

The U.S. Forest Service Region 3 (USFS) entered into a cost-share agreement with The Nature Conservancy to synthesize available science and develop tools that USFS could use in the revision of Forest Plans. As part of the data synthesis and model development process, all reports and models were subjected to external peer review to ensure conformance with USFS's Science Consistency Review Standards. This document provides a compilation of the subject experts and natural resource professionals that provided critical reviews. A list of reviewers is provided in the following pages and is organized by project deliverable. All deliverables are available free to the public at the Southwest Forest Assessment Project page at www.azconservation.org.

Primary Deliverables for the Southwest Forest Assessment Project

- 1. Historical Range of Variation (HRV):** Syntheses of the scientific literature characterizing variation in the structure, composition, and ecological condition of forest, grassland, and desert systems, as well as the influence of climatic fluctuations and disturbance regimes such as wildfire and flooding. HRVs enable land managers to understand the drivers of change in our region's major vegetation types.
- 2. Models of Vegetation Change:** Data derived from the HRV characterizations were integrated into the Vegetation Dynamic Development Tool (ESSA Technologies Ltd.), a simulation modeling tool that enables users to evaluate vegetation dynamics at the landscape level. The models provide a common methodology for defining the roles of various processes (e.g., tree growth) on vegetation dynamics. The tool enables rapid scenario development and is well-suited for collaborative learning and fostering communication about desired future conditions.
- 3. Fire-Return Interval Dataset:** The Fire Return Interval Dataset synthesizes the fire-history literature and is accompanied by a map of historic fire return intervals associated with the vegetation systems across Arizona and New Mexico. The map underscores the spatial extent of fire-adapted ecosystems in the Southwest.
- 4. Regional Assessment Data:** Region-wide assessments of species' distributions, vegetation patterns, grassland condition, aquatic habitat, areas of regional biological significance and other datasets are summarized in Ecosystem Diversity Reports prepared for each Forest in Region 3.
- 5. Region 3 Species Database:** This database provides an up-to-date, searchable information source on the species that occur on Region 3 Forests. The database was adapted from a centralized dataset maintained by Region 3 and was updated with information on species' distribution and conservation status, adding consistency, comprehensiveness, and ease of access to information. The R3 Species Database is comprehensive for aquatic and terrestrial vertebrates. It also includes many plants and invertebrates that may be of special management concern, but the database is not comprehensive for these taxonomic groups.
- 6. Photo Archive:** A photographic database compiled from university and institutional archives throughout Arizona and New Mexico depicting change in forest and grassland conditions over the last 130 years.

Listing of subject experts and natural resource professionals providing reviews for:
Historical Range of Variation reports (#1) and **Models of Vegetative Change** (#2)

Semi-Desert Grassland

Brandon T. Bestelmeyer, Research Ecologist – USDA-ARS, Jornada Experimental Range
Guy R. McPherson, Professor – Dept. of Natural Resources, Univ. of Arizona
Wayne A. Robbie, Supervisory Soil Scientist – Regional Office, USFS, Region 3
Jennifer Ruyle, Forest Planner – USFS, Coronado National Forest
Dave Gori, Senior Ecologist – The Nature Conservancy, Tucson, AZ

Interior Chaparral

Guy R. McPherson, Professor – Univ. of Arizona, Dept. of Natural Resources/EEB
Susan Schuhardt, Biologist – USFS, Prescott National Forest
Max Wahlberg, Ecologist – USFS, Prescott National Forest
Dave Gori, Senior Ecologist – The Nature Conservancy, Tucson, AZ

Madrean Encinal

Dave Gori, Senior Ecologist – The Nature Conservancy, Tucson, AZ
USFS and external reviews have not been received at this time.

Madrean Pine-Oak Woodland

Andrew M. Barton, Associate Professor – Univ. of Maine at Farmington
Jose M. Iniguez, Ecologist – USFS, Rocky Mountain Research Station
Dave Gori, Senior Ecologist – The Nature Conservancy, Tucson, AZ
Joanna Bate, Ecologist – The Nature Conservancy

Mixed Conifer Forest

Craig D. Allen, Research Ecologist – U.S. Geological Survey, Jemez Mountains Field Station
Thomas W. Swetnam, Director – Laboratory of Tree-Ring Research, Univ. of Arizona
Rory Steinke, Hydrologist – USFS, Coconino National Forest
Dave Gori, Senior Ecologist – The Nature Conservancy, Tucson, AZ

Ponderosa Pine Forest

Thomas W. Swetnam, Director – Laboratory of Tree-Ring Research, Univ. of Arizona
Susan Schuhardt, Wildlife Biologist – USFS, Prescott National Forest
Lauren Johnson, Plant Ecologist – USFS, Kaibab National Forest
Steve H. Strenger, NM Zone Survey Project Leader – USFS, Region 3
Joanna Bate, Ecologist – The Nature Conservancy
Dave Gori, Senior Ecologist – The Nature Conservancy, Tucson, AZ
Rob Marshall, Director of Science – The Nature Conservancy, Tucson, AZ

Spruce-Fir Forest

Steve H. Strenger, NM Zone Survey Project Leader – USFS, Region 3
Peter Z. Fule, Associate Director – Ecological Research Institute, Northern Arizona University
John Vankat, Research Ecologist – National Park Service Southern Colorado Plateau Network
Joanna Bate, Ecologist – The Nature Conservancy
Dave Gori, Senior Ecologist – The Nature Conservancy, Tucson, AZ
Rob Marshall, Director of Science – The Nature Conservancy, Tucson, AZ

Aspen Forest and Woodland

Lauren Johnson, Plant Ecologist – USFS, Kaibab National Forest
Steve H. Strenger, NM Zone Survey Project Leader – USFS, Region 3
Dave Gori, Senior Ecologist – The Nature Conservancy, Tucson, AZ

Additional reviews for these materials were provided by:

Richard Holthausen, Wildlife Biologist – USFS Washington Office
Anonymous Staff – Regional Office, USFS, Region 3
Patrick McCarthy, Director of Conservation Programs, The Nature Conservancy, Santa Fe, NM

Listing of subject experts and natural resource professionals providing reviews for:
Historical Fire Return Intervals for Arizona and New Mexico (#3)

Don Falk, Graduate Research Associate – Laboratory of Tree-Ring Research, University of Arizona
Peter Z. Fule, Associate Director – Ecological Research Institute, Northern Arizona University
Kathryn Thomas, Vegetation Biologist – USGS, Flagstaff, AZ
Bruce Higgins, Forest Planner – USFS, Kaibab National Forest
Wayne A. Robbie, Supervisory Soil Scientist – Regional Office, USFS, Region 3
Jack Triepke, Vegetation Ecologist – Regional Office, USFS, Region 3
Linda Wadleigh, Regional Fire Ecologist – USFS, Coconino National Forest
Max Wahlberg, Ecologist – USFS, Prescott National Forest
Ed Brunson, Fire Education Director – The Nature Conservancy, Boise, ID
Dave Gori, Senior Ecologist – The Nature Conservancy, Tucson, AZ
Reese Lolley, Fire Ecologist – The Nature Conservancy, Silver City, NM
Ed Smith, Forest Ecologist – The Nature Conservancy, Flagstaff, AZ
Peter Warren, Senior Field Representative – The Nature Conservancy, Tucson, AZ

Listing of subject experts and natural resource professionals providing reviews for:
Regional Assessment Reports (#4)

Coronado National Forest

Jennifer Ruyle, Forest Planner – USFS, Coronado National Forest
Tom Skinner, Wildlife Program Manager – USFS, Coronado National Forest
Larry Jones, Assistant Wildlife Program Manager – USFS, Coronado National Forest
Gary Helbing, Wildlife Biologist – USFS, Coronado National Forest
Glenn Frederick, Wildlife Biologist – USFS, Coronado National Forest
Anne Casey, Wildlife Biologist – USFS, Coronado National Forest

Cibola National Forest and Grasslands

Susan Bruin, Forest Planner – USFS, Cibola National Forest
Beverly DeGruyter, Wildlife Program Manager – USFS, Cibola National Forest
Dan Garcia de la Cadena, Wildlife Biologist – USFS, Cibola National Forest
Bryan Hajny, Wildlife Biologist – USFS, Cibola National Forest
Chuck Milner, Range Management Specialist – USFS, Cibola National Forest

David Heft, Wildlife Biologist – USFS, Cibola National Forest
Alan Warren, Range Management Specialist – USFS, Cibola National Forest
Rick Newmon, Range Program Manager – USFS, Cibola National Forest
Hart Schwartz, Avian Biologist – USFS, Cibola National Forest

Kaibab National Forest

Bruce Higgins, Forest Planner – USFS, Kaibab National Forest
Bill Noble, Forest Biologist – USFS, Kaibab National Forest

Apache-Sitgreaves National Forest

Jerry Ward, Fisheries Biologist – USFS, Apache-Sitgreaves National Forest
Mitchel R. White, Ecologist – USFS, Apache-Sitgreaves National Forest
Cathy Taylor, Biologist – USFS, Apache-Sitgreaves National Forest

Coconino National Forest

Katherine Farr, Forest Planner – USFS, Coconino National Forest
Mike Manthei, Forester – USFS, Coconino National Forest
Carol Boyd, Stewardship Staff Officer – USFS, Coconino National Forest
Rory Steinke, Hydrologist – USFS, Coconino National Forest
Russ Copp, Fuels Specialist – USFS, Coconino National Forest
Cecelia Overby, Forest Biologist – USFS, Coconino National Forest
Barbara Phillips, Botanist – USFS, Coconino National Forest
Heather Green, Biologist – USFS, Coconino National Forest

Prescott National Forest

Max Wahlberg, Ecologist – USFS, Prescott National Forest
Noel Fletcher, Wildlife Biologist – USFS, Prescott National Forest

Gila National Forest

Art Telles, Wildlife Biologist – USFS, Gila National Forest

Sante Fe National Forest

Bill Britton, Biologist – USFS, Santa Fe National Forest
Esther Nelson, Wildlife Biologist – USFS, Santa Fe National Forest

Carson National Forest

Chirre Keckler, Forest Biologist – USFS, Carson National Forest

Lincoln National Forest

Larry Cordova, Wildlife Biologist – USFS, Lincoln National Forest
Danney Salas, Wildlife Biologist – USFS, Lincoln National Forest
Larry Paul, Wildlife Biologist – USFS, Lincoln National Forest

Additional reviews for these materials were provided by:

Richard Holthausen, Wildlife Biologist – USFS Washington Office
Wayne A. Robbie, Supervisory Soil Scientist – Regional Office, USFS, Region 3
Bryce Rickel, Biologist – Regional Office, USFS, Region 3
Amy Unthank, Fisheries Biologist – Regional Office, USFS, Region 3
Ron Maes, Aquatic Biologist – Regional Office, USFS, Region 3

Charlie McDonald, Regional Botanist – Regional Office, USFS, Region 3
Rueben Weisz, Regional Planner – Regional Office, USFS, Region 3
Ernie Taylor, Wildlife Program – Regional Office, USFS, Region 3
Marilyn Myers, Biologist – U.S. Fish and Wildlife Service
Gary Bell, Director of Science – The Nature Conservancy, Santa Fe, NM
Patrick McCarthy, Director of Conservation Programs – The Nature Conservancy, Santa Fe, NM
Dave Gori, Senior Ecologist – The Nature Conservancy, Tucson, AZ
Dale Turner, Conservation Planner – The Nature Conservancy, Tucson, AZ
Reese Lolley, Fire Ecologist – The Nature Conservancy, Silver City, NM
Carolyn Enquist, Conservation Science Specialist – The Nature Conservancy, Tucson, AZ
Rob Marshall, Director of Science – The Nature Conservancy, Tucson, AZ

Listing of subject experts and natural resource professionals providing reviews for:
Region 3 Species Database (#5)

Coronado National Forest

Jennifer Ruyle, Forest Planner – USFS, Coronado National Forest
Tom Skinner, Wildlife Program Manager – USFS, Coronado National Forest
Larry Jones, Assistant Wildlife Program Manager – USFS, Coronado National Forest
Gary Helbing, Wildlife Biologist – USFS, Coronado National Forest
Glenn Frederick, Wildlife Biologist – USFS, Coronado National Forest
Anne Casey, Wildlife Biologist – USFS, Coronado National Forest

Cibola National Forest and Grasslands

Susan Bruin, Forest Planner – USFS, Cibola National Forest
Beverly DeGruyter, Wildlife Program Manager – USFS, Cibola National Forest
Dan Garcia de la Cadena, Wildlife Biologist – USFS, Cibola National Forest
Bryan Hajny, Wildlife Biologist – USFS, Cibola National Forest
Chuck Milner, Range Management Specialist – USFS, Cibola National Forest
David Heft, Wildlife Biologist – USFS, Cibola National Forest
Alan Warren, Range Management Specialist – USFS, Cibola National Forest
Rick Newmon, Range Program Manager – USFS, Cibola National Forest
Hart Schwartz, Avian Biologist – USFS, Cibola National Forest

Kaibab National Forest

Bruce Higgins, Forest Planner – USFS, Kaibab National Forest
Bill Noble, Forest Biologist – USFS, Kaibab National Forest

Apache-Sitgreaves National Forest

Jerry Ward, Fisheries Biologist – USFS, Apache-Sitgreaves National Forest
Cathy Taylor, Biologist – USFS, Apache-Sitgreaves National Forest

Coconino National Forest

Katherine Farr, Forest Planner – USFS, Coconino National Forest
Mike Manthei, Forester – USFS, Coconino National Forest
Carol Boyd, Stewardship Staff Officer – USFS, Coconino National Forest
Rory Steinke, Hydrologist – USFS, Coconino National Forest

Russ Copp, Fuels Specialist – USFS, Coconino National Forest
Cecelia Overby, Forest Biologist – USFS, Coconino National Forest
Barbara Phillips, Botanist – USFS, Coconino National Forest
Heather Green, Biologist – USFS, Coconino National Forest

Prescott National Forest

Max Wahlberg, Ecologist – USFS, Prescott National Forest
Noel Fletcher, Wildlife Biologist – USFS, Prescott National Forest

Gila National Forest

Art Telles, Wildlife Biologist – USFS, Gila National Forest

Santa Fe National Forest

Bill Britton, Biologist – USFS, Santa Fe National Forest
Esther Nelson, Wildlife Biologist – USFS, Santa Fe National Forest

Carson National Forest

Chirre Keckler, Forest Biologist – USFS, Carson National Forest

Lincoln National Forest

Larry Cordova, Wildlife Biologist – USFS, Lincoln National Forest
Danney Salas, Wildlife Biologist – USFS, Lincoln National Forest
Larry Paul, Wildlife Biologist – USFS, Lincoln National Forest

Additional reviews for these materials were provided by:

Wayne A. Robbie, Supervisory Soil Scientist – Regional Office, USFS, Region 3
Bryce Rickel, Biologist – Regional Office, USFS, Region 3
Amy Unthank, Fisheries Biologist – Regional Office, USFS, Region 3
Ron Maes, Aquatic Biologist – Regional Office, USFS, Region 3
Charlie McDonald, Regional Botanist – Regional Office, USFS, Region 3
Rueben Weisz, Regional Planner – Regional Office, USFS, Region 3
Ernie Taylor, Wildlife Program – Regional Office, USFS, Region 3
Marilyn Myers, Biologist – U.S. Fish and Wildlife Service
Gary Bell, Director of Science – The Nature Conservancy, Santa Fe, NM
Patrick McCarthy, Director of Conservation Programs – The Nature Conservancy, Santa Fe, NM
Dale Turner, Conservation Planner – The Nature Conservancy, Tucson, AZ
Rob Marshall, Director of Science – The Nature Conservancy, Tucson, AZ

The **Photo Archive**, deliverable #6, was a compilation of photographic materials from the archives of 17 government agencies, universities, museums, and professionals throughout Arizona and New Mexico. The materials were compiled for reference purposes without additional interpretation or explanation and, thus, were not subjected to additional peer review.