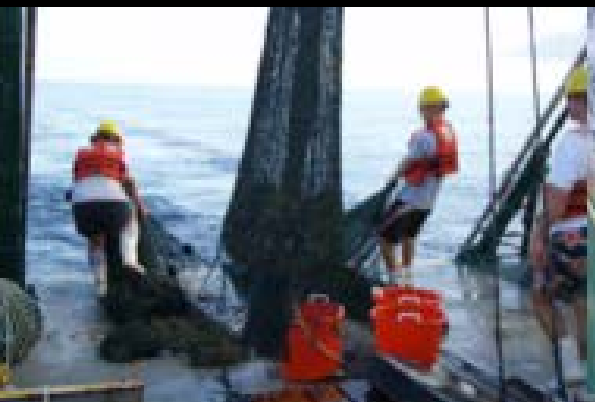
National Standard 2 Guidelines

Conservation and management measures shall be based on the best scientific information available



Revised Guidelines NS2

- Published July 19, 2013
- Magnuson-Stevens Reauthorization Act of 2006 called for:
  - Improve use of science in decision-making
  - Stronger role for SSCs
  - Authorize NMFS and Councils to establish a peer review process

Components of NS2 Guidelines

a) Best Scientific Information Available
b) Peer Review Process
c) Role of the SSC
d) Stock Assessment and Fishery Evaluation (SAFE) Report
e) FMP Development

Best Scientific Information Available

Best Scientific Information Available

- Factual input, data, models, analysis, technical information, scientific assessments
- Includes science that is both
  - Established – knowledge derived and verified through a standard scientific process
    - Often less controversial
  - Emergent – Relatively new knowledge that is still evolving and being verified
    - More uncertain and controversial

Best Scientific Information Available

- Should include an evaluation of uncertainty and identify gaps in information
- Information-limited fisheries may require simpler methods and greater use of proxies

Criteria and Quality for Best Scientific Information

- Relevance
- Inclusiveness
- Objectivity
- Transparency
- Openness
- Timeliness
- Verification and validation
- Peer review as appropriate
  - Public comment should be solicited at appropriate time during review of scientific information

Criteria for Best Scientific Information

- Mandatory management actions should not be delayed due to limitations of scientific information or incomplete studies
- Interim results may be better than no results

Peer Review Process

Peer Review Process

- May be established by the Secretary or Council for scientific information used to advise about conservation and management

- Ensures that the quality and credibility of scientific information and methods meet the standards of the scientific and technical community.

Peer Review Process
Reviewer Selection Criteria

- Reviewers must not have contributed to the scientific information under review
- SSC members may participate in peer reviews
- Reviewers must abide by conflict of interest rules
  - Conflict of interest is any financial or other interest which could significantly impair the reviewer's objectivity or create an unfair competitive advantage.

Peer Review Process
Conflicts of Interest

- Personal financial interests
- Employer affiliations
- Consulting arrangements
- Contracts with others who have substantial financial interests
  - Exceptions may be allowed if reviews require highly specialized expertise and availability of qualified reviewers is limited.

Quality of Peer Review Process

- Process must maximize likelihood of an objective outcome
- Must be transparent
- May not provide advice on policy, regulatory issues, or fishing level recommendations (this is the SSC's responsibility)

Types of Peer Review

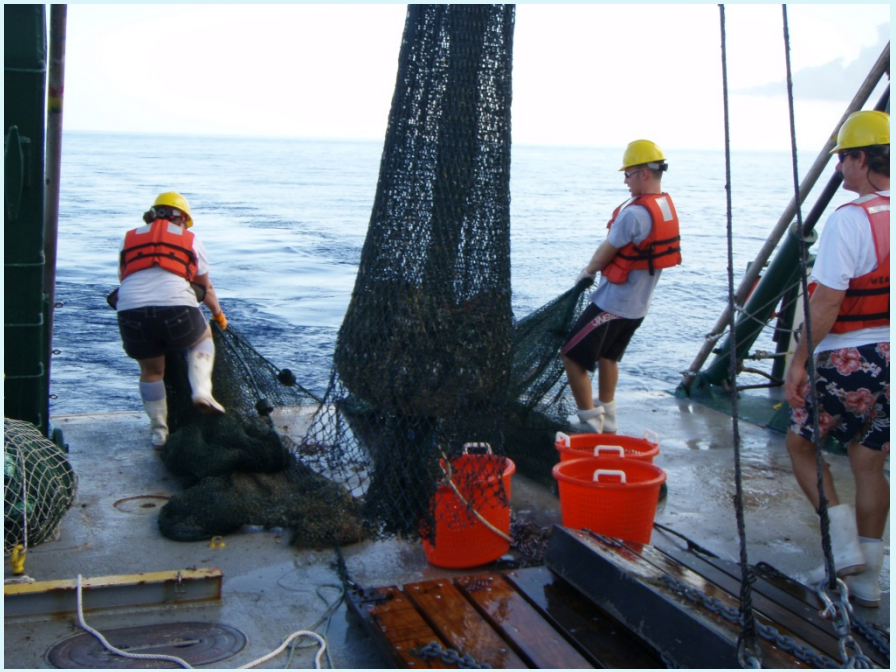
- Individual letters
- Written review
- Panel review

- Does NOT replace SEDAR or other existing peer review processes

Role of the SSC

SSC Recommendations

- SSC Provides ongoing scientific advice for management decisions, including recommendations for developing ACLs (e.g., ABC, MSY)
- Recommendations to prevent overfishing
- Recommendations to achieve rebuilding targets



SSC Reports Include

- Stock status and health
- Bycatch
- Habitat status
- Social and economic impacts of management measures
- Sustainability of fishing practices

SSC Additional Roles

- May conduct peer reviews
- May evaluate peer reviews
- Should attempt to resolve conflicting scientific information

Role of SSC vs. Peer Review Process

- Peer review reports are available for the SSC to consider in its evaluation of scientific information
- If an SSC disagrees with findings of the peer review process, SSC should provide a report outlining its rationale and supporting information
- SSC should not repeat a previously conducted technical peer review

Stock Assessment and Fishery Evaluation (SAFE) Reports

Stock Assessment and Fishery Evaluation (SAFE) Reports

- A document or set of documents providing a summary of scientific information on stocks, stock complexes, and ecosystems
- Should include EFH information
- Prepared and updated by Secretary
- Available on a Council or NMFS website

FMP Development

FMP Development

- Must take into account best scientific information available
- Must specify any reporting requirements
- Identify scientific information needed from other sources
- Incomplete scientific information does not prevent preparation and implementation

Reference Documents

- NRC. 2004. Improving the use of the 'Best Scientific Information Available' Standard in Fisheries Management. https://www.nap.edu/catalog/11045/improving-the-use-of-the-best-scientific-information-available-standard-in-fisheries-management
- Federal ethics requirements for federal employees http://www.oge.gov *(No longer online)*
- NOAA Policy on Conflicts of Interest for Peer Review subject to OMB's Peer Review Bulletin http://www.cio.noaa.gov/services_programs/NOAA_PRB_COI_Policy_110606.html

For More Information

NOAA OFFICE OF SCIENCE AND TECHNOLOGY
NATIONAL MARINE FISHERIES SERVICE

National Standard 2 website

http://www.st.nmfs.noaa.gov/science-quality-assurance/national-standards/ns2_revisions

Questions?

GULF OF MEXICO Fishery Management Council