

Appendix F

STAC Evaluation Criteria

**COVERED SPECIES HABITAT EVALUATION AND SCORING
WORKSHEET FOR PROSPECTIVE CONSERVATION EASEMENT
PROPERTIES IN YOLO COUNTY
Science and Technical Advisory Committee
Yolo HCP/NCCP**

Property Name: _____



Property Information

Property information is initially submitted by the landowner. The application materials include the following landowner sections that are then filled out and submitted to the staff. This information is then reviewed and further investigated by the Science and Technical Advisory Committee or other entity or individual conducting the evaluation. At that time any missing details are added to the extent available. This is done as part of the pre-field evaluation and during the field evaluation when the evaluator has access to the landowner, who can address any remaining questions.

Landowner and Location

Landowner: _____ Date of Site Visit: _____

Address: _____

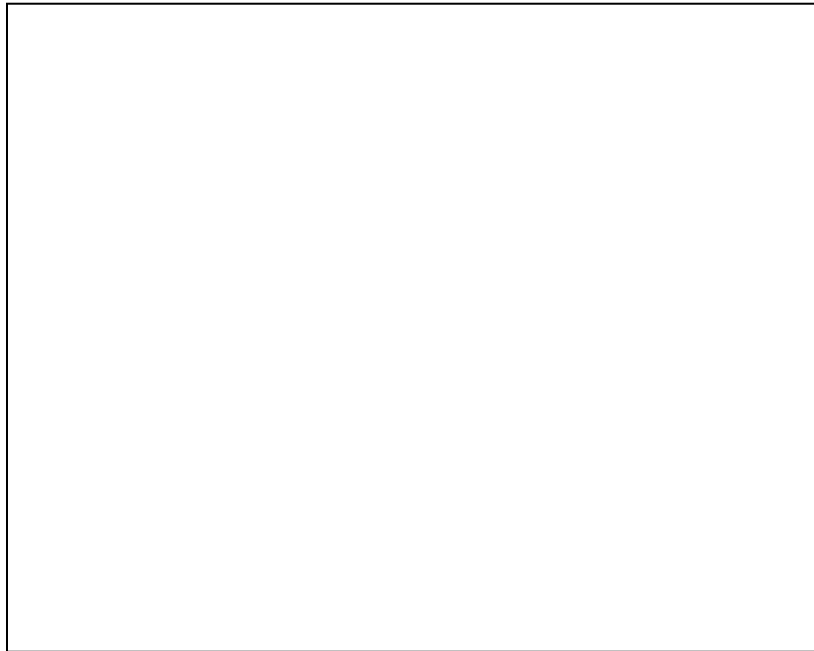
Property Location: _____

APN No.: _____

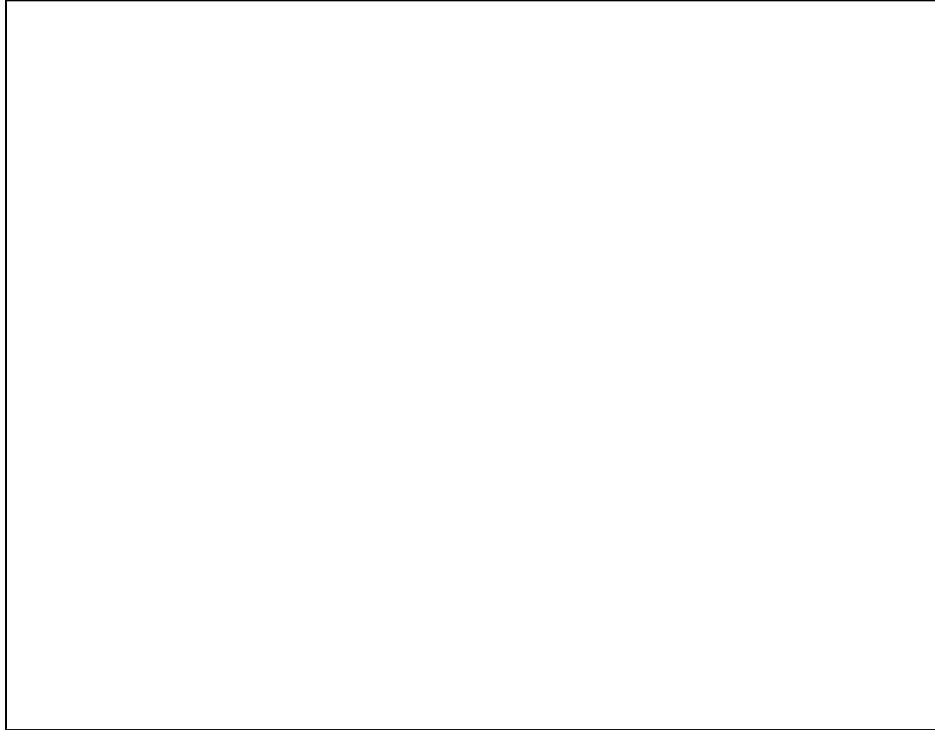
Planning Unit No.: _____ Size of Property (ac): _____

Application for: Conservation Easement ___ Mitigation Receiving Site ___

Map Indicating Location within Plan Area:



Map or Aerial Photo of Property:



General Description of Property

(Include size and configuration, land uses, structures, water and riparian features, trees, proximity to roads and urban areas)

Existing Easements on Property

(Include powerlines, roads, agricultural, conservation, other easements)

Sources of Water (Other than groundwater)

(Other sources of water currently used for agriculture on property)

Crop History on Property (past 10 years)

(Describe the 10-year crop history on each field)

General Description of Surrounding Area

(Include land uses, major crop types and distribution, condition of adjacent properties, proximity to other conservation properties, availability of nesting trees, proximity to other biological features)

Property Scoring and Evaluation

Each property will be evaluated based on existing habitat conditions for each of the 12 Covered Species and its potential contribution to meeting the conservation objectives for each of the Covered Species addressed in the HCP/NCCP. The conservation objectives indicate the number of habitat acres needed for each species, minimum patch sizes, and geographic considerations to address the distribution of protected lands throughout the Plan Area. The scoring system addresses key habitat attributes for each species and can total to a maximum of 100 points for each species. Attributes are divided into broader evaluation categories with the primary focus on onsite habitat conditions. Management

and other landscape attributes are also included, where applicable. Some of these may be redundant for multiple species, but should still be included in the scoring for each species in order to retain scoring consistency. Some species, such as the Swainson’s hawk are more wide-ranging and have broader habitat requirements. Others, such as the valley elderberry longhorn beetle, the California tiger salamander, and the riparian obligate species – least Bell’s vireo and yellow-billed cuckoo – are more geographically restricted or have narrower habitat requirements and thus are evaluated using fewer species-specific attributes. Others, such as the giant garter snake have geographic limitations as determined by the conservation objectives; however, landscape and management attributes may still apply. A numeric score is derived for each species for which habitat is present on the evaluated property; however, an in-field qualitative assessment is also conducted by the STAC, which also contributes to the overall scoring and recommendation. The scores for all applicable Covered Species are then summarized following the species-specific evaluations. A recommendation is made on the basis of evaluation scores, other qualitative attributes, the number of Covered Species that would benefit from protection of the property, and the contribution to meeting the conservation objectives.

Pre-Field Evaluation

Before beginning the field evaluation, a pre-field evaluation is conducted to determine whether or not habitat is present on the site that potentially supports covered species. This is done initially by reviewing the GIS database for covered species habitat followed by a Google Earth review to confirm the presence of habitats identified in the GIS database. The following table is then used as a checklist for applicable species for which the field evaluation will include. Species for which habitat is present are then evaluated using the guidance in the following sections.

Table 1. Covered Species Checklist		
Project Name (fill in below)	Covered Species	Habitat Present – Species Evaluated (Y/N)?
	Swainson’s hawk	
	White-tailed kite	
	Burrowing owl	
	Tricolored blackbird	
	Yellow-billed cuckoo	
	Least Bell’s vireo	
	Bank swallow	
	Giant garter snake	
	Western pond turtle	
	California tiger salamander	
	Valley elderberry longhorn beetle	
	Palmate-bracted birds beak	

Swainson's Hawk

Conservation of the Swainson's hawk will be met by achieving conservation objectives for cultivated lands, grasslands, and riparian natural communities, and protecting a segment of the nesting population. To be considered for Swainson's hawk conservation, a property must have a minimum of 80 contiguous acres of suitable foraging habitat or be contiguous with existing protected properties that support suitable Swainson's hawk foraging habitat. The scoring system for Swainson's hawk consists of eight attributes aggregated into four evaluation types that together represent the important attributes for evaluating Swainson's hawk habitat suitability:

ONSITE FORAGING HABITAT

1. Availability of onsite foraging habitat

ONSITE NESTING HABITAT

2. Availability of onsite potential nest trees

LANDSCAPE FACTORS

3. Foraging habitat offsite on surrounding lands within 1 mile
4. Availability of offsite potential nesting trees within 1 mile
5. Documented Swainson's hawk nesting within 4 miles
6. Proximity to other protected properties

MANAGEMENT FACTORS

7. Habitat enhancement practices
8. Factors that increase mortality risk or degrade habitat value

Attribute scores 1-8 are tallied as outlined in the tables below. Scores are then aggregated as applicable to create scores for each of the four evaluation types. These are evaluated separately with recommendations made on the basis of the individual scores, emphasizing onsite foraging habitat.

SWHA 1. Availability of onsite foraging habitat. A property may have a variety of crops or cover types, each with different habitat value. Value is attributed in the following table on the basis of seasonal variability and differences in prey abundance and accessibility between the different foraging land uses. To simplify the evaluation and to account for seasonal and annual changes in the landscape, all crops that are seasonal or annually rotational are combined into a single category (rotational row/grain crops). To assess all potential foraging habitat types, determine the number of acres of each type, then calculate proportions of each. Relative values of different types are reflected in the multiplier values. Next, multiply the proportional values by the multiplier to derive a point score for each type. Then sum the scores for total points.

SWHA 1. Foraging Habitat – onsite (maximum 20 points)						
Vegetation Type	Acres	Percent of Total	Variability	Factors Influencing Score	Multiplier	Score
Alfalfa and other multiple-cut hays			Consistent – high	Moderate to high prey abundance, high prey accessibility	0.20	
Native perennial grassland			Consistent – moderate to high	High prey abundance, moderate prey accessibility	0.16	
Pastures – hayed-moderately grazed or managed grass			Consistent – moderate to high	Moderate prey abundance, high prey accessibility	0.16	
Rotational row/grain crop			Variable from low to moderate	Moderate prey abundance – low to moderate accessibility	0.14	
Irrigated pasture – grazed only			Consistent – moderate	Low to moderate prey abundance – high prey accessibility	0.12	
Dryland pasture – annual grassland			Consistent – moderate	Low to moderate prey abundance, moderate to high accessibility	0.10	
Managed seasonal wetland			Variable – low to moderate	Low to moderate prey abundance, moderate prey accessibility	0.05	
Rice			Low to none	Low prey abundance, low prey accessibility	0.0	
Orchard/Vineyard			Low to none	Low prey abundance, low prey accessibility	0.0	
Developed			None	Low prey abundance, low prey accessibility	0.0	
Other non-habitat			None	No prey accessibility, out of range, topography.	0.0	
Total Acres					Total Score	

FIELD NOTES: Describe the current foraging habitat conditions: crops, farming methods, irrigation, crop rotation, etc. _____

SWHA 2. Availability of onsite potential nest trees. Potential nest trees add value to the property by providing future nesting opportunities. Swainson’s hawks generally use mature trees but nest in a variety of conditions from single isolated trees to dense riparian woodlands. All have similar value with regard to the nest site itself. But different nesting habitat types can be distinguished by other factors, including their long-term sustainability, ability to regenerate, and protection from removal or disturbances. The scoring is therefore based on these factors as well as the number of trees. A suitable tree is generally defined on the basis of minimum tree height by species documented for Yolo County Swainson’s hawk nest trees: valley oak - 30 feet; walnut - 30 feet; cottonwood - 40 feet, willow - 20 feet; redwood and other suitable conifers - 40 feet; eucalyptus - 50 feet; sycamore - 40 feet; locust - 20 feet. However, the determination of a suitable nest tree should also be made on the basis of site examination in order to include trees that otherwise appear suitable but may not reach the minimum heights noted here.

The second evaluation attribute is the availability of onsite nesting trees. Add up (or estimate if numerous) the total number of trees on the property. Then standardize by converting these totals to the number of trees per 100 acres. Different nesting types have been given different values based on the factors described for each in column four. The multiplier reflects those differences. The maximum score for this attribute is 20 points. So if the score is greater than 20, it receives a total of 20 points. This indicates that at some point more trees do not improve habitat value. If the score is less than 20, then it receives that number.

SWHA 2. Availability of Onsite Potential Nest Trees (max score of 20)					
Type	Total Number	Number per 100 acres	Factors Influencing Score	Multiplier	Score
Riparian Woodland			High sustainability, expansion, regeneration, low disturbance from farming	3	
Tree Grove			Mod to high sustainability, regen, low to mod disturbance from farming	2.6	
Tree Row			Low to moderate sustainability, regen, mod disturbance from farming	2.4	
Farmyard Trees			Low sustainability, regeneration, mod to high disturbance from farming	2.2	
Isolated Trees			Low sustainability, regeneration, high disturbance from farming	2.0	
Total trees				Total Score	

FIELD NOTES: *Describe nesting habitat conditions: habitat types, tree species, condition.*

SWHA 3. Foraging habitat offsite on surrounding lands within 1 mile. The foraging value of a property is in part based on the availability of suitable foraging habitat in the surrounding area. The assumption is that a property that includes suitable foraging habitat but is isolated from other suitable foraging habitat (i.e., surrounded by a high proportion of rice, orchards, vineyards, or other unsuitable crop types) is less likely to be regularly used compared with one that occurs within a matrix that includes a predominance of suitable habitat. A one-mile radius area from the boundary of the applicant parcel is used as the evaluation area. This area is considered sufficient to describe surrounding land uses and has the greatest influence on the value of the applicant parcel. Scoring is similar to onsite foraging habitat in that acres are calculated for each type and totaled, a percent of total for each is then calculated, and a multiplier is applied using the same proportional scale as onsite foraging but that totals to a maximum of 14 points. The lower total point value assigned to offsite foraging habitat compared with onsite foraging habitat (attribute number 1) reflects the lack of control that onsite managers have over the type of crop and land uses on offsite lands.

SWHA 3. Foraging Habitat – offsite within 1 mile (maximum 14 points)						
Vegetation Type	Acres	Percent of Total	Variability	Factors Influencing Score	Multiplier	Score
Alfalfa and other multiple-cut hays			Consistent – high	Moderate to high prey abundance, high prey accessibility	0.14	
Native perennial grassland			Consistent – moderate to high	High prey abundance, moderate prey accessibility	0.112	
Pastures – hayed-moderately grazed or managed grass			Consistent – moderate to high	Moderate prey abundance, high prey accessibility	0.112	
Rotational row/grain crop			Variable from low to moderate	Moderate prey abundance – low to moderate prey accessibility	0.098	
Irrigated pasture – grazed only			Consistent – moderate	Low to moderate prey abundance – high prey accessibility	0.084	
Dryland pasture – annual grassland			Consistent – moderate	Low to moderate prey abundance – mod to high prey accessibility	0.07	
Managed seasonal wetland			Variable – low to moderate	Low to moderate prey abundance – mod prey accessibility	0.056	
Rice			Low to none	Low prey abundance, low prey accessibility	0.0	

Orchard/Vineyard			Low to none	Low prey abundance, low prey accessibility	0.0	
Developed			None	Low prey abundance, low prey accessibility	0.0	
Other non-habitat			None	No prey accessibility, out of range, topography.	0.0	
Total Acres					Total Score	

FIELD NOTES: Describe the current foraging habitat conditions within 1 mile of the property:

SWHA 4. Availability of offsite potential nesting trees within 1

mile. Offsite nesting habitat also enhances overall value by providing nesting opportunities in the vicinity of the evaluated property and thereby potentially increasing the foraging use of the evaluated property. Here we use the same approach as we used for onsite nesting habitat. In this case, each nesting habitat type is differentially valued based on its assigned multiplier, which reflects the influencing factors noted, similar to onsite nesting habitat. However, in this case, the total number of trees for each type are quantified out to 1 mile from the parcel boundary and then standardized by calculating the number of trees per 100 acres. Then applying the multiplier gives a score for each type. Total points, which cannot exceed 14, are derived by summing the individual scores. As with the onsite nesting, a total that exceeds 14 is scored as 14, and a total less than 14 is scored as that number.

SWHA 4. Availability of Offsite Potential Nesting Trees within 1 mile (maximum score of 14 points)					
Type	Total Number	Number per 100 acres	Factors Influencing Score	Multiplier	Score
Riparian Woodland			High sustainability, expansion, regeneration, low disturbance from farming	3	
Tree Grove			Mod to high sustainability, regeneration, low to mod disturbance from farming	2.6	
Tree Row			Low to mod sustainability, regeneration, moderate disturbance from farming	2.4	
Farmyard Trees			Low sustainability, regeneration, mod to high disturbance from farming	2.2	
Isolated Trees			Low sustainability, regeneration, high disturbance from farming	2.0	
Total trees				Total Score	

FIELD NOTES: Describe nesting habitat conditions: habitat types, tree species, condition within 1 mile of the property. _____

SWHA 5. Documented Swainson’s hawk nesting within 4 miles.

This attribute assumes that the proximity of active Swainson’s hawk nest sites to the evaluated property influences the habitat value of that property. Foraging use of a property is assumed to decrease with increasing distance of active nests. The evaluated distance extends out 4 miles rather than 1 mile as in the offsite foraging and nesting attributes because Swainson’s hawks regularly travel large distances while foraging and because the presence of active nests sites is considered to have greater value with regard to the potential use of the evaluated property than unoccupied habitat. The evaluation of this attribute is simplified by scoring that is based on the nearest recorded nest. Multiple nests, or nesting density, does not influence the score. For this attribute, select only one of the 5 distance categories using information on the current nesting distribution.

SWHA 5. Documented Nesting (select one; max 12 points)		
Distance	Points	Score
Onsite	12	
Within 1 mile	6	
Within 2 miles	4	
Within 3 miles	2	
Within 4 miles	1	

FIELD NOTES: Describe the nesting distribution within 4 miles of the property. _____

SWHA 6. Proximity to other protected properties. Existing protected properties that are fully protected as per the Yolo JPA definition are scattered throughout the Plan Area. Many of these provide valuable habitat for the Swainson’s hawk. It is assumed that closer proximity to other protected lands enhances the value of the evaluated property by providing nearby stable long-term habitat value.

SWHA 6. Proximity to other Protected Properties (Select one; maximum 6 points)		
Proximity	Max Points	Score
Adjacent	6	
Within 1 mile	3	
Within 2 mile	2	
Within 5 miles	1	

FIELD NOTES: Describe other protected parcels within 5 miles. _____

SWHA 7. Habitat enhancement practices. While agricultural productivity must remain the primary objective for landowners, there are several wildlife enhancement practices that can be prescribed for cultivated lands that benefit the Swainson’s hawk. Additional credit in the evaluation is given to those properties that currently engage in management activities that provide benefit or those that agree to additional conservation easement conditions that require implementation of the management activity.

SWHA 7. Habitat Enhancement Practices (max 14 points)			
Management Activity	Definition	Points	Score
Hedgerow creation	Hedgerows are at least 15-foot wide and at least 400 linear feet. They typically are established along agricultural field borders or along the edges of water conveyance canals. They may be dominated by open native perennial grasses to enhance prey populations but can also include trees and shrubs. They provide refuge to rodent prey species and nesting/cover habitat for many species.	5	
Riparian restoration	Riparian restoration is the re-establishment of native trees and shrubs along natural streams and along some large, permanent water conveyance channels, such as the DWSC and the Knights Landing Ridge Cut. Riparian restoration can provide nesting, roosting, and cover habitat for several Covered Species, including Swainson’s hawk, white-tailed kite, least Bell’s vireo, Yellow-billed cuckoo, and valley elderberry longhorn beetle.	4	
Tree planting	Planting of trees can provide future nesting habitat for Swainson’s hawks and white-tailed kites and can be particularly valuable where suitable trees are lacking or are in decline. Points are scored based on planting or agreement to plant at least 5 trees per 100 acres and accompanied by a plan that establishes remedial measures in the event of mortality.	3	
Postpone disking and bedding of fields until late August	For crops that are harvested during the summer, including wheat and early-harvested tomatoes, postponing disking and bedding retains waste material in the field and continues to provide habitat for rodent prey species that can then be accessed by foraging Swainson’s hawks. Postponing disking until late August creates a final pulse of foraging activity in those fields just prior to migration.	1	

Maintaining trees and encouraging regeneration	The ongoing loss of mature trees and the lack of regeneration of valley oaks is an important habitat issue in Yolo County. Landowners that avoid cultivating in the root zone of trees or that otherwise take action to protect trees on their property provide benefit to Swainson's hawks and white-tailed kites.	1	
Other (describe below)			
	SCORE:		

FIELD NOTES: Describe the management activities that the landowner is currently performing or intends to perform under the easement conditions to enhance habitat for Swainson's hawk.

SWHA 8. Factors that increase mortality risk or degrade habitat

value. Some activities or proximity issues can increase the risk of mortality and degrade habitat value for nesting and foraging Swainson's hawks. Examples include properties with nesting habitat along busy highways; properties with large wind turbines near foraging or nesting habitat; properties with electrical substations; proximity to extreme disturbances (e.g., pumping stations, industrial/manufacturing complexes), properties adjacent to planned urban development. Scoring is based on the onsite assessment and ranges from negative 1 to negative 10 points using the collective opinion of the STAC evaluation staff.

SWHA 8. Factors that Increase Mortality Risk or Degrade Habitat Value (maximum score of 0 points)		
Disturbance Activity	Point Range	Score
Potential mortality due to proximity to high risk roads, turbines, substations, etc.	-1 to -10	
Proximity to extreme urban disturbances	-1 to -10	
Recreational disturbances including off-road vehicle use	-1 to -10	
Other (describe below)	-1 to -10	
	SCORE:	

FIELD NOTES: Describe the current disturbances and land use practices that increase mortality risk or degrade habitat value: _____

Scoring Summary

The scoring summary consists of total points for each of the scoring factors, aggregated by evaluation type.

Scoring Summary – Swainson’s Hawk					
Evaluation Type	Factor #	Factor	Max. Points	Score	Combined Score
Foraging Habitat	SWHA 1	Foraging Habitat – onsite	20		
Nesting Habitat	SWHA 2	Nesting Habitat – onsite	20		
Landscape Factors	SWHA 3	Foraging habitat – offsite	14		
	SWHA 4	Nesting habitat – offsite	14		
	SWHA 5	Documented nesting	12		
	SWHA 6	Proximity to protected parcels	6		
Management Factors	SWHA 7	Habitat Enhancement	14		
	SWHA 8	Factors that Degrade Value	0		

Summary Description, Rationale, and Qualitative Assessment

This section summarizes the scoring evaluation and includes a qualitative assessment that addresses other attributes of the property beyond that which are addressed in the scoring. The STAC will then make a recommendation using both the scoring evaluation and other factors that may contribute to the conservation of the species.

White-Tailed Kite

Conservation of the white-tailed kite will be met by achieving conservation objectives for cultivated lands, grasslands, managed seasonal wetlands, and riparian natural communities. There are no species-specific objectives for white-tailed kite because its habitat requirements overlap considerably with the Swainson’s hawk. However, like the Swainson’s hawk, to be considered for white-tailed kite conservation, a property must have a minimum of 80 contiguous acres of suitable foraging habitat or be contiguous with existing protected properties that support suitable white-tailed kite foraging habitat. In addition, there are some differences, particularly with regard to the foraging use of managed seasonal wetlands and rice fields. Therefore, the scoring for white-tailed kite will use the same attribute scoring as the Swainson’s hawk with the exception of onsite foraging habitat (WTKI 1), which considers the value of these

foraging habitat types; and the proximity to documented white-tailed kite nest sites (WTKI 2). As with the Swainson’s hawk scoring, attributes are aggregated into four evaluation types, onsite foraging, onsite nesting, landscape factors, and management factors.

WTKI 1. Availability of onsite foraging habitat. The availability of onsite foraging habitat for the white-tailed kite is addressed similarly to the Swainson’s hawk except the scoring reflects the higher values associated with grassland, seasonal wetlands, and rice habitats. The kite’s foraging behavior, including hovering or kiting, allows it greater accessibility to rodent prey in some cover types. Also, since it also occurs in Yolo County during the winter (unlike the Swainson’s hawk), rice fields also provide some foraging value during this period. The kite can also utilize rice checks more effectively due to its foraging behavior.

To assess all potential foraging habitat types, determine the number of acres of each type, then calculate proportions of each. Relative values of different types are reflected in the multiplier values. Next, multiply the proportional values by the multiplier to derive a point score for each type. Then simply sum the point values for a total score (maximum of 20 points) for this attribute.

WTKI 1. Foraging Habitat – onsite (maximum 20 points)						
Vegetation Type	Acres	Percent of Total	Variability	Factors Influencing Score	Multiplier	Score
Alfalfa and other multiple-cut hays			Consistent – high	Moderate to high prey abundance, high prey accessibility	0.20	
Native perennial grassland			Consistent – moderate to high	High prey abundance, moderate prey accessibility	0.18	
Pastures – hayed and moderately grazed/managed grasslands			Consistent – moderate to high	Moderate prey abundance, high prey accessibility	0.18	
Managed seasonal wetland			Seasonally variable – moderate	Moderate prey abundance – high prey accessibility	0.16	
Irrigated pasture			Consistent – moderate	Low to moderate prey abundance – high prey accessibility	0.14	
Dryland pasture – annual grassland			Consistent – moderate	Low to moderate prey abundance – moderate to high prey accessibility	0.12	
Rotational row/grain crop			Variable from low to moderate	Moderate prey abundance – low to moderate prey accessibility	0.10	
Rice			Seasonally variable	Low prey abundance, high prey accessibility	0.08	

Orchard/Vineyard			Low to none	Low prey abundance, low prey accessibility	0.0	
Developed			None	Low prey abundance, low prey accessibility	0.0	
Other non-habitat			None	No prey accessibility, out of range, topography.	0.0	
Total Acres					Total Score	

FIELD NOTES: Describe the current foraging habitat conditions: crops, farming methods, irrigation, crop rotation, etc. _____

WTKI 2. Availability of onsite potential nest trees. Potential nest trees add value to the property by providing future nesting opportunities. White-tailed kites use a variety of nesting tree types and conditions from small willow trees to mature valley oaks. They typically nest in riparian woodlands, groves, or savannahs, but may also be found in tree rows and occasionally in isolated trees. All have similar value with regard to the nest site itself. But, as with Swainson’s hawk, different nesting habitat types can be distinguished by other factors, including their long-term sustainability, ability to regenerate, and protection from removal or disturbances. The scoring is therefore based on these factors as well as the number of trees. A suitable tree is generally defined on the basis of minimum tree height by species documented for Yolo County white-tailed kite nest trees: valley oak - 30 feet; walnut - 30 feet; cottonwood - 40 feet, willow - 15 feet; redwood and other suitable conifers - 40 feet; eucalyptus - 50 feet; sycamore - 40 feet; locust - 20 feet. However, the determination of a suitable nest tree should also be made on the basis of site examination in order to include trees that otherwise appear suitable but may not reach the minimum heights noted here.

The second evaluation attribute is the availability of onsite nesting trees. Add up (or estimate if numerous) the total number of trees on the property. Then standardize by converting these totals to the number of trees per 100 acres. Different nesting types have been given different values based on the factors described for each in column four. The multiplier reflects those differences. The maximum score for this attribute is 20 points. So if the score is greater than 20, it receives a total of 20 points. This indicates that at some point more trees do not improve habitat value. If the score is less than 20, then it receives that number.

WTKI 2. Availability of Onsite Potential Nest Trees (max 20 points)					
Type	Total Number	Number per 100 acres	Factors Influencing Score	Multiplier	Score
Riparian Woodland			High sustainability, expansion, regeneration, low disturbance from farming	3	
Tree Grove or Savannah			Mod to high sustainability, regen, low to mod disturbance from farming	2.6	
Tree Row			Low to moderate sustainability, regen, mod disturbance from farming	2.4	
Farmyard Trees			Low sustainability, regeneration, mod to high disturbance from farming	2.2	
Isolated Trees			Low sustainability, regeneration, high disturbance from farming	2.0	
Total trees				Total Score	

FIELD NOTES: Describe nesting habitat conditions: habitat types, tree species, condition.

WTKI 3. Foraging habitat offsite on surrounding lands within 1

mile. The foraging value of a property is in part based on the availability of suitable foraging habitat in the surrounding area. The assumption is that a property that includes suitable foraging habitat but is isolated from other suitable foraging habitat (i.e., surrounded by a high proportion of orchards, vineyards, or other unsuitable crop types) is less likely to be regularly used compared with one that occurs within a matrix that includes a predominance of suitable habitat. A one-mile radius area from the boundary of the applicant parcel is used as the evaluation area. This area is considered sufficient to describe surrounding land uses and has the greatest influence on the value of the applicant parcel. Scoring is similar to onsite foraging habitat in that acres are calculated for each type and totaled, a percent of total for each is then calculated, and a multiplier is applied using the same proportional scale as onsite foraging but that totals to a maximum of 14 points. The lower total point value assigned to offsite foraging habitat compared with onsite foraging habitat (attribute number 1) reflects the lack of control that onsite managers have over the type of crop and land uses on offsite lands.

WTKI 3. Foraging Habitat – offsite within 1 mile (maximum 14 points)						
Vegetation Type	Acres	Percent of Total	Variability	Factors Influencing Score	Multiplier	Score
Alfalfa and other multiple-cut hays			Consistent – high	Moderate to high prey abundance, high prey accessibility	0.14	
Native perennial grassland			Consistent – moderate to high	High prey abundance, moderate prey accessibility	0.13	
Pastures – hayed and moderately grazed/managed grasslands			Consistent – moderate to high	Moderate prey abundance, high prey accessibility	0.13	
Managed seasonal wetland			Seasonally variable – moderate	Moderate prey abundance – high prey accessibility	0.11	
Irrigated pasture			Consistent – moderate	Low to moderate prey abundance – high prey accessibility	0.10	
Dryland pasture – annual grassland			Consistent – moderate	Low to moderate prey abundance – moderate to high prey accessibility	0.08	
Rotational row/grain crop			Variable from low to moderate	Moderate prey abundance – low to moderate prey accessibility	0.07	
Rice			Seasonally variable	Low prey abundance, high prey accessibility	0.06	
Orchard/Vineyard			Low to none	Low prey abundance, low prey accessibility	0.0	
Developed			None	Low prey abundance, low prey accessibility	0.0	
Other non-habitat			None	No prey accessibility, out of range, topography.	0.0	
Total Acres					Total Score	

FIELD NOTES: Describe the current foraging habitat conditions within 1 mile of the property:

WTKI 4. Availability of offsite potential nesting trees within 1 mile. Offsite nesting habitat also enhances overall value by providing nesting opportunities in the vicinity of the evaluated property and thereby potentially

increasing the foraging use of the evaluated property. Here we use the same approach as we used for onsite nesting habitat. In this case, each nesting habitat type is differentially valued based on its assigned multiplier, which reflects the influencing factors noted, similar to onsite nesting habitat. However, in this case, the total number of trees for each type are quantified out to 1 mile from the parcel boundary and then standardized by calculating the number of trees per 100 acres. Then applying the multiplier gives a score for each type. Total points, which cannot exceed 14, are derived by summing the individual scores. As with the onsite nesting, a total that exceeds 14 is scored as 14, and a total less than 14 is scored as that number.

WTKI 4. Availability of Offsite Potential Nesting Trees within 1 mile (maximum 14 points)					
Type	Total Number	Number per 100 acres	Factors Influencing Score	Multiplier	Score
Riparian Woodland			High sustainability, expansion, regeneration, low disturbance from farming	3	
Tree Grove			Mod to high sustainability, regeneration, low to mod disturbance from farming	2.6	
Tree Row			Low to mod sustainability, regeneration, moderate disturbance from farming	2.4	
Farmyard Trees			Low sustainability, regeneration, mod to high disturbance from farming	2.2	
Isolated Trees			Low sustainability, regeneration, high disturbance from farming	2.0	
Total trees				Total Score	

FIELD NOTES: Describe nesting habitat conditions: habitat types, tree species, condition within 1 mile of the property. _____

WTKI 5. Documented white-tailed kite nesting within 1 mile. This attribute assumes that the proximity of active white-tailed kite nest sites to the evaluated property influences the habitat value of that property. Foraging use of a property is assumed to decrease with increasing distance of active nests. White-tailed kites occupy relatively small home ranges, typically foraging within 1 mile of the nest. The evaluation of this attribute is simplified by scoring that is based on the nearest recorded nest. Multiple nests, or nesting density, does not influence the score. For this attribute,

select only one of the 5 distance categories using information on the current nesting distribution.

WTKI 5. Documented Nesting (select one; maximum 12 points)		
Distance	Points	Score
Onsite	12	
Within 0.25 mile	6	
Within 0.5 miles	4	
Within 1 miles	2	
>1 mile	0	

FIELD NOTES: Describe reported nesting occurrences within 1 mile of the property.

WTKI 6. Proximity to other protected properties. Existing protected properties that are fully protected as per the Yolo JPA definition are scattered throughout the Plan Area. Many of these provide valuable habitat for the white-tailed kite. It is assumed that closer proximity to other protected lands enhances the value of the evaluated property by providing nearby stable long-term habitat value.

WTKI 6. Proximity to other Protected Properties (Select one; max 6 points)		
Proximity	Points	Score
Adjacent	6	
Within 1 mile	3	
Within 2 mile	1	
>2 miles	0	

FIELD NOTES: Describe other protected parcels within 2 miles. _____

WTKI 7. Habitat enhancement practices. While agricultural productivity must remain the primary objective for landowners, there are several wildlife enhancement practices that can be prescribed for cultivated lands that benefit the white-tailed kite. Additional credit in the evaluation is given to those properties that currently engage in management activities that provide benefit or those that agree to additional

conservation easement conditions that require implementation of the management activity.

WTKI 7. Habitat Enhancement Practices (maximum 14 points)			
Management Activity	Definition	Points	Score
Hedgerow creation	Hedgerows are at least 15-feet wide and at least 400 linear feet. They typically are established along agricultural field borders or along the edges of water conveyance canals. They may be dominated by open native perennial grasses to enhance prey populations but can also include trees and shrubs. They provide refuge to rodent prey species and nesting/cover habitat for many species.	5	
Riparian restoration	Riparian restoration is the re-establishment of native trees and shrubs along natural streams and along some large, permanent water conveyance channels, such as the DWSC and the Knights Landing Ridge Cut. Riparian restoration can provide nesting, roosting, and cover habitat for several Covered Species, including Swainson's hawk, white-tailed kite, least Bell's vireo, Yellow-billed cuckoo, and valley elderberry longhorn beetle.	4	
Tree planting	Planting of trees can provide future nesting habitat for Swainson's hawks and white-tailed kites and can be particularly valuable where suitable trees are lacking or are in decline. Points are scored based on planting or agreement to plant at least 5 trees per 100 acres and accompanied by a plan that establishes remedial measures in the event of mortality.	3	
Postpone disking and bedding of fields until late August	For crops that are harvested during the summer, including wheat and early-harvested tomatoes, postponing disking and bedding retains waste material in the field and continues to provide habitat for rodent prey species that can then be accessed by foraging white-tailed kites. Postponing disking until late August creates a final pulse of foraging activity in those fields just prior to migration.	1	
Maintaining trees and encouraging regeneration	The ongoing loss of mature trees and the lack of regeneration of valley oaks is an important habitat issue in Yolo County. Landowners that avoid cultivating in the root zone of trees or that otherwise take action to protect trees on their property provide benefit to Swainson's hawks and white-tailed kites.	1	
Other (describe below)			
	SCORE:		

FIELD NOTES: Describe the management activities that the landowner is currently performing or intends to perform under the easement conditions to enhance habitat for white-tailed kite.

WTKI 8. Factors that increase mortality risk or degrade habitat

value. Some activities or proximity issues can increase the risk of mortality and degrade habitat value for nesting and foraging white-tailed kites. Examples include properties with nesting habitat along busy highways; properties with large wind turbines near foraging or nesting habitat; properties with electrical substations; proximity to extreme disturbances (e.g., pumping stations, industrial/manufacturing complexes), properties adjacent to planned urban development. Scoring is based on the onsite assessment and ranges from negative 1 to negative 10 points using the collective opinion of the STAC evaluation staff.

WTKI 8. Factors that Increase Mortality Risk or Degrade Habitat Value (maximum score of 0 points)		
Disturbance Activity	Point Range	Score
Potential mortality due to proximity to high risk roads, turbines, substations, etc.	-1 to -10	
Proximity to extreme urban disturbances	-1 to -10	
Recreational disturbances including off-road vehicle use	-1 to -10	
Other (describe below)	-1 to -10	
	SCORE:	

FIELD NOTES: Describe the current disturbances and land use practices that increase mortality risk or degrade habitat value: _____

Scoring Summary

The scoring summary consists of total points for each of the scoring factors, aggregated by evaluation type.

Scoring Summary – White-tailed Kite					
Evaluation Type	Factor #	Factor	Max. Points	Score	Combined Score
Foraging Habitat	WTKI 1	Foraging Habitat – onsite	20		
Nesting Habitat	WTKI 2	Nesting Habitat – onsite	20		
Landscape Factors	WTKI 3	Foraging habitat – offsite	14		
	WTKI 4	Nesting habitat – offsite	14		
	WTKI 5	Documented nesting	12		
	WTKI 6	Proximity to protected parcels	6		
Management Factors	WTKI 7	Habitat Enhancement	14		
	WTKI 8	Factors that Degrade Value	0		

Summary Description, Rationale, and Qualitative Assessment

This section summarizes the scoring evaluation and includes a qualitative assessment that addresses other attributes of the property beyond that which are addressed in the scoring. The STAC will then make a recommendation using both the scoring evaluation and other factors that may contribute to the conservation of the species.

Burrowing Owl

Burrowing owl conservation will be met through the protection of non-rice cultivated lands and grassland habitats. However, occupied habitat includes other key attributes, including the presence of ground squirrels or other conditions that facilitate the creation of nesting and wintering burrows. Other than occasional isolated pairs that may occur throughout the agricultural landscape, burrowing owls occupy a relatively small proportion of the plan area where habitat conditions are suitable. These conditions include a relatively flat grassland or pastureland landscape with short vegetation height and presence of ground squirrels. To address these primary habitat conditions as well as other landscape and management factors, seven attributes are included for burrowing owl: onsite land cover/habitat type, offsite land cover/habitat type, presence of burrow habitat, proximity to known occupied sites, proximity to other protected lands, habitat enhancement practices, and factors that degrade habitat value. Attributes are aggregated into four evaluation types, onsite foraging, onsite nesting, landscape factors, and management factors. Other, more specific habitat attributes, such as perch availability and grazing, will be addressed qualitatively during the site assessment.

BUOW 1. Onsite Land Cover/Foraging Habitat. Burrowing owls are typically found in uncultivated grassland habitats. Grass height is generally low (from barren ground to <1 foot). They are also found along the perimeter of some cultivated fields where there is an uncultivated edge, on uncultivated levee slopes, and in some ruderal patches. This attribute addresses the overall land cover type on the property.

BUOW 1. Onsite Land Cover/Foraging Habitat (max 20 points)				
Vegetation Type	Acres	Percent of Total	Multiplier	Score
Uncultivated grassland <1 ft			0.2	
Irrigated pasture			0.16	
Alfalfa and grass hay			0.10	
Idle or ruderal			0.06	
Rotational cropland			0.04	
Uncultivated grassland >1 ft.			0.02	
Managed seasonal wetland			0.01	
Rice			0.0	
Orchard/Vineyard			0.0	
Developed			0.0	
Other non-habitat			0.0	
Total Acres			Total Score	

FIELD NOTES: Describe the current onsite habitat conditions. _____

BUOW 2. Presence of Burrow Habitat. Burrowing owl burrows are often initially constructed by California ground squirrels. Therefore, the presence of ground squirrels can be important in the maintenance and development of burrowing owl habitat. Burrowing owls will also use other structures, such as small culverts, pipes, rock piles, and artificial burrows as nesting and winter burrow habitat. Artificial structures often encourage ground squirrels to occupy an area. Because burrowing owls have relatively small home ranges, grassland habitats that are otherwise suitable are used less with increased distance from suitable burrow habitat. Therefore, the presence of onsite burrow habitat is considered an essential element in the evaluation of burrowing owl habitat. Scoring is based on a range within each category below. Select the condition and then a score with the range that best characterizes the extent of the condition.

BUOW 2. Presence of Burrow Habitat (select one; maximum 18 points)		
Condition	Point Range	Score
>2 ground squirrel burrows per acre onsite	14 to 18	
Ground squirrel burrows present but less than 2 per acre onsite	8 to 14	
Ground squirrel burrows not present but on adjacent property	4 to 8	
Other possible habitat present (berms, soil/rock piles, etc.)	1 to 4	
No ground squirrel or other burrow habitat present	0	

FIELD NOTES: Describe the type and extent of burrow habitat present: _____

BUOW 3. Offsite Land Cover Type. Offsite land cover type describes the overall landscape within which the property occurs. As with other species, surrounding lands affect the quality of the onsite habitat and long-term sustainability of suitable habitat conditions for burrowing owls.

BUOW 3. Offsite Land Cover/Habitat within 1 mile (max 16 points)				
Vegetation Type	Acres	Percent of Total	Multiplier	Score
Uncultivated grassland <1 ft.			0.16	
Irrigated pasture			0.13	
Alfalfa and grass hay			0.08	
Idle or ruderal			0.05	
Rotational cropland			0.03	
Uncultivated grassland >1 ft			0.02	
Managed seasonal wetland			0.01	
Rice			0.0	
Orchard/Vineyard			0.0	
Developed			0.0	
Other non-habitat			0.0	
Total Acres			Total Score	

FIELD NOTES: *Describe the current habitat conditions within 1 mile of the property:*

BUOW 4. Proximity to Occupied Burrowing Owl Burrows. The distribution of burrowing owls within the Plan Area is limited primarily to the Woodland-Davis area and the lower Yolo Basin. While burrowing owls have been documented elsewhere, these sites that occur as solitary occurrences or in small patches of remaining habitat, are considered less sustainable. Using an attribute that addresses proximity to known occupied burrows will further emphasize protection of those areas where burrowing owls are known to occur and where long-term sustainability is more likely.

BUOW 4. Proximity to Occupied Burrowing Owl Burrows (select one, max 18 points)		
Distance	Points	Score
Onsite	18	
Within 0.5 mile	12	
Within 1 mile	6	
Within 2 miles	2	
>2 miles	0	

FIELD NOTES: *Describe occurrences within 2 miles of the property.*_____

BUOW 5. Proximity to other protected properties. Existing protected properties that are fully protected as per the Yolo JPA definition are scattered throughout the Plan Area. Many of these provide valuable habitat for the burrowing owl. It is assumed that closer proximity to other protected lands enhances the value of the evaluated property by providing nearby stable long-term habitat value.

BUOW 5. Proximity to other Protected Properties (Select one; maximum 6 points)		
Proximity	Points	Score
Adjacent	6	
Within 1 mile	3	
Within 2 miles	1	

FIELD NOTES: Describe other protected parcels within 2 miles. _____

BUOW 6. Habitat Enhancement Practices. Where habitat conditions are otherwise suitable, burrowing owls may respond to certain habitat enhancement practices such as creating berms and mounds to attract ground squirrels and facilitate burrowing owl use.

BUOW 6. Habitat Enhancement Practices (maximum 24 points)			
Management Activity	Definition	Points	Score
Hedgerows	Hedgerows are at least 15-feet wide and at least 400 linear feet. They typically are established along agricultural field borders or along the edges of water conveyance canals. They may be dominated by open native perennial grasses to enhance microtine prey populations but can also include scattered trees and shrubs. They provide refuge to rodent prey species and nesting/cover habitat for many species.	5	
Berm and mounds	Berms, mounds, and rock piles attract ground squirrel activity, which in turn facilitates use by burrowing owls.	5	
Livestock grazing	Grazing can be an effective tool for maintaining low grass heights, which is required for burrowing owl occupancy.	5	
Nest boxes	Underground nest boxes can provide nesting opportunities for burrowing owls in areas where they are lacking. They can also supplement natural burrows.	5	
Other (describe below)			
	SCORE:		

FIELD NOTES: Describe the management activities that the landowner is currently performing or intends to perform under the easement conditions to enhance habitat for burrowing owls.

BUOW 7. Factors that increase mortality risk or degrade habitat

value. Some activities or proximity issues can increase the risk of mortality and degrade habitat value for nesting and foraging burrowing owls. Examples include properties with nesting habitat along busy highways; properties with large wind turbines near foraging or nesting habitat; properties with electrical substations; proximity to extreme disturbances (e.g., pumping stations, industrial/manufacturing complexes), properties adjacent to planned urban development. Rodent control and use of insecticides can also degrade habitat value. Scoring is based on the onsite assessment and ranges from negative 1 to negative 10 points using the collective opinion of the STAC evaluation staff.

BUOW 7. Factors that Increase Mortality Risk or Degrade Habitat Value (max 0 points)		
Disturbance Activity	Point Range	Score
Potential mortality due to proximity to high risk roads, turbines, substations, etc.	-1 to -10	
Proximity to extreme urban disturbances	-1 to -10	
Recreational disturbances including off-road vehicle use	-1 to -10	
Rodent control and insecticide use	-1 to -10	
Other (describe below)	-1 to -10	
	SCORE:	

FIELD NOTES: Describe the current disturbances and land use practices that increase mortality risk or degrade habitat value: _____

Scoring Summary

The scoring summary consists of total points for each of the scoring factors, aggregated by evaluation type.

Scoring Summary – Burrowing Owl					
Evaluation Type	Factor #	Factor	Max. Points	Score	Combined Score
Foraging Habitat	BUOW 1	Land cover/habitat – onsite	20		
Nesting Habitat	BUOW 2	Presence of burrow habitat	18		
Landscape Factors	BUOW 3	Land cover/habitat – offsite	16		
	BUOW 4	Proximity to Occupied burrows	18		
	BUOW 5	Proximity to protected parcels	6		
Management Factors	BUOW 6	Habitat Enhancement	20		
	BUOW 7	Factors that Degrade Value	0		

Summary Description, Rationale, and Qualitative Assessment

This section summarizes the scoring evaluation and includes a qualitative assessment that addresses other attributes of the property beyond that which are addressed in the scoring. The STAC will then make a recommendation using both the scoring evaluation and other factors that may contribute to the conservation of the species.

Tricolored Blackbird

Tricolored blackbird conservation will be met through the protection of cultivated land, pastureland, and grassland foraging habitat, and the protection and restoration of freshwater emergent wetlands. To be considered for tricolored blackbird conservation, a property must have a minimum of 0.5 contiguous acres of suitable emergent wetland or other suitable nesting habitat. Other potential nesting habitats considered in the evaluation include blackberry bramble and willow scrub. To address these primary habitat conditions as well as other landscape and management factors, seven attributes are included for tricolored blackbird: onsite land cover/habitat type, onsite nesting habitat, offsite land cover/habitat, documented nesting, proximity to other protected properties, habitat enhancement practices, and factors that degrade habitat value. Attributes are aggregated into four evaluation types, onsite foraging, onsite nesting, landscape factors, and management factors. Other, more specific habitat attributes will be addressed qualitatively during the site assessment.

TCBB 1. Onsite Land Cover/Habitat Type. Tricolored blackbirds typically occur in grassland, pastureland, and some agricultural landscapes. This attribute addresses the overall onsite land cover type.

TCBB 1. Onsite Land Cover/Habitat (maximum 20 points)				
Vegetation Type	Acres	Percent of Total	Multiplier	Score
Uncultivated grassland			0.20	
Irrigated pasture			0.16	
Alfalfa and grass hay			0.14	
Managed seasonal wetland			0.12	
Rice			0.10	
Idle or ruderal			0.08	
Rotational cropland			0.06	
Orchard/Vineyard			0.0	
Developed			0.0	
Other non-habitat			0.0	
Total Acres			Total Score	

FIELD NOTES: Describe the onsite land cover characteristics. _____

TCBB 2. Onsite Nesting Habitat. The presence of nesting habitat is essential. Nesting habitat consists of both native (emergent marsh, willow scrub) and non-native (blackberry bramble, milk thistle) types. Most occupied nesting habitats are greater than 0.5 acres, so this is used as the minimum acreage size. The quality or suitability of the habitat to meet the nesting requirements of tricolored blackbirds will be assessed during the field visit.

TCBB 2. Onsite Nesting Habitat >0.5 acre (maximum 20 points)		
Habitat Type	Points	Score
Cattail/Tule Marsh	20	
Blackberry bramble	16	
Willow scrub	12	
Milk thistle	8	
Other (describe below)	0 to 20	
None	0	

FIELD NOTES: Describe the type, size, and characteristics of potential nesting habitat. _____

TCBB 3. Offsite Land Cover/Habitat. As with other highly mobile species, the overall landscape in which the property occurs is an important attribute in determining the suitability of the property for tricolored blackbird. For this attribute, total the acres of each land cover/habitat type within a 1 mile radius, calculate the percentage of total for each, then multiply the percent of total by the multiplier. The multiplier distinguishes the difference in habitat value of each type. The scores are the summed for a total score.

TCBB 3. Offsite Land Cover/Habitat within 1 mile (maximum 14 points)				
Vegetation Type	Acres	Percent of Total	Multiplier	Score
Uncultivated grassland			0.14	
Irrigated pasture			0.11	
Alfalfa and grass hay			0.10	
Idle or ruderal			0.08	
Managed seasonal wetland			0.07	
Rice			0.06	
Rotational cropland			0.04	
Orchard/Vineyard			0.0	
Developed			0.0	
Other non-habitat			0/0	
Total Acres			Total Score	

FIELD NOTES: Describe the land cover characteristics within 1 mile. _____

TCBB 4. Offsite Nesting Habitat. The proximity of offsite suitable nesting habitat also determines the potential use of the property by tricolored blackbirds. In this case, we do not distinguish by habitat value of the different potential nesting habitat types, but instead by simply using the distance of any suitable nesting habitat type to the property within a 1-mile radius.

TCBB 4. Offsite Nesting Habitat >0.5 acre (maximum 14 points)		
Distance	Points	Score
Within 0.25 miles	14	
From 0.25 to 0.5 miles	10	
From 0.5 to 1 mile	5	
>1 mile	0	

FIELD NOTES: Describe the type, size, and characteristics of potential offsite nesting habitat and its proximity to the property. _____

TCBB 5. Documented Nesting. Close proximity to active colony sites can increase the foraging habitat value of the property for tricolored blackbirds.

TCBB 5. Documented Nesting (select one; max 14 points)		
Distance	Points	Score
Onsite	14	
Within 0.5 mile	10	
Within 1 mile	4	
Within 2 miles	2	
Within 3 miles	1	
>3 miles	0	

FIELD NOTES: Describe the nesting distribution within 3 miles of the property. _____

TCBB 6. Proximity to other protected properties. Existing protected properties that are fully protected as per the Yolo JPA definition are scattered throughout the Plan Area. Some of these provide valuable habitat for the tricolored blackbird. It is assumed that closer proximity to other protected lands enhances the value of the evaluated property by providing nearby stable long-term habitat value.

TCBB 6. Proximity to other protected properties (select one, max 6 points)		
Proximity	Points	Score
Adjacent	6	
Within 1 mile	3	
Within 2 miles	1	
>2 miles	0	

FIELD NOTES: Describe other protected parcels within 2 miles. _____

TCBB 7. Habitat Enhancement Practices. Where habitat conditions are otherwise suitable, tricolored blackbirds may benefit from certain habitat enhancement practices.

TCBB 7. Habitat Enhancement Practices (maximum 12 points)			
Management Activity	Definition	Points	Score
Hedgerow creation	Hedgerows are at least 15-feet wide and at least 400 linear feet. They typically are established along agricultural field borders or along the edges of water conveyance canals. They may be dominated by open native perennial grasses to enhance microtine prey populations but can also include scattered trees and shrubs. They provide refuge to rodent prey species and nesting/cover habitat for many species.	3	
Marsh restoration	Restoring cattail/tule marsh in otherwise suitable grassland or pastureland landscapes can facilitate future occupancy of tricolored blackbirds	3	
Marsh protection	Actions that protect the integrity of marsh habitats, including cattle exclusion and ensuring a sufficient water supply.	3	
Postpone harvest	Postponing harvest operations where tricolored blackbirds have nested can increase reproductive output.	3	
Other (describe below)			
	SCORE:		

FIELD NOTES: Describe the management activities that the landowner is currently performing or intends to perform under the easement conditions to enhance habitat for tricolored blackbirds.

TCBB 8. Factors that increase mortality risk or degrade habitat

value. Some activities or proximity issues can increase the risk of mortality and degrade habitat value for nesting and foraging tricolored blackbirds. Examples include properties with nesting habitat along busy highways; properties with large wind turbines near foraging or nesting habitat; properties with electrical substations; proximity to extreme disturbances (e.g., pumping stations, industrial/manufacturing complexes), properties adjacent to recreational areas, planned urban development, or other areas that are subject to substantial human presence and disturbances. Scoring is based on the onsite assessment and ranges from negative 1 to negative 10 points using the collective opinion of the STAC evaluation staff.

TCBB 8. Factors that Increase Mortality Risk or Degrade Habitat Value (maximum 0 points)		
Disturbance Activity	Point Range	Score
Potential mortality due to proximity to high risk roads, turbines, substations, etc.	-1 to -10	
Proximity to extreme urban disturbances	-1 to -10	
Recreational disturbances including off-road vehicle use	-1 to -10	
Other (describe below)	-1 to -10	
	SCORE:	

FIELD NOTES: Describe the current disturbances and land use practices that increase mortality risk or degrade habitat value: _____

Scoring Summary

The scoring summary consists of total points for each of the scoring factors, aggregated by evaluation type.

Scoring Summary – Tricolored Blackbird					
Evaluation Type	Factor #	Factor	Max. Points	Score	Combined Score
Foraging Habitat	TCBB 1	Foraging Habitat – onsite	20		
Nesting Habitat	TCBB 2	Nesting Habitat – onsite	20		
Landscape Factors	TCBB 3	Foraging habitat – offsite	14		
	TCBB 4	Nesting habitat - offsite	14		
	TCBB 5	Documented nesting	14		
	TCBB 6	Proximity to protected parcels	6		
Management Factors	TCBB 7	Habitat Enhancement	12		
	TCBB 8	Factors that Degrade Value	0		

Summary Description, Rationale, and Qualitative Assessment

This section summarizes the scoring evaluation and includes a qualitative assessment that addresses other attributes of the property beyond that which are addressed in the scoring. The STAC will then make a recommendation using both the scoring evaluation and other factors that may contribute to the conservation of the species.

Yellow-billed Cuckoo

Conservation of yellow-billed cuckoo is met through the protection and restoration of mature cottonwood-willow riparian forest. To be considered for yellow-billed cuckoo conservation, a property must have a minimum of 25 contiguous acres of suitable riparian habitat or be contiguous with existing protected properties that support suitable riparian habitat. As a riparian obligate species, the yellow-billed cuckoo is largely restricted to this habitat type for all life requisites. Therefore, only two species-specific attributes are assigned to this species, the availability of suitable riparian forest, and restoration of suitable riparian forest. Two general attributes, proximity to protected parcels and factors that degrade value are also included.

YBCU 1. Availability of Suitable Riparian Forest. Riparian forest must be present onsite. The riparian must be dominated by mature cottonwood and willow trees. Sites with more complex structure and species composition, including Oregon ash and box elder, have greater value. If habitat is considered suitable, scoring is based

entirely on the patch size of the riparian forest. The minimum patch size for yellow-billed cuckoo is considered to be 25 acres.

YBCU 1. Availability of Suitable Riparian Forest (select one, max 70 points)	
Estimated Acres	Score
>50	70
25 to 50	50
<25	0

FIELD NOTES: Describe the size, structure, and species composition of the riparian habitat.

YBCU 2. Proximity to Protected Parcels. Existing protected properties that are fully protected as per the Yolo JPA definition are scattered throughout the Plan Area. It is assumed that closer proximity to other protected lands enhances the value of the evaluated property by providing nearby stable long-term habitat value.

YBCU 2. Proximity to other Protected Properties (Select one; max 6 points)		
Proximity	Pts. Max	Score
Adjacent	6	
Within 1 mile	3	
Within 2 miles	1	

FIELD NOTES: Describe other protected parcels within 2 miles. _____

YBCU 3. Habitat enhancement practices. Restoration of cottonwood-willow riparian forest can increase the potential for future yellow-billed cuckoo

occupancy. Additional credit in the evaluation is given to those properties that currently engage in management activities that provide benefit or those that agree to additional conservation easement conditions that require implementation of the management activity.

YBCU 3. Habitat Enhancement Practices (max 24 points)			
Management Activity	Definition	Points	Score
Riparian restoration	Riparian restoration is the re-establishment of native trees and shrubs along natural streams and along some large, permanent water conveyance channels, such as the Deep Water Ship Channel and the Knights Landing Ridge Cut. To restore habitat for yellow-billed cuckoo, riparian restoration must be dominated by a cottonwood/willow over- and mid-story structure. Riparian restoration projects that provide this habitat in excess of 25 contiguous acres, receives points for this attribute.	24	
Other (describe below)			
	SCORE:		

FIELD NOTES: Describe the management activities that the landowner is currently performing or intends to perform under the easement conditions to enhance habitat for yellow-billed cuckoo. _____

YBCU 4. Factors that increase mortality risk or degrade habitat value. Some activities or proximity issues can increase the risk of mortality and degrade habitat value for nesting and foraging yellow-billed cuckoos. Examples include properties with nesting habitat along busy highways; proximity to extreme disturbances (e.g., pumping stations, industrial/manufacturing complexes), properties adjacent to recreational areas, planned urban development, or other areas that are subject to substantial human presence and disturbances. Also, the use of pesticides can reduce the availability of insect prey species and degrade overall habitat value. Scoring is based on the onsite assessment and ranges from negative 1 to negative 10 points using the collective opinion of the STAC evaluation staff.

YBCU 4. Factors that Increase Mortality Risk or Degrade Habitat Value (maximum 0 points)		
Disturbance Activity	Point Range	Score
Potential mortality due to proximity to high risk roads, turbines, substations, etc.	-1 to -10	
Proximity to extreme urban disturbances	-1 to -10	
Recreational disturbances including off-road vehicle use	-1 to -10	
Other (describe below)	-1 to -10	
	SCORE:	

FIELD NOTES: Describe the current disturbances and land use practices that increase mortality risk or degrade habitat value: _____

Scoring Summary

The scoring summary consists of total points for each of the scoring factors, aggregated by evaluation type. In addition to the two species-specific factor (YBCU 1 and YBCU 3), scoring factors for yellow-billed cuckoo include two relevant landscape and management factors (YBCU 2 and YBCU 4).

Scoring Summary – Yellow-billed Cuckoo					
Evaluation Type	Factor #	Factor	Max. Points	Score	Combined Score
Primary Habitat	YBCU 1	Availability of Riparian Forest	70		
Landscape Factors	YBCU 2	Proximity to protected parcels	6		
Management Factors	YBCU 3	Habitat Enhancement	24		
	YBCU 4	Factors that Degrade Value	0		

Summary Description, Rationale, and Qualitative Assessment

This section summarizes the scoring evaluation and includes a qualitative assessment that addresses other attributes of the property beyond that which are addressed in the

scoring. The STAC will then make a recommendation using both the scoring evaluation and other factors that may contribute to the conservation of the species.

Least Bell’s Vireo

Conservation of least Bell’s vireo is met through the protection and restoration of riparian habitats. To be considered for least Bell’s vireo conservation, a property must have a minimum of 1.5 contiguous acres of suitable riparian habitat or be contiguous with existing protected properties that support suitable riparian habitat. The least Bell’s vireo is a riparian obligate species. Surface water is also required during the entire nesting season. Therefore, only two additional species-specific attributed is assigned to this species, the availability of suitable riparian habitat and restoration of suitable riparian habitat. The least Bell’s vireo is typically found in structurally diverse riparian habitats or in dense early successional riparian communities that include a diverse understory that may include boxelder, California rose, California blackberry, and mugwort.

LBVI 1. Availability of Suitable Riparian. Riparian forest must be present onsite. The riparian should be relatively dense, early successional, or structurally diverse. If habitat is considered suitable, scoring is based entirely on the patch size of the riparian habitat. Average home range size is approximately 1.5 acres, so 1.5 acres is used here as the minimum patch size.

LBVI 1. Availability of Suitable Riparian (select one, max 70 points)		
Estimated Acres	Points	Score
>10	70	
5-10	50	
2 to 5	25	
<1.5	0	

FIELD NOTES: *Describe the size, structure, and species composition of the riparian habitat.*

LBVI 2. Proximity to Protected Properties. Existing protected properties that are fully protected as per the Yolo JPA definition are scattered throughout the Plan Area. It is assumed that closer proximity to other protected lands enhances the value of the evaluated property by providing nearby stable long-term habitat value.

LBVI 2. Proximity to other Protected Properties (Select one; maximum 6 points)		
Proximity	Points	Score
Adjacent	6	
Within 1 mile	3	
Within 2 miles	1	

FIELD NOTES: Describe other protected parcels within 2 miles. _____

LBVI 3. Habitat enhancement practices. Restoration of riparian habitat can increase the potential for future least Bell’s vireo occupancy. Additional credit in the evaluation is given to those properties that currently engage in management activities that provide benefit or those that agree to additional conservation easement conditions that require implementation of the management activity.

LBVI 3. Habitat Enhancement Practices (max 24 points)			
Management Activity	Definition	Points	Score
Riparian restoration	Riparian restoration is the re-establishment of native trees and shrubs along natural streams and along some large, permanent water conveyance channels, such as the Deep Water Ship Channel and the Knights Landing Ridge Cut. To restore habitat for least Bell’s vireo, riparian restoration must target a structurally diverse community with relatively dense mid-story and shrub components. Riparian restoration projects that provide this habitat in excess of 1.5 contiguous acres, receives points for this attribute.	24	
Other (describe below)			
		SCORE:	

FIELD NOTES: Describe the management activities that the landowner is currently performing or intends to perform under the easement conditions to enhance habitat for least Bell's vireo.

LBVI 4. Factors that increase mortality risk or degrade habitat

value. Some activities or proximity issues can increase the risk of mortality and degrade habitat value for nesting and foraging least Bell's vireo. Examples include properties with nesting habitat along busy highways; proximity to extreme disturbances (e.g., pumping stations, industrial/manufacturing complexes), properties adjacent to recreational areas, planned urban development, or other areas that are subject to substantial human presence and disturbances. Scoring is based on the onsite assessment and ranges from negative 1 to negative 10 points using the collective opinion of the STAC evaluation staff.

LBVI 4. Factors that Increase Mortality Risk or Degrade Habitat Value (maximum 0 points)		
Disturbance Activity	Point Range	Score
Potential mortality due to proximity to high risk roads, turbines, substations, etc.	-1 to -10	
Proximity to extreme urban disturbances	-1 to -10	
Recreational disturbances including off-road vehicle use	-1 to -10	
Other (describe below)	-1 to -10	
	SCORE:	

FIELD NOTES: Describe the current disturbances and land use practices that increase mortality risk or degrade habitat value: _____

Scoring Summary

The scoring summary consists of total points for each of the scoring factors, aggregated by evaluation type. In addition to the two species-specific factor (LEVI 1 and LEVI 3), scoring factors for least Bell’s vireo include two relevant landscape and management factors (LEVI 2 and LEVI 4).

Scoring Summary – Least Bell’s Vireo					
Evaluation Type	Factor #	Factor	Max. Points	Score	Combined Score
Primary Habitat	LBVI 1	Availability of Riparian	70		
Landscape Factors	LBVI 2	Proximity to protected parcels	6		
Management Factors	LBVI 3	Habitat Enhancement	24		
	LBVI 4	Factors that Degrade Value	0		

Summary Description, Rationale, and Qualitative Assessment

This section summarizes the scoring evaluation and includes a qualitative assessment that addresses other attributes of the property beyond that which are addressed in the scoring. The STAC will then make a recommendation using both the scoring evaluation and other factors that may contribute to the conservation of the species.

Bank Swallow

Bank swallow conservation must occur in Planning Unit 7, which is the Cache Creek corridor. Nesting habitat for bank swallows includes steeply-sloped channel banks along the creek that have soils suitable for creating nesting holes and that are subject to periodic erosion events. To be considered for bank swallow conservation, a property must have a minimum of 17 feet of contiguous vertical, open, channel bank. Since conserved habitats are restricted to the Cache Creek drainage, the only specific attribute used in the evaluation is the availability of suitable cut bank habitat. Suitability is evaluated during the site visit on the basis of slope, soil characteristics, and location above high water. So scoring for the attribute is yes/no. A more qualitative evaluation of potential habitat is addressed in the field evaluation notes, but is not specifically scored.

BASW 1. Availability of Suitable Channel Banks. Bank swallows dig nest holes in erodible soils, usually in steeply-sloped channel banks along rivers and large creeks. Other than some potential habitat along the west side of the Sacramento River, the only location in the Plan Area that supports suitable conditions for bank swallow nests is along Cache Creek.

BASW 1. Availability of Suitable Channel Banks (max 84 points)		
Condition	Points	Score
Vertical, erodible channel bank exceeding 40 contiguous feet or multiple sites exceeding 17 feet in width and above high water line.	94	
Vertical, erodible channel bank from 17 to 40 contiguous feet in width and above high water line.	80	

FIELD NOTES: Describe the size, slope, and other conditions of the cut bank and surrounding area. _____

BASW 2. Proximity to Protected Parcels. Existing protected properties that are fully protected as per the Yolo JPA definition are scattered throughout the Plan Area. It is assumed that closer proximity to other protected lands enhances the value of the evaluated property by providing nearby stable long-term habitat value.

BASW 2. Proximity to other Protected Properties (Select one; maximum 6 points)		
Proximity	Points	Score
Adjacent	6	
Within 1 mile	3	
Within 2 miles	1	

FIELD NOTES: Describe other protected parcels within 2 miles. _____

BASW 3. Factors that increase mortality risk or degrade habitat value. Some activities or proximity issues can increase the risk of mortality and degrade habitat value for nesting and foraging for bank swallow. Examples include properties with nesting habitat along busy highways; proximity to extreme disturbances (e.g., pumping stations, industrial/manufacturing complexes), properties adjacent to recreational areas, planned urban development, or other areas that are subject to

substantial human presence and disturbances. Scoring is based on the onsite assessment and ranges from negative 1 to negative 10 points using the collective opinion of the STAC evaluation staff.

BASW 3. Factors that Increase Mortality Risk or Degrade Habitat Value (maximum score of 0 points)		
Disturbance Activity	Point Range	Score
Potential mortality due to proximity to high risk roads, turbines, substations, etc.	-1 to -10	
Proximity to extreme urban disturbances	-1 to -10	
Recreational disturbances including off-road vehicle use	-1 to -10	
Other (describe below)	-1 to -10	
	SCORE:	

FIELD NOTES: Describe the current disturbances and land use practices that increase mortality risk or degrade habitat value: _____

Scoring Summary

The scoring summary consists of total points for each of the scoring factors, aggregated by evaluation type. In addition to the species-specific factor (BASW 1), scoring factors for bank swallow include two relevant landscape and management factors (SWHA 6 and SWHA 8).

Scoring Summary – Bank Swallow					
Evaluation Type	Factor #	Factor	Max. Points	Score	Combined Score
Nesting Habitat	BASW 1	Availability of suitable channel banks	94		
Landscape Factors	BASW 2	Proximity to protected parcels	6		
Management Factors	BASW 3	Factors that Degrade Value	0		

Summary Description, Rationale, and Qualitative Assessment

This section summarizes the scoring evaluation and includes a qualitative assessment that addresses other attributes of the property beyond that which are addressed in the scoring. The STAC will then make a recommendation using both the scoring evaluation and other factors that may contribute to the conservation of the species.

Giant Garter Snake

Giant garter snake occurs in the Colusa and Yolo Basins within the Plan Area. There are no reported occurrences of this species west of the Colusa and Yolo Basins. Therefore conservation for this species will be met through protection of rice lands and associated upland habitats, and protection and restoration of freshwater emergent marsh and lacustrine or riverine natural communities within the modeled habitat area in the Colusa and Yolo Basins. In addition to the natural community protection and restoration, giant garter snake habitat should be associated with a water conveyance system to facilitate movement and habitat elements such as emergent and submergent vegetation to provide habitat for prey resources and to provide basking sites for snakes. To be considered for giant garter snake conservation, a property must have a minimum of 320 acres that supports both aquatic and upland habitat components, or be contiguous with existing protected properties that support suitable giant garter snake habitat.

GG5 1. Onsite Land Cover. Onsite land cover type is included to characterize the overall land use within the property boundary. A predominance of land cover types that are used by giant garter snake, such as rice farming, and large wetland communities, can therefore be differentiated from properties that support primarily upland crops that provide limited to no value.

GGG 1. Onsite Land Cover/Habitat (max. 12 points)				
Vegetation Type	Acres	Percent of Total	Multiplier	Score
Emergent marsh			0.12	
Seasonal wetland			0.08	
Rice			0.10	
Grassland			0.05	
Irrigated pasture			0.02	
Hay crops			0.00	
Rotational cropland			0.00	
Orchard/Vineyard			0.00	
Developed			0.00	
Other non-habitat			0.00	
Total Acres			Total Score	

FIELD NOTES: Describe the current habitat conditions: _____

GGG 2. Onsite Aquatic Habitat Type. The giant garter snake is an aquatic snake and so requires open water within an emergent marsh complex or other wetland community, surrogate wetlands such as flooded rice fields, or stream or other water conveyance channels that support aquatic vegetation. This attribute addresses the specific aquatic type present.

GGG 2. Onsite Aquatic Habitat Type (max 5 points)				
Vegetation Type	Acres	Percent of Total	Multiplier	Score
Emergent marsh complex			0.05	
Stream or water conveyance channel			0.04	
Rice			0.04	
Seasonal wetland			0.03	
Total Acres			Total Score	

FIELD NOTES: Describe the current habitat conditions. _____

GGG 3. Presence of water conveyance channels or other movement

habitat. Sufficient aquatic movement habitat is essential to maintain viable and genetically robust giant garter snake populations. Giant garter snakes rely on water conveyance channels – mostly irrigation channels – for local, dispersal, and migratory movements. Therefore the presence of water conveyance channels is an important habitat element within the overall landscape. Instead of quantifying or more closely evaluating the suitability of water conveyance channels, this is a present/not present response based on the presence of permanent water conveyance channels that connect with and continue through adjacent lands. A more qualitative assessment is conducted during the site visit.

GGG 3. Presence of Water Conveyance Channels or other Aquatic Movement Habitat (max 8 points)		
Present/Not Present	Points	Score
Permanent water conveyance channel that connects with and continues through adjacent lands – present.	8	
Permanent water conveyance channel that connects with and continues through adjacent lands – not present.	0	

FIELD NOTES: *Describe the current habitat conditions.* _____

GGG 4. Presence of Adjacent Upland Habitat.

Upland habitat adjacent to aquatic habitat is used by giant garter snakes for movement, basking, breeding, and overwintering. The upland habitat must be above typical inundation elevation during the inactive season. This attribute is also scored as a present/not present and then addressed in greater detail during the site visit.

GGG 4. Presence of Adjacent Upland Habitat (max 8 points)		
Type	Points	Score
Suitable uplands immediately adjacent to aquatic habitat – present.	8	
Suitable uplands immediately adjacent to aquatic habitat – not present.	0	

FIELD NOTES: *Describe the current habitat conditions.* _____

GGG 5. Presence of Basking Habitat. Basking habitat, usually floating reeds, rocks, or other debris along drainages, channels, and other aquatic habitats, is also an important habitat element for giant garter snakes. This attribute is also scored as a present/not present and discussed in greater, but qualitative detail during the site visit.

GGG 5. Presence of Basking Habitat (max 2 points)		
Present/Not Present	Points	Score
Basking habitat – present.	2	
Basking habitat – not present.	0	

FIELD NOTES: *Describe the current habitat conditions.* _____

GGG 6. Offsite Land Cover/Habitat within 1 mile. Giant garter snake populations benefit from larger suitable landscapes. Fragmented landscapes and small habitat patches do not represent a sustainable condition. Therefore, surrounding lands are essential to maintain a healthy, productive landscape for giant garter snake.

GGG 6. Offsite Land Cover/Habitat within 1 mile (max 15 points)				
Vegetation Type	Acres	Percent of Total	Multiplier	Score
Emergent marsh			0.15	
Rice			0.13	
Seasonal wetland			0.10	
Grassland			0.05	
Irrigated pasture			0.04	
Hay crops			0.0	
Rotational cropland			0.0	
Orchard/Vineyard			0.0	
Developed			0.0	
Other non-habitat			0.0	
Total Acres			Total Score	

FIELD NOTES: Describe the current habitat conditions within 1 mile. _____

GGG 7. Documented Occurrences. Close proximity to documented occurrences increases the opportunity for future occupancy.

GGG 7. Documented Occurrences (select one, max 10 points)		
Distance	Points	Score
Onsite	10	
Within 0.5 mile	5	
Within 1 mile	3	
Within 2 miles	2	
Within 3 miles	1	

FIELD NOTES: Describe reported occurrences within 3 miles of the property. _____

GGG 8. Proximity to Protected Parcels. Existing protected properties that are fully protected as per the Yolo JPA definition are scattered throughout the Plan Area.

It is assumed that closer proximity to other protected lands enhances the value of the evaluated property by providing nearby stable long-term habitat value.

GG8. Proximity to other Protected Properties (select one, max 6 points)		
Distance	Points	Score
Adjacent	6	
Within 1 mile	3	
Within 2 miles	1	

FIELD NOTES: Describe other protected parcels within 2 miles. _____

GG9. Habitat Enhancement Practices. Where habitat conditions are otherwise suitable, giant garter snake may benefit from certain habitat enhancement practices.

GG9. Habitat Enhancement Practices (max 20 points)			
Management Activity	Definition	Points	Score
Marsh restoration	Restoring freshwater emergent marsh increases high value habitat for giant garter snake.	10	
Hedgerow creation	Hedgerows are at least 15-feet wide and at least 400 linear feet. They typically are established along agricultural field borders or along the edges of water conveyance canals. They may be dominated by open native perennial grasses to enhance microtine prey populations but can also include scattered trees and shrubs. They provide refuge to rodent prey species and nesting/cover habitat for many species.	4	
Marsh protection	Actions that protect the integrity of marsh habitats, including cattle exclusion and ensuring a sufficient water supply.	3	
Rice field flood-up/draw-down	Timing the spring flood up and fall draw-down of rice fields to correspond with giant garter snake active and inactive periods to maximize reproduction and reduce mortality.	3	
	SCORE:		

FIELD NOTES: Describe the enhancement practices. _____

GGG 10. Factors that increase mortality risk or degrade habitat

value. Some activities or proximity issues can increase the risk of mortality and degrade habitat value for giant garter snake. Examples include properties with habitat adjacent to busy roadways; proximity to extreme disturbances (e.g., pumping stations, industrial/manufacturing complexes), properties adjacent to recreational areas, planned urban development, or other areas that are subject to substantial human presence and disturbances. Scoring is based on the onsite assessment and ranges from negative 1 to negative 10 points using the collective opinion of the STAC evaluation staff.

GGG 10. Factors that Increase Mortality Risk or Degrade Habitat Value (maximum 0 points)		
Disturbance Activity	Point Range	Score
Potential mortality due to proximity to high risk roads, etc.	-1 to -10	
Proximity to extreme urban disturbances	-1 to -10	
Recreational disturbances including off-road vehicle use	-1 to -10	
Other (describe below)	-1 to -10	
	SCORE:	

FIELD NOTES: Describe the current disturbances and land use practices that increase mortality risk or degrade habitat value: _____

Scoring Summary

The scoring summary consists of total points for each of the scoring factors, aggregated by evaluation type.

Scoring Summary – Giant Garter Snake

Evaluation Type	Factor #	Factor	Max. Points	Score	Combined Score
Land Cover/ Habitat	GGs 1	Onsite Land Cover	8		
	GGs 2	Aquatic habitat Type	5		
	GGs 3	Channel habitat (movement/dispersal)	12		
	GGs 4	Adjacent upland	8		
	GGs 5	Basking habitat	2		
Landscape Factors	GGs 6	Offsite land cover/habitat	15		
	GGs 7	Documented occurrences	20		
	GGs 8	Proximity to protected parcels	10		
Management Factors	GGs 9	Habitat Enhancement	20		
	GGs 10	Factors that Degrade Value	0		

Summary Description, Rationale, and Qualitative Assessment

This section summarizes the scoring evaluation and includes a qualitative assessment that addresses other attributes of the property beyond that which are addressed in the scoring. The STAC will then make a recommendation using both the scoring evaluation and other factors that may contribute to the conservation of the species.

Western Pond Turtle

Conservation for the western pond turtle will be met through the protection of suitable aquatic habitats, rice, and associated grassland and other uncultivated uplands. To be considered for conservation of western pond turtle, properties must include a minimum of 2.5 acres of aquatic habitat (e.g., perennial streams, larger water conveyance channels, or large ponds) adjacent to at least 200 feet suitable upland habitat.

WPT 1. Aquatic Habitat. Other than the use of upland habitats for nesting, western pond turtles are entirely aquatic and require permanent streams, lakes, or ponds. In the Plan Area, suitable aquatic habitat for the western pond turtles is found primarily in larger creeks and sloughs, such as Putah Creek, Cache Creek, and Babel Slough, and in large water conveyance channels, such as the Knights Landing Ridge Cut and Willow Slough Bypass. The relatively few permanent ponds or lakes in the Plan Area tend to support predatory species and are therefore given lower value than other aquatic features.

WPT 1. Aquatic Habitat (select one) (max 20 points)		
Type	Point Range	Score
Natural perennial stream	15-20	
Permanent water conveyance channel	10-15	
Large pond or lake	5-10	

FIELD NOTES: Describe the current habitat conditions. _____

WPT 2. Availability of Adjacent Upland Habitat. Western pond turtles require upland habitat for nesting, overwintering, and dispersal. Because of the extent of cultivation that occurs in the Plan Area, suitable upland habitat should be immediately adjacent to aquatic habitat, should extend at least 20 feet from the edge of the high water aquatic habitat, and extend for a minimum of 200 feet along the aquatic habitat. Suitable upland habitats include adjacent riparian vegetation (on slopes not exceeding 50%, hedgerows, uncultivated grasslands and pasturelands, and some uncultivated ruderal or weedy habitats.

WPT 2. Availability of Adjacent Upland Habitat (at least 20 feet-wide, 200-feet-long, and uncultivated) (max 20 points)		
Type	Points	Score
Uncultivated grassland	20	
Riparian	18	
Pasture	10	
Ruderal	6	
Cultivated cropland	4	
None	0	

FIELD NOTES: Describe the current habitat conditions. _____

WPT 3. Presence of Basking Habitat. Basking habitat, usually logs or rocks is an important western pond turtle habitat element. This attribute is also scored as a present/not present but the range of points is dependent on the extent and quality of the basking habitat, which is qualitatively measured during the site visit.

WPT 3. Presence of Basking Habitat (max. 20 points)		
Present/Not Present	Point Range	Score
Basking habitat – present.	10 to 20	
Basking habitat – not present.	0	

FIELD NOTES: *Describe the current habitat conditions.* _____

WPT 4. Documented Occurrences. Close proximity to documented occurrences increases the opportunity for future occupancy.

WPT 4. Documented Occurrences (select one, max 14 points)		
Distance	Points	Score
Onsite	14	
Within 0.5 mile	8	
Within 1 mile	4	
Within 2 miles	2	
Within 3 miles	1	
>3 miles	0	

FIELD NOTES: *Describe the distribution within 3 miles of the property.* _____

WPT 5. Proximity to Protected Parcels. Existing protected properties that are fully protected as per the Yolo JPA definition are scattered throughout the Plan Area. It is assumed that closer proximity to other protected lands enhances the value of the evaluated property by providing nearby stable long-term habitat value.

WPT 5. Proximity to other Protected Properties (select one, max 6 points)		
Distance	Points	Score
Adjacent	6	
Within 1 mile	3	
Within 2 miles	1	

FIELD NOTES: Describe other protected parcels within 2 miles. _____

WPT 6. Habitat Enhancement Practices. Where habitat conditions are otherwise suitable, western pond turtles may benefit from certain habitat enhancement practices. To receive credit for enhancements, they need to be in association with existing pond turtle habitat. For example, hedgerow creation must be adjacent to a suitable aquatic habitat. Hedgerows along non-aquatic field borders do not necessarily benefit pond turtles. Flooded rice has been shown to support juvenile pond turtles, but this occurs only where other suitable aquatic habitat for pond turtles occurs adjacent to rice fields. Therefore, management of rice fields must also be in association with suitable aquatic habitat. Likewise, marsh creation and protection must also be in association with existing aquatic habitat for pond turtles.

WPT 6. Habitat Enhancement Practices (maximum 20 points)			
Management Activity	Definition	Points	Score
Hedgerow creation	Hedgerows are at least 15-feet wide and at least 400 linear feet. To benefit pond turtles, they must be along the edges of suitable aquatic habitat, including large water conveyance canals. They may be dominated by open native perennial grasses to enhance microtine prey populations but can also include scattered trees and shrubs. They provide refuge to rodent prey species and nesting/cover habitat for many species, including pond turtles.	8	
Marsh restoration	Restoring freshwater emergent marsh adjacent to existing suitable aquatic habitat can increase cover habitat for western pond turtle.	7	
Marsh protection	Actions that protect the integrity of marsh habitats, including cattle exclusion and ensuring a sufficient water supply can also benefit pond turtles.	3	
Rice field flood-up/draw-down	Timing the spring flood up and fall draw-down of rice fields to correspond with emergence of hatchling pond turtles.	2	
Other (describe below)			
	SCORE:		

FIELD NOTES: *Describe the enhancement practices.* _____

WPT 7. Factors that increase mortality risk or degrade habitat value.

Some activities or proximity issues can increase the risk of mortality and degrade habitat value for western pond turtle. Examples include properties with habitat adjacent to busy roadways; proximity to extreme disturbances (e.g., pumping stations, industrial/manufacturing complexes), properties adjacent to recreational areas, planned urban development, or other areas that are subject to substantial human presence and disturbances. Scoring is based on the onsite assessment and ranges from negative 1 to negative 10 points using the collective opinion of the STAC evaluation staff.

WPT 7. Factors that Increase Mortality Risk or Degrade Habitat Value (maximum 0 points)		
Disturbance Activity	Point Range	Score
Potential mortality due to proximity to high risk roads, etc.	-1 to -10	
Proximity to extreme urban disturbances	-1 to -10	
Recreational disturbances including off-road vehicle use	-1 to -10	
Other (describe below)	-1 to -10	
	SCORE:	

FIELD NOTES: Describe the current disturbances and land use practices that increase mortality risk or degrade habitat value: _____

Scoring Summary

The scoring summary consists of total points for each of the scoring factors, aggregated by evaluation type.

Scoring Summary – Western Pond Turtle					
Evaluation Type	Factor #	Factor	Max. Points	Score	Combined Score
Land Cover/ Habitat	WPT 1	Aquatic habitat	20		
	WPT 2	Adjacent upland	20		
	WPT 3	Basking habitat	20		
Landscape Factors	WPT 4	Documented occurrences	14		
	WPT 5	Proximity to protected parcels	6		
Management Factors	WPT 6	Habitat Enhancement	20		
	WPT 7	Factors that Degrade Value	0		

Summary Description, Rationale, and Qualitative Assessment

This section summarizes the scoring evaluation and includes a qualitative assessment that addresses other attributes of the property beyond that which are addressed in the

scoring. The STAC will then make a recommendation using both the scoring evaluation and other factors that may contribute to the conservation of the species.

California Tiger Salamander

Conservation of the California tiger salamander will be met through the protection of grassland landscapes where aquatic habitats are available for breeding. To be considered for California tiger salamander conservation, properties must include a minimum of 100 acres of intact grassland and include suitable aquatic features or be contiguous with other protected habitat suitable for California tiger salamander. Vernal pools and other seasonal rain pools are the primary breeding habitat for California tiger salamanders. However, the species is also known to occur in artificial ponds, including stock ponds. All known occurrences in the Plan Area are associated with stock ponds in the northern Dunnigan Hills. In artificial sites, water management is a key issue related to occurrence. Sufficient water must be present in the stock ponds to support the duration of breeding and larval development periods. California tiger salamanders migrate seasonally between subterranean overwintering sites and breeding pools. The species often uses ground squirrel burrows or other rodent burrows as overwintering habitat, and thus the presence of ground squirrels or other rodent activity is an important habitat element. Three species-specific attributes are included for California tiger salamander, Land Cover Type, Availability of Onsite Aquatic Habitat, and Presence of Ground Squirrels.

CTS 1. Land Cover Type. California tiger salamander occurs in grassland and oak savannah communities. Irrigated pastures, if they are associated with grassland landscapes, may also be used occasionally.

CTS 1. Land Cover/Habitat (max 20 points)				
Vegetation Type	Acres	Percent of Total	Multiplier	Score
Grassland			0.2	
Oak Savannah			0.2	
Irrigated pasture			0.1	
Hay and grass crops			0.0	
Rotational cropland			0.0	
Orchard/Vineyard			0.0	
Developed			0.0	
Total Acres			Total Score	

FIELD NOTES: *Describe the land use and habitat conditions.* _____

CTS 2. Availability of Onsite Aquatic Habitat. California tiger salamanders require aquatic habitats for breeding and larval development. Suitable aquatic habitat is an essential habitat element for this species. This attribute is scored as present or not present. The point range is dependent on the quality of the habitat, which is qualitatively measured during the site visit.

CTS 2. Availability of Onsite Aquatic Habitat (select one) (max 20 points)		
Condition	Points	Score
Stock pond or other aquatic breeding habitat present	10 to 20	
Stock pond or other aquatic breeding habitat not present	0	

FIELD NOTES: *Describe the aquatic habitat (size, depth, vegetation)* _____

CTS 3. Presence of Ground Squirrels. California tiger salamanders often use California ground squirrel burrows as overwintering habitat. The presence of ground squirrels in an otherwise suitable habitat area increases the likelihood of future occupancy.

CTS 3. Presence of Ground Squirrels (select one) (max 14 points)		
Condition	Points	Score
Ground squirrel activity present	14	
Ground squirrel activity not present	0	

FIELD NOTES: *Describe the extent of ground squirrel activity.* _____

CTS 4. Documented Occurrences. Close proximity to documented occurrences increases the opportunity for future occupancy.

CTS 4. Documented Occurrences (select one, max 40 points)		
Distance	Points	Score
Onsite	40	
Within 0.5 mile	20	
Within 1 mile	10	
Within 2 miles	5	
Within 3 miles	1	
>3 miles	0	

FIELD NOTES: Describe the distribution within 3 miles of the property. _____

CTS 5. Proximity to Protected Properties. Existing protected properties that are fully protected as per the Yolo JPA definition are scattered throughout the Plan Area. It is assumed that closer proximity to other protected lands enhances the value of the evaluated property by providing nearby stable long-term habitat value.

CTS 5. Proximity to other Protected Properties (select one, max 6 points)		
Distance	Points	Score
Adjacent	6	
Within 1 mile	3	
Within 2 miles	1	
>2 miles	0	

FIELD NOTES: Describe other protected parcels within 2 miles. _____

CTS 6. Factors that increase mortality risk or degrade habitat value. Some activities or proximity issues can increase the risk of mortality and degrade habitat value for California tiger salamander. Examples include properties with habitat adjacent to busy roadways; proximity to extreme disturbances (e.g., pumping stations, industrial/manufacturing complexes), properties adjacent to recreational areas, planned

urban development, or other areas that are subject to substantial human presence and disturbances, overgrazing, and degrading of stock ponds by cattle. Presence of predatory fish can also degrade habitat value. Scoring is based on the onsite assessment and ranges from negative 1 to negative 10 points using the collective opinion of the STAC evaluation staff.

CTS 6. Factors that Increase Mortality Risk or Degrade Habitat Value (maximum score of 0 points)		
Disturbance Activity	Point Range	Score
Potential mortality due to proximity to high risk roads, etc.	-1 to -10	
Proximity to extreme urban disturbances	-1 to -10	
Recreational disturbances including off-road vehicle use	-1 to -10	
Overgrazing and degrading of stock ponds by cattle	-1 to -10	
Other (describe below)	-1 to -10	
	SCORE:	

FIELD NOTES: Describe the current disturbances and land use practices that increase mortality risk or degrade habitat value: _____

Scoring Summary

The scoring summary consists of total points for each of the scoring factors, aggregated by evaluation type.

Scoring Summary – California Tiger Salamander					
Evaluation Type	Factor #	Factor	Max. Points	Score	Combined Score
Land Cover/ Habitat	CTS 1	Land Cover Type	20		
	CTS 2	Aquatic breeding habitat	20		
	CTS 3	Presence of ground squirrel	14		
Landscape Factors	CTS 4	Documented occurrences	40		
	CTS 5	Proximity to protected parcels	6		
Management Factors	CTS 6	Factors that Degrade Value	0		

Summary Description, Rationale, and Qualitative Assessment

This section summarizes the scoring evaluation and includes a qualitative assessment that addresses other attributes of the property beyond that which are addressed in the scoring. The STAC will then make a recommendation using both the scoring evaluation and other factors that may contribute to the conservation of the species.

Valley Elderberry Longhorn Beetle

Conservation for valley elderberry longhorn beetle will be met through the protection of riparian habitats along Putah Creek or Cache Creek that support mature elderberry shrubs. Conservation can also be achieved through protection of shrubs along smaller drainages, such as Willow Slough or Dry Slough. The species can also benefit from the protection of some upland sites where isolated elderberry shrubs may occur. However, the scoring is scaled based on the potential long-term sustainability of mature elderberry shrubs. The two largest streams, Putah Creek and Cache Creek, with the most extensive riparian systems provide higher value and long-term benefit than do shrubs along smaller streams or isolated upland shrubs that may be more subject to incidental disturbances or have less likelihood of occupancy by valley elderberry longhorn beetle. Only one species-specific attribute is included for valley elderberry longhorn beetle, the Presence of Mature Elderberry Shrubs.

VELB 1. Presence of Mature Elderberry Shrubs. The elderberry shrub is the host plant for valley elderberry longhorn beetle and therefore necessary for the occurrence of this species. Scoring is based on location and number of shrubs present.

VELB 1. Presence of Mature Elderberry Shrubs			
Location/condition	Number of Shrubs	Points	Score
Putah/Cache Creek	>10	100	
	5 to 10	75	
	1 to 5	50	
Other Riparian	>10	75	
	5 to 10	50	
	1 to 5	25	
Upland Sites	>10	50	
	5 to 10	25	
	1 to 5	5	

FIELD NOTES: *Describe the number, size, and condition of shrubs.*

Scoring Summary

The scoring summary consists of total points for each of the scoring factors, aggregated by evaluation type. For valley elderberry longhorn beetle, only one attribute is assigned, presence of elderberry shrubs. The scoring is scaled according to the location or habitat association and the number of shrubs present. Elderberry shrubs that occur along Putah or Cache Creek and that would be incorporated into a preserve design are assumed to potentially receive maximum protection. Shrubs along smaller streams or isolated upland shrubs are potentially more subject to disturbances and are assumed less likely to be occupied by valley elderberry longhorn beetle.

Scoring Summary – Valley Elderberry Longhorn Beetle					
Evaluation Type	Factor #	Factor	Points	Score	Combined Score
Presence/ Absence	VELB 1	Presence of mature elderberry shrubs	100		

Summary Description, Rationale, and Qualitative Assessment

This section summarizes the scoring evaluation and includes a qualitative assessment that addresses other attributes of the property beyond that which are addressed in the scoring. The STAC will then make a recommendation using both the scoring evaluation and other factors that may contribute to the conservation of the species.

Palmate-Bracted Bird’s Beak

In Yolo County, this species is known to occur only in the vicinity of the remaining alkali sink community southeast of Woodland. This location is one of only seven known occurrence sites for the palmate-bracted bird’s beak. Opportunity for protection and preservation of this species in Yolo County is focused on the Woodland Regional Park, where the species is known to occur. This species is also known to occur on the adjacent protected properties to the north and to the east. While the City of Woodland intends to protect this population, bringing the property into the Yolo Habitat Conservancy’s preserve network will ensure long-term protection, management, and monitoring of the population. It will also meet the conservation objectives for this species under the HCP/NCCP. Its adjacency with other protected properties to the north and east will future enhance the potential for long-term protection and sustainability of this endangered plant population.

PBBB-1. Presence/Absence. Associated with alkali sink seasonal wetland communities, this rare, endangered plant is known from only seven sites within its range and only one site in Yolo County.

PBBB-1. Presence/Absence of Palmate-bracted Bird's Beak	
Presence/Absence	Score
Present	100
Absent	0

FIELD NOTES: _____

Scoring Summary – Palmate-bracted Bird's Beak					
Evaluation Type	Factor #	Factor	Max. Points	Score	Combined Score
Presence/ Absence	PBBB-1	Presence of plants	100		

Summary Description, Rationale, and Qualitative Assessment

This section summarizes the scoring evaluation and includes a qualitative assessment that addresses other attributes of the property beyond that which are addressed in the scoring.

Multi-Species Summary

In this section, summarize the presence or absence of each Covered Species on the property being evaluated. Fill in the following table to indicate whether or not habitat is present for each species and the combined total score for each species evaluated (i.e., the total of the each of the evaluation categories for each species).

Species	Habitat Present (Y/N)	Combined Score
Swainson's hawk		
White-tailed kite		
Burrowing owl		
Tricolored blackbird		
Yellow-billed cuckoo		
Least Bell's vireo		
Bank swallow		
Giant garter snake		
Western pond turtle		
California tiger salamander		
Valley elderberry longhorn beetle		
Palmate-bracted bird's beak		

Briefly summarize species evaluation (if habitat is not present, indicate with N/A):

Swainson's hawk:

White-tailed kite:

Burrowing Owl:

Tricolored Blackbird:

Yellow-billed Cuckoo:

Least Bell's Vireo:

Bank Swallow:

Giant Garter Snake:

Western Pond turtle:

California Tiger Salamander:

Valley Elderberry Longhorn Beetle:

Palmate-bracted Bird's Beak:

Recommendation

Recommendations for parcel acquisition are made on the basis of the individual evaluation scores, the number of Covered Species that would benefit from conservation of the property, other qualitative attributes of the property, both positive and negative, that are not specifically addressed in the scoring, and the extent to which the property contributes to species conservation and meets the objectives of the conservation strategy.