Runoff, groundwater and point source pollution such as sewage adds nutrients (nitrogen and phosphorus) to the bay. Abundant seagrass (SAV) habitat results in increased phytoplankton in the water column, which reduces light available to SAV. Seagrass loss results from reduced light, not only phytoplankton blooms but also excessive algal epiphyte growth on the leaves. Increased nutrients from runoffs result in excessive algal epiphyte growth on the leaves. Increased nutrients also result in a detrital cycle of faunal grazers and bacteria, leading to anoxia and the death of oysters.

Nutrients result in increased phytoplankton in the water column which reduces light available to SAV. Abundant epifauna such as gastropods, amphipods and grass shrimp are present. Infauna such as polychaete worms increase in fine sediments once seagrass are lost. Intact fringing marsh and woodlands support abundant pelagic fish species such as rockfish (striped bass). Blue crabs live amongst seagrass. Some components of the community such as oysters, clams and mussels rely on oxygen produced by SAV.

High water clarity results in high light penetration to SAV. SAV is the dominant primary producer. Loss of seagrass results in reduction in blue crabs. Without seagrass, a pelagic foodweb dominates - containing phytoplankton, zooplankton and small fish. Dead phytoplankton fall to the sediment where a detrital cycle of faunal grazers, benthic algae and bacteria result in anoxia.