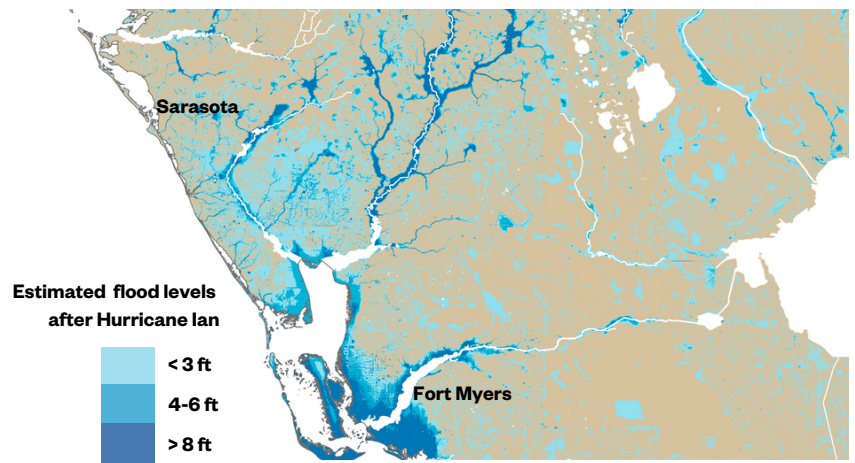


BUILDING ON BORROWED TIME

The Rising Risk from Floodplain Development

During Hurricane Ian, Florida's floodplains captured floodwaters, serving as natural reservoirs.

Developing floodplains increases flood risk by reducing their ability to absorb floodwaters, placing human lives and valuable infrastructure directly at risk of flooding.



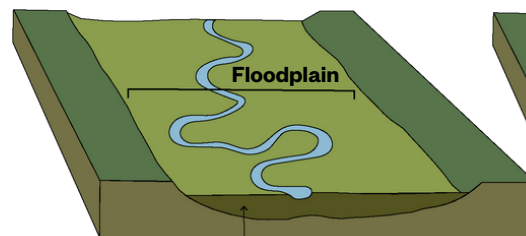
Data: Pacific Northwest National Laboratory

? What's the difference between a floodplain and a flood zone?

A "floodplain" and a "flood zone" are two distinct but related terms.

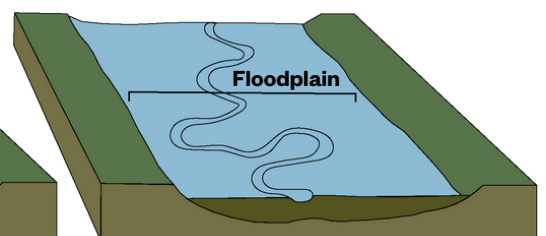
A **floodplain** is a naturally occurring geographic feature, a low-lying area adjacent to a river or other body of water that is subject to flooding under natural conditions.

NORMAL CONDITIONS



Older river channel and floodplain sediments

FLOOD CONDITIONS



Adapted from Wired.com

Floodplains are nature's sponges, absorbing excess water and then gradually releasing it back into the river system.

A **flood zone**, on the other hand, is a regulatory term used in the context of flood risk management. Flood zones are delineated based on estimated flood risks, taking into account factors such as historical flood data, local topography, and the characteristics of nearby bodies of water.

A single floodplain might include multiple flood zones. Conversely, a given flood zone might include parts of multiple different floodplains.

? How do floodplains protect people and property during hurricanes?

Floodplains naturally absorb and slow the flow of water during times of heavy rainfall, reducing the speed and volume of floodwaters downstream. As Hurricane Ian deluged the region with heavy rains, these low-lying areas adjacent to rivers absorbed and stored vast amounts of water.

Citations:

- Brody, S. D., Zahran, S., Maghelal, P., Grover, H., & Highfield, W. E. (2007). The rising costs of floods: Examining the impact of planning and development decisions on property damage in Florida. *Journal of the American Planning Association*, 73(3), 330-345.
- Highfield, W. E., & Brody, S. D. (2006). Price of permits: Measuring the economic impacts of wetland development on flood damages in Florida. *Natural Hazards Review*, 7(3), 123-130.
- Brody, S. D., Highfield, W. E., Ryu, H. C., & Spanel-Weber, L. (2007). Examining the relationship between wetland alteration and watershed flooding in Texas and Florida. *Natural Hazards*, 40, 413-428.

BUILDING ON BORROWED TIME

The Rising Risk from Floodplain Development

How developing inland floodplains leads to coastal flooding

Rivers in Florida are born inland and flow toward the coast, where they empty into the sea. In developed floodplains, water has nowhere to go when rivers rise during heavy rains. Instead of being absorbed by these inland wetlands, the water rapidly fills the river and then rushes toward the sea, causing inland and coastal flooding.



Photo by FWC

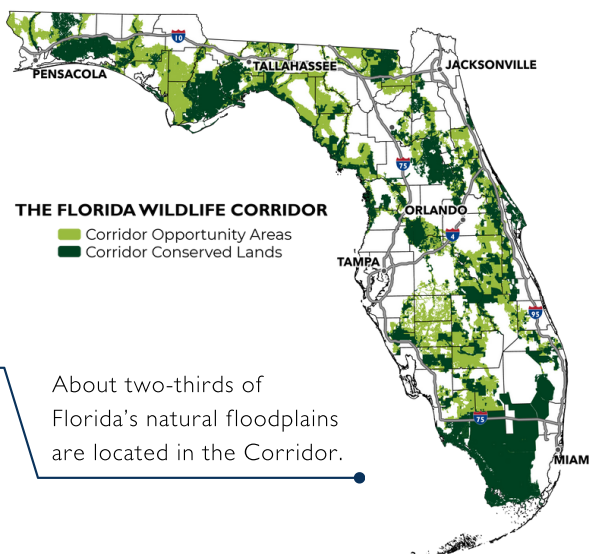
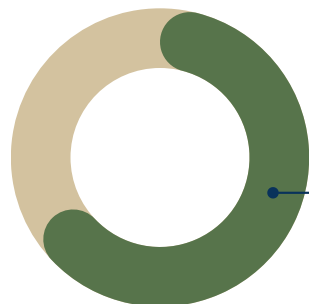


Photo by SWFWMD

In Florida, these issues can be significant due to the state's flat topography, extensive coastline, and susceptibility to hurricanes. The state's floodplains provide a critical buffer against both inland and coastal flooding, and their destruction could exacerbate flood risks in both areas.

The Florida Wildlife Corridor protects critical floodplains.

By conserving inland floodplains, the Corridor mitigates downstream flooding in both inland and coastal areas.



About two-thirds of Florida's natural floodplains are located in the Corridor.

Over half of the Corridor's floodplains are protected, but roughly 3 million acres of floodplain are still in need of protection.

Wise planning avoids permitting development of floodplains to protect human lives while avoiding higher future costs of flood damage.



Photo by Carlton Ward, Jr.