

**Responses to the prompts on this work plan should be typed directly into this template**

1. Describe the manner in which the proposal will be implemented to achieve ecological and community economic benefit, including capacity building to accomplish restoration.

Over the next 9 years the Santa Fe National Forest (SFNF), the Valles Caldera National Preserve (VCNP) and other collaborators will undertake a wide variety of coordinated and integrated treatments involving forest thinning, prescribed fire, management of natural fires, road management activities (closures and decommissioning), riparian zone restoration projects, and fisheries and wildlife habitat improvement projects. These efforts will be conducted over many ecosystems, from grasslands and low elevation piñon-juniper woodlands to upper montane coniferous, sub-alpine and alpine forests. This treatment strategy prioritizes and integrates multiple ecosystem restoration needs across a large, complex landscape and different administrative boundaries.

The following summarizes the proposed treatments, strategic locations, and desired outcomes, assuming just over 9 years of implementation, from the end of fiscal year 2010 through 2019.

In all forested ecosystems, based on natural fire regimes, combinations of thinning and prescribed burning on a total over 150,000 acres of NFS land (actual acres will depend on funding, actual contract costs and environmental conditions suitable for prescribed burning), and on 10,140 acres of non-NFS land on Jemez and Santa Clara Pueblos (Pueblos) and Bandelier National Monument (Bandelier).

All thinning and burning treatments are strategically located and prioritized in areas that: have the most highly altered fire regime condition class (FRCC 2 to 3), the greatest potential to burn with uncharacteristic fire behavior, the potential to improve threatened, endangered and sensitive (TES) species habitat as well as areas selected to promote old growth conditions.

Riparian ecosystem restoration treatment activities primarily involve removing small conifers, revegetating bare soils, stabilizing streambanks, and planting riparian vegetation in selected locations along the streams and in riparian ecosystems.

Other restoration actions are listed below. They will occur throughout the 9 year life of the project and will be prioritized for implementation based on the degree of impact to riparian areas, water quality, TES fish and wildlife, and heritage resources.

- Invasive plant control (1,500 acres)
- Road and trail decommissioning, rehabilitation, closure, and improvement (1,600 miles)
- In-stream aquatic-fish habitat structures (along 27 stream miles)
- Reintroduction of native trout (at least 4 stream miles)
- Water tank decommissioning, repair, or new installations for riparian and wildlife habitat improvement purposes (94 water sources)
- Riparian enclosure fences and barriers to limit cattle, elk and human uses (15 miles)
- Conservation education, focused on reducing damaging activity in riparian areas

The implementation schedule all project activities is broken into a three phases.

Phase one (2010-2012): Planning and legacy project completion. Large scale planning will occur during this phase. Baseline monitoring data will be collected and some on-the-ground actions (described above) which have NEPA decisions; will be implemented.

Phase two (2013-2016): The Ramp up phase. Activities are focused on thinning and involve encouraging development of an industry presence and implementing projects that will enhance capacity. The extent of the

projects that will be implemented during this phase is dependent upon the type and kind of industry as well as their capacity to grow with the project.

Phase three (2016-2019): During this phase, the project will be implemented as a balance between industry capacity and project funding. Also during this phase, a transition plan will begin in an effort to maintain the industry capacity with projects both within and outside the SWJM landscape.

2. Anticipated unit treatment cost reduction over ten years:

Performance Measure Code	Average Historic Unit Cost	Cost Reduction per Unit	Assumptions
WTRSHD-RSTR-ANN	750	200	<ul style="list-style-type: none"> <li>Assumes thinning, biomass removal or disposal, and prescribed fire.</li> <li>Reliable supply of work leading to increased competition; increased capacity for utilization.</li> <li>Reduced hazard over the landscape reduces costs and risks associated with prescribed fire.</li> <li>Increase ability to use natural ignition</li> </ul>
FOR-VEG-EST	N/P <sup>1</sup>		
FOR-VEG-IMP	445	95	<ul style="list-style-type: none"> <li>Assumes thinning, biomass removal or disposal, and prescribed fire.</li> <li>Reliable supply of work leading to increased competition; increased capacity for utilization.</li> <li>Reduced hazard over the landscape reduces costs and risks associated with prescribed fire.</li> <li>Increase ability to use natural ignition.</li> </ul>
INVPLT-NXWD-FED-AC	300	100	Increased use of volunteers
INVSPE-TERR-FED-AC	N/P	N/P	
S&W-RSRC-IMP	750	200	<ul style="list-style-type: none"> <li>Assumes thinning, biomass removal or disposal, and prescribed fire.</li> <li>Reliable supply of work leading to increased competition; increased capacity for utilization.</li> <li>Reduced hazard over the landscape reduces costs and risks associated with prescribed</li> </ul>

<sup>1</sup> N/P = not proposed

			<p>fire.</p> <ul style="list-style-type: none"> <li>• Increase ability to use natural ignition</li> </ul>
HBT-ENH-LAK	N/P	N/P	
HBT-ENH-STRM	20,000	2,500	Increased use of volunteers
HBT-ENH-TERR	750	200	<ul style="list-style-type: none"> <li>• Assumes thinning, biomass removal or disposal, and prescribed fire.</li> <li>• Reliable supply of work leading to increased competition; increased capacity for utilization.</li> <li>• Reduced hazard over the landscape reduces costs and risks associated with prescribed fire.</li> <li>• Increase ability to use natural ignition</li> </ul>
RG-VEG-IMP	100	0	No Change
RD-HC-MAIN	2650	0	No Change (average road maintenance/improvement cost (HC/PC))
RD-PC-MAINT	2650	0	No Change
RD-DECOM	690	0	No Change
RD-PC-IMP	2650	0	No Change
RD-HC-IMP	2650	0	No Change
STRM-CROS-MTG-STD	1700	0	No Change
TL-MAINT-STD	N/P	N/P	
TL-IMP-STD	N/P	N/P	
LND-BL-MRK-MAINT			
TMBR-SALES-TRT-AC	N/P	N/P	
TMBR-VOL-SLD	565	200	<ul style="list-style-type: none"> <li>• Reliable supply of work leading to increased competition; increased capacity for utilization.</li> </ul>
BIO-NRG	565	200	<ul style="list-style-type: none"> <li>• Reliable supply of work leading to increased competition; increased capacity for utilization.</li> </ul>
FP-FUELS-NON-WUI	600	150	<ul style="list-style-type: none"> <li>• Assumes thinning, biomass removal or disposal, and prescribed fire.</li> <li>• Reliable supply of work leading to increased competition; increased capacity for utilization.</li> <li>• Reduced hazard over the</li> </ul>

			<p>landscape reduces costs and risks associated with prescribed fire.</p> <ul style="list-style-type: none"> <li>• Increase ability to use natural ignition.</li> </ul>
FP-FUELS-WUI	694	150	<ul style="list-style-type: none"> <li>• Assumes thinning, biomass removal or disposal, and prescribed fire.</li> <li>• Reliable supply of work leading to increased competition; increased capacity for utilization.</li> <li>• Reduced hazard over the landscape reduces costs and risks associated with prescribed fire.</li> <li>• Increase ability to use natural ignition</li> </ul>
SP-INVSP-E-FED-AC	300	100	Increased use of volunteers
SP- NATIVE –FED-AC	N/P	N/P	

3. Anticipated costs for infrastructure needed to implement project:

Type of Infrastructure	Anticipated Cost	Funding Source (federal, private, etc)
Road Maintenance	\$1,257,000	Federal
Monitoring equipment	\$305,000	Federal, (CFLRP, SFNF, VCNP)
Small industry (manufacture) <sup>i</sup>	\$1.0-1.8 Million	Private
Small industry (transportation)	\$350,000	Private
Large Industry (manufacture) <sup>ii</sup>	\$140 Million	Private
Large Industry (transportation)	\$1.0-2.0 Million	Private

<sup>i</sup> Small industry investment- This investment would facilitate the removal of wood products throughout the SWJM landscape. The project can proceed without this investment.

<sup>ii</sup> Large industry investment- This investment is speculative and would not be required to implement the project. If a large industry becomes established in either Grants NM, or Winslow AZ, the SWJM would greatly benefit through additional competition for wood products. The project can proceed without this investment.

4. Projected sustainability of the supply of woody biomass and small diameter trees removed in ecological restoration treatments:

Fiscal Year	Number of acres to be treated	Projected Green Tons Removed per Acre	Total Green Tons Available
2010	700	4.3	3,000
2011	600	10.0	6,000
2012	900	11.1	10,000
2013	4,500	19.6	88,000
2014	5,000	19.6	98,000
2015	5,300	19.8	105,000
2016	7,100	18.6	132,000
2017	6,400	18.4	118,000
2018	6,400	18.4	118,000
2019	4,300	20.9	90,000

5. Projected local economic benefits:

Type of projects	Total direct jobs	Total indirect jobs	Total Direct Labor Income	Total Indirect Labor Income <sup>2</sup>
Commercial Forest Products	106	111	\$3,842,000	\$4,547,000
Other Project Activities	790	319	\$30,594,000	\$11,851,000
<b>TOTALS:</b>	<b>896</b>	<b>430</b>	<b>\$34,435,000</b>	<b>\$16,398,000</b>

<sup>2</sup> Values obtained from Treatment for Restoration Economic Analysis Tool (TREAT) spreadsheet, "Impacts-Jobs and Income" tab. Spreadsheet available at [http://www.fs.fed.us/r3/sfe/jemez\\_mtn\\_rest/docs.htm](http://www.fs.fed.us/r3/sfe/jemez_mtn_rest/docs.htm)

6. Document the non-Federal investment in the priority landscape:

Source of Investment	Amount of Investment	Description of Use
State Agencies (NMGF, NMED, NMENRD)	\$6,925,000	Inventory and monitoring, native species reintroduction, implementation funding, labor.
Non-Federal Grants	\$750,000	Implementation funding, includes projects for riparian, stream and wildlife habitat restoration
Partners (The Nature Conservancy, New Mexico Forest & Watershed Restoration Institute, Jemez Pueblo)	\$864,000	Project management, oversight
NGO (The Nature Conservancy, WildEarth Guardians, Los Amigos de las Valles Caldera)	\$2,106,000	Inventory, monitoring, evaluation, implementation funding, labor, technical expertise.
Volunteers	\$150,000	Inventory, monitoring, labor
University/Higher Education Institutes	\$6,600,000	Inventory, monitoring, evaluation, technical expertise
Tribal (Jemez, Santa Clara)	\$4,509,000	Implementation funding, labor

7. Plans to decommission any temporary roads established to carry out the proposal:

Projected accomplishment year (fiscal)	Number of Miles to be Decommissioned
2010	0 mi
2011	0 mi
2012	<2 mi
2013	<2 mi
2014	<2 mi
2015	<2 mi
2016	<1 mi
2017	<1 mi
2018	<1 mi
2019	<1 mi