Executive Director's Report

Board of Directors Meeting
May 4, 2016

the NATOMAS BASIN conservancy

Since 2001, there has been a modest but statistically significant decrease in the fledged per successful nest (R^2 = 0.273, P = 0.045, Figure 4-9). The cause(s) and decline in reproductive performance are unknown.

In 2015, there were 29 active nesting territories along the Sacramento River, w reported in 2014 (Table 4-3, Figure 4-10). Although the total number of nestin Sacramento River fluctuates substantially from year to year, there is no discern the mean number of pairs is approximately 28. This relative constancy in the m has persisted despite continuing home construction, ongoing tree removal, and disturbances, including disturbance associated with implementation of the Nat Improvement Project (NLIP) along the east side of the river. Of note is that sinc in the total number of active territories along the river has been driven primaril number of pairs on the east side (Figure 4-10), while the number of active territories along the west side have been relatively stable over the same period. The variation in the number of active territories along the east side of the river generally corresponds with disturbances from NLIP project activities, which were mostly completed during 2013, and which may explain the corresponding increase on the east side in 2014.

Swainson's hawks often use alternate nest sites within the breeding territory. Of the 57 pairs that nested in 2015, 10 pairs selected alternate nest trees that had no previous documented use. All of the alternate nest trees were in the immediate vicinity of previously used nest trees.

No Swainson's hawk nest trees were removed in 2015; however, one nest tree (NB-121) died during the winter of 2014–15 and a nearby tree was used as an alternative nest site in 2015. Although many potential nest trees were removed during levee construction activities associated with the NLIP, restoration actions have successfully established new replacement trees near the toe of the new levee. These trees are expected to provide new potential nesting habitat when they reach maturity. A total of eight Swainson's hawk nest trees have been removed since implementation of the NBHCP, seven of which resulted in the apparent abandonment of the nesting territory (Table 4-1).

Sources of mortality are usually difficult to confirm but presumably include predation by great-horned owls and direct disturbances to nests from construction or recreational activities that result in nest abandonment. Collisions with airplanes have been documented but are difficult to quantify. However, in 2014, SMF reported four adult Swainson's hawk fatalities resulting from airplane collisions, including the banded (i.e., identifiable) adult female from territory NB-107, immediately west of the airport perimeter fence.

4.3.2 Habitat Assessment

Table 4-4 lists the total acreages in the Basin from 2004 to 2015 of three general habitat categories (upland agriculture, fallow lands, and grasslands) that provide suitable Swainson's hawk foraging habitat. Changes in these habitats over time are depicted in Figure 4-11. The total amount of suitable foraging habitat in the Basin increased by over 40% in 2006, when approximately 32% of the active rice fields in the Basin were fallowed. In 2006, fallowed fields comprised 42% of the total suitable foraging habitat in the Basin. Beginning in 2009, increases in upland agriculture offset losses of suitable foraging habitat caused by the resumption of rice production on fields fallowed in 2006. The result has been a slow but steady decline in suitable foraging habitat, although the total amount still exceeds the amount of habitat present in the Basin prior to the fallowing of rice fields. The amount