Wetlands: A Priceless Commodity



The Laguna de Santa Rosa is a flat, low-lying area between Santa Rosa and Sebastopol. The greater Laguna area lies roughly between Highway 116 and Sebastopol on the west. It is roughly defined by a north-south boundary composed of connections between Llano Rd., Irwin Lane, Willowside Road and Olivet Road from Highway 116 on the south, to Mark West Creek on the north. The Laguna drains a basin of 250 square miles that includes the cities of Cotati, Rohnert Park, Santa Rosa and Sebastopol.

Wetlands — the mix of earth and water — are among the most productive of all natural lands. The beauty of a wetland's ecosystem is the "services" it provides not only to the biological population which inhabits them, but to humans as well — provided free of charge by the environment.

The ability of a wetland to function as integrated units in a larger ecosystem is incredible. Their diversity is broken down into interdependent values:

• Waterfowl/Wildlife — Wetlands are home to a variety of wildlife and waterfowl. They provide temporary food and shelter for birds during their migrating travels. The Laguna de Santa Rosa wetlands invite mallards, teal, and occasional Canadian geese. In the past, the skies above the Laguna were darkened by a multitude of waterfowl.

Who Regulates What?

There are numerous public agencies which have various - degrees of jurisdiction over wetlands.* And, yes they all fall neatly into the typical complex layers of bureaucracy. However, to begin to understand what primary systems we currently have in place is always a good place to start. This edition focuses only on the Federal level. The next publication will cover the State.

Clean Water Act (1972)

In 1972 the Federal Government established the Clean Water Act which includes a system for the Corp of Engineers to regulate placing of fill. In order for a wetland to be protected (regulated) it needs to meet the definition of a wetland as defined in the Clean Water Act.

- Section 404 of the Clean Water Act is the primary source of protection of wetlands. It enforces the Clean Water Act by requiring a permit to place fill in waters of the United States. Although this attempt is a good faith effort, there are weaknesses that need to be strengthened. One weakness is that there are no regulations if one *drains* wetlands.
- EPA Guidelines: The Corp of Engineers uses mandatory EPA guidelines which provide conditions on placing fill. The most important parts are: 1) The avoidance of damaging wetlands, where feasible, by considering alternate sites and 2) the requirement of mitigations.
- A Federal Manual was established to identify and delineate jurisdictional wetlands. The 1987 and 1989 Federal Manual were not made part of the public review process and were used loosely as guidelines for agencies. Both permitted flexibility for personal judgment. In 1991 a new draft manual was submitted. Findings by agencies during the public review period revealed that California would suffer a 50 percent loss of the remaining 500,000 wetland acres. It has been put on the shelf. There is some confusion as to which manual is presently being used, but rumor has it that it is the 1987 manual.

Habitat for Threatened and Endangered Species —
 At least one-third of the nation's threatened or endangered species live in wetland areas. Recently three plant species in the Santa Rosa Plains were federally listed as endangered. In 1964, the California yellow-billed Cuckoo nested in the Laguna, but due to channelization and agricultural clearing, they no longer have a suitable habitat.
 Marine Fish and Shellfish Production — Roughly two-thirds of our shellfish and important commercial and sport species of marine fish rely on coast marshes for spawning and nursery grounds. As wetlands are destroyed, commercial and sport fish populations collapse.
 Flood Control — As natural sponges, wetlands absorb huge quantities of water and temporarily store flood waters.

huge quantities of water and temporarily store flood waters and reduce downstream losses of life and property. Building adjacent to or filling in wetlands to build, has cost billions of dollars and many lives. Destruction from floods in the U.S. runs from \$3 to \$4 billion each year. The damage-diminishing function of wetlands is vitally important. The Laguna stores 75,000 acre feet of floodwaters during 100-year storms, lowering the flood stage and decreasing flood damage in Guerneville.

• Water Quality — Like giant kidneys, wetlands act as natural water purification mechanisms. They remove silt and filter out and absorb many pollutants such as waterborne chemicals. Much of the nation's drinking water is from groundwater. When complex natural systems are destroyed, taxpayers pay dearly for additional treatment and health costs due to polluted drinking water.

By Marco Waaland, David Keller and Juliana Doms

Saltwater Intrusion Control — The flow of freshwater through wetlands creates groundwater pressure that prevents saltwater from invading public water supplies.
 Shoreline Stabilization — By absorbing wave and storm energy and slowing water currents, wetland vegetation serves as a buffer against shoreline erosion.
 Reduction of Coastal Storm Damage — Coastal marshes help to blunt the force of major storms by reducing the height of storm waves and resulting erosion and

• Global — Increasingly, global functions are becoming more important because of the wetlands' role in nitrogen, sulphur, methane and carbon dioxide cycles. Wetlands are the last buffers protecting planktonic life in the oceans, a necessary component in stabilizing greenhouse gases which are in danger of causing global warming. Property damage.
 Recreational Opportunities — Wetlands offer unspoiled, open space for the aesthetic enjoyment of nature, as well as activities such as hiking, fishing, hunting, photography, and environmental education. Wetland habitat destruction threaten these activities.

Photo by Peeter Vilms

America's wetlands are in peril. We have repeatedly enacted laws and devised programs that were aimed at encouraging the development of wetlands. As a result, more than 100 million acres of the nation's wetlands have been destroyed — 50 percent in the lower 48 states in the past 200 years. The U.S. is losing almost 500,000 wetlands acres per year under existing "protection." California has lost 91 percent of its original wetlands, leaving only 500,000 acres. Through neglect and misunderstanding, wetlands were seen as marginal lands to be filled, diked, channelized, drained and polluted without consideration of their importance to our lives. Take a moment to reflect, amidst the oaks and vernal pools lined with meadowfoam. It is still possible to recollect a distant dream, a recurring murmur like a Pomo drumbeat that is the pulse of our life blood — the inherent, eternal capacity for the land to be reborn. There is hope. We are beginning to realize that wetlands are a precious ecological resource, silently interwoven into the survival of the human

Let's not forget that they represent the exuberance and potential of LIFE. Let's not forget that it is still possible to restore so many steelhead and salmon to Santa Rosa Creek that the water boils with their urge to spawn — that we can bring back the Laguna marshes, inviting the Canadian geese, sandbill cranes and whistling swans to land.

Sources: U.S. Fish and Wildlife Service; Golden Bear Biostudies

or Dismantle the Wetlands **Current Actions to Protect**

Although numerous actions are in progress from the Federal to the local level, there are critical movements going on at the Federal level which beg for public participation:

■ Clean Water Act now being revised.

Several bills have been introduced in the legislature which will influence the revision of the Clean Water Act. Two of them have proven to be the most important at this time:

a) HR1330 (Hayes): HR1330 would dismantle the whole system. It calls for setting up categories of wetlands. Those meeting highest requirements would be protected, eliminating a major portion of wetlands. Scientifically, wetlands have different functions dependent upon one another: wildlife habitat, flood control, water purification, and recreation. (See Wetlands — A Priceless Commodity, above.) Scientifically, wetlands cannot be judged better than another. Ranking is a political move.

b) HR4255 (Edwards): HR4255 was created to counter HR1330 (Hayes) and build in improvements to the existing Section 404 by broadening its scope and impeding President Bush's efforts to deregulate. Basically, it closes loopholes in existing regulatory structure and strengthens or clarifles other elements. One key element expands Section 404 of the Clean Water Act. Currently it only prohibits filling or dredging activities in wetlands. It expands the regulation to all activities that harm wetlands, such as draining, removal of vegetation (disking), channelization, etc. This means that

developers will no longer be able to drain a wetland, get rid of its wetland vegetation and then go to the Army Corp of Engineers and declare that "this is no wetland."

President Bush's Protecting America's Wetlands Program: Bush is using an interesting method to deal with the wetlands issue. Separate from congressional action, he has begun efforts to change administrative practices which won't receive public review. His agenda runs parallel to HR1330 by pushing the establishment of a wetland ranking system. His efforts have been restrained due to the election.

These are important actions being taken by your representatives. This publication will continue to keep you abreast of what is going on. If you can see the wisdom to oppose HR1330(Hayes) and support HR4225(Edwards), please take the time and write your Representative immediately. To date the HR1330(Hayes) has 160 co-sponsors. The HR4225(Edwards) bill was just recently submitted and has received 40 co-sponsors to date. Environmentalists nation-wide have just completed a trip back to Washington to gather more sponsors.

Your voice is just as important. See Page 12 for the address of your representative. For more information, Marc Holmes (510)452-9261 of the Save California Wetlands organization headquartered in Oakland. information, call