

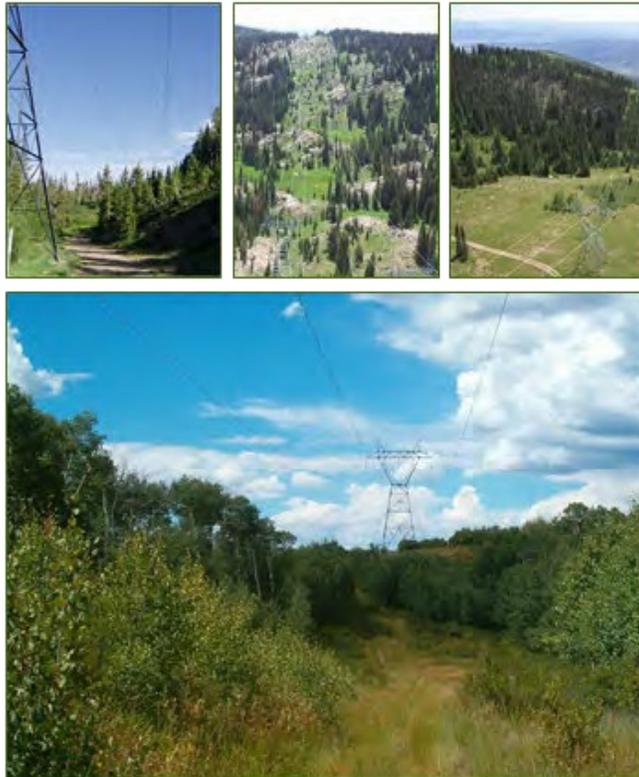


United States Department of Agriculture

Record of Decision

Reauthorization of Permits, Maintenance, and Vegetation Management on Western Area Power Administration Transmission Lines on National Forest System Lands, Colorado, Nebraska, and Utah

Arapaho-Roosevelt National Forest
Ashley National Forest
Grand Mesa, Uncompahgre, and Gunnison National Forests
Medicine Bow-Routt National Forests
Nebraska National Forest
Pike and San Isabel National Forests
San Juan National Forest
White River National Forest



Forest Service

Rocky Mountain and Intermountain Regions

August 2020

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San Juan National Forest

White River National Forest

Joint Lead Agency: USDA Forest Service

Responsible Official: Patricia O'Connor, Acting Regional Forester, Rocky Mountain Region

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Decision

Based on my review of the "Reauthorization of Permits, Maintenance, and Vegetation Management on Western Area Power Administration Transmission Lines on Forest Service Lands, Colorado, Nebraska, and Utah" Final Environmental Impact Statement, I have decided to implement the proposed action, which is to issue special use authorizations for the identified Western Area Power Administration (WAPA) transmission lines and access routes that cross National Forest System lands managed by seven national forests in the Rocky Mountain Region and one national forest in the Intermountain Region of the U.S. Forest Service. The authorizations will provide for WAPA to implement improved vegetation management activities necessary for the operation and maintenance of the facilities. WAPA is issuing a separate Record of Decision authorizing its actions to implement this project.

Separate special use permits and operation and maintenance plans will be prepared for each transmission line crossing National Forest System lands considered in the final environmental impact statement. The total number of miles crossed by the transmission lines is approximately 273, and about 4,055 acres would be included in the permitted areas for these lines. The specific lines for which this decision is being made are identified in table 1.

The transmission lines are shown on the decision maps included in this document as appendix A.

My decision is to reauthorize the existing transmission lines and allow for vegetation management activities within the transmission-line rights-of-way for the operation and maintenance of the facilities. The issuance and administration of the individual special use permits and operation and maintenance plans will lie with the forest supervisors of the affected national forests. The permits and operation and maintenance plans will incorporate the design features developed to protect environmental resources, as shown in appendix B to this document. There is no new construction of roads or facilities authorized by this decision. My decision reauthorizes the existing rights-of-way and existing facilities and allows for the maintenance of those facilities. Access routes will be addressed in the operation and maintenance plans developed at each appropriate local unit of the National Forest System.

Background

On August 10, 1996, during a period of high temperatures and high electricity demand, a transmission line sagged into filbert trees near Portland, Oregon, leading to a cascade of power outages as far away as southern California. Executive Order 13212, Actions To Expedite Energy-Related Projects (May 18, 2001), declared the increased production and transmission of energy in a safe and environmentally sound manner to be essential to the well-being of the American people and called for the improvement and streamlining of cooperation among Federal agencies to expedite projects that will increase the production, transmission, or conservation of energy. In August 2003, high temperatures, resulting in high electricity demand, caused a widespread power outage in the Northeast and Midwest, affecting approximately 45 million people in the United States and 10 million people in Ontario, Canada. The U.S.-Canada Power System Outage Task Force determined that, again, transmission line sag into overgrown trees, this time in rural Ohio, caused the outage.

Table 1. Transmission lines for which this decision is being made

Transmission Line	Affected National Forest
Archer - Hayden 230 kilovolt (kV)	Arapaho – Roosevelt National Forests
Ault – Craig 345 kV	Arapaho – Roosevelt National Forests Medicine Bow – Routt National Forests
Blue River - Gore Pass 230 kV	Arapaho – Roosevelt National Forests
Box Butte - Chadron (Alliance –Chadron) 115 kV	Nebraska National Forest
Curecanti - Lost Canyon (Cortez – Curecanti) 230 kV	Grand Mesa, Uncompahgre, and Gunnison National Forests San Juan National Forest
Curecanti - Poncha (Curecanti – Midway) 230 kV	Grand Mesa, Uncompahgre, and Gunnison National Forests Pike – San Isabel National Forests
Curecanti - Rifle (Curecanti – Hayden) 230 kV	Grand Mesa, Uncompahgre, and Gunnison National Forests White River National Forest
Gore - Hayden (Green Mountain – Oak Creek) 138 kV	Medicine Bow – Routt National Forests
Gore Pass – Muddy Pass 69 kV	Medicine Bow – Routt National Forests
Great Cut – McPhee 12.5 kV	San Juan National Forest
Great Cut Switchyard -Great Cut Tap 115 kV	San Juan National Forest
Green Mountain - Blue River 2.4 kV	Arapaho – Roosevelt National Forests White River National Forest
Green Mountain – Kremmling 69 kV	Arapaho-Roosevelt National Forests
Hayden - Gore Pass 230 kV	Medicine Bow – Routt National Forests
Hesperus – Montrose 345 kV	Grand Mesa, Uncompahgre and Gunnison National Forests San Juan National Forest
Malta – Mount Elbert 230 kV	Pike – San Isabel National Forests
North Gunnison – Salida 115 kV	Grand Mesa, Uncompahgre, and Gunnison National Forests Pike – San Isabel National Forests
Flaming Gorge – Vernal #1 138 kV	Ashley National Forest
Flaming Gorge – Vernal #3 138 kV	Ashley National Forest

In response to these widespread outages, Congress enacted the Energy Policy Act of 2005 (Public Law 109-58), which authorized the Federal Energy Regulatory Commission (FERC) to certify an "Electric Reliability Organization" to create mandatory and enforceable reliability standards, subject to FERC review and approval. FERC certified the North American Electric Reliability Corporation (NERC) as the Electric Reliability Organization. The Energy Policy Act of 2005 also requires Federal agencies to expedite approvals to allow owners or operators of transmission facilities access to the facilities to comply with applicable standards, including vegetation management standards.

NERC's original reliability standard, FAC-003-1, "Transmission Vegetation Management Program" (NERC standard) was enforced beginning on June 18, 2007. The most recent version of the NERC standard has been revised as FAC-003-4, "Transmission Vegetation Management," which was approved on February 11, 2016, and became enforceable on October 1, 2016.

To enhance WAPA's compliance with NERC's Transmission Vegetation Management Reliability Standard, industry standards, and WAPA's policy and guidance, WAPA proposes to improve the way it manages vegetation along its rights-of-way on National Forest System lands in Colorado, Nebraska, and Utah. WAPA serves an area of approximately 273 miles of transmission-line rights-of-way on National Forest System lands in Colorado, Nebraska, and Utah.

When the Forest Service approves the construction of an electric transmission line on National Forest System lands, it is a long-term commitment of the area in the permitted right-of-way. This includes a commitment to allow continuous access for maintenance and emergencies. Although Forest Service authorizations are not exclusive, subsequent uses within the right-of-way must be compatible with the permitted right-of-way. The electrical transmission facility must routinely be maintained and be able to operate unimpeded for its intended purpose through its full range of anticipated and designed conditions. In the permitted right-of-way, vegetation management objectives focus on reducing the risk associated with transmission lines contacting trees and starting wildfires, ensuring the transmission lines are managed to maximize the opportunity to survive wildfires, ensuring public health and safety, ensuring the safety of electrical workers, ensuring access, and protecting environmental resources.

WAPA holds a variety of authorizations for its transmission lines on National Forest System lands. Several transmission lines were authorized by memoranda of understanding (MOUs) between the Bureau of Reclamation and the Forest Service. Others were authorized to WAPA's customers with WAPA designated as responsible for maintaining the line under an agreement with the customer. And some were authorized under special use permits. The various types of authorizations differ in their terms and conditions, which leads to confusion about which facilities and maintenance activities are authorized. Therefore, the Forest Service needs to reauthorize and issue special use permits for each transmission line owned by WAPA and authorize WAPA to improve the way it manages vegetation along its rights-of-way on National Forest System lands.

Decision Rationale

My decision to implement the proposed action is based on the effects disclosed in the final environmental impact statement, public comments received on the draft environmental impact statement and throughout the process, the project record, and applicable law, regulation, and policy. In arriving at this decision, I considered the needs of both WAPA and the Forest Service as well as the design features developed to protect environmental resources.

The proposed action balances the purpose of and need for agency action with the need to comply with environmental regulations and WAPA and Forest Service requirements, incorporates the design features developed to protect environmental resources, and addresses public and agency comments.

After careful consideration of both alternatives, I selected the proposed action because it provides for efficiency and consistency in authorizations and administration of those authorizations across the national forests by replacing the current myriad of authorizations, agreements, and letters.

My decision is based on a thorough consideration of the environmental impacts of the alternatives as described in the final environmental impact statement. Reauthorization and

vegetation management of the transmission-line rights-of-way can affect a wide variety of natural resources, including lynx and other wildlife habitat, watershed resources, visual resources, vegetation, and other resources. Each of these impacts has been addressed and mitigated through modifications to the proposed action through the development of natural resource design features.

In addition to the impacts to natural resources outlined in the environmental impact statement, I also considered public health and safety. The proposed action reduces public safety risks through improved vegetation management. This protects the transmission lines from falling trees and wildfires. Communities, hospitals, fire stations, and other facilities rely on the electricity delivered through these transmission lines to provide for safe and effective public services. Improved vegetation management also reduces the risk of potential fires from the transmission lines spreading into adjacent forests and nearby communities.

The final environmental impact statement documents the environmental analysis and conclusions upon which this decision is based.

Public Involvement

A notice of intent to prepare an environmental impact statement was published in the Federal Register on April 8, 2010. The notice of intent invited public participation in the environmental impact statement scoping process and solicited public comments on the scope and content of the environmental impact statement. WAPA and the Forest Service solicited comments from Federal, State, and local agencies; Tribal governments; and other organizations and announced opportunities to comment in various local news media. Agencies, organizations, and people who received copies are listed in chapter four of the environmental impact statement.

In April 2010, WAPA and the Forest Service hosted three public scoping meetings in Denver and Grand Junction, Colorado, and Vernal, Utah, which provided the public an opportunity to comment and ask questions about the project and development of the environmental impact statement. Before each public meeting, WAPA and the Forest Service held interagency scoping meetings.

The following issues were identified from scoping comments and were used to determine the scope of the analysis.

Access and Transportation

Ensure designated routes are used and maintain access routes according to Forest Service management specifications.

Determine which routes are available for public use according to an approved travel management plan.

Alternatives

Minimize the width of vegetation treatment corridors consistent with safety and reliability of the transmission lines.

Specify the circumstances and areas for treatments implemented under each alternative.

Climate Change

Minimize the effects of global warming.

Floodplains, Wetlands, and Water Resources

Design treatment activities near wetland and riparian areas to avoid or mitigate damage to soils, water quality, and non-target vegetation.

Health and Safety

Concern for the effects of herbicides on human health.

Recreation

Manage off-highway vehicle (OHV) use responsibly and uniformly across jurisdictional boundaries.

Roadless Areas

Protect roadless area characteristics and minimize new road construction.

Social and Economic Values

Promote opportunities for harvesting merchantable forest products following the Healthy Forests Restoration Act of 2003 (P.L. 108-148).

Soils

Design, install, and maintain erosion control structures and culverts on access routes.

Apply effective practices to maintain vegetation cover and prevent soil erosion.

Special Status and Sensitive Species

Limit the removal of mature trees and other vegetation to avoid adversely altering the habitat of sensitive species that rely on a continuous forest canopy.

Vegetation

Prioritize treatment areas and discuss the treatments proposed in each area.

Visual Resources

Minimize the width of vegetation treatment corridors and transition cutting intensity to limit visual impacts by "feathering" the edges where trees are cleared.

Wildlife and Wildlife Habitat

Concern for effects of herbicide on wildlife and general impacts of vegetation treatments on wildlife habitat.

A full description of issues for the proposed action is contained in Section 1.8 of the final environmental impact statement.

A draft environmental impact statement was published for review and comment on September 27, 2013, in the Federal Register (78 FR 59677). A legal notice was published in the newspaper of record for each of the affected forests announcing the availability of the draft environmental impact statement in early October 2013.

A public meeting on the draft environmental impact statement was held in Denver on October 23, 2013. Nobody attended this meeting. This was despite the outreach efforts including direct mailing and advertisements in newspapers. Notice of the meeting was sent to approximately 930 individuals and agencies with a possible interest in the project, including Tribal representatives and individuals and agencies that provided scoping comments.

WAPA and the Forest Service received four comment letters on the draft environmental impact statement; the letters from Uintah County, Utah, and the Bureau of Reclamation expressed support for the project. The U.S. Department of the Interior letter indicated they had no comments on the project, and the U. S. Environmental Protection Agency letter indicated a rating of Lack of Objections for the project. No letters or comments were received from the general public or Tribes.

Based on additional updates and refinements to the proposed action, a Final EIS Notice of Availability was published in the Federal Register on August 7, 2020. The Final EIS fully informed the decision outlined in this record of decision.

Alternatives Considered

In addition to the selected alternative, I considered the no-action alternative, which is discussed below. Alternative 1, the proposed action, is the environmentally preferred alternative. A more detailed comparison of these alternatives is presented in table 2-14 of the environmental impact statement.

Proposed Action

The proposed action includes a provision for Forest Service reauthorization of each transmission line. This authorizes the individual national forests to implement the decision by issuing special use permits for each transmission line and authorizes WAPA to manage vegetation along WAPA's rights-of-way on National Forest System by lands using an integrated vegetation management approach. Through this approach, WAPA and the Forest Service would develop operation and maintenance plans that incorporate the design features developed to protect environmental resources.

No Action

Under the no-action alternative, the Forest Service would not reauthorize the transmission lines, and current vegetation management would continue.

Relationship to Policies, Plans, and Programs

Numerous Federal and State laws and applicable regulations, policies, and actions affect the proposed action, the no-action alternative, and development of the environmental impact statement. The National Forest Management Act of 1976 (16 U.S.C. 1600), as amended, is the primary authority for Forest Service management of public lands. This law provides the overarching policy by which the Forest Service manages National Forest System lands. The National Forest Management Act mandates that the Forest Service manage public lands to

provide for multiple use and sustained yield (16 U.S.C. 1604[e] [1]). WAPA and the Forest Service prepared this environmental impact statement following the National Environmental Policy Act (NEPA), and in compliance with Council on Environmental Quality NEPA implementing regulations (40 CFR Parts 1500-1508) and U.S. Department of Energy NEPA implementing procedures (10 CFR Part 1021). Table 1-4 of the environmental impact statement lists other laws, statutes, regulations, and Executive orders relevant to WAPA's proposed project. Because portions of the proposed project could affect floodplains and wetlands, proposed floodplain or wetland actions must proceed by following U.S. Department of Energy floodplain and wetland environmental review requirements.

Findings Required by Other Laws and Regulations

Each national forest is governed by a management plan as required by the National Forest Management Act. These plans outline management direction, including desired future conditions, suitable uses, monitoring requirements, goals and objectives, and standards and guidelines. Monitoring of conditions in a national forest ensures that projects follow plan direction and determines effects that might require a change in management direction. WAPA will comply with the National Forest Management Act and the land and resource management plans specific to the various National Forest System lands in the project area. The project was designed in conformance with land management plan direction relevant to authorization of non-recreation special uses and vegetation management.

Objection Process and Implementation Date

The draft record of decision was subject to the pre- decisional objection process pursuant to 36 CFR Part 218. No objections were received during the 45-day pre-decisional objection period that began on August 7, 2020. No changes have been made to the decision outlined in the draft record of decision. Upon signature of this final record of decision, this project may be implemented immediately upon the issuance of a special use permit.

Contact Person

For additional information concerning this decision contact Matt Custer, Realty Specialist, at matthew.custer@usda.gov or (303) 275-5383.

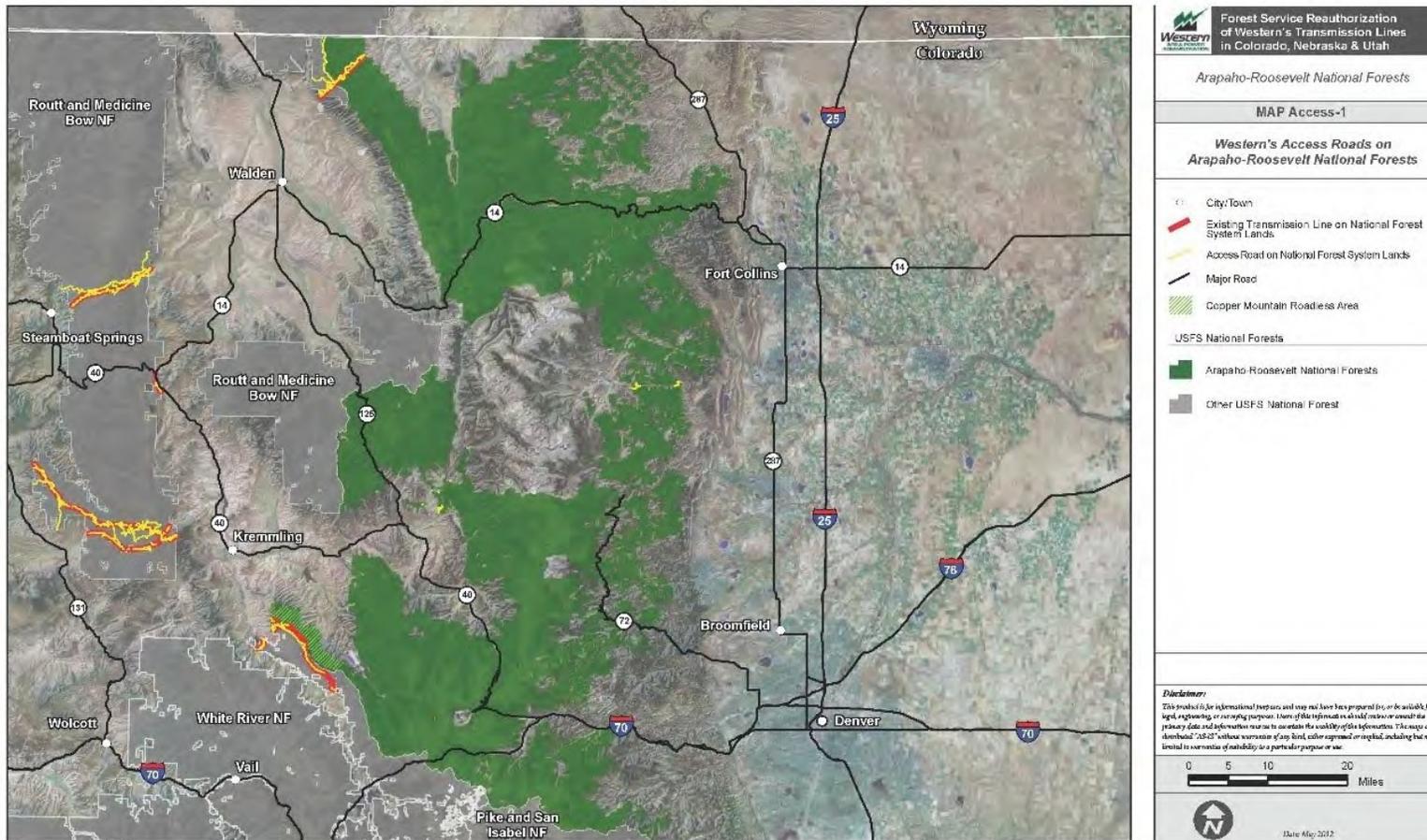
PATRICIA O'CONNOR
Acting Regional Forester, Rocky Mountain Region
U.S. Forest Service, Department of Agriculture

DATE

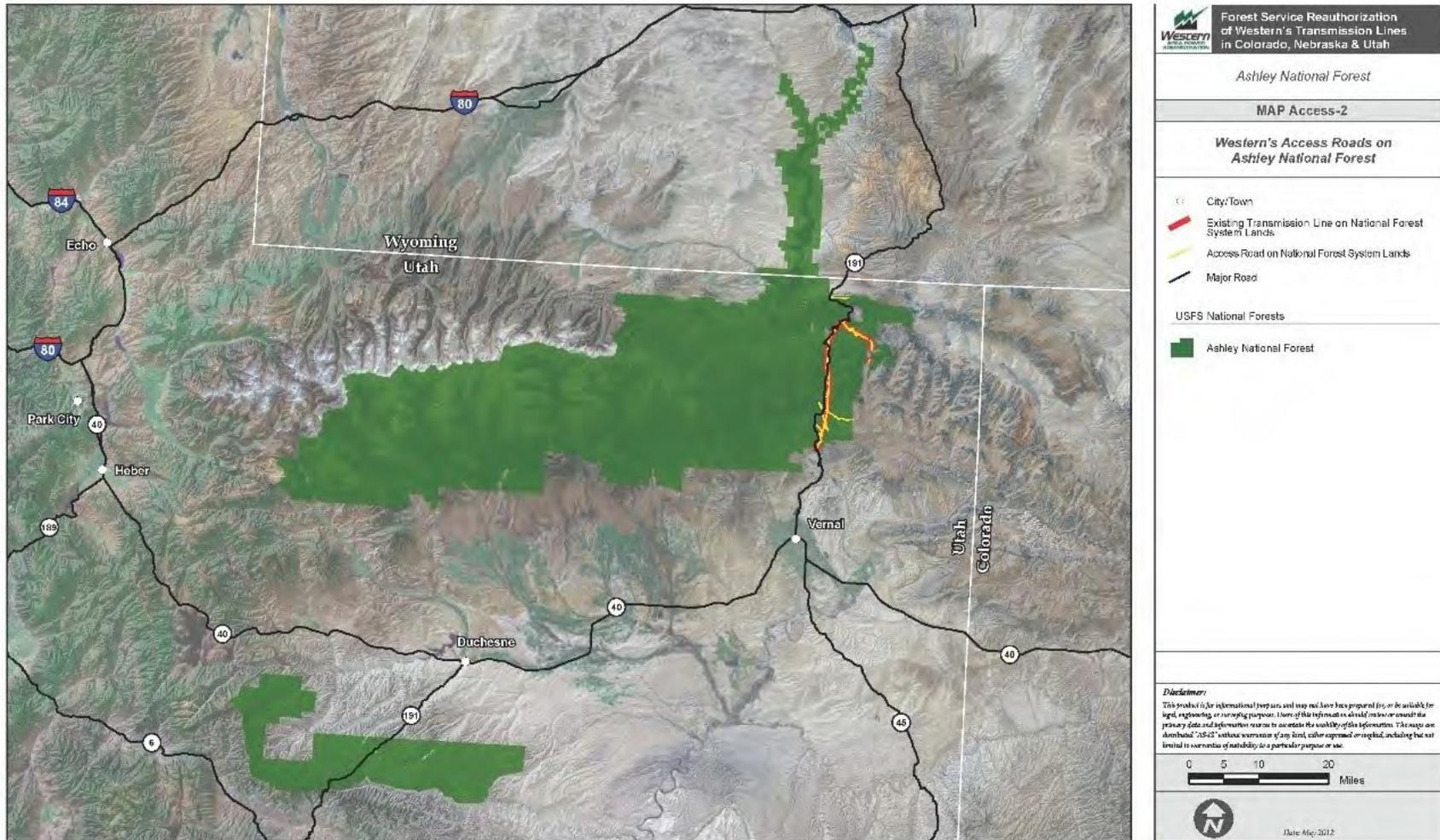
Appendix A

Transmission Line Maps

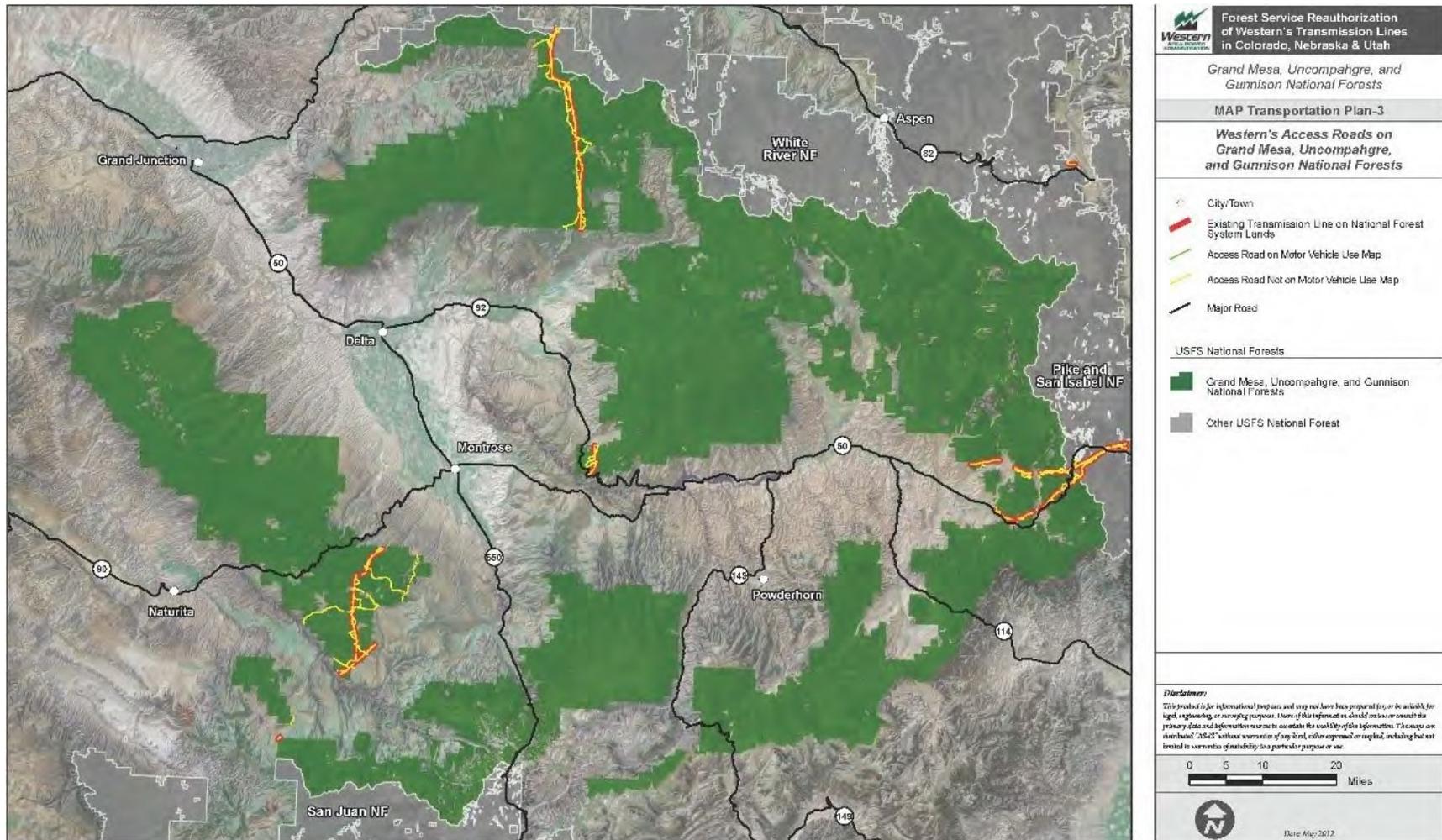
The following maps display the existing WAPA transmission-line rights of way and existing access roads for each national forest that is addressed in the record of decision.



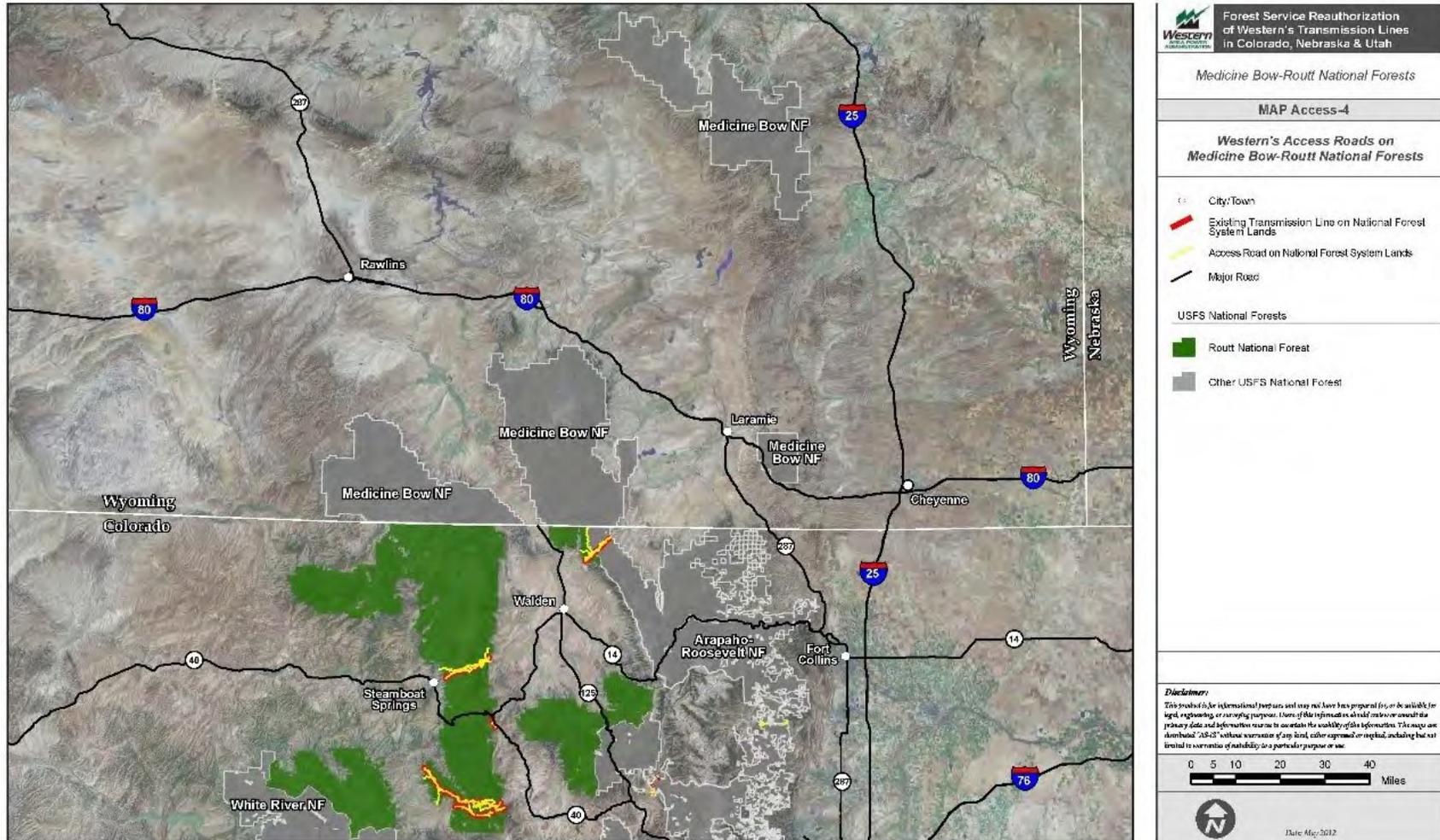
Map 1. Western's access roads on Arapaho - Roosevelt National Forests



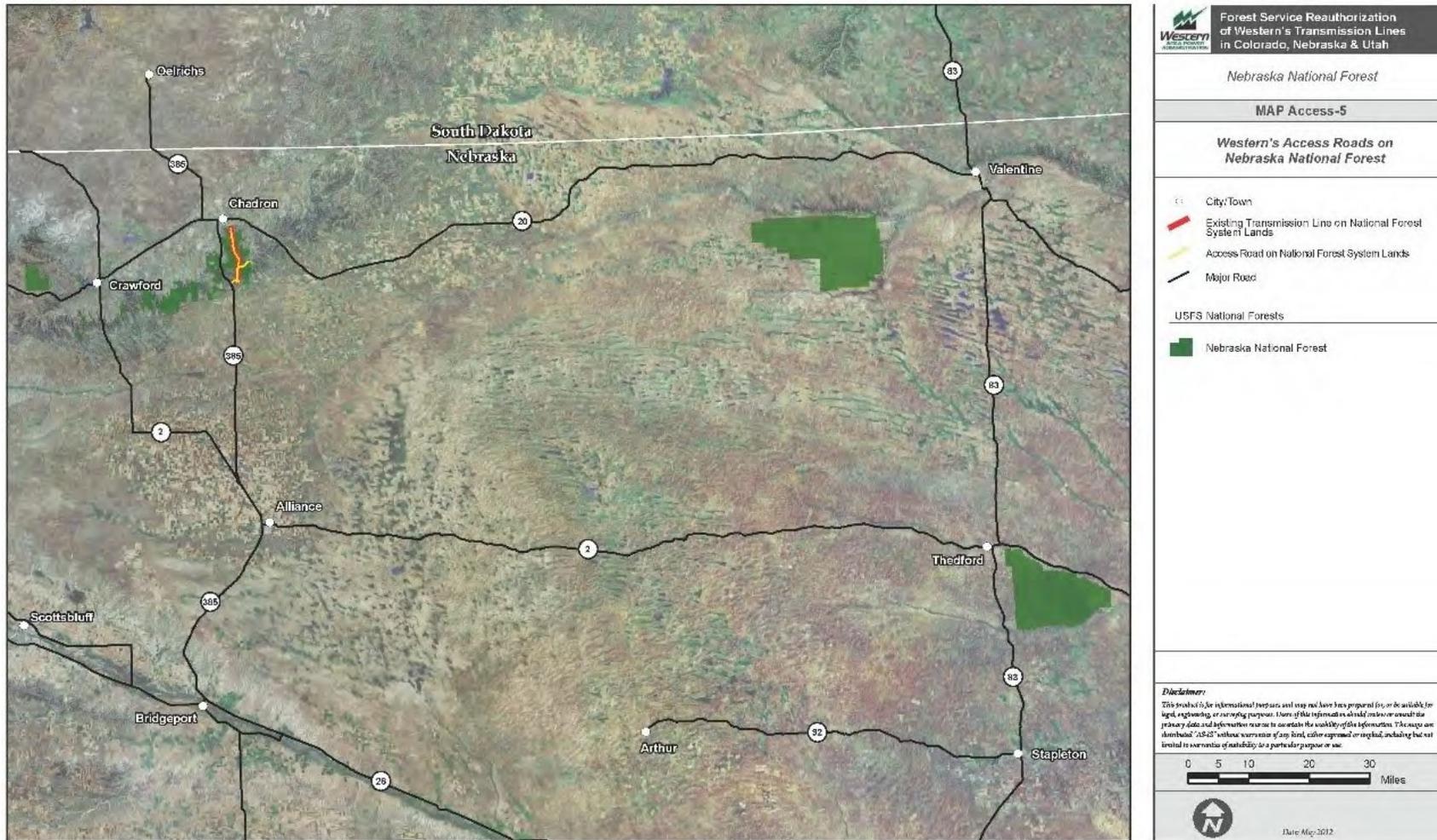
Map 2. Western's access roads on Ashley National Forest



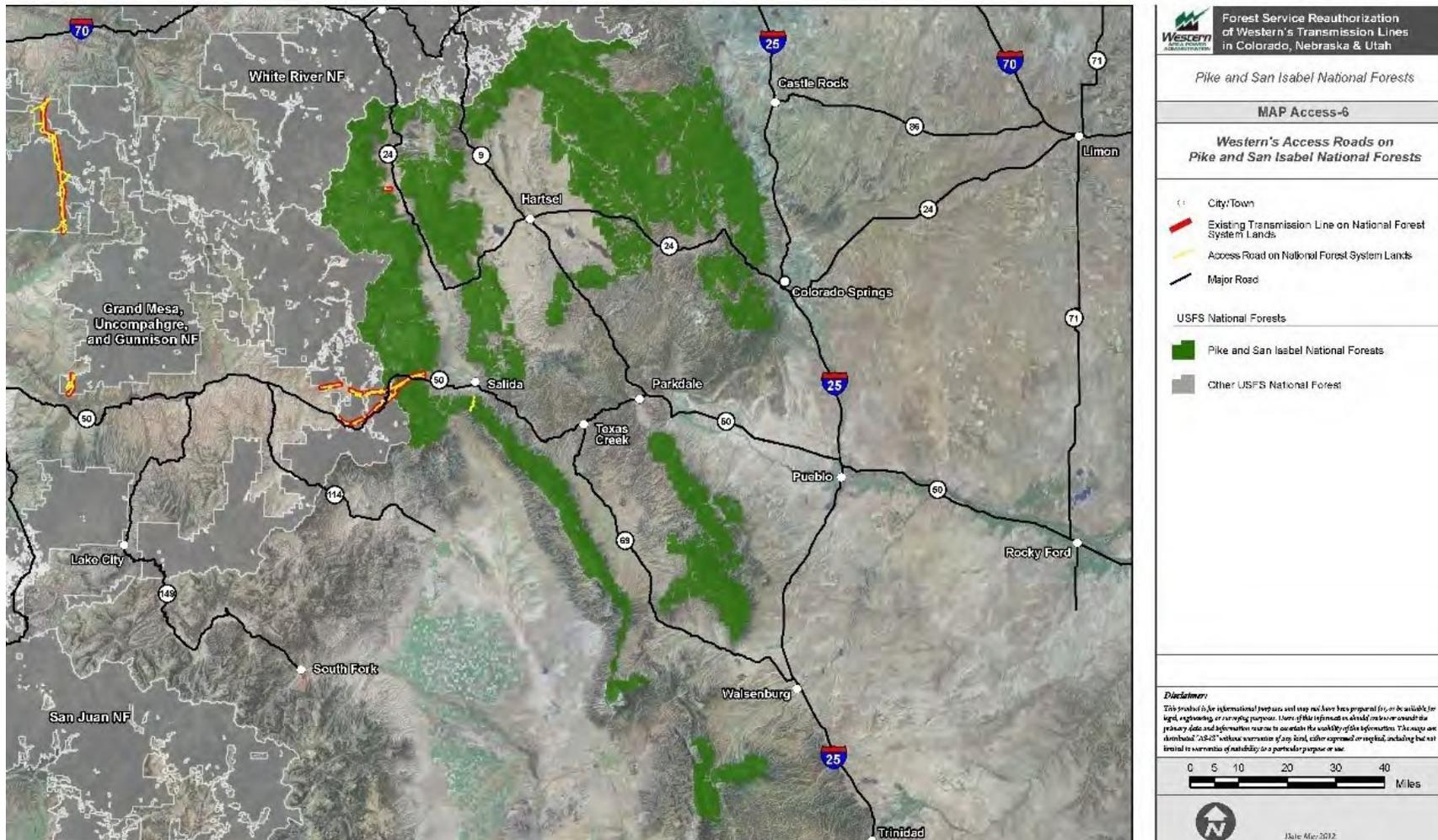
Map 3. Western's access roads on Grand Mesa, Uncompahgre, and Gunnison National Forests



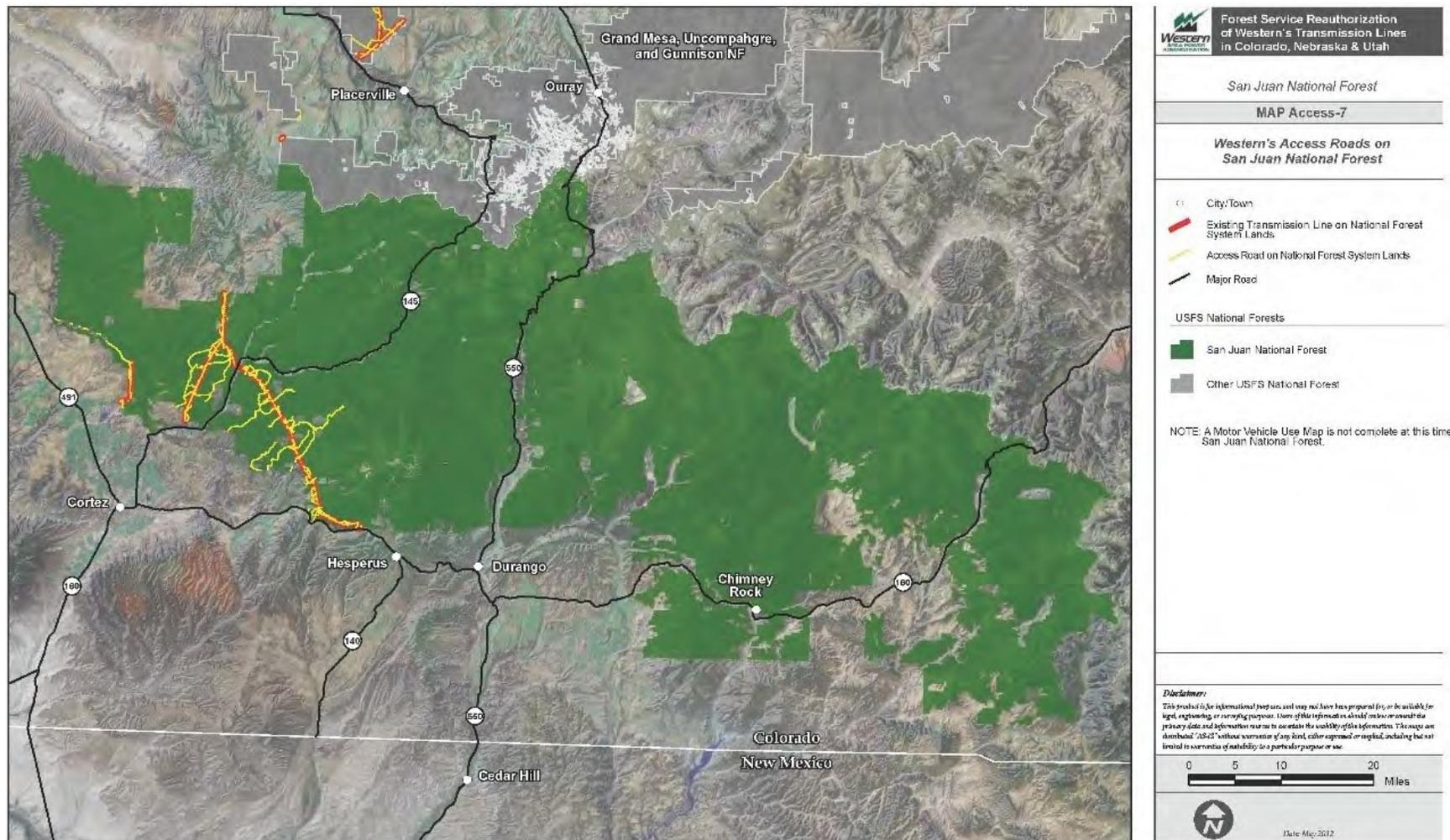
Map 4. Western's access roads on Medicine Bow - Routt National Forests



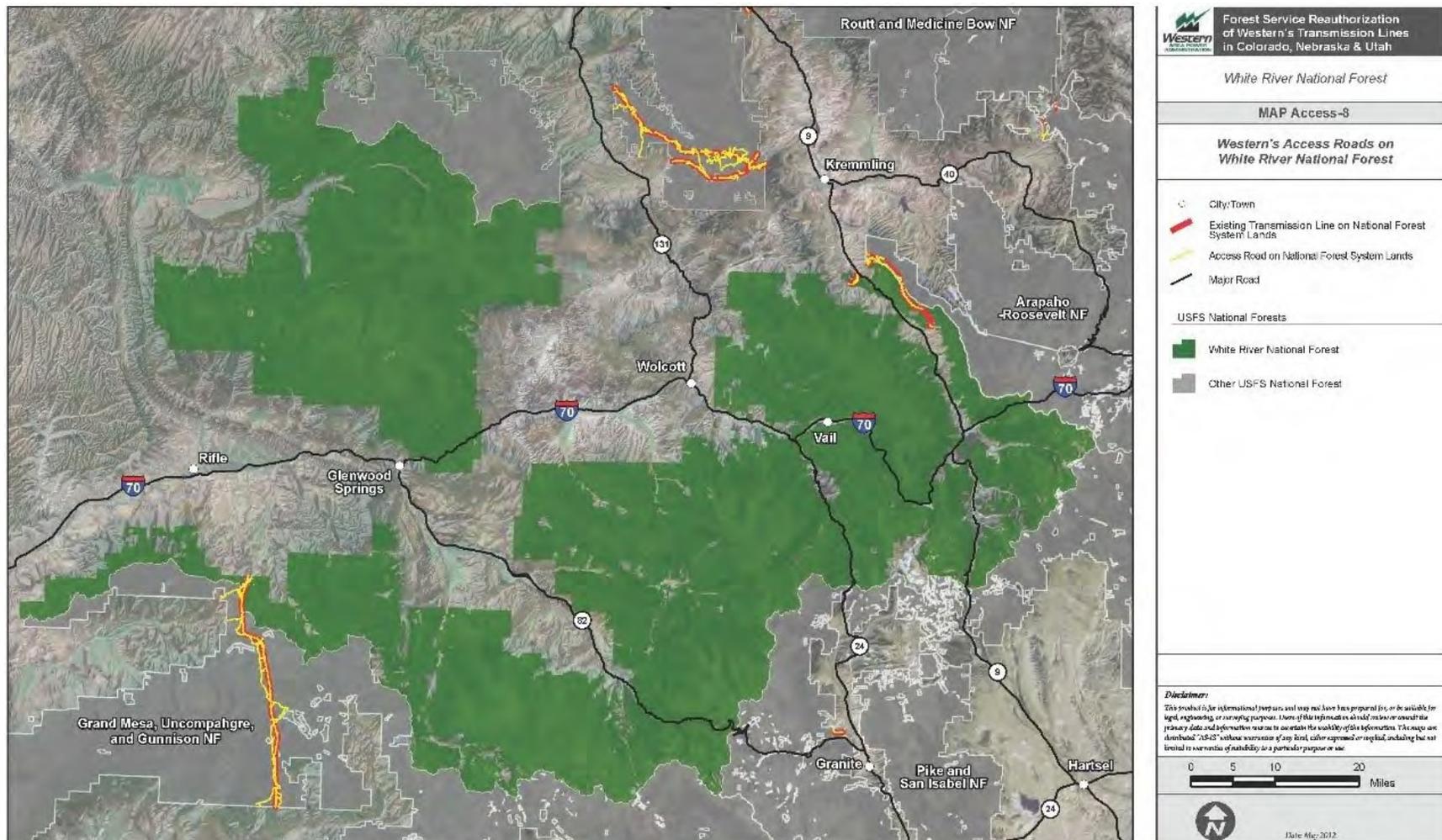
Map 5. Western's access roads on Nebraska National Forest



Map 6. Western's access roads on Pike and San Isabel National Forests



Map 7. Western's access roads on San Juan National Forest



Map 8. Western's access roads on White River National Forest

Appendix B

Design Features

Air Quality

WAPA shall use practical methods and devices that are reasonably available to minimize emissions of air contaminants. This includes particulates from soil disturbance, excessive exhaust from internal combustion engines, etc.

- Equipment and vehicles that show excessive emissions of exhaust gases due to poor engine adjustments, or other inefficient operating conditions, shall not be operated until corrective repairs or adjustments are made.
- Use reasonably available methods to prevent or control emissions of dust and fumes to the air. Dust shall be controlled in areas where nuisance dust could disturb nearby residences, public activities, or other sensitive resources, or where local or State air quality regulations require it. Vehicles and other equipment with internal-combustion engines must be maintained and tuned to limit emissions of fumes and particulates.

Soils

- Activities shall be conducted to minimize scarring or defacing of the natural surroundings in the vicinity of the work.
- Operate heavy equipment only when soil moisture is below the plastic limit or protected by at least 1 foot of packed snow or 2 inches of frozen soil. Soil moisture exceeds the plastic limit if the soil can be rolled into a 3-millimeter (0.12-inch) thread without breaking or crumbling.
- Organic ground cover shall be maintained so that pedestals, rills, and surface runoff are not increased. Maintain a ground cover of 70 percent or more in the activity areas.
- Chipped material depth could be limited based on further coordination with the Forest Service. Areas exceeding depth and cover limits should be respread.
- If landings, roads, or skid trails are constructed by removing topsoil:
 - Topsoil will be stockpiled for resspreading.
 - Inclusion of stumps and woody debris with topsoil will be minimized.
 - Handling topsoil during wet conditions will be avoided.
 - Topsoil piles will be protected from traffic and water erosion, and will not be buried by slash.
 - The consistency of the surface of the resspread topsoil will be suitable for the subsequent seeding (if seeding is to be done).
 - Slash will be scattered on the soil surface to provide some erosion control until vegetation is established.
- Where rehabilitation treatments will include both tillage and topsoil resspreading, the sequence of operations will be planned to avoid recompacting tilled areas. Tilling can take

place after topsoil is respread with a minimum of mixing.

- All scarification and other site preparation work should be laid out with the terrain contour.
- Restrict roads, landings, skid trails, concentrated-use sites and similar soil disturbances to permitted areas.
- Where soils are susceptible to the formation of a significant hydrophobic layer (i.e., those with a surface layer of sandy loam or coarser), conduct prescribed burns so as to avoid high-temperature, long-duration burns. Slash and other woody material to be burned shall be sited on planar or convex slopes to avoid concentrated runoff flowing through the burned area.
- Water turnoff bars or small terraces shall be constructed across right-of-way trails on hillsides to prevent water erosion and to help establish natural revegetation on the trails.
- When work is finished, all work areas except access trails shall be left in a condition that will help with natural revegetation (unless reseeding, mulching, or other specific requirements apply), provide for proper drainage, and prevent erosion. Seed mix will be approved by the Forest Service. All seed, mulch, and hay approved for use will be properly certified as weed-free.

Riparian Areas, Aquatic Resources, and Water Quality

- Equipment staging areas and refueling locations will be at least 250 feet away from streams and wetlands. Spill prevention and containment measures will be used at all staging areas and refueling locations. A spill prevention, control, and containment plan will be prepared prior to work initiation.
- Vehicles, including heavy equipment, trucks, and all-terrain vehicles, will be allowed to cross perennial and intermittent streams with defined beds and banks at open channel crossings (without bridges or culverts) only at locations designated by the Forest Service. If the Forest Service determines that it is needed, open channel crossing locations will be repaired following use to restore the channel to appropriate dimensions, stabilize stream banks, prevent erosion, and allow vegetation to recover.
- Equipment will not be permitted within 100 feet of the edge of streams or the edge of riparian or wetlands/fens vegetation, except as noted below and authorized by the Forest Service. Hand felling of hazard trees is permitted within this 100-foot buffer.
- For trees felled within riparian buffers:
 - Trees should be directionally felled away from streams and wetlands in areas immediately next to culverts (within 50 feet) or when trees are too small to be sufficiently anchored and would create problems during high flows by being transported downstream and potentially blocking culverts.
 - Trees large enough to be anchored and that would provide instream aquatic habitat should be felled directly across the stream. This simulates natural conditions and provides a large woody component to the stream for aquatic organisms and fisheries habitat. In perennial streams, the Forest Service will decide which trees will be felled across the stream and used for habitat, and which will be felled away from the stream.
 - Trees should be removed using at least one-end (partial) suspension.
 - Trees should not be skidded across perennial or intermittent stream courses.

- For isolated wetlands in transmission-line rights-of-way, trees within the wetland and wetland buffer should be left standing if the trees will not violate applicable electrical safety standards.
- For some streams, terrain might limit the extent of riparian vegetation and upland vegetation within the water influence zone. For these streams, conventional logging equipment may be used within the water influence zone with Forest Service approval. Larger trees and woody debris should be kept in the riparian zone and be used for instream aquatic habitat when feasible and consistent with protection of other resources.
- Burn piles will be located away from perennial streams, lakes, ponds, wetlands, and riparian areas. The minimum distances are 50 feet for handmade piles and at least 200 feet for machine-made piles. For intermittent or ephemeral streams, handmade burn piles would be located 50 feet from or outside of the inner gorge, whichever is less.
- Isolated wetlands in the right-of-way that might occur under tree canopy, or seasonally, might not have been mapped and might not be visible on aerial photos. To avoid or minimize impacts to these areas, rights-of-way will be surveyed to identify and delineate wetlands and riparian areas before using mechanical equipment so that the appropriate design features are planned and implemented.
- Waste waters from construction-type operations shall not enter streams, water courses, or other surface waters without use of turbidity-control methods, such as settling ponds, gravel-filter entrapment dikes, filter fences, approved flocculating processes that are not harmful to fish, recirculation systems for washing of aggregates, or other approved methods. Waste waters discharged into surface waters shall be essentially free of suspended material. These actions shall comply with applicable U.S. Environmental Protection Agency National Pollutant Discharge Elimination System stormwater permitting requirements.
- Minimize activities in riparian areas or span riparian areas. Avoid disturbance to riparian vegetation whenever practical.
- Minimize the crossing of riparian areas with equipment and vehicles during maintenance activities. Use existing bridges or fords to access the right-of-way from either side of riparian areas.
- Winter Logging
 - In areas with soils with high susceptibility for compaction, activities will be limited when soils are “too wet” (as described under Soils). If harvesting during conditions when soil wetness cannot be determined (i.e., when soil is covered with snow), either a soil scientist will be consulted or the following guidelines will be used:
 - Frozen soil is 4 inches deep OR
 - Compactable snow or a combination of compactable snow and frozen soil is 12 inches in thickness. Snow quality should compact and form a running surface for equipment by being moist and non-granular.
 - Designated skid trails are NOT REQUIRED except for other resource concerns.
 - Conditions that would be monitored closely during operations are soil being “too wet” (as described under Soils); bare soil in trails; and daytime temperatures exceeding 35 degrees Fahrenheit for an extended period.

- For soils rated low or moderate for susceptibility to compaction, harvesting will not be done when soils are “too wet” (as described under Soils). These soil types may be harvested on year-round as long they are not wet. Snow or frozen soil is not required to protect soils.

Noxious Weeds and Invasive Species

Noxious weeds will be controlled and managed pursuant to Forest Service Manual 2900, Invasive Species Management as follows:

- Off-road equipment shall not be moved into the project area without having first taken reasonable measures to ensure it is free of soil, seeds, vegetation matter, or other debris that could contain noxious weed seeds. Equipment may also be inspected before moving it from areas infested with invasive species of concern to areas free of invasive species. Reasonable measures include pressure washing or steam cleaning in an off-site location where containment of oil, grease, soil, and plant debris provides optimal protection of project areas. All equipment surfaces should be cleaned, especially drive systems, tracks, and “pinch points” to ensure removal of potentially invasive species.
- Revegetation might be required in areas where ground cover is disturbed (e.g., landings and skid trails). If required, areas will be revegetated using approved certified weed-free seed mixes to prevent soil erosion or noxious weeds.
- Herbicides selected for use will be registered, approved for right-of-way application, and applied following the label requirements by appropriately licensed or certified applicators. Herbicides approved by the Forest Service for use on National Forest System lands will be used. Herbicide use on National Forest System lands will comply with Forest Service requirements.
- Staging areas should be located in areas not infested with invasive species.
- Work in un-infested areas first and then move to infested areas as practical.
- Designate travel pathways that are free of invasive plants when possible. If an infested pathway is the only choice, pre-treat that travel corridor with the appropriate herbicide before work activities as feasible.
- Project materials such as gravel, sand, and fill would be obtained from weed-free sources to the extent practicable and will be maintained weed-free during transport to the project site and while in storage there.
- Green woody conifer debris under 4-inch diameter can be lopped and scattered to minimize insect populations. Green pine or fir tree debris over 4-inch diameter needs to be removed, burned, chipped or bucked to 4-foot lengths to minimize species in pines or western balsam bark beetles in subalpine fir. Spruce and Douglas-fir tree boles over 8-inch diameter need to be removed, debarked, or bucked to 2-foot lengths to minimize risks of spruce beetle or Douglas-fir beetle build-up.

Rare Plants

- Before implementing new vegetation treatments and ground-disturbing maintenance activities, the project area will be reviewed using existing data or, if appropriate, surveyed using established protocols, where available, for listed and proposed threatened, endangered,

and sensitive plant species, and plant species of local concern.

- The Forest Service will identify activity restrictions and requirements in areas of known declining plant species (e.g., timing and measures to provide connectivity/linkage of habitats) so that the activity would not increase the trend toward federal listing or loss of population viability.
- Activities potentially occurring in habitats needed by sensitive species would be modified in coordination with the Forest Service.

Wildlife (General, including Management Indicator Species)

- Activities that could occur in areas with sensitive species, sensitive lifecycle needs (e.g., lambing areas, crucial winter ranges, and sensitive nesting areas) would be modified to minimize or avoid adverse impacts based on additional coordination with the Forest Service.
- During nesting season, surveys would be conducted before activities commence with the goal of avoiding disturbance or take of an active nest or migratory bird protected under the Migratory Bird Treaty Act.
- When treatments occur on or near known amphibian breeding sites, a decontamination protocol could be required to prevent the spread of chytrid fungus. This would be predicated on whether the equipment has been exposed to sites that are known to harbor or are highly suspected of harboring chytrid fungus.
- The Forest Service will identify activity restrictions (e.g., activity timing and vegetation management prescriptions) so the activity will not result in adverse effects, a trend toward federal listing, or loss of viability in the project area.
- Clean maintenance vehicles and machinery and treat as needed before beginning work or next to waterways in the effort to reduce potential spread of whirling disease.

Slash Disposal and Fuels Treatments

- Material, including tops, limbs, boles, non-salvageable trees, and other woody material, resulting from tree felling or removal operations should be treated to a fuels profile that promotes surface fire behavior of less than 4-foot flame lengths (maximum fireline intensity of 100 BTU/ft/s) under the average severe fire weather conditions.
- To achieve the desired surface fire behavior, the resulting fuel bed should show one of the following:
 - Low fuel loading such as that represented under Fuel Models (FM) such as Timber Litter (TL) 3, TL 5, FM8 or FM9.
 - A highly compacted fuel bed generally no more than 18 feet (crushed, chipped, masticated, or lopped and scattered).
- For fire prevention, internal-combustion engines will be equipped with a spark arrester approved in the Forest Service spark arrester guide.

Cultural Resources

- In accordance with appropriate programmatic agreements, a cultural resource inventory and consultation will be completed prior to individual project implementation.

- Activities will comply with the appropriate programmatic agreement or Section 106 and other applicable requirements.
- If previously unidentified prehistoric or historic materials are found during the course of the proposed activity, work in that area will cease. Work in the area of the cultural resource will not resume until the site has been evaluated for cultural materials and potential effects, and Section 106 is complied with. The discovery must be protected until notified to proceed by the authorized officer.
- If the State Historic Preservation Office or a Native American Tribe so requests, WAPA will further consult to identify properties of traditional cultural and religious significance to Tribes or other interested parties that may lie within WAPA's areas of potential effect as defined in the consultation for the undertaking.

Transportation

- Slash and debris will be kept out of road ditches and drainage channels.
- Hauling that results in excessive road damage and could contribute to possible sediment discharges into stream channels will be suspended on native surface roads during periods of precipitation. Hauling will be suspended until the road subgrade can adequately carry trucks and there would be no road damage.
- On haul roads, ruts, holes, and washboards shall be removed by scarifying or cutting the bottom of the defects. Such cut material shall be regraded and compacted at suitable moisture content over the traveled way. Fines accumulated while blading roads or from drainage ditches shall not be wasted over fill shoulders.
- Water bars, out sloping the prism, and cross drains will be installed as needed to remove surface water and stabilize road surfaces. Stumps, rocks, slash, and logs will be placed on the ripped road surface to a density and depth to mimic the surrounding ground. Specific rehabilitative methods would be determined case by case.
- Gates or other closures will be installed as needed to prevent unauthorized use of access roads that are not open to public travel, and closure signs will be posted.
- Access to water-related facilities will be maintained.
- Reclaim abandoned access routes in transmission-line rights-of-way.

Visual

- Clumps or islands of trees will be left in openings of danger tree removal (where sagging lines and ground clearance are not a concern) to break sight distance and to maintain a natural-appearing landscape mosaic pattern.
- Minimize Visual Effects by:
 - Limiting the use of foliar application of herbicide to reduce creation of large areas of browned vegetation.
 - At road crossings and highway or visual overlooks, leaving sufficient vegetation, where possible, to screen views of the right-of-way.
 - If the area is visually very sensitive consider (1) softening the straight line of corridor edge by cutting some additional trees outside the right-of-way, or (2) if possible, leaving

some low-growing trees within the right-of-way, or (3) implement a less-aggressive treatment of the right-of-way and ensuring a higher frequency of monitoring vegetation conditions and scheduling re-treatments when needed.

- Treating unnatural-appearing soil disturbances. Smooth piles of soil created by machinery or any other soil disturbance from machine piling within 100 feet of areas requiring Partial Retention VQO/Moderate SIO or higher, scenic byways, hiking or multi-use trails, camping areas, other areas of moderate to high use recreation, or any other areas of visual significance.
- Best management practices shall be implemented, such as for tractor skidding design, erosion control, and protection of meadows, stream courses, and aquatic resources may apply to biological, soil, or other resource areas and would also apply to visual resources in that they indirectly protect aesthetics and prevent impacts that would dominate the visual landscape during and after project implementation.

Developed Recreation Sites, Trails, Trailheads, and Administrative Sites

- WAPA would coordinate closure of trailheads, administrative sites, campgrounds, and travel corridors with the local ranger district to minimize impacts to the public and other permitted users.
- WAPA would coordinate closure of motorized or nonmotorized trails with the local ranger district to minimize impacts to the public. Coordination would include identifying if alternative routes are available for trail closures, unless it would interfere with wildlife travel, interfere with maintenance of the right-of-way, or impact other resources.
- WAPA would coordinate closure of National Forest System roads with the local ranger district to maintain access to developed recreation sites, trails, or trailheads outside transmission-line rights-of-way to minimize impacts to the public. Coordination would include identifying if alternative roads providing access are available, unless it would interfere with wildlife travel, interfere with maintenance of the right-of-way, or impact other resources.
- WAPA will post advance notice of trail closure at trailheads or nearby developed recreation sites or recreation areas. Notices will include duration of the trail closure and whether an alternative route is available. If an alternative route is available, a map of the route will also be posted.
- Use of noise-generating equipment next to campgrounds would be limited to daytime hours.
- Slash and debris will be kept out of motorized and non-motorized trails.
- For scenic byways, special interest areas, and research natural areas:
 - Tree cutting and clearing should be done by hand in transmission-line rights-of-way that are next to or cross scenic byways, special interest areas, and national recreation areas. Boles will be left in place; slash will be lopped and scattered to a depth of less than 24 inches unless it would result in unacceptable fuel loading, interfere with wildlife travel, interfere with maintenance of the line, or impact other resources.

Public Safety

- Maintenance Level 2 roads shall be temporarily closed to general public access during felling, slash treatment, or removal operations. Temporary closures may range from 1 day to 2 weeks.
- For waste management:
 - Sanitary wastes, oils, greases, fuels, refuse, and garbage must be managed and controlled. Oils, fuels, greases, antifreeze, and other liquid chemicals must be controlled to prevent spills. They must not be stored within 250 feet of a drainage, whether wet or dry, or lakes, wetlands, fens, or other surface water. Equipment will not be fueled or serviced within 250 feet of surface water. Spills must be promptly cleaned up, and contaminated soils and debris must be properly disposed of in approved landfills or by other approved methods. Solid waste materials must be removed from the area and disposed of appropriately.
 - No chemicals or solid wastes will be buried in the WAPA rights-of-way or disposed of in areas not approved as disposal facilities.