62S-7: Sea Level Impact Projection (SLIP) Studies for State-Financed Coastal Construction

62S-7.010 Definitions.

(1) "Coastal building zone" means the land area from the seasonal high-water line landward to a line 1,500 feet landward from the coastal construction control line as established pursuant to s. 161.053, and, for those coastal areas fronting on the Gulf of Mexico, Atlantic Ocean, Florida Bay, or Straits of Florida and not included under s. 161.053, the land area seaward of the most landward velocity zone (V-zone) line as established by the Federal Emergency Management Agency (FEMA) and shown on flood insurance rate maps. On coastal barrier islands, it shall be the land area from the seasonal high-water line to a line 5,000 feet landward from the coastal construction control line established pursuant to s. 161.053, or the entire island, whichever is less. All land area in the Florida Keys located within Monroe County shall be included in the coastal building zone.
(2) "Major Structures" are defined in s. 161.54(6)(a).
(3) "Nonhabitable Major Structures" are defined in s. 161.54(6)(c).

Rulemaking authority: 161.551(6), FS Implemented 161.551 FS History- New 7-1-2020

62S-7.011 Requirements of the State-Financed Constructor

(1) A state-financed constructor, as defined in s. 161.551, F.S., must perform a SLIP study for construction of a new coastal structure according to the standards defined in Chap. 62S-7.012. The department has developed a web-based tool for performing a SLIP study and submitting a SLIP study developed using this web-based tool shall fulfill the requirements of s. 161.55, F.S. A state-financed constructor may also meet the requirements of s. 161.55, F.S., by submitting a SLIP study that meets the standards and criteria established in Chap. 62S-7.012.
(2) The state-financed constructor must submit the SLIP study to the department for publication on the department website.
(3) The state-financed constructor may not commence construction until notified by the Department that:
    a. the SLIP study was approved as meeting the requirements of s. 161.551, F.S. and
    b. the 30-day publication period has finished.
(4) The Department will send such notification via the web-based SLIP study tool or email.
(5) All SLIP studies will be maintained on the Department's website for a minimum of 10 years.

Rulemaking authority: 161.551(6), FS Implemented 161.551 FS History- New 7-1-2020

62S-7.012 SLIP Study Standards

(1) A state-financed constructor choosing not to use the department's web-based tool to conduct the SLIP study required under s. 161.551, F.S., shall do all of the following:

(a) Show the amount of sea level rise expected over 50 years or the life of the structure, whichever is less. The amount of sea level rise expected must be calculated using the following criteria:

1. The sea level rise scenarios used for analysis must, at a minimum, be from the most recent National Oceanic and Atmospheric Administration (NOAA) report, "2017 NOAA Technical Report National Ocean Service Center for Operational Oceanographic Products and Services (NOS CO-OPS) 083, Global and Regional Sea Level Rise Scenarios for the United States." This report can be downloaded from https://tidesandcurrents.noaa.gov/publications/techrpt83_Global_and_Regional_SLR_Scenarios_for_the_US_final.pdf .
2. The local sea level rise at the project's location must be interpolated (using the project's distance away from the gauges as the independent variable) between the two closest coastal tide gauges with NOAA sea level rise projections (list can be found here: https://tidesandcurrents.noaa.gov/sltrends/sltrends.html).
3. Flood depth must be calculated in North American Vertical Datum of 1988 (NAVD88) over the entirety of the project location out 50 years or the project's design life for all six NOAA local sea level rise scenarios (Low, Intermediate-Low, Intermediate, Intermediate-High, High, and Extreme).
4. To the extent possible, the contribution of land subsidence to the relative local sea level rise must be included.

(b) Show the amount of flooding, inundation, and wave action damage risk expected over 50 years or the life of the structure, whichever is less. The amount of flooding and wave damage expected must be calculated using the following criteria:

1. FEMA storm surge flood depth for the 1% annual chance (100 year) flood event must be approximated in NAVD88 for the entire project location. Location-specific flood elevations can be found at the FEMA Flood Map Service Center https://msc.fema.gov/portal/home. The base flood elevation (BFE) is given in NAVD88 for VE, AE, and AH special flood hazard zones. For AO special flood hazard zones, this is presented as a flood depth relative to the ground elevation.
2. The FEMA 1% annual chance flood depth must be added to each of the six NOAA local sea level rise scenarios, and then compared to the project's critical elevations to assess flood risk. Critical elevations may be Finished First Floor Elevation (FFE), the Lowest Adjacent Grade (LAG) of the structure, or another critical design element which may cause substantial damage if flooded (such as the elevation of a standby generator or other mechanical/electrical system).
3. Depth-Damage Curves from the 2015 North Atlantic Coast Comprehensive Study titled "Resilient Adaptation to Increasing Risk: Physical Depth Damage Function Summary Report" must be used to estimate the cost of future flood damage, for vertical construction only, by assessing the approximate flood depth within the

structure, using the comparison of the critical elevations to the previously calculated 1% annual chance flood depth added to the six NOAA local sea level rise scenarios.

(c) The state-financed constructor must show the risk to public safety and environmental impacts expected over 50 years or the life of the structure, whichever is less. The public safety risk must be calculated using the 2020 Florida Building Code Table 1604.5, Risk Category of Buildings and Other Structures. The table can be found at https://codes.iccsafe.org/content/FLBC2020P1/chapter-16-structural-design#FLBC2020P1_Ch16_Sec1604.5

(2) Alternatives must be provided for the project's design and siting which take into account the SLIP study analysis and aim to reduce future flood risk to the structure and the risks and costs associated with construction, maintenance and repair of the structure.

(3) If the alternate method is used, the SLIP study shall be submitted to the Department for publication via secure sign-in on the DEP-provided website. The study report shall be in an ADA Section 508 compliant portable document format. The report contents shall include, but not be limited to, a description of the approach used in conducting the study, numbered references to the information used in the study, a narrative and graphic illustrations to demonstrate the application of the study approach to the information used, and a discussion of the assessments and alternatives.

Rulemaking authority: 161.551(6), FS Implemented 161.551 FS History- New 7-1-2020

62S-7.014 Implementation of SLIP Study findings

The Department's intent in this rule is to inform and raise awareness with the state-financed constructor of the potential impacts of sea level rise and increased storm risk on coastal infrastructure. Implementation of the findings of the SLIP studies is at the discretion of the state-financed constructor.

Rulemaking authority: 161.551(6), FS Implemented 161.551 FS History- New 7-1-2020

62S-7.016 Enforcement by DEP

Failure to comply with the SLIP study requirements may result in compliance or enforcement action by the Department, including but not limited to:

a) Pursuit of injunctive relief to cease construction until the constructor comes into full compliance with the requirement;

b) Recovery of all or a portion of state funds expended on the construction activity.

Rulemaking authority: 161.551(6), FS Implemented 161.551 FS History- New 7-1-2020

62S-7.020 Effective Date

Any enforcement shall not proceed until 1 year after the rule takes effect.

Rulemaking authority: 161.551(6), FS Implemented 161.551 FS History- New 7-1-2020