



GULF OF MEXICO FISHERY MANAGEMENT COUNCIL

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TAB K NO. 3

May 11, 2007

MEMORANDUM

TO: Wayne

FROM: Steven 

SUBJECT: Requests from the Ecosystem SSC

If Council approval is necessary for the following requests, could this be brought before the Council at the June meeting under other business?

1) Dr. Jerry Ault was an invited participant at the May 8-10 Ecosystem Modeling Workshop. Dr. Ault is a modeling expert in alternative models to the Ecopath with Ecosim model that existing Ecosystem SSC members are familiar with. There is currently a vacancy on the Ecosystem SSC as a result of a resignation last year, and the Ecosystem SSC members have recommended by consensus that Dr. Ault be added to the SSC.

2) The Ecosystem SSC requests approval to hold a 2 or 3 day follow-up workshop in September to the May 8-10 Ecosystem Modeling Workshop. The purposes and rationale for holding the follow-up workshop are as follows:

- Complete the Adaptive Environmental Assessment and Management (AEAM) process of model development and testing;
- Document data sources and uncertainties;
- Involve SEFSC assessment biologists to discuss, and if possible, resolve contradictory results between single species assessments and ecosystem modeling outcomes;
- Involve Standing SSC (and possibly Special Reef Fish and Shrimp SSCs) to provide an independent review and determination on the adequacy of the science.
- Develop a proposal for a process, based on SEDAR, for conducting future ecosystem modeling activities.

The May 8-10 workshop ran out of time before completing its evaluation of the ecosystem models. A follow-up workshop will allow completion of the process of adjusting data inputs and model runs to the issues under investigation.

Under the SEDAR stock assessment process, the data used in an assessment is evaluated through a Data Workshop for its adequacy to be used in the ensuing assessment. This step was not conducted in

the current ecosystem modeling exercise. The data inputs used in the current ecosystem model need to be evaluated before the modeling results can be finalized.

Some of the results generated by the ecosystem modeling exercise contradict the results from single-species assessments, particularly with respect to the impacts of reducing shrimp trawl bycatch on red snapper rebuilding and on shrimp stock productivity. Assessment biologists involved in the reef fish and shrimp assessments should be involved in the follow-up workshop to discuss, and if possible resolve, these differences.

At its June 2005 meeting, the Ecosystem SSC stated a consensus that any outputs produced by the Ecosystem SSC should be reviewed by the Standing SSC. Given the time constraints of the workshop participants, the most effective way to accomplish this would be to have the Standing SSC meet jointly with the Ecosystem Modeling Group. It may also be beneficial to have the Special Reef Fish and Shrimp SSC members participate.

In the future, a SEDAR type framework should be adopted to assure the quality of the ecosystem modeling and its results. This framework can be developed (at least an initial draft) by the Ecosystem SSC. It might not be an exact replica of the SEDAR framework due to differences between the processes of stock assessments vs. ecosystem modeling, but it will incorporate into ecosystem based evaluations the SEDAR concepts of providing verification of the adequacy of the data inputs, determining the appropriateness of the ecosystem model used, and providing an independent evaluation of the results.

If approved, the following persons would likely be included in the workshop. It's possible that not all would be needed at the workshop on all days (e.g., the first two days might include the Ecosystem SSC, invited participants and SEFSC assessment biologists, while the third day might be the Standing and Special SSCs with a few of the key Ecosystem SSC members to review the workshop models and results):

- Ecosystem SSC (11 or 12 people)
- Some or all of the invited participants to the May 8-10 workshop (up to 15 people)
- Some of the SEFSC reef fish and shrimp assessment biologists (3 to 5 people?)
- Standing SSC (15 people)
- Special Reef Fish SSC (5 people)
- Special Shrimp SSC (5 people)