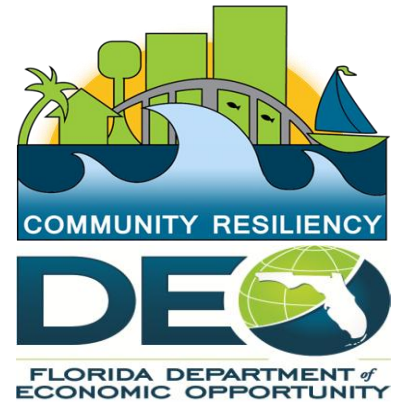


ADAPTATION PLANNING IN FLORIDA

Summary

“Adaptation action area” or “adaptation area” is an optional comprehensive plan designation for areas that experience coastal flooding and that are vulnerable to the related impacts of rising sea levels for the purpose of prioritizing funding for infrastructure needs and adaptation planning. Local governments that adopt an adaptation action area may consider policies within the coastal management element to improve resilience to coastal flooding. Criteria for the adaptation action area may include:

- Areas below, at, or near mean higher high water
- Areas which have a hydrological connection to coastal waters
- Areas designated as evacuation zones for storm surge



Impacts of Rising Sea Levels

Communities that are subject to sea level rise may experience an increase in coastal vulnerability. Impacts to communities may include:

- Increased flooding and drainage problems,
- Destruction of natural resource habitats,
- Higher storms surge, increased evacuation areas and evacuation time frames,
- Increased shoreline erosion,
- Saltwater Intrusion, and
- Loss of infrastructure and existing development.

Adaptation Planning Strategies

Adaptation to sea level rise is the steps a community takes to become more resilient to the impacts of rising seas over a period of time. The three main strategies a community may use to adapt to sea level rise are:

I. Protection

Protection strategies involve “hard” and “soft” structurally defensive measures to mitigate the impacts of rising seas, such as shoreline armoring or beach renourishment, in order to decrease vulnerability yet allow structures and infrastructure in the area to remain unaltered. Protection strategies may be targeted for areas of a community that are location-dependent cannot be significantly changed structurally (i.e. downtown centers, areas of historical significance, water-dependent uses, etc.).

II. Accommodation

Accommodation strategies do not act as a barrier, but rather alter the design through measures such as elevation or stormwater improvements, to allow the structure or infrastructure system to stay in place. Adaptation measures do not preventing flooding or inundation of the property but do protect the structure. Accommodation strategies may be suitable for location-dependent structure that could be changed to accommodate water, without compromising the use (i.e. bridge elevation, residential home elevation, downtown stormwater improvements, etc.).

III. Retreat

Retreat strategies involve the actual removal of existing development and possible relocation to other areas and the prevention of future development in these high risk areas. Retreat options usually involve the acquisition of vulnerable land for public ownership, but may also include other strategies such as transfer of development rights, purchase of development rights, rolling easements, conservation easements, etc.

Relationship to Hazard Mitigation

The actions a community will take to mitigate vulnerability to coastal flooding are very similar to those that a community might take in sea level rise adaptation. The main difference is that sea level rise adaptation assumes a longer timeframe for impact and therefore a longer timeframe for need and implementation. Sea level rise also assumes an increase in the vulnerability of areas already subject to coastal flooding and therefore adaptation projects take into account the increased vulnerability.

Statewide Community Resiliency Initiative: Planning for Sea Level Rise

In 2012 the Department kicked-off a 5-year project to integrate sea level rise adaptation into current planning mechanisms including the local comprehensive plan, local hazard mitigation plan and post-disaster redevelopment plan. This effort is steered by a Focus Group of statewide experts on planning for sea level rise adaptation and stakeholders in the coastal area. First DEO will research similar efforts in other states as well as how the “adaptation action area” may be implemented at the local level. Next we will pilot adaptation planning projects in the state and then compile all lessons learned from the projects. Finally all lessons learned will be compiled and statewide outreach will be conducted and the program will be offered statewide. The DEO has received additional funding to work with the City of Ft. Lauderdale as they integrate Adaptation Action Areas into their local comprehensive plan.

Resources

The following are three comprehensive resources available to local governments that are interested in planning for climate change and sea level rise adaptation.

- [NOAA Digital Coast: www.csc.noaa.gov/digitalcoast](http://www.csc.noaa.gov/digitalcoast)
- [Climate Adaptation Knowledge Exchange: www.cakex.org](http://www.cakex.org)
- [Georgetown Climate Clearinghouse: www.georgetownclimate.org/adaptation/clearinghouse](http://www.georgetownclimate.org/adaptation/clearinghouse)

Adaptation Action Area Policies in Florida

Section 163.3164(1), Florida Statutes

(1) “Adaptation action area” or “adaptation area” means a designation in the coastal management element of a local government's comprehensive plan which identifies one or more areas that experience coastal flooding due to extreme high tides and storm surge, and that are vulnerable to the related impacts of rising sea levels for the purpose of prioritizing funding for infrastructure needs and adaptation planning.

Section 163.3177(6)(g)(10), Florida Statutes

10. At the option of the local government, develop an adaptation action area designation for those low-lying coastal zones that are experiencing coastal flooding due to extreme high tides and storm surge and are vulnerable to the impacts of rising sea level. Local governments that adopt an adaptation action area may consider policies within the coastal management element to improve resilience to coastal flooding resulting from high-tide events, storm surge, flash floods, stormwater runoff, and related impacts of sea-level rise. Criteria for the adaptation action area may include, but need not be limited to, areas for which the land elevations are below, at, or near mean higher high water, which have an hydrologic connection to coastal waters, or which are designated as evacuation zones for storm surge.

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