Conservation Convergence: Restoring Habitat, Sustaining Farms and Protecting Groundwater

A case for multiple objectives in conservation land acquisition.
Limited residential development may be appropriate on gentle slopes, away from viewsheds, ridge tops and resource areas. Carefully site buildings and driveways to ensure least impacts from grading.

Long-term protection of maritime chaparral and oak woodlands may be assured through conservation easement and/or fee purchase of resource lands.

Control invasive weeds throughout property.

Manage ponds appropriately for red-legged frog habitat.

Retire cultivation on steepest slopes and immediately stabilize slopes with cover crops and control weeds. Where possible, restore maritime chaparral habitat.

Farming may be continued on gentle slopes using Best Management Practices.

Pull back edge of cultivation from seasonal streams and wetlands, and provide vegetated buffer strips and catchment basins where appropriate.

Figure 7: Conservation Easement on a Hypothetical Elkhorn Highlands Farm
Historic Sea Water Intrusion map for Pajaro Valley

Explanation
- Cities & Towns
- PVWMA Boundary
- Extent of SWI as of 1951*
- Extent of SWI as of 1966*
- Extent of SWI as of 1998*
- Extent of SWI as of 2011*

*Chloride contours are set to concentrations of 100 mg/L.
Ground water conservation in Elkhorn

Water use on slough lands
- 1 Acre of Hillside Berries =
- 3 acre ft. of water
- 1 acre ft. of water =
- 325,000+ gallons
- 1 Acre of Berries uses
- Just under 1 million gallons of water/year

700 acres of historic farm land retired
- 700 X 3 Acre ft/acre/year =
- >2,000 acre ft./year =
- >650,000,000 gallons/yr
- Left in the ground.
Conclusion

• On the way to protecting the key habitats and biodiversity of the Slough we can contribute to addressing ground water conservation and management.

• Reducing pumping of the aquifer and increasing recharge potential by revegetation and restoration is a convergent approach to these intertwined issues.