



phytoplankton

zooplankton

N, P, Si

O_2

dead cells

fecal pellets

O_2

river fresh water

nutrients (N, P, Si) sediments & organic carbon

O_2 flux blocked

organic material flux

lighter, fresher warmer, surface layer

pycnocline

escape

mortality

heavier, saltier cooler, lower layer

healthy benthic community (worms, snails, bivalves, crustaceans)

organic matter decomposed & oxygen consumed

upwelled nutrients & oxygen (effects unquantified)