

## Elkhorn Slough Foundation: Partnerships Protect Coastal Wetlands

**Project Summary:** Protect and restore habitat values and ecological functions in the 45,000-acre watershed emptying into Monterey Bay that includes 4,000 acres of critically important coastal wetlands.

**Regional Setting:** Elkhorn Slough, located on the edge of Monterey Bay, supports a high quality estuary, one of California's most threatened ecosystems. Its surrounding landscape of working farms and undeveloped ridges and hills is highly scenic and remarkably intact.

**Land Trust Mission:** The Elkhorn Slough Foundation is a nonprofit, member-supported organization working to conserve and restore Elkhorn Slough and its watershed.

**Service Area:** Central Monterey Bay, California / Elkhorn Slough Watershed.

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### Biodiversity Values

Elkhorn Slough is a biologically rich wetland system, providing habitat for numerous resident and migratory birds. A great diversity of rare plants and animals are found in its natural communities. Elkhorn Slough serves as an important fish nursery and source of nutrients for Monterey Bay and plays a critical role in recovery of the threatened California sea otter. The State of California has designated Elkhorn Slough an Ecological Reserve. Its tidal waters are part of the Monterey Bay National Marine Sanctuary and much of the shoreline is included within a National Estuarine Research Reserve. Surrounding Elkhorn Slough is a series of ridges covered with rare maritime chaparral community and coast live oak woodlands.



**Photo:** Moro Cojo Slough. Photo courtesy of Elkhorn Slough Foundation.

### Conservation Strategy

A 1999 watershed conservation plan prepared jointly with The Nature Conservancy identified critical resources within the Elkhorn Slough watershed that are of highest priority for protection:

- Coastal marsh;
- Riparian forest and freshwater wetlands;
- Maritime chaparral and associated oak woodlands and grasslands;
- Highly productive cultivated farmlands; and
- Scenic viewsheds surrounding Elkhorn Slough and Carneros Creek.

Elkhorn Slough's most significant threats are:

- Sedimentation and contamination of marshes, largely due to uncontrolled runoff from steep cultivated fields;
- Destruction and fragmentation of maritime chaparral habitat associated with residential development;
- Severe depletion of groundwater resources and accompanying seawater intrusion due to excessive pumping of wells for irrigation; and
- Loss of marsh habitat by tidal erosion and conversion due to human changes to marsh hydrology.



## Partnerships and Funding

The conservation plan codified two management and restoration goals:

- Provide ongoing incentives for farmers to improve management practices so they are compatible with biological resources; and
- Restore and enhance natural habitats where suitable and re-establish ecological linkages.

Strategies used to address sedimentation and contamination from agricultural runoff include partnerships with:

**USDA Natural Resource Conservation Service** for the Elkhorn Slough Watershed Project, a 12-year campaign to reduce soil erosion caused by crop farming on steep slopes through adoption of best practices. This project eliminated over 107,000 tons of soil erosion by working with 75% of farmers on over 5,500 acres.

**Sustainable Conservation's Permit Streamlining Program**, which allowed farmers to comply with all permits required



**Top photo:** A sand-filled drainage channel eroded from agricultural fields posed a threat to a lower freshwater pond that is habitat for the threatened California red-legged frog.

**Lower photo:** The same area 18 months later. Sediment basins have been installed upstream and the channel has been excavated and planted with grass to help control erosion. Willow branch bundles also help prevent erosion.

for erosion control and natural habitat improvements by working through a single agency, in return for implementing Natural Resource Conservation Service agricultural management plans.

**Monterey Bay Resource Conservation District**, to secure funding to prevent erosion and sedimentation, reduce flooding, restore water quality and improve water quantity.

**Monterey County Agricultural and Historic Land Conservancy** and **The Nature Conservancy**, to demonstrate best management practices on leased farmland.

**Rural Development Center**, to promote sustainable agricultural techniques and provide training to local farmers.

In addition, Elkhorn Slough Foundation undertook extensive management efforts on its own fee, leased and easement lands. Activities included building sediment basins, restoring native habitats, constructing grass waterways, weed abatement, restoring native habitats, agricultural buffers and reducing the amount of inappropriately cultivated land.

## Looking Ahead

Elkhorn Slough Foundation recently completed a five-year strategic plan continuing and expanding its acquisition and management strategies to include:

- Extensive scientific research into tidal erosion and marsh loss with Elkhorn Slough National Estuarine Research Reserve, Monterey Bay Aquarium Research Institute and California State University Monterey Bay;
- Development of several site-specific restoration plans;
- Control of *Cortaderia jubata*, Andean Pampas grass, an invasive species, on 2,000 acres of infested lands;
- Practice and demonstration of environmentally healthy farming; and
- Expansion of volunteer stewardship network.

## For More Information

- **Elkhorn Slough National Estuarine Research Reserve:**  
[www.elkhornslough.org](http://www.elkhornslough.org)
- **Sustainable Conservation:**  
[www.suscon.org/pir/watersheds/elkhorn.asp](http://www.suscon.org/pir/watersheds/elkhorn.asp)
- **Monterey Bay Resource Conservation District:**  
[www.carcd.org/wisp/monterey](http://www.carcd.org/wisp/monterey)
- **Federal Habitat Incentive Programs:**  
[www.biodiversitypartners.org/incentives/programfed.shtml](http://www.biodiversitypartners.org/incentives/programfed.shtml)