

SEA LEVEL RISE & INFRASTRUCTURE A CHALLENGE FOR LOCAL GOVERNMENTS

Part 1 of the Factsheet Series 'Law & Adaptation in Florida'



Sea levels are rising and will continue to rise at increasing rates for hundreds of years. Sea level rise (SLR) and climate change (CC) can harm major infrastructure in many ways.

SLR can:

- Decrease the efficacy of drainage systems and cause flooding
- Increase coastal erosion, threatening all types of public and private infrastructure
- Leave roads frequently inundated at high tide due to rising water
- Damage the base of roads, leading to more frequent maintenance of failing roads
- Overtop and damage publicly or privately owned seawalls
- Damage wastewater systems through increased inflow and infiltration of saltwater that degrades the biological and physical infrastructure of the system
- Increase salinity in groundwater, causing deterioration of underground infrastructure and result in salinization of existing water-supply wells
- Increase groundwater levels too close to septic drain field, which prevents the system from effectively removing nutrients and pathogens



Local governments must consider the legal and financial implications of their decisions about existing and new infrastructure.

Figure 1: Road washed out at Huguenot Memorial Park in the wake of Hurricane Matthew. Photo credit: Thomas Ruppert

Infrastructure impacts caused by SLR can be very costly for local governments. Large, well-resourced local governments may be able to bear the burden of higher infrastructure maintenance and construction costs. However, smaller local governments often lack the resources for major new infrastructure or to pay increasing maintenance costs on existing infrastructure. Local governments need to consider the legal and financial implications of their decisions about existing and new infrastructure in light of SLR.

¹The "Law & Adaptation in Florida" factsheet series does **not** constitute legal advice. Local governments seeking legal advice should contact their attorney(s). This series distills complex financial legal issues into short segments that avoid, as much as possible, legal jargon and technical language to aid non-lawyers in identifying and understanding legal issues created by SLR and CC for local governments. The effort to distill complex legal issues to make them more accessible entails tradeoffs in nuance and accuracy in favor of more general statements. For those that desire more detail or whose work necessitates it, several fact sheets provide references to more in-depth analyses of the issues discussed. Additionally, interested local governments can contact Florida Sea Grant for additional resources and assistance at info@flseagrant.org.