

An aerial photograph of a wetland landscape in the San Joaquin Valley. The image shows a complex network of water channels, some of which are filled with water, while others are dry or partially filled. The surrounding land is a mix of brown and green, indicating different types of vegetation and soil. The overall scene is a vast, flat expanse of land with intricate water patterns.

# *Wetland Conservation in the San Joaquin Valley*

*Partnerships are Key*

*March 5, 2021*

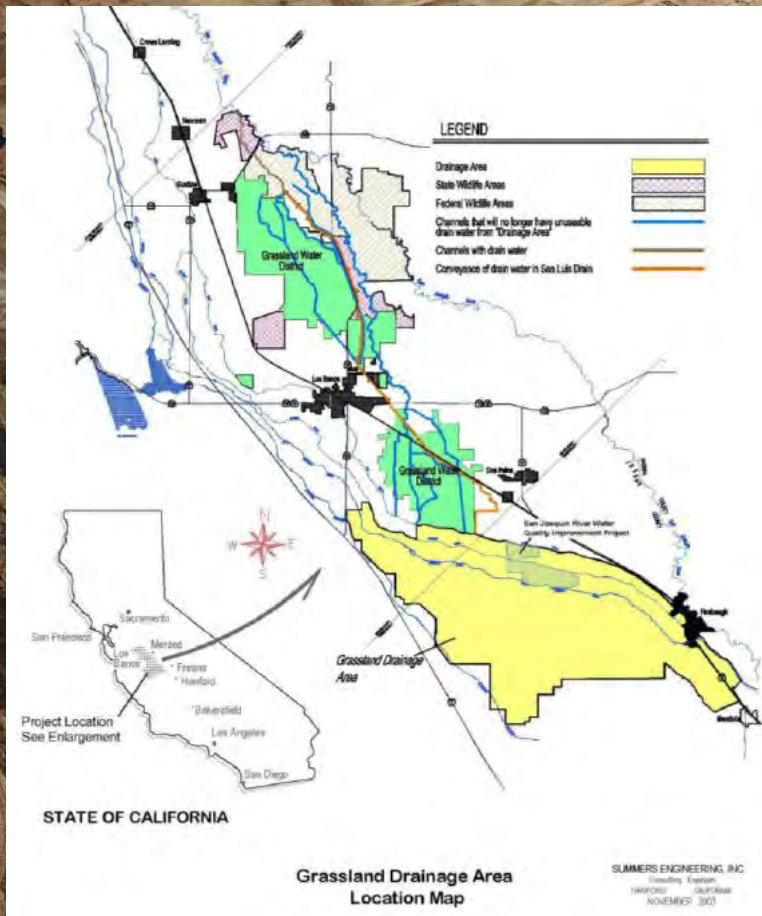
*Landowners, Conservation Partners, &  
Ducks Unlimited*

*Working as a Team to Conserve & Manage  
Wetlands in the heart of the San Joaquin Valley*

*Matt Kaminski*

*Ducks Unlimited – Regional Biologist  
San Joaquin Valley, Southern California, and Arizona*

# The Grasslands



# A brief history of the San Joaquin Valley

- Located in the rain shadow of the Coast Range, this valley only receives 9 inches of rain on average.
- Despite its lack of rain, it contained the largest freshwater lake west of the Mississippi River and during wet years, Tulare Lake covered over 690 square miles in the southern end of the valley.
- Tulare Lake coupled with Kern Lake and Buena Vista Lake provided the majority of early season Central Valley habitat for waterfowl until winter rains began replenishing wetlands and floods crept across the floodplains in the northern San Joaquin and Sacramento Valleys
- Water diversions in the late 1800s through mid 1900s caused many of the lakes and their associated wetlands to be converted.

# A brief history of the San Joaquin Valley cont.

- Miller and Lux's large pastures in Merced County that were seasonally flooded became duck clubs, developed into the epicenter of waterfowl habitat in the San Joaquin Valley, and became known as the Grassland Ecological Area (GEA).
- Other duck clubs were sold and became state and federal refuges.
- Many of the remaining duck clubs became permanently protected with conservation easements during the 1980s and 1990s.
- The GEA is different from the Sacramento Valley as it doesn't rely on agriculture such as wintered flooded rice and solely is dependent on managed freshwater wetlands. Additionally, most wetlands are irrigated and flooded by surface water conveyed and managed by Grassland Water District – the only water district in the world whose sole mission to provide water to wetlands!
- These wetlands are the largest complex of managed wetlands in the West!
- Without partnerships, we would not have conserved and managed wetlands providing habitat for millions of waterfowl, waterbirds, and shorebirds.

# Evolution of a Habitat Project

- Dollars are raised through Grassroot Events (i.e., a DU dinner) and from donations from donors, corporations, and foundations.
- Those dollars are pooled and earmarked for various initiatives within the state they were raised from and across the continent.
- A conservation partner (public and private) calls upon DU to conduct a site visit to determine if potential project is viable.
- From this initial site visit → DU develops project scope → DU develops a cost estimate → DU submits a grant to fund a selected group of conservation projects → all these costs are borne by DU but are vital because they facilitate development and investment of millions of dollars back into California each year to develop waterfowl and wetland habitat!

*What's happened in past 5 years?*

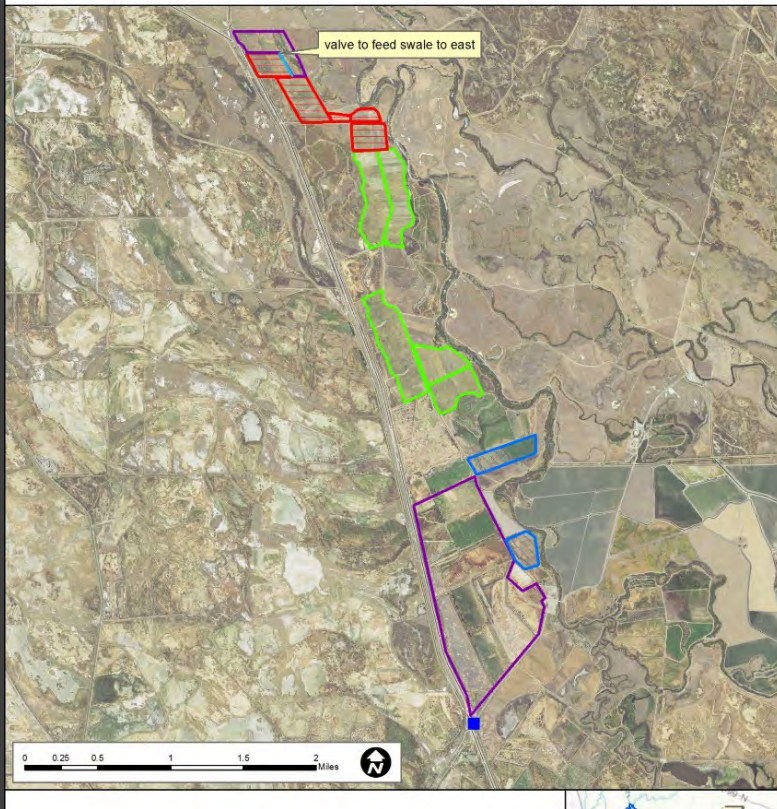


# San Luis NWR Complex

- **Funding:** California State Duck Stamp, NAWCA, USFWS, DU, and private funds
- **Fixed re-lift pumps that provide water to West Bear and San Luis Units**
- **Improved 2 miles of canal and water conveyance structures to facilitate water delivery at Kesterson Unit**
- **Improved levees and expanded wetland footprints by over 250 acres within Channels 1 and 2, East Bear Creek Unit**
- **Secured funding to expand wetland footprints within Channels 4 and 5, East Bear Creek Unit**
- **Secured funding to improve drainage from adjoining duck clubs and within Blue Goose Unit**
- **Total investment by end of 2022 - \$1.234 Million**



## Salt Slough Water Conveyance and Managed Uplands Enhancement



### *Los Banos Wildlife Area and North Grassland Wildlife Area – Salt Slough and Gadwall Units*



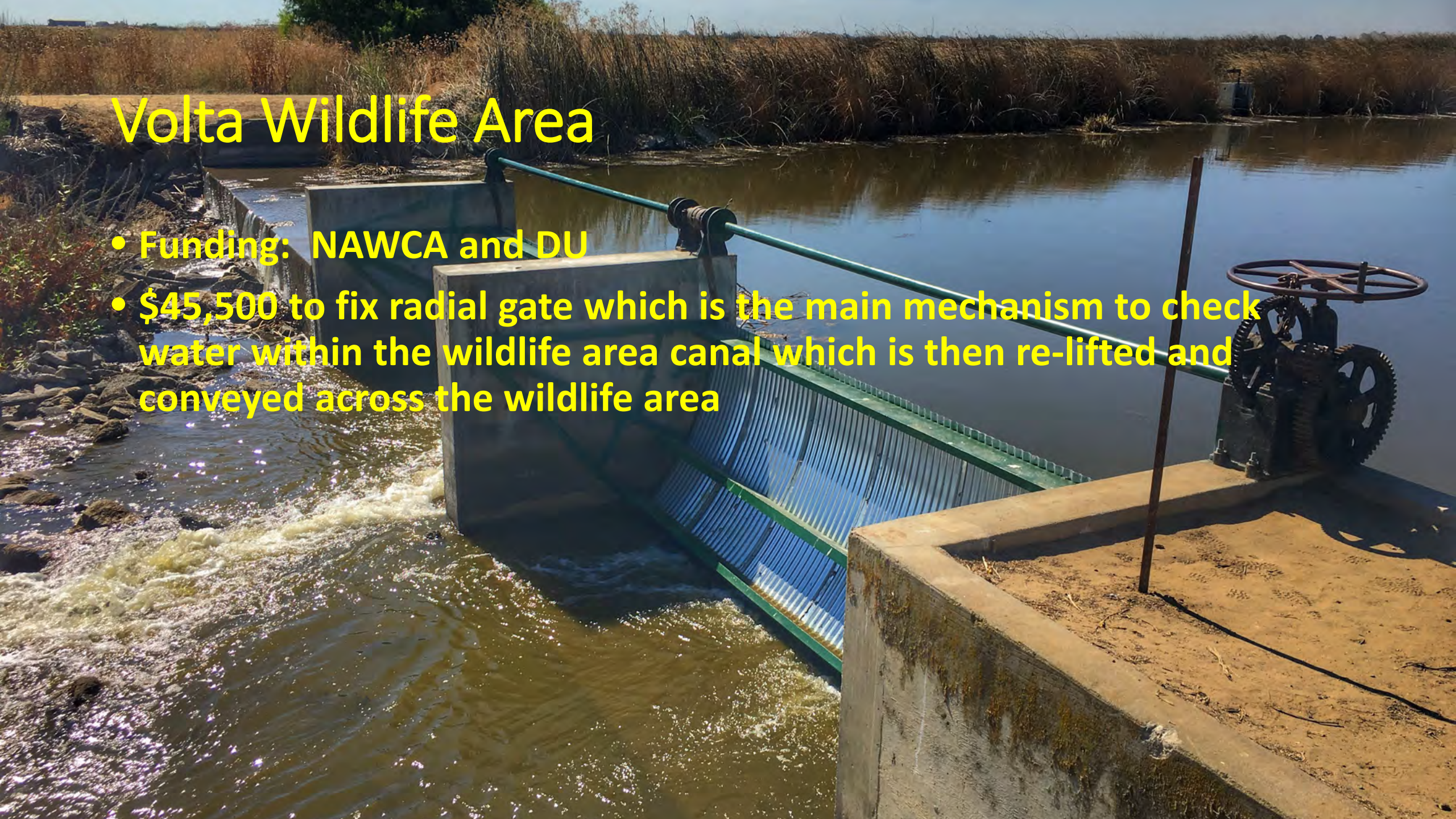
- Funding: Wildlife Conservation Board, CDFW, and DU
- \$1.2 Million invested at these three wildlife areas
- 300-acre native grass restoration at NGWA – Salt Slough Unit
- Replaced major water delivery and drainage conveyance structures
- Installed pipelines and re-graded upland fields that will benefit pheasants, doves, quail, and nesting birds

# Mendota Wildlife Area

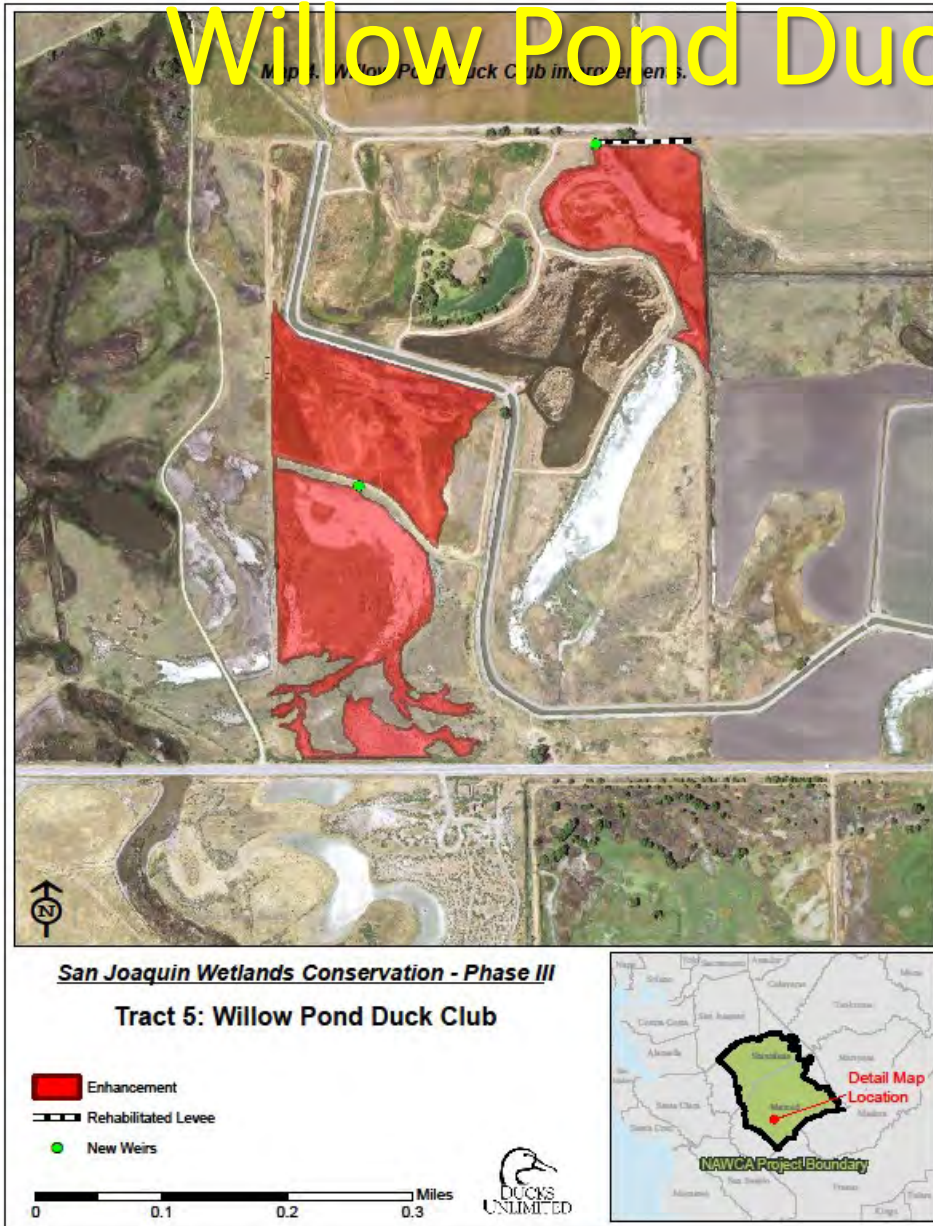
- Funding: California State Duck Stamp, NAWCA, CDFW, and DU
- \$1,005,910 of state and federal dollars has been brought to the wildlife area
- Parking lot 20 was re-graveled and expanded
- Five re-lift pumps were upgraded with new motors, electrical components, discharge pipes, and pump stands
- DU designed swales in Field 27 to improve water delivery and drainage, and the excavated material was used to improve 1.5 miles of levee along the eastern side of Field 27.
- Three miles of Reservoir 1 and E Ditch were re-sloped and deepened to improve water conveyance
- New aluminum pipeline was fabricated to provide irrigation water to Field 52, a popular dove hunting field
- Forty water control structures were purchased and installed across the wildlife area

# Volta Wildlife Area

- Funding: NAWCA and DU
- \$45,500 to fix radial gate which is the main mechanism to check water within the wildlife area canal which is then re-lifted and conveyed across the wildlife area



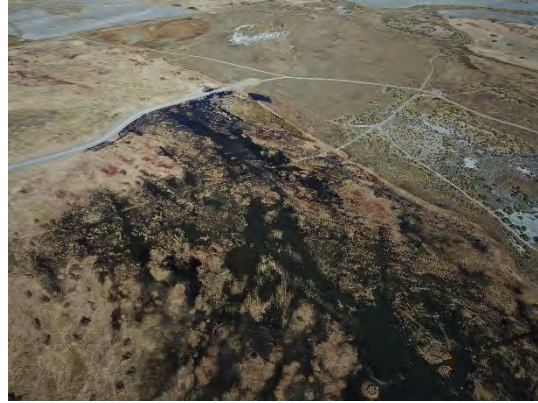
# Willow Pond Duck Club – Completed June 2019



# Gable Land and Cattle Company - Water conveyance and drainage improvements: June 2019 – July 2020



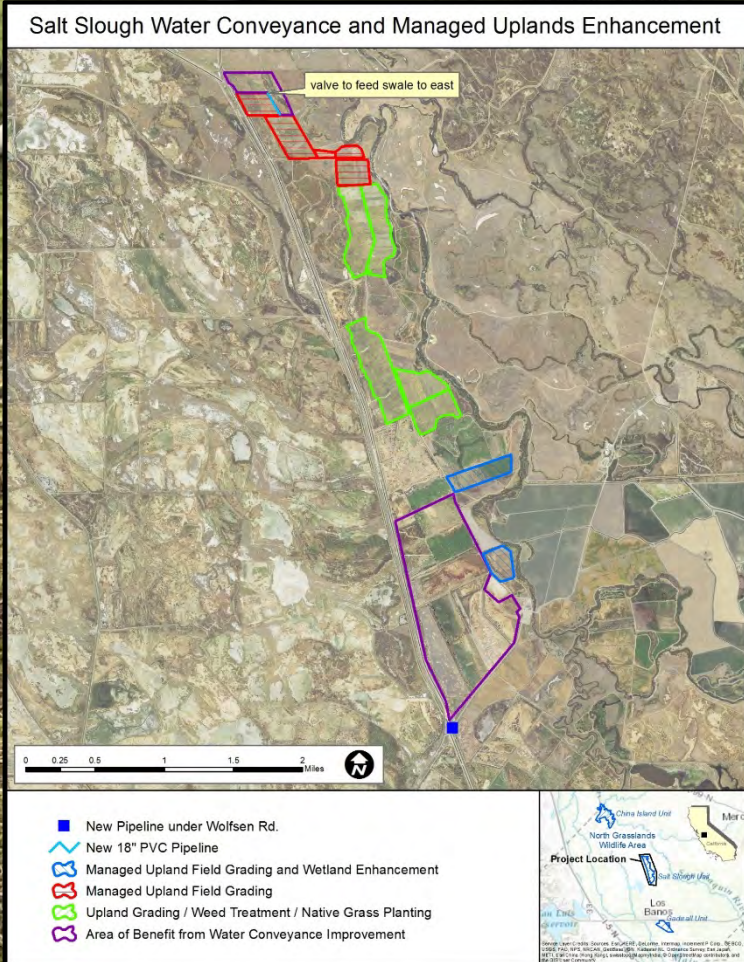
Lonesome  
Mallard Duck  
Club -Water  
conveyance and  
drainage  
improvements:  
August 2019



Agatha Farms  
– August  
2019 – Joint  
project with  
CWA



# North Grasslands WA – Salt Slough (SS) Unit Year 2 of Native Grass Restoration







# Grassland Water District Water Conveyance Improvements

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# 2021 Projects

- 1) Lawrence East – Wasco (Tulare) – solar, pipelines, levees, & water control structures (wcs)
- 2) Lawrence DeLorenzo – Wasco (Tulare) – solar, re-circulation system, levees, & wcs
- 3) Fortune Farms – Los Banos (S Grasslands) – swales, levees, & wcs
- 4) Big Sandy LCC – Los Banos (N Grasslands) – swales, levees, & wcs
- 5) Wild Duck Farms – South Dos Palos (S Grasslands) – swales & wcs
- 6) Ward Farms – South Dos Palos (S Grasslands) – swales, levees, & wcs
- 7) Mesquite Sportsman Club – South Dos Palos (S Grasslands) – swales & wcs
- 8) GWD – Lone Tree LCC – Gustine (N Grasslands) – solar array & actuator
- 9) Big Water Land Company – Los Banos (S Grasslands) – swales & wcs
- 10) Tracy Duck Club – Gustine (N Grasslands) – swales, levees, & wcs
- 11) San Luis NWR – Blue Goose Unit (N Grasslands) – water delivery and drainage improvements
- 12) Eureka Farms – Phase I and II - swales & wcs
- 13) Bird Ranch at San Luis Creek Ranch LLC – wetland restoration and public access improvements
- 14) Merced NWR – East Grasslands – new water delivery system
- 15) Canebrake Ecological Reserve – Weldon – new water delivery system and wetland enhancement

# Grant Updates

- *2 CA duck stamp projects have been submitted and are being reviewed – improving water conveyance and drainage at Merced NWR. Total ask is \$403,959*
- *2 NAWCA grants are approved and recommended, respectively, for funding. Totaling \$2.789 Million*
- *Submitted a NAWCA grant for \$1 Million in December*
- *Submitted two Prop 1 – Pacific Flyway grants – Total ask is ~\$3 Million*
  - *Focus on infrastructure improvements*
  - *Includes projects along Santa Ana River, Kern River NWR, Grassland Water District, San Luis NWR – Kesterson Unit, and private landowners.*



Thank you for your support of Ducks Unlimited – your contributions make huge strides for waterfowl and wetlands conservation here in California and across North America!