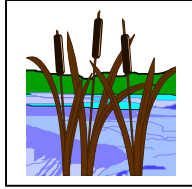


NPS/CZARA FACT SHEET No. 6
Wetlands and Riparian Areas Management Measures



The SWRCB, CCC, and other State agencies have identified four management measures (MMs) to promote the protection and restoration of wetlands and riparian areas and the use of vegetated treatment systems as means to control nonpoint sources of pollution. Wetlands and riparian areas reduce polluted runoff by filtering out runoff-related contaminants such as sediment, nitrogen and phosphorus; thus maintaining the water quality benefits of these areas is important. These areas also help to attenuate flows from higher-than-average storm events. This protects downstream areas from adverse impacts such as channel scour, erosion and temperature and chemical fluctuations. Changes in hydrology, substrate, geochemistry, or species composition can impair the ability of wetland or riparian areas to filter out excess sediment and nutrients, and so can result in deteriorated water quality. The following activities can cause such impairment: drainage of wetlands for cropland, overgrazing, hydromodification, highway construction, deposition of dredged material, and excavation for ports and marinas.

California's management measures to protect and restore wetlands and riparian areas and use vegetated treatment systems as means to control pollution from nonpoint sources:

6A. Protection of Wetlands & Riparian Areas

6B. Restoration of Wetlands & Riparian Areas

6C. Vegetated Treatment Systems

6D. Education/Outreach

Management Measures:

Wetlands/Riparian Areas Protection. Implementation of MM 6A is intended to protect the existing water quality improvement functions of wetlands and riparian areas as a component of NPS programs.

Wetlands/Riparian Areas Restoration. Restoration of wetlands and riparian areas (MM 6B) refers to the recovery of a range of functions that existed previously by reestablishing hydrology, vegetation, and structure characteristics. Damaged or destroyed wetland and riparian areas should be restored where restoration of such systems will significantly abate polluted runoff.

Vegetated Treatment Systems. MM 6C promotes the installation of vegetated treatment systems (e.g., artificial or constructed wetlands) in areas where these systems will serve a polluted runoff-abatement function. Vegetated filter strips and engineered wetlands remove sediment and other pollutants from runoff and wastewater, and prevent pollutants from entering adjacent waterbodies. Removal typically occurs through filtration, deposition, infiltration, absorption, adsorption, decomposition and volatilization.

Education/Outreach. MM 6D promotes the establishment of programs to develop and disseminate scientific information on wetlands and riparian areas and to develop greater public and agency staff understanding of natural hydrologic systems—including their functions and values, how they are lost, and the choices associated with their protection and restoration.