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Proposed policy or guidance on the creation and use of the "Best Available Science"

Draft 11.16.23

The purpose of this policy is to ensure the integrity of scientific information in addressing decision-critical questions throughout Commission decision making.

Policy

- a. The Commission is a policy setting body with regulatory authority and their decisions are informed by science. Therefore, it is a priority of the Commission that science provided to the Commission is, as much as possible, without bias.
- b. The Commission will identify policy objectives and related decision-critical information needed from the Department to inform decision making.
- c. The Department will work with the Commission to co-create key questions for decision making in an iterative fashion while recognizing the time and financial resources that agency scientists may need to provide that information, and the fact that some information may be unknown or incomplete.
- d. The Department will work through the Science Divisions to create and maintain processes to support scientific integrity.
- e. The Commission shall be informed by Best Available Science, including Social Science, in decision making. See Attachment 1.
- f. The Commission and the Department will be explicit in how natural and social science information is used in conjunction with tribal and treaty rights, and other types of information (e.g., personal values) in decision-making and recommendations.
- g. The Commission and the Department will seek to avoid bias in their interpretation of scientific studies by considering all relevant sources of scientific information used by the agency in developing recommendations.
- h. The Commission should weigh the need for greater scientific certainty against the costs (in time, money, and management outcome [e.g., wildlife population declines, extinction, etc.]) of reducing uncertainty. The Department will inform and develop risk analyses that inform tradeoffs at the request of the Commission, including the risk of no action.
- i. The Commission should work through the Committee process and with the appropriate science and management staff from Divisions/Regions (in small groups) prior to public presentation to ensure a common understanding of the presentation's major scientific conclusions.
- j. In areas of contested interpretation of science or conflicting results of important scientific studies, the Department and/or Commission may request the engagement of external scientific review such as the Washington Academy of Science to provide input into scientific disagreements or to review the current science.

Attachment 1: Sources and characteristics of scientific information to describe Best Available Science

SOURCES OF SCIENTIFIC INFORMATION adapted from (WAC 365-195-905)

CHARACTERISTICS OF SCIENTIFIC INFORMATION – The sources of scientific information should include the following (adapted from WAC 365-195-905 and Charnley et al (2017))

Research

Research data collected and analyzed as part of a controlled experiment (or other appropriate methodology based in the scientific method) to test a specific hypothesis.

Monitoring

Monitoring data collected periodically over time to determine a resource trend or evaluate a management program.

Inventory

Inventory data collected from an entire population or population segment (e.g., individuals in a plant or animal species) or an entire ecosystem or ecosystem segment (e.g., the species in a particular wetland).

Survey

Survey data collected from a statistical sample from a population or ecosystem.

Modeling

Mathematical or symbolic simulation or representation of a natural system. Models generally are used to understand and explain occurrences, and may predict outcomes, that cannot be directly observed.

Assessment

Inspection and evaluation of site-specific information by a qualified scientific expert. An assessment may or may not involve collection of new data.

Synthesis

A comprehensive review and explanation of pertinent literature and other relevant existing knowledge by a qualified scientific expert.

Expert Opinion

Statement of a qualified scientific expert based on their best professional judgement and experience in the pertinent discipline.

- Clear statement of objectives, research purpose, and/or questions
- Thorough review of literature and other relevant information
- A conceptual model or theoretical framework for characterizing system relationships, testing hypotheses, and making predictions
- Data gathered are objective, value-free
- Data and information limitations, sampling biases, scientific uncertainties, known or potential rates of error are disclosed
- Sound logic and rigorous statistical quantitative, qualitative, or alternative methods used for analyzing and interpreting data and making inferences from samples
- Conclusions are well supported by the

 data
- Findings communicated in a manner that is accessible and understandable