Background and Introduction
In April 2018 the California Fish and Game Commission added the Tricolored Blackbird (*Agelaius tricolor*) to the California Endangered Species Act list of Threatened species. Tricolored Blackbird colonies regularly nest on agriculture fields at a time that conflicts with normal farm operations, specifically harvest activity. Recognizing the unique and important contribution private landowners have for wildlife and habitat enhancement in California, it was critical to ensure farmers and ranchers were protected from legal liability for take that may occur from their voluntary participation in protecting this newly listed species.

In late winter and just prior to the 2019 Tricolored Blackbird nesting season, a Voluntary Local Program (VLP or Program) was entered into by and between the California Farm Bureau Federation (CFBF), working as the Program Administrator, and the Department of Fish and Wildlife (Department) as authorized by the Department’s Voluntary Local Program regulations (Cal. Code Regs., tit. 14, § 786 et seq.), which implement Fish and Game Code Article 3.5, Incidental Take Associated with Routine and Ongoing Activities (Fish & G. Code, § 2086 et seq.).

In the nesting season of 2019, CFBF held Voluntary Local Program Cooperative Agreements with 14 unique landowners across three counties in the San Joaquin Valley. Under these agreements landowners worked with a designated biologist to implement best management practices to avoid and minimize take of Tricolored Blackbirds, while encouraging the protection of colonies.

The following Annual Report provides a summary of prescribed management, acres impacted, number of birds protected, and an evaluation of success and lessons learned followed by recommendations for program improvements (Annual Process, Tricolored Blackbird Voluntary Local Program No2086-2018-011-R4).

Summary of acreage benefiting from the VLP and total number of participants

In 2019, 14 landowners joined in a Cooperative Agreement with California Farm Bureau Federation to participate in the Voluntary Local Program to protect Tricolored Blackbirds. 599 acres, across three counties in the San Joaquin Valley, benefited from the protections provided by the adoption of the Voluntary Local Program.

Summary of the management practices included in the Cooperative Agreements

Landowners entered into a Cooperative Agreement with the California Farm Bureau Federation to conserve nesting colonies of Tricolored Blackbirds through implementation of best management practices. The best management practices incorporated the establishment of a buffer zone around the colony and determination of a harvest date by a designated biologist. The designated biologists were identified and approved by the Department prior to the nesting season as having expertise understanding Tricolored Blackbird behavior and nesting phenology.

Once a nesting colony was identified, the landowner delayed harvest in the occupied field until the field was cleared of any nesting activity by a designated biologist. In some cases the colony only established in a smaller portion of a field. In this case the first step was to determine the colony’s extent. A 100-foot buffer was then established around each colony with bright colored flagging on a pole extending taller than the vegetation. The buffer was to ensure no disturbance was caused to the colony. Buffers were set-up prior to any activity in the field, but were not established more than
two days in advance of an approved harvest event. This was to ensure that any expansion or contraction of the colony was appropriately buffered from in-field activity. In all circumstances harvest activity was only done with the approval of a designated biologist.

Summary of the success of the management practices listed

The implementation of the management practices to protect Tricolored Blackbird nesting colonies was successful in most part because of the cooperation and collaborative efforts between landowners, partner agencies, industry groups, and conservation organizations. As a result of these partnerships, landowners were more comfortable and confident in implementing the management practices, buffering the colonies and delaying harvest until the fields were cleared of any nesting activity. This allowed for the protection of an estimated 153,500 adult birds and thousands more chicks across all the sites.

Summary of the number of non-compliance events

There were no explicit non-compliance events by farmers with active Cooperative Agreements in the Voluntary Local Program during the 2019 nesting season. However, after colony buffers were established at one site in Merced County some of the markers were knocked down by high winds, which are common in this area during spring months. As a result harvest activity occurred inside the buffer area in small sections. The harvest activity occurred late in the nesting period when young had left the nest but were weak flyers and may not have been able to fly out of the path of a harvester. A designated biologist surveyed the area after this event and biologist did not observe any instances of take.

Summary of Tricolored Blackbirds encountered during management activities

Tricolored Blackbirds began settling into silage fields for nesting in mid-March and persisted in the San Joaquin Valley through June. Prior to initiating nesting, Tricolored Blackbirds display scouting behavior, where large flocks of birds drop down into the substrate then rise up before moving onto another area and repeating the process. Flocks will do this dozens of times and over multiple days across a region before they settle into a specific location to build their nests.

In total 11 of 14 colonies successfully completed nesting and produced young. Of the 14 monitored colonies ten were established before March 31st, one of these failed. Only two of the remaining four nesting colonies were successful. Two of the failures were due to natural conditions, and the third failed due to harvester disturbance early in the nesting cycle prior to enrollment in the VLP. This third colony was estimated to include 20,000 birds. After the disturbance event these individuals are believed to have re-nested elsewhere in the area and likely joined a newly established colony.

Designated biologists reported multiple observations of young fledging from each of the 11 successful colonies. This suggests that management actions had a substantial positive impact on Tricolored Blackbird reproduction throughout the duration of the 2019 nesting cycle.

a. Total numbers encountered
173,500 birds were encountered across all the properties enrolled in the VLP. It should be noted that the above reported number of birds likely includes double counts of some individuals. This can occur when birds establish and are counted at one location, then move elsewhere because of unexpected weather events or harvest disturbances. As noted above, 20,000 birds were negatively impacted early in the nesting season and abandoned their colony. It is presumed these birds re-nested elsewhere in the area and thus were likely counted a second time. After accounting for the 20,000 re-nesting birds, the total estimate of unique individuals was 153,500 birds.

b. Locations encountered on a sub-watershed level

Colonies were encountered and protected across three counties, Merced, Tulare, and Kern. Merced County is within the San Joaquin River Basin, and Tulare and Kern Counties are within the Tulare Lake Basin. The colonies were located in 11 sub-watersheds within the San Joaquin Valley (Table 1).

Table 1: Tricolored Blackbird locations within sub-watersheds (HUC12) throughout the crop management area as identified in the Voluntary Local Program (No.2086-2018-001-R4)

<table>
<thead>
<tr>
<th>Sub-watershed Name (HUC12)</th>
<th>Number of Colonies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Elk Bayou</td>
<td>1</td>
</tr>
<tr>
<td>Old Deer Creek Channel – Deer Creek</td>
<td>1</td>
</tr>
<tr>
<td>Old Channel Poso Creek</td>
<td>1</td>
</tr>
<tr>
<td>Maple Canal – Frontal Buena Vista Lake Bed</td>
<td>1</td>
</tr>
<tr>
<td>Lamberson Ditch – Frontal Tulare Lake Bed</td>
<td>1</td>
</tr>
<tr>
<td>Old Channel Tule River</td>
<td>2</td>
</tr>
<tr>
<td>San Luis Holding Reservoir</td>
<td>2</td>
</tr>
<tr>
<td>Los Banos Creek</td>
<td>2</td>
</tr>
<tr>
<td>Lower Owens Creek</td>
<td>1</td>
</tr>
<tr>
<td>Lower Mariposa Slough – Deadman Creek</td>
<td>1</td>
</tr>
<tr>
<td>South Slough – Deadman Creek</td>
<td>1</td>
</tr>
</tbody>
</table>

Recommendations on how to improve voluntary participation by farmers and ranchers and further improve benefits to wildlife

The Tricolored Blackbird Volunteer Local Program demonstrates a tool that provides landowner’s liability protection for unintentional take of Tricolored Blackbirds when implementing approved management and farm activities around nesting colonies. This provides landowners a path to compliance with the California Endangered Species Act and encourages landowner protection of nesting colonies. Regardless, in past years and even under the new VLP challenges have arisen and landowner participation is not always guaranteed.

The greatest challenge to overcome is the landowner’s loss of silage and disruption of timing for planting a secondary crop. Often, after the birds have left the field the quality of the crop is poor or unusable as forage. The offset payment for implementing the delayed harvest conservation practice (NRCS CPS 511) does not cover the complete cost of silage, so the landowners incur a financial loss. Additionally, the delayed harvest may prevent a secondary crop from being planted at the
recommended time of year thus delaying its availability to the farmer when it was otherwise expected. Recommendations to overcome these challenges are to develop additional incentives for landowners. Increasing the payment to cover the full cost of silage loss, both through NRCS or another program, may increase voluntary participation and further improve benefits to wildlife.

Outreach and education will continue to be important for encouraging participation in the program. Strong partnerships that include community trusted industry groups allow for biological (i.e. timing of nesting) and regulatory information to be shared and received across a broader audience. Increasing the number of newsletters, social media posts, etc. to the producer community prior to the nesting season may allow for landowners to prepare for potential impacts from nesting Tricolored Blackbirds on their farms. Additionally, providing resources in advance that can assist landowners in more clearly understanding potential impacts and how to mitigate them may be helpful. Engaging with landowners to develop these resources may also provide positive benefits and increase landowner awareness.

The lack of early detection of nesting colonies is a risk to landowners and the birds. The uncertainty of where a colony will establish requires a greater amount of survey effort to detect final nesting locations. With limited resources the current team of Audubon and NRCS cannot regularly and fully cover the large area of potential nesting locations. Increasing the resources for the current team or providing additional biologist to cover more ground would greatly increase the probability of early detection and benefit the protection of the landowners and the birds. Additionally, self-reporting of the presence of Tricolored Blackbirds by landowners would allow designated biologists to provide targeted assistance where it is needed. This could be encouraged through early outreach to landowners who have repeatedly hosted past colonies.

**Assessment by NRCS staff and/or Designated Biologists that the practices and activities being utilized for the VLP are meeting the intent to avoid and minimize take and enhance habitat**

In general, when there is early outreach by partners, and regular communication between landowners and designated biologists, the practices and activities utilized for the VLP are very effective. This is an effect of the long-term efforts to create and strengthen unique partnerships between conservation, industry, and agency groups. Through rigorous evaluation of management practices and activities this group has developed the current solution to protecting nesting Tricolored Blackbirds. 2019 was the first year of implementing a Voluntary Local Program for the protection of nesting Tricolored Blackbird colonies on private lands. This year saw 11 of 14 colonies successfully produce and safely fledge young. To ensure this continues there is a need for increased self-reporting. This can only be accomplished through continued outreach and education, as well as by providing additional incentives that minimize or prevent losses from farm operations.

**Conclusion**

This report completes the responsibilities of the Program Administrator for the 2019 Tricolored Blackbird nesting season. The Program administrator will submit the next annual report by November 1, 2020.