Missionary Ridge Spruce Reforestation
2013-2016
USDA Forest Service
Columbine Ranger District, San Juan National Forest
La Plata County, Colorado
T37N, R8W, Sections 1, 2, 10-15, 22-27, 34-36
N.M.P.M.

Location/Background

The Missionary Ridge Spruce Reforestation Project is located on National Forest System lands in La Plata County, Colorado, approximately 16 air miles northeast of Durango on the Columbine Ranger District of the San Juan National Forest. The planting units are located on Missionary Ridge in T37N, R8W, Sections 1, 2, 10-15, 22-27, and 34-36, N.M.P.M. (see map).

The Missionary Ridge Fire occurred in summer 2002. The Fire was determined to be human-caused, was exacerbated by a record drought year, and ultimately burned almost 73,000 acres. Post-fire assessments estimated that about 31% burned at high severity, 30% at moderate severity, and 39% at low severity or unburned. Due to the extremely dry conditions, the fire burned through higher elevation aspen and spruce-fir ecosystems that do not readily burn in normal years. Because of the severe drought and the extreme dryness leading up to the fire, the vegetation was already under high stress at the time of the fire. The trees were in the shoot elongation stage at the time of the fires, making them more vulnerable to injury, and unable to re-grow when burnt.

Re-stocking surveys in the project area in the years since the fire have shown that stands that contained aspen before the burn have regenerated. Additionally spruce stands with moderate or low severity fire on northeast – northwest facing slopes have some spruce or sub alpine fir regeneration. Spruce stands without an aspen component and southwest – southeast aspect have no regeneration occurring.

The planting units include some areas in Forest Plan management area prescriptions 3A (Semi-Primitive Non-Motorized Recreation) and 6B (Livestock Grazing), but are primarily in prescription area 7E, which calls for an emphasis on Wood Fiber Production.

A Draft Forest Plan Revision has identified the project area as primarily within Management Theme 5 (Active Management), with some Theme 3 (Natural Landscapes with Limited Management).
Purpose and Need

The purpose and need for this project is to restore burned spruce fir stands where natural regeneration did not result in sufficient stocking to create a forested cover. Restoring sufficient stocking will help restore ecosystem function, wildlife habitat, carbon sequestration, and far-future wood products.

Proposed Action

The project is to plant approximately 1000 acres with Engelmann spruce seedlings in areas that lack desired stocking of overstory trees, using stocks from native seed sources. Spruce seedlings will be about 6 inches tall and planted at a density of about 500-600 trees per acre with variable spacing resulting in an average spacing of about 9 x 9 feet. Survival of seedlings is expected to be 50% to 70%, resulting in a desired future condition stocking rate of at least 270 trees per acre. Seedlings will be planted within 1 foot of an existing shade source, and on the north to east side of a live or dead tree, stump, shrub, downed log, or rock. Openings with no shade sources will not be planted. Wetlands and natural meadows will not be planted.

Seedlings will be hauled to the planting units with trucks or ATVs using existing system and non-system roads and trails. Pack stock could also be used to haul seedlings and supplies into the planting units. Seedlings will be planted the day they are hauled to the unit. Planting will be done by hand with a crew of 10 to 20 people working in a group and following a grid. Trees will be hand planted using a hoe-dad. Hoe-dads create a hole about 6 to 8 inches deep and 4 inches diameter. Grass and other vegetation will be scraped away from each planted seedling for a diameter of about 18 inches. Some logs may need to be cut with chainsaws to facilitate crew movement through the units.

Planting will be timed to occur when the ground is damp but not wet, and trees are dormant. Fall (September) planting is preferred, if snow conditions permit and the ground is not too dry. If planting is done in spring, it would be timed to occur when small snow patches remain on the site (late May to early June).

A crew of 10 to 20 people is expected to plant about 30 acres per day, totaling about 300 acres of seedlings per season over about a 2 week planting period. It is expected to take about 4 planting seasons to complete the project.

The plantations will be surveyed and monitored for success. If survival rates fall below 60%, fill-in planting may be needed 2 years later to meet stocking objectives. Maintenance of the plantation may include non-lethal forms of gopher control, creating shade by cutting standing dead trees, weed control or additional scraping away of grass and shrubs from established trees within 2 to 3 years after planting.

Decision and Rationale

I have decided to implement the Missionary Ridge Reforestation Project, as described above in order to help restore ecosystem function after a man-caused fire. Additionally, the following Mitigation Measures will be implemented:
My decision includes the mitigation measures:

- Signs will be posted during implementation for safety and for travel management purposes.
- ATV tracks, ML1, and non system routes will be blocked to prevent public motorized travel at the conclusion of the project each season.
- "Trails" cut through the downed logs will be blocked at the conclusion of the project each season.
- Noxious weeds will be treated as necessary.
- Planted areas will be closed to firewood collection for up to 4 years to allow trees to get established and use the shade of the down logs.
- Avoid harvesting the planted areas for 100 years to allow trees to mature.

This action is categorically excluded from documentation in an environmental impact statement or an environmental assessment because it falls within FSH 1909.15 category 32.2 (5): "Regeneration of an area to native tree species, including site preparation that do not involve the use of herbicides or result in vegetation type conversion." [36 CFR 220.6(e)(5)].

The categorical exclusion is appropriate in this situation because there are no extraordinary circumstances related to the proposed action potentially having effects that may significantly affect the environment. I considered the following resource conditions:

(a) Threatened, endangered, or proposed, species or their critical habitat or Forest Service sensitive species: Wildlife and plant evaluations were performed to determine the effects to threatened, endangered, proposed, and sensitive species and their habitats; No threatened, endangered or proposed species or their habitats would be affected by the project. No Forest Sensitive animal species would be impacted. Individuals of one Sensitive plant species (yellow lady's slipper) may be adversely impacted, but it is not likely to result in the loss of range-wide viability or cause a trend towards federal listing.

(b) Floodplains, wetlands, or municipal watersheds: The project area is not located within any, floodplains, wetlands, or municipal watersheds.

(c) Congressionally designated areas, such as wilderness, wilderness study areas, or National Recreation Areas. The project area is not located within any wilderness, wilderness study area, or NRAs.

(d) Inventoried roadless areas: Approximately 130 acres of planting units fall within non-upper tier Colorado Roadless Area. There are no activities prohibited under the Colorado Roadless Rule proposed. Impacts to roadless characteristics are as follows:

1. High quality soil, air and water. Impacts to these resources will be beneficial due to the long term re-establishment of tree cover.
2. Public Drinking Water. There are no drinking water intakes in the project area.
3. Diversity of Plant and Animal Communities. Diversity of plant and animal communities at the Forest level is not impacted as determined in the BA, BE and MIS analyses.
4. Habitat for special status species. Impacts to these species were analyzed in wildlife and plant reports and found to be minimal or non-existent.

5. Primitive and Semi-Primitive Recreation. Recreation impacts will be minimal due to the short-term nature of the planting season. Management of recreation and travel management will not change from current practices.

6. Reference Landscapes. The project is not in a reference landscape.

7. High Scenic Quality. Scenic quality will benefit in the long term by re-establishment of tree cover.

8. Traditional Cultural Properties and sacred sites. There are no such resources within the project area.

9. Other Unique characteristics. No other local unique characteristics have been identified.

(e) Research Natural Areas: The project area does not fall within a Research Natural Area.

(f) American Indian and Alaska Native religious or cultural sites: A cultural records search was conducted for the project location. No known cultural or religious sites exist within the project area.

(g) Archeological sites, or historic properties or areas: A records and search and representative field surveys were conducted for the project location. Only isolated finds were located within the project area, which are not eligible to the National Register of Historic Places, and do not require further protection.

Public Involvement

A proposal was listed on the on-line Schedule of Proposed Actions beginning in April 2013. A legal notice announcing a 30-day public comment period was published in the Durango Herald on May 3, 2013. No comments were received.

Findings Required by Other Laws

The Forest Plan provides the framework for the action proposed here, and we are undertaking the action as one step in implementing the Forest Plan, as required by the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA, P.L. 93-378) and the National Forest Management Act of 1976 (NFMA, P.L. 94-588).

This project is consistent with the direction, standards and guidelines in the Forest Plan: for the 7E Management Area to have a mosaic of fully-stocked stands (p. III-209), 7E Standards and Guidelines for Visual Quality Objectives (p. III-220 -221), and General Direction to establish satisfactory stands on cutover areas (p. III-43 – 44).

This decision also is consistent with requirements for the Endangered Species Act, the Migratory Bird Treaty Act, the National Historic Preservation Act, and the Clean Water Act.
Implementation Date

This project may be implemented on or after the date of this Decision Memo. It is expected to take place during 2013-2016.

Administrative Review or Appeal Opportunities

This decision is not subject to appeal because no comments were received during the comment period (36CFR 215.12(e)).

Contact Person

For additional information concerning this decision, contact Gretchen Fitzgerald, Forester, Columbine Ranger District, POB 439, Bayfield, CO 81122, 970-884-1435.

MATT JANOWIAK
Columbine District Ranger

Date

7/11/13