Implementation Checklist and Design Features[1]

Treatment Name: Park Cone

Treatment Location: Township 14 South, Range 82 West, Sections 19-21 and 28-33, 6th Principal Meridian, Gunnison County, Colorado

Planning Steps

[1] *This document was Appendix A in the Taylor Park Vegetation Management Environmental Assessment. The DN/FONSI was signed 05/07/2020. Format has been updated and some additions made to aid in implementation application.*

Planning Steps

1. Consult the Environmental Assessment and Decision Notice

Instructions: The direction in the EA and Decision Notice reflects comprehensive public participation and collaborative efforts conducted over a yearlong planning period. The public had opportunities to influence all elements of these documents. Becoming familiar with the implementation parameters of the EA and Decision Notice to develop an understanding of these limits and requirements will help the Interdisciplinary Team identify treatment types (Appendix B) and design features needed for treatment areas. Ensure proposed treatments accomplish project objectives (objectives listed below).

Taylor Park Vegetation Management Project Objectives:

- Treat stands to improve forest health using commercial harvest, non-commercial, and prescribed fire treatments as appropriate to the site-specific situation.
    - Protect young, healthy stands of lodgepole pine from infestation by dwarf mistletoe through harvesting infested stands and treatment of adjacent strips and stands.
    - Salvage trees killed by spruce bark beetle, mountain pine beetle, Douglas-fir bark beetle and wildfire for commercial wood products.
    - Precommercially thin young stands of lodgepole pine to increase/maintain growth rates.
- Reduce fuels in wildland-urban interface areas to allow for the facilitation of natural fire processes on the landscape.
    - In the wildland-urban interface, reduce the potential for crown fire by reducing or breaking up canopy continuity, decrease potential surface fire intensity via reduced surface fuels, and improving tree health and vigor; this will provide for more opportunity to allow natural ignitions to burn with minimal influence from fire suppression efforts.
- Provide wood products for the local economy that relies on wood fiber harvested sustainably from public lands.
    - Provide lodgepole pine and Engelmann spruce sawtimber and other forest products such as firewood, fence posts, and corral poles from suited timber in the watershed. Focus is on dwarf mistletoe infested stands and spruce resiliency treatments outside of SBEADMR treatment units. Proposed commercial harvest would be in addition to, and in conjunction with that of SBEADMR. Information on the SBEADMR project can be found at https://www.fs.usda.gov/detail/gmug/home/?cid=fseprd497061.
- Remove hazard trees along open public roads.

2. Validate within Thresholds[2]

☐ **HUC12 Watershed Scale:** Work with the Supervisors Office Soil and Water Program Lead to validate or update total disturbance for the treatment's watershed (HUC12). Using the Equivalent Roaded Acres approach, ensure that recently affected acres, in combination with those analyzed in the Final

[2] *Thresholds are identified in Table 1. Decision-making triggers for adaptive implementation of the EA (pp. 21-22).*

EA, do not exceed 25 percent of the watershed. If the 25 percent threshold would be exceeded by the proposed treatment, discontinue treatments in the watershed until recovery has occurred.

The 25 percent threshold is conservative to ensure that deleterious impacts to water quality and overall watershed health do not occur. Rate of recovery following impacts would be based on the impact (e.g., temporary road construction or vegetation treatment) and condition variables (e.g., soil type, revegetation efforts, silvicultural prescription, logging methods). If or once the 25 percent threshold is met in a particular watershed, no other treatments under the Taylor Park EA would occur within that watershed, as it is assumed that the life of the project would lapse prior to recovery. Any additional treatments in the watershed would require additional NEPA analysis.

- **Lynx Analysis Unit Scale:** Work with the Supervisors Office Wildlife, Fish, and TES Program Lead to validate or update the current extent of single-storied stands in the LAU that in are stand initiation structural stage (SISS) due to bark beetle, management, or other natural disturbance.

- **Treatment Area Scale, Soil Disturbance:**

  ☐ Based on a review of past activity records, aerial photos, or other records, there is no evidence of past activity in the treatment area.
  ☒ There is evidence of past activity in the treatment area. I have initiated coordination with the Supervisors Office Soil and Water Program Lead to determine the extent of surveys required in the next phase of treatment design.

3. Complete Area Surveys and Inventories

Instructions: It is the responsibility of the interdisciplinary team resource specialists to (a) select applicable surveys from the example list below, (b) document additional needed surveys below, and (c) confirm identified surveys have been completed. **Those identified with an asterisk are required for all treatments per law, regulation, policy, or consistency with decision-making triggers in the Taylor Park Vegetation Treatment EA.**

Survey data will be used to develop treatment layouts, to identify need for design features, to identify areas that should be avoided (e.g., cultural sites, sensitive wildlife areas, etc.), and to establish treatment-specific objectives and desired outcomes. Information derived from the surveys may also precipitate monitoring questions that the interdisciplinary team should consider.

Air Quality

☒ If applicable, obtain State of Colorado air quality (smoke) permits (AQ-1).

Project lead/Fuels specialist signature that permit will be been obtained: MARTIN CHAVEZ Digitally signed by MARTIN CHAVEZ Date: 2021.05.06 07:58:22 -06'00'

Justification, comments, and location of data/surveys (if applicable):

Cultural Resources

Instructions: National Historic Preservation Act compliance will be completed prior to treatment implementation. All cultural resources that are eligible for the National Register of Historic Places or are unevaluated within a treatment area will be avoided unless the Heritage specialist determines a specific treatment does not have the potential to affect certain types of cultural resources.

Any changes to treatment areas or road construction during implementation will require a separate review under the National Historic Preservation Act.

The National Historic Preservation Act requires that if newly discovered cultural resources are identified during treatment implementation, work in that area must stop and the Forest Archaeologist be notified immediately. The Native American Graves Protection and Repatriation Act, requires that if inadvertent discovery of Native American remains or objects occurs, activity must cease in the area of discovery, a reasonable effort made to protect the item(s) discovered, and immediate notice made to the Forest Supervisor, as well as the appropriate Native American group(s)and State Historic Preservation Officer (SHPO). Further actions also require compliance under the provisions of the National Historic Preservation Act and the Archaeological Resource Protection Act).

- ☒ *National Historic Preservation Act compliance will be completed for each treatment unit prior to implementation. This may include literature reviews, field surveys (if deemed necessary by the Heritage specialist) and completion of SHPO and Tribal consultation. Surveys, reporting, and consultation may be conducted in accordance with a Programmatic Agreement. SHPO and Tribal consultation may result in additional cultural resource avoidance or protection measures.
- ☒ Identify cultural sites to be avoided on the ground
- ☐ Roads and landings
- ☐ Pile burning
- ☐ Other surveys (specify):

District Archeologist signature that identified surveys have been completed: JUSTIN LAWRENCE Digitally signed by JUSTIN LAWRENCE Date: 2021.06.23 11:42:16 -06'00'

Justification, comments, and location of data/surveys (if applicable):

Project area had a Class II cultural resource inventory conducted.

electronic/sig/ Justin Lawrence, April 27, 2021

Note from NEPA Planner: Justin's linc pass signature function was not working correctly so manually signed above. Update: Was able to sign.

Fire/Fuel Surveys

- ☐ Browns transects/photo points
- ☐ Determine minimum and maximum fuel loading associated with harvests and treatments; particularly important to consider are residual fuel loadings near wildland-urban interface and other values (less than 4 feet surface flame length required) and those associated with roadside hazard tree removal (roads may be used as future control lines and fuel loadings from hazard tree removal should be mitigated so as to not significantly increase surface fuel loadings)
- ▣ Other surveys (specify):

Fire/Fuels Specialist signature that identified surveys have been completed: DAVID CARR Digitally signed by DAVID CARR Date: 2021.06.22 16:58:21 -06'00'

Justification, comments, and location of data/surveys (if applicable):

Fuel loading and fuel reduction is considered in the Silvicultural Prescriptions. There will be post-harvest machine slash piling for reforestation and fuel reduction in all treatment units, slash pile burning, ash pit rehabilitation, and disease control work.

Land Surveys

Instructions: Before beginning any ground- or vegetation-disturbing activities, evidence of the Public Land Survey System will be marked for protection. The Forest Land Surveyor shall be consulted to assist with providing data, searching for and evaluating evidence, and locating and protecting monuments of the Public Land Survey System from destruction.

- ▣ Forest Land Surveyor contacted and survey has been completed.
- ☐ If proposed treatment is within 300 feet of wilderness, locate boundaries.
- ☐ Other surveys (specify):

Forest Land Surveyor signature that identified surveys have been completed: GENE DOLLARHIDE Digitally signed by GENE DOLLARHIDE Date: 2021.05.03 15:27:46 -06'00'

Justification, comments, and location of data/surveys (if applicable):

No issues with protection of survey monuments in the cutting areas.

Range and Invasive Species Surveys

Instructions: Based on survey of invasive weeds in the treatment area, prioritize weed infestations for treatment in high-risk sites, including treatment operating areas and along access routes. Control weeds as necessary prior to treatment implementation. Modify treatment as needed to reduce expansion of invasive weeds.

Include identified range improvements, range transects and witness trees and posts in the timber contract, service contract, or burn plan as features to be protected from disturbance during treatment activities.

- ■ Pre-treatment invasive weed surveys.
- ■ Identify and map range improvements that could be affected by treatment activities.
- ☐ Identify range transects and witness trees and posts before treatments.
- ☐ Other surveys (specify):

Range Management Specialist signature that identified surveys have been completed:

DAYLE FUNKA Digitally signed by DAYLE FUNKA
Date: 2021.02.11 17:52:31 -07'00'

Justification, comments, and location of data/surveys (if applicable):

Range Improvements exist in the timber sale area referred to the Keys Hill Fence. It is a 4 wire fence including gates. The project area is also located in an active grazing allotment referred to as the Taylor Park C&H allotment. Coordination may be necessary with Rangeland Management and Timber staff during active timber harvesting and grazing season. Invasive mapping template displays that these cut units vary from low to high risk level of "invasibility". However, current records show that Invasive species are not prevalent throughout, but some small, isolated populations of Cirsium arvense were found along roads and in old timber sales. Prior and/or post harvest noxious weed surveys will be conducted and necessary mitigation and/or treatment will be recommended and implemented as warranted. The map to display the model and existing range improvement(s) is provided in the project file of supporting documents

Recreation

Instructions: The Recreation Specialist will work with the team and the proposed treatments to inventory the recreation attributes that may be affected by treatments. The type of treatment and the location can affect recreation activities and the quality of the recreation experience in the near term and over the long term. Evaluate how the treatment will affect the recreation facilities and settings in the area. Use the design features (Step 4, below) to ensure that the recreation opportunities are managed appropriately for the period of treatment implementation and for the long term. Design implementation to minimize the impact on recreation users to the extent feasible, including having good communication with partners and the public about the impacts of the activities.

Developed Recreation Sites

- ☐ Consult with District Ranger to identify developed recreation sites affected by treatment activities.
- ☐ Consult with District Ranger to determine if sites are managed by Forest Service or under permit with a concessionaire.

Dispersed Recreation Sites

- ☐ Consult with District Ranger to identify dispersed recreation sites that should have a higher degree of clean-up than other general forest areas.

Trails

- ■ Consult with District Ranger to identify the location of any National Forest System trail that would be impacted by treatment activities.
- ☐ Identify managed snow trails.
- ☐ Identify the types of uses and predominance along all trails.

Recreation Special Uses

- ☐ Consult with District Ranger to identify the location of any authorized recreation special uses that would be impacted by treatment activities. Identify the types of uses that would be affected.

Recreation Specialist signature that identified surveys have been completed: Jennifer Sublett Digitally signed by Jennifer Sublett Date: 2021.05.25 14:34:49 -06'00'

Justification, comments, and location of data/surveys (if applicable):

Project is located in Management area 2A (semi-primitive motorized recreation opportunities in a natural appearing environment) of the GMUG Forest Management Plan: Trail #621 will be impacted by this clearing project to various degrees, depending on the location along the trail. Minimize impacts to recreation users of this trail; moderate use of this trail most of the year, but heavier use in July in August. Trail provides access to the Lake View Campground and other riding opportunities throughout Taylor Park.

Sensitive Plant Surveys

Instructions: In the EA, 14 sensitive species that could occur within treatment units (see Table A-1) were identified. They have been grouped into four habitat types. The following are key habitat types to look for along with associated species. These species can also occur within microsites intermixed or on edge of these habitat types.

Table A-1. Sensitive species

Habitat	Sensitive Species
Montane parks and alpine	*Machaeranthera coloradoensis*
Moist swales and riparian meadows	*Astragalus leptaleus*
Fens and other wetlands	*Carex diandra* *Drosera rotundifolia* *Eriophorum chamissonis* *Eriophorum gracile* *Kobresia simpliciuscula* *Salix candida* *Salix myrtillifolia* *Rubus arcticus ssp acaulis* *Sphagnum angustifolium* *Sphagnum balticum* *Utricularia minor*
Lightly disturbed microsites (old roads and road cuts) within or close to mesic coniferous stands	*Botrychium paradoxum*

- ■ Suitable habitat is found in treatment area and there is a chance habitats could be disturbed. Conduct field survey to determine if individuals or populations occur.
- ☐ Fens surveyed for sensitive species and, if found, appropriate buffer identified.
- ☐ For prescribed burning activities: fens surveyed and data collected for pre-treatment baseline. Monitoring will be needed after prescribed fire treatment.
- ■ If a sensitive species is found, the area will be flagged and avoided.
- ■ Other surveys (specify):

Botanist/Ecologist signature that identified surveys have been completed: SUZANN PARKER Digitally signed by SUZANN PARKER Date: 2021.01.26 13:42:53 -07'00'

Justification, comments, and location of data/surveys (if applicable):

A review of Forest Service sensitive species that may occur or be affected by the proposed action was conducted. Available information was assembled on occurrence records and species habitat needs to conduct this analysis. Sources of information included Forest Service records and spatial data (NRM- Plant – USFS corporate Plant database, GMUG Fen Inventory (Johnston and others 2009), National Wetland Inventory dataset, Vegetation Polygon Data -FS VEG, Activity Timber Harvest -FACTS database), Landfire, NRCS Soil Web, the State Natural Heritage Program database, state wildlife agency information (Colorado Parks and Wildlife), and published scientific research (see project folder). Two sensitive species were searched for, Colorado tansy aster (Machaeranthra coloradoensis) and peculiar moonwort (Botrychium paradoxum). Both species have potential habitat within the project area and therefore possibly occur within the project area

From September 2 – 3, 2019, USFS Enterprise botanists Maggie Sheeran and Shaun Chow surveyed the Kentucky Ridge project area (which includes the Park Cone sale area) for sensitive plant species Botrychium paradoxum and Machaeranthera coloradoensis. A total of 908 acres was effectively surveyed, with higher intensity controlled intuitive surveys conducted in 518 acres that were determined to have <40% canopy cover by land fire data. Of that acreage, survey efforts were further focused in 257 acres which had <30% canopy cover; conditions required by the targeted sensitive species. The project area contained a variety of habitat types: Picea engelmannii forest with micro openings, large areas of Pinus contorta dominant forest, dry and mesic meadows that ranged in size, Artemesia sp. dominated dry slopes, and open gravelly slopes. Some portions of the project area was dominated by Vaccinium spp, but these areas were not densely carpeted. The majority of the unit possessed very little ground cover, but when present was dominated by Lupinus sp., Fragaria, and Taraxacum. Spruce mortality in this area ranged from 0-35%, averaging about 5% in die-off. Old and current management disturbances such as service roads, two-tracks and trails were found throughout the project area. There are many old timber sales throughout the unit as well, typically adjacent to large plantations of P. contorta that varied in age. These ubiquitous dense thickets ranged in age from small saplings to immature trees and will need to be aggressively thinned in the future. The soil substrate in this unit was of granitic origin and was quite gravelly and well-drained in certain areas. Because of the rocky, well-drained soils in this unit, the majority of this unit was quite a bit drier compared to other project areas; evidenced by the higher frequency of Artemesia and Juniperus. No sensitive species were found, but infestations of Cirsium arvense were found throughout the project area in old timber sales.

Surveyors focused efforts primarily on the openings determined by land fire data, but also investigated smaller openings not captured by the model. Surveyors examined other suitable habitats when navigating to other openings. Surveys were conducted with a focus on B. paradoxum and M. coloradoensis habitat; concentrating on forest openings with older disturbances and rocky/gravelly areas. Because of the drier nature of this unit, potential habitat for B. paradoxum is most likely not present. Some suitable habitat for M. coloradoensis was found, with many more open gravelly areas observed within this project area compared to others.

Potential effects to sensitive plants are within those analyzed and disclosed in the EA and Plant Biological Evaluation. See project file records for additional information.

Soil and Water Surveys

- ■ Create map products of water influence zones buffers and sensitive soils (if needed) for use in the timber sale contract package.
- ■ All fens, wetlands, and water influence zones delineated, flagged, and avoided.
- ■ Sensitive soil types, i.e., severe erosion hazard rating, slopes greater than 40 percent, landslide-prone areas identified.
- ☐ Proposed temporary road locations evaluated for number and locations of stream crossings, length within water influence zones, and the potential for impacts to the hydrology of groundwater-dependent ecosystems.
- ☐ Phase 2--Treatment Area Scale, Soil Disturbance:
  - ■ Field observations indicate **no** visible evidence of past activity in the proposed treatment unit. No further soil disturbance surveys needed.
  - ☐ Field observations indicate visible evidence of past activity in the proposed treatment unit. Coordinate with the Supervisors Office Soil and Water Program Lead to determine next survey steps, to ensure that past detrimental soil disturbance, in combination with the proposed treatment disturbance, would not exceed 15 percent of the activity area. If 15 percent would be exceeded by the treatment, modify treatment boundaries and/or exclude this treatment until further soil restoration activities are completed.
- ☐ Other surveys (specify):

Soil and Water Specialist signature that identified surveys have been completed: ASHLEY HOM Digitally signed by ASHLEY HOM Date: 2020.12.21 20:05:57 -07'00'

Justification, comments, and location of data/surveys (if applicable):

Park Cone Timber Project Field Summary
The Park Cone timber project area was field reviewed on September 15 and 16, 2020. The project is located approximately 37 miles northeast of Gunnison, CO in the vicinity of Taylor Park Reservoir and Park Cone Peak. Elevation of the units ranged from approximately 9,800 to 10,200 feet. The Park Cone timber sale includes 17 units totaling approximately 300 acres.
Overview The project area in general was fairly uniform in characteristics. Both pockets of live stands of conifer (spruce, fir, and lodgepole pine) and dead/dying stands existed in the units. Closed canopies were lacking an understory of grasses and shrubs and consisted of needle cast, small diameter limbs, rocks, and moss/lichen. Closed canopies also lacked conifer regeneration. Open canopies had understories of grasses and shrubs but still had sparse conifer regeneration. Ground cover was 95% or greater throughout the units. Bare ground was not noted. Ground cover included needles, small limbs, rocks, some live grasses and shrubs, moss/lichen, and coarse woody debris (CWD). Ground cover was typically 1/4 inch or less across the project units and often was only a thin veneer covering the soil. Many of the southern units contained granitic rocks on the surface. Skid trails and temporary roads were observed throughout the units that had been harvested in the past. Little conifer regeneration was occurring on the old skid trails and temp roads, but they were covered by grasses, shrubs, and a litter layer. Pockets of excessive amounts of coarse woody debris remained on the ground in many units, including “1,000 hour” fuels. Some pockets were due to past harvest, others appeared to be due to natural events.
Soil Characteristics There are 8 dominant soil types within the area as listed in the table below. Soil data is from Colorado soil survey CO661.
Note: Unit numbers are taken from the ObjectID column in GIS data layer for the Park Cone Units.
41% of the project units are soil type LuE. This soil is gravelly sandy loam and is moderately deep. Bedrock is at a depth of approximately 37 inches.
Depth to water table in soil type Cs is 18 inches and is rated as poorly drained. This soil type is located along the south western border of unit 93 and in unit 283 along the eastern edge that borders a meadow. As this soil type is less than one acre and lies along the unit borders it could easily be avoided. Temporary road construction and skid trails should be avoided on this soil type to prevent compaction and rut depths that reach the water table.
68% of the project area has a rocky surface texture. Rock content within the soil profile and on the surface typically reduces compaction due to equipment passes within the units. This would not be the case with temporary road construction.
The geology of the southern units is granitic rocks which includes Denny Creek Granodiorite Gneiss, Kroenke Granodiorite, Pitts Meadow Granodiorite, Browns Pass Quartz Monzonite. The northern units consist of metamorphic, metavolcanics rocks of rhyolite, basalt, and interbedded graywackes and highly metamorphosed gneisses. There does appear to be a change in geology and soil between the northern units and the southern units of 86, 93, 94, 305, 309, and 310.
Water: Units were dry for the most part during review. Unit 326 had a small saturated seep or swale area (38.80774, -106.57307). Equipment should avoid this area during harvest. There is a wet meadow between country road 752 and units 283 and 284. Although there are numerous drainages in the area, units have been buffered and boundaries moved upslope to avoid these features.
Erosion: SuF soil type is rated as severe for erosion hazard. Soil types DnF, LuF, and SdF are rated moderate for soil erosion. This more than likely is due to the steepness of upper slope percentages greater than 35%. Timber harvests would be limited to FP standards and guidelines.
Disturbance: Units with previous tractor logging include units 122, 283, 305, 309, 310, and 326 according to Forest GIS data. Old temporary roads and skid trails still exist within these units and can be re-used to minimize new soil disturbance. Past detrimental soil disturbances due to rutting, puddling, soil piling, landings, or burn piles where noted but not widespread within the units. A few ruts were noted in one unit but at this point they would not be rated as detrimental soil disturbance (PM 14 and 14.1 photos). Grass regeneration has occurred in the ruts and there were no signs of erosion.
Concerns: No soil concerns within the Park Cone units. Slopes were not steep except for short pitches to structural benches. Most slopes were moderate between 15 and 35%. Ground cover was 95% and greater which has limited erosion off-site. While soil type Cs could have detrimental soil disturbance if logging equipment makes multiple passes over it, it is less than one acre between two units. It is also along the borders of the units so can be easily avoided.

Timber Surveys

Instructions: Use the results of the stand exams and insect and disease surveys to determine the existing conditions of the stands and the feasibility of mechanical vegetation treatment. Compare the existing conditions to the condition statements in the Decision Tree for Silvicultural Prescription Application (Appendix B of the EA) to develop a range of treatment options. Present the range of treatment options to the interdisciplinary team to develop a treatment alternative that will have a positive trend toward integrated resource indicators.

- ■ Stand Exam
- ■ Insect and Disease Survey
- ■ Operational Feasibility and Access
- ■ Silvicultural prescription and marking guides
- ☐ Other surveys/information (specify):

Timber Management Assistant signature that identified surveys have been completed:

ARTHUR HAINES

Digitally signed by ARTHUR HAINES
Date: 2021.02.11 09:33:40 -07'00'

Justification, comments, and location of data/surveys (if applicable):

The Silvicultural Prescriptions and supporting documents have been uploaded to: Box\Implementation Checklists\3-ParkConeTS_Due-10Feb2021 \ParkConeChecklistSupportingDocumentation\Silviculture as they are completed. This will include a summary of the completed common stand examinations in "Appendix D".

Field reconnaissance of the project area was completed during recent CSE contract inspections and during earlier forest management projects in the area.

Transportation Planning Surveys

Instructions: Apply the appropriate design features for transportation systems and haul routes to keep effects to existing routes and effects from new routes within the bounds disclosed within the EA that supports the Decision Notice for this project.

- ☐ Existing road to be used in the sale – Road log
- ☐ Final Road Design
- ☒ Other surveys (specify):

Engineering signature that identified surveys have been completed: GARTH GANTT Digitally signed by GARTH GANTT Date: 2021.02.08 14:00:57 -07'00'

Justification, comments, and location of data/surveys (if applicable):

Roads for the Park Cone Sale will be addressed by Pre Haul Maintenance rather than a Specified Road Package.

Visual Resources Surveys

Instructions: Evaluate and select the applicable design features for visual resources such that the treatment area's identified visual quality objectives are achieved consistent with the forest plan.

- ☐ Identify valued scenic resources
- ☐ Identify sensitivity level of scenery
- ☒ *Identify treatment area's visual quality objectives, per forest plan guidance. Plan in accordance with design features SRV-1 thru SRV-6 (Step 4, below).
- ☐ Other surveys (specify):

Recreation Planner/Visual Resource specialist signature that identified surveys have been completed:

Jennifer Sublett Digitally signed by Jennifer Sublett Date: 2021.05.25 14:38:03 -06'00'

Justification, comments, and location of data/surveys (if applicable):

Project is located in Management area 2A (semi-primitive motorized recreation opportunities in a natural appearing environment) of the GMUG Forest Management Plan: The viewshed along Trail #621 will be impacted by this clearing project to various degrees, depending on the location along the trail. Minimize impacts to the viewshed when possible.

Wildlife and Fish Surveys

Instructions: Complete surveys required by law, regulation, or policy. The list below is not exhaustive nor does it apply to every treatment. The District biologist will determine which surveys need to be conducted. While completing ground reconnaissance, look for opportunities to achieve multiple resource management objectives.

- ☐ If needed, coordinate with Colorado Division of Parks and Wildlife to identify areas important to various wildlife species (elk calving areas, security areas, etc.) for avoidance and/or application of special management considerations. Typically, special management considerations would be in the form of design features.
- ◙ Northern goshawk/forest raptor surveys
- ☐ Conduct old growth inventories if high percentage of treatment area is live.
- ☐ Dense horizontal cover surveys (Canada lynx)
- ☐ Field verification of GIS mapped lynx habitat
- ☐ Snow tracking surveys primarily for timber sale areas
- ☐ Neo-tropical migratory bird monitoring – point count surveys consistent with the Rocky Mountain Bird Observatory (primarily in forest areas where Rocky Mountain Bird Observatory data are lacking information on species densities and population trends at the forest-scale, such as Brewer's sparrow and red-naped sapsucker; otherwise, use existing data and do not conduct new surveys).
- ☐ Document nest sites for MIS and sensitive primary and secondary cavity nesters, if needed.
- ☐ Confirm presence of American marten in treatment area using bait stations with soot track plates and remote cameras
- ☐ Conduct photo-point monitoring of prescribed burn areas by establishing pre-treatment photo points, and repeating the photos post-treatment.
- ◙ During treatment design, coordinate with other resources as needed.
- ☐ Other surveys (specify):

District Biologist signature that identified surveys have been completed: MATTHEW VASQUEZ Digitally signed by MATTHEW VASQUEZ Date: 2021.02.11 10:13:49 -07'00'

Justification, comments, and location of data/surveys (if applicable):

Modeled northern goshawk habitat (created on 21 March 2018 using LANDFIRE data) was identified within the planned treatment units and within a 1/2 mile buffer of the treatment units, and broadcast calling surveys and nest searches were conducted during the nesting season from July 23 - 24 and August 5 - 7, 2018. 260 broadcast calling stations were visited to try to elicit goshawk responses by playing recorded alarm calls. Additionally, a historic goshawk nest was visited - not active, and a new active nest was found 200 feet from the known historic nest. On 8/5/2018, an adult goshawk was seen and responded to the broadcast alarm call within suitable nesting habitat. The bird's behavior was indicative of defensive behavior associated with a nest site. This third site is far enough away from the active nest discussed above to be a second but adjacent goshawk territory.

The three goshawk sites described above were visited on July 17, 2020. One of the two nests was active (same as 2018) but is outside of the timber sale area and will not be affected. The third site as referenced in the first paragraph appeared inactive but we heard the adult goshawk alarm call. Gray Jays were also in the area mimicking the goshawk alarm call. We conducted a search but no goshawks were seen. The site contains mature lodgepole pine and forest conditions highly suitable and conducive for nesting. On July 17 and September 15, 2020, this information was communicated to the Gunnison Ranger District timber staff via email and additional coordination occurred on November 16, 2020, resulting in treatment unit adjustments to avoid impacting the nesting habitat. A no-treatment buffer was applied consistent with Forest Plan direction. Nest sites are visited annually to confirm status. If active, we apply a nesting season timing restriction consistent with Forest Plan direction and CPW raptor buffer guidelines.

During harvest unit layout and harvest operations, areas of healthy, high quality advanced coniferous tree regeneration are protected, consistent with design features for lynx per the Southern Rockies Lynx Amendment.

Potential effects are within those analyzed and disclosed in the Taylor Park Vegetation Management EA.

4. Draft Treatment Plan, Including Design Features

Instructions: Prepare refined treatment plans and implementation instructions and unit layout guidance, including road work.

As part of the treatment plan, use the resource tables below to identify those design features that apply, those that do not apply and the rationale for such (i.e., the resource is not present in the treatment unit), and those that apply as modified. If there are compelling reasons to modify a design feature, note below and provide rationale as to why the modification is equivalent or better protection to the resource.

If a design feature is relevant to the conditions and/or resources present in the treatment area, the design feature should be applied to avoid or minimize impacts of management actions. Application of the appropriate design features ensures consistency with analysis completed in the Final EA and demonstrates compliance with legal, policy and forest plan requirements. Applicable design features identified during this phase of planning will be carried forward into the final design plan (timber sale contract, service contract or burn plan).

Sign-off by the staff specialists and approval by the line officer indicates that the treatment as designed, with appropriate use of design features, fulfills the forest plan and other legal requirements, including compliance with the Taylor Park Vegetation Treatment EA.

Air Quality

Table A-2. Air quality
Objective: Comply with Clean Air Act requirements

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
AQ-1	Prescribed burning operations will comply with the State of Colorado air quality regulations.	Clean Air Act	Yes	
(TSHR-7)	Use suitable road surface stabilization practices and dust abatement supplements on roads with high or heavy traffic use (See FSH 7709.56 and FSH 7709.59).	Forest Service National best management practices	Yes	Only needed in extremely dry circumstances.

Project lead/Fire and Fuels specialist signature MARTIN CHAVEZ Digitally signed by MARTIN CHAVEZ Date: 2021.06.23 11:05:18 -06'00'

Note from NEPA Planner: Above TSHR-7 was in conflict with the same DF in the Transportation section. Martin is the project lead and had said "no" but didn't provide a justification statement. As such I updated this section to be consistent with the Transportation section. I additionally discussed this with the Fuels Specialist David Carr and Art Haines, as Martin was on Annual Leave at the time of this being updated.

Cultural Resources

Table A-3. Cultural resources

Objective: Comply with National Historic Preservation Act

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
CR-1	Cultural resource surveys will occur prior to treatment implementation. All sites within a treatment area will be avoided until State Historic Preservation Office consultation may be completed. Archaeologist will consult with timber personnel with regards to site locations	USDA Forest Service, 2015. - Programmatic Agreement for Bark Beetle, Hazardous Fuel and Tree Reduction Programs with Amendments	Yes	
CR-2	Discoveries: If any new cultural resource sites are discovered during implementation, treatment activities would stop and the Forest Service archeologist would be contacted immediately. The archaeologist will evaluate the significance of the cultural resource. If potentially significant, within 48 hours of the discovery, the SHPO will be notified of the discovery and consultation will begin to determine an appropriate mitigation measure. The discovery will be protected from further disturbance until any required mitigation is completed. Operations may resume at the discovery site upon receipt of written instructions and authorization by agency officials.	USDA Forest Service, 2015. - Programmatic Agreement for Bark Beetle, Hazardous Fuel and Tree Reduction Programs with Amendments	Yes	
CR-3	For all cultural resource sites located during the field inventory or previously known, no mechanical treatment or ground disturbing activities will occur within the site boundary, including an additional 50-foot buffer around the site. If mechanical treatments are necessary, the site and the 50-foot buffer around the site will be treated by hand to remove hazard trees and accumulated fuel build-up.	Stipulation 5.B.b. ii and Stipulation 6.a and 6 .b, Standard Treatments for Historic Properties, in the 2015 Programmatic Agreement for Bark Beetle, Hazardous Fuel and Tree Reduction Programs	Yes	

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
CR-4i	In areas slated for prescribed fire treatment, flammable cultural resource sites or sites with components or features susceptible to heat damage within the area of potential effect will be marked on the ground by an archeologist, along with a buffer area of no less than 50 feet, sufficient to prevent fire or heat from affecting components of the site that may contribute to its eligibility to the National Register of Historic Places. In addition, treatments may include fuel-breaks, no-treatment buffers, wrapping, foaming, wetting, blackline, fire line (hand or mechanical), and clearing the cultural resource sites of flammable debris by raking and hand removal. Any fire line that will be ground disturbing will be subjected to an intensive field inventory; if any additional sites, components or features are located, the fire line will be adjusted to avoid these cultural resources.	USDA Forest Service 2015	Yes	
CR-5	If road construction cannot physically be relocated to avoid a site, and there is the potential for unidentified buried cultural remains, then SHPO consultation will take place and construction activities in the site boundaries would be monitored by an archaeologist.	USDA Forest Service 2015	Yes	
CR-6i	Culturally scarred trees will be protected during mechanical treatments and to the extent possible, during underburns. Hand removal of fuels under CSTs will be conducted to the extent possible to reduce the risk of killing them during prescribed burning.	USDA Forest Service 2015	Yes	
CR-7	Post-Treatment Monitoring: For treatments where field inventories are not feasible due to visibility concerns prior to treatment implementation, monitoring in the form of a sample inventory for cultural resources will be required post implementation. This monitoring will take place within one year of treatment implementation, with results provided to SHPO.	USDA Forest Service 2015	No	Project area had a Class II cultural resource inventory conducted. A complete Section 106 inventory was conducted prior to implementation.

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
CR-8	Post-Treatment Monitoring: Cultural resource sites required to be avoided during treatment implementation will be monitored for effectiveness of the protection measures following treatment completion.	USDA Forest Service 2015	Yes	Site 5GN1311 is located 200 meters away from a treatment unit and will be monitored post implementation
CR-9	Native American human remains: Any operator carrying out treatments must notify the Forest Service, by telephone, with written confirmation, immediately upon the discovery of human remains or funerary items, discovered on Federal land. The Forest Service must then immediately notify appropriate tribes of the find. All treatment activities must stop in the vicinity of the discovery that could adversely affect it, until Tribal consultation can be completed and a Plan of Action can be approved and implemented	Native American Graves Protection and Repatriation Act regulation 43 CFR 10.4(g)	Yes	

District Archeologist signature JUSTIN LAWRENCE Digitally signed by JUSTIN LAWRENCE Date: 2021.06.23 11:45:41 -06'00'

electronic/sig/ Justin Lawrence April 27, 2021

Note from NEPA Planner: Justin's linc pass signature function was not working correctly so manually signed above. Update: Was able to get working and sign.

Forest Service Sensitive Plants

Table A-4. Forest Service sensitive plants

Objectives:

1. **For Upland (non-wetland) Sensitive Species: Minimize impacts to individuals or populations that would lead to a loss in viability.**
2. **For all Sensitive Species: Minimize impacts to individuals or populations that would contribute to a loss in viability.**
3. **For Fen Sensitive Species: (a) Reduce potential for treatment-related resource damage to fens, (b) Maintain fen hydrologic function (soil compaction, water diversion, dewatering) that would reduce suitability or sustainability of rare fen habitat, (c) Prevent sedimentation events that would reduce or impair wetland functions.**
4. **For *Astragalus leptaleus*: Maintain functions of riparian wet or moist meadows.**

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
FSSP-2	**All sensitive species** **A –** During prescribed fire operations, ignitions and other fuel treatment activities would be located away from sensitive plant species occurrences and wetlands. **B** – Dust abatement (use of $MgCl_2$ or $CaCl_2$) will avoid sensitive species occurrences and wetlands by 500 feet. **C** – Avoid sensitive species occurrences and wetlands with chemical weed treatments. **D** – Any Region 2 sensitive plant species new to list or located after contract or permit issuance will be appropriately managed by active coordination between permittee, contractor or purchaser, Contracting Officer, and Forest Service line officer, treatment administrator, and botanist. **E –** Surveys will occur prior to implementation; Botanist will communicate with timber staff the location of any sensitive species found.	Treatment-specific design	Yes	A – Not applicable: no prescribed fire planned for the Park Cone sale area; B – Not applicable: no dust abatement treatments using Magnesium chloride are planned; C, D, & E- Applicable
FSSP-3	***Machaeranthera coloradoensis*** Minimize use of roads passing through known sensitive species sites.	Treatment-specific design	No	No known sensitive species sites within project area

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
FSSP-4	***B. paradoxum*** If there is tree canopy covering habitat, maintain pre-treatment tree canopy over habitat.	Treatment-specific design	No	No known sensitive species sites within project area. No populations were found in current survey. Because of the drier nature of this unit, potential habitat for B. paradoxum is most likely not present.
FSSP-6	**Fen sensitive species*** **A** – Keep roads and trails out of wetlands and their water influence zones (WIZ). (1) **B** – Restore existing disturbed areas that are eroding and contributing sediment to the wetland. (WQSP-2) – No mechanical equipment will be used within 100 feet of the edge of a fen.	(1) USDA Forest Service 2006. (2) USDA Forest Service 2006, 2012.	Yes	No fens were observed during field survey (nor spatially identified). Although these design feature will apply if one is identified.

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
FSSP-7	**Fen sensitive species*** **A** – Treatment activities will avoid wetlands (see WQSP-6A) **B** – Mechanical treatment and vehicle use will occur outside of wetlands or their water influence zones. **C –** Prevent mineral sediment deposition from occurring in wetlands. (3)	(3) USDA Forest Service 2012, Austin 2008.	Yes	No fens were observed during field survey (nor spatially identified). Although, these design features will apply if any wetland features are identified.
FSSP-8	**Fen sensitive species*** **A** – Develop an erosion and sediment control plan to avoid or minimize downstream impacts using measures appropriate to the site and the proposed activity. (3) **B** – Conduct prescribed fires to minimize the residence time on the soil while meeting the burn objectives. This is usually done when the soil and duff are moist. **C** – Limit roads and other disturbed sites to the minimum feasible number, width, and total length. Minimize sediment discharge into streams, lakes, and wetlands during construction and stabilize and maintain disturbed sites to control erosion. (1) **D** – Maintain sufficient upslope ground cover to prevent sediment movement downward into wetland.	(1) USDA Forest Service 2006. (3) USDA Forest Service 2012, Austin 2008.	Yes	A - Applicable B– Not applicable: no prescribed fire planned for the Park Cone sale area; C & D- Applicable
FSSP-9	***Astragalus leptaleus*** **A** – Avoid treatment activities and equipment use in wet or moist meadows. **B** – Design stream crossings at armored points, or armor them to prevent loss of functions in wet or moist meadows.	Treatment-specific design	Yes	

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
FSSP-10	**Upland (non-wetland) sensitive species** **A** – Sensitive plant populations will be flagged and avoided for all ground-disturbing activities with a buffer of 20 to 100 feet (as determined during treatment surveys. **B** – Proposed road construction, reconstruction, landings, and staging areas in potential habitat for sensitive species will be designed and marked on the ground only after the areas have been surveyed by a qualified botanist in the proper season.	Professional judgement	As Modified	No sensitive species were observed during field surveys. These design criteria's will apply if any sensitive species are identified
FSSP-11i	**Prescribed Fire Treatments** Coordinate with ecologist/botanist and fuels specialist to determine if pre-treatments around fens are needed and what those treatments should entail (e.g., implement a low intensity burn surrounding the fen prior to implementation to reduce fuel loads in adjacent areas therefore reducing the risk of high intensity fire potentially burning through the fen, impacting the fen and sensitive plant species)	Professional judgement	No	No prescribed fire is proposed within the project area

Botanist/Ecologist Signature SUZANN PARKER Digitally signed by SUZANN PARKER Date: 2021.01.26 14:38:35 -07'00'

Invasive Weeds

Table A-5. Invasive weeds

Objective: Prevent new introductions of invasive exotic plants (Invasive Weeds) or spread of existing infestations.

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
IW-1	Consider excluding areas from prescribed burning where there are infestations of fire-proliferating species (example, cheatgrass).		Yes	
IW-2	**Practices** - Prevent the accidental spread of invasive species carried by contaminated vehicles, equipment, personnel, or materials. (2) **A** -- Establish and implement standards and requirements for vehicle and equipment cleaning to prevent the accidental spread of aquatic and terrestrial invasive species on the treatment area. (1) Use standard timber sale contract provision BT 6.35 to ensure appropriate equipment cleaning. Equipment cleaning should be conducted after working in areas with known infestations, and prior to bringing equipment onto the National Forest. **B** -- Locate and use weed- free treatment staging areas. Avoid or minimize all types of travel through weed- infested areas. (3) **C** -- All imported materials (erosion control materials, soil, gravel, etc.) should be from a “weed-free” source or area. (3) **D** -- Monitoring will occur where imported materials have been placed to ensure no new infestations have been established.	(1) Noxious weeds, that appear on the State of Colorado’s noxious weed list (CDA 2013) (2) FSM 2900. (3) USDA Forest Service 2001.	Yes	

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
IW-3	**Practices** - Retain native vegetation to the extent possible to prevent weed germination and establishment, in and around activity area and keep soil disturbance to a minimum. (3) **A** -- Contracts will require timber purchasers and contractors will re-seed disturbed areas (as designated by the Forest Service) with an appropriate certified weed-free native seed mix to avoid introduction of nonnative invasive plants and promote re-vegetation of native species. **B** -- Throughout the implementation period of the proposed action, the Forest Service should maintain flexibility to defer cut units or stands within priority areas from treatment due to the discovery of significant new invasive plant populations with potential to disrupt the functioning of native plant communities. **C** -- Where fuel reduction, timber harvest and other resource objectives necessitate ground disturbance and soil exposure, or substantial ground cover and canopy removal, include appropriate re-vegetation or invasive plant management strategies in treatment plan. (4) Where necessary, rehabilitate/restore or treat disturbed areas after management activities and conduct follow up monitoring on these areas susceptible to invasive plant spread. (4) **D** -- In areas of high risk for invasive weeds spread, rehabilitate/restore or treat disturbed areas after fuel management activities and conduct follow up monitoring to minimize invasive plant spread. (4) **E** -- Cover and reduce exposure of bare ground. Use on-site chipping or treated fuels from mastication to cover bare soil to prevent seed establishment where appropriate. (4) See SV-4 concerning areas where mineral soil exposure would be needed to assist with natural regeneration. **F** -- Slash and burn piles will be located away from known invasive weed populations and will be assessed for restoration and revegetation needs.	(3) USDA Forest Service 2001. (4) Cal-IPC Land Management best management practices. 2012	Yes	

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
IW-4	**Practices** - Control and treat existing infestations to prevent treatment-associated spread and proliferation. **A** -- Coordinate treatment activities with any nearby herbicide application to maximize cost effectiveness of nonnative invasive plant treatments. (3) **B** -- Treatment of invasive weeds will follow Forest Service policy regarding certification of applicators and reporting of data to Forest Service databases. **C**-- Treatments of invasive weeds will follow the District Noxious Weed Treatment Decision Notice. **D**-- Populations of noxious weeds should be aggressively treated with the appropriate management tools. This may include treatment with herbicides, grazing, cultural, and biological methods, consistent with the GMUG district decision notices.	USDA Forest Service 2001.	Yes	
IW-6	**Practices** - Monitor project area for new infestations and to assess efficacy of treatments. **A** -- Inspect and document all limited term ground-disturbing operations in infested areas for at least three growing seasons following completion of the project. For on-going projects, continue to monitor until reasonable certainty is obtained that no new infestations have occurred. Provide for follow-up treatments based on inspection results. **B** -- Consider modifying design feature implementation for future project implementation based on considerations such as efficacy, cost, and other unforeseen impacts. **C** -- Consider including other best practices for treatment-specific considerations.	Invasive Plant Data: The Rocky Mountain Region's Approach to Mapping and Recording Inventory and Treatment Data. October 2015.	Yes	

Range Management Specialist Signature DAYLE FUNKA Digitally signed by DAYLE FUNKA Date: 2021.02.11 17:57:05 -07'00'

Lands

Table A-6. Lands

Objectives:

1. **Avoid impacts to existing infrastructure from treatment activities;**
2. **Ensure treatments near electric infrastructure are conducted safely**

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
L-1	Mechanical treatments used to remove dead and dying vegetation shall utilize equipment or operating techniques to ensure that debris cannot be thrown into electrical facilities causing damage or safety hazards.	Professional judgment	No	No electrical facilities in project area.
L-2	Coordinate prescribed fire treatment activities with utility ROW holders to ensure that facilities are not damaged by a fire that burns too hot or generates smoke dense enough to disrupt the transmission of electricity.	Professional judgment	No	No utility facilities in project area.
L-3	When conducting hand treatments near energized facilities, non-electrical workers will observe the minimum approach distance.	Occupational Safety and Health Administration regulations provided in 29 CFR §1910.333.	No	No energized facilities in project area.
L-4	Public Land Survey System corner preservation should be performed before any active or land disturbing management activity. This would include all known survey monuments, section corners, and other corner accessories.	Reference FSM 7150 and Timber Sales Contract Division BT BT6.23	No	No protection of survey monuments needed.

Lands Specialist Signature GENE DOLLARHIDE Digitally signed by GENE DOLLARHIDE Date: 2021.05.03 15:30:16 -06'00'

Range

Table A-7. Range

Objectives:

1. **Eliminate conflicts between implementation activities and range activities, or mitigate for them;**

2. **Revegetate sites disturbed during implementation.**

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
RG-1	Coordinate with District Rangeland Management Specialists prior to developing sale and/or service contracts and/or burn plans to identify and mitigate any potential direct conflicts during implementation. Range personnel will be responsible for incorporating mitigation measures into grazing permittees' Annual Operating Instructions (for example, a pasture needs to be grazed earlier/later to avoid direct temporal overlap with timber sale activities).	GMUG Forest Plan	Yes	
RG-2	Coordinate with District Rangeland Management Specialists prior to treatment to determine whether or not grazing deferment or pasture rest is needed, when deferment or rest is needed (prior to or following treatment), and for how long.	USDA Forest Service. Rocky Mountain Region. 1996.	Yes	
(IW-5)	Re-seeding: See IW-3.		Yes	

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Recreation

Table A-8. Recreation

Objective: Coordinate potential conflicts between timing of treatment implementation and recreation use

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
REC-1i	Avoid use of broadcast burning treatments in campgrounds (if piles are burned, ensure that impacts to residual trees are negligible).	Professional judgment, standard operating procedure	Yes	
REC-2	Developed recreation sites: **A** -- Managed by concessionaire: plans need to consider impact to summer operating season and should minimize impacts to operations as much as possible. **B** -- For Forest Service operated sites: coordinate with District to address any District concerns regarding impact to the operating season or necessary closures.	Professional judgment, standard operating procedure	No	No Developed recreation sites.
REC-3	Coordinate with District recreation staff regarding any treatment-related closures for developed recreation sites, dispersed recreation sites, trails and roads.	Professional judgment, standard operating procedure	As Modified	Dispersed Recreation and Roads present in or around planned treatment
REC-4	Special Uses: **A** -- Work with recreation residences, lodges and organization camps to design treatments adjacent to these tracts to also treat these tracts to the extent feasible. **B** -- Coordinate with District recreation staff to address treatment-related impacts to special use permit holders in the treatment area.	Professional judgment, standard operating procedure	Choose an iter	Known permitted uses in the Park Cone area: Adventure Experiences (hunting O/G); Taylor Park Marina (spring box next to Lake View CG). Ryan at the marina works with O/Gs in the Taylor Park area. Consult with him and rec staff if/where there are concerns.
REC - 7	For all treatments, for treatments within ¼ mile of Wilderness boundaries, ensure that Wilderness boundaries are clearly marked by cadastral grade survey or set treatment boundaries at least 300 feet from boundaries located with resource grade GPS using standard parameters for assurance of accuracy. Treatments must not enter wilderness.	Professional judgment, standard operating procedure	No	No treatments within 1/4 mile of wilderness

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
REC-8	For treatments that occur in winter or impact winter recreation access or use routes, coordinate with District recreation staff to address treatment-related impacts to winter uses, many of which are managed under permit by clubs or other organizations.	Professional judgment, standard operating procedure	Yes	Winter grooming does occur by a club on Union Park road some years. Coordination is needed to address any concerns if winter logging is planned.
REC-9	When timber harvest activities preclude use of a nearby trail: (a) notify the public; (b) consider identifying timeframes for safe travel on the trail; and (c) if harvest is expected to preclude use for more than one season and a detour is feasible, provide a detour.	Professional judgment, standard operating procedure	Yes	Trail 621 will be impacted, Potential for delays. If delays occur, coordination with recreation staff will be required.
REC-10	Temporarily close areas to public use, through use of a Forest Order, as determined necessary to minimize safety concerns between the public and project implementation.	Professional judgement, standard operating procedure	No	Closure to the public is not expected for this treatment. However, if it is determined to be needed, then coordination with recreation staff is required.
REC-11	Restrict hauling during holidays/holiday weekends (i.e., Memorial Day, Fourth of July, and Labor Day) to minimize safety concerns between the public and project implementation, unless otherwise specified or agreed to in writing by the Forest Service.	Professional judgement, standard operating procedure	As Modified	Hauling by full sized log truck will be restricted on holidays, hauling with normal vehicles and or non-semi log trucks will be permitted.

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Scenic Quality and Visual Resources

Table A-9. Scenic quality and visual resources

Objectives:
VQOs of Retention (R) – management activities must not be visually evident. They may only repeat form, line, color and texture that are frequently found in the characteristic landscape. Changes in their qualities of size, amount, intensity, direction, pattern, etc., should not be evident. Immediate reductions of contrast should be accomplished by means such as seeding vegetative clearing and cut-and-fill slopes, hand planting of large stock, painting structures, etc.
VQOs of Partial Retention (PR) – management activities must remain visually subordinate to the characteristic landscape. Activities may repeat form, line, color or texture common to the characteristic landscape. Changes in their qualities of size, amount, intensity, direction, pattern, etc., remain visually subordinate to the characteristic landscape. Actions may also introduce form, line, color, or texture which are found infrequently or not at all in the characteristic landscape, but should remain subordinate to the visual strength of the characteristic landscape. Reduction of contrast in form, line, color and texture to meet partial retention should be accomplished as soon as possible or within a year minimum.
VQOs of Modification (M) – management activities may visually dominate the original characteristic landscape. However, activities of vegetative and landform alteration must borrow from naturally established form, line, color or texture so completely and at such a scale that its visual characteristics are those of natural occurrences within the surrounding area or character type. Activities are predominantly introduction of facilities such as buildings, sighs, roads, etc. Reduction of contrast (or compliance with regional guidelines) should be accomplished in the first year.
VQOs of Maximum Modification (MM) – management activities may dominate the original characteristic landscape. However, when viewed as a background, the visual characteristics must be those of natural occurrences within the surrounding area or characteristic type. When viewed as foreground or middle ground, they may not appear to completely borrow from naturally established form, line, color or texture. Alterations may also be out of scale or contain details incongruent with natural occurrences as seen in the foreground or middle ground. Activities are typically additional part of structures, roads, slash and root wads must be subordinate to proposed composition as viewed in the background. Reduction of contrast should be accomplished within five years.
Volume Two, Chapter 1: The Visual Management System, National Forest Landscape Management, Handbook 462, (Big Eye Book) pp 29 -- 37, .pdf, 4.08 MB

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
SVR-1	For all treatments, if VQO maps are not locatable, the following VQO's will be used as interpreted from the 1991 GMUG Forest Plan. These will be applied to the Visual Management Guideline Classes identified in the Visual Resource Management Section discussed below. These requirements apply to vegetation treatments. 1A – Retention 2A – Retention 2B – Partial Retention 3A – Retention 4D – Modification 6B – Modification 7A – Modification or Max. Modification Other Management Areas are not planned for treatment. See other requirements for Sensitivity Level 1 Roads, Trails and View Points below. Those requirements are more restrictive than the general management area requirements shown here.	GMUG Forest Plan	Yes	Unit 10 has a small portion within the 2A management zone as prescribed by the 1991 forest plan.

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
SVR-2	In all treatment areas, follow General Direction and associated standards and guidelines in the Visual Resource Management Section of the 1991 Land and Resource Management plan. This direction is found on pages III-12 through III-15. Consult with the forest visual resource specialist when implementing projects to ensure that these standards are being met. The visual resource specialist will adapt this direction to the situations where the forest has been heavily impacted with dead or dying trees. The visual system was not designed for these situations; however, the principles are to be applied.	GMUG Forest Plan	Yes	
SVR-3	In developed recreation sites, including trailheads and administrative sites (typically VQOs of Modification or Maximum Modification), cut stumps as low to the ground as feasible. Remove or chip slash at developed campgrounds or designated recreation areas, extending outwards 200 feet of any constructed feature; at designated dispersed sites; and other dispersed sites deemed important at the time of implementation. Alternatively, at designated dispersed sites or other dispersed sites deemed important and at developed recreation sites (except developed campgrounds or designated recreation areas) and at administrative sites, move heavy slash to designated slash piles and burn as soon as conditions allow. Note: Designated recreation areas include but are not limited to: Taylor Canyon.	GMUG Forest Plan	No	Project is not in developed rec sites, trailheads or admin sites.
SVR-4	In developed recreation and administrative sites (typically VQOs of Modification or Maximum Modification), minimize damage from mechanical treatments to young healthy trees and understory trees and shrubs.	GMUG Forest Plan	No	Project is not in developed rec sites, trailheads or admin sites.
SVR-5i	In areas of retention or partial retention, within the immediate foreground (to 300 feet) of roads, trails, and dispersed sites and private property: minimize damage to natural features such as rock outcrops, young healthy trees and understory of trees and shrubs; cut stumps as low to the ground as feasible; remove heavy slash (greater than 1 foot deep) to slash piles (which will be burned or are expected to be minimally apparent within 5 years) or chip. Slash may be scattered to depths of less than 1 foot. When feasible, treat both sides of open system roads and trails to avoid contrast.	GMUG Forest Plan	Yes	

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
SVR-6i	Do not use trails for skidding. Minimize skid trails across roads and trails. Rehabilitate any skid trails or temporary roads that intersect with Forest arterial roads, collector roads, or primary trails, or are visible in the foreground from these features (up to 300ft). Do not locate landings along trails unless sufficient terrain or vegetative screening exists to meet applicable VQO.	GMUG Forest Plan	Yes	
SVR-7	For all treatments, rehabilitate disturbed and compacted soils on landings, burned slash pile sites, skid trails and temporary roads in order to reduce the strength and duration of visual contrasts to the surrounding landscape. Block access to decommissioned or re-claimed temporary roads with naturalistic barriers.	GMUG Forest Plan	Yes	
SVR-8	Align prescribed burn boundaries with naturally occurring features such as ridgelines and rivers/streams to the maximum extent possible.	GMUG Forest Plan	Yes	
SVR-9	Blend fuel breaks with natural landscape features such as natural openings, rock outcrops, and topography where possible. Minimize use of straight lines or geometric shapes along edges during unit design where feasibility and safety allow. Once management activities are complete, rehabilitate fire control features, safety zones, and staging areas by returning to original contours, installing erosion control features as necessary, scarifying to eliminate compaction as necessary, and planting with native grass seed. Block access with naturalistic barriers.	GMUG Forest Plan	Yes	

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Silviculture

Table A-10. Silviculture

Objectives:

1. **For lodgepole pine dwarf mistletoe infested stands: Clear cut stands to remove infestation; Clear cut rings around young stands to reduce spread of infestation**
2. **For bark beetle-affected stands: Provide for salvage of dead or dying stands; Manage green stands where they exist; Regenerate stands where needed.**

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
SV-1i	All regeneration cutting will meet stocking standards as defined in the forest plan within 5 years of harvest.	GMUG Forest Plan	Yes	
SV-2	All vegetation treatments will be prescribed by a U.S. Forest Service, Region 2, Certified Silviculturist in accordance with applicable guidance from other resource specialists.	FSH 2409.17 Silvicultural Practices handbook	Yes	
SV-3	To the greatest degree practicable given site fuels conditions, jackpot and pile burning would be used as acceptable methods to assist with natural regeneration strategies and to create mineral soil seedbeds for natural regeneration. Harvested areas would be evaluated for stocking.	R-2 FSH 2409.17 Silvicultural Practices Handbook	Yes	
SV-4i	During site preparation or piling activities, mineral soil exposure will be less than 40 percent of the treated area. Soil cover should be retained when practicable. To assist natural regeneration, conduct vegetation and fuels management activities to average 40 percent mineral soil exposure in post-harvest, as prescribed in the stand management prescription. If the area has been identified as being high risk for invasive plants, or is known to have existing infestations, reduce soil exposure and consider artificial regeneration practices (planting). Also see IW-3.	Alexander 1987	Yes	

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
SV-5i	To reduce the risk of spruce beetles being drawn to uninfected trees, in stands with a component of live spruce that are not beetle-infected, felled spruce shall be removed from the sale area by no later than October 31 of the year following felling. Green or live unutilized and un-merchantable spruce material (in excess of the 10 to 20 tons per acre required by the forest plan) that is cut during operations and greater than 6 inches diameter at the small end could be removed from the stand and taken to the landing, piled, and burned as soon as practical. This will be considered yarding of un-merchantable material. When removal of unmerchantable material is operationally infeasible, material would be debarked in stands, chipped, or otherwise treated within the stand to reduce the likelihood of the material being used as brood material. Treatment of non-merchantable material will be prescribed by a certified silviculturist, with the overall goal to reduce brood material.	Professional judgment of GMUG silviculturists and Forest Health Protection Staff.	As Modified	The current timber sale contract YUM standard is green spruce with minimum 7-inch small end, more than 8-feet long, with more than 50% of the bark tightly intact. Where green spruce logs are very scattered or only occasional, the contract provision may be wavered by the Contracting Officer.
SV-6	During any types of harvest in spruce-fir, areas of advanced regeneration will be avoided to the greatest degree practicable while allowing feasible operations.	Professional judgment and standard operating procedure used by GMUG silviculturists.	Yes	
(RG-2)	Coordinate with District Rangeland Management Specialists prior to treatment to determine whether grazing deferment or pasture rest is needed, when deferment or rest is needed (prior to or following treatment), and for how long.	Professional judgment of GMUG silviculturists and rangeland management specialist.	Yes	Should not be necessary

Timber Management Assistant Signature ARTHUR HAINES Digitally signed by ARTHUR HAINES Date: 2021.02.11 09:50:14 -07'00'

See the Silvicultural Prescription package in Box\Implementation Checklists\3-ParkConeTS_Due-10Feb2021 \ParkConeChecklistSupportingDocumentation\Silviculture.

Fuels and Prescription Burning

Table A-11. Fuels and Prescription Burning
Objectives:

1. **Use current science and silvicultural, fuels and fire management practices to achieve an optimum balance between positive and negative effects of slash treatment on soils, hydrology, wildlife and potential fire risk.**
2. **Reduce negative impacts of fires.**

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
SP-2	A minimum and maximum fuel loading will be specified in association with harvests and fuels treatments. Generate associated Brush and Disposal (BD) plan. This minimum and maximum will include any needs to reduce fuels near infrastructure and leave material onsite for seedling establishment, wildlife benefit and soils health.	Standard operating procedure used by GMUG silviculturists and fuel managers.	Yes	
SP-4	To facilitate complete burning, piles shall be compact in size and shape, and free of soil. Piles shall not be constructed as windrows; rather the size of each pile's footprint shall be minimized. Piles shall be of a size and location that will not impair road use or result in damage to residual timber. Piles shall be located at least 50 feet from residual timber. • Piles associated with large sales or as determined by the Timber Sale Contractor will not be less than 12 feet in height. The size of each pile's footprint shall not exceed 50 feet in any dimension. • Piles constructed by hand crew or small machinery (e.g., dozers), typical of non-commercial project, will not be less than 6 feet in height. The size of each piles footprint shall not exceed 20 feet in any dimension.	Professional judgment and standard operating procedure used by GMUG silviculturists and fuels managers.	Yes	
SP-5	In areas treated for recovery where beetle kill is prominent, piles will be burned as soon as burn conditions for pile burning occur (usually after first adequate snowfall event). Where possible, piles should be located in proximity to roads that prescribed burn personnel can reach the site either by motorized vehicle (truck, UTV, ATV, or snowmobile) or by foot without having to hike or ski more than 0.25- to 2- miles to reach the piles.	Professional judgment and standard operating procedure used by GMUG silviculturists and fuels managers.	No	Beetle Kill not prominent

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
SP-6	Activity-generated fuels would be reduced in compliance with the treatment Brush and Disposal plan. Fuels, silviculture and timber resources management personnel would develop prescriptions considering economical harvest methods, activity fuels and residual site conditions.	FSH 2409.19	Yes	
SP-8	Monitor a sample of pile burn scars for bare soil and— on scars located on slopes and in swales—for the presence of rills, gullying, or soil movement. If over 100 square feet of burn scar consists of bare soil; minor rills or gullying is present within or adjacent to burn scar; or minor deposition of soil occurs downslope of scar, treatment is indicated. Treat bare soil and erosion according to District protocols, which may include one or two of the following: addition of mulching, scarification, inoculation with adjacent soils, seeding, etc. If monitoring reveals more than 200 square feet of burn scar consisting of bare soil; multiple rills or gullying; gullying 2 to 3 inches deep within burn scar; or significant deposition of soil downslope of scar, elevate treatment application.	Professional judgment; Taylor Park Vegetation Treatment-specific monitoring component	Yes	

Fire Specialist signature JAMES RAMIREZ Digitally signed by JAMES RAMIREZ Date: 2021.06.25 10:51:41 -06'00'

This project encompasses a portion of Potential Operation Delineator (POD) line along the FS 752. Coordination may be necessary with Fuel/Fire staff while completing the brush disposal plan. The only area of concern would be units that fall within 300 feet, either side of FS 752.

Electronic/sig/David Carr 6/22/2021

Transportation System and Haul Routes

Table A-12. Transportation System and Haul Routes

Objective: Manage travel management effectively to provide resource protection and a safe, environmentally sound, and efficient transportation system.

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
TSHR-1	Existing roads will be used for equipment access to the extent road location and condition permit reasonable access. Implementation of mechanical treatments and harvests will attempt to minimize road construction whenever possible.	USDA Forest Service, 2006. Conservation Practices Handbook and treatment-specific design	Yes	
TSHR-2i	Temporary roads may be used where a designed road is not needed, as determined by the Forest Service. The location and clearing widths of all Temporary Roads or facilities shall be agreed to in writing (between the Forest Service and the contractor) before construction is started. Following use for harvest and treatment implementation, both temporary AND designed roads not included on the MVUM or 2010 TMP will be decommissioned, which involves re-contouring where significant side slope exists, elimination of ditches and other structures, out-sloping during construction, removal of ruts and berms, effectively blocking the road to normal vehicular traffic where feasible, and construction of drainage features such as cross ditches and water bars. Invasive species monitoring will occur after road decommissioning and will be followed by weed treatments where needed. Effectiveness of road closure will also be monitored.	Treatment-specific design Timber Sale Contract Standard Provisions (Contract FS-2400-6, USDA Forest Service 2006)	Yes	
TSHR-3	Require commercial haulers to perform maintenance commensurate with their use; depositing sufficient funds with the Forest Service that may be used in lieu of performance. Surface rock replacement deposits will be collected to maintain currently surfaced roads that are used for timber hauling. Deposits will be collected commensurate with the use. Quarry materials will be collected from a site that has been found to be free of invasive plants.	FSM 7732.03	Yes	

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
TSHR-4	Timber hauling operations will be restricted during wet or thawed conditions, when needed to protect the road surface. When logging occurs over snow or frozen ground, standard Forest Service practices will be followed.	USDA Forest Service, 2012. Forest Service National best management practices; Treatment-specific design	Yes	
TSHR-5	Safety signing will be used to alert the public that logging operations are in progress and would meet the requirements of the Manual of Uniform Traffic Control Devices.	Timber Sale Contract Standard Provisions (Contract FS-2400-6, USDA Forest Service 2006); FSM 7160	Yes	
TSHR-6	Use of private roads, encroachment of public roads and rights-of-way, and other access needs outside Forest Service jurisdiction shall have the proper approval or authorization in place prior to use.	16 U.S.C. 572; treatment- specific design	Yes	
TSHR-7	Use suitable road surface stabilization practices and dust abatement supplements on roads where road surface conditions, traffic use and proximity to recreation or public occupancy justify the need. (See FSH 7709.56 and FSH 7709.59).	USDA Forest Service, 2012.	Yes	Only needed in extremely dry circumstances.
TSHR-8	Move snow in a manner that will avoid or minimize disturbance of or damage to road surfaces and drainage structures. Use existing standard contract language (C5.316# or similar) for snow removal during winter logging operations to avoid, minimize, or mitigate adverse effects to soil, water quality, and riparian resources.	USDA Forest Service, 2012	Yes	

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
TSHR-9	Use the following measures to conserve water when managing roads for Taylor Park Vegetation Treatment: **A** -- Locate new roads with consideration of key topographic factors important to road maintenance, including steepness of slope, position on slope, aspect and drainage pattern. **B** -- When possible, schedule road maintenance activities to coincide with higher moisture content for ease of grading and better compaction. **C** -- Minimize new road widths to provide for safe use while limiting impermeable surfaces. **D** -- Keep ditches open, but do not remove vegetation that does not impede drainage. Vegetation holds the soil in place and reduces sediment loading which is the greater problem. **E** -- When installing drainage features, return intercepted runoff to its natural path at the first opportunity. **F** -- To avoid clogging, keep the grade of drainage features steeper than the roadway. In general, avoid stream crossings. Where necessary, align the roadway to fit the stream. Avoid road capture of the channel, which can result in the stream diverting down the road – causing severe erosion. Do not constrict and accelerate flows, which can erode the channel.	Zeedyk, W. Water Harvesting from Low-Standard Rural Roads. 2006.	Yes	

Engineer signature GARTH GANTT Digitally signed by GARTH GANTT Date: 2021.02.08 14:13:05 -07'00'

Water Quality and Soil Productivity

Table A-13. Water quality and soil productivity

Objectives:

1. **Manage treatments to maintain ground cover to prevent harmful increases in runoff.**
2. **In the Water Influence Zone (WIZ) next to perennial and intermittent streams, lakes, and wetlands, allow only those actions that maintain or improve long-term stream health and riparian ecosystem condition**
3. **Design and construct all stream crossings and other in-stream structures to provide for passage of flow and sediment, withstand expected flood flows, and to allow free movement of resident aquatic life.**
4. **Maintain long-term ground cover, soil structure, water budgets, and flow patterns of wetlands to sustain their ecological functions.**
5. **Limit roads and other disturbed sites to the minimum feasible number, width, and total length.**
6. **Construct roads and other disturbed sites to minimize sediment discharge into streams, lakes, and wetlands.**
7. **Stabilize and maintain roads and other disturbed sites during and after construction to control erosion.**
8. **Reclaim roads, landings and other disturbed sites when use ends, as needed, to prevent resource damage.**
9. **Manage land treatments to limit the sum of severely burned soil and detrimentally compacted, eroded, and displaced soil to no more than 15 percent of any activity area.**

The following design features to protect watershed resources are based on, and structured according to the Region 2 Watershed Conservation Practices Handbook. They address conditions or circumstances that have occurred on recent GMUG NF timber sales. Additional best management practices in the R2 Handbook or National Handbook may apply within future treatment areas as determined during treatment-specific assessments. The various measures may be achieved through avoidance, on-the-ground marking, appropriate contract provisions, identification on the sale or service area map, and/or during sale or contract administration.
Treatment-specific soils, hydrologic, and watershed condition assessments will be performed prior to any on-site work (see section 2 and 3 above). Treatment-specific design features will be selected based on treatment tasks and the results of treatment-specific assessments.

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
WQSP-1	**A** -- Maintain the organic ground cover of each activity area so that pedestals, rills, and surface runoff from the activity area are not increased. The amount of organic ground cover needed will vary by different ecological types and should be commensurate with the potential of the site. **B**-- Restore the organic ground cover of degraded activity areas within the next plan period, using certified local native plants as practicable; avoid persistent or invasive weeds. Also see IW-3.	USDA Forest Service 2006	Yes	

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
WQSP-2i	**A** -- The minimum horizontal width of the Water Influence Zone for various water related features is as follows: **Fens and their associated wetland** – Outside of edge of WIZ is at least 100 feet from edge of fen and its associated wetland; No harvest or no mechanical travel zone 100 feet from edge of fen and its associated wetland. **Perennial Streams** – Outside edge of WIZ is 100 feet from streambank; No harvest or no mechanical travel zone 50 feet from stream bank. **Intermittent Steams, Reservoirs, and Ponds** – Outside edge of WIZ 50 is feet from bank or high water mark; No harvest or no mechanical travel zone 25 feet from bank or high water mark. **Wetlands ¼ acre or larger** – WIZ is 100 feet from edge of wetland; No harvest or no mechanical travel zone 50 feet from edge of wetlands. **Springs, Seeps, Wetlands, or depression recharge areas smaller than ¼ acre** – Outside edge of WIZ is 50 feet from the source or edge of associated wetland, whichever is greater; No harvest or no mechanical travel zone 25 feet from the source or edge of associated wetlands, whichever is greater. **Ephemeral Streams and Swales** – Outside edge of WIZ is 25 feet from the channel or topographic low; No restriction of harvest or mechanical travel. **Ditch** -- Outside edge of WIZ is at edge of Right-of-Way; No restriction of harvest or mechanical travel. **B** -- Keep heavy equipment out of streams, swales, and lakes, except to cross at designated points, build crossings, or do restoration work, or if protected by at least 1 foot of packed snow or 4 inches of frozen soil. Keep heavy equipment out of streams during fish spawning, incubation, and emergence periods. **C** -- Ensure at least one-end log suspension in the WIZ. Fell trees in a way that protects vegetation in the WIZ from damage. Keep log landings and skid trails out of the WIZ, including swales. **D** -- Locate new concentrated-use sites outside the WIZ if practicable and outside riparian areas and wetlands. Armor or reclaim existing sites in the WIZ to prevent detrimental soil and bank erosion. **E** -- Do not excavate earth material from, or store excavated earth material in, any stream, swale, lake, wetland, or WIZ. **F** -- Maintain at least 80 percent of potential ground cover within the WIZ. **G** -- Burn piles may be located within the outer half of WIZs but must not cover more than 15 percent of the ground. **H** -- Avoid direct ignition of prescribed fire within WIZs. Prescribed fire may be allowed to back in to these areas. **I** – When values at risk are present near the WIZ or insect and disease treatments are desirable within the WIZ, coordinate with the interdisciplinary team on treatment parameters to ensure protection of the water feature and associated resource conditions.	USDA Forest Service 2006, Management Prescription 9A in 1991 Forest Plan, and treatment-specific design	Yes	Small saturated seep/swale area in unit 326.

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
WQSP-3A	**A** -- As required, obtain Corps of Engineers (COE) and State permits when installing stream crossings and ensure they meet permit requirements. In most cases, installation of stream crossing are exempt from COE or State permits as long as best management practices at 33 CFR 323.4 are followed (FSH 2509.25 Section 01.1 – Key Laws). **B** -- Size culverts and bridges to pass debris. Engineers work with hydrologists and aquatic biologists on site design. **C** -- Install stream crossings that will be in place for more than one season in a manner that to sustains bankfull dimensions of width, depth, and slope and keep streambeds and banks resilient. Favor bridges, bottomless arches or buried pipe-arches for those streams with identifiable flood plains and elevated road prisms, instead of pipe. Favor armored fords for those streams where vehicle traffic is either seasonal or temporary, or the ford design maintains the channel pattern, profile and dimension.	USDA Forest Service 2006	Yes	
WQSP-3Bi	Where access across the WIZ must be provided by temporary roads, they will be completely decommissioned by obliteration within 3 years of sale closure. Obliteration at crossings will include the removal of culverts and fill material, the re-contouring of stream banks to the original landform shape, and seeding and mulching of the disturbed surfaces. The remaining prism within the WIZ shall be de-compacted, seeded, and mulched.	Management Prescription 09A, 1991 Forest Plan, and treatment-specific design-	Yes	
WQSP-4	**A** -- Keep ground vehicles out of wetlands. Do not disrupt water supply or drainage patterns into wetlands. **B** -- Keep roads and trails out of wetlands. Avoid actions that may dewater or reduce water budgets in wetlands. **C** -- Avoid any loss of rare wetlands such as fens and springs. **D** -- Do not build fire lines in or around wetlands unless needed to protect life, property, or wetlands. Use hand lines with minimum feasible soil disturbance. Use wetland features as firelines if practicable.	USDA Forest Service 2006, Executive Order 11990, and treatment-specific design	Yes	
WQSP-5A	Manage land treatments to limit the sum of severely burned soil and detrimentally compacted, eroded, and displaced soil to no more than 15 percent of any activity area.	USDA Forest Service 2006	Yes	

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
WQSP-5B	**A** -- With the exception of general road grading, avoid soil-disturbing actions during periods of heavy rain or wet soils. Apply travel restrictions to protect soil and water. **B** -- Install cross-drains to disperse runoff into filter strips and minimize connected disturbed areas. Make cuts, fills, and road surfaces strongly resistant to erosion between each stream crossing and at least the nearest cross drain. Revegetate using certified local native plants as practicable; avoid persistent or invasive weeds. **C** -- Use existing roads unless other options will produce less long-term sediment. Reconstruct for long-term soil and drainage stability. **D** -- Avoid ground skidding on sustained slopes steeper than 40 percent and on moderate to severely burned sustained slopes greater than 30 percent. Conduct logging to disperse runoff as practicable. **E** -- Locate and construct log landings in such a way to minimize the amount of excavation needed and to reduce the potential for soil erosion. Design landings to have proper drainage. After use, treat landings to disperse runoff and prevent surface erosion and encourage revegetation.	USDA Forest Service 2006 and treatment-specific design	Yes	Many existing road prisms in area will need upgraded
WQSP-6	**A** -- Design all roads, trails, and other soil disturbances to the minimum standard for their use and to "roll" with the terrain as feasible. **B** -- Use filter strips, and sediment traps if needed, to keep all sand-sized sediment on the land and disconnect disturbed soil from streams, lakes, and wetlands. Disperse runoff into filter strips.	USDA Forest Service 2006 and treatment-specific design	Yes	
WQSP-7A	**A** -- Do not encroach fills or introduce soil into streams, swales, lakes, or wetlands. **B** -- Space cross drains according to road grade and soil type as indicated in WQSP – 7B. Do not divert water from one stream to another. **C** -- Empty cross drains onto stable slopes that disperse runoff into filter strips. On soils that may gully, armor outlets to disperse runoff. Tighten cross-drain spacing so gullies are not created. **D** -- Where berms must be used, construct and maintain them to protect the road surface, drainage features, and slope integrity while also providing user safety.	USDA Forest Service 2006 and treatment-specific design	Yes	
WQSP-7Bi	**A** -- Skid trail locations will be agreed to by the Forest Service in advance of construction; spacing will be approximately 100 feet apart, allowing for topographic variation and skid trail convergence. Space water bars as appropriate on skid trails according to slope and soil type, as indicated in Table A-14. **B** -- Space cross drains and rolling dips as appropriate on temporary roads according to road grade and soil types as described in FSH 2509.25, as indicated on Table A-15.		Yes	Decomposed granite soils in southern units. Unified Class DnF = SC-SM LuE = SC-SM LuF = SC-SM SmF = SC-SM SuF = CL TeE = CL-ML

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
WQSP-8Ai	**A** -- Site-prepare, drain, de-compact soils, revegetate, and close landings, main skid trails, and temporary and intermittent use roads and other disturbed sites within 3 years of the end of sale closure. Provide stable drainage that disperses runoff into filter strips and maintains stable fills. Do this work concurrently. Stockpile topsoil where practicable to be used in site restoration. Revegetate using certified local native plants as practicable; avoid persistent or invasive exotic plants. **B** -- Remove all temporary stream crossings (including all fill material in the active channel), restore the channel geometry, and revegetate the channel banks using certified local native plants as practicable. **C** -- Restore cuts and fills to the original slope contours where practicable and as opportunities arise to reestablish subsurface pathways. Use certified local native plants as practicable; avoid persistent or invasive weeds. Obtain storm water (402) discharge permits as required.	USDA Forest Service 2006 and treatment-specific design	Yes	
WQSP-8B	In decommissioning roads, **A** -- Implement suitable measures to close and physically block the road entrance so that unauthorized motorized vehicles cannot access the road. **B** -- Establish effective ground cover (i.e. erosion control measures and revegetation) on disturbed sites to avoid or minimize accelerated erosion and soil loss. **C** -- Evaluate risks to soil, water quality, and riparian resources and use the most practicable, cost-effective treatment to achieve long-term desired conditions and water quality management goals and objectives. **D** -- Use applicable practices of BMP Fac-2 (Facility Construction and Storm water Control) for Storm water management and erosion control when obliterating designed roads. **E** -- Implement suitable measures to re-establish stable slope contours and surface and subsurface hydrologic pathways where necessary to the extent practicable to avoid or minimize adverse effects to soil, water quality, and riparian resources. **F** -- Remove drainage structures. **G** -- Re-contour and stabilize cut slopes and fill material when needed. **H** -- Reshape the channel and streambanks at crossing sites to pass expected flows without scouring or ponding, minimize potential for undercutting or slumping of streambanks, and maintain continuation of channel dimensions and longitudinal profile through the crossing site. **I** -- Restore or replace streambed materials to a particle size distribution suitable for the site. **J** -- Restore floodplain function if impaired by treatment operations. **K** -- Implement suitable measures to promote infiltration of runoff and intercepted flow and desired vegetation growth on the road prism and other compacted areas. **L** -- Use suitable measures in compliance with local direction to prevent and control invasive weeds (also see IW-1 to IW-6)	USDA Forest Service 2012	Yes	

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
WQSP-9A	**A** -- Restrict roads, landings, skid trails, concentrated-use sites, and similar soil disturbances to designated sites. **B** -- Operate heavy equipment for land treatments only when soil moisture is below the plastic limit or protected by at least 1 foot of packed snow or 4 inches of frozen soil. **C** -- Conduct prescribed fires to minimize the residence time on the soil while meeting the burn objectives. This is usually done when the soil and duff are moist.	USDA Forest Service 2006, FSH 2509.18, Soil Management Handbook, 1992, and treatment-specific design	Yes	
WQSP-9B	Fire lines and fuel breaks should utilize existing roads, skid trails, natural features, and use of wet lines as much as possible to minimize impacts caused by new line construction.	*Treatment-specific design*	No	There are no prescribed burning activities proposed that would utilize fire lines or fuel breaks
WQSP-9C	The total length and width of constructed lines should be minimized. Blading to expose bare mineral soil displaces the nutrient and organic matter enriched surface horizon and increases the risk of erosion and spread of invasive weeds.	*Treatment-specific design*	No	No constructed lines are being proposed
WQSP-9D	Avoid dozer line construction on slopes greater than 30 percent.	*Treatment-specific design*	No	No dozer lines are being proposed
WQSP-9E	After use, pull soil and litter back into the fire line, seed, and top scatter slash if available. Where fire lines create cut slopes re-contour by pulling side cast or fill material back, seed, and top scatter slash if available immediately after use.	*Treatment-specific design*	No	No fire lines are being proposed
WQSP-9F	Avoid direct ignition of concentrated areas of dry masticated materials greater than 2 inches in depth. Prescribed fire may be allowed to burn into these areas.	*Treatment-specific design*	No	No prescribed burning activities are being proposed

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
WQSP-10	To ensure HUC12 disturbance is less than 25 percent, maintain disturbances from mechanical harvest treatments and roads to less than 25 percent of the HUC12 area. Other natural events (wildfire) could also affect watershed integrity. Weighted acres of mechanical harvest, road construction or other anthropogenic or natural disturbances within the watershed will be tracked in order to ensure cumulative impacts of project, other related actions and wildfire remain below this 25 percent cap. If 20 percent of the HUC12 is affected, discontinue or reduce acres of treatment in watershed so 25 percent threshold not exceeded. If 25 percent of the watershed is affected, discontinue treatments in suitable watershed until recovery has occurred.	LRMP Watershed Conservation Practices Handbook.	Yes	
WQSP-11i	Mastication of woody debris: Chip bed depth shall average less than 2 inches in depth across more than 80 percent of the treatment area with a maximum chip depth of 4 inches in isolated spots equating to no more than 10 percent of the treatment area.	Professional Judgement	Yes	

Soil and Water Specialist signature ASHLEY HOM Digitally signed by ASHLEY HOM Date: 2020.12.21 20:09:02 -07'00' _____

Table A-14. Water bar spacing (feet) by slope and ASTM D 24871 Soil Classification

Slope (%)	ML, SM Extremely Erodible Silts and sands with little or no binder (i.e., decomposed granite)	MH, SC, CL Highly Erodible Silts and sands with moderate binder	SW, SP, GM, GC Moderately Erodible Gravels with fines and sands with little or no fines	GW, GP Slightly Erodible Gravels with little or no fines
1-3	200	300	400	500
4-6	125	200	300	400
7-9	100	150	200	250
10-12	70	100	150	200
13-25	50	50	75	100
25+	30-50	30-50	60-775	80-100

[1]American Society for Testing Materials, standard classification of soil for engineering purposes.

Table A-15. Maximum cross-drain spacing (feet) by slope and ASTM D-24871 Soil Classification

Slope (%)	ML, SM Extremely Erodible Silts and sands with little or no binder (i.e., decomposed granite)	MH, SC, CL Highly Erodible Silts and sands with moderate binder	SW, SP, GM, GC Moderately Erodible Gravels with fines and sands with little or no fines	GW, GP Slightly Erodible Gravels with little or no fines
1-3	600	1,000	1,000	1,000
4-6	300	540	680	1,000
7-9	200	360	450	670
10-12	150	270	340	510
13-25	120	220	270	410

[1]American Society for Testing Materials, standard classification of soil for engineering purposes.

Wildlife, Fish, and Rare Plants

Table A-16. Wildlife, fish, and rare plants

Objectives:

1. **Design treatments to meet applicable objectives and standards with the Southern Rockies Lynx Amendment (SRLA). Consider guidelines outlined in the SRLA in treatment planning. When guidelines cannot be met, provide rationale to Fish and Wildlife Service (FWS) in year-end reporting.**
2. **Design treatments to meet applicable forest plan standards and guidelines related to wildlife.**
3. **Complete annual reporting to FWS as required by the SRLA.**
4. **Seek opportunities to integrate wildlife habitat management objectives as part of treatment activities.**

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
WFRP-1	All applicable management Objectives, Standards and Guidelines contained in the Southern Rockies Lynx Amendment will be applied during treatment planning and implementation.	USDA Forest Service, Rocky Mountain Region, 2008 (SRLA)	Yes	
WRFP-2i	At a minimum, in spruce-fir forest types maintain 90 to 225 snags per 100 acres, 10 inches DBH or greater (where biologically feasible). In lodgepole pine stands, maintain 90 to 180 snags (8 inches DBH or greater) per 100 acres. Snags would be maintained away from structures, roads and trails so that they do not create safety hazards to the public. Where possible, utilize natural sinuosity or drainages for linking groups. Protect standing wildlife trees from damage during site preparation and post-sale activities.	GMUG Forest Plan Standards and Guidelines	Yes	
WFRP-3	Where feasible, maintain a minimum of 10 to 20 tons per acre of coarse woody debris (≥ 3 inches diameter) within harvest units. Where possible in regeneration units, create piles of logs, stumps, or other woody debris to minimize the effects of larger openings.	GMUG Forest Plan Standards and Guidelines	Yes	

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
WFRP-4	Maintain large diameter downed logs in various stages of decomposition within harvest units (at least 50 linear feet per acre of 10 inches diameter or larger at the large end of lodgepole pine and aspen logs and/or 12 inches diameter or larger for Engelmann spruce, subalpine fir and Douglas-fir logs, where this material exists).	GMUG Forest Plan Standards and Guidelines	Yes	
WFRP-5	Strive to maintain forested cover on 60 percent or more of the perimeter of all natural and created openings, and along at least 60 percent of each National Forest System road (level 5 and below) that has high levels of human use during the time deer and elk would be expected to inhabit an area. Roads with restricted use could provide for less cover. Except where natural openings or parks exist along roads and when applying hazard tree removal activities along roads to meet public safety goals, gaps along roads should not exceed 0.25 mile. Cover should be well distributed across the landscape. Minimum sizes for hiding and thermal cover patches are 2 to 5 acres for mule deer, and 30 to 60 acres for elk. Hiding and thermal cover may be the same in many cases. The intent is to maintain or improve habitat diversity and make or keep the area in a condition where deer and elk can effectively use the area by managing the vegetation and human activity. *This design feature provides an opportunity to implement the proposed commercial and noncommercial activities in a way that accomplishes these wildlife habitat objectives while also meeting the purpose and need of the project. District wildlife, timber and fire programs will coordinate closely during the planning and design phase of projects to accomplish these objectives.*	Direction for maintaining habitat connectivity at the landscape scale, and to retain hiding and thermal cover for big game; GMUG Forest Plan (Page III-28, General Direction 01, Standard and Guideline a and b)	Yes	

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
WFRP-6	Provide hiding cover within 1,000 feet of any known elk calving areas. The District wildlife biologist will be responsible for coordinating with Colorado Parks and Wildlife to identify calving areas and informing timber and fire staff on locations. When calving areas are identified, a 1,000-foot buffer will be applied and existing vegetation conditions within the buffer will be assessed by the District biologist to determine cover needs, identify areas to avoid with treatments, or coordinate with timber and fire staff to determine how treatments could be designed to maintain or enhance cover. • To minimize disturbance to elk during the calving season, apply a seasonal timing restriction to treatment activities in areas identified by Colorado Parks and Wildlife (CPW) as elk production areas, as supported by best available scientific information (CPW Species Activity Mapping or GPS radio telemetry monitoring). • From May 15 to June 30, do not implement treatment activities in harvest units identified to occur within elk production areas.	GMUG Forest Plan (Page III-24, General Direction 01, Standard and Guideline a)	Yes	A small portion of an elk production area overlaps treatments in the west half of the Timber Sale, west of Road 752, based on Colorado Parks and Wildlife Species Activity Mapping data. Treatment types and unit layout retains abundant residual forest cover and hiding cover throughout the project area.
WFRP-7	Northern goshawk - No activities will be allowed within 0.5 mile of active nests from March 1 to August 31, with the exception that on roads open to other traffic, log hauling will be allowed. The timing restriction buffer could be reduced to 0.25 mile if topographic features and/or adequate screening cover are present that would protect the nest site from disturbance. No harvest activities will be allowed within a 30-acre buffer of nest sites. Outside of a 30-acre area around goshawk nest sites, timing restrictions are not needed for treatment layout, marking, and any other activities that are non-disturbing (i.e., activities not involving the use of heavy equipment or chainsaws). Timing restrictions will only apply to active nests, as confirmed by the GMUG National Forests' wildlife biologist. The District wildlife biologist will keep the timber and fire staff informed on nest status and locations.	Colorado Parks and Wildlife Raptor Buffer and Timing Restriction Recommendations; GMUG Forest Plan Standards and Guidelines	Yes	Martin Chavez Note- NOGO nest found in unit 1, Unit 1 has been removed, Other units should not be affected by NOGO nest in this unit. Haines Note-- Timing restrictions will be included in the western cutting units.

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
WFRP-8	Northern goshawk – provide or leave 20 percent of pole or mature tree stands adjacent to nesting sites with at least 150 square feet of basal area. Provide or leave at least one class 1 log adjacent to nest sites. The District wildlife biologist will be responsible for coordinating with timber and fire staff on nest locations and assessing vegetation conditions adjacent to nest sites.	GMUG Forest Plan (Page III-24, General Direction 01, Standard and Guideline e)	Yes	Treatment units were modified to avoid nesting habitat, and where a potential nest site occurs in the Timber Sale, between avoidance of the site itself with a 30-acre no-cut buffer and since there are very few treatment units adjacent to it, this design feature is met.
WFRP-9	On-going surveys for raptors would be conducted to determine locations of individuals or populations of these species and allow for the implementation of protection measures using the appropriate buffer or timing restriction.	Treatment- specific design; Migratory Bird Treaty Act	Yes	
WFRP-10	Retain live trees in salvage units, except for trees that need to be removed for operational/safety or silvicultural purposes. Operational/safety or silvicultural purposes include the need to remove live trees if necessary to access dead trees for salvage or to address safety concerns.	Treatment-specific design	Yes	
WFRP-11	Skid trails and landings will be located to minimize impacts to advanced regeneration. Skid trails should be placed at least 100 feet apart, except where they converge at landings.	Treatment-specific design	Yes	
WFRP-12	Areas in Lynx Analysis Units supporting live advanced regeneration with over 35 percent Dense Horizontal Cover in blocks greater than 0.3 acre will be avoided to the extent possible during layout [and during harvest operations], while allowing feasible operations.	SRLA – VEG S6 Standard	Yes	

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
WFRP-13 and WQSP-5A.	Landings and main skid trails should be evaluated to determine if detrimental soil compaction has occurred. Based on review by a specialist, when detrimental compaction is found, subsoil ripping may be applied to reduce soil impacts. When a site prep contract is necessary, this provides the opportunity to rip skid trails and landings in the area and potentially in nearby adjacent areas. This would provide for a more suitable seedbed for future regeneration, thus preventing permanent impacts of skid trails that when left in a compacted state, often do not regenerate as well as adjacent un-compacted areas. Importantly, all operations will conform to the direction in Chapter 10 of the Water Conservation Practices Handbook including managing treatments to limit the sum of severely burned soil and detrimentally compacted, eroded, and displaced soil to no more than 15 percent of any activity area.	Treatment-specific design to address impacts and recovery of snowshoe hare and lynx habitat (SRLA); Water Conservation Practices Handbook, FSH 2509.25, Chapter 10	Yes	
WFRP - 14	During treatment planning appropriate threatened, endangered, and sensitive species inventories will be completed as determined by the District Wildlife Biologist. Once a treatment is in the implementation phase, if threatened, endangered, and sensitive species are confirmed, the District wildlife biologist will be consulted and the appropriate standards for the forest plan will be applied (timing restrictions, buffer of nest sites, identify no cut area around nest sites, etc.). For example, if a new goshawk nest is found during operations, operations will stop; the District biologist will be informed and will evaluate the situation to determine if adverse impacts are occurring. This may include establishing an avoidance area around the occupied habitat or nest site consistent with forest plan direction and best available science to avoid impacts that could lead to nest abandonment and/or mortality.	Treatment-specific design; Endangered Species Act; Forest Service Sensitive Species Policy; Migratory Bird Treaty Act.	Yes	

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
WFRP-15	Winter logging is encouraged to limit direct disturbance to the fewest number of wildlife species as possible. When possible, avoid treatment activities in areas where big game (elk, deer, pronghorn and moose) are known to occur. When big-game winter range is bisected by proposed haul routes and there are concentrations of animals along these routes minimize stress to wintering animals to the extent practicable by applying one of the following: • Re-routing along another acceptable route. • From December 1 to April 15, restrict haul times to between 9 am and 4 pm, unless otherwise agreed to in writing by the Forest Service. Exception: to minimize damage to road surfaces, hauling may be restricted to early morning prior to 10 am when thawing occurs during the day, so that hauling occurs when the road surface is still frozen. • Avoid winter logging from December 1 to April 15 in places where wintering big game would be impacted. • The district biologist will coordinate with Colorado Parks and Wildlife to asses big game use and identify areas where animals concentrate during winter, and determine if there is a need to implement one of these conservation measures. This would be a coordinated effort with the GMUG, Colorado Parks and Wildlife, timber purchaser, and contracting officer. When the need arises to protect concentrations of wintering big game, the District wildlife biologist will be responsible for providing the timber staff with maps of these areas.	GMUG Forest Plan General Direction 04, 05c.and 05f. (page III-76 – III-77)	No	Resource not present.

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
WFRP-17	Habitat connectivity will be maintained at the landscape scale (lynx analysis unit and linkage zones for lynx) through various methods depending on treatment type, location and overall condition of each lynx analysis unit. Methods may include a combination of variable retention regeneration harvest methods through resiliency treatment types; tree retention areas of various sizes and shapes to retain snag groups and protect live understory trees across the landscape, with emphasis on multi-storied forest stands and areas typically used by wildlife as travel corridors (ridges, saddles, stream corridors); protection of water influence zones and stringers of timber; and maintaining areas of high quality snowshoe hare habitat as determined from dense horizontal cover field surveys using an established scientific protocol (cover board protocol). In terms of habitat connectivity considerations and to meet the Southern Rockies Lynx Amendment direction, there will be a lot of focus on protecting areas with high-quality dense horizontal cover in multi-storied stands and managing vegetation at the landscape scale toward Potential Natural Vegetation (PNV). On a timber sale by timber sale basis, coordination will occur between the District wildlife biologist and the timber staff to determine the appropriate method for accomplishing habitat connectivity goals, including determining the appropriate size, shape, and location of tree retention areas."	Treatment-specific design intended to support consistency with SRLA direction for lynx habitat connectivity. Interagency Lynx Biology Team, 2013.	Yes	
WFRP - 18	To maintain the amount and distribution of lynx foraging habitat over time capable of supporting lynx at the lynx analysis unit scale, manage so that no more than 30 percent of the lynx habitat in a lynx analysis unit is in an early stand initiation structural stage or has been silviculturally treated to remove horizontal cover (i.e., does not provide winter snowshoe hare habitat). Emphasize sustaining snowshoe hare habitat in a lynx analysis unit. If more than 30 percent of the lynx habitat in a lynx analysis unit is in early stand initiation structural stage or has been silviculturally treated to remove horizontal cover (e.g., clearcuts, seed tree harvest, precommercial thinning, or understory removal), no further increase as a result of vegetation management treatments should occur on Federal lands. As management occurs in the affected lynx analysis unit over the life of the treatment, acres affected will be tracked by the District wildlife biologist and forest wildlife program lead to ensure consistency with this conservation measure.	SRLA; Interagency Lynx Biology Team. 2013	Yes	Haines -- See Appendix H in Box \Implementation Checklists \3-ParkConeTS_Due-10Feb2021 \ParkConeChecklistSupportingDocumentation\Silviculture. Current percent of LAU in Stand Initiation is 3.3%. With the proposed harvesting and treatments within the LAU considered, that percentage would increase to 4.9%. The threshold will not be exceeded.

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
WFRP-19	American (Pine) Marten – Research has shown that martens avoid openings created from vegetation management activities that completely remove all trees (structural stand initiation stage) if the openings are larger than 300 feet in width. In areas identified as multi-storied spruce-fir, openings created should be less than 300 feet in width unless suitable marten habitat is maintained within cutting units through snag, advanced regeneration, and course woody debris retention as described in the above design features. Cutting units of this size will only occur when salvage prescription are applied and will be subject to WFRP-12. **Exception**: areas where public safety is a concern (road corridors, around structures, etc.). Commercial treatments will target dead trees larger than 8 inches in diameter so some residual cover will remain within cutting units. Irregular-shaped harvest units are desirable.	GMUG Forest Plan (Page III-24, General Direction 01, Standard and Guideline b)	Yes	
WFRP-20	Within secondary habitat for lynx (300-foot buffer from primary habitat), retain spruce and fir in aspen-spruce mix stands. Primary habitat is defined as having a dominance of spruce-fir cover type. Most of the secondary habitat includes either pure aspen or aspen-spruce mixed stands.	USDA Forest Service 2008 - Southern Rockies Lynx Amendment	No	Resource not present. There is no secondary lynx habitat in treatment units.
WFRP-23	In lynx analysis units with extensive mortality of mid-late and late seral spruce (Habitat Structural Stages 4A, 4B and 4C), retain these live stands to the greatest extent practicable during treatment design.	SRLA	No	Extensive mortality not present currently.
WFRP - 24	To minimize spread of Amphibian Chytrid Fungus, at least one member of the Aquatics Team will participate in the planning and implementation of project-level operations. See also IW-2 for equipment washing requirements.	Johnson and Spear 2003; Johnson et al. 2003	No	Resource not present.
WFRP – 25i	To prevent incidental mortality and deleterious effects to rearing habitat, within a 0.5-mile radius of documented boreal toad breeding sites, operating ground-based equipment off of existing roads (temporary or permanent), should only take place outside of breeding times and juvenile development (<10,000 ft. between May 1 – Sep 30; ≥10,000 ft. between May 15 – Sep 15).	Bartelt et al. 2004	No	Resource not present.

Identifier	Design Feature	Source / Citation	Applicable to Treatment (Yes, No, As Modified)	If no, provide justification (i.e., resource not present). If modified, identify modification and rationale for how the resource is equally/better protected
WFRP – 26i	To protect winter hibernacula for boreal toad (overwintering habitat such as small animal burrows), within a 1.6-mile radius of documented boreal toad breeding sites, operating ground-based equipment off of existing roads (temporary or permanent) during winter months (November – March), should only take place when there is at least 1 foot of packed snow or 4 inches of frozen soil. In these areas near known breeding populations, when safe and practical to do so, fuel reduction through pile burning, should only be conducted outside of times for winter hibernation (conduct pile burning from May – August).	Bartelt et al. 2004	No	Resource not present.
WFRP-27i	Coordinate with wildlife biologist and fuels specialist to determine potential for pile retention where appropriate. The intent of this design feature is to retain piles where they will benefit wildlife species dependent on course woody debris as a habitat component (Canada lynx, American marten, snowshoe hare, and other small mammals). Retention should be considered for piles in locations that do not conflict with fuels reduction objectives. *This design feature provides an opportunity to implement the proposed commercial and noncommercial activities in a way that accomplishes wildlife habitat objectives while also meeting the purpose and need of the project. District wildlife, timber and fire programs will coordinate closely during the planning and design phase of projects to implement this design feature.*		Yes	

District Biologist signature MATTHEW VASQUEZ Digitally signed by MATTHEW VASQUEZ Date: 2021.02.11 11:45:18 -07'00'

Forest Fish Biologist signature MATTHEW VASQUEZ Digitally signed by MATTHEW VASQUEZ Date: 2021.02.11 11:46:05 -07'00'

Haines -- See Appendix H in Box\Implementation Checklists\3-ParkConeTS_Due-10Feb2021 \ParkConeChecklistSupportingDocumentation\Silviculture. For WFRP-23, the current 4ABC component of 30% with the three timber sales and fuel treatments combined will decrease to 24%. The 20% 4ABC threshold is not exceeded. Review the Appendix H for more information.

5. Public Notice and Comment

Instructions: Publish notice of opportunity to comment on updated treatment list, treatment plans, refined maps, and schedule. The review and comment period will run for 30 days. Comments will be considered by the implementation teams and responsible official, and used to adjust treatment plans as warranted.

Below are the comments received during the public input periods that occurred from 2021 that pertain to Park Cone.

☒ Summary of comments received:

1) Request 6 year sale terms for purchasers due to the Hwy 50 construction and closures for 2021-2023.

☒ Summary of how comments were incorporated into treatment plan:

1) Small Sales will be limited to one year as per 2400-4 contract. If 2400-6 contracts are considered there will be consideration of elongating the contract to accommodate the highway 50 closure.

6. Conduct Public Field Trip of Proposed Treatment Area

Instructions: Complete public field trip of select sample of treatment areas. We anticipate that we may conduct one trip per field season, depending on public interest. Field review will focus on pre-treatment areas; however, post-treatment and monitoring activities will likely be viewed on the same trip.

The field trip took place on August 13, 2020 in the Ripley Timber and Boston Peak sale areas per input from the AMG on their preference of field trip location. Due to COVID-19 mitigations the field trip was limited to a single stop.

The field trip included discussion on the Taylor Park EA and SBEADMR decisions, the Adaptive Implementation Process (which includes continued public engagement), the area's management history, silviculture prescriptions/treatments, anticipated road use, wildlife species presences/use in the area and mitigations, role of the Science Team, Science Team objectives and work (past and future), AMG updates, and next steps in the implementation process.

Park Cone wasn't extensively discussed but it was mentioned.

☒ Summary of comments received:

General Comments that could pertain to Park Cone though the field trip was not at Park Cone:

The concern for quickly enforcing closed temporary roads after the sale is complete was noted among participants to reduce impacts to wildlife and ever-growing resource impacts from recreation.

☒ Summary of how comments were incorporated into treatment plan:

Temporary roads will at no point be authorized for public use. Additionally, design feature WQSP-8A specifies that all temp roads and skid trails are to be decommissioned within 3 years of sale closure; decommissioning is also specified in TSHR-2. Further, TSHR-1 dictates that existing routes will be used to the maximum extent. All of these DF have been selected by specialists as being required. Monitoring has also been specified to ensure decommissioning occurs and is effective.

To prevent unauthorized temp road use, temporary roads will be closed to use by others during extended periods of inactivity. During active operations, public use of temporary roads will not be permitted and signage will be posted at temporary road entrances.

7. Identification of Treatment - Specific Monitoring

Instructions: This section describes treatment-specific monitoring that may be needed. Those already listed are considered mandatory. Any additional monitoring is at the discretion of the line officer.

⊡ Cultural

Specified monitoring:

A. ☐ For treatments where field inventories are not feasible due to visibility concerns prior to treatment implementation, monitoring in the form of a sample inventory for cultural resources will be required post implementation. This monitoring will take place within one year of treatment implementation, with results provided to SHPO (Per 2015 Prescribed Fire Programmatic Agreement w/SHPO).

B. ⊡ Cultural resource sites that were required to be avoided during treatment implementation will be monitored for effectiveness of the protection measures following treatment completion (Per 2015 Prescribed Fire Programmatic Agreement w/SHPO).

⊡ Fire and Fuels

Specified monitoring:

A. ☐ Post-Treatment Fuel Loading Surveys in wildland-urban interface and/or around infrastructure values

B. ⊡ Monitor a sample of pile burn scars for bare soil and, on scars located on slopes and in swales, for the presence of rills, gullying, or soil movement. **If** over 100 square feet of burn scar consists of bare soil; minor rilling or gullying present within or adjacent to burn scar; minor deposition of soil downslope of scar, **then** treat bare soil and erosion according to District protocols, which may include one or two of the following: addition of mulching, scarification, inoculation with adjacent soils, seeding, etc. **If** monitoring reveals more than 200 square feet of burn scar consisting of bare soil, multiple rills or gullying, gullying 2 to 3 inches deep within burn scar, or significant deposition of soil downslope of scar, **then** elevate treatment application.

⊡ Range and Invasive Species

Specified monitoring:

A. ⊡ Inspect and document all limited term ground-disturbing operations in infested areas for at least three (3) growing seasons following completion of the treatment.

B. ☐ For ongoing treatments, continue to monitor until reasonable certainty is obtained that no new infestations have occurred. Provide for follow-up treatments based on inspection results.

☐ Soil and Water

Specified monitoring:

A. ☐

B. ☐

☒ Transportation

Specified monitoring:

A. ☒ All newly constructed roads in treatment area will be decommissioned within 3 years of sale closure (WQSP-8). Complete monitoring to ensure this has been completed and report in appropriate database of record.

☐ Wildlife, Fish and Rare Plants

Specified monitoring:

A. ☐

☐ Botany

Specified Monitoring

A. ☐ Prescribed fire post-treatment monitoring in inventoried fens.

B. ☐

☒ Silviculture

Specified monitoring:

A. ☒ In regeneration harvests, complete stocking surveys in order to certify treatment unit fully stocked. This includes species composition and age class as required by National Forest Management Act.

B. ☒ See the silvicultural prescriptions in Box\Implementation Checklists \3-ParkConeTS_Due-10Feb2021\ParkConeChecklistSupportingDocumentation \Silviculture for the standard reforestation survey protocols.

☐ Other (specify)_____

Specified monitoring:

A. ☐

8. Finalize Treatment Plan – Timber Sale Contract, Service Contract

Instructions: The GMUG implementation team will finalize the treatment plan, ensure all aspects of this checklist have been completed, and all aspects are approved by the line officer. Ensure contracts, agreements, burn plans, or other implementation instruments are reflective of this framework.

9. District Ranger Approval

I have reviewed the checklist and confirmed that the treatment has been designed and planned accordingly. In particular, I have reviewed the selected design features (see step 4) and I confirm they apply to this treatment.

Signature MATTHEW MCCOMBS Digitally signed by MATTHEW MCCOMBS Date: 2021.06.29 09:31:40 -06'00'

District Ranger

10. Contract Review (if applicable)

The TMA and Contracting Officer will complete a review of the contract package to ensure the applicable design features (see step 4) are identified within various contract C provisions.

Signature _____

Contracting Officer

Appendix I: _____

Appendix II: _____

Appendix III: _____