National Forest System Land Management Planning final rule
77 Fed. Reg. 21162 (Apr. 9, 2012).
36 CFR Part 219
(For your reference, page numbers from the rule are in parentheses).

BEST AVAILABLE SCIENTIFIC INFORMATION

Section 219.3—Role of Science in Planning
This section requires that the responsible official use the best available scientific information to inform the planning process and plan decisions, and provides requirements for documenting the use of the best available scientific information (BASI). The intent of this requirement is to ensure that the responsible official uses BASI to inform planning, plan components, and other plan content, that decisions are based on an understanding of the BASI and that the rationale for decisions is transparent to the public. The Department also expects that this requirement will increase the responsible official's understanding of risks and uncertainties and improve assumptions made in the course of decisionmaking.

Section 219.3—Response to Comments
Many people provided comments on this section of the proposed rule. Most comments focused on whether or not to include a requirement for use of the BASI, discretion about how science should be used, and the potential procedural burdens created by this requirement. The Department modified the wording of the proposed rule as follows: (1) To clarify how scientific information is to be used in the planning process; (2) to clarify the level of discretion the responsible official has in using scientific information; and (3) to manage the potentially burdensome requirements for documentation.

The Department clarified how BASI will be used in the planning process; changing the wording from ''the responsible official shall take into account the best available scientific information,'' to ''the responsible official shall use the best available scientific information to inform the planning process.'' This clarification is consistent with the Department's intent as described in the preamble to the proposed rule. This clarification is in response to public comments expressing concern that the proposed rule wording would allow the responsible official to ignore best available scientific information. This wording makes clear that the responsible official must use the BASI to inform the process and decisions made during the planning process.

The Department also modified the requirement that the responsible official ''determine what information is the most accurate, reliable, and relevant to a particular decision or action'' to a requirement that the responsible official ''determine what information is the most accurate, reliable, and relevant to the issues being considered.'' This change focuses the requirement on the issues being considered, because the underlying issues form the basis for decisionmaking, and are the appropriate focus for the requirement to ensure that the responsible official uses scientific information to inform plan-related decisions.

The Department eliminated paragraphs (a), (b), and (c) of § 219.3 of the proposed rule. The remaining paragraph was modified to require the responsible official to document how the best available scientific information was used to inform the assessment, the plan decision, and the monitoring program. Changing these requirements is responsive to public comments about the process associated with meeting the requirements of this section.

Comment: Best available scientific information.
A respondent felt the term ‘‘best available scientific information’’ used in the proposed rule is value laden and implies judgment that cited scientific information is potentially superior to other scientific information on the topic. This respondent felt using the term would put responsible officials in the position of choosing one scientist over another. Additionally, the concern was expressed that the lack of a clear definition of ‘‘best available scientific information’’ in the rule could allow a responsible official to use poorly constructed or subjective information to inform planning decisions. Still other respondents felt the proposed rule was unclear on who should determine what the best available scientific information is.

Response: The Department decided to retain the term ‘‘best available scientific information’’ (BASI) from the proposed rule, and to require that such information be used to inform the assessment, the planning process, and plan components and other plan content, including the monitoring program. The responsible official must determine what information is the most accurate, reliable, and relevant with regard to the issues being considered. In some circumstances, the BASI would be that which is developed using the scientific method, which includes clearly stated questions, well designed investigations, and logically analyzed results, documented clearly and subjected to peer review. However, in other circumstances the BASI for the matter under consideration may be information from analyses of data obtained from a local area, or studies to address a specific question in one area. In other circumstances, the BASI could be the result of expert opinion, panel consensus, or observations, as long as the responsible official has a reasonable basis for relying on that information. (at 21192)

The Department recognizes often there is uncertainty in science, and there may be differing or inconclusive scientific information. Different disciplines, including the social and economic sciences as well as ecologic science, may provide scientific information that is the best available for the issues being considered. Gathering a range of scientific information and acknowledging potential uncertainties is critical to adequately inform the responsible official as well as the public during the planning process. (at 21192–21193)

The Agency already has a fundamental legal requirement to consider relevant factors, including the relevant scientific information, and explain the basis for its decisions. The Department included this section in the rule, with its explicit requirements for determining and documenting the use of the best available scientific information, to inform the planning process and to help to ensure a consistent approach across the National Forest System.

To respond to comments about the level of documentation for individual units, the requirements for documentation were changed from the proposed rule. The Department

eliminated paragraphs (a), (b), and (c) of § 219.3 of the proposed rule, and replaced them with the requirement that the responsible official document how the best available scientific information was used to inform the assessment, the plan decision, and the monitoring program. Section 219.14(a)(4) requires that the plan decision document must document how the best available scientific information was used to inform planning, plan components, and other plan content, including the monitoring program. The remaining paragraph was modified to require the responsible official to document how the best available scientific information was used to inform the design of the monitoring program, rather than in every monitoring report, because the monitoring results are scientific information. In addition, the new documentation requirements call for the responsible official to explain the basis for the determination, and explain how the information was applied to the issues considered.

The Forest Service Directives System will contain further detail on how to document the use of the best available scientific information, including identifying the sources of data such as peer reviewed articles, scientific assessments, or other scientific information. In addition, the Forest Service Directives System will contain further detail on the Forest Services' information quality guidelines. Direction about science reviews may be found in Forest Service Handbook 1909.12—Land Management Planning, Chapter 40—Science and Sustainability.

The final rule is consistent with USDA policy that requires agencies to meet science quality standards when developing and reviewing scientific research information and disseminating it to the public. Also, the final rule is consistent with the recent Executive Order 13563 (2011) that states ''when scientific or technological information is considered in policy decisions, the information should be subject to well established scientific processes, including peer review where appropriate.'' Responsible officials will rely upon the USDA Office of the Chief Information Officer guidance to determine when the Office of Management and Budget (OMB) Information Quality Bulletin on Peer Review applies. USDA guidelines are found at http://www.ocio.usda.gov/ qi_guide/index.html.

Comment: Weight of scientific information.
Some respondents felt the proposed rule allowed science to be weighed more heavily than other relevant information. Some respondents felt the proposed rule allows decisions to be made based on politics or special interests rather than science. Some respondents felt the proposed rule requirement for the best available science to be taken into account was not strong enough, and suggested the rule require decisions to conform to the best science. Other respondents felt the proposed rule made use of science mandatory rather than discretionary.

Response: The Department never intended that the responsible official could have the discretion to disregard best available scientific information (BASI) in making a decision. To clarify the Department's intent, the final rule requires the responsible official to use the BASI to inform the planning process rather than take BASI into account. While the BASI must inform the planning process and plan components, it does not dictate what the decision must be: BASI may lead a responsible official to a range of possible options. There also may be competing scientific perspectives and uncertainty in the science. Furthermore, scientific information is one

of the factors relevant to decisionmaking. Other factors include budget, legal authority, local and indigenous knowledge, Agency policies, public input, and the experience of land managers.

Comment: Funding for BASI.
Some respondents felt the requirements to use the best available scientific information were going to be too financially burdensome. Other respondents suggest the term should be removed from the rule as it would only create delays and legal challenges.

Response: The Agency is already required to take relevant scientific information into account in decisionmaking. The Agency already has a fundamental legal requirement to consider relevant factors, including relevant scientific information, and explain the basis for its decisions.

This section is not intended to impose a higher standard for judicial review than the existing ''arbitrary and capricious'' standard. The requirements of this final rule section are also separate from those of the Council on Environmental Quality's NEPA regulations, (40 CFR 1502.22(b)), which in some circumstances require the responsible official to seek out missing or incomplete scientific information needed for an environmental impact statement, unless the costs of doing so are prohibitive. This final rule section does not change that requirement. The requirements in section 219.3 are focused on ensuring the responsible official uses the BASI that is already available to inform the planning process. Thus, while an assessment report or monitoring evaluation report may identify gaps or inconsistencies in data or scientific knowledge, the final rule does not impose the affirmative duty that the CEQ regulation applies to EISs—that is, to engage in new studies or develop new information, or to document that the costs of seeking new information are prohibitive.

Including this section in the rule, with its explicit requirements, for determining and documenting the use of the BASI to inform planning the planning process, will help to ensure a consistent approach across the National Forest System that will lead to more credible and supportable plan decisions.

Comment: Transparency of science used.
Some respondents felt an addition of a requirement for the disclosure of what science was being used would enhance transparency.

Response: Section 219.3 of the final rule requires the responsible official to document how the BASI was used to inform the assessment, plan decision, and design of the monitoring program. Such documentation must: identify what information was determined to be the BASI, explain the basis for that determination, and explain how the information was applied to the issues considered. This requirement will provide both transparency and an explanation to the public as to how BASI was used by responsible officials to arrive at their decisions. (at 21193)

Comment: Risk, uncertainty, and the precautionary principle.
A respondent stated the words ''risk'' and ''uncertainty'' found throughout the preamble and DEIS are missing from the rule itself. The respondent felt the rule should include wording about

risks and uncertainties and require techniques for assisting responsible officials in evaluating risks and uncertainties. Some respondents felt the rule should adopt the ‘‘precautionary principle’’ in planning on the NFS to account for uncertainty. One respondent also felt the wording ‘‘lack of full scientific certainty shall not be used as a reason for postponing a cost-effective measure to prevent environmental degradation’’ should be added. (at 21193–21194)

Response: The Department concludes that the adaptive management framework of assessment, revision or amendment, and monitoring in this final rule provides a scientifically supported process for decisionmaking in the face of uncertainty and particularly under changing conditions. The intent of this framework is to create a responsive planning process and allows the Forest Service to adapt to changing conditions and improve management based on new information. Monitoring provides the feedback for the planning cycle by testing assumptions, tracking relevant conditions over time, and measuring management effectiveness.

The assessment report will document information needs relevant to the topics of the assessment and the best available scientific information that will be used to inform the planning process.

The science of risk management is rapidly evolving. To require specific techniques or methodologies would risk codifying approaches that may soon be outdated. The responsible official will inform the public about the risks and uncertainties in the environmental impact statements and environmental assessments for plans, plan revisions, and plan amendments.

Comment: Climate change and climate science.
Some respondents felt the rule should require use of climate change science in decisionmaking. Others felt the rule should address and implement regulations for mitigation of climate change while others felt the rule should not address climate change.

Response: The rule sets forth an adaptive land management planning process informed by both a comprehensive assessment and the best available scientific information. Section 219.6(b)(3)–(4) requires responsible officials to identify and evaluate information on climate change and other stressors relevant to the plan area, along with a baseline assessment of carbon stocks, as a part of the assessment phase. Section 219.8(a)(1)(iv) requires climate change be taken into account when the responsible official is developing plan components for ecological sustainability. When providing for ecosystem services and multiple uses, the responsible official is required by § 219.10(a)(8) to consider climate change. Measureable changes to the plan area related to climate change and other stressors affecting the plan area are to be monitored under § 219.12(a)(5)(vi). Combined with the requirements of the Forest Service Climate Change Roadmap and Scorecard, these requirements will ensure that Forest Service land management planning addresses climate change and supports adaptive management to respond to new information and changing conditions. (at 21194)

Comment: Additional assessment considerations.

Response: The list in § 219.6(b) includes the topics identified in these comments. The Department accepts that the list included in the final rule represents a focused set of topics relevant to the development of plan components and other plan content required in other sections of the final rule. The final rule requires that the best available scientific information be used to inform all phases of the planning process. Documents submitted by universities would be accepted by the Agency and considered as part of the assessment. (at 21201)

36 C.F.R. § 219.3 Role of science in planning.
The responsible official shall use the best available scientific information to inform the planning process required by this subpart. In doing so, the responsible official shall determine what information is the most accurate, reliable, and relevant to the issues being considered. The responsible official shall document how the best available scientific information was used to inform the assessment, the plan decision, and the monitoring program as required in §§ 219.6(a)(3) and 219.14(a)(4). Such documentation must: Identify what information was determined to be the best available scientific information, explain the basis for that determination, and explain how the information was applied to the issues considered. (at 21261)

36 C.F.R. § 219.6 Assessment.
(a) Process for plan development or revision assessments. An assessment must be completed for the development of a new plan or for a plan revision. The responsible official shall:
(1) Identify and consider relevant existing information contained in governmental or non-governmental assessments, plans, monitoring reports, studies, and other sources of relevant information . . . Relevant private information, including relevant land management plans and local knowledge, will be considered if publicly available or voluntarily provided.
(2) Coordinate with or provide opportunities for . . . other governmental and non-governmental parties, and the public to provide existing information for the assessment.
(3) Document the assessment in a report available to the public. The report should document information needs relevant to the topics of paragraph (b) of this section. Document in the report how the best available scientific information was used to inform the assessment (§ 219.3).
(b) Content of the assessment for plan development or revision. In the assessment for plan development or revision, the responsible official shall identify and evaluate existing information relevant to the plan area for the following:
(1) Terrestrial ecosystems, aquatic ecosystems, and watersheds;
(2) Air, soil, and water resources and quality;
(3) System drivers, including dominant ecological processes, disturbance regimes, and stressors, such as natural succession, wildland fire, invasive species, and climate change; and the ability of terrestrial and aquatic ecosystems on the plan area to adapt to change;
(4) Baseline assessment of carbon stocks;
(5) Threatened, endangered, proposed and candidate species, and potential species of conservation concern present in the plan area;
(6) Social, cultural, and economic conditions;
(7) Benefits people obtain from the NFS planning area (ecosystem services);

(8) Multiple uses and their contributions to local, regional, and national economies;
(9) Recreation settings, opportunities and access, and scenic character;
(10) Renewable and nonrenewable energy and mineral resources;
(11) Infrastructure, such as recreational facilities and transportation and utility corridors;
(12) Areas of tribal importance;
(13) Cultural and historic resources and uses;
(14) Land status and ownership, use, and access patterns; and
(15) Existing designated areas located in the plan area including wilderness and wild and scenic rivers and potential need and opportunity for additional designated areas.
(c) Plan amendment assessments.
Where the responsible official determines that a new assessment is needed to inform an amendment, the responsible official has the discretion to determine the scope, scale, process, and content for the assessment depending on the topic or topics to be addressed. (at 21263)