

Climate Change Stressor	Potential Impact on Estuarine System of Wetlands
Sea-level rise	<ul style="list-style-type: none"> <li>• Migration of estuarine salinity gradients</li> <li>• Inundation and erosion of coastal marshes, beaches, mudflats, and other wetlands (leading to loss of habitat for many species)</li> <li>• Altered tidal range and tidal asymmetry (leading to tidal mixing and changes in sediment transport)</li> </ul>
Increases in water temperatures	<ul style="list-style-type: none"> <li>• Shift in species composition (e.g., mangroves and cypress swamps moving northward)</li> <li>• Reductions in water quality due to increased growth of nuisance algae and to lower oxygen levels</li> </ul>
Altered timing of seasonal changes	<ul style="list-style-type: none"> <li>• Increased/decreased precipitation (depending on region) affecting water balance/availability</li> <li>• Changes in timing of spring flow of pollutants</li> </ul>
Increases in air temperatures	<ul style="list-style-type: none"> <li>• Decreased water availability and drought in some regions</li> </ul>
Changes in precipitation	<ul style="list-style-type: none"> <li>• Altered winter-spring discharge rates, leading to more pronounced flooding (especially if high flow coincides with heavy precipitation events)</li> <li>• Reduced water quality due to changes in freshwater runoff</li> <li>• Changes in precipitation affecting pollutant loading levels in water bodies</li> <li>• Altered salinity gradient from increase/decrease of streamflow</li> </ul>
Elevated atmospheric CO <sub>2</sub>	<ul style="list-style-type: none"> <li>• Increased algal blooms</li> </ul>