



## Shaping coastal nature-based solutions: Perceptions and policy priorities of living shorelines

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Living shorelines are one approach to fortifying coastal areas that are at risk of erosion. In contrast to hard infrastructure such as seawalls, living shorelines use "green" infrastructure like grasses, trees, and reefs. This paper investigates the factors that promote and inhibit the adoption of living shorelines in the state of Florida. The authors conducted interviews with 30 living shoreline practitioners and marine contractors. They also applied the Institutional Grammar to the Coastal Management chapters of the Local Comprehensive Management Plans of three counties to learn the policy priorities surrounding living shorelines.

### KEY FINDINGS

- The Institutional Grammar can be used to measure policy priorities in policy texts.
- An approach that combines interviews with IG-based analysis can help identify areas where implementation challenges can be addressed.

### Factors Promoting and Inhibiting Living Shoreline Adoption

From the interviews, the authors learned of several factors that promoted and inhibited the adoption of living shorelines in Florida. For the former, community education about the benefits of living shorelines and demonstration projects that showcase living shorelines at work were all identified as contributing to living shoreline adoption - some interviewees also suggested that updating certain permitting procedures may also help. As for the latter, interviewees pointed to homeowner concerns about the impact of living shorelines on scenery and property values, onerous permitting rules, and difficulties in installing and maintaining living shorelines as key obstacles.

### Living Shoreline Policy Priorities

In analyzing the Coastal Management chapters, the authors used the IG to identify an institutional statement's target (corresponding to the Object) and its action (corresponding to the Deontic, Aim, and Context), allowing them to capture policy priorities related to living shorelines. Based on the frequency with which specific actions and targets appeared in the documents, they were additionally able to identify the priorities as low, medium, or high. Among their findings, experimenting with different kinds of living shorelines was a low priority, conservation was a medium priority, and ensuring public access to and use of living shorelines was a high priority. The combination of interviews and IG-based text analysis helped to identify areas where policymakers could improve upon living shoreline adoption.

For more information, please see Dario, C., Curley, C., & Mach, K.J. (2024). Shaping coastal nature-based solutions: Perceptions and policy priorities of living shorelines. *Nature-Based Solutions*, 6, 100179. <https://doi.org/10.3390/w12071849>.

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