

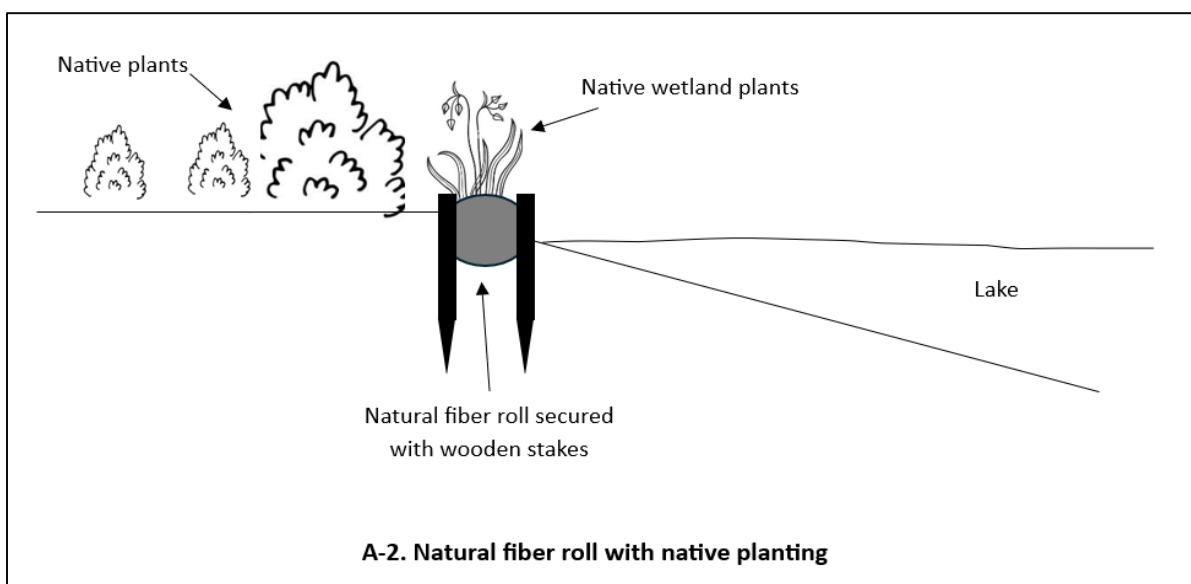
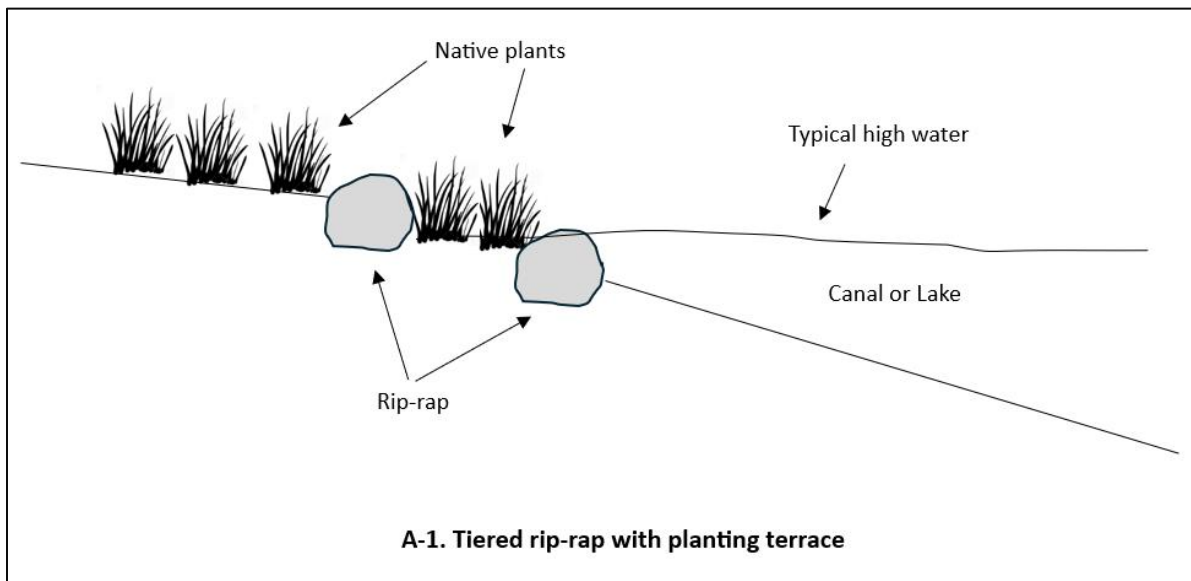
Sec. 126-99. ~~Alternative~~ Living shoreline stabilization project.

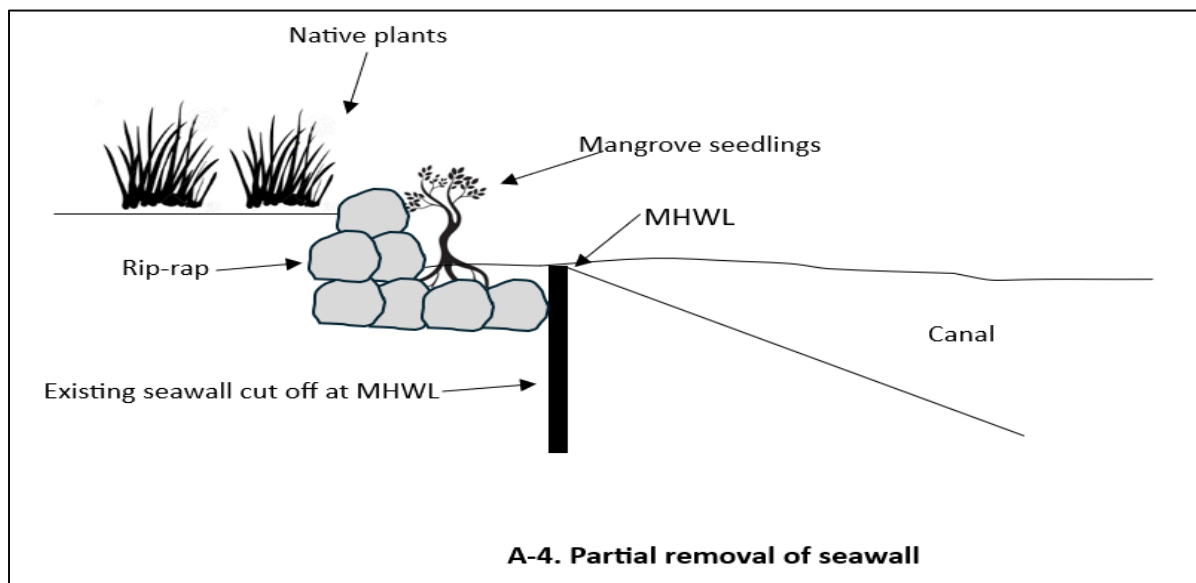
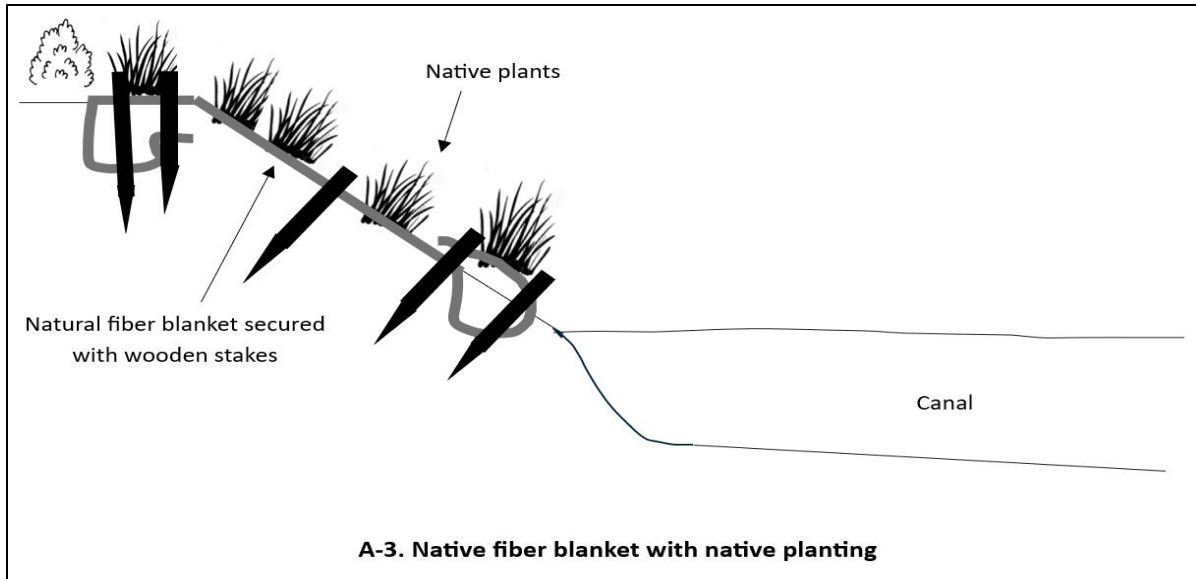
The continuing advancements in shoreline restoration and stabilization techniques offer more sustainable and ecologically based enhancement alternatives to seawalls, revetments and erosion control structures, therefore ~~alternative~~ living shoreline stabilization projects (referenced in this section as "project" or "projects") shall be permitted as conditional uses on the banks of human made water bodies (e.g., canals and artificial lakes) and natural water bodies (e.g., San Carlos Bay, Dinkins Bayou, Clam Bayou, and Blind Pass), subject to the general requirements of section 126-82 and the following conditions set forth in this section:

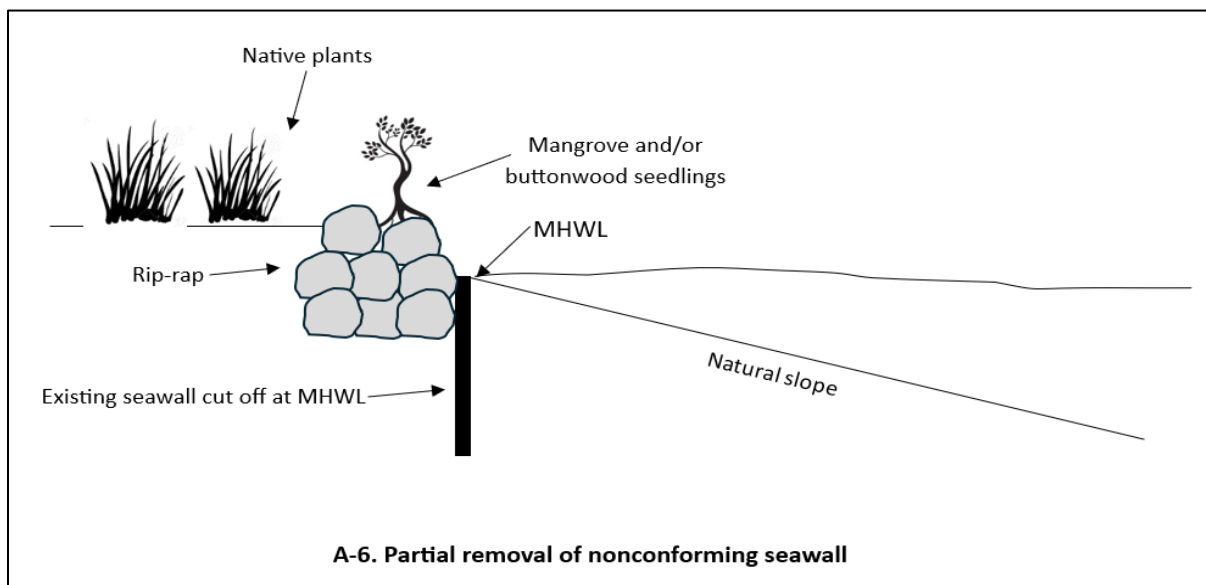
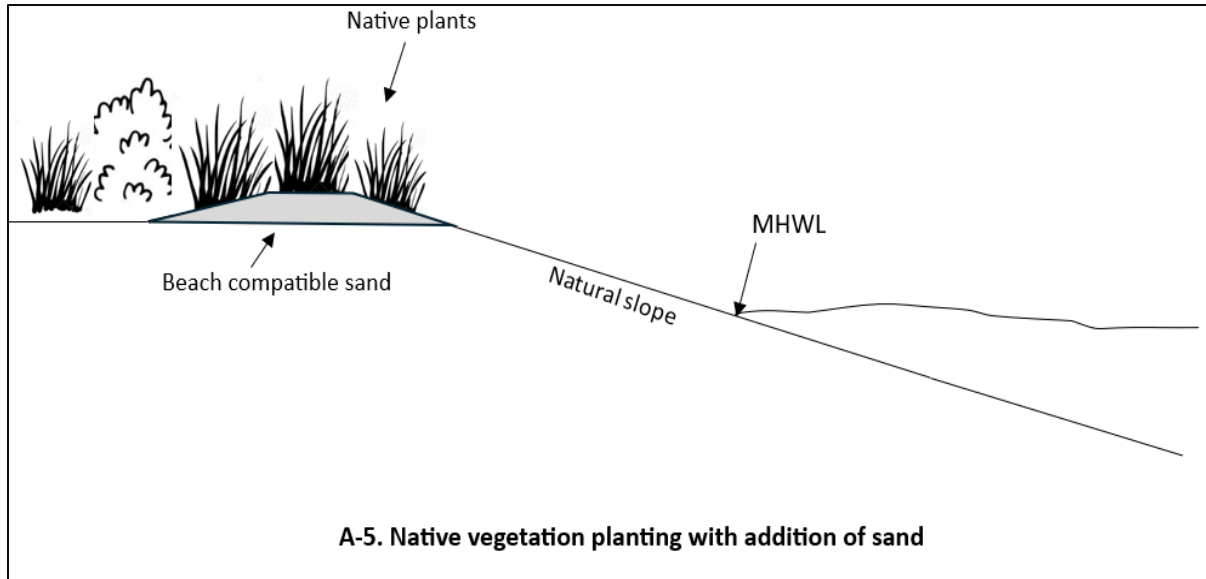
- (1) Projects are prohibited on shorelines along the Gulf of Mexico except for projects to protect public infrastructure.
- (2) The application for conditional use approval under this section shall be prepared by a professional engineer registered in the state having experience in coastal engineering, ~~and~~ with assistance from ~~an Ecological Society of America certified~~ professional ecologist or State of Florida licensed landscape architect with knowledge of southwest Florida coastal systems, and shall include:
 - a. An inventory and map of existing grass beds, shell beds and other living components of the marine environment that may be affected by the installation of the proposed project and an assessment of the impact of the proposed project on these identified natural resources;
 - b. ~~A technical report examining alternatives to the proposed project, including, but not limited to, doing nothing, public or private (e.g., Sanibel Captiva Conservation Foundation) acquisition, beach renourishment where more than 200 lineal feet of structure are proposed, relocation or removal of existing structures, and transfer of development rights;~~
 - c. An assessment of the potential for harm to existing structures, both public and private, including roads, both on and off the subject parcel, if the proposed project is not installed and if the project is installed;
 - d. Evidence of active, ongoing, and/or progressive shoreline erosion is present on the subject lot which is not caused by runoff from the uplands. ~~Within the bay beach zone the evidence of erosion must be documented to be other than~~ and is not due to the typical seasonal fluctuations in shoreline profile; and
 - e. Such other information as may be necessary for a complete determination on the application.
- (3) New rigid, nonflexible structures which resist or redirect wave action or impede sediment accumulation (accretion) are expressly prohibited.
- (4) Projects may not be approved within the bay beach zone under this section unless the project design encourages sediment accretion along the shoreline.
- (5) Projects approved under this section shall be the minimum necessary to accomplish the intended purpose ~~as determined by the planning commission~~.
- (6) The project shall be designed, installed, and maintained to preserve and protect existing native vegetation ~~which that~~ stabilizes the bank or shoreline, filters surface water runoff, or provides terrestrial or aquatic habitat.
- (7) The project shall meet the following minimum requirements:
 - a. Along natural bodies of water, ~~The slope of~~ the natural ~~beach shoreline~~ profile shall be maintained or restored to the extent feasible (if previously altered ~~by human made structures~~), but in no case shall the slope be steeper than three feet horizontal to one foot vertical. Within the bay beach zone, the preferred slope shall be no steeper than ten feet horizontal to one foot vertical.

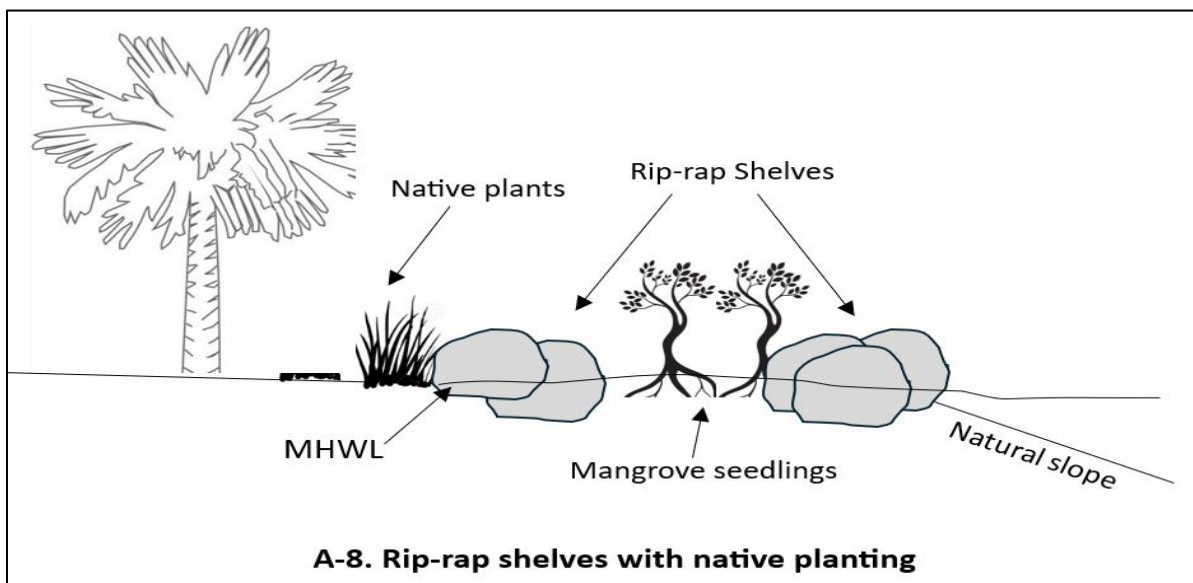
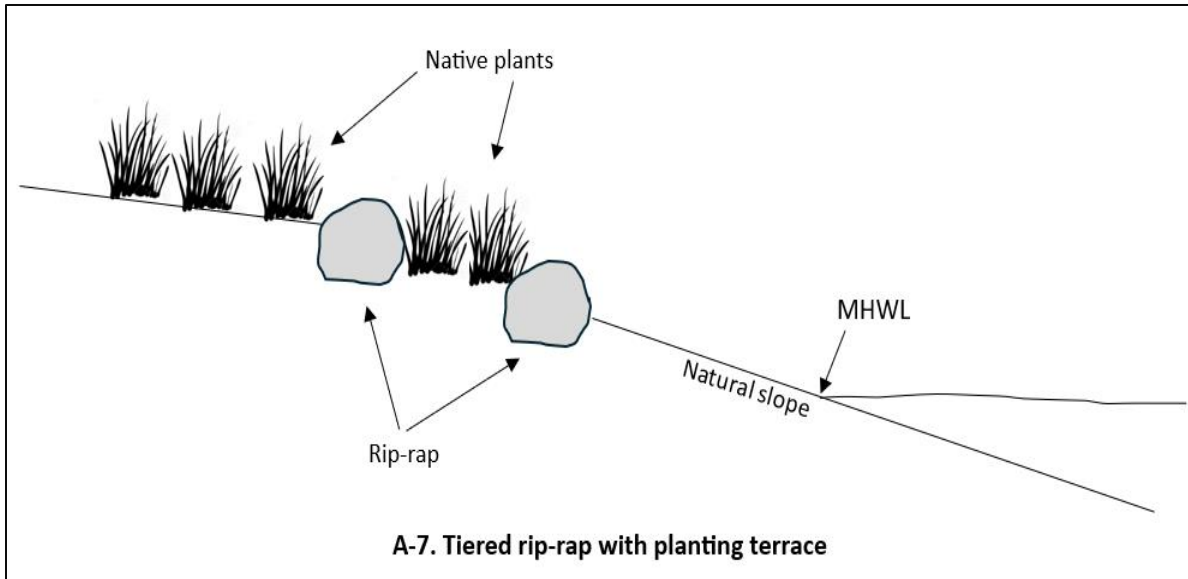
- b. Along human-made bodies of water, the bank may be altered to include terraces or a graded slope no steeper than two feet horizontal to one foot vertical; a more gentle slope shall be required if indicated by site specific conditions.
- ~~b.~~ c. The project shall provide a connection or transition zone between the adjacent uplands and water bodies for the benefit of wildlife to the extent feasible.
- ~~c.~~ d. Limerock rip-rap, ~~clean cement rip-rap, and/or~~ clean cement grids or pipes, reef balls, oyster bags, natural fiber rolls or mats, or similar material may be integrated into the design in a size and manner where they will not be dislodged, resist or redirect wave action, or impede sediment accumulation provided only the minimum necessary size and quantity is incorporated to create planting areas and stabilize the shoreline through encouraging natural sediment accretion. Refer to Figure A - Example Designs.

Figure A – Example Designs









- d. Plans must include the locations with elevations of mean low tide and mean high tide in relation to the proposed project. There shall be no filling or dredging at or below the mean high water line associated with the installation of the project when located along natural bodies of water.
- e. Native plants suitable for shoreline stabilization, provision of wildlife habitat, water quality enhancement or protection, and ~~enhancement of on-site environmental conditions~~ shall be planted ~~within the project in sufficient density with minimum~~ three-foot on centers in areas where no native vegetation exists, ~~to create a natural appearing shoreline at maturity.~~ A planting plan shall be incorporated into the design drawings.
- f. The ends of the project shall be tied into ~~the~~ any existing structures on adjoining lots in a manner which contributes to the stability of each structure or project; where an existing structure adjoins the proposed project at only one end, the other end of the proposed project shall be tied into the subject parcel in a manner which minimizes the potential for flank erosion.

- g. Designs may include the removal of all or part of an existing seawall, revetment or erosion control structure. If an existing seawall is removed, a drainage plan must be submitted to ensure runoff is directed away from the waterbody to an appropriate onsite location.
- (8) The ~~planning commission shall place conditions on the~~ timing and sequence of construction to protect existing habitats or nesting, feeding or reproductive areas shall be based upon recommendations from the city's natural resources department.
- (9) For projects within the bay beach zone, the waterward and landward limits of the bay beach zone shall be established (i.e., field located, corners staked, and coordinates recorded for mapping) by a State of Florida licensed professional surveyor prior to installation of the project. The line 50 feet landward of the mean high water line established by this survey, which is the boundary of the bay beach zone, shall not be moved waterward because of the installation of the project.
- (10) The mean high water line shall be established (i.e., field located, staked, and coordinates recorded for mapping) by a State of Florida licensed professional surveyor prior to the installation of the project and the mean high water line shall not be moved waterward because of the installation of the project.
- (11) Revisions to previously permitted erosion control structures, revetments, or living shoreline stabilization projects due to changes in site conditions from storm events, king tides, or other sea level rise impacts may be applied for through a short-form development permit using the standards of this section.