

occupies the entire range of a species, these decisions must provide for ecological conditions capable of supporting viability of the species and its component populations throughout that range. When a plan area encompasses one or more naturally disjunct and self-sustaining populations of a species, these decisions must provide ecological conditions capable of supporting over time viability of each population. When a plan area encompasses only a part of a population, these decisions must provide ecological conditions capable of supporting viability of that population well distributed throughout its range within the plan area.

(ii) When conditions outside the authority of the agency prevent the agency from providing ecological conditions that provide a high likelihood of supporting over time the viability of native and desired non-native species well distributed throughout their ranges within the plan area, plan decisions must provide for ecological conditions well distributed throughout the species range within the plan area to contribute to viability of that species.

(iii) Where species are inherently rare or not naturally well distributed in the plan area, plan decisions should not contribute to the extirpation of the species from the plan area and must provide for ecological conditions to maintain these species considering their natural distribution and abundance.

(iv) Where environmental conditions needed to support a species have been so degraded that it is technically infeasible to restore ecological conditions that would provide a high likelihood of supporting viability, plan decisions must provide for ecological conditions to contribute to supporting over time viability to the degree practicable.

(3) *Federally listed threatened and endangered species.* (i) Plan decisions must provide for implementing actions in conservation agreements with the U.S. Fish and Wildlife Service or the National Marine Fisheries Service that provide a basis for not needing to list a species. In some situations, conditions or events beyond the control or authority of the agency may limit the Forest Service's ability to prevent the need

for federal listing. Plan decisions should reflect the unique opportunities that National Forest System lands provide to contribute to recovery of listed species.

(ii) Plan decisions involving species listed under the Endangered Species Act must include, at the scale determined by the responsible official to be appropriate to the plan decision, reasonable and prudent measures and associated terms and conditions contained in final biological opinions issued under 50 CFR part 402. The plan decision documents must provide a rationale for adoption or rejection of discretionary conservation recommendations contained in final biological opinions.

§ 219.21 Social and economic sustainability.

To contribute to economic and social sustainability, the responsible official involves interested and affected people in planning for National Forest System lands (§§ 219.12–219.18), provides for the development and consideration of relevant social and economic information and analyses, and a range of uses, values, products, and services.

(a) *Social and economic information and analyses.* To understand the contribution national forests and grasslands make to the economic and social sustainability of local communities, regions, and the nation, the planning process must include the analysis of economic and social information at variable scales, including national, regional, and local scales. Social analyses address human life-styles, cultures, attitudes, beliefs, values, demographics, and land-use patterns, and the capacity of human communities to adapt to changing conditions. Economic analyses address economic trends, the effect of national forest and grassland management on the well-being of communities and regions, and the net benefit of uses, values, products, or services provided by national forests and grasslands. Social and economic analyses should recognize that the uses, values, products, and services from national forests and grasslands change with time and the capacity of communities to accommodate shifts in land uses change. Social and economic

analyses may rely on quantitative, qualitative, and participatory methods for gathering and analyzing data. Social and economic information may be developed and analyzed through broad-scale assessments and local analyses (§219.5), monitoring results (§219.11), or other means. For plan revisions, and to the extent the responsible official considers to be appropriate for plan amendments or site-specific decisions, the responsible official must develop or supplement the information and analyses related to the following:

(1) Describe and analyze, as appropriate, the following:

(i) Demographic trends; life-style preferences; public values; land-use patterns; related conservation and land use policies at the state and local level; cultural and American Indian tribe and Alaska Native land settlement patterns; social and cultural history; social and cultural opportunities provided by national forest system lands; the organization and leadership of local communities; community assistance needs; community health; and other appropriate social and cultural information;

(ii) Employment, income, and other economic trends; the range and estimated long-term value of market and non-market goods, uses, services, and amenities that can be provided by national forest system lands consistent with the requirements of ecological sustainability, the estimated cost of providing them, and the estimated effect of providing them on regional and community well-being, employment, and wages; and other appropriate economic information. Special attention should be paid to the uses, values, products, or services that the Forest Service is uniquely poised to provide;

(iii) Opportunities to provide social and economic benefits to communities through natural resource restoration strategies;

(iv) Other social or economic information, if appropriate, to address issues being considered by the responsible official (§219.4).

(2) Analyze community or region risk and vulnerability. Risk and vulnerability analyses assess the vulnerability of communities from changes in ecological systems as a result of nat-

ural succession or potential management actions. Risk may be considered for geographic, relevant occupational, or other related communities of interest. Resiliency and community capacity should be considered in a risk and vulnerability analysis. Risk and vulnerability analysis may also address potential consequences to communities and regions from land management changes in terms of capital availability, employment opportunities, wage levels, local tax bases, federal revenue sharing, the ability to support public infrastructure and social services, human health and safety, and other factors as necessary and appropriate.

(b) *Plan decisions.* When making plan decisions that will affect social or economic sustainability, the responsible official must use the information analyses developed in paragraph (a) of this section. Plan decisions contribute to social and economic sustainability by providing for a range of uses, values, products, and services, consistent with ecological sustainability.

THE CONTRIBUTION OF SCIENCE

§219.22 The overall role of science in planning.

(a) The responsible official must ensure that the best available science is considered in planning. The responsible official, when appropriate, should acknowledge incomplete or unavailable information, scientific uncertainty, and the variability inherent in complex systems.

(b) When appropriate and practicable and consistent with applicable law, the responsible official should provide for independent, scientific peer reviews of the use of science in planning. Independent, scientific peer reviews are conducted using generally accepted scientific practices that do not allow individuals to participate in the peer reviews of documents they authored or co-authored.

§219.23 The role of science in assessments, analyses, and monitoring.

(a) *Broad-scale assessments.* If the Forest Service is leading a broad-scale assessment, the assessment must be led by a Chief Scientist selected by the