

Title:

S-114: Create and implement mechanisms that allow permitting agencies to apply lessons learned from past projects to future projects to minimize impacts to resources and improve success of mitigation activities.

Background:

- This recommended management action is intended to be applied statewide, including Miami-Dade, Broward, Palm Beach, and Martin counties, and is relevant to all habitat types. Lessons learned may be applied to other regions, but unique characteristics need to be considered when comparing one area to another, as well as within the same region.
- This recommended management action is being put forth due to the variations in specific conditions, timing, contractors, etc. By applying lessons learned that are available to permit reviewers, more can be done to reduce impacts to resources and optimize the performance of mitigation. In addition, permit reviewers can provide justification to applicants for decisions made during the permitting process so that they have a better understanding of the process.
- The Southeast Florida Coral Reef Initiative (SEFCRI) Maritime Industry and Coastal Construction Impact Project 4 was completed in order to understand how to improve compliance and enforcement. Some of the recommendations included improved permitting language and specific requirements for permittees and permittees to have meetings before, during, and after construction to discuss lessons learned, see: http://www.dep.state.fl.us/coastal/programs/coral/reports/MICCI/04/MICCI_04_21_23_24_Phase_2_Report.pdf

Objective:

- The intended outcome of this action is to provide an application of the lessons-learned to provide multiple environmental benefits, including, but not limited to, better resource protection and impact minimization, maintaining the function of natural resources and increasing the ecological functions provided by mitigation activities. More effective project designs that minimize impacts to resources have already been realized. Learning from previous projects will fine tune the direction of future projects and take out some of the guess work that comes with the types of activities being proposed and, ultimately, results in a better end product. One of the many positive aspects of applying a lessons-learned approach is the potential for improved permitting language, which can incorporate lessons learned. More effective designs lead to better science and management, which, in turn, help refine the scientific questions aimed at improving future restoration projects.
- The application of a lessons-learned approach could potentially reduce the costs of coastal construction projects and any compensatory mitigation activities required.

Intended Benefits and/or Potential Adverse Effects:

- Benefits of implementation of this recommended management action include: (1) more informed staff (projects managers and permit reviewers) for projects design and permitting, potentially improving the effectiveness of avoidance, minimization and mitigation measures, (2) the function of natural resources would be better maintained and the ecological functions provided by mitigation improved, (3) the application of the lessons-learned approach could potentially reduce the costs of projects, and (4) one of the biggest

improvements that can be made is creating and using standardized permitting language that can be updated over the years with specific categories of permitting language (e.g. specific language for dredging, pipes, nourishment).

- Some potential disadvantages associated with this recommended management action include: (1) this will most likely entail a lot of effort for very little return, (2) there are too many projects and timespans are too long. Sometimes, big picture lessons-learned come through and are implemented naturally which is probably the best that can be hoped for, because even when strategies are implemented, knowledge of how each and every special permit condition came to be is near impossible. (3) trying to track every lesson learned - when each project can be so unique - and then apply those lessons learned, may be an exercise in futility, and (4) permit processors have little to no time to do this with their strict time clock turnarounds, thus this may need to be something that is a rule or policy.
- This should not be over-generalized, the lessons learned from one project may not translate to another. Lessons learned do not apply in each and every situation. However, the purpose of lessons-learned activities is to apply when appropriate and applicable, and commonalities across projects should not be undervalued as being too disparate for comparison.
- This process – to review other projects - takes extra time and diligence. Recommendations that come from applying the lessons-learned approach could potentially increase the cost or construction time for some projects, although this is unlikely. In fact, a lessons-learned approach may actually reduce project costs over time.
- There are no anticipated negative environmental impacts for this recommended action.
- If this recommended management action is not implemented, and past projects do not get evaluated to determine reasons for success and shortcomings, then past mistakes may repeat themselves and strategies that were successful may not be applied to future projects. Projects may impact resources when alternative strategies could have been employed to minimize or avoid impacts. If lessons are not applied to mitigation, then projects may not be as successful or achieve the optimum ecosystem function that could have been achieved if other techniques had been employed.

Agencies/ Organizations:

- The lead agency for implementation of this recommended management action would be the Florida Department of Environmental Protection (FDEP) and any other regulatory or stakeholder group involved in coastal construction activities.
- Other agencies or organizations who could be involved include Florida's water management districts, United States Army Corps of Engineers, National Marine Fisheries Service, Florida Fish and Wildlife Conservation Commission, county governments and the Florida Keys National Marine Sanctuary. The Florida Coastal Office, SEFCRI, and non-profits could all contribute information on past projects (construction and mitigation).
- The key stakeholders for this recommended management action would be any party involved in coastal construction activities (including permittees and regulatory agencies).
- FDEP is currently applying lessons-learned and actively working towards improving this process.
- Potentially, lessons-learned regarding the minimization or avoidance of impacts may conflict with the interests of stakeholder groups that seek to construct projects in the most cost-effective manner. Creating some mechanism to record lessons learned and having

each and every permit reviewer be able to access each and every permit similar to the one they are working on will be a monumental effort, most likely requiring a database. It is necessary to determine which lessons – if any - are universally applicable and which lessons are only applicable to certain types of projects (e.g., those projects that are similar in scope/scale with the same type of natural communities). It is necessary to identify commonalities and dissimilarities between projects in order to determine which lessons-learned are applicable.

- This recommended management action does not conflict with any legislative considerations.

Permitting/ Enforcement Requirements of MA:

- There are no permitting or enforcement requirements for this recommended management action.
- A way to provide a means to measure the success of this recommended management action includes: (1) evaluation by assessing coastal construction permit improvements over time, (2) the impacts resulting from coastal construction projects could be tracked over time to document improvement in the minimization and avoidance of impacts (by using better permit conditions), and (3) the Society for Ecological Restoration publishes guidelines that include designing metrics for evaluating project success. They are generally easy to monitor but often require some hard thinking beforehand to turn warm-and-fuzzy notions of "success" into operational definitions that can be quantified.

Cost:

- The estimated direct cost of implementing this recommended management action is \$0 - \$50,000. The main cost associated with this action is additional staff time, which will happen on a recurring project-by project basis.
- This recommended management action will likely not require additional funding, as the only expected costs are additional regulatory staff time devoted to the evaluation of project performance/outcomes.

Time Frame & Extent:

- The anticipated timeframe for implementation of this recommended management action is 0 - 2 years.

Miscellaneous Info:

- This recommended management action is linked to S-107 and any other recommended management action that relates to the regulation and permitting of coastal construction projects.
- Some uncertainties or information gaps with this recommended management action include: (1) defining a mechanism by which a lessons-learned approach can be implemented and/or formalized by regulatory agencies, (2) regulatory agencies could voluntarily produce a lessons-learned document at the completion of major coastal construction projects that outlines any issues that were encountered and how they were addressed, or how similar issues should be addressed/avoided in the future. Additionally, the document should summarize any novel or ingenious aspects of the project (such as monitoring protocols, mitigation activities, or Best Management Practices) that were

successful and should be repeated in the future. Lesson-learned documents drafted by FDEP could be placed on the FDEP website or made available via Oculus, (3) another alternative would be to assemble a review panel consisting of regulatory agencies and stakeholders, as well as individuals with specific expertise (e.g., construction professionals and academics) annually or following the completion of major coastal construction projects to discuss lessons-learned. The findings from this workgroup could be summarized in a lessons-learned document and/or meeting minutes could be made available to the public. Perhaps such a workgroup could be assembled on an annual or biennial basis to discuss lessons-learned in general, instead of focusing on a specific project, (4) one of the outcomes of the lessons-learned process could be the development and iterative revision of standard permit-conditions that can be applied to similar coastal construction projects (e.g., projects that are similar in scope/scale that are expected to result in similar impacts to the same type of natural community).

- Supporting and relevant data include information on the adaptive management of resources. Overall, this action entails data and information collection, as well as utilizing the best-available science with each application.
- Currently, FDEP is doing this. However, the process could be improved or be more formalized.

Goals/ Objectives to be achieved:

Refer to the [SEFCRI Coral Reef Management Goals and Objectives Reference Guide](#)

- FL Priorities Goal A1.
- SEFCRI LAS LBSP Goal C1 Obj. 1 / SEFCRI LAS LBSP Goal C4 Obj. 4 / SEFCRI LAS FDOU SEFCRI LAS Issue 3 Goal / SEFCRI LAS MICCI Goal A1 Obj. 3 / SEFCRI LAS MICCI Conservation Goal C / SEFCRI LAS MICCI Issue 1 Goal / SEFCRI LAS MICCI Issue 1 Goal Obj. / SEFCRI LAS MICCI Issue 1 Goal Obj. 2 / SEFCRI LAS MICCI Issue 2 Goal / SEFCRI LAS MICCI Issue 2 Goal Obj. 1 / SEFCRI LAS MICCI Issue 3 Goal Obj. 3 / SEFCRI LAS MICCI Issue 4 Goal.