



SANTA CLARA VALLEY
HABITAT AGENCY



City of Gilroy

City of Morgan Hill

City of San José

County of Santa Clara

Santa Clara Valley Water District

Santa Clara Valley
Transportation Authority

SANTA CLARA VALLEY HABITAT PLAN CONDITIONS IMPLEMENTATION GUIDE

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- Attachment 1** **Clarification and Interpretation Memo 2013-011—Conditions of Approval: Implementation of Condition #1 (Avoid Direct Impacts on Legally Protected Plant and Wildlife Species)**
- Attachment 2** **Table 6-2—Aquatic Avoidance and Minimization Measures**
- Attachment 3** **Table 6-3—Conditions on Covered Transportation Projects**
- Attachment 4** **Table 6-4—Rural Road Maintenance Avoidance and Minimization Measures**
- Attachment 5** **Clarification and Interpretation Memo 2014-002—Condition 11 Stream and Riparian Setback: Clarification on determining whether a watercourse is a stream under the Habitat Plan**

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Acronyms and Abbreviations

CDFW	California Department of Fish and Wildlife
CNDDB	California Natural Diversity Database
Co-Permittees	County of Santa Clara; Cities of Morgan Hill, Gilroy, and San Jose; Santa Clara Valley Water District; Santa Clara Valley Transportation Authority; and the Santa Clara Valley Habitat Agency
Geobrowser	Habitat Agency Geobrowser (www.hcpmaps.com)
Habitat Agency	Santa Clara Valley Habitat Agency
Habitat Plan	Santa Clara Valley Habitat Plan
MBTA	Migratory Bird Treaty Act
O&M	Operations and maintenance
SCVWD	Santa Clara Valley Water District
USFWS	U.S. Fish and Wildlife Service
VTA	Santa Clara Valley Transportation Authority

This guide is intended to assist the Co-Permittees (County of Santa Clara; Cities of Morgan Hill, Gilroy, and San Jose; Santa Clara Valley Water District [SCVWD]); Santa Clara Valley Transportation Authority [VTA]; and the Santa Clara Valley Habitat Agency [Habitat Agency]) in implementing the 20 conditions that apply to covered activities under the Santa Clara Valley Habitat Plan (Habitat Plan).

Per Chapter 6 of the Habitat Plan, most covered activities are subject to compliance with up to 20 conditions, which apply based on project type, project location, and other circumstances.

This guide is intended to assist Co-Permittee staff and private applicants in determining (1) which conditions apply to a covered project, and (2) the process or timing for applying conditions (during initial project design or during construction).

This guide also contains the Habitat Plan conditions text that can be copied into plans, construction drawings, checklists, or other materials to facilitate implementation. It is anticipated that this document will be modified over time, based on adaptive management in implementing the Habitat Plan and any modifications to the Habitat Plan or implementing documents. Modifications to this document will be reviewed by the Co-Permittees.

Outline of Guide

This guide contains the following information.

- **Chapter 1. Exemption from Conditions**

Covered activities that are exempt from all Habitat Plan conditions are listed here. Co-Permittee staff and private applicants should first consult this section, if needed, to determine if a covered activity or project is subject to the 20 conditions listed in this Guide.

- **Chapter 2. Summary Tables**

These tables summarize the Habitat Plan conditions and describe their applicability to different types of projects and the timing of implementation.

- **Chapter 3. Resources**

A list of additional resources is provided that can be used with this Guide in determining how and when to apply the conditions. This includes the Habitat Agency Geobrowser (“Geobrowser”; an online mapping tool) and other resources, such as the Habitat Plan application and forms.

- **Chapter 4. Conditions**

Each of the 20 conditions are listed, with a description of their applicability to covered projects, reference to applicable Habitat Plan maps (viewed in the Geobrowser), and an explanation of when the condition, or components of the condition, should be implemented, such as during initial project design or during project construction. For certain conditions, the procedural steps to implement the condition are described.

- **Chapter 5. References**

Chapter 1

Exemption from Conditions

Per Section 6.2 of the Habitat Plan, certain covered activities and projects are not subject to the 20 conditions under the Plan. Below is the list of covered activities and projects that are not subject to the conditions. Co-Permittee staff and private applicants should first consult this list to determine if a project is exempt from all conditions. If a proposed covered activity meets one of the following categories (as verified by Co-Permittee staff for private development activities), then the conditions listed in this Guide are not applicable to the activity or project.

Private and Public Projects—located on developed land covers

- Any covered activity that occurs in *urban-suburban*, landfill, reservoir, or agriculture developed land cover types as verified in the field, unless the activity may affect mapped or unmapped stream, riparian, serpentine, pond, or wetland land cover types, or the activity is located in a stream setback (see Condition 11 for a discussion of stream setbacks).

Private—no ground disturbance

- Projects that do not result in ground disturbance, do not result in release of potential water quality contaminants, or do not create new wildlife barriers.

Private and Public Projects—additions to existing development

- Additions to existing structures, or new structures that are within 50 feet of an existing structure (e.g., a new garage), that result in less than less than 5,000 square feet of impervious surface as long as no stream, riparian, wetland, pond, or serpentine land cover types are affected. Additions are cumulative and must be calculated based on the footprint of the structure at the time of Plan implementation to determine whether this threshold has been crossed.

Private and Public Projects—parcel size less than 0.5 acre

- A covered activity on a parcel of less than 0.5 acre as long as no serpentine, stream, riparian, pond, or wetland land cover types are within the parcel.

Private Projects—maintenance

- Private-sector, routine-maintenance activities that require a development, grading, or building permit and that occur inside the urban service area (private-sector activities that do not require a development, grading, or building permit are not covered by the Plan or its conditions or fees).
- Private-sector, routine-maintenance activities that require a development, grading, or building permit; that occur outside of the urban service area; and that occur within 50 feet of all existing structures at the time of Plan commencement or within 50 feet of structures that were permitted for incidental take under the Habitat Plan.

Public Projects—maintenance

- Routine infrastructure maintenance by public agencies within the planning limit of urban growth that do not affect stream, riparian, serpentine, pond, or wetland land cover types.
- Routine infrastructure maintenance by public agencies that occurs in urban-suburban, landfill, reservoir, or agriculture developed land cover types that do not affect stream, riparian, serpentine, pond, or wetland land cover types. Examples of such activities include filling pot-holes and resurfacing existing roads without expansion of the paved area.

Chapter 2

Summary Tables

This chapter contains the following summary tables.

- Table 1. Summary of Conditions that Apply to All Projects under the Habitat Plan
- Table 2. Summary of Project-Specific Conditions under the Habitat Plan
- Table 3. Summary of Natural Community-Specific Conditions under the Habitat Plan
- Table 4. Summary of Species-Specific Conditions under the Habitat Plan

Figure 1 provides an overview of which conditions apply to which types of projects, and which conditions require surveys of plant or animal covered species.

Table 1. Summary of Conditions that Apply to All Projects under the Habitat Plan

Condition	Applies to projects that:	This condition helps:	For detailed information, see:	Project						
				Type		Phase				
				Urban development	Rural development	Planning	Design	Construction	Postconstruction	O&M
1. Avoid Direct Impacts on Legally Protected Plant and Wildlife Species	Are covered under the Habitat Plan	Protect species for which environmental permits cannot be granted: Contra Costa goldfields, bald eagle, American peregrine falcon, southern bald eagle, white-tailed kite, California condor, and ring-tailed cat (= ringtail); also requires compliance with the Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act	Habitat Plan: Section 6.3, <i>Conditions on All Covered Activities</i> (pages 6-7 to 6-8)	●	●	●	●	●	●	●
3. Maintain Hydrologic Conditions and Protect Water Quality	Are covered under the Habitat Plan	Protect watershed health, primarily through reducing stormwater discharge and pollutant runoff from project sites	Habitat Plan: Section 6.4.1, <i>Urban Development</i> (pages 6-12 to 6-13); Table 6-2	●	●	●	●	●	●	●

● Applies to the project.
O&M = operations and maintenance

Table 2. Summary of Project-Specific Conditions under the Habitat Plan

Condition	Applies to projects that:	This condition helps:	For detailed information, see:	Project							
				Type		Phase					
				Urban development	Rural development	Planning	Design	Construction	Postconstruction	O&M	
2. Incorporate Urban-Reserve System Interface Design Requirements	Overlap the Urban Reserve System Interface Zones	Minimize impacts that can result (e.g., through runoff, noise, introduction of invasive species) when development occurs near reserve areas	Habitat Plan: Section 6.4.1, <i>Urban Development</i> (pages 6-9 to 6-11) Geobrowser: <i>Urban Reserve System Interface Zones</i> (www.hcpmaps.com)	○	○	●	●				
4. Avoidance and Minimization for In-Stream Projects	Involve in-stream work (e.g., flood protection, bridge rehabilitation, dam repair)	Minimize sediment/pollutant discharge into waterways, disturbance of earth and riparian vegetation, and alteration of the hydrologic and hydraulic characteristics of water bodies	Habitat Plan: Section 6.4.2, <i>In-Stream Projects</i> (pages 6-14 to 6-18); Figure 3-10; Table 6-2	○	○		●	●	●	●	
5. Avoidance and Minimization Measures for In-Stream Operations and Maintenance	Involve O&M work within and immediately adjacent to the stream channel (e.g., sediment removal, bank stabilization, vegetation management)	Minimize sediment/pollutant discharge into waterways and disturbance of riparian vegetation	Habitat Plan: Section 6.4.3, <i>In-Stream Operations and Maintenance</i> (pages 6-18 to 6-20); Table 6-2	○	○						●
6. Design and Construction Requirements for Covered Transportation Projects	Are transportation-oriented and involve new ground disturbance or create/augment wildlife movement barriers (e.g., dirt road construction, interchange upgrades)	Lessen the impacts of transportation projects by enhancing wildlife crossings, erecting fencing, installing/maintaining drainage structures, and other measures	Habitat Plan: Section 6.4.4, <i>Rural Projects</i> (pages 6-21 to 6-28); Table 6-3		○	○	●	●	●		

Condition	Applies to projects that:	This condition helps:	For detailed information, see:	Project							
				Type		Phase					
				Urban development	Rural development	Planning	Design	Construction	Postconstruction	O&M	
7. Rural Development Design and Construction Requirements	Consist of new development either outside the urban service area (e.g., subdivisions) or within urban service area if consistent with rural land uses (e.g., agricultural facilities)	Lessen the impacts of rural development in areas that will remain primarily rural by preserving wildlife corridors, minimizing degradation of streams, and other measures	Habitat Plan: Section 6.4.4, <i>Rural Projects</i> (pages 6-28 to 6-34)	○	●		●	●			
8. Implement Avoidance and Minimization Measures for Rural Road Maintenance	Involve O&M activities (e.g., utility line maintenance, vegetation management, road maintenance) on or along rural roads	Minimize sediment discharge, disturbance of nesting covered bird species, and the spread of nonnative invasive species	Habitat Plan: Section 6.4.5, <i>Rural Operations and Maintenance</i> (pages 6-35 to 6-37); Table 6-4		○						●
9. Prepare and Implement a Recreation Plan	Are located within Reserve System lands that allow public access	Minimize recreational use impacts on biological resources	Habitat Plan: Section 6.4.6, <i>Reserve System Implementation</i> (pages 6-37 to 6-42)			●	●	○	○		●
10. Fuel Buffer	Are located within Reserve System lands; or in the Diablo Range or Santa Cruz Mountains; or in grassland, chaparral, oak woodland, or conifer woodland types; or in areas designated by the County as very high fire hazard severity zones	Provide fire protection by establishing minimum standards for removing brush, flammable vegetation, or combustible growth near occupied structures	Habitat Plan: Section 6.4.6, <i>Reserve System Implementation</i> (pages 6-42 to 6-44)		○					●	●

- Applies to the project.
 - May apply to the project, depending on project type and location; see applicable pages in Chapter 6, *Conditions on Covered Activities and Application Process*, of the Habitat Plan.
- O&M = operations and maintenance

Table 3. Summary of Natural Community-Specific Conditions under the Habitat Plan

Condition	Applies to projects that:	This condition helps:	For detailed information, see:	Project						
				Type		Phase				
				Urban development	Rural development	Planning	Design	Construction	Postconstruction	O&M
11. Stream and Riparian Setbacks	Overlap a stream or stream setback—requirements differ based on the project’s location in relation to the urban service area	Minimize impacts on streams by specifying setbacks and buffer zones	Habitat Plan: Section 6.5, <i>Conditions to Minimize Impacts on Natural Communities</i> (pages 6-44 to 6-55); Table 6-5 Geobrowser: <i>Category 1 Stream Buffers and Setbacks</i> (www.hcpmaps.com)	○	○		●	●		
12. Wetland and Pond Avoidance and Minimization	May affect wetlands or pond land covers ^a	Minimize impacts on wetlands and ponds and avoid impacts on high-quality wetlands and ponds by prescribing vegetated stormwater filtration features, proper disposal of cleaning materials, and other requirements	Habitat Plan: Section 6.5, <i>Conditions to Minimize Impacts on Natural Communities</i> (pages 6-56 to 6-58)	○	○	●	●	●		
13. Serpentine and Associated Covered Species Avoidance and Minimization	Are located on sites with serpentine land covers	Minimize or avoid impacts on serpentine land covers by prescribing surveys, plant salvage, and other requirements	Habitat Plan: Section 6.5, <i>Conditions to Minimize Impacts on Natural Communities</i> (pages 6-58 to 6-59) Geobrowser: <i>Serpentine Fee Zones</i> (www.hcpmaps.com)	○	○	●	●	●		●

Condition	Applies to projects that:	This condition helps:	For detailed information, see:	Project						
				Type		Phase				
				Urban development	Rural development	Planning	Design	Construction	Postconstruction	O&M
14. Valley Oak and Blue Oak Woodland Avoidance and Minimization	May affect valley oak and blue oak woodland land covers ^b	Minimize and avoid Valley and Blue Oak Woodland by specifying buffer zones, pruning regulations, and other requirements	Habitat Plan: Section 6.5, <i>Conditions to Minimize Impacts on Natural Communities</i> (pages 6-60 to 6-61) Geobrowser: <i>Valley Oak and Blue Oak Woodlands</i> (www.hcpmaps.com)	○	○	●	●	●	○	●

- Applies to the project.
 - May apply to the project, depending on project type and location; see applicable pages in Chapter 6, *Conditions on Covered Activities and Application Process*, of the Habitat Plan.
 - ^a Covered project compliance with this condition can be demonstrated by project location. Covered projects located more than 100 feet from wetlands or ponds are in compliance with this condition.
 - ^b Covered project compliance with this condition can be demonstrated by project location. Covered projects located more than 25 feet from Valley Oak or Blue Oak Woodlands are in compliance with this condition.
- O&M = operations and maintenance

Table 4. Summary of Species-Specific Conditions under the Habitat Plan

Condition	Applies to projects that:	This condition helps:	For detailed information, see:	Project						
				Type		Phase				
				Urban development	Rural development	Planning	Design	Construction	Postconstruction	O&M
15. Western Burrowing Owl	Are located within the <i>Burrowing Owl Survey Area</i> and have potential nesting or breeding habitat.	Protect western burrowing owls by prescribing preconstruction surveys, construction buffer zones, biological monitoring, and other requirements	Habitat Plan: Section 6.6.1, <i>Selected Covered Wildlife Species</i> (pages 6-62 to 6-67); Table 6-8 Geobrowser: <i>Burrowing Owl Survey and Fee Zones</i> (www.hcpmaps.com)	○	○	●	○	○		●
16. Least Bell’s Vireo	Are located within the <i>Least Bell’s Vireo Survey Area</i> and where suitable nesting habitat exists.	Protect least Bell’s vireos by prescribing preconstruction surveys, construction buffer zones, biological monitoring, and other requirements	Habitat Plan: Section 6.6.1, <i>Selected Covered Wildlife Species</i> (pages 6-68 to 6-69); Table 6-8 Geobrowser: <i>Wildlife Survey Areas</i> (www.hcpmaps.com)	○	○	●	○	○		●
17. Tricolored Blackbird	Are located within the <i>Tricolored Blackbird Survey Area</i> where suitable nesting habitat exists.	Protect tricolored blackbirds by prescribing preconstruction surveys, construction buffer zones, biological monitoring, and other requirements	Habitat Plan: Section 6.6.1, <i>Selected Covered Wildlife Species</i> (pages 6-69 to 6-71); Table 6-8 Geobrowser: <i>Wildlife Survey Areas</i> (www.hcpmaps.com)	○	○	●	○	○		●
18. San Joaquin Kit Fox	Are located within the <i>San Joaquin Kit Fox Survey Area</i> where suitable habitat exists.	Protect San Joaquin kit foxes by prescribing preconstruction surveys, construction buffer zones, biological monitoring, and other requirements	Habitat Plan: Section 6.6.1, <i>Selected Covered Wildlife Species</i> (pages 6-71 to 6-73); Table 6-8 Geobrowser: <i>Wildlife Survey Areas</i> (www.hcpmaps.com)	○	○	●	○	○		●

Condition	Applies to projects that:	This condition helps:	For detailed information, see:	Project						
				Type		Phase				
				Urban development	Rural development	Planning	Design	Construction	Postconstruction	O&M
19. Plant Salvage when Impacts are Unavoidable	Cannot avoid impacts on covered plants	Protects covered plants by prescribing salvage whenever avoidance of impacts is not feasible	Habitat Plan: Section 6.6.2, <i>Covered Plant Species</i> (pages 6-74 to 6-76)	○	○	●	○	○	○	○
20. Avoid and Minimize Impacts on Covered Plant Occurrences	Are located within the <i>Plant Survey Area</i> where suitable habitat exists.	Requires plant surveys, specific avoidance and minimization practices (e.g., using seclusion fencing), and monitoring for selected plant species	Habitat Plan: Section 6.6.2 <i>Covered Plant Species</i> (pages 6-76 to 6-80); Table 6-8 Geobrowser: <i>Plant Survey Areas</i> (www.hcpmaps.com)	○	○	●	○	○	○	○

- Applies to the project.
- May apply to the project, depending on project type and location; see applicable pages in Chapter 6, *Conditions on Covered Activities and Application Process*, of the Habitat Plan.

O&M = operations and maintenance

ALL COVERED PROJECTS

Conditions 1 & 3

WILDLIFE

Bay Checkerspot Butterfly
Condition 13

Western Burrowing Owl
Condition 15

Least Bell's Vireo
Condition 16

Tricolored Blackbird
Condition 17

San Joaquin Kit Fox
Condition 18

COVERED PROJECT CATEGORIES

Urban Development
Condition 2

In-Stream Projects
Condition 4

In-Stream O&M
Condition 5

Rural Transportation Projects
Condition 6

Rural Development Projects
Condition 7

Rural O&M
Condition 8

Reserve System Implementation
Conditions 9 & 10

NATURAL COMMUNITIES

Stream and Riparian
Condition 11

Wetland and Pond
Condition 12

Serpentine
Condition 13

Valley and Blue Oak
Condition 14

PLANTS

Plant Salvage
Condition 19

Plant Avoidance and Minimization
Condition 20

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Figure 1
Habitat Plan Conditions

In addition to this Conditions Implementation Guide, the following resources can be used for assistance in determining how Habitat Plan conditions apply to covered projects:

A) Habitat Agency Geobrowser

The Geobrowser is an online mapping tool that shows current Habitat Plan maps, and it can be used as an initial screening tool to show where the Habitat Plan fees and conditions could apply to covered projects. The Geobrowser provides generalized maps, including land cover type. The actual land cover type found on each parcel or project area must be verified at the time of project application/processing, and site-verified data must be the source of information provided in the Habitat Plan forms and application. Users can search for a specific property using the Assessor's Parcel Number search tool and display the different Habitat Plan maps. The Geobrowser also has a report function that summarizes which maps overlap a selected parcel or designated area. Instructions on how to use these mapping and report functions are found in the Geobrowser.

The Geobrowser is intended to be used by Habitat Agency and local agency staff, and applicants in tandem with this Guide, the Habitat Plan forms, field verification of site conditions, and other application tools to determine how fees and conditions apply to projects.

The Geobrowser is accessible at <http://www.hcpmaps.com>.

B) Habitat Plan Forms and Application

The Habitat Plan forms and application are used to determine if a development project is subject to the Habitat Plan and, if so, how to calculate the fees and determine which conditions apply. The Geobrowser and this Guide are intended to be used together with field verification of site conditions and the forms and application for this process.

The forms and application consist of (1) Coverage Screening Form, (2) Temporary Fee Calculator Worksheet, and (3) Application for Private Projects. For public projects, the Reporting Form for Public Projects is used instead of the Application for Private Projects.

These forms and application are available for download from the Habitat Agency website at <http://ca-scvhabitatagency.civicplus.com/250/Private-Applicant>.

C) Habitat Plan Interpretations

The Habitat Plan is a programmatic document that provides a framework for implementation of the Habitat Plan among the seven Co-Permittees that adopted the Habitat Plan. As the Habitat Plan does not provide all of the specific details required for its day-to-day implementation, the Co-Permittees have prepared a consolidated list of Habitat Plan interpretations that provide further guidance and specificity on how the Habitat Plan's policies, conditions, and actions will be implemented for covered projects. For example, this interpretations list provides more specificity on the methodology of calculating fees for different types of activities (such as public trails) and provides a definition for terms such as "development activity" when determining if a private development project is subject to the Habitat Plan.

Habitat Plan interpretations can be viewed at the Habitat Agency website at <http://www.scv-habitatagency.org/297/Interpretations>.

D) Habitat Plan

This Conditions Guide is intended to be used as a one-stop resource by the Habitat Agency, local agency staff, and private applicants for applying the Habitat Plan conditions, precluding the need to directly reference the Habitat Plan. If needed for reference, the Habitat Plan is available online at the Habitat Agency website at <http://www.scv-habitatagency.org/178/Final-Habitat-Plan>.

Chapter 4 Conditions

Each of the 20 Habitat Plan conditions is described in this chapter. For each condition, a narrative is provided that explains (1) how to determine if a condition would apply to a covered project, (2) the associated maps and resources that can be used in making this determination, and (3) timing and method for applying a condition to a covered project.

For certain conditions (such as Condition 11, Stream and Riparian Setbacks), sequential procedural steps required to apply the condition are listed.

Condition 1. Avoid Direct Impacts on Legally Protected Plant and Wildlife Species

This condition requires that covered projects comply with regulations addressing species or impacts not covered by the Habitat Plan. These regulations include:

- Endangered Species Act
- Migratory Bird Treaty Act
- Bald and Golden Eagle Protection Act
- California Fish and Game Code Sections 3511 and 4700 (fully protected species)

Applicable Covered Projects

Condition 1 applies to all covered projects and is intended to ensure compliance with regulations addressing species or impacts not covered by the Habitat Plan. The plant and wildlife species protected under this condition occur in certain types of land covers and, therefore, this condition applies to projects that will affect these habitats. Covered projects that include work that will affect the following three types of land covers or habitats may be more likely to affect legally protected plant and wildlife species.

- *Seasonal wetland habitat*—Contra Costa goldfields
- *Riparian woodland habitat*—ring-tailed cat and migratory birds
- *Large trees*—migratory birds or raptors (e.g., eagles, falcon, kite, condor)

Covered projects are required to comply with regulations addressing the species above if they are present in the construction area.

Applicable Habitat Plan Maps/Geobrowser Maps

Land Cover—Seasonal wetlands (Contra Costa goldfields), riparian woodland (ring-tailed cat)

This condition applies if the on-site land cover verification indicates that a covered activity will affect seasonal wetlands or a riparian woodland (or large trees).

Applicable Conditions

During Project Design

- *Seasonal Wetlands (Contra Costa goldfields)*—If work is proposed in seasonal wetland land cover, conduct plant surveys by a qualified plant biologist to determine if Contra Costa goldfields are present (see **Attachment 1** for specific procedures).

During Construction

- *Riparian Woodland (ring-tailed cat and migratory birds)*—If construction will affect riparian woodland land cover, conduct pre-construction surveys by a qualified biologist to determine potential presence of ring-tailed cat and nesting migratory birds. If pre-construction surveys determine ring-tailed cat or nesting migratory birds are present, implement avoidance measures during construction (see **Attachment 1** for specific procedures to follow).

- *Large Trees (migratory birds or raptors)* —If construction will require the removal of large trees during the bird nesting season, conduct pre-construction surveys by a qualified biologist to determine if active nests are present within trees. Public and private applicants should follow procedures currently used (including definition of nesting season and timing of pre-construction surveys) to comply with Migratory Bird Treaty Act (MBTA) and California state regulation requirements in addressing this condition.

References

Habitat Plan: Section 6.3 (pages 6-7 to 6-8)

Habitat Plan Interpretation: <http://ca-scvhabitatagency.civicplus.com/DocumentCenter/View/495>

Condition 2. Incorporate Urban-Reserve System Interface Design Requirements

This condition is intended to ensure that new urban development adjacent to the Habitat Plan Reserve System or on lands eligible for enrollment into the Reserve System avoids and minimizes potential direct or indirect effects on covered species and natural communities.

Applicable Covered Projects

Urban development projects that are proposed within the Urban Reserve System Interface Zone. The Urban Reserve System Interface Zone is defined as lands that are adjacent to the Habitat Plan Reserve System or are within or adjacent to areas mapped as moderate or high priority for land acquisition by the Habitat Plan. Per Condition 7, this condition also applies to rural development in these same areas.

Applicable Habitat Plan Maps/Geobrowser Maps

Urban Reserve System Interface Zone—maps lands where Condition 2 applies.

Applicable Conditions

During Project Design

- Locate the proposed development as far from the reserve boundary as possible consistent with other on-site conditions and constraints.
- Where new development occurs, roads will be placed on the interior of the development (i.e., away from the reserve boundary) to reduce the incidence of domestic pets entering the reserves and to isolate this hazard for wildlife that might enter urban areas from the reserves.
- Development will be designed to minimize the length of the shared boundary between urban areas and the reserves (i.e., minimize the urban edge).
- Public facilities such as ballparks and fields that require high-intensity night lighting (i.e., floodlights) will be sited at least 0.5 mile from the reserve boundary to minimize light pollution. Facilities may be sited closer to the Reserve System if the Habitat Agency determines that the lighting system will not be intrusive to wildlife within the Reserve System (e.g., hills block the lighting).

During Construction—Construction Drawings

- Fences adjacent to yards or home sites will be designed to minimize the risk of pets escaping private yards and entering reserves (e.g., fences will be as tall as permitted by city and county codes, with no spaces between slats).
- Fences shared with reserve boundaries will not contain any gates between the private property and reserve to prevent entrance and trampling of sensitive species or illegal dumping (legal access to reserves will be provided at recreation staging areas).
- No private gates into the Reserve System will be allowed unless required by a pre-existing access easement and identified as an exception by the Habitat Agency.
- Outdoor lighting will be of low intensity and will utilize full cutoff fixtures to reduce light pollution of the surrounding natural areas.

- Use of high-intensity lighting (e.g., recreation facilities, commercial parking lots) near reserves will be avoided or, if necessary, placed as low to the ground as possible and directed away from the reserves to minimize long-distance glare.
- For any landscaping, non-invasive plants will be required and use of native plants is highly encouraged, consistent with County landscaping guidelines (County of Santa Clara 2009).
- Natural or artificial barriers or other access restrictions may be installed around development to protect sensitive land cover types and covered species in the reserves. Barriers will be designed so they are appropriate for site conditions and resources protected. Some barriers should keep undesirable pets outside of the reserve, other barriers should keep covered species inside the reserve, while others should do both. Before installation of a barrier, consider if the area is used by covered species for movement, if the barrier would prevent movement critical for species life cycle, or if the barrier would encourage species to use other, less favorable crossings.
- Public roads adjacent to reserves (e.g., a road that is aligned parallel to a reserve boundary) will be fenced to reduce unauthorized public access. Locked gates will be inspected regularly to identify any unauthorized locks.

References

Habitat Plan: Section 6.4.1 (pages 6-9 to 6-11)

Habitat Plan Interpretation: None applicable

Condition 3. Maintain Hydrologic Conditions and Protect Water Quality

This condition is intended to minimize hydrology-related impacts on watershed health (water quality and aquatic habitat) from construction and development projects and includes minimizing the amount of new runoff from impervious surfaces, erosion, and sedimentation.

Applicable Covered Projects

Applies to all covered projects.

Applicable Habitat Plan Maps/Geobrowser Maps

None.

Applicable Conditions

During Project Design and Construction

Applicable conditions from **Table 6-2** of the Habitat Plan (**Attachment 2**).

References

Habitat Plan: Section 6.4.1 (pages 6-12 to 6-13)

Habitat Plan Interpretation: None applicable

Condition 4. Avoidance and Minimization for In-Stream Projects

This condition is intended to minimize impacts on aquatic land cover types and covered species found in streams from projects that require construction within streams.

Applicable Covered Projects

Applies to any activity that requires construction within the in-stream area (stream bed, banks, and riparian land cover). Types of projects may include but are not limited to the following.

- Installation or rehabilitation of flood protection projects and levee reconstruction
- Bank stabilization projects
- Geomorphic rehabilitation
- Gravel enhancement
- Bridge construction and replacement including vehicular, train, and pedestrian bridges throughout the study area
- Development of trails in or through the in-stream area (stream bed, banks, and adjacent riparian land cover)
- Culvert installation or replacement
- Dam repair and seismic retrofit, including dewatering events and development of borrow sites
- Restoration projects throughout the study area, including creek realignment and erosion management
- Operation, maintenance, and replacement of existing water supply structures such as stream gauges, percolation ponds, and diversions
- Any other activity that requires construction work within the in-stream area (stream bed, banks, and adjacent riparian land cover)

Applicable Habitat Plan Maps/Geobrowser Maps

The *Land Cover* map shows riparian land covers.

This condition applies if the on-site land cover verification indicates that a covered activity will affect riparian land covers or a stream. Condition 11 describes the method for verifying the presence of a stream.

Applicable Conditions

During Project Design and Construction

Use the applicable conditions from **Table 6-2 (Attachment 2)**.

SCVWD Projects—Flood Protection and Dewatering Events

In addition to the conditions listed above, SCVWD flood protection projects and dewatering events are also subject to specific design criteria and review processes by the Wildlife Agencies. These conditions are listed on pages 6-16 to 6-18 of the Habitat Plan.

References

Habitat Plan: Section 6.4.2 (pages 6-14 to 6-18)

Habitat Plan Interpretation: None applicable

Condition 5. Avoidance and Minimization Measures for In-Stream Operations and Maintenance

This condition is intended to minimize impacts on aquatic and riparian land cover types and covered species from operations and maintenance.

Applicable Covered Projects

Applies to the following types of projects that entail operations and maintenance activities within a stream bed and bank and adjacent riparian corridor.

- Facility maintenance such as trail, bridge, road, and culvert repair and/or replacement in in-stream areas
- Natural resource protection such as small bank stabilization projects and removal of debris deposited during flooding
- Operations and maintenance of flood protection facilities (e.g., dams, armored creeks, detention ponds, streams). Activities may include vegetation management, minor sediment removal, or bank stabilization.
- Operations and maintenance of water supply facilities (e.g., flashboard dams, inflatable dams, stream gages, pipelines, and diversions)
- Non-routine stream maintenance activities conducted by SCVWD (i.e., those activities not covered by SCVWD's Stream Maintenance Program) including extensive removal of vegetation in the Lower Llagas flood control channel
- Removal of debris blockages except in emergency situations
- Mitigation and/or monitoring in creeks or adjacent riparian corridors
- Vegetation management for exotic species removal, such as removal of giant reed, and native vegetation plantings
- Reservoir dewatering events
- Reservoir filling

Applicable Habitat Plan Maps/Geobrowser Maps

The *Land Cover* map shows riparian land covers.

This condition applies if the on-site land cover verification indicates that a covered activity will affect riparian land covers or a stream. Condition 11 describes the method for verifying the presence of a stream.

Applicable Conditions

During Project Design and Construction

Use the applicable conditions from **Table 6-2 (Attachment 2)**.

SCVWD Projects—Pipeline Maintenance Program

Additional avoidance and minimization measures apply to SCVWD Pipeline Maintenance Program covered activities in addition to other applicable avoidance measures. These measures are listed on page 6-20 of the Habitat Plan.

References

Habitat Plan: Section 6.4.3 (pages 6-18 to 6-20)

Habitat Plan Interpretation: None applicable

Condition 6. Design and Construction Requirements for Covered Transportation Projects

This condition is intended to minimize the impacts on covered species from rural transportation projects, including the disruption of wildlife corridors that interface with new and existing roads.

Applicable Covered Projects

Public road projects that occur in rural areas, outside the planning limits of urban growth, and projects inside the planning limit of urban growth that are also in streams.

Applicable Habitat Plan Maps/Geobrowser Maps

Planning Limits of Urban Growth—delineates areas of current and future urban development (inside) and rural areas (outside).

Process to Determine Applicability of Condition

Certain rural transportation projects may be exempt from the condition. Use the procedural steps below to first determine if a project is exempt from this condition; if it is not, continue to Step 2 to determine how to apply the condition to non-exempt projects.

Step 1

Determine if the road project is exempt from the condition. Exempt projects include the following.

- Installing traffic signals, signs, pavement markings, flashing beacons, or other safety warnings
- Painting new lane striping
- Installing “rumble” strips, channelizers, or other safety markers
- Installing guardrails or similar structures that are permeable to wildlife
- Installing ramp metering
- Re-grading existing shoulders (this activity is considered maintenance; see Condition 8)
- Implementing other road safety improvements on less than 1,000 feet of roadway

The following projects are also exempt from this condition, because of their small footprint, if the project does not include installation of median barriers or other impermeable safety barriers; if no mapped or unmapped stream, riparian, serpentine, pond, or wetland land cover types are present; and if the activity is not located in a stream setback. Project lengths must be calculated based on all new adjacent projects constructed since the time of Habitat Plan implementation to determine whether the thresholds listed below have been crossed.

- Widening roads to add lanes where the project is less than or equal to 1,000 feet in length
- Realigning roads for safety or operational purposes where the project is less than or equal to 1,000 feet in length
- Constructing new turn lanes less than or equal to 1,000 feet in length
- Constructing a new road shoulder less than or equal to 1,000 feet in length

Step 2

If the project is not exempt, refer to **Table 6-3 (Attachment 3)** to determine which design elements or construction practices apply. The elements are denoted as Required (R) or Possible (P) in **Table 6-3**. For actions listed as Possible, the design element/construction practice is required unless Wildlife Agencies concur that the action would not benefit wildlife.

Applicable Conditions

During Project Design

Pre-Design Data Collection for Wildlife Movement

Per **Table 6-3**, certain projects will require data collection regarding wildlife movement in the area where the transportation project is proposed. Data collection will be required on wildlife movement along the applicable project corridor for at least 1 year prior to project design, and will be coordinated by the Habitat Agency. Additional information regarding these data collection requirements is described on pages 6-23 and 6-24 of the Habitat Plan.

- Enhance existing undercrossings. When road expansion projects span an undercrossing, such as a culvert, existing undercrossing structures will be enhanced within safety or engineering limitations to allow for fish and wildlife movement. Existing culverts or other potential crossing points will be enhanced if results of data collection indicate that the existing structure is inadequate. The design requirements of replacement structures will be determined by the species that have been documented using or attempting to use the site. Wildlife crossings that can serve multiple species will be used whenever possible.
 - Crossing enhancements. Crossing enhancements must incorporate design requirements identified for culverts in Condition 4, Avoidance and Minimization for In-Stream Projects.
 - Minimum sizing of culverts. Culverts must be the minimum length, height, and width necessary to provide safe passage under the road for the target species present at the site (based on data collected as described above). Culvert designs will be based on the best available data at the time. Current recommendations are that culverts designed for medium-sized mammals (e.g., San Joaquin kit fox, coyote, raccoon) be 5–8 feet in diameter (although culverts larger than 8 feet in diameter may be needed for longer crossings). Culverts designed for small mammals or amphibians are recommended at 18–48 inches in diameter. Culverts will provide a natural substrate on which wildlife can travel (e.g., open bottom box culvert) when such designs are compatible with the hydrologic needs of the culvert.
 - Install grating to allow ambient light to penetrate undercrossing. Culverts will include grating on the inactive part of the roadbed (e.g., road shoulders or median) to allow filtration of ambient light and moisture but minimize noise intrusion. Artificial lighting inside tunnels or culverts will not be used; these devices have not been shown to be effective and may deter nocturnal wildlife. Such devices may also be vandalized.
 - Fencing design. Fencing will be required in areas where there are high mortality rates of species attempting to cross the road. Fencing will be used along the perimeter of the roadway to direct animals to undercrossings and minimize their access to the road. Fencing designs will be tailored to the species expected to use the undercrossing and will be based on the best available data on species use and best fencing designs available at the time. For example, fencing for amphibians will be high enough to prevent amphibian crossing but low enough to allow movement of other species (e.g., deer, badgers). Fencing will extend out from the undercrossing along the road to an appropriate distance that will serve as a barrier

to wildlife attempting to cross the road. The distance that fencing extends from the undercrossing will be determined on a case-by-case basis and will consider locations of known collisions in the area. Right-of-way fencing could be designed to serve this purpose. Fencing must be attached to the undercrossing to prevent wildlife from passing through a gap between the undercrossing and the beginning of the fence.

Fencing must be monitored regularly by the facility owner and repairs made promptly to ensure effectiveness. Vegetation must be managed along small mammal and amphibian fencing to reduce the opportunity for these species to climb the fence. Fencing designed for small mammal or amphibian exclusion must be installed at least 8 inches into the soil to prevent small mammals from tunneling under the fence. Where low-traffic side roads (e.g., ranch roads) cross the wildlife fences along the main roadway, gates will be used whenever possible to avoid creating a gap in the fence that wildlife could move through. The gate will be designed to minimize the gap between the gate and the roadbed. If gates are not feasible, an in-roadway barrier (e.g., wildlife grate) or device that channels species away must be installed to deter wildlife from moving around fences and into the road.

- Passage placement. New passages will only be placed or located in areas that connect two viable habitats so that wildlife is not directed into urbanized areas.
- Road or rail barrier designs. When compatible with vehicle and train safety, road and rail median barriers or shoulder barriers will allow wildlife to cross under or over the barrier in the event they become trapped in the right-of-way. For example, one-way gates could be used to allow movement out of the hazardous zone but not into it.

During Construction

- Minimize ground disturbance to the smallest area feasible.
- When constructing or reconstructing a ditch, utilize designs for outlet locations that avoid directly dumping ditch water into surface waters, when practical. If not practical, implement sediment management avoidance and minimization measures to trap sediment before it reaches a stream. Avoidance and minimization measures described in Condition 3 and Condition 4 will be applied as appropriate.
- When designing or redesigning roads, look for opportunities to restore natural drainage patterns. Install culverts or rolling dips to retain water in its drainage of origin, which will decrease the potential for erosion downstream. On problem roads, look for opportunities to reconstruct the road segment to improve and maintain natural drainage patterns; for example, add rolling dips, emergency water bars, and additional cross drains.
- Equipment storage, fueling, and staging areas will be sited on disturbed areas or on non-sensitive, nonnative grassland land cover types, when these sites are available, to minimize risk of direct discharge into riparian areas or other sensitive land cover types. When such sites are not available, staging will occur on the road used to access the site.
- All species survey requirements of the Habitat Plan will be followed within the construction zone (i.e., the limit of project construction plus equipment staging areas and access roads) and the entire road right-of-way. Expanding the survey area beyond the project footprint will help identify covered species and their habitats so that impacts on covered species that occur adjacent to the construction zone can be minimized.
- No erodible materials will be deposited into watercourses. Brush, loose soils, or other debris material will not be stockpiled within stream channels or on adjacent banks.
- Silt fencing or other sediment trapping methods will be installed below the grade of new road construction or road-widening activities to minimize the transport of sediment off site.

- Temporary barriers will be constructed to keep wildlife out of construction sites, as appropriate.
- On-site monitoring will be conducted by a qualified biologist throughout the construction period to ensure that disturbance limits, avoidance and minimization measures, and Habitat Plan restrictions are being implemented properly.
- Use existing roads for access and disturbed areas for staging, as site constraints allow. Off-road travel will avoid sensitive communities such as wetlands and known occurrences of covered plants.
- Active construction areas will be watered regularly to minimize the impact of dust on adjacent vegetation and wildlife habitats, if warranted.
- Portions of the project that occur in streams (e.g., bridge or culvert construction) will comply with Condition 4.

Dirt Road Projects—Construction of New Dirt Roads

- Prevent rills (a narrow groove or crack in the road resulting from erosion by overland flow) by breaking up large or long bare areas into smaller patches that can be effectively drained before rills can develop.
- Disconnect and disperse runoff flow paths, including roadside ditches, that might otherwise deliver fine sediment to stream channels.
- Prevent gullies by dispersing runoff from road surfaces, ditches, and construction sites by correctly designing, installing, and maintaining drainage structures (e.g., road shape, rolling dips, out-sloped roads, culverts) and by keeping streams in their natural channels. No single point of discharge from a road or other disturbed area should carry sufficient flow to create gullies. If gullies continue to develop, additional drainage structures are needed to further disperse the runoff.
- Install road surface and ditch drainage structures frequently enough so that gullies do not form at drainage points and so that the road and drainage system are generally dry.

Postconstruction

- Following construction, the areas beyond road shoulders and inside the right-of-way will be returned to a pre-project or ecologically improved condition.
- Invasive plants within the project area and any construction staging areas will be removed to prevent the spread of these species into nearby or adjacent reserves.
- All disturbed soils will be revegetated with native plants and/or grasses or sterile, nonnative species suitable for the altered soil conditions upon completion of construction. Local watershed native plants will be used if available. If sterile, nonnative species are used for temporary erosion control, native seed mixtures must be used in subsequent treatments to provide long-term erosion control and slow colonization by invasive nonnatives. All disturbed areas that have been compacted shall be de-compacted prior to planting or seeding.
- Vegetation and debris will be managed in and near culverts and under and near bridges to ensure that entryways remain open and visible to wildlife and that the passage through the culvert or under the bridge remains clear.
- All structures constructed for wildlife movement (tunnels, culverts, underpasses, fences) will be monitored at regular intervals by the Co-Permittee facility owner and repairs made promptly to ensure that the structure is in proper condition. For facilities owned by entities not participating in the Habitat Plan (e.g., California Department of Transportation), the Habitat Agency will

secure access and data collection agreements with these entities to allow the Habitat Agency to conduct this monitoring.

References

Habitat Plan: Section 6.4.4 (pages 6-21 to 6-28)

Habitat Plan Interpretation: None applicable

Condition 7. Rural Development

This condition is intended to minimize impacts from rural development projects on covered species and sensitive land cover types covered under the Plan, including potential interface with the Habitat Plan Reserve System and potential impacts from new vineyard projects.

Applicable Covered Projects

Applies to all private and public projects in rural areas (outside the urban service areas of cities). This does not include the annexation of rural lands into a city for urban development.

Applicable Habitat Plan Maps/Geobrowser Maps

Urban Service Area—defines rural areas where this condition applies.

Applicable Conditions

During Project Design

- Minimize ground disturbance to the smallest area feasible.
- Build close to, and utilize to the extent practicable, existing infrastructure (e.g., existing driveways, utility lines).
- Use existing roads for access and disturbed areas for staging, as site constraints allow. Off-road travel will avoid sensitive communities such as wetlands and known occurrences of covered plants.
- Develop only the minimum number of stream crossings necessary to access the property.
- Use of impermeable surfaces surrounding structures must be minimized to the greatest extent possible through the use of alternative design treatments—such as low-impact development methods including, but not limited to, permeable pavers, green roofs, and rainwater catchments—so that natural infiltration is facilitated and runoff is reduced.
- Consistent with State and Regional Water Quality Control Board regulations, runoff from impermeable surfaces must be directed to natural or landscaped areas or to designed swales or detention/retention basins to encourage natural filtration and infiltration. Diversion to a cistern or other on-site stormwater management technique is also allowed and encouraged.
- Avoid and minimize impacts associated with altering natural drainages and contours on the project site. If the site is graded, blend grading into the existing landform as much as possible.
- Leach fields must be sited away from creeks in accordance with the County septic ordinances, as well as at least 100 feet from the reserve boundary. Leach field installation may result in localized soil moisture content and groundwater levels that may have adverse effects on sensitive plants or plant communities in the Reserve System. Leach fields may be sited within the 100-foot setback if site-specific conditions (i.e., topography) adequately minimize effects, or adequate space is not available to site the field elsewhere (i.e., the parcel is too small).
- Avoid, to the extent possible, constructing roads on steep slopes (over 25%) or on unstable slopes.
- Maintain as much natural vegetation as possible, consistent with fuel management standards, on the project site.
- Maintain County-mandated fuel buffer (variable width by slope conditions).

- On sites adjacent to reserves, locate the proposed development as far from the reserve boundary as possible consistent with other on-site conditions and constraints and adhere to Condition 2, *Incorporate Urban-Reserve System Interface Design Requirements*.

New Dirt Road Projects

- Prevent rills (a narrow groove or crack in the road resulting from erosion by overland flow) by breaking up large or long bare areas into smaller patches that can be effectively drained before rills can develop.
- Disconnect and disperse runoff flow paths, including roadside ditches, that might otherwise deliver fine sediment to stream channels.
- Prevent gullies by dispersing runoff from road surfaces, ditches and construction sites, by correctly designing, installing and maintaining drainage structures (e.g., road shape, rolling dips, out-sloped roads, culverts) and by keeping streams in their natural channels. No single point of discharge from a road or other disturbed area should carry sufficient flow to create gullies. If gullies continue to develop, additional drainage structures are needed to further disperse the runoff.

During Construction

- At project sites that are adjacent to any drainage, natural or manmade, exposed soils must be stabilized or otherwise contained on site to prevent excessive sediment from entering a waterway.
- Minimize to the greatest extent possible the amount of ground disturbance when constructing roads.
- Ground-disturbing activities associated with road construction should be timed to occur during dry weather months to reduce the possibility of landslides or other sediment being transported to local streams during wet weather.
- If construction extends into wet weather, the road bed will be surfaced with appropriate surfacing material to prevent erosion of the exposed roadbed.
- If construction on steep slopes is required, construction will be timed for dry weather months to reduce the potential for landslides.
- No plants identified by the California Invasive Plant Council as invasive¹ will be planted on the project site. Planting with watershed local native and/or drought-resistant plants is highly encouraged. This reduces the need for watering as well as the need for fertilizers and pesticides.
- Outdoor lighting will be of low intensity and will utilize full cutoff fixtures to reduce light pollution of the surrounding natural areas.

Vineyards

The following conditions apply to new vineyards that are covered by the Habitat Plan (i.e., those requiring a permit from the County or other local jurisdiction).

- During construction, use cover crops, straw mulch, straw wattles/fiber rolls, coconut husks, or other equivalent erosion control mechanism to prevent sediment from being blown or washed from the project site.

¹ www.cal-ipc.org/ip/inventory

- All disturbed areas will be protected during the rainy season (October 15–April 15). Permanent or temporary measures to prevent erosion must be utilized during vineyard planting. Permanent measures must be utilized once planting is completed. Erosion control measures must be in place by October 15.
- Plant vine rows along existing contours to slow runoff and reduce erosion on hillsides.
- A stormwater management system designed for an average storm recurrence interval of not less than 25 years will be installed on the vineyard site. The system will allow excess stormwater runoff to be carried through the vineyard site with minimum erosion and consistent with the overall drainage patterns present in the area. This requirement may be met by either temporary or permanent measures while vineyard planting work is being carried out, but shall be met by permanent measures by the time vineyard planting work is completed.
- A sediment control system designed to minimize the discharge of sediment from the vineyard site will be installed on the vineyard site. This requirement may be met by either temporary or permanent measures while vineyard planting work is being carried out, but will be met by permanent measures by the time vineyard planting work is completed.
- If open conduits are used as part of the stormwater management system, plant conduits with grasses and other vegetation to filter sediment, pesticides, and fertilizers from runoff and to reduce the potential that the stormwater conduit itself will erode.
- As part of the stormwater and sediment management systems, install vegetated swales, detention basins, extended vegetated buffer, or other similar feature on the downslope edge of the planted area to capture and treat runoff before it enters local streams. This will minimize the amount of sediment, fertilizers, and pesticides that enter local streams.
- Heavy equipment will not be utilized on dirt access roads immediately after rain to prevent roads from turning to mud and prevent sediment from running off the roads.
- Use of natural pest management approaches in place of pesticides is highly encouraged.
- Maintain a buffer of natural vegetation, including grasses, shrubs, or mature trees, around the perimeter of the vineyard to reduce topsoil erosion and provide habitat for birds that will prey on rodents.

Postconstruction

- All temporarily disturbed soils will be revegetated with native plants and/or grasses or sterile, nonnative species suitable for the altered soil conditions upon completion of construction. Local watershed native plants will be used if available. If sterile, nonnative species are used for temporary erosion control, native seed mixtures must be used in subsequent treatments to provide long-term erosion control and slow colonization by invasive nonnatives. All disturbed areas that have been compacted shall be de-compacted prior to planting or seeding.
- All temporarily disturbed areas, such as staging areas, will be returned to pre-project or ecologically improved conditions within 1 year of completing construction or the impact will be considered permanent.

References

Habitat Plan: Section 6.4.4 (pages 6-28 to 6-34)

Habitat Plan Interpretation: None applicable

Condition 8. Avoidance and Minimization Measures for Rural Road Maintenance

This condition is intended to minimize potential impacts on covered species and sensitive land cover types covered under the Habitat Plan from public agency rural road maintenance activities. This includes incorporating best management practices to limit erosion and vegetation disturbance during maintenance activities.

Applicable Covered Projects

Public road maintenance activities in rural areas. Public rural roads are maintained by SCVWD, County Roads and Airports, and County Parks.

Applicable Habitat Plan Maps/Geobrowser Maps

Urban Service Area—the area outside the urban service area defines rural areas where this condition applies.

Applicable Conditions

During Maintenance

The conditions listed below and those within **Table 6-4 (Attachment 4)** of the Habitat Plan apply to rural road maintenance projects. Use **Table 6-4** to determine which conditions apply. In addition to those included in **Table 6-4**, the following conditions also apply.

- Projects occurring in streams or riparian setback zones will also comply with Condition 4 and Condition 5 as appropriate.
- Minimize ground disturbance to the smallest area feasible.
- Within the riparian setback zone (see Condition 11), silt fencing or other sediment control devices will be installed downslope from maintenance activities that disturb soil (e.g., blading of fire or access roads within parks or the Reserve System) to minimize the transport of sediment off site.
- In the course of rural road maintenance, no erodible materials will be deposited into watercourses. Brush, loose soils, or other debris material will not be stockpiled within stream channels or on adjacent banks where it could be washed into the channel.
- Use of alternative pest control methods, such as mechanical control, before pesticides will be considered to substantially lessen any significant impact on the environment. Integrated pest management avoidance and minimization measures will be used for all vegetation control. Limitations may occur because of fire management requirements and local integrated pest management ordinances.
- The effects of herbicide and pesticide application will not be covered under the federal permits for the Habitat Plan. Herbicides and pesticides will be used only when necessary and will be applied in strict compliance with label requirements and state, federal, and local regulations. Herbicides and pesticides will only be applied when weather conditions will minimize drift to and impacts on non-target sites.
- Maintenance activities on rural roads adjacent to natural land cover types will be seasonally timed, when safety permits and regulatory restrictions allow, to avoid or minimize adverse

effects on active nests of resident and migratory birds, including covered bird species (western burrowing owl, least Bell's vireo, and tricolored blackbird). This measure is particularly relevant for right-of-way mowing, brush clearing, prevention of disease spread (e.g., sudden oak disease), and tree trimming. Project proponents will coordinate with the Habitat Agency to develop work schedules that optimize logistic, safety, and financial needs while minimizing potential impacts on nesting birds.

- Mowing equipment will be thoroughly cleaned before use in rural areas so they are free of noxious weeds (e.g., yellow star-thistle) and do not introduce such weeds to new areas.
- Maintenance or repair of road medians or shoulder barriers in areas that support natural land cover types (e.g., annual grassland, oak savanna, oak woodland) will not reduce the ability of wildlife of all types to move through or over them, within safety limits. Replacement or repair of road medians will be designed or installed to allow wildlife to move past these structures. Exceptions may be made by the Co-Permittee if significant safety concerns or financial constraints arise.
- All disturbed soils will be revegetated with native plants and/or grasses or sterile, non-native species suitable for the altered soil conditions upon completion of construction. Local watershed native plants will be used if available. If sterile, nonnative species are used for temporary erosion control, native seed mixtures must be used in subsequent treatments to provide long-term erosion control and slow colonization by invasive nonnatives. All disturbed areas that have been compacted shall be de-compacted prior to planting or seeding.
- Ground-disturbing road maintenance activities, such as re-grading, will be timed so that the moisture content of the soil will support recompaction of the soil and reduce the need for an imported water source to achieve soil compaction. Similarly, activities will be timed so that use of heavy equipment will not result in the creation of mud puddles and ruts.
- Regularly scheduled visual inspections of all roads will be conducted to identify sites where erosion is contributing sediment to local streams. Appropriate actions will be taken within the road right-of-way to manage the erosion.
- Flow lines (e.g., culverts and ditches) will be cleared annually to maintain flow lines free of debris.
- Use existing roads for access and disturbed areas for staging, as site constraints allow. Off-road travel will avoid sensitive communities such as wetlands and known occurrences of covered plants.
- All new public roads that are accessible to general public vehicular use will be paved (this does not include fire roads that may also serve recreational needs).

References

Habitat Plan: Section 6.4.5 (pages 6-35 to 6-37)

Habitat Plan Interpretation: None applicable

Condition 9. Prepare and Implement a Recreation Plan

This condition is intended to minimize the impacts on covered species and sensitive land cover types covered under the Habitat Plan of new recreation activities (trails, picnic areas) within the Habitat Plan Reserve System.

Applicable Covered Projects

Applies to the preparation of recreation plans for reserve units within the Habitat Plan Reserve System.

When lands are acquired for or incorporated into a reserve unit where the Habitat Agency and landowner determine that recreational and educational uses are compatible with the conservation strategy, a recreation plan is prepared and incorporated into the applicable reserve unit management plan. The Habitat Plan requires that a recreation plan be developed by the landowner (e.g., County Parks, Open Space Authority) and/or the Habitat Agency and approved by the Co-Permittees and the Wildlife Agencies prior to allowing recreational uses within a reserve unit. The required components of a recreation plan are listed on page 6-38 of the Habitat Plan.

Applicable Habitat Plan Maps/Geobrowser Maps

None.

Applicable Conditions

The following Performance Standards/Guidelines will be incorporated into each Recreation Plan.

- Recreation will only be allowed where it is compatible with the biological goals and objectives of the Habitat Plan and has less-than-significant impacts on biological resources after implementation of necessary mitigation measures, as described in the Environmental Impact Report/Environmental Impact Statement.
- Recreational use and impacts will be monitored by the landowner and the Habitat Agency to ensure that uses do not substantially and adversely affect covered species. If any use is found to be substantially adversely affecting covered species, that use will be discontinued until adjustments in the use can be made to reduce or eliminate impacts (see Chapter 7 of the Habitat Plan for details on monitoring). The Habitat Agency will make decisions about discontinuing or modifying recreational uses in close consultation with the landowner or other applicable reserve management agency or organization, and through a public process.
- Recreational uses allowed in reserves include pedestrian use (walking, hiking, running), dogs on leash, backpacking, nonmotorized bicycle riding on designated trails, horseback riding, wildlife observation and photography, and environmental education and interpretation on designated trails at appropriate sites. Other uses may be allowed by the Habitat Agency as long as they are compatible with the biological goals and objectives of the Habitat Plan and users obtain appropriate permissions for conducting activities, if needed (e.g., County Parks requires a permit for professional photography).
- Allowable recreational uses will be controlled and restricted by area and time to minimize impacts on natural communities and covered species and to ensure that the biological goals and objectives of the Habitat Plan are met. For example, trails will be closed during and immediately following heavy rains and annually winterized to minimize erosion and sedimentation. Additional types of recreational uses (e.g., horse carts on trails) may be allowed if the Habitat Agency determines that they are consistent with the biological goals and objectives of the

Habitat Plan, Wildlife Agencies concur, and users obtain appropriate permissions for conducting activities if needed (e.g., County Parks requires a permit for use of horse carts).

- Activities will be allowed in keeping with the ecological needs of the given habitat. Any off-trail activities and other active recreation not listed above (e.g., outdoor sports, geocaching), unless otherwise authorized by the Habitat Agency, are prohibited. Recreational uses will be allowed only during daylight hours and designated times of the year (i.e., limited seasonal closures to protect sensitive covered species; see below for specific examples) unless authorized through a use permit (e.g., backpacking). Exceptions may be made for educational groups and events that are guided by a Habitat Agency staff person or docent approved by the Habitat Agency.
- To the greatest extent possible, new staging areas will be developed in areas within reserves that are already disturbed and not suitable for habitat restoration, and that do not contribute to the conservation biological objectives for covered species habitats and/or natural communities. Sites at the edges of reserves will be chosen over sites on the interior of reserves.
- No motorized vehicles or boats will be allowed in reserves, except for use by the reserve manager staff or with the prior approval of the reserve manager (e.g., contractors implementing Habitat Plan conservation actions such as habitat restoration and monitoring, grazing tenants, fire-suppression personnel, and maintenance contractors). For reserves under conservation easements, vehicle use will be allowed as part of the regular use of the land (e.g., agricultural operations, permanent residents, utilities, police and fire departments, other easement holders), as specified in the easement.
- When compatible with Habitat Plan biological goals and objectives, dogs may be allowed in daylight hours in designated reserves or in designated areas of reserves, but only on leash. Leash law restrictions will be strictly enforced by reserve managers and staff because of the potential impact of dogs on covered species such as San Joaquin kit fox, western burrowing owl, California red-legged frog, and California tiger salamander. Leash enforcement may include citations and fines. Dogs used for herding purposes by grazing lessees must be under verbal control and have proof of vaccination.
- Recreational hunting or fishing within reserves will be prohibited except in limited circumstances. Landowners who have hunted large game (e.g., deer, elk, turkey, pigs) on their property that becomes part of the Reserve System through a conservation easement will be allowed to continue this use as long as it is consistent with the biological goals and objectives of the Habitat Plan. Similarly, hunting for management purposes (e.g., feral pigs) is encouraged where it will contribute to achieving the goals and objectives of the Habitat Plan. The Habitat Agency will develop management hunting protocols on new reserve lands in coordination with other agencies who utilize hunting for management purposes (e.g., California Department of Fish and Wildlife [CDFW]). Fishing is currently allowed in some County parks that will be added to the Reserve System. To be consistent with this condition, lakes or ponds in which fishing will continue will not be included in the Reserve System.
- Picnic areas shall be operated during daylight hours only. No irrigated turf or landscaping shall be allowed in picnic areas. To the extent feasible, picnic areas will be located on the perimeter of preserve areas and will be sited in previously disturbed areas. No private vehicles shall be allowed in picnic areas, unless the picnic area is at a staging area and except for limited special events approved by the Habitat Agency. Maintenance and emergency vehicles shall be permitted access to picnic areas.
- Backpack camps shall be limited to use by no more than 25 people at each site. With the exception of Americans with Disabilities Act service animals, only on-leash dogs shall be allowed in backpack camps. In coordination with the reserve manager, the Habitat Agency will monitor use and maintenance of backpack camps and may implement a reservation and permitting process for use of backpack camps.

- Collection of native species by the public will be prohibited within reserves.
- Introduction of domestic or feral animals, including cats, ducks, fish, reptiles, and any exotic, non-naturalized species, is prohibited within the reserves to prevent interference with and mortality of native species, except by the reserve manager for management purposes (e.g., livestock for grazing or dogs for livestock control or protection).
- Trails will be established on existing roads or trails wherever possible to minimize the need for new ground-disturbing activities and to reduce new and ongoing maintenance costs. However, this will be balanced with the need to reroute some poorly designed existing ranch roads that are difficult and expensive to maintain. In some cases, rerouting access roads may have net benefits on biological resources.
- New trails will be designed and operated to be compatible with natural resources protection. New trails will be sited to minimize impacts on sensitive species (including covered species) and natural communities as well as disturbance to adjacent landowners and land uses. Wetlands will be avoided except for educational trails, and trails through woodland or riparian habitat will avoid tree removal or substantial pruning to the extent possible. If tree removal is required, unhealthy, exotic tree species or trees unlikely to reach maturity due to site conditions (e.g., being shaded out by larger trees) will be targeted for removal.
- Trails built across streams or through riparian corridors will be sited and designed with the smallest footprint necessary to cross the in-stream area. Stream crossings will be perpendicular to the channel and be designed to avoid any potential for future erosion. Trails that follow a stream course will be sited outside the riparian corridor to the maximum extent feasible.
- Trails will not be paved, except as required by law, and will be sited and designed so that they do not contribute to erosion and bank failure. To provide trail access for a range of user capabilities and needs (including persons with physical limitations) in a manner consistent with state and federal regulations, the landowner would site and design new, paved trails in areas within reserves that are already disturbed and do not have the potential to affect sensitive habitat. As common practice, these types of whole-access trails would be sited near staging areas.
- Recreational uses will be controlled using a variety of techniques including fences, gates, clearly signed trails, educational kiosks, trail maps and brochures, interpretive programs, and patrol by land management staff.
- Construction of recreational facilities within reserves will be limited to those structures necessary to directly support the authorized recreational use of the reserve. Existing facilities will be used where possible. Facilities that support recreation and that may be compatible with the reserve include parking lots (e.g., small gravel or paved lots), trails (unpaved or paved as required by law), educational and informational kiosks, up to one visitor center located in a disturbed or non-sensitive area, and restroom facilities sited and designed to have minimal impacts on habitat. Playgrounds, irrigated turf, off-highway vehicle trails, and other facilities that are incompatible with the goals and objectives of the Habitat Plan will not be constructed.
- Signs and informational kiosks will be installed to inform recreational users of the sensitivity of the resources in the reserve, the need to stay on designated trails, and the danger to biological resources of introducing wildlife or plants into the reserve.
- New trails will be prohibited within 100 feet of wetlands and streams that provide suitable habitat for covered amphibians and aquatic reptiles or tricolored blackbird, unless topography or other landscape characteristics shield these trails from the covered species habitat or a lack of effect of the trail on the species can be otherwise demonstrated.

- New trails will be prohibited within 250 feet of active western burrowing owl nests. If an owl pair nests within 250 feet of an active trail, Habitat Agency staff will consult with the Wildlife Agencies to determine the appropriate action to take. Actions may include prohibiting trail use until young have fledged and are no longer dependent on the nest.
- When compatible with Habitat Plan biological goals and objectives, recreation plans for reserves adjacent to existing public lands will try to ensure consistency in recreational uses across open space boundaries to minimize confusion in the public. Reserves adjacent to non-Plan public lands with different recreational uses will provide clear signage to explain these differences to users that cross boundary lines. The Habitat Agency will be responsible for securing and signing reserve boundaries.

Rare exceptions to the guidelines listed above will be considered and approved by the Habitat Agency and the Wildlife Agencies on a case-by-case basis. Exceptions will be approved only if they are consistent with the biological goals and objectives of the Habitat Plan. Any exceptions will be clearly identified in the recreation plan.

References

Habitat Plan: Section 6.4.6 (pages 6-37 to 6-42)

Habitat Plan Interpretation: None applicable

Condition 10. Fuel Buffer

This condition describes when fuel buffers are required and how their impacts are accounted for within the Habitat Plan.

Applicable Covered Projects

All public and private covered activities in the Diablo Range or Santa Cruz Mountains or new structures built in grassland, chaparral, oak woodland, or conifer woodland land cover types. This condition also applies to structures built in areas designated by the County as a very high fire hazard severity zone pursuant to Section 51179 of the California Government Code.

Applicable Habitat Plan Maps/Geobrowser Maps

The *Land Cover* map shows grassland, chaparral, oak woodland, and conifer woodland cover types.

Applicable Conditions

- All structures covered under the Habitat Plan must be maintained consistent with California Government Code Section 51182 and Public Resources Code 4291 regarding defensible space. Consistent with fuels management objectives, steps will be taken to minimize erosion consistent with Condition 7.
- If the property line is less than 30 feet from the occupied structure, then the brush and vegetation will be cleared up to the property line in order to maintain compliance with Public Resources Code 4291. Additional brush and vegetation clearing may be required by local or other state laws. To ensure that erosion is minimized, grass and other vegetation within 30 feet of structures will be maintained within this fuel buffer to a height of 18 inches or less. The cost of establishing and maintaining this fuel buffer will be borne by the project proponent. This condition does not apply to single trees or other vegetation that is well pruned and maintained so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to a dwelling or structure.
- If an additional buffer is deemed necessary by the responsible fire agency, then the private landowner may seek an encroachment permit from the Implementing Entity to meet fire code. In these limited instances, the Implementing Entity may decide to allow a fuel buffer on the reserve side of a property boundary to provide additional protection against wildland fire. The Implementing Entity or land manager would define the allowable activities in an encroachment permit to ensure compliance with Habitat Plan goals.

References

Habitat Plan: Section 6.4.6 (pages 6-42 to 6-44)

Habitat Plan Interpretation: Under development

Condition 11. Stream and Riparian Setbacks

This condition requires that new covered projects adhere to setbacks from creeks and streams and associated riparian vegetation in the Plan Area to minimize and avoid impacts from covered projects on aquatic and riparian land cover types, covered species, and wildlife corridors within these areas.

Applicable Covered Projects

Applies to covered projects that may affect streams and associated riparian vegetation within the Plan Area.

Applicable Habitat Plan Maps/Geobrowser Maps

Category 1 Stream Buffers and Setbacks—shows identified Category 1 streams.

Category 2 streams (described further below) are not mapped and must be field verified. Figure 2 through Figure 5 provide descriptive graphics of how the setback is applied for different types of projects.

Process to Determine Applicability of Condition

Use the following process to determine if Condition 11 is applicable to a covered project and, if so, how to comply with the condition.

Step 1

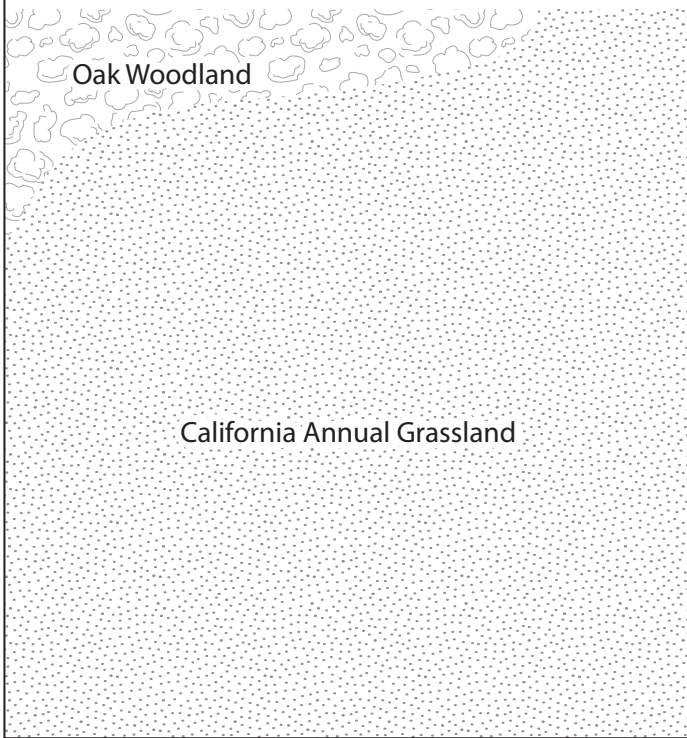
Determine if the covered project is exempt from the Stream and Riparian Setbacks condition. The following types of activities and projects are exempt from Condition 11.

1. Any activity that is not a covered activity and not subject to the Habitat Plan or its conditions
2. Activities listed as exempt as described under Chapter 1 of this Guide
3. Development on parcels less than 0.5 acre
4. Covered activities that require work within or adjacent to streams such as bridges, levee maintenance and repair, flood-protection projects, stream maintenance, outfall installation and maintenance, flood-protection capital projects, and dam-related capital projects
5. Recreational trails (see **Table 6-2 [Attachment 2]** and Condition 9 for details on trail siting)
6. Replacement of utilities that result in no new permanent disturbance to the riparian corridor during construction and operation and generate only temporary loss of habitat. (This exemption does not apply for utility projects that result in new permanent riparian impacts.)
7. Stream crossings essential to provide a means of access to a parcel or facility

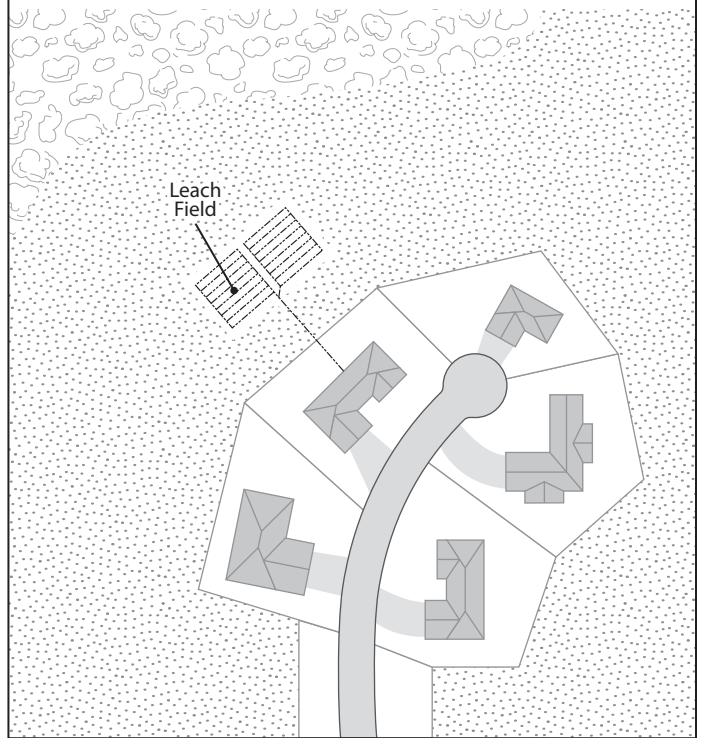
Step 2

Determine if the covered project is adjacent to a Category 1 stream by using the Category 1 Stream Buffer and Setback map (Geobrowser). The Category 1 map is a screening tool that shows the maximum stream setback buffer area around each identified section of Category 1 stream.

A. Land cover mapping required on entire parcel.



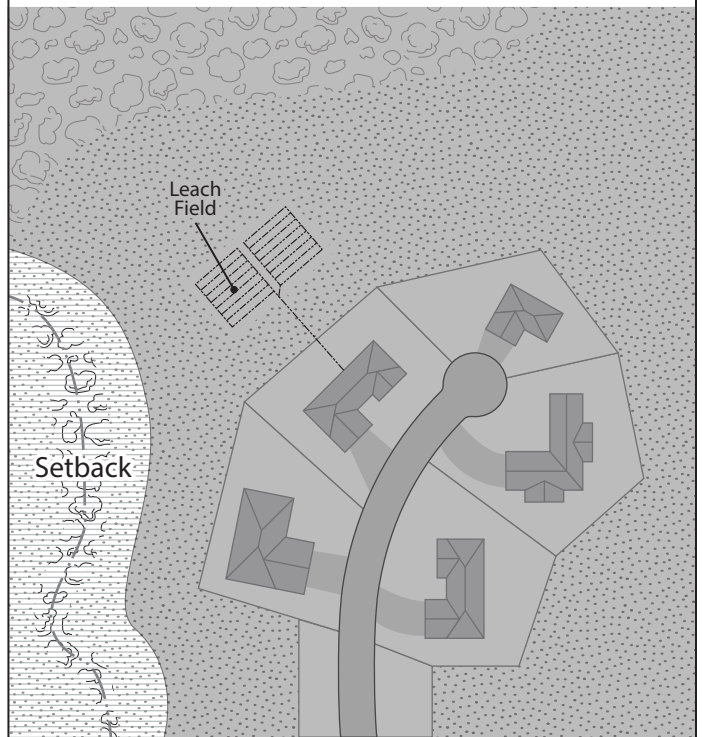
B. Project Site Plan includes project footprint. Mapping of buffers not required.



C. Fees are paid on entire parcel based on project location. Specialty fees may be required.



D. If Condition 11, Stream & Riparian Setbacks is triggered, fees are not paid on the setback.

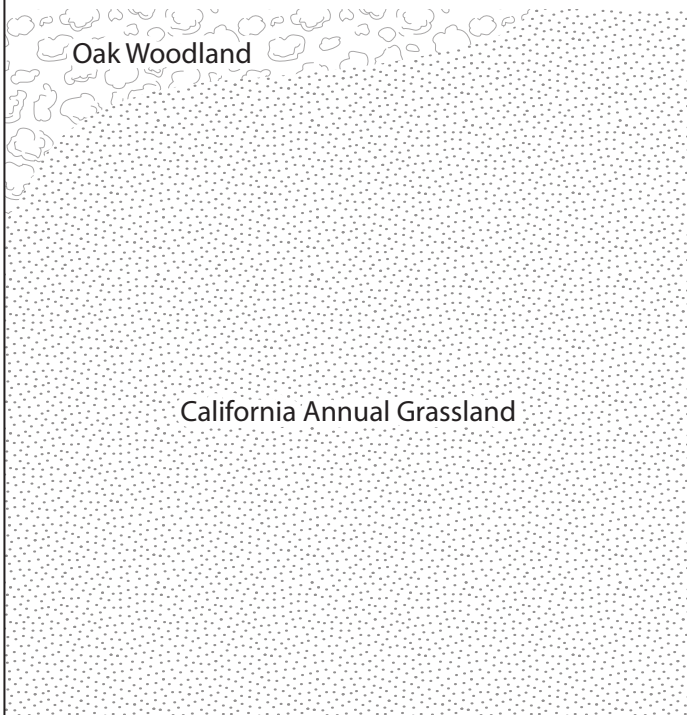


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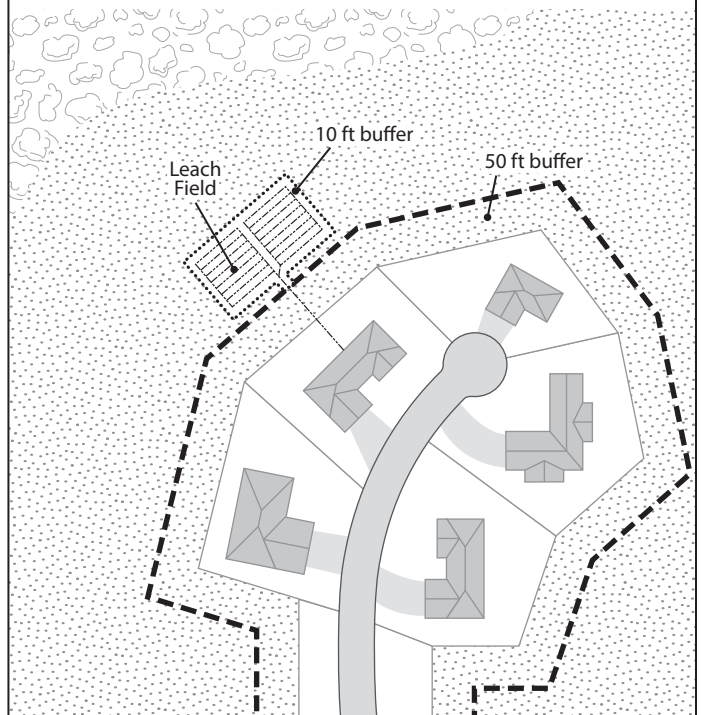
█ Fees
▨ Setback

Figure 2
Mapping and Fee Requirements Inside Urban Service Area
(Parcels < 10 acres)

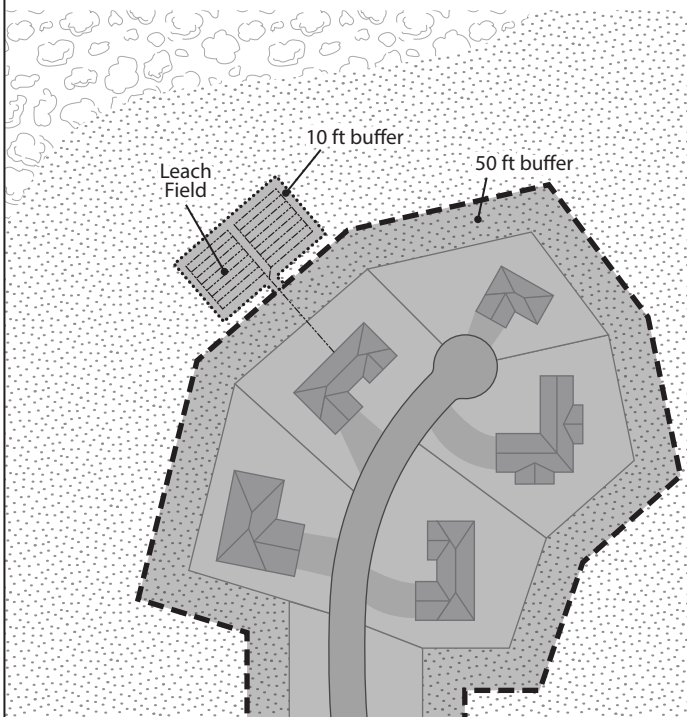
A. Land cover mapping required on entire parcel.



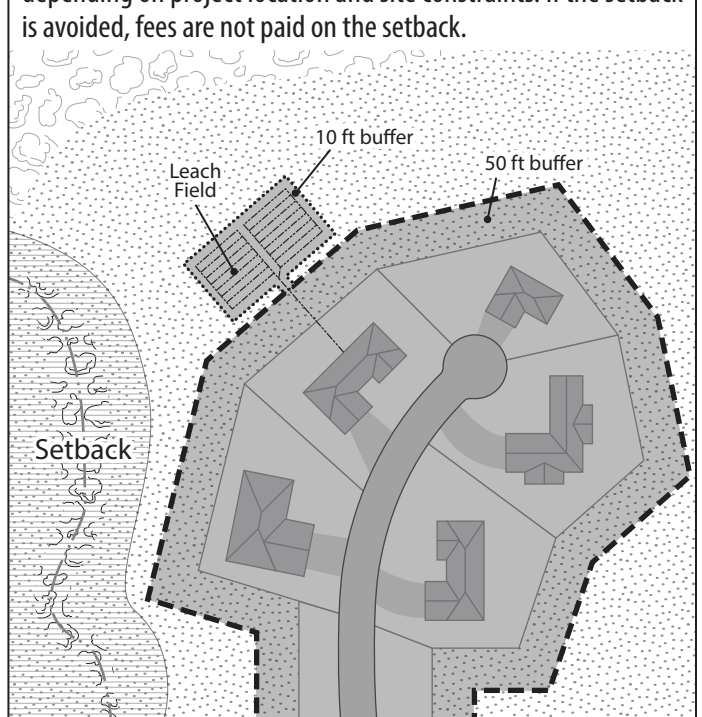
B. Project Site Plan shows Permanent and Temporary impacts plus buffers.





C. Fees are paid on development area.



D. If Condition 11 Stream & Riparian Setbacks is triggered, a setback is required. Exceptions and exemptions may be sought depending on project location and site constraints. If the setback is avoided, fees are not paid on the setback.



 Temporary Disturbance Area
 Permanent Development Area






 Fees
 Setback

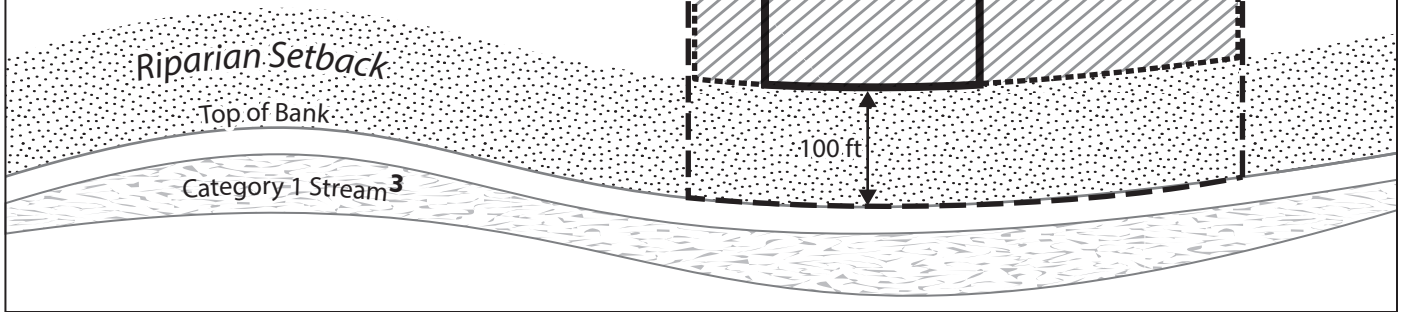
Graphics...00095;14 (1-8-15) TM

Figure 3
Mapping and Fee Requirements Outside Urban Service Area
and Inside Urban Service (Parcels > 10 acres)

Less than 10 acres






Legend

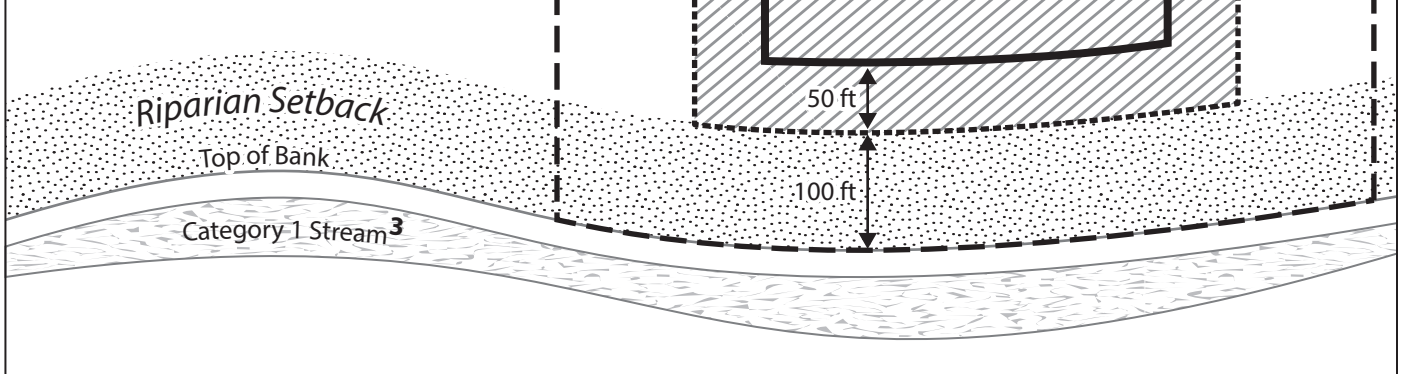
-  Subject Property or Parcel¹
-  Development Area
-  Project Footprint
-  Fee Area
-  Riparian Setback²



10 acres or larger

Legend

-  Subject Property or Parcel
-  Development Area⁴
-  Project Footprint
-  Fee Area
-  Riparian Setback²



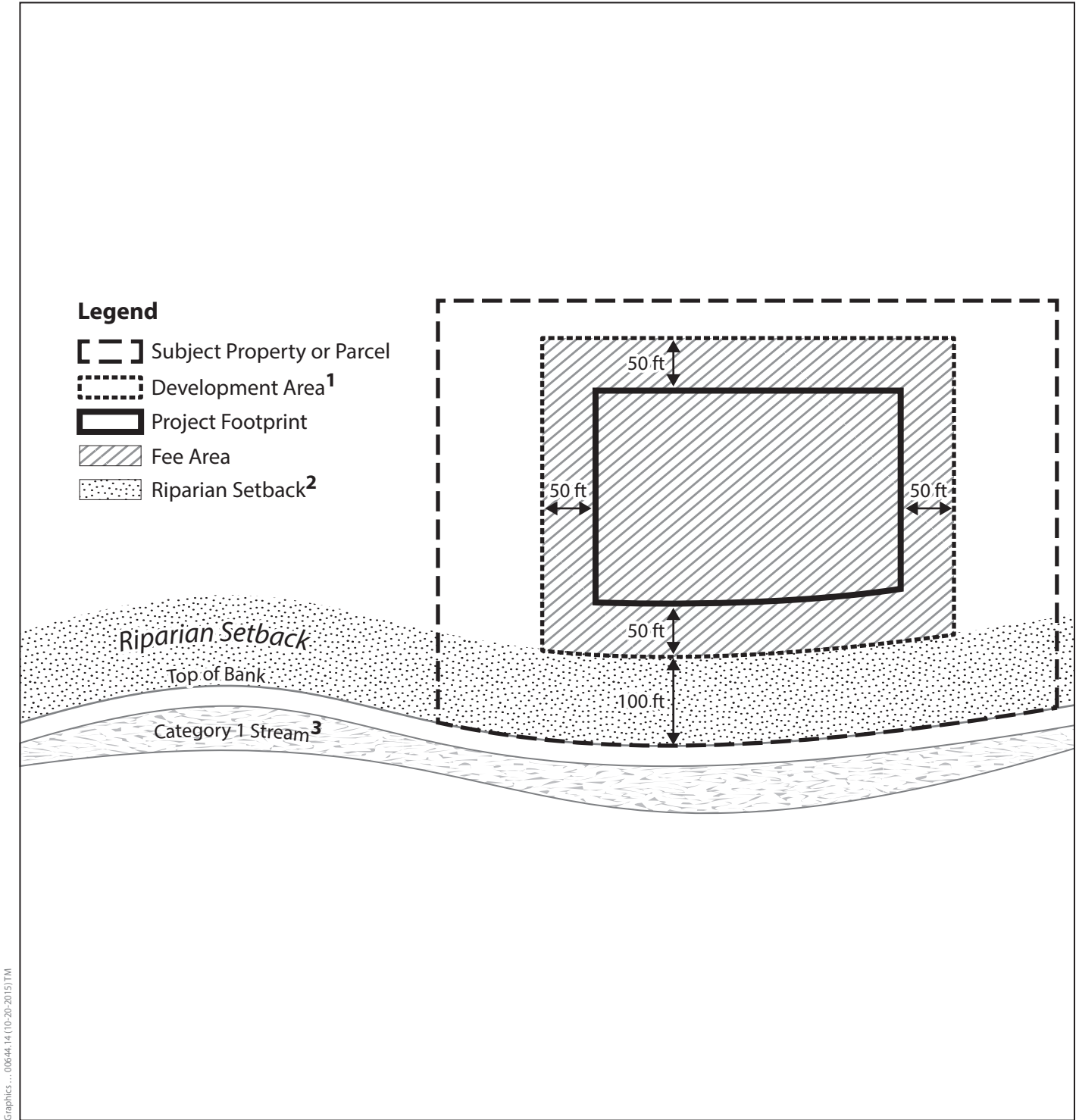
¹ On properties less than 10 acres, the subject property or parcel is the same as the development area.

² The riparian setback distance is measured from top of the stream bank, or edge of verified vegetation, whichever is greater. Fees are not paid on the setback.

³ For Category 1 streams, the setback distance is 150 feet (slope 0–30%) and 200 feet (slope >30%). For Category 2 streams the setback distance is 35 feet in all cases.

⁴ On properties 10 acres or larger, the development area includes the project footprint plus a 50-foot buffer for permanent impacts and 10 feet for temporary impacts. For simplicity the 50-foot buffer is depicted (See Habitat Plan p. 6-31).

Figure 4
Riparian Setbacks: Inside Urban Service Area



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- ¹ The development area includes the project footprint plus a 50-foot buffer for permanent impacts and 10 feet for temporary impacts. For simplicity the 50-foot buffer is depicted (See Habitat Plan p. 6-31).
- ² The riparian setback distance is measured from top of the stream bank, or edge of verified vegetation, whichever is greater. Fees are not paid on the setback.
- ³ For Category 1 streams, the setback distance is 150 feet (slope 0–30%) and 200 feet (slope >30%). For Category 2 streams the setback distance is 35 feet in all cases.

Figure 5
Riparian Setbacks: Outside Urban Service Area

If a covered project is located adjacent to a Category 1 stream, the actual setback applicable to the covered project will depend upon the average slope in the *development area*² for the proposed project and on riparian vegetation present on the site. The average slope is determined by the formula:

$$S = (I * L / A) * 100, \text{ where}$$

S is the average slope of the area in percent; *I* is the contour interval in feet; *L* is the combined length of contour lines in feet; and *A* is the area of the development area. Average site slope will be calculated by a registered civil engineer or licensed land surveyor.

Based on the calculated average slope, use the appropriate category stream setback from Table 5 below. Note that Table 5 is identical to Habitat Plan Table 6-7.

Table 5. Required Stream Setback Distances

Stream Category Slope Class	Category 1 Streams ¹		Category 2 Streams
	Inside Existing Urban Service Area ²	Outside Existing Urban Service Area ²	
0-30%	100 feet	150 feet	35 feet
> 30%	150 feet	200 feet	

¹ All distances measured from top of bank. For Category 1 streams, if the edge of riparian vegetation extends beyond the setback, the riparian edge becomes the setback plus a 35-foot buffer from riparian edge inside or outside the urban service area. For Category 2 streams, if the site supports riparian vegetation, the setback will extend from the riparian edge plus a 35-foot buffer.

² Urban service areas existing at the time of permit issuance for the Habitat Plan.

Step 3

Determine if the covered project is adjacent to a Category 2 stream. These types of streams are not mapped in the Geobrowser and instead are identified in the field. Use the *Criteria to Verify or Identify a Watercourse as a Stream (Attachment 5)* to determine if any potential watercourse on site could qualify as a Category 2 stream. The stream setback for all Category 2 streams is 35 feet.

Step 4

Determine if the covered project can meet all setback requirements (per Table 5 above). Modify the proposed project to meet setback requirements, if necessary.

Step 5

If a covered project cannot be modified to meet the setback requirement, follow the process below.

Does the project qualify for a Stream Setback Exception?—determine if it meets the findings below and follow the process listed.

Findings Required to Grant a Stream Setback Exception

For all proposed exceptions to the stream setbacks (inside or outside the urban service area), exceptions will be considered based on the following factors.

² The development area is further defined within the Habitat Plan application forms.

- The existence of legal uses within the setback
- The extent to which meeting the required setback would result in a demonstrable hardship (i.e., denies an owner any economically viable use of his land or adversely affects recognized real property interests) for the applicant.
- The extent to which meeting the required setback would require deviation from, exceptions to, or variances from other established policies, ordinances, or standards regarding grading, access, water supply, wastewater treatment, disposal systems, geologic hazards, zoning, or other established code standards
- The stream setback exception does not preclude achieving the biological goals and objectives of the Habitat Plan or conflict with other applicable requirements of the Habitat Plan and local policies.
- Regardless of project location, stream setback exceptions may not reduce a Category 1 stream setback to less than a distance of 50 feet for new development or 35 feet for existing or previously developed sites with legal buildings and uses.

Findings required to approve the stream setback must be supported by factual information and judgments in the record.

The local jurisdiction or the Habitat Agency may require technical reports from qualified professionals or consultants to support the request.

Process for Granting a Stream Setback Exception

Private Development Projects—requests are approved by the local jurisdiction reviewing the development project. If a stream setback exception is granted at an administrative level or by a designated decision-making authority, local agencies must include provisions that allow appeal of this decision to the elected legislative body.

Prior to granting the exception, the local jurisdiction will provide the exception request and proposed decision to both the Habitat Agency and Wildlife Agencies for review and comment for a 30-day review period. A local agency cannot take an action until after the 30-day period.

Public Projects and Participating Species Entities—requests are approved by the Habitat Agency. Allow for a 30-day notification and comment period for the Wildlife Agencies.

References

Habitat Plan: Section 6.5 (pages 6-44 to 6-55)

Habitat Plan Interpretation: Under development

Condition 12. Wetland and Pond Avoidance and Minimization

This condition is intended to ensure that covered projects avoid and minimize impacts on wetland and ponds, including minimizing erosion and new runoff that could degrade these sensitive land cover types.

Applicable Covered Projects

Applies to covered projects that will direct and indirectly affect wetlands and ponds.

Applicable Habitat Plan Maps/Geobrowser Maps

Wetland Fee Zone—identifies known wetlands and ponds. Field verification at the time a covered project is proposed is required to verify if wetland land cover occurs on site.

Applicable Conditions

During Project Design

- Projects must be designed to avoid and minimize impacts on wetlands to the maximum extent practicable.
- Locate septic facilities, if used, at least 100 feet from the edge of a wetland or pond, if space allows.
- If the runoff from the development will flow within 100 feet of a wetland or pond, install vegetated stormwater filtration features, such as rain gardens, grass swales, tree box filters, or infiltration basins, to capture and treat flows.
- Plant native vegetation (shrubs and small trees) between the wetland or pond and the development such that the line of sight between the wetland or pond and the development is shielded.
- If during the environmental review process it is shown that a project would have adverse indirect impacts on the wetland's function (e.g., change in hydrological functions), the project will be required to avoid these indirect effects, as determined on a case-by-case approach by the local jurisdiction, in consultation with the Habitat Agency. If a Co-Permittee is carrying out the activity, it will coordinate avoidance measures with the Habitat Agency. Wetlands that are not completely avoided, including those that experience indirect effects, will be considered permanently affected and will count toward the impact caps described in **Table 4-2** of the Habitat Plan and will be assessed fees as described in Chapter 9 of the Habitat Plan. However, if the local jurisdiction demonstrates to the Wildlife Agencies that the wetlands to be indirectly affected are highly degraded prior to project impacts, and the Wildlife Agencies agree, impacts will not be counted toward the impact caps described in **Table 4-2** and fees will not be assessed. "Highly degraded" wetlands could include, but are not limited to, those that are indirectly affected by surrounding development or agriculture to the extent that hydrology, water quality, or habitat for covered species is adversely affected.

During Construction

- Personnel conducting ground-disturbing activities in or adjacent to wetlands and ponds will be trained by a qualified biologist in these avoidance and minimization measures and the permit obligations of project proponents working under the Habitat Plan.
- All wetlands and ponds to be avoided by covered activities will be temporarily staked in the field by a qualified biologist to ensure that construction equipment and personnel avoid these features.
- Fencing will be erected along the outer edge of the project area, between the project area and a wetland or pond. The type of fencing will match the activity and impact type. For example, projects that have the potential to cause erosion will require erosion control barriers (see below), and projects that may bring more household pets to a site will be fenced to exclude pets. The temporal requirements for fencing also depend on the activity and impact type. For example, fencing for permanent impacts will be permanent, and fencing for short-term impacts will be removed after the activity is completed.
- Appropriate erosion control measures (e.g., fiber rolls, filter fences, vegetative buffer strips) will be used on site to reduce siltation and runoff of contaminants into wetlands, ponds, streams, or riparian woodland/scrub. Filter fences and mesh will be of material that will not trap reptiles and amphibians. Erosion control blankets will be used as a last resort because of their tendency to biodegrade slowly and trap reptiles and amphibians.
- Erosion-control measures will be placed between the wetland or pond and the outer edge of the project site.
- Fiber rolls used for erosion control will be certified as free of noxious weed seed.
- Seed mixtures applied for erosion control will not contain invasive nonnative species, but will rather be composed of native species appropriate for the site or sterile, nonnative species. If sterile, nonnative species are used for temporary erosion control, native seed mixtures must be used in subsequent treatments to provide long-term erosion control and slow colonization by invasive nonnatives.
- Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed areas.
- Trash generated by covered activities will be promptly and properly removed from the site.
- No construction or maintenance vehicles will be refueled within 200 feet of avoided wetlands and ponds unless a bermed and lined refueling area is constructed and hazardous material absorbent pads are available in the event of a spill.
- All management of pest species will be conducted in compliance with the County integrated pest management ordinance. In addition, other requirements identified in Chapter 6 of the Habitat Plan that exceed the requirements of the integrated pest management ordinance will be implemented.
- Where appropriate to control serious invasive plants, herbicides that have been approved by the U.S. Environmental Protection Agency for use in or adjacent to aquatic habitats may be used as long as label instructions are followed and applications avoid or minimize impacts on covered species and their habitats. In wetland environments, appropriate herbicides may be applied during the dry season to control nonnative invasive species (e.g., yellow star-thistle). Herbicide drift will be minimized by applying the herbicide as close to the target area as possible. Herbicides will only be applied by certified personnel in accordance with label instructions.
- All organic matter should be removed from nets, traps, boots, vehicle tires, and all other surfaces that have come into contact with ponds, wetlands, or potentially contaminated sediments. Items

should be rinsed with clean water before leaving each study site (U.S. Fish and Wildlife Service 2005).

- Measures will be implemented to minimize the spread of disease and nonnative species based on current Wildlife Agency protocols (e.g., *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog: Appendix B, Recommended Equipment Decontamination Procedures* [U.S. Fish and Wildlife Service 2005]) and other best available science.
- Used cleaning materials (e.g., liquids) should be disposed of safely, and if necessary, taken off site for proper disposal. Used disposable gloves should be retained for safe disposal in sealed bags.

References

Habitat Plan: Section 6.5 (pages 6-56 to 6-58)

Habitat Plan Interpretation: None applicable

Condition 13. Serpentine and Associated Covered Species Avoidance and Minimization

This condition is intended to minimize the impacts on serpentine habitat from covered projects, including minimizing direct impacts on the Bay checkerspot butterfly and serpentine plants that are covered by the Habitat Plan.

Applicable Covered Projects

Covered projects that affect serpentine land covers (serpentine bunchgrass grassland, serpentine rock outcrops, serpentine seeps, and serpentine chaparral).

Applicable Habitat Plan Maps/Geobrowser Maps

Potential Other Fees/Serpentine Fee Zones—shows areas where serpentine land covers may occur. Field verification at the time a covered project is proposed is required to verify if serpentine land covers occur on site.

Survey Areas/Wildlife Survey Areas—shows areas where Bay checkerspot butterfly surveys are required.

Applicable Conditions

During Project Design

Serpentine Area Avoidance

- In cases where serpentine areas are part of a project site in a developed area, the project will be designed to preserve larger patches of serpentine land cover outside the development area and limit impacts to the smallest patches feasible and to the edges of serpentine patches, regardless of their size.
- The length of the edge of the serpentine patch that is directly adjacent to the developed area will be minimized and will include as large a buffer as possible between the serpentine edge and the developed area.
- Landscaping will not be planted on serpentine areas except as needed to reduce fire hazards adjacent to structures consistent with County fire hazard reduction regulations (see also Condition 10). Plantings will not include species that are known or suspected to invade serpentine habitats or cross-pollinate with endemic serpentine plant species or other native plants.
- On undeveloped sites, the project area and construction staging area must be located to avoid or minimize impacts on any serpentine land cover on site. The guidelines described above for developed areas will also be followed for project sites in undeveloped areas.

Projects that Affect Serpentine Areas

- Conduct surveys of the serpentine vegetation to inventory for covered species and evaluate habitat quality for covered species.
- For portions of the development area that are in the Bay checkerspot butterfly habitat units identified in **Appendix D** of the Habitat Plan, survey the site for the presence of larval host

plants of Bay checkerspot butterfly. If larval host plants are found, conduct reconnaissance-level surveys for adult butterflies during the peak of the flight period to determine species presence or absence.

- Locate the project footprint as far from the covered species or the highest-quality serpentine habitat as is feasible. Utilize applicable buffers as identified in this Chapter 6 of the Habitat Plan.
- If covered plants occur on the site and cannot be avoided, notify the Habitat Agency of the construction schedule so that plant salvage can be considered and potentially implemented (see Condition 19).

References

Habitat Plan: Section 6.5 (pages 6-58 to 6-59)

Habitat Plan Interpretation: None applicable

Condition 14. Valley Oak and Blue Oak Woodland Avoidance and Minimization

This condition is intended to minimize the impacts on sensitive oak woodland habitat from covered projects, including maintaining a development setback from oak tree canopies and minimizing new irrigation in these areas.

Applicable Covered Projects

Activities that affect or are adjacent to valley oak and blue oak woodland habitat.

Applicable Habitat Plan Maps/Geobrowser Maps

Valley Oak and Blue Oak Woodlands—shows mapped valley oak and blue oak woodlands. Field verification at the time a covered project is proposed is required to verify if Valley Oak and Blue Oak Woodland land covers occur on site.

Applicable Conditions

During Project Design

- Projects on sites supporting substantial stands of valley oak woodland or blue oak woodland will minimize their impacts on these communities and preserve these stands on site when to do so would further the biological goals and objectives of the Habitat Plan. For example, projects should preserve oak woodland communities that are adjacent to existing stands of protected oak woodlands to avoid habitat fragmentation and degradation of wildlife linkages.
- To the maximum extent feasible, projects will avoid irrigating in and around valley oak woodland and will avoid altering hydrology of the site, including location of septic leach fields, such that valley oak woodland receives more water than under pre-project conditions.
- Large and healthy trees will be maintained on site whenever feasible. Local jurisdictions may set tree size thresholds for preservation that are consistent with local tree ordinances. Large valley oak trees still healthy today are clearly visible on air photos from as far back as 1939 (San Francisco Estuary Institute 2006), even though they are surrounded by agricultural fields or urban development. Preserved trees can provide habitat value for many decades; they also provide a significant community amenity.
- If trees are maintained on a site, buffer zones will be established between preserved valley oak or blue oak trees and development at a distance equal to or greater than the root protection zone, which is defined as a buffer zone determined by calculating 1 foot for each inch of trunk diameter measured at 4.5 feet above ground surface (Matheny and Clark 1998).

During Construction

- Temporary project access points will be constructed as close as possible to the work area to minimize necessity for tree removal.
- Roads and pathways will be aligned outside of the tree's root protection zone (as defined above) whenever possible.

- Roads and pathways designed beneath or within 25 feet of the dripline of oak trees will be graded using handheld equipment and will use permeable surfacing (e.g., grass pavers that allow runoff to infiltrate the ground).
- Alteration of natural grade through fill or other means within the root protection zone of oak trees will be minimized.
- Trenching for utility lines and other purposes will be minimized within root protection zones. Utilities may be installed in these areas by boring below the root zone.
- If extensive pruning of blue oaks and valley oaks is necessary, pruning will be conducted during the winter dormant period for these species and under the supervision of an arborist certified to International Society of Arboriculture or similar standards.

References

Habitat Plan: Section 6.5 (pages 6-60 to 6-61)

Habitat Plan Interpretation: None applicable

Condition 15. Western Burrowing Owl

This condition is intended to ensure that covered projects do not directly affect burrowing owl individuals during construction/development.

Applicable Covered Projects

Covered projects that are proposed within the mapped owl survey areas (see Geobrowser maps below).

Applicable Habitat Plan Maps/Geobrowser Maps

Wildlife Survey Area—shows the western burrowing owl survey area where this condition applies.

NOTE: If a project proponent is aware of owls on the project site but owl surveys are not required by the Habitat Plan, owls must be avoided nonetheless in compliance with Condition 1 of the Habitat Plan.

Process to Follow during Project Design and Construction

Step 1: Geobrowser Review

Review the Wildlife Survey Area map within the Geobrowser to determine if the proposed project is within the western burrowing owl survey area.

Step 2: Conduct Habitat Surveys

If the proposed project is within the survey area, conduct a habitat survey. A qualified biologist will map areas with burrows (i.e., areas of highest likelihood of burrowing owl activity) and all burrows that may be occupied (as indicated by tracks, feathers, egg shell fragments, pellets, prey remains, or excrement) on the project site.

Habitat surveys in occupied nesting habitat are required in both breeding and non-breeding seasons.

This mapping will be conducted while walking transects throughout the entire project footprint, plus all accessible areas within a 250-foot radius from the project footprint. The centerlines of these transects will be no more than 50 feet apart, and the transects will vary in width to account for changes in terrain and vegetation that can preclude complete visual coverage of the area. For example, in hilly terrain with patches of tall grass, transects will be closer together, while in open areas with little vegetation they can be 50 feet apart.

Step 3: Preconstruction Surveys

Preconstruction surveys will be required if suitable habitat is identified during the habitat survey and the project does not fully avoid impacts on the suitable habitat. Suitable habitat is considered fully avoided if the project footprint does not impinge on a 250-foot buffer around the suitable burrow.

Prior to any ground disturbance related to covered activities, a qualified biologist will conduct preconstruction surveys in all suitable habitat areas as identified during habitat surveys. The purpose of the preconstruction survey is to document the presence or absence of burrowing owls on the project site, particularly in areas within 250 feet of construction activity.

To maximize the likelihood of detecting owls, the preconstruction survey will last a minimum of 3 hours. The survey will begin 1 hour before sunrise and continue until 2 hours after sunrise (for 3 hours total) or begin 2 hours before sunset and continue until 1 hour after sunset. Additional time may be required for large project sites. A minimum of two surveys will be conducted (if owls are detected on the first survey, a second survey is not needed). All owls observed will be counted and their locations will be mapped.

Surveys will conclude no more than 2 calendar days prior to construction. Therefore, the project proponent must begin surveys no more than 4 days prior to construction (2 days of surveying plus up to 2 days between surveys and construction). To avoid last-minute changes in schedule or contracting that may occur if burrowing owls are found, the project proponent may also conduct a preliminary survey up to 14 days before construction. This preliminary survey may count as the first of the two required surveys as long as the second survey concludes no more than 2 calendar days in advance of construction.

Step 4: Avoidance Measures during Construction

Breeding Season

If evidence of western burrowing owls is found during the breeding season (February 1–August 31), the project proponent will avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young (occupation includes individuals or family groups foraging on or near the site following fledging). Avoidance will include establishment of a 250-foot non-disturbance buffer zone around nests. Construction may occur outside of the 250-foot non-disturbance buffer zone. Construction may occur inside of the 250-foot non-disturbance buffer during the breeding season if:

- The nest is not disturbed, and
- The project proponent develops an avoidance, minimization, and monitoring plan that will be reviewed by the Habitat Agency and the Wildlife Agencies prior to project construction based on the following criteria.
 - The Habitat Agency and the Wildlife Agencies approve of the avoidance and minimization plan provided by the project proponent.
 - A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline nesting and foraging behavior (i.e., behavior without construction).
 - The same qualified biologist monitors the owls during construction and finds no change in owl nesting and foraging behavior in response to construction activities.
 - If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities will cease within the 250-foot buffer. Construction cannot resume within the 250-foot buffer until the adults and juveniles from the occupied burrows have moved out of the project site.
 - If monitoring indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use by owls, the non-disturbance buffer zone may be removed. The biologist will excavate the burrow to prevent reoccupation after receiving approval from the Wildlife Agencies.

The Habitat Agency and the Wildlife Agencies have 21 calendar days to respond to a request from the project proponent to review the proposed avoidance, minimization, and monitoring plan. If these parties do not respond within 21 calendar days, it will be presumed that they concur with the proposal and work can commence.

Non-Breeding Season

During the non-breeding season (September 1–January 31), the project proponent will establish a 250-foot non-disturbance buffer around occupied burrows as determined by a qualified biologist. Construction activities outside of this 250-foot buffer are allowed. Construction activities within the non-disturbance buffer are allowed if the following criteria are met in order to prevent owls from abandoning important overwintering sites.

- A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline foraging behavior (i.e., behavior without construction).
- The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities.
- If there is any change in owl foraging behavior as a result of construction activities, these activities will cease within the 250-foot buffer.
- If the owls are gone for at least 1 week, the project proponent may request approval from the Habitat Agency that a qualified biologist excavate usable burrows to prevent owls from reoccupying the site. After all usable burrows are excavated, the buffer zone will be removed and construction may continue.

Monitoring must continue as described above for the non-breeding season as long as the burrow remains active.

Step 5: Construction Monitoring

Based on the avoidance, minimization, and monitoring plan developed (as required under Step 4), during construction, the non-disturbance buffer zones will be established and maintained as applicable. A qualified biologist will monitor the site consistent with the requirements described above to ensure that buffers are enforced and owls are not disturbed. The biological monitor will also conduct training of construction personnel on avoidance procedures, buffer zones, and protocols in the event that a burrowing owl enters an active construction zone.

Step 6: Passive Relocation

Passive relocation would not be allowed under the Habitat Plan until the positive growth trend described in Section 5.4.6 of the Habitat Plan is achieved. Once this occurs, passive owl relocation may be allowed, with the approval of the Wildlife Agencies, on project sites during the non-breeding season (September 1–January 31) if the other measures described in this condition do not allow work to continue. Passive relocation would only be proposed if the burrow needed to be removed, or had the potential of collapsing (e.g., from construction activities), as a result of the covered activity.

If passive relocation is eventually allowed, a qualified biologist can passively exclude birds from their burrows during non-breeding season only by installing one-way doors in burrow entrances. These doors will be in place for 48 hours to ensure that owls have left the burrow, and then the biologist will excavate the burrow to prevent reoccupation. Burrows will be excavated using hand tools. An escape route will be maintained at all times during excavation. This may include inserting an artificial structure into the burrow to avoid having the overburden collapse into the burrow and trap owls inside. Other methods of passive relocation, based on best available science, may be approved by the Wildlife Agencies during Habitat Plan implementation.

Exceptions to Passive Relocation Prohibition

Because of the relatively low numbers of burrowing owls in the study area, it is not expected that the prohibition of passive relocation will result in project delays. However, it is possible that a covered activity could not proceed due to avoidance measures for burrowing owl in this condition if owls continually persist on a site where avoidance is not feasible. In such cases, a project proponent may apply for an exception based on the following process. For this condition, the term *exception* means an allowance to conduct passive relocation of burrowing owls during the non-breeding season only when this activity is not otherwise allowed.

This exception process is necessary to allow reasonable use and development of a property based on the variety of constraints and factors that may affect the property. In situations where exceptions are granted, other portions of this condition may still apply. Exceptions will be used in a minority of cases with special circumstances that limit or restrict the ability of a landowner to fully apply the condition.

Exceptions may be requested through the standard application process described in Section 6.8 of the Habitat Plan, or through a separate request process. Private applicants must apply for a passive relocation exception through their local jurisdictions. Project proponents must develop and submit a passive relocation plan with the request for exception. The passive relocation plan must document the following.

- Owls have occupied the site for a full year without relocating voluntarily. Surveys documenting presence must be completed by a qualified biologist and results must be provided in a written report. The report should confirm that one or more individuals (i.e., unique owl[s]) were monitored for a year and that the owl(s) had used the site for a full year.
- The proposed process for relocation, including schedule for the proposed passive relocation and name of the qualified biologist.

The local jurisdiction, the Habitat Agency, and the Wildlife Agencies will meet to discuss the proposed passive relocation plan. Exceptions will be considered based on, but not limited to, the following factors.

- The parcel is equal to or less than 3 acres and is more than 1,000 feet from other suitable nesting or foraging habitat such that it is unlikely the site can sustain burrowing owls into the future.
- If the site has historically been used for nesting (within the last 3 years).
- If the site is a target for a burrowing owl temporary or permanent management agreement.

As part of the review process, the Habitat Agency and Wildlife Agencies will consider the implications of an exception on the burrowing owl population and progress toward the biological goals and objective of the Habitat Plan. A passive relocation exception will not be granted if the Habitat Agency and Wildlife Agencies determine that such an exception, as mitigated, would preclude implementation of the conservation strategy of the Habitat Plan or conflict with other applicable requirements of the Habitat Plan and local policies. The local jurisdiction or the Habitat Agency must make written findings that document these considerations and the rationale for the exception.

Additional mitigation may be required as part of an approval to implement passive relocation that is otherwise prohibited by the Habitat Plan. The need for and form of additional mitigation will be determined and approved by the Habitat Agency and Wildlife Agencies. Additional mitigation could include payment of additional fees or contribution of occupied lands to the Reserve System. Applicable fees may be imposed by the local jurisdiction for processing exception requests.

Mitigation will be proportional to the impact occurring as a result of a specific eviction and will fully mitigate such evictions.

The Habitat Agency will compile a list of all exceptions granted each calendar year for inclusion in the annual report to the Wildlife Agencies.

References

Habitat Plan: Section 6.6.1 (pages 6-62 to 6-67)

Habitat Plan Interpretation: None applicable

Condition 16. Least Bell's Vireo

This condition is intended to ensure that covered projects do not directly affect individual least Bell's vireos during construction/development.

Applicable Covered Projects

All covered projects in the Pajaro watershed (South County) that are within 250 feet of project-verified riparian land cover types.

Applicable Habitat Plan Maps/Geobrowser Maps

Wildlife Survey Area—least Bell's vireo habitat area. The habitat area shows mapped areas of riparian land cover type in the Pajaro watershed, plus a 250-foot buffer.

Process to Follow during Project Design and Construction

Step 1: Geobrowser Review

Review the Wildlife Survey Area map within the Geobrowser to determine if the proposed project is within the least Bell's vireo habitat area. This survey map should be used as a screening tool to determine if Step 3 (below) is likely to be required.

Field verification at the time a covered project is proposed is required to verify if riparian land covers occur on site or within 250 feet of the covered project.

Step 2: Verify Land Cover Type on Project Site

Confirm the land cover types that are present on the project site.

Step 3: Conduct Habitat Surveys

Projects require surveys if the project is within 250 feet of field-verified riparian land cover types in the Pajaro watershed (South County). Field verification must be done by a qualified biologist. If a qualified biologist verifies that the project area is within 250 feet of riparian land cover, the biologist will conduct a field investigation to identify and map early successional riparian vegetation (typically dominated by willow shrubs and other thick understory vegetation) that may be used for nesting. If early successional riparian vegetation is found, the project proponent may revise the proposed project to avoid all areas within a 250-foot buffer around the potential nesting habitat, and surveys will be concluded.

Step 4: Preconstruction Surveys

If the project proponent chooses not to avoid the potential nesting site and the 250-foot buffer, additional nesting surveys are required. Prior to any ground disturbance related to covered activities, a qualified biologist will:

1. Make his/her best effort to determine if there has been nesting at the site in the past 3 years. This includes checking the California Natural Diversity Database (CNDDDB), contacting local experts, and looking for evidence of historical nesting (i.e., old nests).
2. If no nesting in the past 3 years is evident, conduct a preconstruction survey in areas identified in the habitat survey as supporting potential least Bell's vireo nesting habitat. Surveys will be

made at the appropriate times of year when nesting use is expected to occur. The surveys will document the presence or absence of nesting pairs of least Bell's vireo. Protocol-level surveys will be used (U.S. Fish and Wildlife Service's [USFWS] 2001 least Bell's vireo survey guidelines or latest protocol). Surveys will conclude no more than 2 calendar days prior to construction.

To avoid last-minute changes in schedule or contracting that may occur if an active nest is found, the project proponent may also conduct a preliminary survey up to 14 days before construction. If one or more least Bell's vireo nests are found (through Steps 1 or 3 above), the nest site(s) plus a 250-foot buffer will be avoided (see below for additional avoidance and minimization details). The project proponent will notify the local jurisdiction or the Habitat Agency, and the Habitat Agency will notify the Wildlife Agencies immediately of nest locations.

Step 5: Avoidance and Minimization

Covered activities must avoid active least Bell's vireo nests during the breeding season (March 15–July 31) by maintaining at least a 250-foot no-activity buffer around all active nests. As long as the nest remains active, no activity will occur within the established buffer. Disturbance to previous nesting sites (for up to 3 years) will also be avoided during the breeding season unless the disturbance is required for the conservation strategy or to maintain public safety. Least Bell's vireos use previous nesting sites, and disturbance during the breeding season may preclude birds from using existing nests.

The required buffer may be reduced in areas where there are sufficient barriers or topographic relief to protect the nest from excessive noise or other disturbance. Habitat Agency technical staff will coordinate with the Wildlife Agencies and evaluate exceptions to the minimum no-activity buffer distance on a case-by-case basis.

Step 6: Construction Monitoring

If occupied nests are identified outside of the 250-foot buffer, a qualified biologist will monitor construction to ensure that the 250-foot no-activity buffer around all active least Bell's vireo nests is maintained so that covered activities do not affect nest success. If monitoring indicates that construction outside of the buffer is affecting breeding, the buffer will be increased if space allows (e.g., staging areas moved farther away). If space does not allow, construction will cease until the young have fledged from the nest or until the end of the breeding season, whichever occurs first. The biological monitor will also conduct training of construction personnel on avoidance procedures, buffer zones, and protocols in the event that a least Bell's vireo enters an active construction zone (i.e., outside the buffer zone).

References

Habitat Plan: Section 6.6.1 (pages 6-68 to 6-69)

Habitat Plan Interpretation: None applicable

Condition 17. Tricolored Blackbird

This condition is intended to ensure that covered projects do not directly affect nesting tricolored blackbird colonies during construction/development.

Applicable Covered Projects

All covered projects that are within 250 feet of site-verified riparian, coastal valley freshwater marsh, or pond land cover types.

Applicable Habitat Plan Maps/Geobrowser Maps

Wildlife Survey Area—shows the tricolored blackbird habitat area.

Process to Follow during Project Design and Construction

Step 1: Geobrowser Review

Review the Wildlife Survey Area map within the Geobrowser to determine if the proposed project is within the tricolored blackbird habitat area. This survey map should be used as a screening tool to determine if Step 3 (below) is likely to be required.

Field verification at the time a covered project is proposed is required to verify if riparian, coastal valley freshwater marsh, or pond land covers occur on site or within 250 feet of the covered project.

Step 2: Verify Land Cover Type on Project Site

Confirm the land cover types that are present on the project site.

Step 3: Conduct Habitat Surveys

Projects require surveys if the project is within 250 feet of field-verified riparian, coastal and valley freshwater marsh (perennial wetlands), or pond land cover types. Field verification must be done by a qualified biologist. If a qualified biologist verifies that the project area is within 250 feet of these land covers (riparian, marsh, ponds), a qualified biologist will conduct a field investigation to identify and map potential nesting substrate. Nesting substrate generally includes flooded, thorny, or spiny vegetation (e.g., cattails, bulrushes, willows, blackberries, thistles, nettles). If potential nesting substrate is found, the project proponent may revise the proposed project to avoid all areas within a 250-foot buffer around the potential nesting habitat, and surveys will be concluded.

Step 4: Preconstruction Surveys

If the project proponent chooses not to avoid the potential nesting habitat and the 250-foot buffer, additional nesting surveys are required. Prior to any ground disturbance related to covered activities, a qualified biologist will:

1. Make his/her best effort to determine if there has been nesting at the site in the past 5 years. This includes checking the CNDDDB, contacting local experts, and looking for evidence of historical nesting (i.e., old nests).
2. If no nesting in the past 5 years is evident, conduct a preconstruction survey in areas identified in the habitat survey as supporting potential tricolored blackbird nesting habitat. Surveys will be made at the appropriate times of year when nesting use is expected to occur. The surveys will

document the presence or absence of nesting colonies of tricolored blackbird. Surveys will conclude no more than 2 calendar days prior to construction.

To avoid last-minute changes in schedule or contracting that may occur if an active nest is found, the project proponent may also conduct a preliminary survey up to 14 days before construction. If a tricolored blackbird nesting colony is present (through Steps 1 or 2 above), a 250-foot buffer will be applied from the outer edge of all hydric vegetation associated with the site and the site plus buffer will be avoided (see below for additional avoidance and minimization details). The project proponent will notify the local jurisdiction or the Habitat Agency, and the Habitat Agency will notify the Wildlife Agencies immediately of nest locations.

Step 5: Avoidance and Minimization

Covered activities must avoid tricolored blackbird nesting habitat that is currently occupied or has been used in the past 5 years. If tricolored blackbird colonies are identified during the breeding season, covered activities will be prohibited within a 250-foot no-activity buffer zone around the outer edge of all hydric vegetation associated with the colony. This buffer may be reduced in areas with dense forest, buildings, or other habitat features between the construction activities and the active nest colony, or where there is sufficient topographic relief to protect the colony from excessive noise or visual disturbance.

Depending on site characteristics, the sensitivity of the colony, and surrounding land uses, the buffer zone may be increased. Land uses potentially affecting a colony will be observed by a qualified biologist to verify that the activity is not disrupting the colony. If it is, the buffer will be increased. Habitat Agency technical staff will coordinate with the Wildlife Agencies and evaluate exceptions to the minimum no-activity buffer distance on a case-by-case basis.

Step 6: Construction Monitoring

If construction takes place during the breeding season when an active colony is present, a qualified biologist will monitor construction to ensure that the 250-foot buffer zone is enforced. If monitoring indicates that construction outside of the buffer is affecting a breeding colony, the buffer will be increased if space allows (e.g., staging areas moved farther away). If space does not allow, construction will cease until the colony abandons the site or until the end of the breeding season, whichever occurs first. The biological monitor will also conduct training of construction personnel on avoidance procedures, buffer zones, and protocols in the event that tricolored blackbirds enter an active construction zone (i.e., outside the buffer zone).

References

Habitat Plan: Section 6.6.1 (pages 6-69 to 6-71)

Habitat Plan Interpretation: None applicable

Condition 18. San Joaquin Kit Fox

This condition is intended to ensure that covered projects do not directly affect individual San Joaquin kit foxes and dens during construction/development.

Applicable Covered Projects

Covered projects that may affect San Joaquin kit fox within modeled habitat (see Geobrowser Maps below).

Applicable Habitat Plan Maps/Geobrowser Maps

Wildlife Survey Area—shows San Joaquin kit fox survey area.

Process to Follow during Project Design and (if applicable) Construction

Step 1: Geobrowser Review

Review the Wildlife Survey Area map to determine if the proposed project is within the San Joaquin kit fox survey area.

Step 2: Conduct Habitat Surveys

If the proposed project is within the San Joaquin kit fox survey area, a qualified biologist will conduct a field evaluation of suitable breeding or denning habitat for kit fox for all covered activities that occur within modeled habitat and will map potential den sites. Preconstruction surveys will be required if the project does not fully avoid impacts on suitable dens. Suitable breeding habitat is considered fully avoided if the project footprint does not overlap with a suitable den or with a 250-foot buffer around the suitable den.

Step 3: Preconstruction Surveys

Prior to any ground disturbance related to covered activities, a qualified biologist will conduct a preconstruction survey for covered activities in areas identified by species surveys as being suitable breeding or denning habitat. The surveys will evaluate use of dens by kit foxes using methods appropriate for the northern edge of the species' range, such as placing a tracking medium in the project area where suitable dens occur. Surveys will conclude no more than 2 calendar days prior to construction. To avoid last-minute changes in schedule or contracting that may occur if a kit fox or active den is found, the project proponent may also conduct a preliminary survey up to 14 days before construction. On the parcel where the activity is proposed, the biologist will survey the proposed disturbance footprint and a 250-foot radius from the perimeter of the proposed footprint to identify San Joaquin kit foxes and/or suitable dens. Adjacent parcels under different land ownership will not be surveyed unless access is granted within the 250-foot radius. The status of all dens will be determined and mapped. Written results of preconstruction surveys will be submitted to USFWS and CDFW within 2 calendar days after survey completion and before the start of ground disturbance.

If San Joaquin kit foxes and/or suitable dens (i.e., dens greater than 5 inches in diameter) are identified in the survey area, avoidance and minimization will be implemented.

Step 4: Avoidance and Minimization

The goals of the avoidance and minimization measures for San Joaquin kit fox are to avoid all injury to or death of kit foxes in the study area, and to minimize harm or harassment to the species. No take authorization for injury to or death of kit fox is provided by the Habitat Plan because of the rarity of the species in the study area. The following avoidance and minimization conditions will be applied to projects that do not fully avoid suitable dens or kit fox individuals.

- If a suitable San Joaquin kit fox den is discovered in the proposed development footprint, the den will be monitored for 3 days by a USFWS- and CDFW-approved biologist using a tracking medium or an infrared beam camera to determine if the den is currently being used.
- Unoccupied dens will be destroyed immediately to prevent subsequent use.
- If a natal or pupping den is found, USFWS and CDFW will be notified immediately. The den will not be destroyed until the pups and adults have vacated and then only after further consultation with USFWS and CDFW.
- If kit fox activity is observed at the den during the initial monitoring period, the den will be monitored for an additional 5 consecutive days from the time of the first observation to allow any resident animals to move to another den while den use is actively discouraged. For dens other than natal or pupping dens, use of the den can be discouraged by partially plugging the entrance with soil such that any resident animal can easily escape. Once the den is determined to be unoccupied, it may be excavated under the direction of the biologist. Alternatively, if the animal is still present after 5 or more consecutive days of plugging and monitoring, the den may have to be excavated by hand when, in the judgment of a biologist, it is temporarily vacant (i.e., during the animal's normal foraging activities). If at any point during excavation a kit fox is discovered inside the den, the excavation activity shall cease immediately and monitoring of the den as described above will be resumed. Destruction of the den may be completed when, in the judgment of the biologist, the animal has escaped from the partially destroyed den.
- Construction and ongoing operational requirements from *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox prior to or during Ground Disturbance* (U.S. Fish and Wildlife Service 2011) or the latest guidelines will be implemented.
- If active or suitable dens are identified within the proposed disturbance footprint or outside the proposed project footprint but within a 250-foot buffer, exclusion zones around each den entrance or cluster of entrances will be demarcated. The configuration of exclusion zones will be circular, with a radius measured outward from the den entrance(s). No covered activities will occur within the exclusion zones. Exclusion zone radii for atypical dens and suitable dens will be at least 50 feet and will be demarcated with four to five flagged stakes. Exclusion zone radii for known dens will be at least 100 feet and will be demarcated with staking and flagging that encircles each den or cluster of dens but does not prevent access to the den by the foxes.

Step 5: Construction Monitoring

If construction takes place while kit fox dens are occupied, a qualified biologist will be present to ensure compliance with the avoidance and minimization measures listed above. The frequency of monitoring will be approved by USFWS and CDFW and will be based on the frequency and intensity of construction activities and the likelihood of disturbance to the active dens. In most cases, monitoring will occur at least weekly, but in some cases daily monitoring may be appropriate to ensure that disturbance of San Joaquin kit fox is minimized.

References

Habitat Plan: Section 6.6.1 (pages 6-71 to 6-73)

Habitat Plan Interpretation: None applicable

Condition 19. Plant Salvage when Impacts are Unavoidable

Requirements of Condition 19 are integrated into the requirements of Condition 20, below.

Condition 20. Avoid and Minimize Impacts on Covered Plant Occurrences

These two conditions are intended to ensure that covered projects avoid or minimize impacts on covered plants.

Applicable Covered Projects

Covered projects that may affect any of the nine covered plant species within the mapped potential habitat areas (see Geobrowser maps below).

Applicable Habitat Plan Maps/Geobrowser Maps

Plant Survey Area—Shows areas where plant surveys may be required.

Process to Follow during Project Design and Construction

Step 1: Geobrowser Review

Review Geobrowser maps to determine if the proposed project is within the Plant Survey Area.

Step 2: Verify Land Cover Type on Project Site

If the proposed project is in a Plant Survey Area, verify if the on-site land cover is suitable to support one of the nine covered plants that require surveys. These land covers and the corresponding plant surveys required are listed below.

Serpentine bunchgrass grassland: Survey for smooth lessingia, fragrant fritillary, Metcalf canyon jewelflower, most beautiful jewelflower, Tiburon paintbrush, and Coyote ceanothus.

Serpentine rock outcrop: Survey for Santa Clara Valley dudleya, smooth lessingia, Metcalf canyon jewelflower, most beautiful jewelflower, and Tiburon paintbrush.

Serpentine seep: Survey for Mount Hamilton thistle.

Mixed serpentine chaparral: Survey for Coyote ceanothus and most beautiful jewelflower.

Mixed oak woodland and forest with serpentine soils: Survey for Loma Prieta hoita.

Coast live oak forest and woodland with serpentine soils: Survey for Loma Prieta hoita.

Northern coastal scrub and Diablan sage scrub with serpentine soils: Survey for Coyote ceanothus, Metcalf canyon jewelflower, most beautiful jewelflower, and smooth lessingia.

Step 3: Conduct Covered Plant Surveys

Conduct surveys for the relevant plants if the relevant land cover occurs on site (based on field verification) or if suitable habitat is present during the survey periods listed below (Table 6) to determine if plants occur on site. Plant surveys must be conducted in accordance with Wildlife Agency protocols; however, no floristic surveys are required. Note that Table 6 is identical to Habitat Plan Table 6-9.

Table 6. Survey Periods for Covered Plant Species

Species		Survey Period											
Common Name	Scientific Name	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
Covered Species													
Tiburon Indian paintbrush	<i>Castilleja affinis</i> ssp. <i>neglecta</i>				√	√	√	√					
Coyote ceanothus	<i>Ceanothus ferrisiae</i>	√	√	√	√	√							
Mount Hamilton thistle	<i>Cirsium fontinale</i> var. <i>campylon</i>		(√)	(√)	√	√	√	√	√	√	(√)		
Santa Clara Valley dudleya	<i>Dudleya abramsii</i> ssp. <i>setchellii</i>				√	√	√						
Fragrant fritillary	<i>Fritillaria liliacea</i>		√	√	√								
Loma Prieta hoita	<i>Hoita strobilina</i>					(√)	√	√	(√)	(√)	(√)		
Smooth lessingia	<i>Lessingia micradenia</i> var. <i>glabrata</i>							√	√	√	(√)	(√)	
Metcalf Canyon jewelflower	<i>Streptanthus albidus</i> ssp. <i>albidus</i>				√	√	√	√					
Most beautiful jewelflower	<i>Streptanthus albidus</i> ssp. <i>peramoenus</i>			√	√	√	√						

Note: (√) indicates flowering periods which are possible but uncommon for the species.

Step 4: Document the Condition of Plant Occurrences if Found

If a plant occurrence is found on the project site, the following analysis is required.

The local jurisdiction will obtain the opinion of a qualified biologist regarding the projected long-term viability of a covered plant occurrence given the plant occurrence condition, site conditions, and project-level construction details. For all plants except Santa Clara Valley dudleya, an occurrence is defined as a group of individuals that are separated by at least 0.25 mile from other groups of individuals of the same species or subspecies. For Santa Clara Valley dudleya, a distinct occurrence is a group of individuals on a rock outcrop.

The documentation package must include the following components for each occurrence.

- A description of each discreet occurrence and its rough population size
- The “health” of each occurrence must be defined by the following criteria.
 - Age structure
 - Reproductive success

- Availability of suitable habitat
- Diversity of suitable habitat
- Threats
- A map showing the location of each occurrence (include geographic information system shape files if available)
- Justification of surveying time window if outside of the plant's blooming period
- The CNDDDB form(s) submitted to CDFW (for new occurrences only)

Step 5: Revise Project Design to Avoid Impacts if Feasible

- In order to reduce impacts on covered plants, all covered activities will be confined to the minimum area necessary to complete the activity or construction.
- A setback buffer will be established around covered plant occurrences located on any project site or in an adjacent area that could be affected by construction traffic or activities. The setback buffer will be adequate to prevent or minimize impacts during or after project implementation.
- The plants and buffer area will be protected from encroachment and damage during construction by installing temporary construction fencing. Fencing will be brightly colored and highly visible.
- Fencing will be designed to keep construction equipment away from plants and prevent unnecessary damage to or loss of plants on the project site.
- Fencing will be installed under the supervision of a qualified biologist to ensure proper location and prevent damage to plants during installation. Fencing will be installed before any site preparation or construction work begins and will remain in place for the duration of construction.
- Construction personnel will be prohibited from entering these areas (the exclusion zone) for the duration of project construction.

Step 6: Qualified Biologist Determines the Long-Term Viability of the Occurrence if Impacts are Not Avoidable

If a proposed project will potentially affect the plant occurrence, the following steps will be implemented.

- A qualified biologist will determine if the long-term viability of a covered plant occurrence will be reduced (as described below) by implementation of the covered activity.

Some covered plant occurrences may only be disturbed or partially affected by covered activities, and viability may be maintained. It is important to monitor and, if possible, maintain these occurrences of covered plants where they occur, even if they are not protected within the Reserve System.

- The project proponent will submit advance notification (in advance of the full application submittal) to the Habitat Agency. Impacts on plant occurrences must be offset by protection, management, and monitoring of covered plant occurrences in the Reserve System prior to impacts (**Table 5-16** of the Habitat Plan). Therefore, notification to the Habitat Agency is required to confirm available take for plant impacts prior to construction of the project. Notification will include documentation of the condition of each plant occurrence to potentially be affected. Project proponents must also notify the Habitat Agency of their construction schedule to allow the Habitat Agency the opportunity to conduct salvage activities.

- If the biologist determines that the covered activity may affect the covered plant occurrence or a portion of the plant occurrence found on site, monitoring during construction will be required as follows.

The Habitat Agency will monitor construction activities. The purpose of the monitoring will be (1) to assess whether the impact reduces the long-term viability of the occurrence and whether supplemental management actions are feasible and warranted, and (2) to determine whether the Habitat Agency must protect and enhance or create occurrences in the Reserve System according to **Table 5-16** of the Habitat Plan. If the impact occurs on less than 5% of the total occurrence as measured by the number of individuals at the time of impact, then the impact is assumed not to affect long-term viability and will not require monitoring, nor will it count as a permanent impact (**Table 4-6** of the Habitat Plan). This allowance does not apply to Coyote ceanothus.

When determining viability for the purpose of assessing a partial or permanent impact, the Habitat Agency will consider the following factors.

1. Results of monitoring plant occurrences affected by covered activities (e.g., correlation between pre-project observations and actual viability post project)
2. Impacts to date on the covered plant species and how close total impacts are to the allowable impact cap in the Habitat Plan (e.g., extra care taken when near cap not to exceed the cap)

Specific monitoring protocols and success criteria will be developed during implementation as appropriate for each covered species, according to the guidelines discussed here. Monitoring protocols can draw on those developed for other Habitat Conservation Plans/Natural Community Conservation Plans. It is possible that only a portion of the occurrence will be located on the covered activity project site. In such instances, the monitoring protocol will address this issue. Three possible approaches include the following.

1. If the landowner agrees, the Habitat Agency will obtain access to the adjacent sites on which the rest of the plant occurrence is located, and surveys will include the entire occurrence.
2. If access to adjacent site(s) is not possible, or if for some other reason it is not feasible to survey the entire occurrence, then an alternative will be developed to estimate the extent and condition of the adjacent portion of the occurrence.
3. If only a small portion of the occurrence is on adjacent properties, then only the portion of the occurrence on the project site will be monitored and assessed for viability. The determination whether this is a full impact will be made based on the results for this portion of the occurrence only.

Population monitoring will be conducted by the Habitat Agency before the covered activity is implemented to document the baseline condition. For annual species, the minimum post-construction monitoring period will be 5 years. If extreme or unusual climate conditions affect the species, then monitoring will be extended 1 or 2 years, as appropriate to assess impacts and success.

Monitoring will include estimates of percentage cover and number of individuals. An occurrence will be assumed to retain long-term viability and will not require replacement in the Reserve System if the decline in occurrence size and percentage cover from pre-project conditions is less than 25% over the monitoring period, unless site-specific conditions otherwise suggest substantial declines in occurrence viability.

For perennial species, the minimum post-construction monitoring period will be 3 years. Monitoring will include estimates of density (percentage cover), recruitment of seedlings if impacts included removing individuals, and measurements of adult plant health (e.g., signs

of disease, herbivory, nutrient deficiencies). An occurrence of a perennial covered species will be assumed to retain long-term viability and will not require replacement in the Reserve System if the decline in seedling recruitment and density from pre-project conditions is less than 25% over the monitoring period, unless site-specific conditions otherwise suggest substantial declines in occurrence viability.

The Habitat Agency will implement conservation actions on the site that would help to maintain or improve the condition of the occurrence, as long as an agreement can be reached with the landowner to conduct these measures. Possible conservation measures are described in Chapter 5 of the Habitat Plan. If plant occurrences are determined to not be viable based on post-project monitoring, the Habitat Agency must assess the loss as a full permanent impact and implement conservation actions accordingly. In these cases, mitigation would occur after the impact. However, the potential for mitigation to occur after impacts is unlikely given that the qualified biologist and Habitat Agency will make conservative determinations regarding projected impacts on long-term viability.

Step 7: Habitat Agency Conducts Plant Salvage (Condition 19) if Appropriate

Where impacts on covered plant species cannot be avoided and plants will be removed by approved covered activities, the Habitat Agency has the option of salvaging the covered plants. Salvage of covered plants is conducted in addition to mitigation that may be required for impacts on covered plants.

Plant salvage as mitigation is acknowledged as a technique that rarely succeeds; it is opposed by conservation organizations as a primary mitigation tool (Howald 1996; California Native Plant Society 1998). Therefore, the Habitat Agency must carefully weigh the expected costs and potential benefits of the salvage effort before undertaking it. Salvage guidelines are presented below for all covered plants, for perennial species, and for annual species.

All Covered Plants

All salvage operations will be conducted by the Habitat Agency or a third-party contractor approved by the Habitat Agency. Translocation activities will be reviewed and approved by the Wildlife Agencies in advance of translocation activities occurring. Translocated plants should be moved during their dormant season in order to minimize impacts on individuals. To ensure enough time to plan salvage operations, project proponents will notify the Habitat Agency of their schedule for removing the covered plant occurrence.

The Habitat Agency may conduct investigations into the efficacy of salvaging seeds from the soil seed bank for both perennial and annual species. The soil seed bank may add to the genetic variability of the occurrence. Covered species may be separated from the soil through garden/greenhouse germination or other appropriate means. Some topsoil taken from impact sites may also be moved to the transplant site in the reserve to introduce soil microorganisms.

The Habitat Agency will transplant new occurrences such that they constitute separate populations and do not become part of an existing population of the species, as measured by the potential for genetic exchange among individuals through pollen or propagule (e.g., seed, fruit) dispersal. Transplanting or seeding receptor sites (i.e., habitat suitable for establishing a new population) will be carefully selected on the basis of physical, biological, and logistical considerations (Fiedler and Laven 1996); some examples of these are listed below.

- Historic range of the species
- Soil type
- Soil moisture

- Topographic position, including slope and aspect
- Site hydrology
- Mycorrhizal associates
- Presence or absence of typical associated plant species
- Presence or absence of herbivores or plant competitors
- Site accessibility for establishment, monitoring, and protection from trampling by cattle or trail users

Perennial Covered Plants

Salvage methods for perennial species will be tested for whole individuals, cuttings, and seeds. Salvage measures will include the evaluation of techniques for transplanting as well as germinating seed in garden or greenhouse and then transplanting to suitable habitat sites in the field. Techniques will be tested for each species, and appropriate methods will be identified through research and adaptive management. Where plants are transplanted or seeds distributed to the field, they will be located in reserves in suitable habitat to establish new populations. Field trials will be conducted to evaluate the efficacy of different methods and determine the best methods to establish new populations.

Transplanting within the reserves will only minimally disturb existing native vegetation and soils. Supplemental watering may be provided as necessary to increase the chances of successful establishment, but must be removed following initial population establishment. Supplemental watering will include watering throughout the first growing season to mimic natural rainfall patterns. During establishment, areas will be fenced off as necessary to prevent trampling or grazing by livestock. These areas will not be selected for controlled burns. Once the population has established itself, as determined by success criteria that may include setting seed, 3-year survival, or other criteria developed in agreement with the Wildlife Agencies, then fencing and irrigation will be removed and the site may be burned for management purposes if that is appropriate for the target plant.

Annual Covered Plants

For annual covered plants, mature seeds will be collected from all individuals for which impacts cannot be avoided (or if the population is large, a representative sample of individuals). If storage is necessary, seed storage studies will be conducted to determine the best storage techniques for each species. A seed storage facility will also be contacted and consulted regarding collecting and storage requirements of the facility. One of the leading seed banks in California is the Rancho Santa Ana Botanic Garden in Claremont (Rancho Santa Ana Botanic Garden 2010). This facility has strict seed collection and storage guidelines available on its website (<http://www.rsabg.org>). If needed, studies will be conducted on seeds germinated and plants grown to maturity in garden or greenhouse to propagate larger numbers of seed. Such studies can be contracted with research institutions such as the Rancho Santa Ana Botanic Garden, or carried out by other qualified biologists. Seed propagation methods will ensure that genetic variation is not substantially affected by propagation (i.e., selection for plants best adapted to cultivated conditions). Field studies will be conducted under the Adaptive Management Program to determine the efficacy and best approach for dispersal of seed into suitable habitat. Where seeds are distributed to the field, they will be located in reserves in suitable habitat to establish new populations. If seed collection methods fail (e.g., from excessive seed predation by insects), alternative propagation techniques will be necessary.

References

Habitat Plan: pages 5-46 and 5-47; Section 6.6.2 (pages 6-74 through 6-80)

Habitat Plan Interpretation: Under development

Chapter 5 References


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**Attachment 1: Clarification and Interpretation Memo
2013-011—Conditions of Approval:
Implementation of Condition #1 (Avoid Direct Impacts
on Legally Protected Plant and Wildlife Species)**



Santa Clara Valley Habitat Plan

CLARIFICATION AND INTERPRETATION

Subject	Conditions of Approval: Implementation of Condition #1 (Avoid Direct Impacts on Legally Protected Plant and Wildlife Species)
Clarification Number	2013-011
Approved	Edmund Sullivan 
Effective Date	6/24/15
Revision Date <i>(If applicable)</i>	

Category

Conditions of Approval

Topic

Implementation of Condition #1, Protected Species (goldfields, ringtails)

Issue/Question/Problem Statement

Additional information is required to identify when surveys may be required for Contra Costa goldfields and ring-tailed cat.

Plan Guidance

Contra Costa Goldfields

6/24/15

Clarification Number: 2013-011

“Contra Costa goldfields is a federally endangered and CNPS 1B plant species whose extreme rarity precludes coverage under the Habitat Plan. Because the Habitat Plan does not cover the species, compliance is required on an individual basis.

The likelihood of discovery of new occurrences is very low. If a new occurrence of this species is found, its avoidance would be of the highest importance to the species’ viability. If an applicant encounters Contra Costa goldfields on their site, they will contact the USFWS for written concurrence of avoidance to ensure that the project does not jeopardize the continued existence of the species.” (page 6-7)

Ring-Tailed Cat

This species is listed on page 6-7, but there is no guidance on where the species may be found.

Determination/Justification

Contra Costa Goldfields

Lasthenia conjugens

What Are Contra Costa Goldfields?

Contra Costa goldfields (*Lasthenia conjugens*) are federally listed as endangered and California Native Plant Society (CNPS) List 1B¹ species. Contra Costa goldfields are 10- to 30-centimeter-tall (4- to 12-inch-tall) annual herbs of the sunflower tribe (Heliantheae) of the sunflower family (Asteraceae). The opposite leaves are sometimes divided into segments. Each plant bears one to several all-yellow flower heads; the individual flowers lack a pappus (modified floral structures at the top of the fruit). The leaf-like phyllaries subtending the flower heads are fused from one-quarter to one-half of their lengths (Hickman 1993; U.S. Fish and Wildlife Service [USFWS] 2005). The partially fused phyllaries and the lack of pappus distinguish this species from the common Fremont’s goldfields (*Lasthenia fremontii*). This is an annual plant, which means that seed production is the only way for new individuals to occur in the population and for new populations to



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¹ List 1B species are rare, threatened, or endangered in California and elsewhere.

6/24/15

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be established. The flowers are self-incompatible and require insect visitors for successful pollination and seed production.

Where Are Contra Costa Goldfields Found?

Contra Costa goldfields typically grow in vernal pools, swales, moist flats, and depressions within a grassland matrix, usually at elevations between 6 and 200 feet (USFWS 2005). Since the adoption of the Habitat Plan, none have been found in the Habitat Plan Study Area. The California Natural Diversity Database (CNDDB) reported one occurrence in the Plan Area in 1983, which has now been extirpated.

What Happens If Contra Costa Goldfields Are on the Project Site?

This plant is extremely rare, so the likelihood of discovering a new occurrence is low. However, if a new occurrence of this species is found during project planning phase surveys, its avoidance is highly important to the species' viability. If Contra Costa goldfields are encountered on a project site, contact the Habitat Agency and USFWS for written concurrence of avoidance to ensure that the project does not jeopardize the continued existence of the species. The survey period for this species would coincide with its blooming period, which occurs from March through June, depending on environmental conditions (CNPS 2013).

Ringtail

Bassariscus astutus

What Is a Ringtail?

Ringtails (*Bassariscus astutus*) are listed as Fully Protected by the California Department of Fish and Wildlife (CDFW). The ringtail's body is cat-like, with a fox-like face and large oval ears (Goldberg 2003). Their long, bushy tail is banded with 14 to 16 alternating black and buffy rings. The large eyes are ringed by black or dark brown and set within buffy patches. The ringtail is nocturnal and omnivorous; it feeds primarily on animals such as mice, woodrats, birds, reptiles, and amphibians (NatureServe 2013). Mating occurs in late winter, and three to four kits are born in May or June (Jameson and Peeters 2004).



Where Are Ringtails Found?

Ringtails are active throughout the year and inhabit brushy and wooded areas, primarily at lower and middle elevations (Jameson and Peeters 2004). They are usually found within 0.5 mile of water,

Conditions of Approval: Implementation of Condition #1 (Avoid Direct Impacts on Legally Protected Plant and Wildlife Species)

6/24/15

Clarification Number: 2013-011

and their dens are found in rock shelters as well as in tree hollows, under tree roots, in mammal burrows, and under brush piles (NatureServe 2013).

What Happens If a Ringtail Is on the Project Site?

Ringtails may be found in riparian woodlands in the Permit Area. As described in Chapter 1 of the Santa Clara Valley Habitat Plan, CDFW cannot issue permits for take of this species. During planning surveys, a wildlife biologist will survey the area to be affected for suitable burrows and examine trees to be removed for suitable hollow areas that may provide shelter or denning habitat for ringtail. All hollow trees, snags, downed logs, and appropriately sized burrows that will be removed will be thoroughly examined. If habitat is confirmed to be suitable for ringtails, measures to avoid and minimize impacts on the species will be determined in coordination with CDFW and the Habitat Agency. If a ringtail is found on a project site, the project proponent should develop its own avoidance measures and contact the Habitat Agency.

References

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**Attachment 2: Table 6-2—Aquatic Avoidance
and Minimization Measures**

**Attachment 3: Table 6-3—Conditions on Covered
Transportation Projects**

Table 6-3. Conditions on Covered Transportation Projects

Design Requirements and Construction Practices	Highway Projects	Roadway Projects ¹ and Interchange Upgrades	Mass Transit Projects	Road Safety and Operational Improvements	Dirt Road Construction
Transportation Project Design Requirements					
Background data collection by Habitat Plan Implementing Entity	R	R	R	-	-
Design coordination with Wildlife Agencies ²	R	R	R	-	-
Enhance existing undercrossings	R	R	R	R	-
<ul style="list-style-type: none"> • Implement minimum sizing of culverts • Install grating over tunnels/culverts for light penetration • Install fencing around undercrossings to maximize crossing use 	R	R	R	R	-
Road or rail barrier and passage designs for wildlife (to direct wildlife to safe crossings)	R	P	R	R	-
Construction Practices					
Avoidance and minimization measures	R	R	R	R	R
Post-Construction Practices					
Control roadside vegetation adjacent to reserves	R	R	R	R	R
Revegetate cut/fill slopes with native vegetation	R	R	R	R	R
Vegetation management around undercrossings	R	R	R	R	R
Notes:					
R = Required					
P = Possible (required unless data demonstrate action would not benefit wildlife and CDFG and USFWS agree to omit).					
¹ Major roadway projects are identified in Table 2-6 and include those projects most likely to adversely affect habitat linkages in the study area.					
² The scope of this review will be limited to the design, location, and extent of the median barrier.					

**Attachment 4: Table 6-4—Rural Road Maintenance
Avoidance and Minimization Measures**

Table 6-4. Continued

		Sediment Management and Erosion Control							Road Maintenance									
		General Construction	Hillside Activities Spous	Handling and Diagonal	Mass Wasting Repair	Minor Slide Repair	Storm-Proofing	Culverts	General	Shoulder Maintenance	Dirt Road Maintenance	Ditch Maintenance	Drainage Systems	Sidecasting	Water Drafting	Vegetation Management	Dust Control	Concrete Work
Avoidance and Minimization Measures																		
8	Protect storm drain inlets and watercourses using appropriate avoidance and minimization measures. Avoidance and minimization measures described in Conditions 4 and 5 will be applied as appropriate.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
9	Mulch or revegetate bare soil adjacent to stream channels, or other flow transport paths, to the break-in-slope near those areas.	X	X	X	X	X			X	X		X	X			X		
10	Keep runoff from bare soil well dispersed across a vegetated area to prevent sediment delivery to streams.	X	X	X	X	X			X	X	X	X	X					
11	When possible, direct any concentrated runoff from bare soil areas into natural buffers of vegetation or to gentler sloping areas where sediment can settle out.	X							X		X							
12	Dewater active gullies to prevent their enlargement and to reduce their capacity for sediment transport.	X									X							
13	Dewater old gullies, even if they are not actively eroding, so they no longer carry fine sediment to streams.	X									X							
14	Prevent accelerated landsliding by avoiding, minimizing or eliminating future sidecasting on steep or streamside hillslopes.					X	X				X		X					
15	When possible, divert surface runoff and subsurface drainage to stable sites away from steep, unstable or potentially unstable slopes.					X	X				X							
16	Fit shotgun culvert (culverts with outlets above grade) outlets with downspouts or energy dissipation. When reconstructing culverts, also set the slope of the culvert to match the grade of the streambed.	X							X									
17	Maintain culvert inlets, outlet, and bottom in open and sound condition.								X	X								

		Sediment Management and Erosion Control							Road Maintenance									
		General Construction	Hillside Activities	Spous Handling and Diagonal	Mass Wasting Repair	Minor Slide Repair	Storm-Proofing	Culverts	General	Shoulder Maintenance	Dirt Road Maintenance	Ditch Maintenance	Drainage Systems	Sidecasting	Water Drafting	Vegetation Management	Dust Control	Concrete Work
Avoidance and Minimization Measures																		
25	Avoid concentrating sidecasting repeatedly in the same place. Never sidecast large amounts of soil from major landslides.										X			X				
26	In general, maintain unpaved roads to obtain a less erosive running surface and to minimize the need for frequent surface grading. Blade and compact a smooth surface and compact loose soils as needed.										X							
27	Do not apply chemical dust palliatives during rain or immediately before anticipated rain. Approved dust control agents are preferred over water drafting and application.																X	
28	Do not apply chemical or petroleum-based palliatives where they may enter a stream or watercourse unless specifically approved for such use.																X	
29	Avoid disturbance of vegetation outside the essential shoulder area, especially near ditches, streams or watercourses. These vegetated areas help filter sediment from water run-off into ditches or streams and helps prevent erosion.	X							X							X		
30	Grade ditches only when necessary to keep the ditchline free flowing and restore capacity. Unnecessary mechanical grading can cause excess erosion, undermine banks, and expose the toe of the cutslope to erosion or slope failure.											X	X					
31	To control vegetation (rather than remove it entirely), use methods like mowing or weed-whacking when feasible. Vegetation prevents scour and filters out sediment.		X						X			X				X		
32	Whenever feasible, maintain a buffer of vegetation between the ditch and the road. This helps filter sediment from runoff and can be accomplished by using a steeper angle on the grader blade.	X	X						X			X				X		
33	Avoid harming existing vegetation on the cutbank above the ditch to reduce erosion and prevent slope failure.	X	X						X			X						

		Sediment Management and Erosion Control						Road Maintenance										
		General Construction	Hillside Activities	Spoils Handling and Diagonal	Mass Wasting Repair	Minor Slide Repair	Storm-Proofing	Culverts	General	Shoulder Maintenance	Dirt Road Maintenance	Ditch Maintenance	Drainage Systems	Sidcasting	Water Drafting	Vegetation Management	Dust Control	Concrete Work
Avoidance and Minimization Measures																		
34	When “pulling” a ditch (mechanically grading and removing fine sediment), when possible, avoid spreading ditch spoils across or into the surface rock of the road or shoulder. Consider incorporating the removed soil into localized infrastructure (e.g., trails) and compact soil in place.										X							
35	The recommended minimum diameter for all new culverts, including cross drains, but exclusive of driveway culverts, is 18 inches. Often, small diameter culverts (12 inches or less) plug with debris, causing significant road damage. They are also difficult to clean out.	X						X	X				X					
36	New culverts on anadromous fish bearing streams will be sized for the 100-year storm event. When replacing smaller existing culverts on anadromous fish bearing streams, and space does not allow for a 100-year storm event culvert without creating excessive disturbance (e.g., additional excavation) culverts will be sized as close to 100-year storm event as possible given site constraints.	X						X										
37	Implement energy dissipation avoidance and minimization measures at cross drain outlets to prevent erosion. Discharges from cross drains onto road fill or other erosive areas often cause significant erosion and slope failure. Make sure that newly-installed cross drains are properly designed to minimize erosion problems. Where erosion is already occurring, work to halt and reverse it with appropriate erosion control avoidance and minimization measures. Avoidance and minimization measures described in Conditions 4 and 5 will be applied as appropriate.	X						X	X				X					
38	Clean cross drains as needed; including clearing vegetation and sediment immediately upslope or downslope of the drain if needed.							X	X				X					

Table 6-4. Continued

		Sediment Management and Erosion Control							Road Maintenance									
		General Construction	Hillside Activities Spous	Handling and Diagonal	Mass Wasting Repair	Minor Slide Repair	Storm-Proofing	Culverts	General	Shoulder Maintenance	Dirt Road Maintenance	Ditch Maintenance	Drainage Systems	Sidcasting	Water Drafting	Vegetation Management	Dust Control	Concrete Work
Avoidance and Minimization Measures																		
44	Contain coolant water from concrete cutting and do not discharge into drain inlets, the storm water drainage system or watercourses.																	X
45	When fresh concrete may be exposed to water, (e.g. rainy weather work), use concrete sealants that are approved by the California Department of Fish and Game for this purpose.																	X
46	Perform all in-stream work in dry conditions, and do not work in flowing waters. If a stream is flowing, use a cofferdam or other dewatering avoidance and minimization measures as needed. See Condition 4 for dewatering avoidance and minimization measures.	X						X	X				X					
47	Identify and map existing permanent disposal sites that can be used for long-term disposal of materials from routine and emergency maintenance activities and provide this information to maintenance crews. These sites should be in upland areas, such as rock pits, ridges, and benches. Locations should be above the 100-year floodplain of the closest stream and away from any groundwater seeps or wetlands.			X	X				X									
48	Minimize disturbance of ground cover or grass on the shoulder to the extent possible (the shoulder is part of the road right-of-way and may need to be kept clear for safety purposes), near ditches and outside of the road right-of-way. If the ground is bladed clean during mowing, the exposed soil will be vulnerable to erosion and could run-off into a creek. Vegetation can also act as a pollution filter that traps sediment and other runoff before it gets into ditches or streams.														X			


		Sediment Management and Erosion Control						Road Maintenance										
		General Construction	Hillside Activities Spous	Handling and Disposal	Mass Wasting Repair	Minor Slide Repair	Storm-Proofing	Culverts	General	Shoulder Maintenance	Dirt Road Maintenance	Ditch Maintenance	Drainage Systems	Sidecasting	Water Drafting	Vegetation Management	Dust Control	Concrete Work
Avoidance and Minimization Measures																		
52	Dispose of larger amounts of vegetation and debris in approved upland disposal areas. Do not dispose of vegetation directly into waterbodies such as streams or wetlands. Do not permanently dispose of concentrated amounts of vegetation that can generate leachate that could affect surface or groundwater quality, unless disposal is at a location permitted for this purpose.															X		

**Attachment 5: Clarification and Interpretation Memo
2014-002—Condition 11 Stream and Riparian Setback:
Clarification on determining whether a watercourse
is a stream under the Habitat Plan**



Santa Clara Valley Habitat Plan

CLARIFICATION AND INTERPRETATION

Subject	Condition 11 Stream and Riparian Setback: Clarification on determining whether a watercourse is a stream under the Habitat Plan
Number	2014-002
Approved	 Edmund Sullivan
Effective Date	June 24, 2015
Revision Date <i>(If applicable)</i>	

Category

Land Cover Types and Conditions

Topic

Stream definitions and categorization

Issue/Question/Problem Statement

How does an individual reviewing an application determine if a watercourse is a stream under the Habitat Plan? Are irrigation ditches considered streams under the Habitat Plan? What if the Habitat Plan does not define a watercourse as a stream, but CDFW is taking jurisdiction over the watercourse under Section 1600 (Lake or Streambed Alteration Agreement) regulations?

Plan Guidance

Condition 11 in the Habitat Plan identifies three types of streams: perennial stream, intermittent streams and ephemeral streams. Definitions are provided on in Chapter 6, pages 6-46 and 6-47.

“Perennial stream: A stream with year-round surface flow that is supplied by both rainfall runoff and groundwater, as well as by substantial dry-season inputs(e.g., runoff).

Intermittent stream: A stream that is supplied by both rainfall runoff and groundwater. Intermittent streams tend to be seasonal, with flow during the rainy season and into the late spring or early summer.

Ephemeral stream: A stream that flows only in response to rain events and receives no groundwater input. As defined in the Habitat Plan, ephemeral streams will not include irrigation ditches, underground streams, or drainages and swales that have neither defined bed and bank nor evidence of scour or sediment transport. All other ephemeral drainages that qualify as streams will be considered under the Habitat Plan.”

The definition for ephemeral streams excludes irrigation ditches.

The Habitat Plan also provides criteria (beginning on page 6-48) to assist in determining whether a watercourse is a stream under the Habitat Plan.

Criteria to Verify or Identify a Watercourse as a Stream

“A watercourse which does not appear to fit into one of the two described stream categories [*Category 1 or Category 2 streams, described on page 6-47 of the Habitat Plan*] may be considered a stream if the director of the planning department of the local jurisdiction determines that the watercourse complies with all of the following three criteria:

1. the watercourse is hydrologically connected to a waterway above and below the site or is connected to a spring, headwaters, lake, and/or bay based on satisfying at least one of the conditions identified in paragraph (A) below; and
2. the watercourse is within a defined channel which includes a bed, bank, and exhibits features that indicate actual or potential sediment movement based on satisfying at least one of the conditions identified in paragraph (B) below; and
3. the watercourse occupies a specific topographic position based on satisfying at least one of the conditions identified in paragraph (C) below.

In determining whether the subject watercourse possesses these three features, the following criteria will be examined by the Local Partner with jurisdiction over the covered activity. If necessary, this determination may require the technical expertise and recommendations of a qualified biologist, hydrologist, or other qualified professional. In addition, the Local Partner with jurisdiction over the covered activity may require the project proponent to provide additional information as deemed necessary to determine if the watercourse satisfies the three criteria listed below.

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- A. **Hydrologic Connectivity**—Criterion #1 above will be considered met if any of the following conditions are present:
- 1) Stream headwaters, springs, in-channel culverts, underground seepage, or groundwater flow are present and capable of providing hydrologic connectivity to recognized watercourses. Sections of stream placed underground by manmade infrastructure (e.g., culverts) are not considered streams for the purpose of this condition except as noted in paragraph B item 4 below.
 - 2) Streams may become connected across or over manmade improvements such as roads (e.g., a temporary connection during a storm event). Except for stream channel improvements, water flowing across or over such improvements within the public right-of-way is not considered a stream. Sections above and/or below this connectivity are streams if they meet the other required features.
 - 3) Springs are present and are considered part of a stream if located above (uphill from) stream initiation.
- B. **Channel Form**—Criterion #2 above will be considered met if any of the following conditions are present:
- 1) The watercourse has a stream channel, beginning at the point of bed and bank initiation, which may be natural, altered, or engineered.
 - 2) The stream channel must have enough flow under present-day conditions to maintain channel form and to move sediment. A non-engineered stream channel bed and bank are created and maintained by erosion and sedimentation, thus the presence of a channel with bed and bank is itself evidence of sufficient flow. Flow volume or timing is not criteria for stream determination.
 - 3) The stream channel has evidence of scour, sedimentation, sediment sorting, undercut banks and/or other erosion, deposition, or transport features —all of which support sediment movement.
 - 4) Engineered or altered channels exist and are partially or wholly made of earth, concrete, rip rap, or other materials. The hardened nature of these channels bed and banks, and a lack of available sediment along the channel reach, may prevent signs of sediment movement or scour. Such channels need not have explicit evidence of sediment transport.
 - 5) A currently underground stream was filled without appropriate permits from all applicable regulatory agencies (federal, state, and local) or is underground due to a landslide.
- C. **Topographic Position**—Criterion #3 above will be considered met if any of the following conditions are present:
- 1) The watercourse is either a 'U' or 'V' shaped channel typically located at the low point of a macro-topographic feature.

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- 2) The watercourse consists of bowl, 'U', or 'V' shaped topography with high points draining to valley or ravine as part of a large drainage network leading to large streams, lakes and/or a bay.
- 3) The watercourse located on flatland consists of shallow bowl or 'U' shaped topography. Generally these streams flow from the hills toward a bay following the slope of the land.

Stream topography can be indicated on a topography map by a 'U' or 'V' shape pointed in the uphill direction."

Other Considerations

As described above under *Criteria to Verify or Identify a Watercourse as a Stream*, in situations where there is some uncertainty as to whether a watercourse is a stream under the Habitat Plan, the decision on whether a watercourse is a stream lies with the planning director of the local jurisdiction.

While the Habitat Plan states that the above-described process will not be used to determine if a Streambed Alteration Agreement (Section 1600 et seq. of the California Fish and Game Code; regulated by CDFW) or a Section 404 Clean Water Act (CWA) permit (regulated by the Corps) will be required, a jurisdictional determination by one of these regulating agencies may provide additional guidance to the planning director on whether a watercourse should be determined to be a stream under the Habitat Plan. If an applicant will be required by the Corps or CDFW to mitigate impacts to the watercourse, then the applicant may desire to pay wetland fees under the Habitat Plan to address mitigation needs under Section 1600 or CWA. While this approach may be desirable to the applicant, the planning director should recognize defining a watercourse as an impacted stream reduces the remaining impacts available for other projects which may involve a more clearly defined stream and/or projects that are clearly specified as Covered Activities in Chapter 2 of the Habitat Plan.

Determination/Justification

- Water courses are defined as streams under the Habitat Plan where three key criteria, discussed in detail above, apply: 1) the watercourse has hydrologic connectivity to recognized watercourses, 2) the watercourse has distinct channel form, and 3) the watercourse is topographically situated in a location where streams typically occur.
- Agricultural/irrigation ditches are not streams unless determined to be so by the local planning director.
- For a private applicant, the final decision as to whether a watercourse is a stream under the Habitat Plan will be made by the local planning director. If the covered activity for which the determination must be made is proposed by a PSE, the Habitat Agency will make the

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determination. If the covered activity for which the determination must be made is proposed by a Co-Permittee, the Co-Permittee will make its own determination.

- Local planning directors or Co-Permittees, when determining whether a watercourse is a stream, may consider whether the Corps, CDFW, or Regional Board is taking jurisdiction over the watercourse.

