

Element 2 - Swainson's Hawk Monitoring and Mitigation (2010)

Swainson's Hawk surveys were initiated at the Temporary Barrier construction and storage sites in the week of March 30 for the 2010 construction season. Surveys, construction monitoring, and post-construction monitoring continued through the second week of July 2010.

Head of Old River Barrier

As in 2009, the Head of Old River barrier (HORB) was installed as a non-physical barrier (NPB). The construction of the barrier was initiated on April 5, 2010, and completed on April 15, 2010. Surveys for Swainson's Hawks were done in the area around the HORB site beginning on March 30, and an Environmental Education Session was conducted, as per the Incidental Take Permit, at the site on April 5 for all barrier construction crews. Two likely nest territories were identified prior to initiation of construction, but neither pair had begun to construct a nest as far as could be determined. Two Swainson's Hawk nest sites were identified after construction of the NPB had been completed, 200 yards upstream, and 450 yards downstream, of the barrier construction site (Figure 4-1).

The nest closest to the NPB site was in a cottonwood tree upstream and across the rivers from the barrier site. It was monitored during the dismantling of the NPB, and no effects from construction were observed. At least 2 chicks were observed during and after the dismantling of the barrier.

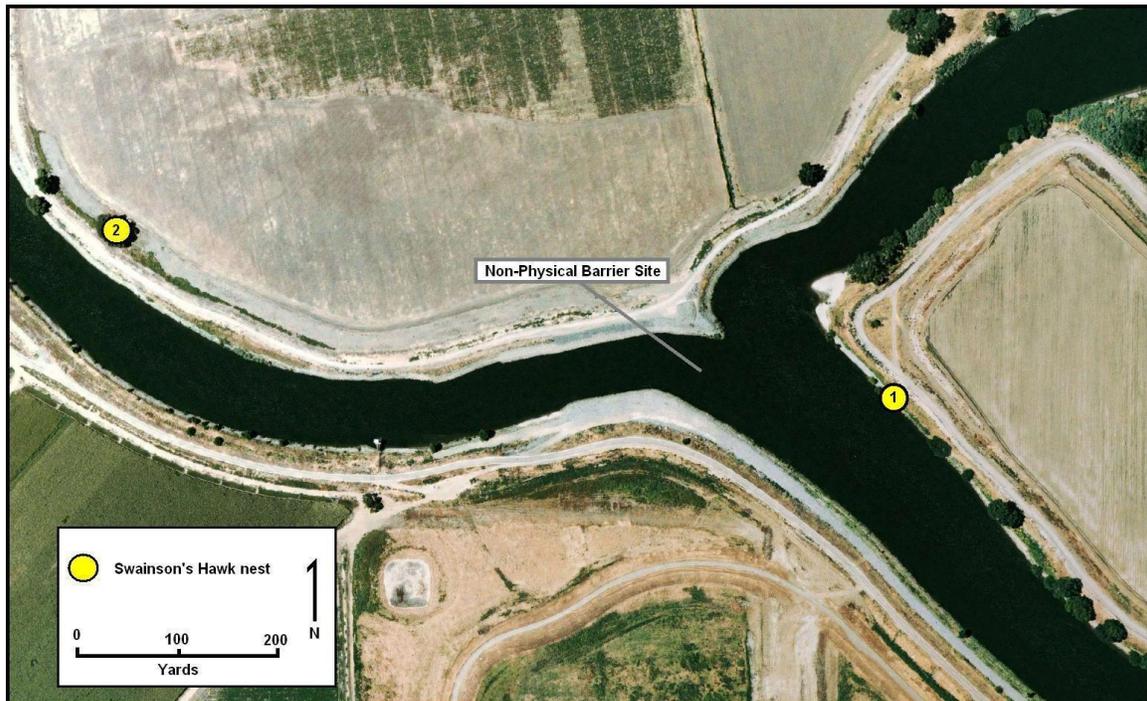


Figure 4-1. Swainson's Hawk Nests at the Head of Old River Barrier Site in 2010

The second nest was in an oak tree downstream of the barrier on Old River which has been used many times in the past years; it is more than 400 yards from the construction site. The nest was likely on the north side of the tree, and not visible to the project monitor. But the territory was active through the end of June, with a pair of Swainson's Hawks flying into and out of the tree, indicating a successful nesting effort.

Middle River Barrier

Construction on the Middle River (MR) barrier was begun on May 19 and completed on May 24. An Environmental Education Session was provided to all construction supervisors and crew for all barrier sites at Howard Road Yard on April 5.

The MR barrier site was surveyed/monitored from March 30 to June 28. A Red-tailed Hawk was nesting in the willows on the instream island closest to the barrier (Figure 4-2). A Swainson's Hawk nest with an incubating adult was observed around the river bend, approximately 450 yards (straight line) downstream of the barrier site in a small willow tree on May 3. The incubating adult was observed on the nest through June 28 (very late) and the nest was subsequently abandoned thereafter. It was likely the eggs were not viable. No other Swainson's Hawk nests were observed near the MR barrier site.

It is unlikely that the Swainson's Hawk nest failure on Middle River was the result of construction activities, as the nest was abandoned well after construction had ended.

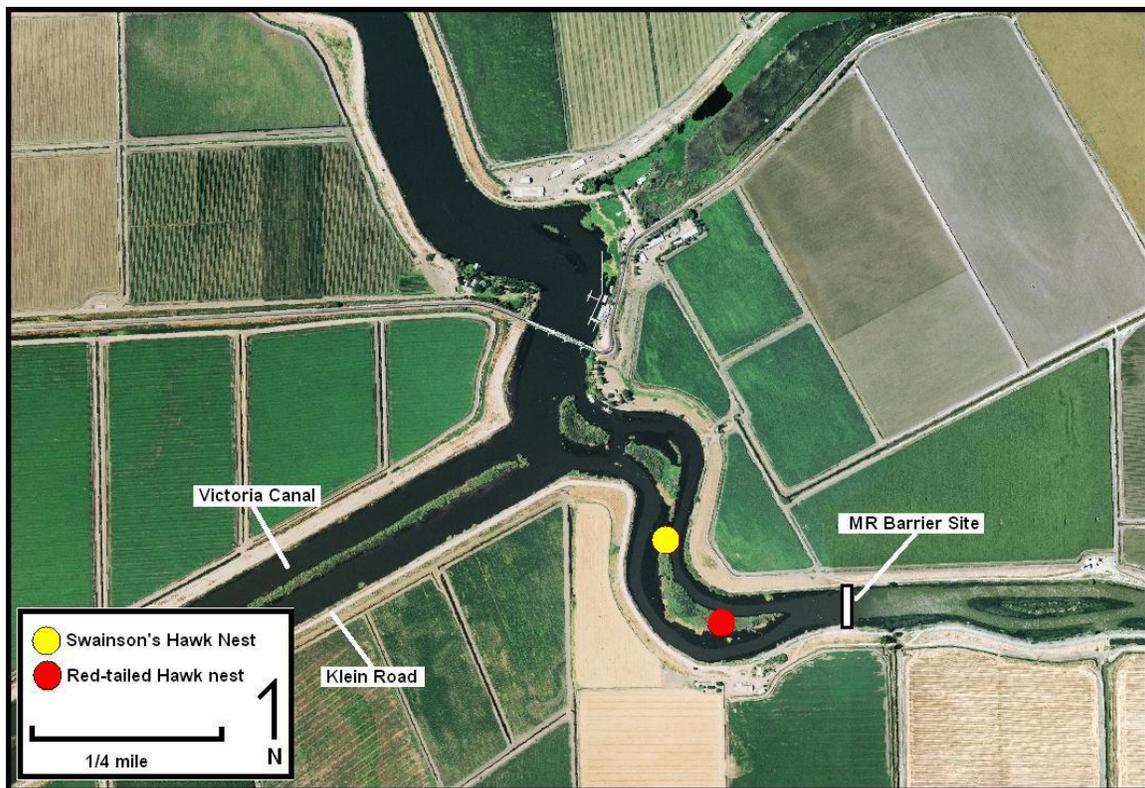


Figure 4-2. Raptor Nests at Middle River Barrier Site in 2010

Old River, Tracy Barrier

Construction of the Old River, Tracy (ORT) barrier was initiated on May 10 and completed on June 3. Swainson's Hawk surveys and monitoring was conducted between April 5 and June 14. An Environmental Education Session was provided to DWR and construction personnel the morning of April 5 at the Howard Road storage site.

Two nest sites and one territory were identified on Old River near the barrier and rock storage sites (Figure 4-3). One Swainson's Hawk nest was observed well upstream of the barrier. It had at least one chick in it as of June 14. A Swainson's Hawk nest territory was identified just downstream of the barrier, but the pair did not appear to nest. A Red-tailed Hawk nest was observed across and downstream of the rock storage area; the chick fledged from that nest.

The construction of the ORT barrier did not appear to have any effect on the nesting raptors in the area. If the Swainson's Hawk pair with the territory downstream of the barrier intended to nest, they would have constructed a nest prior to the initiation of construction of the barrier, and no nest or nest construction activity was observed.



Figure 4-3. Raptor Nests at Old River, Tracy Barrier Site in 2010

Grant Line Canal Barrier and Accessory Areas

Construction of the Grant Line Canal barrier began on June 16 and was completed July 7. An Environmental Education Session was provided to DWR and construction personnel the morning of April 5 at the Howard Road storage site and on June 16 at the GLC barrier site.

Four raptor nests were found along the haul road between the Howard Road rock storage site and the GLC barrier site, including one Red-tailed Hawk nest, one Great Horned Owl nest, and 2 Swainson's Hawk nests. Additionally, a Swainson's Hawk nest was found immediately downstream of the GLC barrier on the south levee (Figure 4-4). The Great Horned Owls and Red-tailed Hawks had completed nesting prior to the initiation of the construction of the barrier. The northern Swainson's Hawk nest was not monitored given its location and difficulty in viewing, but Swainson's Hawks were active in the territory throughout the nesting season. It is assumed that they fledged young.

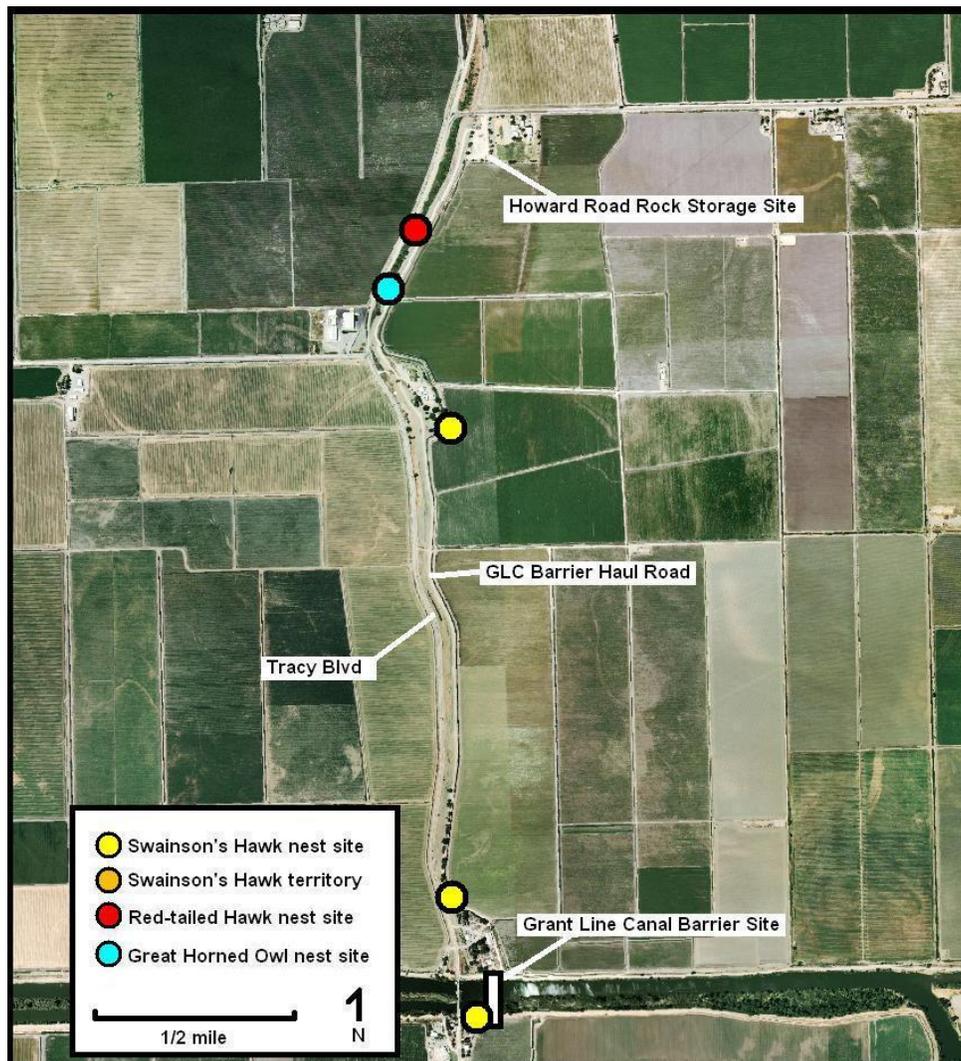


Figure 4-4. Raptor Nests near the Grant Line Canal Construction Facilities in 2010

Both the middle and southern Swainson's Hawk nests were monitored throughout the construction period. Two chicks fledged from the middle nest, and 3 chicks fledged from the southern nest, which was less than 100 yards from the southern end of the barrier construction site. There was no indication that the hawks were bothered by the construction activities, nor was there any evidence that the birds were impacted by the work.

