



United States Department of Agriculture
Natural Resources Conservation Service

Conservation Beyond Boundaries

Bay Delta Initiative

Protecting California's Natural Treasure

December 2011



Bay Delta Overview

In 2011, California's 38-million acre Bay Delta region (*see map page 3*) became one of more than a dozen landscape level conservation initiatives nationally designated by USDA's Natural Resources Conservation Service (NRCS). As such, the region is now the focus of accelerated assistance and funding to agricultural producers to voluntarily restore and enhance the natural resources

through water conservation, water quality work, and habitat restoration.

The Bay Delta Initiative (BDI) is offering partners an avenue to tackle challenging issues from the ground-up, using the NRCS voluntary conservation approach, employing both technical and financial assistance. While partners are continuing to work with the Agency to define areas of opportunity where they can jointly leverage their efforts for maximum effectiveness, this initial year of the Initiative has already seen promising results.

The BDI is an especially broad ranging Initiative offering farmers assistance in managing water, nutrients including manure, pests, crop residue, and wetland wildlife habitat. In 2011 California used BDI funds to join with the Bureau of Reclamation in a unique effort to simultaneously increase water efficiencies in water delivery systems and on-farm water management. Additionally, BDI funds were used to fund wetland restoration and easement opportunities that collectively offer significant benefits to water quality, shorebirds and waterfowl.

Did You Know?

- Within the Bay-Delta Watershed, six counties produce more food than any other area of the same size in the world. These counties represent four of the top 10 agricultural producing counties in the United States.
- Water for approximately \$400 billion of annual economic activity is delivered through the Bay Delta, including \$28 billion benefitting the agricultural industry.
- The Bay Delta is home to 750 species of fish and wildlife, including over 50 species of fish.
- The greater Bay-Delta Watershed encompasses over 38 million acres.

The WaterSMART work described below, along with WRP opportunities, was the first conservation in California to be funded through the nationally-sponsored Bay Delta Initiative.

This work builds upon decades of ongoing and complementary conservation work done in the region by NRCS California. Several stories of this ongoing work are

highlighted in this report. The nationally-funded BDI promises to accelerate these partnerships and successes to bring about natural resource benefits on private land for the public good.

FY 2011 Bay Delta Initiative - Financial Assistance Programs Summary	
Conservation Program	Obligation Amount
EQUIP	\$5,000,000
WHIP	\$220,000
WRP	\$21,486,780
TOTAL	\$26,706,780

NRCS Land Use	Total Acres within the proposed initiative area ¹				Total Private and Tribal land
	Public Land	Private Land	Tribal Land	Percent of total acres	
Cropland	101,299	5,166,745	264	14%	5,167,009
Rangeland	4,837,273	10,721,645	32,121	41%	10,753,766
Pastureland	36,482	1,372,220	495	4%	1,372,715
Forestland	7,470,272	4,352,225	34,143	31%	4,386,368
Water	166,523	344,176	226	1%	344,402
Wetland	90,475	288,921	216	1%	289,137
Urban	121,804	1,996,300	1094	6%	1,997,394
Barren	678,045	190,268	125	2%	190,393
TOTAL	13,502,173	24,432,500	68,684		24,501,184

(Table Above)

Data Source for table

Land use: NASS - 2009 Cropland Data Layer, reclassified to NRCS Land Use Classes.

Land Ownership: State of California Resources Agency Legacy Project 2007 Conservation and Trust Land Ownership in the State of California.

Prime Farmland: California State Department of Conservation (2004-2008) county surveys.

NRI 1982-2007, Prime Farmland Uses, State of California.



Farmers are increasing water efficiencies by an average of 25% by

Getting Water SMART

NRCS and the Bureau of Reclamation each contributed funding to a joint pilot effort to simultaneously improve irrigation infrastructure and on-farm irrigation efficiencies. This is a unique opportunity to approach water efficiency in a comprehensive way, knitting together the needs of the system and the individual users in five water storage and irrigation districts throughout the Central Valley.

Participating growers in the Stockton area are realizing a number of benefits. Growers are being taken off of groundwater which helps avoid overdraft and possible contamination of that groundwater. The farmers get access to higher quality, pressurized surface water that doesn't need to be pumped, thus saving energy cost. Using irrigation water management, farms average a 25% increased water efficiency. Air quality in this non-attainment area is also benefitting from the decreased use of diesel engines.

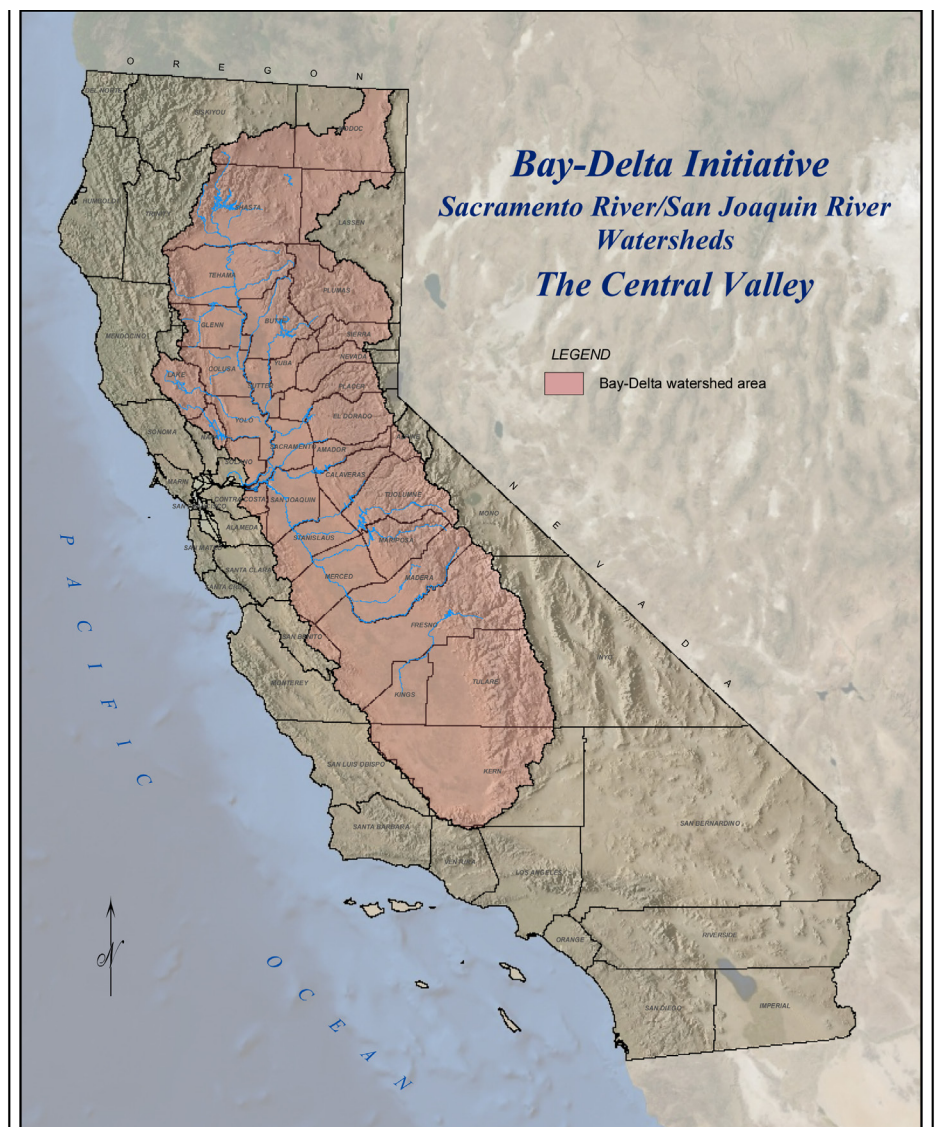


Bay Delta Conservation and Wildlife Go Hand-in-Hand

Natural flooding from upstream agricultural land in a one million-acre watershed, has historically washed significant sediment into the Colusa Drain. Voluntary wetland restoration has proved an effective tool for trapping this sediment and benefitting both water quality and migratory birds. Through the Wetland Reserve Program (WRP) landowners have voluntarily worked with NRCS and conservation partners to successfully enroll and restore more than 10,000 acres of habitat along 20 contiguous miles adjacent

to the Colusa Drain. Although this land is still subject to flooding and inundation, it now serves to trap and filter sediment.

The \$25 million invested in WRP in BDI in 2011 is resulting in 48 landowners restoring over 21,000 acres of wetlands. These projects can be expected to reap water quality and habitat benefits similar to those in the Colusa Drain, but on twice as much acreage throughout the Bay Delta watershed.



The work showcased on this page represents examples of conservation funded by NRCS in the State of California. These successes serve as useful templates for future work and partnership that nationally-funded Bay Delta Initiative efforts will build upon.

Partnered Projects are Showing Huge Promise for Water Quality

In the northern San Joaquin Valley the Coalition for Urban/Rural Environmental Stewardship (CURES) and the Partnership for Ag and the Environment successfully applied for AWEF funding. This project uses farmer-led outreach to involve and assist all the affected farmers along waterways with impaired water quality. Farmers in this 1.5 million-acre region are using nutrient management, tail water return systems and other conservation measures to prevent impaired water from leaving the farm.

Today several of the priority waterways that exceeded state standards for agricultural inputs five years ago have shown dramatic improvements. This year, of three priority watersheds, two met state standards for pesticides and toxicity and the third met standards for all but one pesticide.



AWEF has funded hundreds of drip irrigation and other water-efficient

Placing Dairy Nutrients in Fields

Over 1300 dairies make their home in the Bay Delta region. Working with Western United and other industry partners and using Farm Bill programs such as AWEF, CCPI and EQIP, NRCS has done extensive waste management planning with more than 1000 producers. As a result, producers were able to secure Waste Management Plans needed to keep them in business and in compliance with water quality requirements. Given the difficult economic conditions in the dairy industry, many of the dairies could not afford the planning without NRCS help. Now an \$80+ million challenge looms as dairy operators continue implementing needed practices to safely capture, store, transport and apply manure nutrients to growing crops.



Nutrient management on the hundreds of dairies in the Bay Delta

Providing a Safe Landing Path for Migratory Birds

Fifty percent of all wintering waterfowl migrating through the Pacific Flyway use the Sacramento Valley, where 2,500 rice producers live and produce the second largest rice harvest in the Nation.

Now migratory birds have even more reason to be grateful to their rice farming hosts and conservationists who are working with them.

Nearly 80 rice farmers have signed contracts with NRCS, receiving \$2.7 million in conservation funding assistance, to flood their fields earlier or maintain water on their fields longer in the season to help migratory and shorebird species. Collectively, these farmers are reshaping miles of rice levees for nesting and resting. This work also supports the national Migratory Bird Habitat Initiative and BDI goals.



A great blue heron enjoys a tasty crawfish snack during a typical sunny day in a California rice field.