



# New Mexico State Forestry

## Forest Management/Stewardship Plan Outline

*This document is intended to describe the minimum criteria needed for a forest management or stewardship plan. These criteria align with national standards set forth by the USDA – Forest Service Stewardship Program. These criteria are consistent with Tree Farm management plans and the technical criteria of the USDA – Natural Resources Conservation Service’s Conservation Activity Plans. The landowner should provide input to any and all sections they feel comfortable researching, but especially Sections I and II. A forester or qualified natural resource professional must complete Sections III, IV, and V with input and feedback from the landowner.*

Cover Page (Include title, date, and author)

Table of Contents (Include page numbers)

Section I. Overall Property Information

*The planner and the landowner should work closely together to gather information for this section. After fulfilling the minimum requirements, this section can be as broad or as specific as the planner and the landowner want it to be. It is especially crucial for the planner to help the landowner establish appropriate and attainable goals and objectives, as these will inform management decisions in Section V.*

- 1) Landowner contact information
  - a) Name, address (physical and mailing), phone number, email address, etc.
- 2) Ownership description and history
  - a) Include information about the current and previous owners, general management history, local / area issues, etc.
- 3) Location description
  - a) Township, Range, Section (PLSS) & Latitude/Longitude (DD)
- 4) Landowner goals and objectives (at least 5)
  - a) E.g. Goal 1 – Protect water quality in all watercourses
    - (1) Objective 1.1 – reduce soil erosion by improving herbaceous cover
    - (2) Objective 1.2 – use existing material and resources to construct appropriate erosion control structures
    - (3) Objective 1.3 – maintain healthy riparian forest buffers
- 5) Property maps
  - a) Topographic and aerial
  - b) Each must include title, author, scale, north arrow, legend, and date.
  - c) Use ArcMap or Google Maps and provide shapefiles to the local NMSF District.

## Section II. Resource Descriptions

*Gathering solid information in the field (through surveys, inventory, etc.) and from printed or online resources is critical for this section. The plan writer will pair the landowner's goals and objectives from Section I with the resource information in Section II to provide management recommendations in Section V.*

- 1) General property characteristics
  - a) Use the New Mexico State Wildlife Action Plan (<https://swap.iterative.consulting/>) or other resources (reGAP data layers) to identify and describe the ecoregion and other relevant features.
  - b) Use the New Mexico Rare Plant Conservation Strategy (<http://www.emnrd.state.nm.us/SFD/ForestMgt/NewMexicoRarePlantConservationStrategy.html>) to identify ecoregions, Important Plant Areas, and Rare Plant Conservation Strategy Species that may occur on or near the property.
- 2) Fish and wildlife habitat
  - a) Use <http://bison-m.org/>, landowner surveys, and visual assessment to identify key wildlife species and describe key characteristics.
  - b) Use <http://nmchat.org/> to identify sensitive animal and plant species and their habitats.
  - c) Use <https://nmert.org/> to determine whether sensitive plant and wildlife resources occur on or near the property and to obtain guidance for helping to maintain and enhance wildlife populations and their habitat.
- 3) Threatened and endangered species
  - a) Run a database query on BISON-M (<https://bison-m.org/>) to determine potential species of concern for the property. Include any known species identified by the landowner or observed in visual assessment.
  - b) Use <https://ecos.fws.gov/ipac/> to determine if any federally listed species, critical habitat, migratory birds, or other natural resources may be on or near the property.
- 4) Rare plants
  - a) Use <http://nmrareplants.unm.edu/>, landowner surveys, and visual assessment to identify key species and describe key characteristics.
  - b) Use <https://nmert.org/> to determine whether sensitive plant and wildlife resources occur on or near the property.
  - c) Use the New Mexico Rare Plant Conservation Strategy Scorecard (<http://www.emnrd.state.nm.us/SFD/ForestMgt/NewMexicoRarePlantConservationStrategy.html>) to determine the current conservation status of rare plants and conservation actions needed to conserve the species.

- 5) Soil and water resources
  - a) Use <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm> or Soil Data Mart to create an Area of Interest and summarize soils data.
    - i) Include maps of soil types and properties of each major soil, and identify any wetlands or riparian zones.
    - ii) Specify whether or not soil erosion is a resource concern or potential issue based on soils reports and visual assessment.
- 6) Recreation and aesthetic resources
  - a) Identify and describe (using maps, photos, etc.) existing conditions, features, uses, and potential issues.
- 7) Roads and access
  - a) Identify and describe (using maps, photos, etc.) existing conditions, features, uses, and potential issues.
- 8) Special sites
  - a) Provide additional information on any areas of special interest – biological, geological, ecological, etc.

### Section III. Timber Inventory and Forest Resource Assessment

- 1) An inventory must be conducted using variable or fixed radius plots to capture the range of variability.

- 2) Inventory data must be summarized electronically, and tables and/or charts provided within this section.
- 3) Data should include species present, current stocking levels (square feet of basal area per acre, trees per acre, and average diameter), and size class distribution
  - a. Additional data that could be gathered includes:
    - i. Site index (where merchantable species exist and timber production is a goal)
    - ii. Shrub or other understory species lists (or % cover)
    - iii. Downed woody debris (assessed through Brown's transects or visual estimates) in pounds per acre and identify whether these rates are high, moderate, or low.

#### Section IV. Forest Protection

- 1) Insects and disease
  - a) Use <http://www.fs.fed.us/r3/resources/health/field-guide/index.shtml> to identify and describe (using maps, photos, etc.) existing conditions and potential issues.
- 2) Fire hazard
  - a) Discuss fuel loading, fire regime characteristics, etc.
    - i) Measure fuel loading using Brown's transects, photo-loads, or other scientifically proven methods
  - b) List which Community Wildfire Protection Plan includes the area addressed in this management plan and name the nearest community (or communities) from the latest list of Communities at Risk that this plan has the potential to impact. (<http://www.emnrd.state.nm.us/SFD/FireMgt/Fire.html>)
  - c) Assess any structures on the property and provide defensible space guidelines. ([www.livingwithfire.com](http://www.livingwithfire.com))
- 3) Noxious weeds
  - a) Run a database query (<http://weeds.nmsu.edu/>) for Class A, B, and C noxious (non-native, invasive) weeds found in the county.
  - b) Insert a list of potential weeds in the county in this section and a state-wide list in the appendix.
- 4) Cultural resources
  - a) Any known resources must be identified and should be described.
  - b) A report must be run through the State Historic Preservation Office, before any ground disturbing activities take place, to determine what registered sites are already known. (NMSF will provide this SHPO report.)
  - c) Appropriate measures must be taken to avoid disturbing any sites during management activities, especially where federal dollars are spent.

#### Section V. Forest Management Recommendations

*In this section, the planner should pair the landowner's goals and objectives with the resource data (timber, wildlife, soils, etc.) and create clear and concise management recommendations. Where*

*necessary, incorporate recommendations from discipline specialists (e.g. wildlife biologists, soil scientists, range conservationists, etc.).*

- 1) Potential issues to consider and address:
  - a. Erosion mitigation measures (e.g. Zeedyck structures)
  - b. Integrated pest management
  - c. Noxious weed control
  - d. Reforestation
  - e. Understory species management/course woody debris recruitment. (Discuss grasses, forbs, shrubs, seedlings, logs, slash, and chips)
  - f. Grass Management / Grazing Management. (Consult the NRCS' guidelines for grazing management conservation activity plans at <http://www.nm.nrcs.usda.gov/technical/fotg/section-3/captc.html>).
  - g. Prescribed burning. (Consider burning slash piles after treatment, and broadcast burning to restore a natural fire regime for appropriate forest systems such as ponderosa pine.)
  - h. Climate change adaptation and mitigation
    - i. Include management regimes that will maintain and enhance forest carbon sequestration and cycling capacity.
    - ii. Consider possible near and long-term impacts of climate change, including drought induced increased fire risk, invasive species migration, and species range/habitat shifts.
  - i. Water quality and supply
    - i. Emphasize the importance of forest management and conservation in high priority watersheds identified in national, regional, and state resource assessments.
      1. The NM State Forestry Forest Action Plan is found at: <http://www.emnrd.state.nm.us/SFD/statewideassessment.html>
- 2) Provide an action plan or schedule of operations for planned activities in the near term (i.e. 1-5 years).

Approval / Signature Sheet – Appropriate District staff must review and sign (<http://www.emnrd.state.nm.us/SFD/contact.html>)

Literature Cited (<http://library.duke.edu/research/citing/>)

#### Appendices

- 1) List of forestry definitions
- 2) Sources of assistance programs and resources
- 3) Maps
- 4) Data sets
- 5) Pictures
- 6) Cost-share practice plan for any specific treatment area identified as first priority
- 7) Any other information requested by the landowner