

## Draft Activities List

Below are some potential activities that could be considered by the Council to improve management for Council resources. Projects would need to be carried-out over a 12-14-month period that is consistent with the Councils current award. Specific tasks were developed in effort to fill data gaps for current or anticipated management needs, outreach and education activities. The list is not exhaustive and is intended to inform Council discussion and recommendations. The Committee should provide feedback on its interest in these activities and identify other priorities that could be developed by staff for consideration at the next Council meeting.

### Management Ideas:

- **Review Process to Estimate Recreational Discards** – Recreational discards are generally estimated as a proportion of the landed catch. However, in situations where seasons are reduced (e.g., rebuilding plans) or the fate of released animals improves (e.g., expanded use of release tools), this may not adequately characterize the discards in a fishery. This could have both conservation (e.g., target mortality does not achieve conservation goals) and management (e.g., does not achieve OY) implications.  
**Estimated Cost:** \$75,000-\$100,000 to hire a contractor to complete a review of the available discard data and suggest alternative approaches that could improve conservation and management in the Gulf.
- **Evaluation of the Effectiveness of Bag and Size Limits as Management Tools** – Bag and size limits are commonly used tools in fisheries management, and are often used in an effort to extend season durations of prized species by reducing the harvest rate. However, the benefit of this practice can be difficult to discern, yet it may also result in undesirable side effects such as increasing discards or reducing access to prized species. Further, the effectiveness of these tools for contributing to stock-wide management goals is difficult to determine and complicates the use of these tools in management.  
**Estimated Cost:** \$75,000-\$100,000 to hire a contractor to complete a review of the available data on retention limits against estimates of fishing mortality and biomass over time, and suggest approaches that could improve conservation and management in the Gulf.
- **Status Determination Criteria Tool** – Stock status of managed species is an important metric for both science and management. However, the status and metrics (e.g., MSY, MSST, OY) change over time, resulting from changes in stock health and the criteria used to monitor stocks. A tool that could compile this historical information and provide a dashboard-like interface that could be queried through time and for various

stocks would provide a useful tool to gauge the progress of stocks relative to rebuilding plans or other management actions. This could also inform future management actions based on historical performance.

**Estimated Cost:** \$50,000-\$75,000 to hire a contractor to develop an historical database of the relevant information and create an interactive dashboard that could be used to summarize, query, and display this information to a wide range of audiences.

- **Alternatives for Estimating Recruitment in Stock Assessments** – Most Gulf stock assessments use a model-derived approach to estimate annual recruitment trends and deviations, which in turn inform the assessment about the annual productivity of the stock. These recruitment data are notoriously uncertain, as many Gulf stock assessments fail to establish a reliable and quantitative relationship between spawning stock biomass and recruitment. However, other data exist with which it may be possible to pinpoint recruitment events. By evaluating length, weight, and age composition data, it could be possible to identify years where recruitment could have been greater or less than the surrounding years. Combined with landings data and known management biases, an analysis encompassing these data could better inform management of its effect on a species' recruitment, and how to improve that recruitment in future years. This effort could inform whether we are observing regime shifts in historical recruitment of many of our highly prized species.

**Estimated Cost:** \$75,000 to hire a contractor to complete a review of the available data and best practices and suggest approaches that could improve recruitment estimation in Gulf stock assessments.

- **Evaluation of Coral Cover in Spiny Lobster Closed Areas (SLCA)** – The SLCA were established to protect the coral species living within the SLCAs. However, studies documenting the presence/absence of corals in SLCAs from long-term monitoring sites are limited or have not been updated recently. By analyzing coral abundance in relation to SLCA boundaries, it may be possible to determine how SLCAs are contributing to the protection of coral habitats. This information on coral cover in/around SLCAs may also provide us with information on whether the boundary of the SLCAs needs to be expanded or modified to best achieve the original purpose of their establishment.

**Estimated Cost:** \$100,000 to hire a contractor/collaborate with FWC to conduct a field survey of the SLCAs to assess current coral cover and collect data that could be used to complete the proposed analysis.

### **Outreach and Education Ideas**

- **Improved outreach images-** We would like to get more, better quality images of our fisheries. This could be as simple as purchasing stock photos and as complicated as hiring a fisheries media consultant to gather images for us.

**Estimated Cost:** This ranges in price from a few hundred dollars to \$10,000 if we decide to hire a media consultant.

- **History of Management Rationale** – We would like to use artificial intelligence (AI) to create a tool that would search our amendments to help users find the rationale used to make management decisions. This could be done in-house with a monthly subscription or we could hire a contractor to complete this work. This effort could be used to fulfill some of the recreational initiative objectives and an internal objective to develop a searchable database and shiny app of regulatory changes in the Gulf of Mexico.

**Estimated Cost:** \$50 a month if done in-house and an estimated \$15,000 to have a contractor complete the work.

- **Modernize Aesthetic of Website** – Consider updating the aesthetic theme of our website. This would not include a navigational overhaul- it would just modernize the look and feel of the site. This would require a contractor.

**Estimated Cost:** \$15,000-\$30,000 to hire a contractor to complete this work