



# FLOOD REDUCTION



The Coastal Prairie Conservancy currently protects wetlands and native prairie grasslands that provide flood reduction benefits to the downstream areas of Greater Houston.



1. Flood reduction benefits
2. Recreation and nature tourism
3. Improved water and air quality
4. Local food production
5. Economic benefits
6. Enhanced wildlife habitat
7. Helps tackle climate change



**SOAK (INFILTRATION)** | According to a recent study by Applied Ecological Services and P.B. Bedient & Associates, native prairie vegetation has a greater capacity to absorb water entering the soil as infiltration during a rain event than other types of land cover such as pasture or developed turf areas.



**STORE (RETENTION)** | There are natural depressions on the coastal prairie that provide retention benefits by capturing and retaining rainfall as water moves across the surface of the landscape, reducing the amount of water flowing downstream.



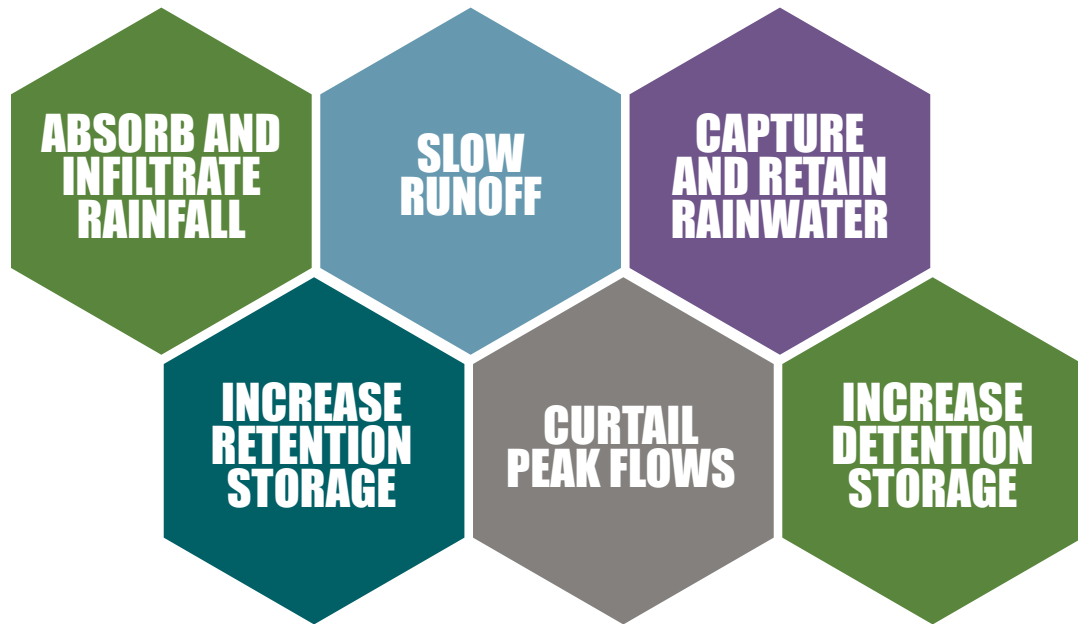
**SLOW (DETENTION)** | As runoff moves across the prairie/wetland complex, it is slowed by the tall vegetation and irregular ground surface. This slowing process reduces the rate at which the water leaves the prairie lands. The slower the flows, the less peak runoff that needs to be handled by downstream drainage systems and, subsequently, the less flooding there is downstream.



Natural infrastructure refers to natural systems - wetlands, prairies, forests, coral reefs - that provide essential services and benefits to society, including flood protection, erosion control, and water purification.



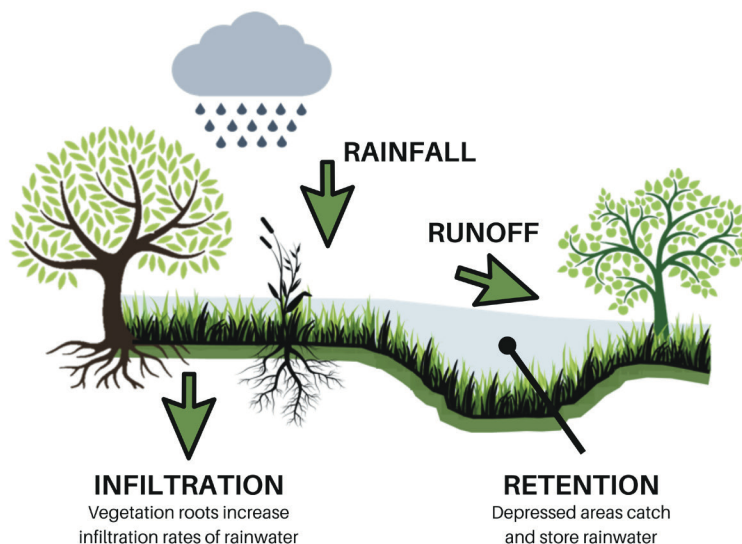
# HOW THE COASTAL PRAIRIE HELPS WITH FLOOD REDUCTION



Much of the rain falling on the prairie wetland complex soaks into the soil (infiltration) or is caught and stored in depressed areas (retention).

The remaining rainwater drains slowly across the prairie wetland surface as runoff.

For example,  
if rainfall = 15 inches  
less infiltration = (5 inches)  
less retention = (2 inches)  
then runoff = 8 inches



**Coastal  
Prairie  
Conservancy**

Since 1992, the Coastal Prairie Conservancy has been helping sustain a resilient Texas by preserving coastal prairies, wetlands, farms, and ranches to benefit people and wildlife forever.

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