2011 Update for the Habitat Mitigation Plan for the Consolidated Place of Use

New Mitigation Projects for 2011

Kelsey Ranch Conservation Easement

Reclamation provided $1,000,000 from the CVPCP and the HRP in 2011 to the Trust for Public Lands (TPL) toward the acquisition of a conservation easement on approximately 2,997 acres on the 6,148-acre Kelsey Ranch. TPL would obtain the remaining $2,048,000 from other sources. The purpose of the action is to permanently protect the natural resources and agricultural values of Kelsey Ranch, including habitats for federally listed species impacted by the construction and operation of the CVP, through the purchase of a conservation easement. The following federally listed species have been observed on Kelsey Ranch: California tiger salamander (*Ambystoma californiense*); vernal pool fairy shrimp (*Branchinecta lynchi*); Hartweg's golden sunburst (*Pseudobahia bahiifolia*); succulent owl's clover (*Castilleja campestris. succulenta*); and valley elderberry longhorn beetle (*Desmocerus californicus dimorphus)* habitat. A conservation easement would prevent the conversion of the property to rural residential home sites, thereby protecting vernal pools, grassland, blue oak savanna and riparian habitats while preserving the ranch's agricultural viability by allowing cattle ranching to continue in an environmentally sustainable manner.

The conservation easement would define the areas that can be farmed. The remaining areas would be available for cattle grazing, at a timing and level that will prohibit negative impacts to federally listed and other species. No leveling, drainage, or other disturbances beyond limited vehicular use for ranching purposes, and the grazing itself, would be allowed in areas containing vernal pools and other sensitive habitats. The conservation easement will contain provisions to protect sensitive species such as Hartweg's golden sunburst and succulent owl's clover by limiting active cultivation, preventing introduction of exotic species, and managing grazing at levels appropriate for maintaining and improving habitats for listed species and other Conservation Values. Grazing is an important element of the natural cycle of vernal pool ecology.

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Panorama Vista Preserve Saltbush Scrub and Riparian Habitat Restoration

Reclamation would contribute $235,000 of HRP funds to River Partners to restore 14 acres of alkali scrub and 6 acres of riparian forest habitats on 20 acres of degraded Kern River floodplains at the Panorama Vista Preserve. The Preserve is located on both sides of the Kern River in north Bakersfield, California in Kern County.

Currently these areas are dominated by annual weeds with occasional remnant stands of saltbush on the upper terraces, or cottonwoods on the lower terrace. These remnant stands of native species would be preserved through the restoration period, and would serve as the seed sources for propagation of additional plants for restoration. Restoration would create habitat for endangered and threatened species such as the Bakersfield cactus, San Joaquin kit fox, blunt-nosed leopard lizard, Tipton's kangaroo rat, Buena Vista Lake shrew, least Bell's vireo, and southwestern willow flycatcher.

Over the four year term of this restoration project, project partners would prepare a water management plan and a habitat restoration plan supporting ecological restoration of the degraded floodplain at Panorama Vista Preserve, install booster pump and irrigation infrastructure, collect and propagate native plant material, install and maintain native species planting designs, and monitor the performance of the restoration activities.

Current Updates to Selected Existing Mitigation Projects

Colusa National Wildlife Refuge - Giant Garter Snake Habitat

Caroline Prose and Dan Strait (representatives from the CVPCP/HRP program) and Mike Peters (Colusa NWR) inspected the site on August 17, 2011. Much of the restored habitats are representative of the Colusa area's historic habitat regime to benefit wetland-dependent species such as the GGS. The main problem that was observed was the extent of yellow water primrose that is growing in the permanent ponds and deep water channels. Mike Peters of NWR said that some areas were burned and herbicided about 4 years ago, but the primrose has clearly grown back (they have a programmatic Biological Opinion with the Service in order to be able to do this type of management of the primrose). After the site visit, he sent an email concerning treatment of the primrose that said: "One of the treatments we have been using here at Colusa has been grazing. When a pond that is dominated by primrose is in a drawdown cycle we have brought in high densities of sheep and they have done a very good job of reducing the above ground biomass of primrose. We then follow the grazing treatment with disking. Unfortunately any remaining primrose within undisked areas, such as patches of tall emergent vegetation, and along the levee banks will expand rapidly in subsequent growing seasons." After the site visit, Caroline Prose sent him a copy of the Final Report for the project that the HRP funded at the Cosumnes River Preserve which was also the restoration of GGS habitat. This involved the removal of a 1-acre area of primrose in order to create more open water habitat for GGS. The

report contains a lot of useful information on the potential management of primrose, and it is hoped that the refuge can use some of that methodology. Mike did mention that there are some staff at the Refuge who believe that the primrose may be a benefit to the GGS rather than a detriment, i.e., it provides them with areas in which to hide from predators. Nevertheless, Caroline and Dan Strait are of the belief that the manner in which the primrose grows into such a deep and dense mass impedes the movement and foraging abilities of the GGS, and on-going removal and maintenance of the primrose should be strongly considered and implemented, so that it does not continue to choke out the existing open water habitat.

Cowell Ranch

California Department of Parks and Recreation and the City of Brentwood prepared the Preliminary General Plan and Draft Program EIS for Cowell Ranch/John Marsh State Historic Park in October 2010. Relative to CPOU species, it states that Swainson's hawks have been observed flying in and near the park, and were seen in a nest along Marsh Creek in the park in 2007. There is still no indication that San Joaquin kit fox occur at the park, although it has not been surveyed specifically for kit fox habitat or occurrences.

Deer Creek Hills Preserve

EIR for Deer Creek Hills Preserve Master Plan (Master Plan) completed in 2011. The Master Plan proposes a management plan to guide the uses of the Preserve, which include open space, habitat preservation, cattle grazing, and public recreation. The Master Plan includes the following:

- Inventories and assessments of conditions and resources at the Preserve.
- Planned future uses of the Preserve.
- Implementation strategies for funding, operations and development.

See
http://www.dera.saccounty.net/PublicNotices/SQLView/ProjectDetails/tabid/71/Default.aspx?ProjectID=34016

Dos Rios Ranch Land Acquisition

All parties have committed funds to Tuolumne River Trust totaling $21,800,000 for purchase of the ranch. Escrow to be closed in April 2012. Riparian revegetation expected to begin later in 2012.

George Dairy

November 2, 2010 Site Visit:

Representatives from Reclamation and FWS inspected the site with TNC representatives. This site visit confirmed the previous update. The conservation easement was written to allow agricultural use of the property without apparent limitations and thus most of the 109 acres are being farmed to clover and other crops. The permanent lagoon and some of the perimeter ditches are providing the only substantial wildlife habitat on the "South Horizon" portion of the property containing the easement. As stated in previous updates, the easement was established to provide habitat for GGS, but GGS cannot access this isolated property and TNC reports that no GGS have ever been found on the property or in the vicinity. TNC hopes that eventually they will establish a corridor of habitat along Badger Creek that will include the George Dairy property. This would provide connectivity for GGS to the property**.**

Goose Lake Land Acquisition

Tulare Basin Wildlife Partners could not find a site to purchase because no landowners were willing to sell. The project will be terminated and the funds returned to the CVPCP program to be used for a 2012 project.

Romero and Simon Newman Ranches

October 13, 2010 Site Visit:

Dan Strait from Reclamation and Caroline Prose from FWS visited the Simon Newman Ranch along with Dan Olstein from TNC. Six photo points were established.

Due to fencing in 1999, the tree and brush component of the riparian habitat of Orestimba Creek looks very good, with much recruitment of young sycamores and other riparian trees and shrubs. The grass component in much of the exclude area is not healthy; the exclusion of livestock due to fencing has caused much of the riparian grassland to be over-rested, thatchy, and rank. We mentioned to TNC that they should plan on doing some flash seasonal grazing with cattle to invigorate the grassland understory.

Bennett Valley in the eastern portion of the ranch appears to be prime kit fox habitat though there have not yet been any documented sightings or evidence of use by kit fox. They saw a pair of burrowing owls that appeared to be lingering near a nest burrow. At the south end of the valley near Garzas Creek, we met with Keith Guenther of Wildland Solutions whom TNC has hired to monitor the grazing on the ranch as measured by residual dry matter.

Garzas Creek was also inspected, which is the major riparian feature at the south part of the Ranch. It is mostly an open riparian system; it has also been fenced to exclude cattle.

Sunset Ranch, Chico Landing Sub-Reach of the Sacramento River (Originally not included in Habitat Mitigation Plan)

The Bureau of Reclamation (Reclamation) provided $257,000 to the Nature Conservancy (TNC) in 2002 to facilitate implementation of restoration on the 161-acre Sunset Ranch on the Sacramento River. The addition of 161 acres of restored grassland at Sunset Ranch would completed the nearly 900-acre block of restored and remnant riparian habitat collectively known as the Pine Creek Unit. The project benefits special-status species associated with Sacramento River riparian communities including the bald eagle, western yellow-billed cuckoo, Swainson's hawk, bank swallow, sandhill crane, giant garter snake, and valley elderberry longhorn beetle. In addition, a suite of declining fish species depend upon the Sacramento River, including fall, late fall, winter, and spring-run Chinook salmon, Sacramento splittail, steelhead trout , and green sturgeon.

2006 update – Final Report:

TNC implemented a pre-seeding week control program for 2.5 years due to the intense weed pressure of the site following decades of orchard management that favored non-native grasses. TNC directly seeded the site with native grasses in 2004 and 2005. This included grassland and reconstructed swale planting.

Grassland was monitored in summers of 2005 and 2006. Short-lived meadow barley, planted to help keep non-native weeds under control, dropped out as expected. Non-native weeds were 31% of the total in 2006, which is relatively small amount; they are unable to compete with the natives.

Valensin Ranch

November 2, 2011 Site Visit

Representatives from CVPCP/HRP inspected the site with TNC. They observed vernal pools, grassland, seasonal marsh, and seasonal wetland habitat on the property. Because we visited the site in November, the vernal pools were completely dry. A very small area of seasonal marsh was located at the end of a drainage ditch on the property, and contained a lot of invasive species such as yellow water primrose. The grassland habitat contained both native and non-native species and was not being grazed at the time of the site visit, thus a lot of thatch had accumulated. The seasonal wetland is called "Mud Lake" or "Muddy Lake" (depending on who you talk to). It contained a small amount of water (see photos) and was surrounded by grassland habitat. We hope to visit the site again in the springtime to get a better idea about the quality and quantity of the vernal pools and other wetlands, and to determine if grazing has reduced the thatch to a more suitable density.

Progress Towards Achieving the Compensation Requirements from Decision-1641 as of April 2012

Habitat Type	Compensation Requirements from Decision 1641 in acres.	Sensitive Species Affected by Agricultural Development on Encroachment Lands	Pro-rated Existing Acreage Based on Percentage of Reclamation Funding Through April 2012	Sensitive Species Associated with Reclamation-funded Projects
Annual Grassland	17,944	American peregrine falcon, Bakersfield cactus, California jewelflower, giant garter snake, giant kangaroo rat, Hoover's eriastrum, San Joaquin adobe sunburst, San Joaquin antelope squirrel, San Joaquin kit fox, San Joaquin woolly-threads, striped adobe lily, Swainson's hawk	10,422	American peregrine falcon, Swainson's hawk, blunt-nosed leopard lizard, giant garter snake, San Joaquin kit fox, Tipton kangaroo rat, giant kangaroo rat, San Joaquin antelope squirrel, San Joaquin woolly-threads
Alkali Scrub	23,165	Bakersfield cactus, blunt-nosed leopard lizard, California jewelflower, giant kangaroo rat, Fresno kangaroo rat, Hoover's eriastrum, San Joaquin antelope squirrel, San Joaquin kit fox, San Joaquin wooly threads, Tipton kangaroo rat	9,814	Bakersfield cactus, Blunt-nosed leopard lizard, San Joaquin antelope squirrel, San Joaquin kit fox, Tipton kangaroo rat, California jewelflower, Hoover's eriastrum
Mixed Chaparral	1	None	1,516	None
Valley Foothill/Hardwood Conifer	3	none	2,892	None

Habitat Type	**Compensation Requirements from Decision 1641 in acres.**	**Sensitive Species Affected by Agricultural Development on Encroachment Lands**	**Pro-rated Existing Acreage Based on Percentage of Reclamation Funding Through April 2012**	**Sensitive Species Associated with Reclamation-funded Projects**
Riparian/Fresh Emergent Wetland	4,278	American peregrine falcon, giant garter snake, Western yellow-billed cuckoo, valley elderberry longhorn beetle	5,340	American peregrine falcon, giant garter snake, Swainson's hawk, Western yellow-billed cuckoo, valley elderberry longhorn beetle
TOTAL	**45,391**		**29,984**	