major elements of the requirements set forth by the Council on Environmental Quality regulations for implementing NEPA (40 CFR 1500-1508). My conclusion is supported by the following findings.

First, the final EIS considered a broad range of reasonable alternatives. The four alternatives considered in detail in the final EIS encompass a broad range of possible management allocations based upon issues identified through public involvement and scoping efforts.

Second, the final EIS reflects consideration of cumulative effects of the alternatives by evaluating past, present, and reasonably foreseeable future actions in the plan area, including Federal, State, tribal, and private lands. The environmental effects analysis estimates the potential effects of timber activities and timber-associated activities. The analysis of effects to wildlife was based on the assumption that these activities would take place with management constraints to ensure habitat availability at certain thresholds. Moreover, although non-Federal lands are outside the scope of this decision, effects from their management have been thoroughly considered and coordinated, to the extent practicable, in the final EIS.

Third, the final EIS makes use of the best available scientific information that is relevant to the decision being made, as discussed in detail in the section of this draft record of decision on that topic. The decision here does not authorize timber sales or any other specific activity on the Forest. Site-specific decisions will be made on projects in compliance with NEPA, the Endangered Species Act, and other environmental laws following applicable public involvement and appeal procedures.

National Forest Management Act

On April 9, 2012, the U.S. Department of Agriculture issued a final planning rule at 36 CFR 219 for NFS land management planning (2012 planning rule), 77 FR 68 (pp. 21160-21276). The sections titled “Rationale for the decision” and “Components of the decision” document how the forest plan meets the 36 CFR 219 requirements.

National Historic Preservation Act

Section 106 of the National Historic Preservation Act requires each Federal agency to take into account the effects of its actions on historic properties prior to approving the expenditure of Federal funds on an undertaking or prior to issuing any license.

I find this decision is fully compliant with this act. The revised forest plan is a programmatic-level planning effort that will not directly authorize any ground-disturbing activities or projects. The revised forest plan includes desired conditions, objectives, guidelines, management strategies, and monitoring requirements for managing and protecting cultural resources listed in or eligible for the National Register of Historic Places.

Site-specific projects that are undertaken as a result of the direction in the revised forest plan will fully comply with laws and regulations that ensure the protection of heritage resources. Significant cultural resources will be identified, protected, and monitored in compliance with the National Historic Preservation Act. Tribal consultation will occur, and proposed activities will be coordinated with the Montana State Historic Preservation Office.

Roadless Area Conservation Rule

Management direction for inventoried roadless areas is compliant with the 2001 Roadless Area Conservation Rule (36 CFR 294 Subpart B, published at 66 FR 3244-3273). The 2001 Roadless Conservation Rule includes a prohibition on road construction and road reconstruction in inventoried roadless areas and prohibitions on timber cutting, sale, or removal except in certain circumstances. The revised forest plan is a programmatic-level planning effort and does not directly authorize any road construction, reconstruction, or timber removal. Therefore, the revised forest plan is fully compliant with these rules.

Use of off-road vehicles (Executive Order 11644 as amended by Executive Order 11989)

This executive order addresses the use of off-road vehicles on public lands. It requires the Forest Service and other Federal land management agencies to “establish polices and provide for procedures that will ensure that the use of off-road vehicles on public lands will be controlled and directed so as to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among the various uses of those lands” (section 1). The executive order directs agencies to designate the “specific areas and trails on public lands on which the use of off-road vehicles may be permitted, and areas in which the use of off-road vehicles may not be permitted” (section 3).

The minimization criteria are identified in the final rule for Travel Management; Designated Routes and Areas for Motor Vehicle Use (commonly referred to as the 2005 Travel Management Rule), which implements provisions of Executive Orders 11644 and 11989 regarding off-road use of motor vehicles on Federal lands. Regulations implementing this rule are found at 36 CFR Part 212. The portion of the rule pertaining to motor vehicle use is subpart B; the portion of the rule pertaining to motorized over-snow

vehicle use is subpart C, which was updated in January 2015. The executive order's "minimization criteria" specify:

In designating National Forest System trails and areas on National Forest System lands, the responsible official shall consider effects on the following with the objective of minimizing:

1. Damage to soil, watershed, vegetation, and other forest resources;
2. Harassment of wildlife and significant disruption of wildlife habitats;
3. Conflicts between motor vehicle use and existing or proposed recreation uses of National
4. Forest System lands or neighboring Federal lands; and
5. Conflicts among different classes of motor vehicle uses of National Forest System lands or neighboring Federal lands.

In addition, the responsible official shall consider:

6. Compatibility of motor vehicle use with existing conditions in populated areas, taking into account sound, emissions, and other factors. (36 CFR 212.55(b), Specific criteria for designation of trails and areas)

The Forest designated specific roads, areas, and trails for the use of motor vehicles (which includes off-road vehicles) that are displayed on the motorized vehicle use maps as required by 36 CFR 212 subpart B. The Forest also has completed subpart C through amendment 24 to the 1986 forest plan, and that is displayed in the Forest's Over-Snow Vehicle Use Map as required by 36 CFR 212 subpart C.

Generally, the Forest does not designate single-use trails or areas. It is the responsibility of users to know what is allowed on the trail or area they are using. The Forest provides a motorized vehicle use map for wheeled motor vehicles and an over-snow vehicle use map at no charge to the public. Because off-road vehicle use is limited to 226 miles of trail and motorized over-snow motor vehicle use is suitable on 31 percent of the Forest, the Forest has not had significant concerns with safety or sound or with emissions-related issues between off-road vehicle user groups and other user groups at this time.

Conflict between wheeled motorized and nonmotorized uses may sometimes occur. But since only 10 percent of the Forest's trails (226 miles motorized out of 2,222 miles of NFS trails) are open to wheeled motorized use (which also allows nonmotorized use), there is a low amount of trails on the Forest where both types of uses can legally occur. In addition, not only are there many trails for nonmotorized users to legally use (compared to the trails that motorized users can legally use), but the wheeled motorized trails are marked as such on the district motorized vehicle use map and usually by a sign on the trail or trailhead, offering the nonmotorized users the choice of whether to share that trail with wheeled motorized users. In the winter, about 31 percent of the Forest is suitable for motorized over-snow vehicle use, leaving 69 percent of the Forest available for nonmotorized opportunities.

I am mindful that forest plans are permissive by nature. Although certain uses may be permissible under the plan, the plan itself does not require those uses to occur. Nevertheless, the revised forest plan provides a framework for what is "feasible, prudent, and reasonable" because I applied the 2005 Travel Management Rules' "minimization criteria" to this decision and, to the extent that current resource conditions allow, I strived towards achieving the overall assortment of multiple uses envisioned by the plan.

My suitability determination of new areas for motorized over-snow vehicle suitability requires me to consider, with the objective of minimizing, the effects of that identified suitability on the resources and uses listed in 36 CFR 212.55(b). “Minimization,” as used in the regulations and the underlying executive order, is not defined. The Ninth Circuit Court of Appeals “assumes that the 2005 Travel Management Rule requires the Forest Service to comply with the minimization criteria in a manner that is feasible, prudent, and reasonable in light of the agency’s multiple-use mandate” and does not impose an “absolute, discernible limit” on off-road motorized use (WildEarth Guardians v. USFS, 790 F.3d 920, 930 footnote 10 (9th Cir. 2015)). To that end, the following discussion provides what I believe is important context for understanding what minimization means, here and now, on the Forest. It is also important to an understanding of why I believe my decision represents the feasible, prudent, and reasonable application of these criteria.

Our task when we started the forest plan revision effort was not to start from scratch. Instead, it was to adjust the existing and already amended plan where new information, including extensive public involvement, indicated it is feasible, reasonable, and prudent to do so. This is the approach in section 8 of Executive Order 11644, and this has been the approach taken by the Forest over the years. Section 8 of the executive order sets out requirements for monitoring use and adjusting designations over time. The agency “shall monitor the effects of the use of off-road vehicles on lands under their jurisdictions. On the basis of the information gathered, they shall from time to time amend or rescind designations of areas or other actions taken pursuant to this order as necessary to further the policy of this order.” The Forest has been monitoring the effects of off-road vehicle use when necessary to further the policy of this order or to otherwise further the purposes for which the National Forest was established and has amended motor vehicle designations, including but not limited to project-level decisions associated with implementing amendment 19 to the 1986 Flathead National Forest plan as well as with the designations for motorized over-snow recreation that were decided upon with amendment 24 to the 1986 Flathead National Forest plan. The Forest monitors the effects of off-road vehicle use, including motorized over-snow vehicle suitability use, and, when necessary to further the policy of the regulation or to otherwise further the purposes for which the Forest was established, will undertake closure orders or amend or rescind off-road vehicle use, including motorized over-snow vehicle suitability use designations.

Although the Forest has managed motorized over-snow vehicle use under the 1986 forest plan, as amended, the need to consider forestwide adjustments to the existing plan was in response to public issues, policies, regulations, and management needs, notably the Northern Rockies Lynx Management Direction. It is important to note that the final EIS does not identify areas where motorized over-snow vehicle suitability use is expected to have irreversible or irretrievable environmental effects. The winter motorized suitability, management area allocations, and desired recreational opportunity spectrum allocations that were analyzed in the final EIS were designed to address a public desire for both motorized and nonmotorized recreation opportunities while integrating other resource concerns such as lynx habitat. Changes to areas potentially available for summer motorized off-road recreation opportunities are limited due to the motorized access management requirements for grizzly bears, especially in the primary conservation area.

The management area plan components include a suitability statement for wheeled motorized travel. However, it is important to note that this decision is programmatic in nature. The revised forest plan sets desired conditions, objectives, standards, guidelines, and suitability to frame and guide future forest management decisions. The management area allocations and direction, as well as the recreation opportunity spectrum allocations, are my primary programmatic tool at the Forest scale to minimize conflicts by identifying broad areas where motorized or nonmotorized use may or may not generally be suitable.

This decision makes limited adjustments to the areas available for motorized over-snow vehicle use. These adjustments consider the public input requesting additional routes for motorized over-snow vehicle use in the Canyon Creek-Big Creek and Skyland Challenge areas. To meet objective HU O2 in appendix A of the forest plan (to manage recreational activities to maintain lynx habitat), motorized over-snow vehicle suitability was reduced in some areas but increased in others. Areas suitable for motorized over-snow vehicle use were added in the Canyon Creek-Big Creek area and the Skyland Challenge area in response to public input. These areas are close to existing areas that are very popular with users and are highly accessible. The Sullivan area was determined to be not as accessible and more difficult terrain to ride, but provides quality habitat for the Canada lynx. In addition, with the allocation of the additional acreage in the Slippery Bill-Puzzle recommended wilderness area, 344 acres currently suitable for motorized over-snow vehicle use will not allow motorized over-snow vehicle use after site-specific analysis is completed. This also addressed potential conflicts with access into the Badger-Two Medicine nonmotorized area. The overall change in suitability of motorized over-snow vehicle areas is an increase of 567 acres (0.08 percent).

I also have carefully considered the requirements to avoid or minimize environmental harm in selecting alternative B modified. This alternative reflects the best overall arrangement of multiple uses while minimizing adverse environmental effects. For example, some commenters requested additional motorized over-snow vehicle opportunities be provided, whereas others requested motorized over-snow vehicle opportunities be more restricted, especially in key wildlife habitats or for a nonmotorized experience. The selected alternative includes additional quality motorized over-snow vehicle use suitability areas while allocating other areas as not suitable for motorized over-snow vehicle use that are important wildlife habitat areas or nonmotorized use areas.

To further address the minimization criteria in executive orders 11644 and 11989, I considered the entire Forest and the overall effects of off-road vehicles. The Forest is about 45 percent designated wilderness, with an additional 8 percent in recommended wilderness allocation and 6 percent in backcountry nonmotorized where off-road vehicles are prohibited. In addition, the Forest has 226 miles (10 percent of all NFS trails on the Forest) of wheeled motorized trails that allow off-road vehicles to travel off roads. Motorized over-snow vehicle use is suitable on about 31 percent of the Forest and not suitable on 69 percent of the Forest. The actual use of the 31 percent of the Forest suitable for motorized over-snow use is less than this, however, because terrain and vegetation also influence where motorized over-snow vehicles can physically go. In addition to the areas where cross-country use of motorized over-snow vehicles is suitable, there are 295 miles of over-snow routes that are open December 1 to March 31, 623 miles of routes open April 1 to November 30, and 1,046 miles of routes open year-long, conditions permitting. Forestwide, the overall effects of off-road vehicles are therefore very limited on resources such as wildlife and soil, off-road vehicles have limited effects on user safety, and user conflicts are minimized to the extent practicable.

In summary, I believe the plan components in alternative B modified and the minor changes expected overall to the areas available for off-road recreation opportunities would reduce possible disturbance or harassment to wildlife and contribute to sustaining ecological conditions that support healthy wildlife populations within the framework of the Forest Service's multiple-use mandate. In addressing wildlife and aquatic habitat concerns, I also believe this decision minimizes the damage to soil, watershed, vegetation, and other forest resources while also minimizing conflicts between recreational users. My decision is based upon a consideration of the best available science. This science is thoroughly discussed throughout the final EIS, in the response to comments (appendix 8 of the final EIS), and in planning record documentation.

Wetlands and floodplains (Executive Orders 11988 and 11990)

These executive orders require Federal agencies to avoid, to the extent possible, short- and long-term effects resulting from the occupancy and modification of floodplains and the modification or destruction of wetlands. Forestwide standards and guidelines are provided for soil, water, wetlands, and riparian areas to minimize effects to floodplains and wetlands. They incorporate the best management practices of the Forest Service Soil and Water Conservation Handbook.

Wild and Scenic Rivers Act

This act establishes a National Wild and Scenic Rivers System with three classes of river systems: wild, scenic, and recreational. The purpose of the act is to protect the designated rivers “for the benefit and enjoyment of present and future generations” and to preserve the rivers’ free-flowing condition, water quality, and outstandingly remarkable values.

Analysis of the designated wild and scenic rivers was included in the final EIS. Management area direction in the revised forest plan provides protection for the water quality, free-flowing conditions, and outstandingly remarkable values identified for those rivers. In addition, the Wild and Scenic Rivers Act requires an evaluation of eligible wild, scenic, or recreational rivers in land management planning. This was completed, and the 24 eligible rivers identified through the eligible wild and scenic river study process were analyzed in the final EIS. Management direction in the revised forest plan provides protection of free-flowing conditions and the outstandingly remarkable values identified for the eligible segments of rivers on the Forest. Therefore, the revised forest plan is compliant with the Wild and Scenic Rivers Act.

Wilderness Act

The Wilderness Act of 1964 established a National Wilderness Preservation System to be administered in such a manner as to leave these areas unimpaired for future use and enjoyment as wilderness. It provides the statutory definition of wilderness and management requirements for congressionally designated areas.

Evaluation of designated wilderness was included in the environmental analysis for the revised forest plan, which includes specific management area direction to preserve and protect its wilderness character as required by the Wilderness Act. Therefore, the revised forest plan is compliant with this act.

Conflicts with Other Agency or Government Goals or Objectives

Contact, review, and public involvement with other Federal, State, tribal, and county agencies indicates no major conflicts between the revised forest plan and the goals and objectives of other governmental entities (Meridian Institute, 2017; USDA, 2017). Interagency meetings were convened as necessary, generally quarterly, since the beginning of the revision process to provide updates on the planning process as well as to ensure county, State, Federal, and tribal policies and interests were coordinated to the extent practicable. The planning record exhibits (00004-00021, 00307-00314) from these meetings demonstrate a commitment on the part of the Forest to meaningfully engage with interested and affected agencies; they also demonstrate the cooperation of these entities in the development of this revised forest plan. The related and equivalent county plans were considered and evaluated for consistency throughout the planning process. Flathead County has a natural resource use plan that the Flathead National Forest has determined is generally compatible with the proposed plan for the Forest, except for certain goals and objectives (listed under the sections of the Flathead County natural resource plan under forest management, fire and fuels management, recreation, and roads) that are incompatible with proposed plan components. The Forest is committed to working with all local counties to better address the impacts and benefits of management of the Forest.

Implementation

How the Plan Revision Applies to Approved Projects and Activities

Project and activity consistency with the plan (219.15) will be achieved through (a) application to existing authorizations and approved projects or activities, (b) application to projects or activities authorized after the plan decision, (c) resolving inconsistency, (d) determining consistency, and (e) consistency of resource plans within the planning area with the land management plan.

Regarding previously approved and ongoing projects and activities, these projects and activities are not required to meet the direction of the revised forest plan and will remain consistent with the direction in the 1986 forest plan, as amended.

The revised forest plan direction will apply to all projects and/or activities that have a decision made on or after the effective date of the final record of decision. Projects and activities authorized after approval of the revised forest plan will be consistent with applicable plan components in the revised forest plan. A project or activity approval document will describe how the project or activity is consistent with the applicable plan components.

Any resource plans developed by the Forest that apply to the resources or land areas within the planning area will be consistent with the plan components. Resource plans developed prior to the plan decision will be evaluated for consistency with the plan and amended if necessary.

Station Director Concurrence

Consistent with 36 CFR 219.2(b)(4), the acting director of the Forest Service's Rocky Mountain Research Station has advised the Flathead National Forest by letter dated July 17, 2017, that he concurs with the revised forest plan that is applicable to the Coram Experimental Forest, subject to language that has been included in the revised forest plan. He clarified that nothing in the applicable plan direction changes the requirement for consultation with the station director regarding any proposed activities that may affect ongoing research within the experimental forest (Phipps, 2017).

The Effective Date of the Plan Revision

This revised forest plan becomes effective 30 calendar days after publication of the notice of its approval in the Federal Register (36 CFR 219.17(a), 2012 planning rule). This approval will not occur until the pre-decisional review process is complete and a final record of decision is issued.

The revised forest plan provides a framework and text to guide resource management options. It is a strategic, programmatic document and does not make project-level decisions or irreversible or irretrievable commitments of resources. Those kinds of commitments would be made after more detailed, site-specific analysis and further public comment as part of the site-specific NEPA process.

Pre-Decisional Administrative Review or Objection Opportunities

The decision to approve the revised forest plan for the Flathead National Forest will be subject to the objection process identified in 36 CFR Part 219 Subpart B (219.50 to 219.62). The responsible official who will approve the record of decision for the Flathead National Forest revised forest plan is Chip Weber, Forest Supervisor for the Flathead National Forest, 650 Wolfpack Way, Kalispell, MT 59901,

(406) 758-5208. The regional forester is the reviewing officer for the revised forest plan since the forest supervisor is the responsible official (36 CFR 219.56(e)(2)). This is also an opportunity to object to the Regional Forester's list of species of conservation concern for the Flathead National Forest. The Flathead National Forest will provide the regional forester with public comments received on species of conservation concern. The regional forester will consider comments received and respond to them in the final EIS and record of decision. The decision to approve the species of conservation concern list will be subject to a separate objection process. The Chief of the Forest Service is the reviewing officer for species of conservation concern identification since the regional forester is the responsible official (36 CFR 219.56(e)(2)). Information about species of conservation concern is available at <http://bit.ly/NorthernRegion-SCC>.

Objections, including attachments, must be filed within 60 days of the publication date of the legal notice published in the *Daily Inter Lake* (Kalispell, Montana), the newspaper of record. Objections, including attachments, received after the 60-day objection period will not be considered. The publication date in the newspaper of record is the exclusive means for calculating the time to file an objection. Those wishing to object to this project should not rely upon dates or time frame information provided by any other source. It is the responsibility of the objector to ensure that the reviewing officer receives the objection in a timely manner. The regulations prohibit extending the length of the objection filing period. The following address should be used for objections submitted by regular mail, private carrier, or hand delivery: Objection Reviewing Officer, USDA Forest Service, Northern Region, 26 Fort Missoula Road, Missoula, MT 59804. Office hours are Monday through Friday, 8:00am to 4:30pm, excluding Federal holidays. Please be explicit as to whether the objection is for the Flathead Forest Plan, the NCDE Grizzly Bear Forest Plan Amendments, or the Flathead species of conservation concern. Objections can be faxed to the Objection Reviewing Officer at (406) 329-3411. The fax cover sheet must include a subject line with "Flathead Forest Plan Objection," "NCDE Grizzly Bear Forest Plan Amendments," or "Flathead Species of Conservation Concern" and should specify the number of pages being submitted. Electronic objections must be submitted to the Objection Reviewing Officer via email to appeals-northern-regional-office@fs.fed.us, with "Flathead Forest Plan Objection," "NCDE Grizzly Bear Forest Plan Amendments," or "Flathead Species of Conservation Concern" in the subject line. Electronic submissions must be submitted in a format that is readable with optical character recognition software (e.g., Word, PDF, Rich Text) and must be searchable. An automated response should confirm your electronic objection has been received.

An objection must include the following (36 CFR 219.54(c)): (1) The objector's name and address along with a telephone number or email address if available—in cases where no identifiable name is attached to an objection, the Forest Service will attempt to verify the identity of the objector to confirm objection eligibility; (2) A signature or other verification of authorship upon request (a scanned signature for electronic mail may be filed with the objection); (3) Identification of the lead objector when multiple names are listed on an objection. The Forest Service will communicate to all parties to an objection through the lead objector. Verification of the identity of the lead objector must also be provided if requested; (4) The name of the Flathead forest plan, or NCDE Grizzly Bear forest plan amendments, or the Flathead species of conservation concern being objected to and the name and title of the responsible official; (5) A statement of the issues and/or parts of the plan revision to which the objection applies; (6) A concise statement explaining the objection and suggesting how the proposed plan decision may be improved. If the objector believes that the plan revision is inconsistent with law, regulation, or policy, an explanation should be included; (7) A statement that demonstrates the link between the objector's prior substantive formal comments and the content of the objection, unless the objection concerns an issue that arose after the opportunities for formal comment; and (8) All documents referenced in the objection (a bibliography is not sufficient), except that the following need not be provided: a. All or any part of a Federal law or regulation, b. Forest Service Directive System documents and land management plans or

other published Forest Service documents, c. Documents referenced by the Forest Service in the planning documentation related to the proposal subject to objection, and d. Formal comments previously provided to the Forest Service by the objector during the plan revision comment period.

Contact Person

For additional information concerning this decision or the Forest Service appeal process, contact Joe Krueger at the Flathead National Forest supervisor’s office (address: Flathead National Forest, 650 Wolfpack Way, Kalispell, MT 59901), phone 406-758-5243.

Responsible Official

CHIP WEBER
Forest Supervisor
Flathead National Forest

DATE

References

- Casey, D. (2000). *Partners in flight bird conservation plan Montana*. Kalispell, MT: American Bird Conservancy. Planning record exhibit # 00351.
- Costello, C. M., Mace, R. D., & Roberts, L. L. (2016). *Grizzly bear demographics in the Northern Continental Divide Ecosystem, Montana: Research results (2004–2014) and suggested techniques for management of mortality*. Helena, MT: Montana Department of Fish, Wildlife and Parks. Retrieved from http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0ahUKEwiy_cb7oO7NAhUQ5GMKHXE4B-cQFggiMAE&url=http%3A%2F%2Fwp.mt.gov%2FwpDoc.html%3Fid%3D75547&usg=AFQjCNFdVMLXWJsfWn6RksuSEgnNZ9VdBw&bvm=bv.126130881,d.cGc.
- CSKT. (2013). *Confederated Salish and Kootenai Tribes of the Flathead Reservation: Climate change strategic plan*. Retrieved from <http://nrd.csktribes.org/component/rsfiles/download?path=EP%252FCSKT.Climate.Change.Adaptation.Plan.pdf>.
- FBOCC. (2012). *Flathead County growth policy*. Kalispell, MT: Flathead County Board of County Commissioners (FBOCC). Retrieved from http://flathead.mt.gov/planning_zoning/growth_resolution2015a.php.
- Headwaters Economics. Economic Profile System - Human Dimensions Toolkit (EPS-HDT). Headwaters Economics. Retrieved from <http://headwaterseconomics.org/tools/eps-hdt>.
- ILBT. (2013). *Canada lynx conservation assessment and strategy (3rd ed.)* Missoula, MT: USDA Forest Service, USDI Fish and Wildlife Service, USDI Bureau of Land Management, and USDI National Park Service (Interagency Lynx Biology Team - ILBT). Retrieved from <https://www.fs.fed.us/biology/resources/pubs/wildlife/index.html>.
- Kendall, K. C., Stetz, J. B., Boulanger, J., Macleod, A. C., Paetkau, D., & White, G. C. (2009). Demography and genetic structure of a recovering grizzly bear population. *Journal of Wildlife Management*, 73(1), 3-17. doi:10.2193/2008-330. Retrieved from <http://www.bioone.org/doi/abs/10.2193/2008-330>, <http://dx.doi.org/10.2193/2008-330>, <http://www.bioone.org/doi/full/10.2193/2008-330>.
- Kuennen, R., Van Eimeren, P., & Trechsel, H. (2017). *Biological assessment for threatened, endangered, and proposed species: Revised land and resource management plan for the Flathead National Forest*. Kalispell, MT: USDA Forest Service, Flathead National Forest. Retrieved from www.fs.usda.gov/goto/flathead/fpr. Planning record exhibit # 00550.
- MBCC. (2016). *2016 Missoula County growth policy*. Missoula, MT: Missoula Board of County Commissioners. Retrieved from <https://www.missoulacounty.us/government/community-development/community-planning-services/projects/growth-policy-update/project-documents>. Planning record exhibit # 00575.
- Meridian Institute. (2017). *Flathead National Forest plan revision stakeholder engagement final report phase II*. Dillon, CO: Meridian Institute. Planning record exhibit # 00648.
- Mikle, N., Graves, T. A., Kovach, R., Kendall, K. C., & Macleod, A. C. (2016). Demographic mechanisms underpinning genetic assimilation of remnant groups of a large carnivore. *Proceedings of the Royal Society B-Biological Sciences*, 283(1839). doi:10.1098/rspb.2016.1467. Retrieved from <Go to ISI>://WOS:000386489200014.
- MTDNRC. (2010). *Final environmental impact statement for the Montana Department of Natural Resources and Conservation forested trust lands habitat conservation plan*. Helena, MT: U.S. Department of the Interior, U.S. Fish and Wildlife Service and Montana Department of Natural Resources and Conservation Retrieved from <http://dnrc.mt.gov/HCP/FinalEIS.asp>, <http://dnrc.mt.gov/HCP/Documents/EIS/VolumeI/VolumeI.pdf>.

- MTFWP. (2015). *Montana's 2015 state wildlife action plan final*. Helena, MT: Montana Fish, Wildlife and Parks. Retrieved from <http://fwp.mt.gov/fishAndWildlife/conservationInAction/actionPlan.html>, <http://fwp.mt.gov/fishAndWildlife/conservationInAction/swap2015Plan.html>.
- Phipps, J. (2017). *Letter from John Phipps to Chip Weber regarding Flathead National Forest plan components related to the Coram Experimental Forest*. Planning record exhibit # 00657.
- Proctor, M. F., Paetkau, D., McLellan, B. N., Stenhouse, G. B., Kendall, K. C., Mace, R. D., . . . Strobeck, C. (2012). Population fragmentation and inter-ecosystem movements of grizzly bears in western Canada and the northern United States. *Wildlife Monographs*(180), 1-46. doi:10.1002/wmon.6. Retrieved from <Go to ISI>://WOS:000298355800001.
- Quigley, T. M., Haynes, R. W., & Graham, R. T. (1996). *Integrated scientific assessment for ecosystem management in the interior Columbia Basin and portions of the Klamath and Great Basins*. Portland, OR: USDA Forest Service, Pacific Northwest Research Station. Retrieved from https://www.fs.fed.us/pnw/publications/pnw_gtr382/, <https://www.treesearch.fs.fed.us/pubs/25384>.
- Shelly, J. S. (1997). *Conservation strategy--Howellia aquatilis: Flathead National Forest*. Kalispell, MT: USDA Forest Service, Flathead National Forest. Planning record exhibit # 00477.
- Squires, J. R., DeCesare, N. J., Olson, L. E., Kolbe, J. A., Hebblewhite, M., & Parks, S. A. (2013). Combining resource selection and movement behavior to predict corridors for Canada lynx at their southern range periphery. *Biological Conservation*, 157, 187-195. doi:10.1016/j.biocon.2012.07.018. Retrieved from <Go to ISI>://WOS:000316651200022, <http://www.sciencedirect.com/science/article/pii/S0006320712003382>.
- USDA-USFWS. (2008). *Memorandum of understanding between the U.S. Department of Agriculture, Forest Service and the U.S. Fish and Wildlife Service to promote the conservation of migratory birds (FS Agreement# 08-MU-1113-2400-264)*. Planning record exhibit # 00380.
- USDA-USFWS. (2013). *Conservation strategy for bull trout on USFS lands in western Montana*. Missoula, MT: USDA Forest Service, Northern Region; U.S. Fish and Wildlife Service, Montana Field Office; and the Lolo, Bitterroot, Flathead, Beaverhead-Deerlodge, Kootenai, and Helena National Forests. Retrieved from https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5427869.pdf.
- USDA. (1986). *Flathead National Forest management plan (2001 version)*. Kalispell, MT: USDA Forest Service, Flathead National Forest. Retrieved from <https://www.fs.usda.gov/main/flathead/landmanagement/planning>.
- USDA. (2014). *Assessment of the Flathead National Forest, part 1, part 2, and appendices A-E*. Kalispell, MT: USDA Forest Service, Flathead National Forest. Retrieved from <https://www.fs.usda.gov/detailfull/flathead/home/?cid=stelprdb5422786&width=full>.
- USDA. (2015). *Federal Register / Vol. 80, No. 44 / Friday, March 6, 2015 / Notices Flathead National Forest, Montana; Revision of the land management plan for the Flathead National Forest and an amendment of the Helena, Kootenai, Lewis and Clark, and Lolo National Forest plans to incorporate relevant direction from the Northern Continental Divide Ecosystem Grizzly Bear Conservation Strategy, Pages 12139-12142*. Planning record exhibit # 00156.
- USDA. (2017). *Flathead National Forest review of tribal, federal agency, state, and local government plans*. Kalispell, MT: USDA Forest Service, Flathead National Forest. Planning record exhibit # 00649.
- USFWS. (1993). *Grizzly bear recovery plan*. Missoula, MT: U.S. Fish and Wildlife Service. Retrieved from https://www.fws.gov/mountain-prairie/es/species/mammals/grizzly/Grizzly_bear_recovery_plan.pdf, <http://www.fws.gov/mountain-prairie/species/mammals/grizzly/>.
- USFWS. (2006). *Canada lynx conservation agreement: U.S. Forest Service and U.S. Fish and Wildlife Service, as amended Aug. 31, 2006*. Portland, OR: U. S. F. a. W. Service. Planning record exhibit # 00618.

- USFWS. (2015a). *Columbia Headwaters recovery unit implementation plan for bull trout (Salvelinus confluentus)*. Kalispell, MT: U.S. Fish and Wildlife Service, Region 1. Retrieved from https://www.fws.gov/pacific/bulltrout/pdf/Final_Columbia_Headwaters_RUIP_092915.pdf.
- USFWS. (2015b). *Recovery plan for the coterminous United States population of bull trout (Salvelinus confluentus)*. Portland, OR: U.S. Fish and Wildlife Service, Pacific Region. Retrieved from <http://www.fws.gov/pacific/bulltrout/Planning.html>, http://www.fws.gov/pacific/bulltrout/pdf/Final_Bull_Trout_Recovery_Plan_092915.pdf.
- USFWS. (2017a). *Biological opinion for the revised forest plan--Flathead National Forest*. Helena, MT: U.S. Fish & Wildlife Service, Ecological Services. Retrieved from www.fs.usda.gov/goto/flathead/fpr.
- USFWS. (2017b). *Threatened, endangered and candidate species for the Flathead National Forest, 11/17/2017*. Helena, MT: U.S. Fish and Wildlife Service, Ecological Services. Retrieved from https://www.fws.gov/montanafieldoffice/Endangered_Species/Listed_Species/Forests/Flathead_species_list.pdf. Planning record exhibit # 00680.