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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  |  |  Phosphates Phosphates can come from the erosion of rock or by soaps and detergents entering the creek through storm drains. High phosphate levels, like [nitrates](http://docs.google.com/nitrate.html), can encourage algae blooms and impact the pH of the creek.  A high concentration of phosphates in the creek can lead to algae blooms. Abundant algae will decrease light penetration (increase turbidity) and prevent bottom dwelling producers from receiving sufficient supplies of energy. These dying bottom dwelling producers along with dead algae sinking down from the surface, leads to a significant increase in the number and activity of decomposers raising nitrate levels and impacting DO. DO levels near the bottom will drop to low to support most species of consumers.An optimum range of phosphates needs to be maintained to insure adequate supply for producers without triggering rapid algae growth and the subsequent problems described above. phosphate levels exceeding .6ppm are likely to cause detrimental algae blooms.  Currently we are using the Chemettes snap off test ampules to approximate the concentration of phosphates in ppm. With the Arroyo's water source coming from the quarry upstream we expected to see a higher than ideal phosphate concentration. So far there has only been one day in which we witnessed levels high enough to support an algae bloom. This was in [September 1996](http://docs.google.com/about/chronicles/news/suds.html) after a substantial amount of soap entered the channel through a storm drain as a result of a car wash fundraiser at Amador High School. Our discovery led initially to a mandatory use of biodegradable soaps for any car wash activity and finally to a ban of car washes at the school. It appears that the flow of water, rather than a rise in phosphates, may be the biggest contributing factor to algae blooms and a decline in diversity of organisms during summer months.     |  | | --- | | Copyright © 2008 Amador Valley High. All Rights Reserved. Reproduction in whole or in part in any form or medium without express written permission of Amador Valley is prohibited. | |