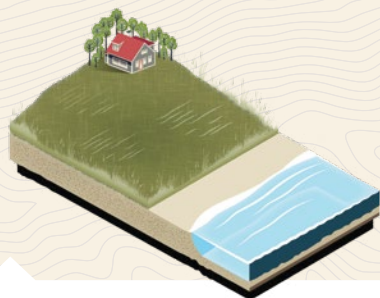


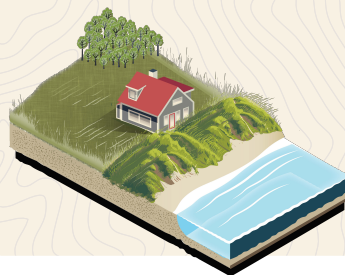
## How can we protect our coastal floodplains?

The most effective way of protecting the coastal floodplain, and thereby protecting our homes and infrastructure, is to safeguard its natural floodplain features and functions wherever possible.

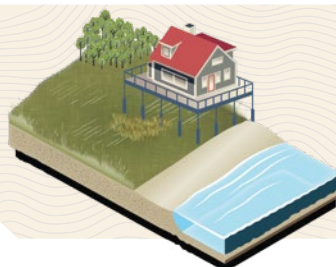
Where the coastal floodplain is already developed, measures to modify buildings when they are substantially repaired or improved to accommodate floodwaters are important. Elevating buildings on open piles and removing obstructions from the floodplain are two strategies for reducing risk from coastal flooding and storm damage. The Coastal Resilience Grant Program provides financial and technical support for public projects which enhance coastal resilience to storms and flooding. FEMA Grants are available to help elevate homes.



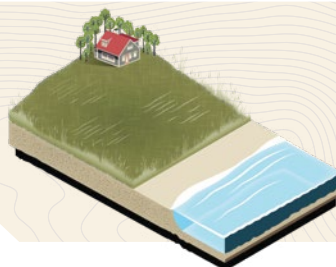
**Avoid** – Wherever possible, we should leave natural coastal floodplains undeveloped. These areas provide many important services and are also becoming likely to flood more frequently.



**Protect** – In developed areas, elevation of existing seawalls or flood control berms, under limited circumstances, or nature-based protection options, like deep-rooted vegetation plantings or dune planting, can help reduce erosion and dissipate storm energy.



**Accommodate** – Measures like elevating buildings on piles, removing obstructions (like fences and walls), and providing vegetated areas where coastal floodwater can infiltrate, all help to accommodate floodwaters in the coastal floodplain.



**Retreat** - Where possible, managed retreat from the coastal floodplain may be the best option. State Coastal Resilience Grants can help with managed retreat planning and FEMA Grants may help with government buyouts of vulnerable land in the coastal floodplain.

[www.mass.gov/info-details/shores-of-change](http://www.mass.gov/info-details/shores-of-change)



MassDEP



ResilientCoasts



# Shores of Change

COASTAL FLOODPLAIN RESILIENCE

## Coastal Floodplains Under Pressure

# Why are coastal floodplains under pressure?

Many pressures are exerted on our coastal floodplains, from the land and from the sea.

As sea levels rise and coastal storms become stronger, coastal floodplains are becoming more frequently flooded.

At the same time, continued development on the coastal floodplain exacerbates the impact of the flood waters and increases erosion, loss of vegetation, and storm damage.



[www.mass.gov/info-details/shores-of-change](http://www.mass.gov/info-details/shores-of-change)

The entire site depicted below is located within FEMA Floodplain. Refer to the FEMA Maps to determine the exact location of the floodplain boundary.

Unique wildlife may be lost as coastal floodplains are developed.

As the floodplain is developed, it loses its ability to slow velocity of flows and absorb storm energy, allowing storm impacts to be felt further inland.

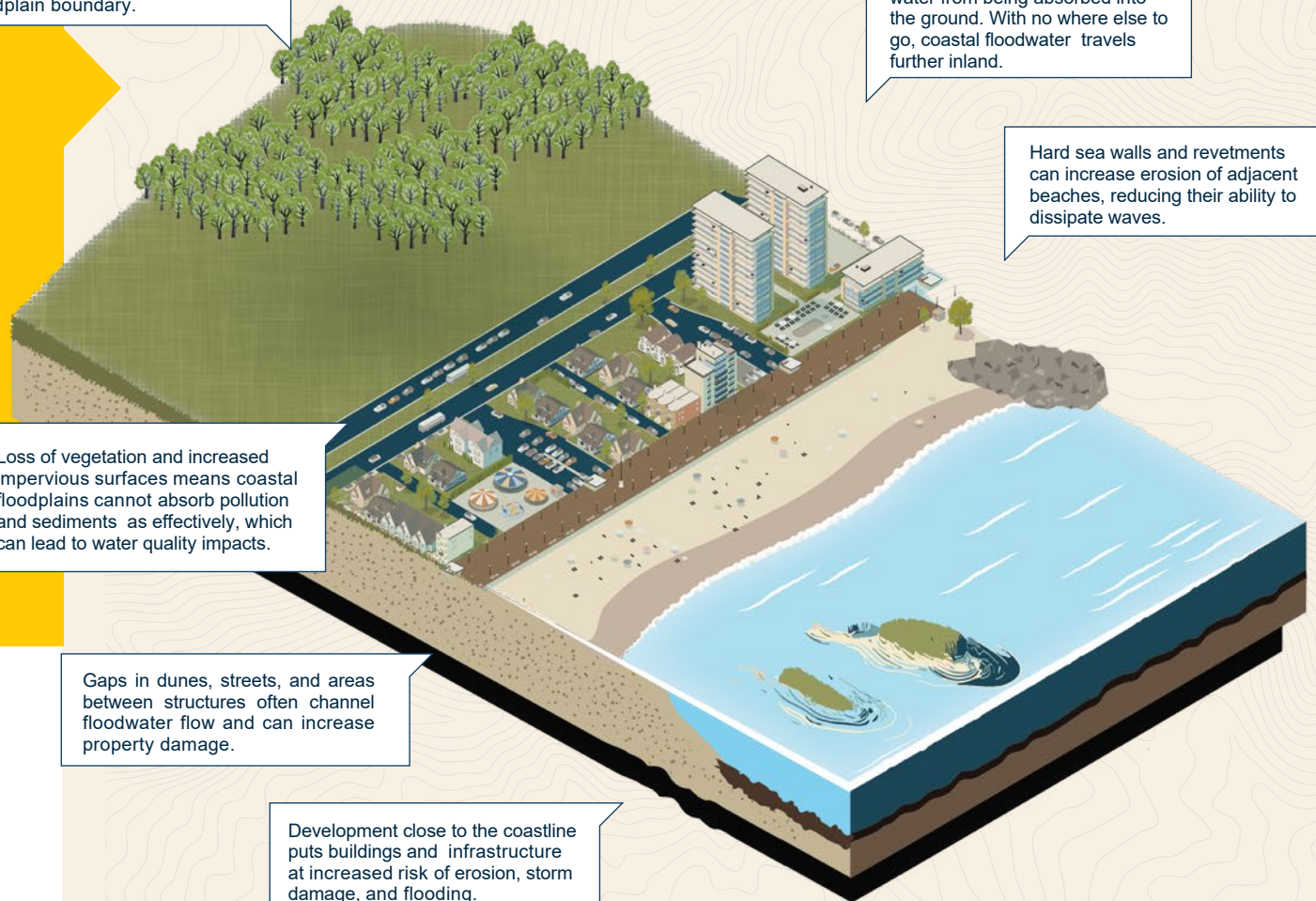
Hard, paved surfaces prevent water from being absorbed into the ground. With no where else to go, coastal floodwater travels further inland.

Hard sea walls and revetments can increase erosion of adjacent beaches, reducing their ability to dissipate waves.

Loss of vegetation and increased impervious surfaces means coastal floodplains cannot absorb pollution and sediments as effectively, which can lead to water quality impacts.

Gaps in dunes, streets, and areas between structures often channel floodwater flow and can increase property damage.

Development close to the coastline puts buildings and infrastructure at increased risk of erosion, storm damage, and flooding.



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