

1 **Guidelines**

- 2 ■ Active raptor nests for at-risk species should be protected from treatments and disturbance
3 during the nesting season to provide for successful reproduction.
- 4 ■ Human presence should be minimized during the nesting season for northern goshawk nest areas
5 from March 1 through September 30.
- 6 ■ Human presence should be minimized during nesting season for peregrine falcon from March 1
7 through August 15.
- 8 ■ When designing or maintaining bridges, project coordinators should consider incorporating
9 design elements that allow for the use of structures by bats or improve the potential for roost
10 habitat. Bat surveys should be conducted prior to any maintenance work.
- 11 ■ *Additional species-specific guidelines are under development for Threatened and Endangered*
12 *species as well as for species of conservation concern.*

13 **Management Approaches**

- 14 ■ The Cibola National Forest maintains strong partnerships between the State, other Federal
15 agencies, academia, and nongovernment organizations to provide for federally-recognized
16 species and species of conservation concern. Emphasis is placed on the protection and
17 replacement of key habitats that contain threatened, endangered, and/or species of conservation
18 concern plants and animals. The Cibola works with the U.S. Fish and Wildlife Service and other
19 partners to develop conservation measures (for example, public education to reduce human
20 impacts) to prevent listing and to aid in the recovery and delisting of federally listed species. For
21 10(j) species, such as the Mexican wolf, this applies inside and outside the designated
22 experimental range.
- 23 ■ To effectively manage at-risk species populations, it is important to coordinate with other
24 stakeholders, including county and local governments, permitted entities, and adjacent
25 landowners, in efforts for management and recovery. As new information and/or changing
26 conditions regarding federally-recognized species or critical habitat become available, it should
27 be communicated efficiently, effectively, and consistently to affected parties.

28 **Air**

29 **Background and Description**

30 Air quality and its effects on the Cibola National Forest Mountain Districts can be described in three
31 ways:

32 Does ambient air quality on and near the Forest meet State and Federal regulations?

33 Is visibility at scenic vistas impaired by anthropogenic pollution sources?

34 Does atmospheric deposition of pollutants, such as nitrogen, sulfur, and mercury compounds,
35 contribute to impaired ecosystem structure or function?

36 While there are no air quality monitoring stations on the Forest, nearby monitors indicate that
37 ambient measurements of criteria pollutants are in attainment. However, there is some concern in the
38 future regarding particle pollution (particulate matter PM₁₀ and PM_{2.5}) which is expected to increase
39 from windblown dust and fires. Fugitive dust emanating from off the Forest, as a result of land use
40 practices and travel on county roads, occasionally occurs and may worsen during droughts or

1 changes in climate conditions. However, fugitive dust generally does not emanate from the Forest,
2 except for dust that occasionally emanates from vehicular use of unpaved National Forest System
3 roads during dry conditions. Also, ozone may become an issue as regulatory standards are tightened,
4 particularly on the Sandia District outside of Albuquerque. In addition, nearby visibility monitoring,
5 while not measured on the Forest, indicates that while there is some impairment overall, the trend is
6 improving and remains on track to meet regulatory guidelines set by the EPA and the State of New
7 Mexico. Lastly, in regards to atmospheric deposition, modeled data suggests that nitrogen deposition
8 exceeds the critical loads for lichens on much of the mountain districts. However, the trend in
9 nitrogen pollution is improving. Generally, where data is available, air quality on the Forest is
10 generally good and the overall trend is improving for most pollutants. The greatest concern in the
11 future is particulate pollution from fire and fugitive dust Forestwide and possibly ozone on the
12 Sandia District.

13 **Desired Conditions**

- 14 ■ Air quality meets or surpasses State and Federal ambient air quality standards.
- 15 ■ Visibility at sensitive class II areas is maintained or improved within the planning areas.
- 16 ■ There are no measurable disturbances to water chemistry or biotic components due to
17 atmospheric deposition of pollutants.

18 **Guidelines**

- 19 ■ Monitoring should occur to determine if critical loads are being exceeded on the Forest.
- 20 ■ Dust abatement should occur during construction and road projects where dust is a potential
21 effect.

22 **Management Approaches**

- 23 ■ Visitors to public land in the Southwest generally expect clear, clean air and the ability to view
24 unobstructed vistas as part of their overall experience. Air quality is also an integral part of the
25 natural environment and affects water quality, aquatic ecosystems, soil chemistry, snow
26 chemistry, snowmelt processes, and vegetation.
- 27 ■ Atmospheric deposition of nitrogen from anthropogenic sources is a concern and has the
28 potential to affect aquatic and terrestrial ecosystems. Other air pollutants are also a concern on
29 the Cibola, including mercury, sulfur, ozone, and ozone precursors. Many of these pollutants
30 originate from outside the planning area. Cibola managers will work with agencies,
31 organizations, Tribes, and other entities to actively pursue actions designed to reduce the impacts
32 of pollutants from sources both within and outside the Cibola. These measures will include
33 active membership in local and regional air quality protection stakeholder groups, “prevention of
34 significant deterioration” permit review, air quality monitoring, and the implementation of air
35 pollution mitigation where appropriate. Monitoring of critical loads should occur on the Forest
36 so that deposition levels can be communicated to regulators if they are being exceeded on the
37 Forest.
- 38 ■ Fire has the potential to produce smoke that may affect the public and temporarily degrade
39 visibility. Receptors that are sensitive to temporary air pollution (including nursing homes,
40 hospitals, and schools) will continue to be an important consideration for smoke management. In
41 addition, the impact of smoke on the highly valued scenic vistas within the planning area will
42 continue to be a concern. Smoke will be managed in conjunction with the State of New Mexico
43 and Bernalillo County through compliance with their respective Smoke Management Programs.

1 Tradeoffs between short-term air quality impacts and long-term forest health are recognized and
2 will continue to be a management challenge.

- 3 ■ Document evidence of initial and continued compliance with local, State, and federal air quality
4 permits for projects. Maintain the files for the duration of the activity. Provide resources for
5 meaningful enforcement of permit compliance documentation.

6 Fire and Fuels

7 Background and Description

8 The Cibola National Forest's current species composition and fuel densities greatly differ from
9 historical conditions. Changes in species composition and fuel densities are a result of wildfire
10 suppression, livestock grazing, regeneration, and encroachment of early and/or late successional
11 species. These conditions, especially when combined with drought and climate change, create a more
12 continuous canopy cover, ladder fuels, and accumulations of live and dead woody material. As a
13 result, the probability of large, uncharacteristic, stand-replacing fires continues to increase. These
14 fires burn with more intensity and severity; cause higher tree mortality; degrade watersheds; sterilize
15 soils; and threaten adjacent communities, forest infrastructure, and wildlife habitat. Examples of
16 uncharacteristic wildfires on the forest include Ojo Peak, Trigo, and Big Springs, all of which
17 occurred within 6 months of each other on the Mountainair Ranger District in 2007 and 2008. These
18 fires burned a total of 26,156 acres.

19 The National Interagency Fire Center (NIFC) Guidance for the Implementation of Federal Wildland
20 Fire Management Policy provides much of the current direction for managing wildland fire on
21 Federal lands, including wilderness areas. This document provides definition of wildland fire used in
22 this Plan. Wildland fire describes any non-structure fire that occurs in the wildland. Wildland fires
23 are categorized into two distinct types:

24 **Wildfires:** Unplanned ignitions including human and naturally caused fires. These include
25 prescribed fires that have been declared escaped wildfires.

26 **Prescribed Fire:** Planned ignitions.

27 Most of the Cibola's vegetation is adapted to recurring wildfires started by lightning from spring and
28 summer thunderstorms. Frequent, low-intensity fire plays a vital role in maintaining ecosystem
29 health of much of the Pinyon-Juniper, Ponderosa Pine, and Frequent-Fire Mixed-Conifer vegetation
30 types. These three vegetation types cover a large portion of the Cibola. Grasslands are also adapted
31 to frequent fire. Other vegetation types, such as Mixed Conifer with Aspen and Spruce-Fir, are also
32 fire dependent, but have a historic fire regime of less frequent, mixed-severity fires.

33 Today, the Cibola contains uncharacteristically dense forests with many more young trees than were
34 present historically. Tree seedlings have invaded forest openings, grasslands, and savannahs. The
35 forest and woodlands are deficient in grasses, forbs, and shrubs due to tree competition, and are at
36 high risk for insect and disease outbreaks. Combined with drought, hotter and dryer weather
37 conditions, continuous canopy cover, and accumulations of live and dead woody material, the
38 ecosystem becomes primed for large, high-severity wildfires. These fires burn with more intensity,
39 have higher tree and seed mortality, degrade watersheds, change soil chemistry and structure, and
40 threaten homes and community infrastructure.

41 Wildfire (managed for multiple resource objectives) and prescribed fire are the most cost-effective
42 way to reduce the likelihood of a high-severity fire. To achieve a forest that is resilient to fire