

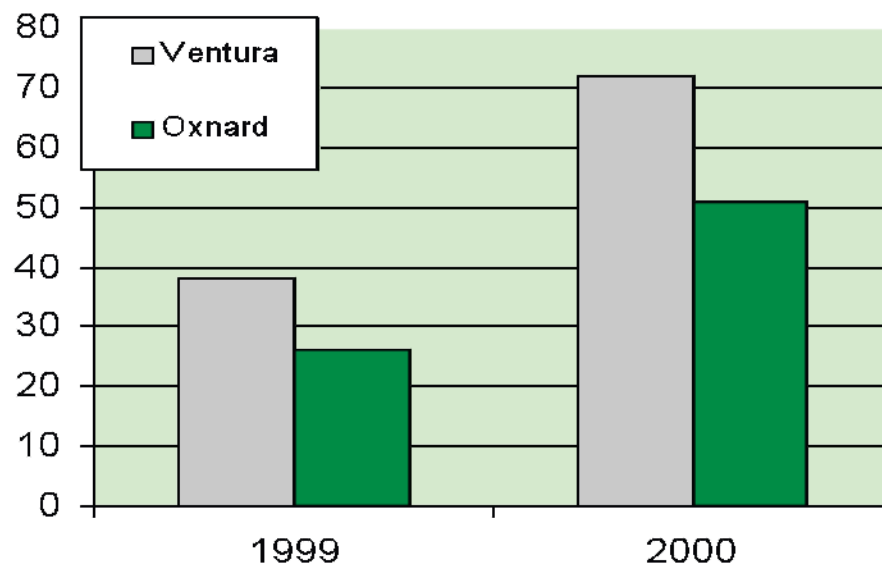
BEACH CLOSURES

Goal: Minimize beach water pollution through development that reduces the amount of impervious runoff area and volume of storm water to reduce runoff bacteria, viruses, and beach closures after rainstorms. Improved bacteriological quality of storm water is also desired.

Measured by: Monitoring of beach water is done by testing for indicators of fecal contamination, namely fecal coliforms and enterococci.

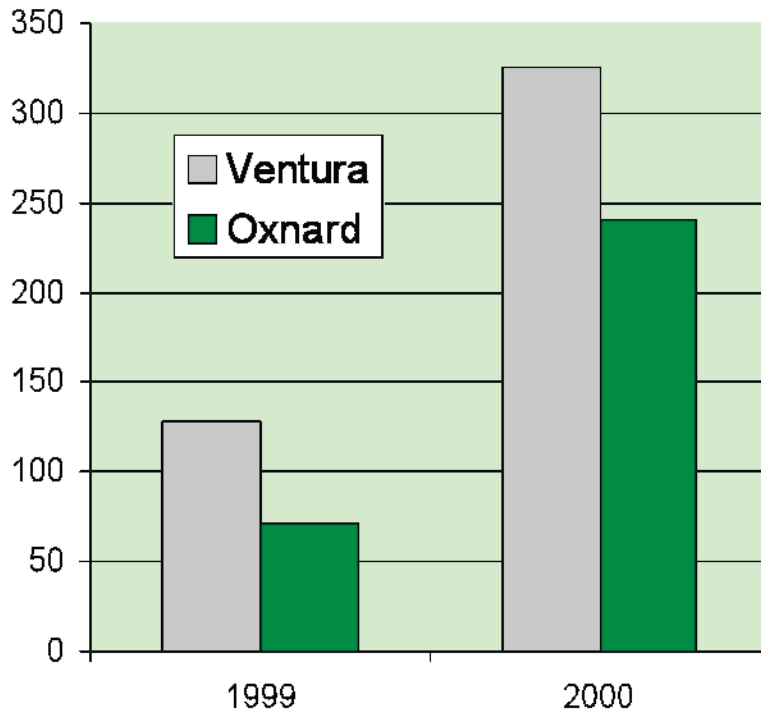
Findings: A large number of beach closures result from storm water at Ventura County beaches with an apparent increase in the last year.

Context: The indicators fecal coliforms and enterococci are harmless but do show the presence of fecal matter that could contain disease causing bacteria and viruses. Sources of feces include livestock, birds, pets, sewage leaks and urban stormwater runoff. Weekly testing of the beaches and after rainfall events is done to determine whether the beach area should be closed to swimming. The State swimming water standards are single values of 400 fecal coliforms/100 ml and 104 enterococci /100 ml. (Geometric monthly means of 200 and 35/100 ml respectively). Urban development that minimizes or eliminates impervious runoff collection areas will reduce the amount of storm water reaching the ocean. Vegetated areas that intercept runoff allow infiltration of rainfall as do temporary catchment basins. Street cleaning and care with pet droppings are also useful.



Number of Beach Closures

Total Beach Closure Days



Source: Ventura County Environmental Health Department
http://www.ventura.org/env_hlth/ocean.htm