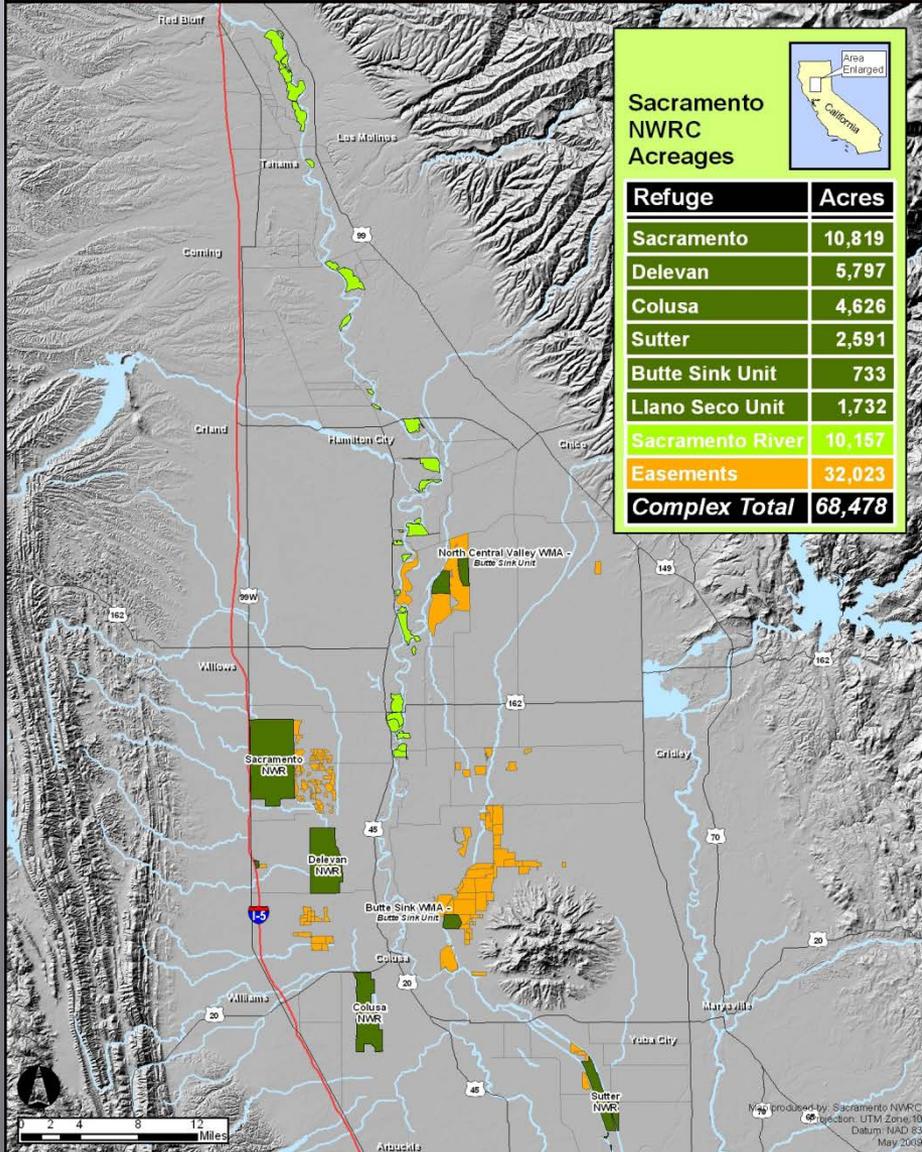


# Sacramento Valley Refuges



# SACRAMENTO NWR COMPLEX

## Sacramento National Wildlife Refuge Complex - USFWS Fee Title and Conservation Easements



## □ FIVE REFUGES:

- SACRAMENTO
- DELEVAN
- COLUSA
- SUTTER
- SACRAMENTO RIVER

## □ THREE WMAS:

- NORTH CENTRAL VALLEY
- WILLOW CREEK-LURLINE

# Refuge Purposes

- Wetland habitat management for migratory birds
- Endangered species habitat protection
- Education / Recreation
- Management-oriented research
- Crop depredation prevention



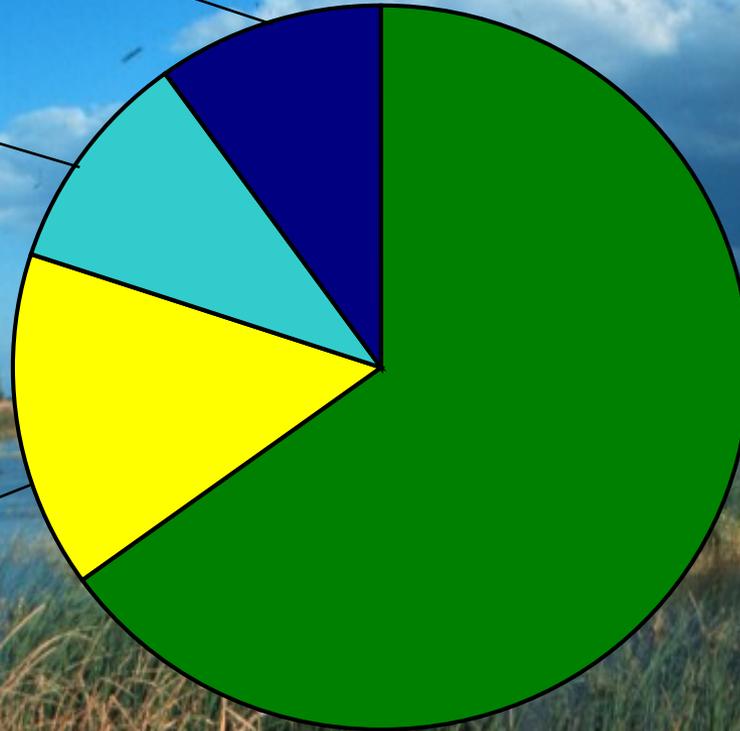
# “Big Six” Priority Public Uses

- Hunting
- Fishing
- Wildlife Photography
- Wildlife Observation
- Environmental Interpretation
- Environmental Education



**Permanent/  
Year round 5-10%**

**Semi-permanent  
5-10%**



**Seasonally Flooded-  
Irrigated  
10-15%**

**Seasonally  
Flooded  
65-75%**

# Desirable Food Plants for Waterfowl



Watergrass



Swamp Timothy



Smartweeds

# HABITAT MANAGEMENT



Water Management



Mowing & Disking



Planting Native Vegetation



Habitat Enhancement

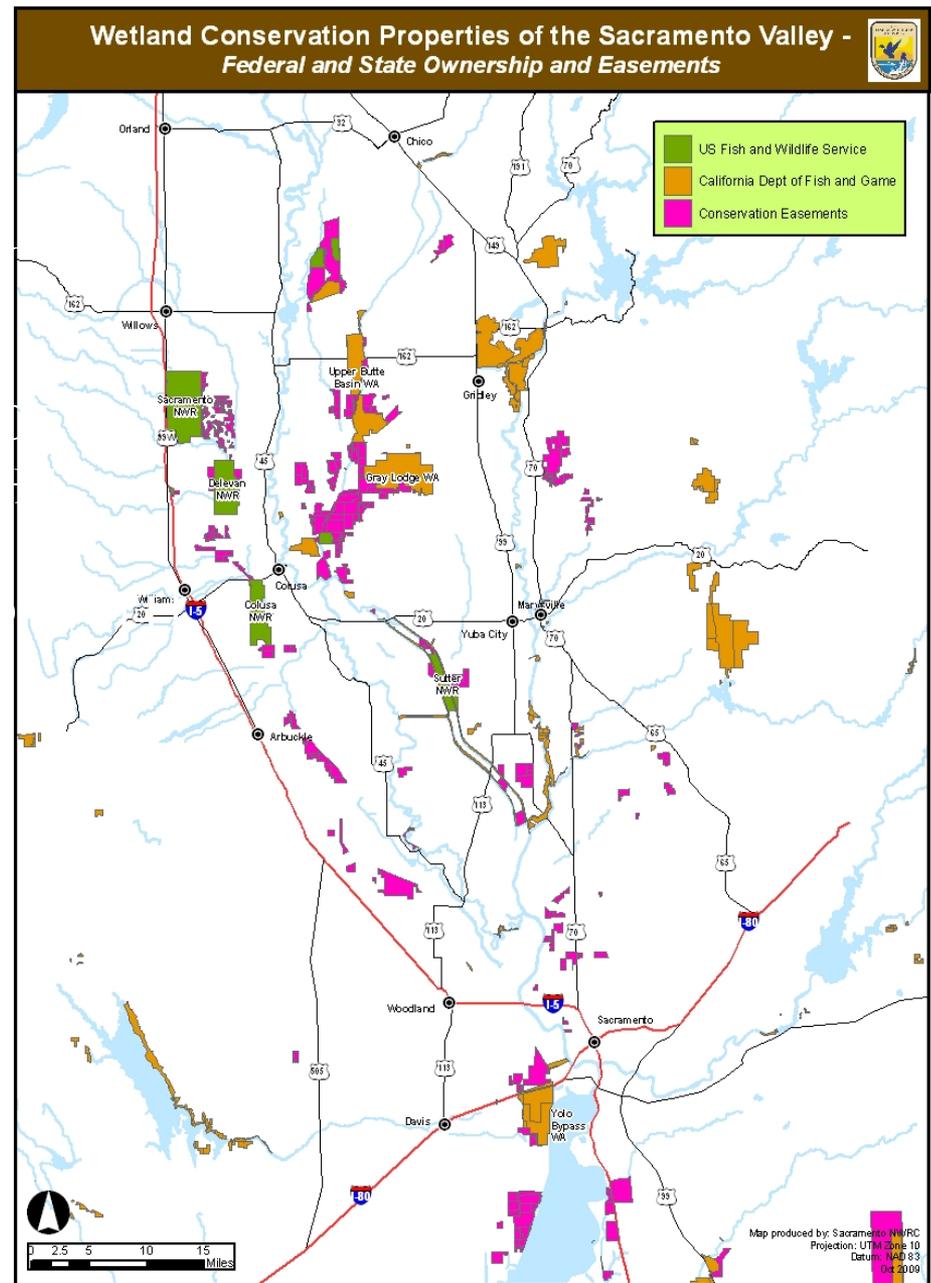
# Sacramento Valley Water Quality Coalition



- Butte/Yuba/Sutter Subwatershed
- Colusa/ Glenn Subwatershed

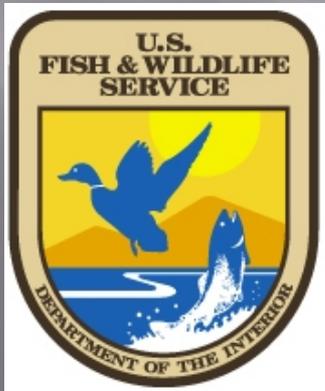
# PRIVATE WETLANDS IN THE SACRAMENTO VALLEY

- APPROXIMATELY 50,000 ACRES WETLANDS SPREAD ACROSS THE SACRAMENTO VALLEY.
- THE MAJORITY ARE PROTECTED BY CONSERVATION EASEMENTS.



# PRIVATE LANDS PROGRAMS THAT SUPPORT WETLANDS IN THE SACRAMENTO VALLEY

- ▣ CONSERVATION EASEMENT PROGRAMS: LAND PROTECTION (FWS, NRCS, CDFW)
- ▣ HABITAT COST-SHARE PROGRAMS: HABITAT RESTORATION AND ENHANCEMENT (PARTNERS FOR FISH AND WILDLIFE PROGRAM, NAWCA GRANTS, WCB INLAND WETLANDS PROGRAM)
- ▣ HABITAT INCENTIVE PROGRAMS: HABITAT MANAGEMENT (CRP, CALIFORNIA WATERFOWL HABITAT PROGRAM)
- ▣ TECHNICAL ASSISTANCE



# DIVERSITY OF HABITATS



# HABITAT DIFFERENCES ACROSS VALLEY



Seasonal Wetland Colusa Basin



Seasonal Wetland Butte Basin



Riparian Habitat Butte Basin



Riparian Habitat Colusa Basin

# DIVERSITY OF WILDLIFE



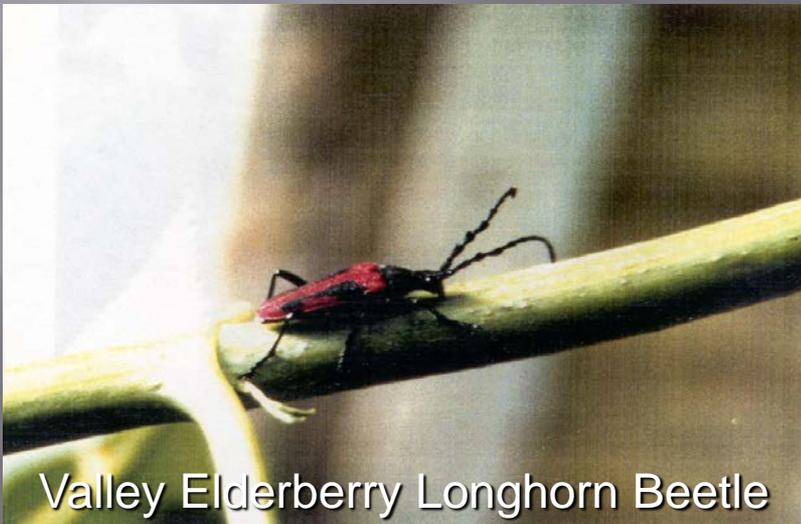
# THREATENED AND ENDANGERED SPECIES



Giant Garter Snake



Spring-run Chinook Salmon



Valley Elderberry Longhorn Beetle



Western Yellow-billed Cuckoo

# Diversity of Water Sources



- ❑ NO CVPIA WATER
- ❑ Water rights with a variety of water/irrigation districts (primarily CVP and SWP Contractors).
- ❑ “If and when available water” contracted from water districts.
- ❑ Agricultural Drain Water.
- ❑ Riparian rights dependent on natural flows from adjacent streams.
- ❑ Ground Water

# Irrigated Lands Program on Private Wetlands

- ▣ In 2004 and 2006 the FWS sent letters to all FWS easement owners regarding the Irrigated Lands Regulatory Program and the ability to participate in a Coalition Group under a conditional waiver.
- ▣ Coordinated with Duck Unlimited to sign up private wetlands interested in participating with a Coalition Group.
- ▣ The majority of FWS easement properties are now participants in the Sacramento Valley Water Quality Coalition under the Colusa Basin, Butte-Yuba-Sutter, and Solano-Yolo Subwatersheds.

A large flock of birds is captured in flight against a dramatic sunset sky. The birds are silhouetted against the bright orange and yellow light of the setting sun, which is partially obscured by dark, layered clouds. The background features the dark silhouettes of mountains and hills. The overall scene is dynamic and evocative, suggesting a sense of movement and natural beauty.

Questions?