Findings of Fact and Statement of Overriding Considerations

California Wildlife Damage Management Environmental Impact Report

SCH No. 2020099012

AUGUST 2024

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
APHIS	Animal and Plant Health Inspection Service
ATV	all-terrain vehicle
BTR	Biological Technical Report
CDFA	California Department of Food and Agriculture
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
dBA	A-weighted decibels
EIR	environmental impact report
EIS	environmental impact statement
EO	Executive Order
HUD	Department of House and Urban Development
L_{eq}	equivalent sound level
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
PRC	California Public Resources Code
RCNM	Roadway Construction Noise Model
SDA	Special Designation Area
T&E	threatened and endangered
TCR	tribal cultural resource
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WDM	wildlife damage management
WHM	wildlife hazard management
WHO	World Health Organization
WS-California	California Wildlife Services

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1 Introduction

The California Department of Food and Agriculture (CDFA) has prepared these Findings of Fact (Findings) and Statement of Overriding Considerations pursuant to the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] Section 21000 et seq.), specifically PRC Sections 21081, 21081.5, and 21081.6, and the CEQA Guidelines (14 CCR 15000 et seq.), specifically Sections 15091 and 15093. The CDFA prepared a joint Final Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) evaluating the potential environmental impacts of alternatives for the CDFA's involvement in wildlife damage management (WDM) activities in California. The CDFA's current effort under CEQA arises from its plans to re-establish its WDM Program, an ongoing effort by CDFA to protect California's agriculture and natural resources, to protect property and infrastructure, and to promote human and companion animal health and safety. WDM is provided in partnership with California Wildlife Services (WS-California), a state office within the U.S. Department of Agriculture's Animal Plant and Health Inspection Service (APHIS); the California Agricultural Commissioners and Sealers Association; other public agencies; industry groups; and academia. This EIR was developed jointly with WS-California to prepare an EIS to satisfy requirements of the National Environmental Policy Act. The Final EIR/EIS examines the full range of potential effects of operation of the Proposed Project/Proposed Action and identifies standard mitigation practices that could be employed to reduce, minimize, or avoid those potential effects. The CDFA is the lead agency under CEQA.

The CDFA has prepared an EIR/EIS to provide an up-to-date, transparent, and comprehensive analysis of the CDFA's activities. The EIR/EIS serves as an overarching CEQA framework for efficient and proactive implementation of current and future WDM programs. The EIR/EIS builds on and reflects existing WDM implemented by WS-California. It also updates and integrates various biological, physical, and chemical management activities and provides a consolidated set of mitigation measures. The mitigation measures will replace those previously identified in prior CEQA documents and serve as the comprehensive management framework for implementation of Proposed Project/Proposed Action activities.

Under the Proposed Project/Proposed Action, the CDFA would have a new role in statewide activities. The CDFA would have the opportunity to formalize a program that provides an adaptive and integrated approach, cooperator/requestor participation, technical assistance on lethal and non-lethal techniques, and/or lethal and non-lethal operational WDM assistance that is similar to WS-California's existing WDM activities. As part of the Proposed Project/Proposed Action, the CDFA would also be a centralized data repository for integrated WDM activities (coordination and documentation review), participate in education and outreach, enact a rapid response plan for emergency WDM incidents and/or infestations, and conduct analysis of independent county integrated WDM programs (WDM activities of more limited scope could be delegated to individual counties by the CDFA, responding to their specific needs). Under the Proposed Project/Proposed Action, WS-California would continue to provide technical assistance on lethal and non-lethal WDM techniques and/or provide lethal and non-lethal operational WDM assistance. This would include threatened and endangered species protection and wildlife hazard management (WHM) at airports. WS-California currently uses an integrated approach to WDM involving access to the full range of legally available non-lethal and lethal WDM methods to optimize WDM. The Proposed Project/Proposed Action would utilize an integrated WDM approach to address high-risk wildlife damage situations calling for immediate treatment activities (i.e., rapid response). Refer to Section 3.7.1 of the EIR/EIS for additional details of the Proposed Project/Proposed Action.

The EIR/EIS includes a CEQA Tiering Strategy that California Counties (Counties) may use in their discretion to comply with CEQA when undertaking or approving of county-level WDM programs. The CEQA Tiering Strategy is a checklist tool and guide designed to allow the county-level programs to consistently evaluate their programs, document impacts, and minimize risk to human and pet health and environmental resources.

1.1 Purpose

PRC Section 21081 and CEQA Guidelines Section 15091 require that the lead agency, in this case the CDFA, prepare written findings for identified significant effects, accompanied by a brief explanation of the rationale for each finding. Specifically, CEQA Guidelines Section 15091 states, in part, that:

a) No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are:

   Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.

   Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

   Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

In accordance with PRC Section 21081 and CEQA Guidelines Section 15093, whenever significant effects cannot be mitigated to below a level of significance, the decision-making agency is required to balance, as applicable, the benefits of the project against its unavoidable environmental risks when determining whether to approve the project. If the benefits of a project outweigh the unavoidable adverse environmental effects, the adverse effects may be considered "acceptable." In that case, the decision-making agency may prepare and adopt a statement of overriding considerations, pursuant to the CEQA Guidelines.

Section 15093 of the CEQA Guidelines states the following:

a) CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable."
b) When the lead agency approves a project which will result in the occurrence of significant effects which are identified in the final EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the Final EIR

and/or other information in the record. The statement of overriding considerations shall be supported by substantial evidence in the record.

c) If an agency makes a statement of overriding considerations, the statement should be included in the record of the project approval and should be mentioned in the notice of determination. This statement does not substitute for, and shall be in addition to, findings required pursuant to Section 15091.

The Final EIR/EIS identified potentially significant effects that could result from the proposed WDM Program. The CDFA finds that the inclusion of certain mitigation measures as part of the approval of the proposed WDM Program would reduce most, but not all, of those effects to less than significant levels. Those impacts that are not reduced to less than significant levels are identified and overridden due to specific benefits of the WDM Program (see Chapter 5, Statement of Overriding Considerations).

As required by CEQA, the CDFA, in adopting these Findings, also adopts a Mitigation Monitoring and Reporting Program (MMRP) for the proposed WDM Program. The CDFA finds that the MMRP, which is incorporated by reference and made part of these Findings, meets the requirements of PRC Section 21081.6 by providing for the implementation and monitoring of measures intended to mitigate potentially significant effects of the Proposed Project/Proposed Action.

In accordance with the CEQA statute and Guidelines, the CDFA adopts these Findings for the Proposed Project/Proposed Action. Pursuant to PRC Section 21082.1(c)(3), the CDFA also finds that these Findings reflect the CDFA's independent judgment as the lead agency for the Proposed Project/Proposed Action.

1.1.1 Record of Proceedings

For the purposes of CEQA, the Findings herein set forth the record of proceedings for the Proposed Project/Proposed Action and consist of those items listed in CEQA Section 21167.6(e) and contained within the CDFA's files that are relevant to the consideration of the Proposed Project/Proposed Action. The record of proceedings provided within this Final EIR/EIS and in support of the CDFA's decision on the Proposed Project/Proposed Action consists of the following documents, at a minimum and without limitation, which are incorporated by reference and made part of the record supporting these Findings:

- The Notice of Preparation (posted September 10, 2020, with a scoping comment period ending on November 10, 2020)
- The Notice of Availability and Notice of Completion (both posted on January 12, 2024) and all other public notices issued by the CDFA in conjunction with the Proposed Project/Proposed Action
- The Draft EIR/EIS for the Proposed Project/Proposed Action and all technical appendices and documents relied upon and incorporated by reference
- All written comments (3,490 comments total) submitted by agencies, organizations, and members of the public during the public review comment period (beginning on January 12, 2024, and ending on March 12, 2024) on the Draft EIR/EIS, as well as the CDFA's responses to those comments
- Tribal cultural resources/tribal consultation with 198 Native American contacts identified and consulted consistent with Assembly Bill 52
- The Final EIR/EIS for the Proposed Project/Proposed Action

- The MMRP for the Proposed Project/Proposed Action
- All reports, studies, memoranda, maps, staff reports, and other planning documents relating to the Proposed Project/Proposed Action prepared by the CDFA or consultants to the CDFA with respect to the CDFA's compliance with the requirements of CEQA and with respect to the CDFA's action on the Proposed Project/Proposed Action
- All documents submitted to the CDFA by other public agencies and members of the public in connection with the Draft EIR/EIS
- Minutes and verbatim transcripts of all information sessions, public meetings, and public hearings held by the CDFA in connection with the Proposed Project/Proposed Action
- Documentary or other evidence submitted to the CDFA at such information sessions, public meetings, and public hearings
- All resolutions adopted by the CDFA regarding the Proposed Project/Proposed Action and all staff reports, analyses, and summaries related to the adoption of those resolutions
- Matters of common knowledge related to the Proposed Project/Proposed Action, including, but not limited to, federal, state, and local laws and regulations
- Any documents expressly cited in these Findings, in addition to those cited above, and any other materials required for the record of proceedings by CEQA Section 21167.6(e)

1.1.2 Custodian and Location of Records

The documents and other materials that constitute the record of proceedings for the CDFA's actions related to the Proposed Project/Proposed Action are located at the CDFA, 1220 N Street Suite 344, Sacramento, California 95814. The CDFA is the custodian of the record of proceedings for the Proposed Project/Proposed Action.

1.1.3 CDFA Objectives

The CDFA identified the following objectives for the WDM Program:

1. Generally, align with the historic (i.e., pre-2003) CDFA program objectives:
   - 1.1 Provide leadership in addressing the impacts of wildlife on agriculture.
   - 1.2 Increase the health and productivity of agricultural resources and, incidentally, natural resources.
   - 1.3 Maintain the availability of wildlife pest control materials that are effective, humane, and environmentally safe.
   - 1.4 Support improvement of current, and deployment of new, wildlife pest control materials and methods in response to ongoing research.
   - 1.5 Promote broader understanding and awareness about wildlife pest identification, biology, life history, impacts and control activities.
   - 1.6 Elicit cooperator and stakeholder participation in addressing wildlife pest impacts to agriculture and, incidentally, natural habitats and public health and safety.
   - 1.7 Support development and implementation of measures to avoid, minimize and mitigate unintended impacts to watercourses and protected species and their habitats from wildlife pest control materials and methods.

2. Inform the implementation of WDM activities conducted by state and local agencies throughout California.
3. Provide rapid response to high-risk wildlife damage scenarios in order to prevent harm to agricultural resources and property, human health and safety, and natural resources.
4. Support the development and implementation of measures to avoid, minimize, and mitigate unintended impacts to California's important natural resources from WDM materials and technologies.
5. Build upon existing resources, including WS-California's data reporting system, to develop a statewide information management, reporting, and data sharing system for wildlife damage incidents and management activities that will allow a robust evaluation of management activities to support an integrated and adaptive WDM approach.
6. Establish an administrative mechanism for California Counties (Counties) that wish to participate in a statewide WDM Program to streamline their environmental compliance.

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2 CEQA Findings

2.1 Independent Review and Analysis

Under CEQA, the lead agency must independently review and analyze the EIR; circulate draft documents that reflect its independent judgment; as part of the certification of an EIR, find that the EIR or declaration reflects the independent judgment of the lead agency; and submit copies of the documents to the State Clearinghouse if there is state agency involvement or if the project is of statewide, regional, or area-wide significance (PRC Section 21082.1[c]).

These Findings reflect the CDFA's independent judgment. The CDFA has exercised independent judgment in accordance with CEQA Section 21082.1(c)(3) in retaining its own environmental consultant in the preparation of the EIR/EIS, as well as reviewing, analyzing, and revising material prepared by the consultant.

Having received, reviewed, and considered the information in the EIR/EIS, as well as any and all other information in the record, the CDFA hereby makes findings pursuant to and in accordance with CEQA Sections 21081, 21081.5, and 21081.6. The environmental setting/affected environment, including the detailed impact analysis conducted, is provided in Chapter 4 of the Final EIR/EIS. Other CEQA considerations are described in Chapter 5 of the Final EIR/EIS.

2.2 Impacts Determined to Be Significant and Unavoidable

This section identifies the significant and unavoidable impacts that require a statement of overriding considerations to be issued by the CDFA, pursuant to Section 15093 of the CEQA Guidelines, if the proposed WDM Program is approved. Based on the analysis contained in the EIR/EIS, the following impacts have been determined to fall within the significant and unavoidable impacts category:

- Biological resources
  - **BIO-01:** Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service – Mountain lion
  - **CU-BIO-01:** Make a considerable contribution, either directly or through habitat modifications, to cumulatively significant effects on any species identified as a candidate, sensitive, or special status species – Mountain lion

Other biological resources impacts regarding conflicts with biological resources protection policies and ordinances and with habitat conservation plans are addressed in Section 2.3, Impacts Determined to Be Less Than Significant with Mitigation. The remaining biological resources impacts, regarding potential adverse effects to candidate, sensitive, or special-status species; riparian habitat or other sensitive communities; wetlands; and cumulative biological resources were determined to be less than significant.

2.2.1 Biological Resources

2.2.1.1 Potentially Significant and Unavoidable Impacts to Biological Resources

BIO-01: Impacts to Candidate, Sensitive, and Special-Status Species

The Final EIR/EIS evaluates the Proposed Project/Proposed Action's potential direct and indirect effects on plant and wildlife species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS). Threshold BIO-01 is examined in Section 4.2.2 and Appendix D, Biological Technical Report (BTR), of the Final EIR/EIS.

Mountain Lion (CESA Candidate Counties)

Mountain lion (*Puma concolor*) is a candidate for state-listing under California Endangered Species Act (CESA) in 16 counties (i.e., Alameda, Contra Costa, Imperial, Los Angeles, Monterey, Orange, Riverside, San Benito, San Bernardino, San Diego, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, and Ventura). The population estimate for mountain lion in those counties is approximately 1,454 individuals, based on the distribution and occurrence modeling for mountain lion provided in Appendix C27 of the BTR (Appendix D of the Final EIR/EIS). Approximately 1.91% (13.0 individuals) of the special-status population was lethally taken annually during the baseline period (2010–2019).

Two scenarios for mountain lion were evaluated in the Final EIR/EIS BTR: (Scenario 1) the species does become listed under CESA and (Scenario 2) the species does not become listed under CESA. In Scenario 1, lethal take of mountain lion under the Proposed Project/Proposed Action would not be conducted by the CDFA or the counties in the candidate counties; however, WS-California might occasionally lethally take a mountain lion if it is determined to be a threat to federally listed species or human health and safety and they receive approval from an authority (e.g., CDFW or law enforcement agency). Additionally, in Scenario 1, future WDM for mountain lion under the Proposed Project/Proposed Action would be the same for non-candidate counties as elsewhere in the state as described in Threshold BIO-7 (pp. 4.2.2-25 and 4.2.2-26 in the Final EIR/EIS). Under Scenario 1, the Proposed Project/Proposed Action Maximum Lethal Take Estimate across all 16 candidate counties would be 1.6 mountain lions per year (0.11% of the combined candidate county mountain lion population), or less than 0.1 mountain lion per year per candidate county (i.e., less than one mountain lion in 10 years; 0.05% to 0.67% of the county populations). Under Scenario 2, the total Proposed Project/Proposed Action Maximum Lethal Take Estimate for the 16 candidate counties would be 11.4 mountain lions per year (0.77% of the candidate county mountain lion population), ranging from 0 to 1.6 mountain lions per year by county (0 to 1.43% of the county mountain lion populations).

This analysis assumes that lethal WDM of mountain lions would be half or less as compared to activities occurring in the baseline period and that lethal WDM of mountain lion under the Proposed Project/Proposed Action would only occur with a CDFW depredation permit or if lethal removal is required for public safety. This assumption reflects recent changes in how CDFW issues depredation permits for mountain lion as set forth in CDFW Policy 2017-07, which requires a stepwise approach whereby only non-lethal depredation permits are issued for mountain lion until it can be demonstrated non-lethal WDM is not sufficient (CDFW 2017). In the event that mountain lion is listed

under CESA, lethal WDM of mountain lion in those counties where the species is listed would be even further restricted as compared to baseline conditions. Regardless of the scenario that applies, measures would be implemented to ensure effects on the candidate species would be minimized to the extent feasible consistent with CDFW guidance and standards for issuance of depredation permits.

The analysis in the EIR/EIS determined that the Proposed Project/Proposed Action could potentially result in significant and unavoidable impacts to mountain lions occurring in CESA candidate counties, if the mountain lion is listed. Lethal take under Scenario 1 would not significantly adversely impact the state- or county-level populations of mountain lions; however, low numbers of mountain lions, as examined in the EIR/EIS, may be removed from candidate counties if individuals present a safety risk. Because the EIR/EIS considers WS-California activities as part of the statewide framework for WDM activities across California, the potential for intentional take of a CESA candidate species by WS-California is considered a significant and unavoidable impact under CEQA for purposes of this EIR/EIS. However, the CDFA lacks the legal authority to control or direct the actions of WS-California, which is an independent federal agency governed by federal law and policies. WS-California would only undertake these actions when requested and would follow documented procedures. Additionally, in the event the mountain lion is not CESA-listed, this impact conclusion would not apply and impacts to mountain lion would be as described for the non-special-status mountain lion populations under Threshold BIO-7 in the Final EIR/EIS.

CU-BIO-01: Cumulative Biological Resources Impacts

Mountain Lion (CESA Candidate Counties)

Habitat loss affects mountain lion, especially in Southern California where development is more extensive and results in more conflicts with humans (Benson 2023). This extensive habitat loss coupled with other anthropogenic effects led to the proposed listing of some populations of mountain lion under CESA. The Proposed Project/Proposed Action would not affect habitat, so it would not contribute to habitat loss. However, there is a potential for lethal WDM to add to other losses and threats. Other anthropogenic mortality for mountain lion consists of illegal harvest and vehicle collisions. These were evaluated in Section 3.2.24 of the BTR (Appendix D of the Final EIR/EIS) to represent losses of approximately 3.2% of the mountain lion population annually. Cumulative anthropogenic mortality includes these losses in addition to lethal WDM. Lethal removal of mountain lion for WDM may be compensatory rather than additive to natural causes of mortality; however, because data to support this speculation were not available, the analysis assumed that all mortality would be additive.

As described in detail above, two scenarios for mountain lion were evaluated in the BTR: (Scenario 1) the species does become listed under CESA and (Scenario 2) the species does not become listed under CESA. In Scenario 2, future WDM for mountain lion under the Proposed Project/Proposed Action would be the same for candidate counties as elsewhere in the state, as described in Threshold BIO-7. However, even under Scenario 2, due to changes in how CDFW issues depredation permits for mountain lion, the analysis assumes that lethal WDM of mountain lions would be half or less as compared to baseline conditions.

In the event that mountain lion is listed under CESA (Scenario 1), lethal WDM of mountain lion in those counties where the species is listed would be even further restricted as compared to baseline conditions. Under Scenario 1, cumulative mortality under the Proposed Project/Proposed Action is estimated at 3.30% of the CESA-listed population. Lethal WDM would be responsible for 0.1% of that 3.30% mortality, adding a small amount to the low cumulative mortality of mountain lions, whose population would typically be expected to be increasing due to the low level of harvest (i.e., well below the cumulative sustainable mortality threshold of 11%). However, if mountain

lions become state-listed in this area, the decision to list this population is a likely indication that these other mortality factors and threats to survival are higher in this population than in other more stable mountain lion populations and that the population might be declining. Small incremental additional losses like those from lethal WDM might have a higher potential for impacting such populations. The specific determinations that would be expected to accompany listing of these populations of mountain lion in select counties (i.e., population growth status, annual mortality, annual fecundity, available habitat, and carrying capacity) would be useful in assessing the likelihood of such an impact but are not available at the time of EIR/EIS preparation. Nonetheless, if the species is determined to be at risk of extirpation in these counties, the analysis must conclude that incremental contribution to population mortality is cumulatively considerable. It is expected that any depredation of listed mountain lions would only be for the purposes of protecting human health and safety, making the cumulative impact unavoidable. However, in the event that the mountain lion is not state listed, this impact conclusion would not apply and impacts to mountain lion would be as described for the non-special-status mountain lion populations in Threshold CU-BIO-4 in the Final EIR/EIS.

2.2.1.2 Mitigation Measures

MM-BIO-1 Wildlife species designated as "Fully Protected" under California Fish and Game Code Sections 3511, 4700, 5050, and 5515 shall not be taken or possessed unless authorized by the CDFW. This exclusion does not apply when such species pose an imminent threat to human health and safety (e.g., potential collision with aircraft); however, non-lethal measures shall be considered before selecting the option of lethal WDM for Fully Protected species.

MM-BIO-2 Lethal removal of mountain lion in counties where the species is listed under the California Endangered Species Act would only occur under the following circumstances:

- The subject mountain lion has been designated by a law enforcement official as an imminent threat to public health or safety.
- A depredation permit has been issued by CDFW

MM-BIO-4 Proposed Project/Proposed Action installation of electrified fencing and other fencing shall be limited to site-specific applications and shall avoid impeding movement through wildlife migration corridors to the extent feasible.

MM-BIO-5 Prior to conducting WDM, the entity responsible for conducting the WDM activity shall ensure that the planned WDM activities do not violate any local policies or ordinances protecting biological resources.

MM-BIO-6 If WDM activities under the Proposed Project/Proposed Action receive coverage from an Implementing Entity of an adopted Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP) for take of species covered under those plans, the entity conducting the WDM activity shall ensure that the WDM activity is conducted in accordance with all requirements and conditions of the Incidental Take Permits, HCP/NCCP, and Implementing Agreement (if applicable) for those plans.

MM-BIO-7 Entities conducting WDM shall follow the protective measures in WS-California Endangered Species Act (ESA) Section 7 compliance.

2.2.1.3 Findings per CEQA Guidelines

Impacts must be considered significant and unavoidable because there is no feasible mitigation that would reduce impacts to less than significant levels. Pursuant to PRC Section 21081(a)(3), and as described in the statement of overriding considerations, the CDFA has determined that specific economic, legal, social, technological, or other considerations make infeasible the alternatives identified in the EIR/EIS and feasible mitigation measures are not available. The identified biological resources impacts are thereby acceptable because of specific overriding considerations (see Chapter 5).

2.2.1.4 Facts in Support of the Findings Related to Biological Resources

As discussed in Section 2.2.1.3, Findings per CEQA Guidelines, additional considerations have made other mitigation measures or project alternatives infeasible based on the facts provided below:

Mitigation Measure (MM) BIO-2 requires that lethal removal of mountain lions that are members of populations proposed for listing or listed under the CESA would only occur under the following circumstances:

a) The subject mountain lion has been designated by a law enforcement official as an imminent threat to public health or safety.
b) A depredation permit has been issued by CDFW.

MM-BIO-2 was proposed to mitigate the significance of impact BIO-01 by formalizing the procedures to be followed and undertaken by WS-California before lethal WDM can be implemented for individual mountain lions that are part of populations that are currently proposed for listing and may become listed under the CESA.

The CDFA and Counties would not be authorized under the Proposed Project/Proposed Action to conduct lethal WDM of mountain lions in counties that are members of populations currently proposed for listing and may become listed under the CESA. However, WS-California is federally authorized to respond to lawful requests for WDM.

Under the Proposed Project/Proposed Action, WS-California would continue to apply its APHIS-WS Decision Model to evaluate use of potential non-lethal WDM measures before implementing lethal WDM. By stipulating that the CDFA and Counties are not allowed to conduct lethal WDM of listed mountain lion populations, the project reduces the potential for take of these species to the maximum extent feasible.

Further reduction of Proposed Project/Proposed Action–related mountain lion take would require either legislative changes to federal authorities or changes in human land use patterns that would reduce potential for conflict between humans and mountain lions. Any changes to WS-California's mandate or human land use patterns are outside of the scope of this Proposed Project/Proposed Action.

2.3 Impacts Determined to Be Less Than Significant with Mitigation

The EIR/EIS identifies significant adverse impacts of the proposed WDM Program that require findings to be made under CEQA Section 21081(a) and CEQA Guidelines Section 15091(a)(1). Based on substantial evidence, the CDFA

finds that adoption of the mitigation measures set forth in this section would reduce the identified significant impacts to less than significant:

- Biological Resources
  - **BIO-01:** Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service – excluding Mountain Lion
  - **BIO-03:** Have a substantial adverse effect state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means
  - **BIO-04:** Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites
  - **BIO-05:** Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
  - **BIO-06:** Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan
  - **BIO-07:** Have a substantial adverse effect to populations of non-special-status wildlife or plant species, especially if those effects could result in substantial ecosystem changes
  - **CU-BIO-01:** Make a considerable contribution, either directly or through habitat modifications, to cumulatively significant effects on any species identified as a candidate, sensitive, or special status species - excluding Mountain Lion
- Tribal Cultural Resources
  - **TCR-1:** Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k)
  - **TCR-2:** Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribes
- Hazards and Hazardous Materials
  - **HAZ-3:** Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school

- Human and Companion Animal Health and Safety
  - **HPHS-1:** Directly, indirectly, or cumulatively result in adverse effects on human or companion animal health and safety
- Noise
  - **NOI-1:** Substantial temporary or permanent increase in ambient noise levels in excess of standards
  - **NOI-3:** Expose people residing or working in the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, to excessive noise levels
  - **CU-NOI-1:** Cumulative indirect and direct methods noise impacts

2.3.1 Biological Resources

2.3.1.1 Potentially Significant Impacts to Biological Resources

BIO-01: Impacts to Candidate, Sensitive, and Special-Status Species

The Final EIR/EIS evaluated the Proposed Project/Proposed Action's potential direct and indirect effects on plant and wildlife species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.

Special-Status Wildlife

White-Tailed Kite

The statewide population estimate for white-tailed kite (*Elanus leucurus*) based on the Avian Conservation Assessment and Population Estimates Database (PIF 2022) is approximately 9,700 individuals. Under previous WS-California efforts, on average approximately 115.1 individuals per year (approximately 1.2% of the statewide population) were affected by WDM. Non-lethal WDM consisting of dispersing or relocating white-tailed kites accounted for more than 99.99% (114.7 individuals per year) and lethal take accounted for less than 0.01% (0.4 individuals per year) of white-tailed kite WDM by WS-California. All lethal WDM of white-tailed kite was conducted at airports in three counties (Alameda, Los Angeles, and Yuba). Section 3.4.8 of the BTR (Appendix D of the Final EIR/EIS) also recognizes that some years may have lethal WDM that exceeds the annual average and estimates the highest potential lethal take that may occur in a single year as 4 individuals. Even if that number of white-tailed kites were taken in the future under the Proposed Project/Proposed Action, which is unlikely in most years, it would represent 0.04% of the statewide population. Because the percentage of the statewide white-tailed kite population affected by WDM activities on an annual basis has historically been very low and because 99% of WDM is non-lethal, future WDM under the Proposed Project/Proposed Action would not have a significant effect on white-tailed kite populations. If lethal WDM of this species were to occur in the future, it would likely be at an airport where it is taken to address imminent threats to human health and safety. However, in nearly all cases including airports the species would be subject to non-lethal WDM. To address the potential for impacts under CEQA to this Fully Protected species, MM-BIO-1 shall be implemented. With implementation of MM-BIO-1, impacts would be less than significant with mitigation under CEQA because wildlife species designated as "Fully Protected" under California Fish and Game Code shall not be taken or possessed unless authorized by the CDFW and non-lethal measures shall be considered before selecting the option of lethal WDM for Fully Protected species.

Ringtail

The statewide modeled population estimate for ringtail (*Bassariscus astutus*) is approximately 389,236 individuals, based on the distribution and occurrence modeling for ringtail provided in Appendix C27 of the BTR. During the 10-year baseline period, an average of 0.6 ringtails were freed from traps, 0.5 individuals were relocated, and 0.1 individuals underwent a transfer of custody to another agency per year. The statewide ringtail population was not affected by lethal WDM activities annually. Because ringtail was not subject to lethal WDM during the baseline period, continuation of existing WDM under the Proposed Project/Proposed Action would not result in substantial effects to ringtail populations at the state or county scale. However, because of its state fully protected status, MM-BIO-1 shall be implemented to ensure impacts remain less than significant under CEQA because wildlife species designated as Fully Protected under California Fish and Game Code shall not be taken or possessed unless authorized by the CDFW and non-lethal measures shall be considered before selecting the option of lethal WDM for Fully Protected species.

Special-Status Plants

Although WDM activities generally have no effect on special-status plant species, there would be minor potential for some effect in the event these plants grow where WDM activities are conducted. Additionally, many special-status plants look similar to other plants in their respective families or genera and are only identifiable during the limited flowering stage; therefore, it can be difficult to correctly identify them to determine effects. However, wildlife specialists are expected to understand potential impacts to special-status plant species and WS-California wildlife specialists are required to be aware of the federally listed species that occur in their area of work. Most activities involve no ground disturbance; if there is some disturbance, soil disturbance from activities is minor (e.g., a wildlife specialist may clear a site of ground litter to make a space for a cage trap). WDM activities are pre-planned and are site specific, enhancing the ability of wildlife specialists to avoid special-status plants or areas where they are more likely to occur.

Despite all such efforts, it is anticipated that some minor ground or plant disturbance may occasionally occur. MM-BIO-3 would be implemented to minimize unnecessary disturbance of habitat by ensuring that staff coordinate with land managers and landowner, that equipment would be placed primarily on already disturbed sites, and that vehicles would be used on existing roads and trails when possible. This would minimize new disturbances, which would minimize potential for take of special-status plants and ensure impacts are less than significant with mitigation under CEQA.

BIO-03: Adverse Effects on Wetlands

WS-California and county wildlife specialists are not authorized to, nor do they, conduct activities such as land development, construction, or soil vegetation removal. Minor disturbance of vegetation communities from off-road vehicle use or placement of traps would be temporary and sited outside of state and federally protected wetlands when feasible. Non-lethal WDM of North American beaver (*Castor canadensis*) would affect a very small proportion of the total statewide populations and would therefore not substantially interfere with the current ecosystem services provided by these species related to state and federally protected wetlands. Therefore, the Proposed Project/Proposed Action would not have a substantial adverse effect on state or federally protected wetlands as defined by Section 404 of the Clean Water Act, the Porter-Cologne Water Quality Control Act, or Section 1602 of the California Fish and Game Code through direct removal, filling, hydrological interruption, or other means. MM-BIO-3 would ensure that wildlife specialists would avoid entering wetland areas when the wildlife conflict does not occur

in the wetland, which would reduce disturbance and impacts to the wetlands. This would reduce the impact under CEQA to less than significant with mitigation.

BIO-04: Interference with Wildlife Movement/Use of Nursery Sites

Barrier fencing is typically used to prevent access to areas containing infrastructure (including road structures and bridges) and valued property such as gardens, fishponds, trees, orchards, dwellings, and livestock or poultry pens, as well as for threatened and endangered (T&E) species protection (Appendix C, WDM Methods, of the Final EIR/EIS). Selection of a barrier system depends on the wildlife species being excluded, expected duration of damage, size of the area or facility to be excluded, compatibility of the barrier with other operations (e.g., feeding, cleaning, harvesting, recreational activity), possible damage from severe weather, and effect on site aesthetics. The barrier system also depends on the resource being protected and its value. Systems can range from relatively simple systems such as metal flashing and hardware cloth to highly complex mesh and grid systems and electric fencing. Barrier systems can initially be very costly to erect and expensive to maintain, but can provide a long-term, highly effective solution to some damage problems.

Electric fencing could be used to alleviate damage caused by wildlife. The application of electrified fencing would generally be limited to site-specific application where predation is occurring in a very limited geographic scale. Limits of this application arise where there are multiple landowners along a wetland, pond, or lake; the size of the area is relatively large; or where the area is in proximity to bodies of water. Predator exclusion through judicious use and placement of electric fences and other barriers, as well as by trapping efforts, have reduced losses of adult animals, eggs, and/or young (USFWS 1985). While electric fencing may be effective in repelling predators in some urban settings, its use is often prohibited in many municipalities for human safety reasons. Problems that typically reduce the effectiveness of electric fences include vegetation on fence, flight capable birds, fencing knocked down by other animals (e.g., white-tailed deer [*Odocoileus virginianus*] and dogs), and poor or intermittent power sources.

Drift fencing acts as a vertical barrier that blocks the movement of animals across the landscape. There are multiple variations dependent on habitat and target species; however, WS-California typically uses plastic mesh attached to wooden stakes driven into the ground. Drift fencing typically guides animals toward a pitfall bucket, funnel trap, or other capture device. Drift fencing is effective at helping to capture snakes. Drift fencing could be used on the outside of a colony or nest area to intercept reptilian predators attempting to access the area.

As noted above, small-scale fencing can be used by WS-California and other wildlife specialists in response to a request for assistance. Large-scale fence installation of the type that could interfere with wildlife movement (e.g., extending more than 1,000 linear feet) is typically done by private entities or land managers rather than as a WS-California action. Similarly, CDFA personnel or county wildlife specialists conducting WDM under the Proposed Project/Proposed Action would likely only provide technical assistance related to fencing; installation would be a private activity or conducted by others. MM-BIO-4 would ensure that the Proposed Project/Proposed Action would minimize the installation of fencing that could substantially inhibit movement of native wildlife through migratory corridors. Therefore, effects on wildlife movement related to the Proposed Project/Proposed Action would be less than significant with mitigation under CEQA.

Some WDM activities generate noise that could disturb nontarget wildlife. Both lethal (i.e., discharge of firearms) and non-lethal (i.e., distress/predator calls, propane exploders/cannons, and pyrotechnics) activities generate intermittent and sudden sounds that could be perceived as a threat by nontarget wildlife (Francis and Barber 2013). If conducted near active nest sites, such disturbance could cause breeding birds to abandon eggs or recently

hatched young, resulting in decreased survival and reproduction. Noise generated from low-level flights and gunshots during aerial operations to remove coyotes (*Canis latrans*) or feral pigs (*Sus scrofa*) could disturb nontarget wildlife co-occurring in the same area. The likelihood of such impacts would increase when such noises are frequent and occur over many days, leading to "chronic exposure" to noise disturbance. However, these activities are infrequent, of short duration, and occur in a small proportion of the total geographic area involved. WS-California aerial operations only occur on a small fraction of the total land area in the state and therefore have limited potential to impact nontarget wildlife. WS-California also does not work continuously throughout the year on these properties and generally spends only a few hours or days on any specific property resolving wildlife damage issues. During the 2010–2019 baseline period, WS-California flew an average of 45 hours per year of aerial operations. Therefore, these activities are not expected to result in chronic exposure of nontarget wildlife to noise disturbance. Moreover, after reviewing available literature on the impacts of aircraft noise on wildlife, Colorado Wildlife Services (USDA 2018) concluded that most bird and mammal species are relatively tolerant of aircraft overflights. Even then, many wildlife species become habituated to frequent overflights.

Noise from WDM activities is also unlikely to disturb nontarget wildlife to the extent that it would result in population declines. While there is widespread acknowledgment that noise and other "sensory pollutants" (e.g., artificial light, chemical agents) from human activities can impact the behavior, physiology, and fitness of individual animals, there is a lack of clear evidence that such impacts lead to population declines and extinction risk (Dominoni et al. 2020). Therefore, noise effects of the Proposed Project/Proposed Action on wildlife nursery sites would not be substantial. Additional analyses on the potential impacts of noise are provided in Section 4.2.6 of the Final EIR/EIS. Mitigation to reduce noise (MM-NOISE-1 through MM-NOISE-16) would ensure that noise impacts on wildlife species and sensitive receptors would be less than significant with mitigation under CEQA because timing, location of WDM activity, and/or duration of WDM activity would be specified and structured to reduce sensitive receptors' exposure to noise generated from WDM activities.

BIO-05: Conflict with Biological Resources Protection Policies and Ordinances

The Proposed Project/Proposed Action would not result in removal of trees. WDM under the Proposed Project/Proposed Action would be in response to a local request, and the entity conducting WDM (WS-California, Counties) would verify through the requesting entity that all local policies and ordinances are being complied with, as directed by MM-BIO-5. Implementation of MM-BIO-5 would ensure that WDM activities under the Proposed Project/Proposed Action follow local policies and ordinances and would reduce the impacts under CEQA to less than significant with mitigation.

BIO-06: Conflict with Any Adopted or Approved Habitat Conservation Plan or Natural Community Conservation Plan

Habitat conservation plans and other approved local, regional, and state conservation plans are in place throughout California. WDM activities could be a part of an approved conservation plan, depending on target species. For example, WDM activities can include management of ravens (*Corvus corax*) to protect desert tortoise (*Gopherus agassizii*) or western snowy plover (*Charadrius nivosus nivosus*) or removal of feral pigs for overall habitat quality. Any potential conflicts with habitat conservation plans, natural community conservation plans, or other approved conservation plans related to WDM activities would be determined by the entity conducting WDM (e.g., WS-California, Counties) on a project level when relying on the Final EIR/EIS according to the requirements of MM-BIO-6 because wildlife specialists would ensure that the WDM activity is conducted in accordance with all requirements and conditions of the incidental take permits, HSP/NCCP, and implementing agency agreements for those plans.

WS-California would also continue to work within Special Designation Areas (SDAs) (Chapter 2 of the Final EIR/EIS). WDM in SDAs ranges from no activity to seasonal predator damage management activities, based upon requests for assistance from the federal entities managing the SDA (e.g., Bureau of Land Management, U.S. Forest Service). While requests for service in SDAs occur on an infrequent basis, the potential exists for WS-California to be requested to work in any type of land class or SDA. When responding to a request, WS-California would be guided by all applicable laws, APHIS policies, memoranda of understanding, regulations, management plans, and land management agency policies. WS-California coordinates all activities in SDAs with the appropriate land management agencies in annual work plans. By complying with these laws, plans, and policies, WDM activities are conducted in a manner that avoids and/or minimizes adverse effects within SDAs. For example, WS-California work in Wilderness Areas can be conducted only after the land management agency determines the work to be consistent with (a) the Wilderness Act, (b) each area's wilderness management plan, (c) the land management agency's wilderness management policies, (d) each area's individual wilderness legislation (which might contain special provisions applicable only to that particular wilderness area), and (e) integrated WDM memoranda of understanding between APHIS and the wilderness management agency. Proposed activities in Wilderness Study Areas must be determined to be consistent with Bureau of Land Management policy and management plans, in which Wilderness Study Areas are managed to preserve wilderness characteristics so as not to impair their suitability for possible future wilderness designations.

The Proposed Project/Proposed Action includes continuation of WDM activities that are part of the baseline condition and would also occur under Alternative 1, No Project/Continuation of WS-California. It is likely that the improved tracking by the CDFA under the Proposed Project/Proposed Action would provide a beneficial effect to consistency of the provisions of these plans as compared to existing conditions. Any potential for conflict would be further reduced by the implementation of MM-BIO-6, as noted above, because wildlife specialists would ensure that the WDM activity is conducted in accordance with all requirements and conditions of the incidental take permits, HSP/NCCP, and implementing agency agreements for those plans. This would result in a less than significant impact with mitigation under CEQA.

BIO-07: Adverse Effect to Populations of Non-Special-Status Wildlife or Plant Species

Sacramento Valley Red Fox

California is home to two native red fox subspecies, the Sierra Nevada red fox (*Vulpes vulpes necator*) and the Sacramento Valley red fox (*Vulpes vulpes patwin*), as well as the non-native red fox (*Vulpes vulpes*). The non-native red fox populations are not part of the natural fauna of California and are therefore not considered in this analysis. Lethal WDM of non-native red fox does not have the potential to negatively impact native wildlife species in California.

The Sierra Nevada red fox population consists of two Distinct Population Segments (DPSs); the Sierra Nevada DPS is estimated to be approximately 18 to 39 individuals (USFWS 2021) and the Southern Cascades DPS is estimated to be approximately 42 adults (USFWS 2015). While WDM activities have the potential to incidentally capture a nontarget Sierra Nevada red fox of either DPS occurring within the subspecies' range (Felix, pers. comm. 2022; CDFG 2005), the subspecies is not targeted for WDM due to its protected status (State Threatened and/or Federal Endangered [86 FR 41743; CDFW 2022]). Limitations placed on WDM methods by CDFW and USFWS within the range of this subspecies of either DPS render incidental take extremely unlikely (e.g., 14 CCR 465.5; CDFG 2005; CDFW 2016; USFWS 2022). No Sierra Nevada red fox has ever been taken by WS-California for WDM, and there is little potential for future lethal take of Sierra Nevada red fox from WDM. However, to ensure that there is no potential for impact to this subspecies from WDM in California by the CDFA or Counties, MM-BIO-7

would be implemented. Impacts under CEQA would be less than significant with mitigation because wildlife specialists conducting WDM shall follow the protective measures in WS-California federal Endangered Species Act Section 7 compliance documents.

The Sacramento Valley subspecies currently has no legal protection under state or federal law, and therefore WDM activities do not distinguish between the Sacramento Valley red fox and the non-native species (CDFW 2022). The genetic effective population size of the Sacramento Valley red fox is estimated to be between 50 and 80 breeding individuals and evidence suggests that the population is declining (Sacks et al. 2010a, 2010b). Based on the CDFW habitat modeling for red fox, the estimated population size for the counties where the Sacramento Valley red fox could occur (i.e., Shasta, Tehama, Glenn, Butte, Colusa, Sutter, Solano, and Yolo) is 228 individuals. However, this population estimate may include both Sacramento Valley red fox individuals and non-native red fox individuals since there is known geographical overlap between the non-native and native subspecies. To conservatively estimate the Sacramento Valley red fox populations, non-native red fox home range and density estimates are not used in the Sacramento Valley red fox population calculation (see Appendix C6 of the BTR [Appendix D of the Final EIR/EIS]).

The total Proposed Project/Proposed Action Maximum Lethal Take Estimate is 9 red foxes taken annually within the range of the Sacramento Valley red fox, which represents 4.0% of the Sacramento Valley red fox population, as stated in the Final EIR/EIS BTR. The Proposed Project/Proposed Action Maximum Lethal Take Estimate in proportion to the county estimated populations ranges from 0% (several counties) to 13.5% (5 of 37 individuals estimated in the Colusa County population). These numbers represent the highest take expected within the range of the Sacramento Valley red fox under the Proposed Project/Proposed Action in any year. The Proposed Project/Proposed Action would not be expected to reach this level of take in most years.

Red foxes are considered mesopredators (Prugh et al. 2009) and are known to coexist with other mesopredators such as Northern gray foxes (*Urocyon cinereoargenteus)*, kit foxes (*Vulpes macrotis*), and coyotes in lowland California (CWHR 2022). Mesopredators can fulfill an important role in ecosystem function, structure, and dynamics (e.g., trophic cascade) (Roemer et al. 2009). For example, high species diversity of apex predators, mesopredators, and prey species in an ecosystem can make mesopredator release less likely to occur (Brashares et al. 2010). Indirect impacts to ecosystem function, structure, or dynamics resulting from the Proposed Project/Proposed Action's lethal WDM to Sacramento Valley red foxes are not anticipated because the percentage of Sacramento Valley red foxes impacted by the Proposed Project/Proposed Action regionally, statewide, and cumulatively would be below the sustainable mortality threshold of 25%.

The annual level of lethal WDM within the range of the Sacramento Valley red fox by the Proposed Project/Proposed Action (4.0% of the statewide population and 0% to 13.5% of county populations) would not exceed the sustainable harvest rate of 25% (Section 3.2.5 of the Final EIR/EIS BTR). Furthermore, it was assumed that all WDM take occurred to the Sacramento Valley subspecies; however, it is likely that at least some or potentially all of the foxes killed would have been non-native red fox. Subspecies-level identification, which requires genetic analysis, was not conducted. Because the percentage of the red fox population annually lethally taken within the range of the Sacramento Valley red fox by WDM activities within the counties in which it occurs is low, the Proposed Project/Proposed Action would not substantially affect statewide or countywide populations, and no ecosystem-level effects are anticipated. This would result in a less than significant with mitigation impact under CEQA.

Brush Rabbit

The statewide population estimate for brush rabbit is approximately 11,508,386 individuals. The total Proposed Project/Proposed Action Maximum Lethal Take Estimate is 37,957 brush rabbits taken annually, which represents 0.3% of the population, as stated in the BTR). The Proposed Project/Proposed Action Maximum Lethal Take Estimate in proportion to the county estimated populations ranges from 0% (several counties) to 1.12% (295 individuals of 26,379 estimated Kings County population). These numbers represent the highest take expected under the Proposed Project/Proposed Action in any year; the Proposed Project/Proposed Action would not be expected to reach this level of take in most years. None of the existing WDM activities occurred within the range of the federally and state-listed endangered riparian brush rabbit (*Sylvilagus bachmani riparius*). Ecosystem effects related to Proposed Project/Proposed Action lethal WDM of brush rabbit are discussed in Section 3.2.19.2 of the BTR.

The annual level of lethal WDM by the Proposed Project/Proposed Action (0.3% of the statewide population and 0% to 1.12% of county populations) would be well below the sustainable harvest rate of 40% (Section 3.2.19 of the BTR). Because the percentage of the brush rabbit population lethally taken by WDM activities within the state on an annual basis would be very low and due to the expansive range of this species within California, the Proposed Project/Proposed Action would not substantially affect statewide or countywide populations. Implementation of MM-BIO-7 would ensure that activities conducted by the CDFA or the Counties would implement the same measures as WS-California to avoid adverse effects on riparian brush rabbit. Impacts would be less than significant with mitigation under CEQA because wildlife specialists conducting WDM shall follow the protective measures in WS-California federal Endangered Species Act Section 7 compliance documents.

CU-BIO-01 Cumulative Biological Resources Impacts

Cumulative Effects to Interference with Wildlife Movement/Use of Nursery Sites

As noted under Threshold BIO-4 in the Final EIR/EIS, the Proposed Project/Proposed Action includes primarily technical assistance to private property owners and other entities who may install fencing of various types to minimize human-wildlife conflict. It is possible that the fencing installed by others could interfere with wildlife movement. If that interference occurs in an area that is critical for species connectivity as identified through various studies including the California Essential Habitat Connectivity Project,[1] the interference could be cumulatively significant. However, the Proposed Project/Proposed Action includes very little installation of fencing by WS-California or county-level entities under CDFA oversight, especially with implementation of MM-BIO-4, which would limit the installation of fencing to site-specific applications and avoids fence installation that would impede movement of wildlife through wildlife corridors as much as possible. This limited amount of fencing installation would not be cumulatively considerable.

2.3.1.2 Mitigation Measures

MM-BIO-3 Minimize the activity area of WDM to the extent feasible by coordinating with land managers and landowners, placing equipment primarily on previously disturbed sites, using vehicles on existing roads and trails to the extent practicable, and avoiding entering wetland areas when the wildlife conflict does not occur in the wetland.

[1] https://wildlife.ca.gov/Conservation/Planning/Connectivity/CEHC.

See Section 2.2.1.2 above for MM-BIO-1 and MM-BIO-4 through MM-BIO-7, and see Section 2.3.5.2 below for MM-NOISE-1 through MM-NOISE-16.

2.3.1.3 Finding

Consistent with CEQA Guidelines Section 15126.4(a)(1), feasible measures that can minimize significant adverse impacts were developed for the potentially significant impacts described in Section 2.3.1.1, Potentially Significant Impacts to Biological Resources. The feasible measures, MM-BIO-1 through MM-BIO-7 and MM-NOISE-1 through MM-NOISE-16, are listed in Section 2.3.1.2, and Section 2.3.5.2, respectively.

The CDFA finds that the mitigation measures are feasible, are adopted, and would reduce the potential biological resources impacts of the Proposed Project/Proposed Action to less than significant levels. Accordingly, the CDFA finds that, pursuant to CEQA Section 21081(a)(1) and CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in, or incorporated into, the Proposed Project/Proposed Action that mitigate or avoid potentially significant biological resources–related impacts identified in the Final EIR/EIS.

2.3.1.4 Facts in Support of the Findings Related to Biological Resources

Potential impacts to candidate, sensitive, and special-status species would be reduced to less than significant with incorporation of MM-BIO-1 and MM-BIO-3 through minimizing WDM activity to targeted areas, conducting WDM in previously disturbed areas, using established roads and trails as much as possible, and obtaining CDFW authorization to take or possess Fully Protected wildlife species. Impacts associated with interference with wildlife movement/use of nursery sites would be reduced to less than significant with implementation of MM-BIO-4 and MM-NOISE-1 through MM-NOISE-16 through the strategic placing of fencing without impeding wildlife movement through wildlife corridors as much as possible and the designation of time of WDM activities, location of WDM activities, and/or duration of WDM activities. Impacts associated with biological resources protection policies and ordinances would be reduced to less than significant with incorporation of MM-BIO-5 through the coordination of wildlife specialists with local authorities to ensure compliance with local policies and ordinances. Impacts associated with habitat conservation plans or natural community conservation plans would be reduced to less than significant with incorporation of MM-BIO-6 through wildlife specialists ensuring that WDM activities are conducted in accordance with all requirements and conditions or incidental take permits, habitat conservation plans or natural community conservation plans, and implementing agreements (if applicable) for those plans. Impacts associated with adverse effects to populations or special-status wildlife or plant species would be reduced to less than significant with the incorporation of MM-BIO-7 through wildlife specialists following the protective measures documented in WS-California federal Endangered Species Act Section 7 compliance documents. Biological resources impacts have some components that would be mitigated to a less than significant level and some components that would be less than significant with no mitigation required.

2.3.2 Tribal Cultural Resources

2.3.2.1 Potentially Significant Impacts to Tribal Cultural Resources

Analysis regarding TCR-1: Register of Tribal Cultural Resources (PRC Section 21074) and TCR-2: Traditional Cultural Property/Landscape/Resource (Section 106 National Historic Preservation Act) Consultation with California Native American tribes has not indicated that Proposed Project/Proposed Action activities are likely to result in impacts to

specific tribal cultural resources (TCRs). Proposed Project/Proposed Action activities would not involve ground disturbance, nor would they include permanent installation of equipment. Activities occurring on tribally managed lands would occur at the request of that tribe and, as such, tribes would be informed before WDM activities began.

Additionally, Proposed Project/Proposed Action activities would not significantly impact wildlife populations (see Section 4.2.2 of the Final EIR/EIS for detailed analysis). Given that the Proposed Project/Proposed Action is focused on a process involving pre-defined activities by multiple agencies that occur at the request of land/resource owners or managers, it is possible that activities could intersect areas understood to be TCRs. Also, the definition of TCRs includes a broad range of natural, environmental, and cultural features, the location, type, and significance of which are assigned by tribes.

With these considerations in mind, Proposed Project/Proposed Action activities could result in temporary auditory or visual impacts or occur in proximity to culturally important places; however, the activities would not cause a permanent substantive adverse change in the significance of any TCRs (see Section 4.2.6, Noise, of the Final EIR/EIS for detailed analysis). As such, the Counties, WS-California, and the CDFA would maintain contact with the tribes and provide annual reporting of Proposed Project/Proposed Action activities, if requested in the consultation process. The traditional geographic area for these tribes, as well as current tribal contacts, would be on file with the respective county governments due to the regular occurrence of tribal notification related to Assembly Bill 52; in the event that this information is not known, a request should be sent to the Native American Heritage Commission.

The analysis under CEQA concludes that impacts associated with the Proposed Project/Proposed Action as it relates to TCRs would be less than significant with MM-TCR-1. The mitigation measure is included in Section 2.3.2.2, Mitigation Measure.

2.3.2.2 Mitigation Measure

MM-TCR-1 Consulting tribes that have so requested shall be provided with an annual summary of wildlife damage management (WDM) activities that occurred within the counties identified as their tribal cultural resource/tribal cultural place. Consulting tribes shall be provided a reasonable opportunity to review the Proposed Project/Proposed Action activities, review the location of activity implementation on public lands, and provide comment with regard to potential impacts to tribal cultural resources or other resources of Native American cultural value. In the event that a potential resource is identified by a consulting tribe that might be affected, the responsible county government, the CDFA, and/or WS-California shall work with the traditionally culturally affiliated tribe(s) to develop a reasonable and feasible strategy to ensure activities avoid, minimize, or otherwise appropriately mitigate impacts. In the event that an agreed strategy cannot be developed, counties, the CDFA, and/or WS-California would make the ultimate determination, ensuring compliance with local, state, and federal regulatory conditions.

2.3.2.3 Finding

Consistent with CEQA Guidelines Section 15126.4(a)(1), feasible measures that can minimize significant adverse impacts were developed for the potentially significant impacts described in Section 2.3.2.1, Potentially Significant Impacts to Tribal Cultural Resources. The feasible mitigation, MM-TCR-1, is listed in Section 2.3.2.2.

The CDFA finds that the mitigation measure is feasible, adopted, and will reduce the potential TCRs impacts of the Proposed Project/Proposed Action to less than significant levels. Accordingly, the CDFA finds that, pursuant to CEQA Section 21081(a)(1) and CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in, or incorporated into, the Proposed Project/Proposed Action that mitigate or avoid potentially significant TCRs-related impacts of the individual projects identified in the Final EIR/EIS.

2.3.2.4 Facts in Support of the Findings Related to Tribal Cultural Resources

Implementation of MM-TCR-1 would reduce impacts to TCRs to less than significant. Thus, there would be no significant, unavoidable impacts related to TCRs after implementation of this mitigation measure. This is noted in the findings for the applicable impacts.

2.3.3 Hazards and Hazardous Materials

2.3.3.1 Potentially Significant Impacts to Hazards and Hazardous Materials

HAZ-3: Hazardous Materials Within One-Quarter Mile of an Existing or Proposed School

Proposed Project/Proposed Action activities may need to occur at or near existing or proposed school sites, but these occurrences are likely to be highly infrequent and would be avoided when possible. WDM activities that use hazardous materials that could occur near a school include pyrotechnics to disperse birds or immobilization and euthanasia drugs. DRC-1339 and rocket nets are typically used in rural areas for agricultural protection and are not likely to be used near a school. If use of WDM hazardous materials in the vicinity of a school is necessary, wildlife specialists would attempt to conduct the activity when children are not present and with adequate quarantine time prior to reentry. In addition, such activities would not occur over an extended period of time that would increase potential exposure and subsequent risk to children and/or staff.

Any materials left behind after use may present a hazard to children, school staff, or nontarget wildlife that come into contact with program materials. However, strict adherence to federal law and label requirements for each of the WDM methods would effectively eliminate risk to children and school staff, as physical materials are not likely to be left behind. Existing laws and regulations would apply to the handling of any WDM materials on school properties, to provide safe handling and reporting of use. Wildlife specialists would work with schools to ensure that WDM applications occur at a time when children are least likely to be present. Therefore, the impacts would be less than significant with mitigation (MM-HAZ-1) under CEQA due to the reduced risk of exposure to children and/or staff.

2.3.3.2 Mitigation Measure

MM-HAZ-1 If the use of WDM hazardous materials in the vicinity of a school is necessary, wildlife specialists will conduct WDM when children are not present, unless public health and safety is at risk. Wildlife specialists shall allow for adequate quarantine time prior to reentry, and will remove any physical materials when WDM is complete.

2.3.3.3 Finding

Consistent with the CEQA Guidelines Section 15126.4(a)(1), a feasible measure that can minimize significant adverse impacts was developed for the potentially significant impacts described in Section 2.3.3.1, Potentially Significant Impacts to Hazards and Hazardous Materials. This feasible measure, MM-HAZ-1, is listed in Section 2.3.3.2, Mitigation Measure.

The CDFA finds that this mitigation measure is feasible, is adopted, and would reduce the potential hazards and hazardous materials impacts of the Proposed Project/Proposed Action to less than significant. Accordingly, the CDFA finds that, pursuant to CEQA Section 21081(a)(1) and CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in, or incorporated into, the Proposed Project/Proposed Action that would mitigate or avoid potentially significant hazards and hazardous materials-related impacts of the Proposed Project/Proposed Action identified in the Final EIR/EIS.

2.3.3.4 Facts in Support of the Findings Related to Hazards and Hazardous Materials

Impacts associated with hazardous materials within 0.25 miles of a proposed or existing school would be reduced to less than significant with incorporation of MM-HAZ-1 due to the reduced risk of exposure to children and/or staff. There would be no significant, unavoidable impacts related to hazards and hazardous materials after implementation of this mitigation measure. This is noted in the findings for the applicable impacts.

2.3.4 Human and Companion Animal Health and Safety

2.3.4.1 Potentially Significant Impacts to Human Health and Safety

HPHS-1: Directly, Indirectly, or Cumulatively Result in Adverse Effects on Human or Companion Animal Health and Safety

Firearms/Firearm-Like Devices

Licensed firearms are used to selectively target and remove individual damaging animals. The use of firearms and firearm-like devices during WDM activities is described in Appendix C of the Final EIR/EIS. Extensive and continuing training and certification is and will continue to be required for any firearm or firearm-like device use. WS-California, CDFA personnel, and other participating wildlife specialists shall be trained and experienced in the use of firearms. WS-California employees who use shooting as a method must comply with Wildlife Services Directive 2.615 and all standards described in the Wildlife Services Firearms Safety Training Manual. Wildlife Services Directive 2.615 requires that personnel undergo regular training, adhere to a set of safety standards, submit to drug testing, and are subject to the Lautenberg Amendment. Certified instructors provide the required firearms training for WS-California personnel. Personnel are expected to clearly identify the targeted animal before shooting. A Wildlife Services–prepared risk assessment chapter entitled “The Use of Firearms in Wildlife Damage Management” informs this training and Wildlife Services firearm procedures (USDA 2019a). To ensure that CDFA and county programs would require similar firearms training for wildlife specialists, MM-HPHS-1 shall be implemented (see Section 2.3.4.2, Mitigation Measures). When used appropriately, with proper training and with consideration of human safety, risks associated with firearms are minimal. Section 4.2.6 and Section 4.2.4 of the Final EIR/EIS concluded that no adverse

effects would occur to the environment or sensitive receptors. Therefore, there is little to no potential effect on human and companion animal health and safety due to the use of firearms when used by WS-California, the CDFA, county wildlife specialists, or any other person under the Proposed Project/Proposed Action with the implementation of training (MM-HPHS-1) for wildlife specialists that will use firearms.

Trained Animals

Trained animals may include dogs, llamas, donkeys, and other animals. Trained dogs are used during WDM operations to track or trail animals, detect particular species or their sign, retrieve animals taken with another method such as firearms, haze animals from an area where they are not wanted (e.g., dispersal of birds), and decoy or attract coyotes, which respond to canid invasions of their territories. WS-California regularly uses trained dog for these activities. Wildlife Services Directive 2.445 requires WS-California personnel to ensure that trained dogs have all the necessary care, including appropriate housing, food, and all required licenses and vaccinations per applicable state and local laws. WS-California and CDFA personnel may own trained dogs or hire certified contractors. These animals are highly trained and are taught to respond only when directed by their handlers. Pursuant to the Migratory Bird Treaty Act, a dog handler cannot allow their dog to catch or harm protected migratory birds unless the dog is intentionally harassing or retrieving the bird. A federal or state permit may be required to target or harass wildlife using dogs, consistent with federal and state laws. Additionally, Wildlife Services Directive 2.445 states that dogs under WS-California direction must be trained not to attack an animal captured, at bay, or killed, as well as not to leave the trail for distractions. In order to address the risks posed to Wildlife Services personnel, the public, and the environment, Wildlife Services prepared a risk assessment chapter entitled “The Use of Dogs and Other Animals in Wildlife Damage Management” that evaluates risks and alternatives in detail (USDA 2021). This risk assessment concluded that trained dogs may take nontarget species, but the rates are low compared to overall take.

Trained livestock guarding animals, such as dogs or llamas, are under the ownership, care, and control of the livestock owner or their agent. Wildlife specialists investigating depredation events or conducting WDM activities may be in the vicinity of such animals and must take care not to distract or directly interact with them. They are trained to protect the livestock from all threats, including perceived threats from people, and are not typically socialized to human interactions. WS-California, CDFA personnel, and county wildlife specialists must be vigilant to the presence of livestock guarding animals or licensed companion animals while conducting WDM on private or public lands to avoid unwanted interactions. To address the potential for impacts related to livestock guarding animals and interactions with the general public, MM-HPHS-2 shall be implemented (see Section 2.3.4.2).

The risk of injury to humans or companion animals from trained dogs actively working in the field and under the control of handlers, as well as livestock guarding animals, is negligible. Wildlife Services personnel or contractor handled trained dogs have not injured members of the public for at least the last 10 years. Thus, the potential for significant risks from trained animals to WS-California, CDFA personnel, county wildlife specialists, the public, and companion animals under the Proposed Project/Proposed Action would be low due to vigilance of wildlife specialists while conducting WDM activities.

2.3.4.2 Mitigation Measures

MM-HPHS–1 Training and/or certification will continue to be required for any firearm or firearm-like device use, including all wildlife specialists (federal, state, regional, and local).

MM-HPHS-2 Wildlife specialists will be vigilant to the presence of livestock guarding animals or licensed companion animals while conducting WDM on private or public lands to avoid unwanted interactions.

2.3.4.3 Finding

Consistent with the CEQA Guidelines Section 15126.4(a)(1), feasible measures that can minimize significant adverse impacts were developed for the potentially significant impacts described in Section 2.3.4.1, Potentially Significant Impacts to Human and Companion Animal Health and Safety. These feasible measures, MM-HPHS-1 and MM-HPHS-2, are listed in Section 2.3.4.2.

The CDFA finds that these mitigation measures are feasible, are adopted, and would reduce the potential impacts to human and companion animal health and safety of the Proposed Project/Proposed Action to less than significant. Accordingly, the CDFA finds that, pursuant to CEQA Section 21081(a)(1) and CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in, or incorporated into, the Proposed Project/Proposed Action that would mitigate or avoid potentially significant impacts to human and companion animal health and safety of the Proposed Project/Proposed Action identified in the Final EIR/EIS.

2.3.4.4 Facts in Support of the Findings Related to Human and Companion Animal Health and Safety

Direct and indirect impacts associated with firearms/firearm-like devices would be reduced to less than significant with the incorporation of MM-HPHS-1 due to the firearms training of wildlife specialists. Direct and indirect impacts associated with trained animals would be reduced to less than significant with the incorporation of MM-HPHS-2 due to the vigilance of wildlife specialists while conducting WDM activities. There would be no significant, unavoidable impacts related to human and companion animal health and safety after implementation of these measures. This is noted in the findings for the applicable impacts.

2.3.5 Noise

2.3.5.1 Potentially Significant Impacts to Noise

NOI-1: Increase in Ambient Noise Levels

Indirect WDM Methods

Electronic Distress Sounds

Distress sounds could occur at night at distances from sensitive receptors of 200 feet or greater and would comply with the established guidelines. If sensitive receptors were closer than this distance, then wildlife specialists would implement MM-NOISE-1 to reduce the impact on sensitive receptors between 30 and 200 feet by restricting activity to daytime hours.

Propane Exploders

Propane exploders operate on propane gas and are designed to produce loud explosions at controllable intervals. They are strategically located (elevated above the vegetation, if possible) in areas of high wildlife use to frighten wildlife from the problem site. These problem sites are typically airfields or landfills. The published sound level for the Scare-Away LP Gas Cannon (Reed-Joseph 2022a) was used in the Roadway Construction Noise Model (RCNM) (FHWA 2008) to evaluate the sound level from propane exploder devices. The distance radius for noise activity to remain under the significance threshold during the daytime is 140 feet.

The use of propane exploders and similar devices with one "detonation" each 5 minutes could occur at a distance of 140 feet or greater from sensitive receptors during the daytime and remain in compliance with the Department of Housing and Urban Development (HUD) standard. This daytime distance is considered somewhat prohibitive with respect to the use of this method in residential areas because a residence could quite commonly exist this close to crop or pasture areas where propane exploder use might occur. Therefore, wildlife specialists would implement MM-NOISE-2 to reduce the impact on sensitive receptors by restricting use within critical distances to neighboring residences.

Propane exploder use could occur at night at distances from sensitive receptors of 1,850 feet or greater and would comply with the established World Health Organization (WHO) guidelines. If sensitive receptors are closer than this distance, then wildlife specialists would implement MM-NOISE-2 to reduce the impact on sensitive receptors between 140 and 1,850 feet by restricting activity to daytime hours.

Pyrotechnics

The published sound levels for the Screamer Siren and CAPA (an anti-bird harassment cartridge that travels roughly 1,000 feet downrange before it emits a 150 A-weighted decibel [dBA] report) (Reed-Joseph 2022b, 2022c) were used in the RCNM (FHWA 2008) to evaluate the sound level from pyrotechnic devices. Pyrotechnics are most often used by WDM specialists to disperse birds from airfields to reduce wildlife strike hazards. These sound sources, along with the anticipated duration of "pyrotechnic firings" at a given activity area, the source noise level for the firing, the use factor (set at 0.3% for each of the two pyrotechnics, or five firings in a 30-minute period for each of the two pyrotechnics, with a duration of 1 second apiece), and the distance, were used in calculating the combined 8-hour average noise level for comparison to the daytime 65 dBA equivalent sound level (L_{eq}) 8-hour threshold (refer also to Appendix F of the Final EIR/EIS for RCNM worksheet). The distance radius for noise activity to remain under the significance threshold during the daytime is 200 feet.

The use of two individual pyrotechnics "firing" five times per 30 minutes could occur at a distance of 200 feet or greater from sensitive receptors during the daytime and remain in compliance with the HUD standard (HUD 2009). This daytime distance is considered somewhat prohibitive with respect to the use of this method in residential areas because a residence could commonly exist this close to crop or pasture areas in which pyrotechnics activity might occur. Therefore, wildlife specialists would implement MM-NOISE-3 to reduce the impact on sensitive receptors by restricting use within critical distances to neighboring residences. Pyrotechnics activity would not occur at night.

Chemical Repellents

Chemical repellents are compounds that prevent consumption of food items or use of an area. They operate by producing an undesirable taste, odor, feel, or behavior pattern. Effective and practical chemical repellents need to

be nonhazardous to wildlife; nontoxic to plants, seeds, and humans; resistant to weathering; easily applied; reasonably priced; and capable of providing good repelling qualities. Many are baits or tacky substances that are applied to perches. Methyl anthranilate is a liquid repellent that could be applied with a backpack sprayer and might involve use of an all-terrain vehicle (ATV) for access to spray application areas. The RCNM (FHWA 2008) was used to evaluate the sound level from chemical repellent activity. These sound sources, along with the anticipated duration of the spraying activity in a given location, the source noise level for the equipment, the use factor, and the distance, were used in calculating the combined 8-hour average noise level for comparison to the daytime 65 dBA L_{eq} 8-hour threshold. The distance radius for noise activity to remain under the significance threshold during the daytime is 35 feet.

The spray application of chemical repellent involving the use of an ATV for access to spray areas could occur at a distance of 35 feet or greater during the daytime and remain in compliance with the HUD standard. This daytime distance is considered sufficient because planted crop sites for which chemical repellent might be spray-applied (e.g., crop fields, golf courses) would not likely be placed within 35 feet of a residence. Chemical repellent spraying would not be conducted at night. MM-NOISE-4 applies to chemical repellent spraying activities and reinforces minimum distance setbacks for this activity during daytime and nighttime periods.

Mitigation to reduce noise impacts from indirect methods (MM-NOISE-1 through MM-NOISE-4) would ensure that noise impacts on wildlife species and sensitive receptors would be less than significant with mitigation under CEQA because timing, location of WDM activity, and/or duration of WDM activity would be specified and structured to reduce sensitive receptors' exposure to noise generated from WDM activities.

Direct Methods

Trapping

A variety of traps are used to capture wildlife (see Appendix C of the Final EIR/EIS). Equipment used to set and retrieve the traps could include an ATV or a pickup truck. The RCNM (FHWA 2008) was used to evaluate the sound level from trapping activity. These sound sources, along with the anticipated duration of the trap setting or collection/removal, the source noise level for the equipment, the use factor, and the distance, were used in calculating the combined 8-hour average noise level for comparison to the daytime 65 dBA L_{eq} 8-hour threshold. The distance radius for noise activity to remain under the significance threshold during the daytime is 25 feet. This analysis is performed with a pickup truck traveling at 50 miles per hour; slower truck speeds would likely result in a shorter distance limit from trapping locations to any residence.

Trap setting and collecting could occur at a distance of 25 feet or greater during the daytime and remain in compliance with the HUD standard. This daytime distance is not considered prohibitive for use of this method because planted crops or pastures containing vulnerable livestock would not likely be placed within 25 feet of a residence.

Trapping activity could occur at night at distances from sensitive receptors of 180 feet or greater and would comply with established guidelines. If sensitive receptors are closer than this distance, then the wildlife specialists would implement MM-NOISE-5 to reduce the impact on sensitive receptors between 25 and 180 feet by restricting activity to daytime hours.

Rocket Nets/Cannon Nets

Conventional rockets and cannon nets use two or more gunpowder-fueled launchers. No sound level data for detonation of a rocket or cannon net system could be found for this analysis. To address these systems, acousticians used the average sound level for shotguns (E.A.R. Customized Hearing 2023), with two simultaneous detonations per net launch. Equipment used to set the nets and to retrieve trapped animals would include a pickup truck. The RCNM (FHWA 2008) was used to evaluate the sound level from rocket net/cannon net activity. These sound sources, along with the anticipated duration of rocket/cannon net launch activity at a given activity area, the source noise level for the firing, the use factor (set at 0.05% or one launch during the 30-minute work period), and the distance, were used in calculating the combined 8-hour average noise level for comparison to the daytime 65 dBA L_{eq} 8-hour threshold (refer also to Appendix F of the Final EIR/EIS for RCNM the worksheet). The distance radius for noise activity to remain under the significance threshold during the daytime is 250 feet.

One launch of a rocket net or cannon net within an 8-hour period could occur at a distance of 250 feet or greater from sensitive receptors during the daytime and remain in compliance with the HUD standard. This daytime distance is considered somewhat prohibitive with respect to the use of this method in residential areas because a residence could commonly exist this close to crop or pasture areas where rocket/cannon net use might occur. Therefore, wildlife specialists would implement MM-NOISE-6 to reduce the impact on sensitive receptors by restricting use within critical distances to neighboring residences.

Rocket/cannon net use could occur at night at distances from sensitive receptors of 13,000 feet (approximately 2.5 miles) or greater and would comply with the established WHO guidelines. If sensitive receptors are closer than this distance, then wildlife specialists would implement MM-NOISE-6 to reduce the impact on sensitive receptors between 250 and 13,000 feet by restricting activity to daytime hours.

Aerial Shooting

Shooting is frequently performed for predators such as coyotes, bobcats (*Lynx rufus*), and foxes that have preyed on livestock. Aerial shooting is limited to locations where it is legal and safe to discharge firearms. Aerial shooting is used selectively for target species but may be relatively expensive because of the use of an aircraft and staff hours required. WS-California uses fixed- and rotary-wing aircraft for aerial WDM activities only in areas under agreement and focuses efforts only during certain times of the year such as during calving and lambing. Nationally, APHIS annually flies less than 20 minutes per square mile (this is equivalent to under 2 seconds per acre) on properties under agreement (USDA 2019b). Wildlife specialists are trained to avoid nontarget wildlife. While adverse reactions to short-duration overflights can occur in wildlife, more serious adverse effects are generally observed in cases of chronic exposure (e.g., flight training facilities, airports) (USDA 2019b). Wildlife specialists spend comparatively little time in any one area, making significant impacts to both target and nontarget species unlikely (USDA 2019b). Low-level flights conducted for the removal of damaging individuals, such as a depredating coyote, occur for only brief moments in any given spot. Pursuits are short in duration, generally under a minute, thus minimizing any prolonged stress to the animal, as well as maximizing safety for the air crew members. WS-California does not expect that brief aerial overpasses during WDM will significantly alter wildlife behavior or cause prolonged expenditures of energy reserves. WS-California has concluded that disturbance effects on wildlife are short-lived and negligible and will not cause adverse impacts to nontarget species including those that are threatened or endangered. The Airborne Hunting Act allows shooting of animals from aircraft for protection of livestock. A representative aircraft noise level (Cessna 172, a four-seat, single-engine, fixed-wing aircraft) was obtained from the Federal Aviation Administration (FAA 1997); the published sound levels for a 12-gauge shotgun

were used to represent gunfire sound levels for aerial shooting. The RCNM (FHWA 2008) was used to evaluate the sound level from aerial shooting.

These sound sources, the anticipated duration of shooting/hunting at a given activity area, the duration for aircraft use in the area, the source noise level for the aerial gunshot and aircraft, the use factor (set at 0.17% or a gunshot every 10 minutes and 100% for the aircraft), and the distance were used in calculating the combined 8-hour average noise level for comparison to the daytime 65 dBA L_{eq} 8-hour threshold (refer also to Appendix F of the Final EIR/EIS for the RCNM worksheet). As indicated in Appendix F of the Final EIR/EIS, the distance radius for noise activity to remain under the significance threshold during the daytime is 900 feet (of which some distance would represent the altitude of the aircraft above the ground). In accordance with Federal Aviation Administration regulations, an aircraft cannot fly below 500 feet near people or structures (FAA 1997). Given a minimum altitude of 500 feet above the ground, the horizontal ground distance equating to a 900-foot separation (the hypotenuse of the triangle representing the airborne aircraft and a receiver on the ground) would be 750 feet. Thus, a minimum of 750 feet should be maintained between a point on the ground beneath an aircraft engaged in aerial shooting and the closest residence to the aircraft.

Aerial shooting activity with a gunshot every 10 minutes could occur at a distance of 750 feet or greater during the daytime and remain in compliance with the HUD standard. This daytime distance (750 feet of horizontal ground separation) is considered relatively prohibitive in agricultural areas because a residence could commonly exist this close to rangeland or pasture areas where aerial shooting of target animals might occur. Therefore, wildlife specialists would implement MM-NOISE-7 to reduce the impact on sensitive receptors by requiring the use of a firearm sound suppressor for daytime aerial shooting closer than 750 feet from an occupied structure.

Shooting could occur at night at distances from sensitive receptors of 22,000 feet (approximately 5 miles) or greater and would comply with the established guidelines. If sensitive receptors are closer than this distance, then wildlife specialists would implement MM-NOISE-8 to reduce the significant impacts on sensitive receptors within 22,000 feet by requiring use of a suppressor.

Ground-Based Shooting

Reference sound levels for firearms that could be used for shooting activities were obtained from published sound pressure level measurement results of representative individual firearm models discharged at an outdoor firing range by Ammo To Go (2019). The sound level results from Ammo To Go (2019) address each gun with and without a sound suppressor. Based on these published sound levels for various firearms, the RCNM was used to quantify the sound levels from shooting activities that use each firearm type. A use factor of 0.11% was used to evaluate each scenario, which equates to one gun firing every 15 minutes across the identified duration period. The parameters used in this analysis are a conservative average and should not be interpreted to restrict WDM activities that might include a grouping of higher-frequency gunshots over a shorter period or wider spacing between events. Four duration scenarios were modeled: 8 hours, 4 hours, 2 hours, and 30 minutes. The sound level was then averaged over 8 hours for comparison to the HUD daytime guidance and WHO nighttime guidance. Modeling was completed for each of the following three representative firearms with and without a suppressor: .308 caliber rifle, 12-gauge shotgun, and .22 caliber rifle. For the .22 caliber rifle, modeling was also performed for a bolt-action model with integrated sound suppressor for both supersonic and sub-sonic ammunition. Modeling was also performed for a popular BB gun (representing an air rifle) for each of the four duration scenarios. Appendix F of the Final EIR/EIS contains the spreadsheets with inputs and results.

The evaluation of impacts from ground-based shooting includes firearms that incorporate a sound suppressor and firearms without a sound suppressor. The availability or feasibility of a sound suppressor for a given firearm proposed for WDM activities is not guaranteed, especially for local agencies where the cost may be prohibitive. The use of firearms not equipped with a sound suppressor would be allowed, but such use would need to follow the more restrictive distance and duration limitations outlined under the evaluation conclusions presented in this section.

Daytime Shooting Activities

Under an 8-hour shooting duration, the distance from shooting activity to sound levels conforming to the HUD daytime standard would range from 1,300 feet to 7,000 feet for representative firearms (approximately 0.25 to 1.3 miles). These distances would be considered prohibitive for shooting activities, and therefore a suppressor should be employed for each firearm and/or the duration of shooting in a given area should be reduced to less than 8 hours. A BB gun (air rifle) could be used as close as 3 feet from a sensitive receptor and would therefore not be anticipated to result in significant noise impacts. With a suppressor attached, the distance from shooting activity to sound levels conforming to the HUD daytime standard would range from 90 feet to 900 feet for representative firearms. Even with the use of a suppressor, 8 hours of shooting with a .308 caliber rifle would exceed the HUD guideline at distances less than 900 feet, shooting with a 12-gauge shotgun would exceed the HUD guideline at distances less than 225 feet, and shooting with a .22 caliber rifle would exceed the HUD guideline at distances less than 90 feet. Sensitive receptors could easily be within these distances from shooting activities. Therefore, wildlife specialists would implement MM-NOISE-9 restricting use within critical distances to neighboring residences or requiring the use of suppressors. Note that if using a bolt-action .22 caliber rifle, integrated sound suppressor, and sub-sonic ammunition, shooting could occur as close as 1 foot from a residence and still maintain compliance with the HUD daytime standard.

Under a 4-hour shooting duration, the distance from shooting activity to sound levels conforming to the HUD daytime standard would range from 1,000 feet to 5,500 feet for representative firearms (approximately 0.2 to 1 mile). These distances would be considered prohibitive for shooting activities, and therefore a suppressor should be employed for each firearm and/or the duration of shooting in a given area should be reduced to less than 4 hours. A BB gun (air rifle) could be used as close as 3 feet from a sensitive receptor and would therefore not be anticipated to result in significant noise impacts. With a suppressor attached, the distance from shooting activity to sound levels conforming to the HUD daytime standard would range from 70 feet to 650 feet for representative firearms. Even with the use of a suppressor, 4 hours of shooting with a .308 caliber rifle would exceed the HUD guideline at distances less than 650 feet, shooting with a 12-gauge shotgun would exceed the HUD guideline at distances less than 175 feet, and shooting with a .22 caliber rifle would exceed the HUD guideline at distances less than 70 feet; sensitive receptors could easily be within these distances from shooting activities. Therefore, wildlife specialists would implement MM-NOISE-10 restricting use within critical distances to neighboring residences or requiring the use of suppressors. Using a bolt-action .22 caliber rifle, integrated sound suppressor, and sub-sonic ammunition, shooting could occur as close as 1 foot from a residence and still maintain compliance with the HUD daytime standard.

Under a 2-hour shooting duration, the distance from shooting activity to sound levels conforming to the HUD daytime standard would range from 700 feet to 4,500 feet for representative firearms. These distances would be considered prohibitive for shooting activities, and therefore a suppressor should be employed for each firearm and/or the duration of shooting in a given area should be reduced to less than 2 hours. A BB gun (air rifle) could be used as close as 2 feet from a sensitive receptor and would therefore not be anticipated to result in significant noise impacts. With a suppressor attached, the distance from shooting activity to sound levels conforming to the HUD daytime standard would range from

50 feet to 450 feet for representative firearms. Even with the use of a suppressor, 2 hours of shooting with a .308 caliber rifle would exceed the HUD guideline at distances less than 450 feet, shooting with a 12-gauge shotgun would exceed the HUD guideline at distances less than 125 feet, and shooting with a .22 caliber rifle would exceed the HUD guideline at distances less than 50 feet; sensitive receptors could easily be within these distances from shooting activities. Therefore, wildlife specialists would implement MM-NOISE-11 restricting the use within the critical distances to neighboring residences or requiring the use of suppressors. Using a bolt-action .22 caliber rifle, integrated sound suppressor, and sub-sonic ammunition, shooting could occur as close as 1 foot from a residence and still maintain compliance with the HUD daytime standard.

Under a 30-minute shooting duration, the distance from shooting activity to sound levels conforming to the HUD daytime standard would range from 350 feet to 2,750 feet for representative firearms (up to approximately 0.5 miles). These distances would be considered prohibitive for shooting activities, and therefore a suppressor should be employed for each firearm and/or the duration of shooting in a given area should be reduced to less than 30 minutes. A BB gun could be used as close as 1 foot from a sensitive receptor and would therefore not be anticipated to result in significant noise impacts. With a suppressor attached, the distance from shooting activity to sound levels conforming to the HUD daytime standard would range from 25 feet to 225 feet for representative firearms. Even with the use of a suppressor, 30 minutes of shooting with a .308 caliber rifle would exceed the HUD guideline at distances less than 225 feet, shooting with a 12-gauge shotgun would exceed the HUD guideline at distances less than 70 feet, and shooting with a .22 caliber rifle would exceed the HUD guideline at distances less than 25 feet; sensitive receptors could be within these distances from shooting activities. Therefore, wildlife specialists would implement MM-NOISE-12 restricting use within critical distances to neighboring residences or requiring the use of suppressors. Using a bolt-action .22 caliber rifle, integrated sound suppressor, and sub-sonic ammunition, shooting could occur as close as 1 foot from a residence and still maintain compliance with the HUD daytime standard.

Nighttime Shooting Activities

Under an 8-hour shooting duration, the distance from shooting activity to sound levels conforming to the WHO nighttime standard would range from 7,000 feet to 18,000 feet for representative firearms (approximately 1.3 to 3.4 miles). These distances would be considered prohibitive for shooting activities, and therefore a suppressor should be employed for each firearm, the duration of shooting in a given area should be reduced to less than 8 hours, or the activity should be conducted during the daytime. A BB gun could be used as close as 25 feet from a sensitive receptor and would not be anticipated to result in significant noise impacts. With a suppressor attached, the distance from shooting activity to sound levels conforming to the WHO nighttime standard would range from 900 feet to 5,200 feet for representative firearms (up to approximately 1 mile). Even with the use of a suppressor, 8 hours of shooting with a .308 caliber rifle would exceed the WHO nighttime guideline at distances less than 5,200 feet, shooting with a 12-gauge shotgun would exceed the WHO nighttime guideline at distances less than 2,000 feet, and shooting with a .22 caliber rifle would exceed the WHO nighttime guideline at distances less than 900 feet; sensitive receptors could easily be within these distances from shooting activities. Therefore, wildlife specialists would implement MM-NOISE-13 restricting use within critical distances to neighboring residences or requiring the use of suppressors. Using a bolt-action .22 caliber rifle, integrated sound suppressor, and sub-sonic ammunition, shooting could occur as close as 2 feet from a residence and still maintain compliance with the WHO nighttime standard.

Under a 4-hour shooting duration, the distance from shooting activity to sound levels conforming to the WHO nighttime standard would range from 5,500 feet to 16,500 feet for representative firearms (approximately 1 to

3 miles). These distances would be considered prohibitive for shooting activities, and therefore a suppressor should be employed for each firearm, the duration of shooting in a given area should be reduced to less than 4 hours, or the activity should be conducted during the daytime. A BB gun could be used as close as 17 feet from a sensitive receptor and would not be anticipated to result in significant noise impacts. With a suppressor attached, the distance from shooting activity to sound levels conforming to the WHO nighttime standard would range from 650 feet to 4,200 feet for representative firearms (up to approximately 0.8 miles). Even with the use of a suppressor, 4 hours of shooting with a .308 caliber rifle would exceed the WHO nighttime standard at distances less than 4,200 feet, shooting with a 12-gauge shotgun would exceed the WHO nighttime standard at distances less than 1,500 feet, and shooting with a .22 caliber rifle would exceed the WHO nighttime standard at distances less than 650 feet; sensitive receptors could easily be within these distances from shooting activities. Therefore, wildlife specialists would implement MM-NOISE-14 restricting use within critical distances to neighboring residences or requiring the use of suppressors. Using a bolt-action .22 caliber rifle, integrated sound suppressor, and sub-sonic ammunition, shooting could occur as close as 2 feet from a residence and still maintain compliance with the WHO nighttime standard.

Under a 2-hour shooting duration, the distance from shooting activity to sound levels conforming to the WHO nighttime standard would range from 4,500 feet to 14,500 feet for representative firearms (approximately 0.8 to 2.7 miles). These distances would be considered prohibitive for shooting activities, and therefore a suppressor should be employed for each firearm, the duration of shooting in a given area should be reduced to less than 2 hours, and/or the activity should be conducted during the daytime. A BB gun could be used as close as 12 feet from a sensitive receptor and would not be anticipated to result in significant noise impacts. With a suppressor attached, the distance from shooting activity to sound levels conforming to the WHO nighttime standard would range from 450 feet to 3,200 feet for representative firearms (up to approximately 0.6 miles). Even with the use of a suppressor, 2 hours of shooting with a .308 caliber rifle would exceed the WHO nighttime standard at distances less than 3,200 feet, shooting with a 12-gauge shotgun would exceed the WHO nighttime standard at distances less than 1,100 feet, and shooting with a .22 caliber rifle would exceed the WHO nighttime standard at distances less than 450 feet; sensitive receptors could easily be within these distances from shooting activities. Therefore, wildlife specialists would implement MM-NOISE-15 to reduce the impact on sensitive receptors by restricting use within critical distances to neighboring residences. Using a bolt-action .22 caliber rifle, integrated sound suppressor, and sub-sonic ammunition, shooting could occur as close as 1 foot from a residence and still maintain compliance with the WHO nighttime standard.

Under a 30-minute shooting duration, the distance from shooting activity to sound levels conforming to the WHO nighttime standard would range from 2,750 feet to 11,000 feet for representative firearms (approximately 0.5 to 2 miles). These distances would be considered prohibitive for shooting activities, and therefore a suppressor should be employed for each firearm, the duration of shooting in a given area should be reduced to less than 30 minutes, or the activity should be conducted during the daytime. A BB gun could be used as close as 6 feet from a sensitive receptor and would not be anticipated to result in significant noise impacts. With a suppressor attached, the distance from shooting activity to sound levels conforming to the WHO nighttime standard would range from 225 feet to 2,000 feet for representative firearms (up to approximately 0.4 miles). Even with the use of a suppressor, 30 minutes of shooting with a .308 caliber rifle would exceed the WHO nighttime standard at distances less than 2,000 feet, shooting with a 12-gauge shotgun would exceed the WHO nighttime standard at distances less than 550 feet, and shooting with a .22 caliber rifle would exceed the WHO nighttime standard at distances less than 225 feet; sensitive receptors could easily be within these distances from shooting activities. Therefore, wildlife specialists would implement MM-NOISE-16 restricting use within critical distances to neighboring residences or

requiring the use of suppressors. Using a bolt-action .22 caliber rifle, integrated sound suppressor, and sub-sonic ammunition, shooting could occur as close as 1 foot from a residence and still maintain compliance with the WHO nighttime standard.

Mitigation to reduce noise impacts from direct methods (MM-NOISE-5 through MM-NOISE-14 and MM-NOISE-16) would ensure that noise impacts on wildlife species and sensitive receptors would be less than significant with mitigation under CEQA because timing, location, and/or duration of WDM activity would be specified and structured to reduce sensitive receptors' exposure to noise generated from WDM activities.

NOI-3: Expose People Residing or Working in Airport Land Use Plan to Excessive Noise Levels

Because the Proposed Project/Proposed Action has a statewide scope, certain Proposed Project/Proposed Action activities would be anticipated to be carried out within areas encompassed by an adopted airport land use plan and/or within 2 miles of a public airport. The Proposed Project/Proposed Action would not include development of housing, nor would the Proposed Project/Proposed Action directly or indirectly result in the introduction of new residents within such zones that are influenced by airport operations noise levels. However, the Proposed Project/Proposed Action could include the use of propane exploders, pyrotechnic devices, rocket nets, cannon nets, and shooting activity to discourage the presence of birds and mammals that present a collision hazard for aircraft operations. Out of these activities, only shooting would be anticipated to be conducted during the nighttime at airports.

Wildlife specialists would implement MM-NOISE-2, MM-NOISE-3, and MM-NOISE-6 to address impacts from propane blasters, pyrotechnic devices, and rocket/cannon nets. Finally, wildlife specialists would implement MM-NOISE-9 through MM-NOISE-12 to avoid impacts from daytime shooting activities, as well as MM-NOISE-13 through MM-NOISE-16 to avoid and reduce impacts from nighttime shooting activities. Mitigation to reduce noise impacts to people residing or working within a 2-mile vicinity of an airport (MM-NOISE-2, MM-NOISE-3, MM-NOISE-6, and MM-NOISE-9 through MM-NOISE-16) would ensure that noise impacts on wildlife species and sensitive receptors would be less than significant with mitigation under CEQA because timing, location of WDM activity, and/or duration of WDM activity would be specified and structured to reduce sensitive receptors' exposure to noise generated from WDM activities.

CU-NOI-01 Cumulative Noise Impacts

Noise-generating activities under the Proposed Project/Proposed Action could occur in locations where ambient noise levels are high, such as airports. Other future projects could also generate noise in proximity to Proposed Project/Proposed Action activities. Although noise associated with future projects or operations in proximity to Proposed Project/Proposed Action activities may be individually below the applicable criteria, in combination, they could exceed noise criteria. In more extreme cases, ambient conditions or other projects already may exceed the criteria, with Proposed Project/Proposed Action activities exacerbating this situation. However, many WDM activities occur in rural settings with low ambient noise levels; farming and use of heavy machines do not typically occur at the same time as WDM activities for safety reasons, and therefore often the noise-generating effects from WDM activities could be largely offset by the temporary cessation of farming or ranching operations, including farm equipment use.

Per the impact analysis discussed above, wildlife specialists would implement MM-NOISE-1 through MM-NOISE-16 in the event that Proposed Project/Proposed Action activities could exceed applicable criteria. The incorporation of

these minimizing measures would reduce the Proposed Project/Proposed Action's contribution to cumulative noise impacts and would not be cumulatively considerable because timing, location of WDM activity, and/or duration of WDM activity would be specified and structured to reduce sensitive receptors' exposure to noise generated from WDM activities. It is also anticipated to be rare that noise generated under the Proposed Project/Proposed Action would combine with other noise sources to create significant noise effects.

The Proposed Project/Proposed Action has virtually no potential to contribute to cumulative vibration impacts because vibration levels with the potential to result in human annoyance would be limited to a distance of 6 feet from any Proposed Project/Proposed Action activity. At this distance, it is highly unlikely that other vibration sources would be present to exacerbate existing ambient vibration levels.

2.3.5.2 Mitigation Measures

Under certain extenuating circumstances (including emergency operations, actions to protect human safety, rapid response activities, or the permission of the sensitive receptor[s] that could experience the noise impact), the necessity for mitigation may be waived.

MM-NOISE-1 Electronic distress sounds shall not be used continuously for more than 8 hours within 30 feet of an occupied structure during daytime hours (sunrise to sunset).

MM-NOISE-2 Propane exploders shall not be used within 140 feet of an occupied structure during daytime hours (sunrise to sunset) nor within 1,850 feet of an occupied structure during nighttime hours (sunset to sunrise).

MM-NOISE-3 Pyrotechnic devices (i.e., screamer siren, CAPA, etc.) shall not be used within 200 feet of an occupied structure during daytime hours (sunrise to sunset).

MM-NOISE-4 Daytime use of ATVs for spraying chemical repellents shall not occur closer than 35 feet from an occupied structure. ATVs shall not be used for nighttime chemical spraying operations.

MM-NOISE-5 Trapping activities employing a pick-up truck or ATV shall not be conducted within 25 feet of an occupied structure during daytime hours (sunrise to sunset) nor within 180 feet of an occupied structure during nighttime hours (sunset to sunrise).

MM-NOISE-6 The use of rocket or cannon nets shall not occur within 250 feet of an occupied structure during daytime hours (sunrise to sunset) nor within 13,000 feet of an occupied structure during nighttime hours (sunset to sunrise).

MM-NOISE-7 Aerial shooting activities occurring during the daytime shall not be conducted closer than 750 feet (as measured on the ground) from an occupied structure unless a suppressor is used. If a suppressor is used, daytime aerial shooting activities could be conducted without any horizontal ground distance separation from an occupied structure.

MM-NOISE-8 Aerial shooting activities occurring during the nighttime shall not be conducted closer than 22,000 feet (approximately 5 miles) from an occupied structure unless a suppressor is used. If a

suppressor is used, Project nighttime aerial shooting activities shall not be conducted closer than 6,250 feet (approximately 1.2 miles) from an occupied sensitive receptor.

MM-NOISE-9 For daytime shooting activities involving an **8-hour duration**, shooting shall not occur at distances from an occupied structure less than indicated below; if shorter distances are required, reduce the duration of shooting activities until such distance can meet the standards, as prescribed in MM-NOISE-10 to MM-NOISE-12.

- For .308 Caliber Rifle, not less than 7,000 feet (without suppressor) or not less than 900 feet (with suppressor).
- For 12-Gauge Shotgun, not less than 3,500 feet (without suppressor) or not less than 225 feet (with suppressor).
- For .22 Caliber Rifle, not less than 1,300 feet (without suppressor) or not less than 90 feet (with suppressor).
- For bolt-action .22 Caliber Rifle with integrated suppressor and using sub-sonic ammo, not less than 1 foot.

MM-NOISE-10 For daytime shooting activities involving a **4-hour duration**, shooting shall not occur at distances from an occupied structure less than indicated below; if shorter distances are required, reduce the duration of shooting activities until such distance can meet the standards, as prescribed in MM-NOISE-11 to MM-NOISE-12.

- For .308 Caliber Rifle, not less than 5,500 feet (without suppressor) or not less than 650 feet (with suppressor).
- For 12-Gauge Shotgun, not less than 2,700 feet (without suppressor) or not less than 175 feet (with suppressor).
- For .22 Caliber Rifle, not less than 1,000 feet (without suppressor) or not less than 70 feet (with suppressor).
- For bolt-action .22 Caliber Rifle with integrated suppressor and using sub-sonic ammo, not less than 1 foot.

MM-NOISE-11 For daytime shooting activities involving a **2-hour duration**, shooting shall not occur at distances from an occupied structure less than indicated below; if shorter distances are required, reduce the duration of shooting activities until such distance can meet the standards, as prescribed in MM-NOISE-12.

- For .308 Caliber Rifle, not less than 4,500 feet (without suppressor) or not less than 450 feet (with suppressor).
- For 12-Gauge Shotgun, not less than 2,200 feet (without suppressor) or not less than 125 feet (with suppressor).
- For .22 Caliber Rifle, not less than 700 feet (without suppressor) or not less than 50 feet (with suppressor).
- For bolt-action .22 Caliber Rifle with integrated suppressor and using sub-sonic ammo, not less than 1 foot.

MM-NOISE-12 For daytime shooting activities involving a **30-minute duration**, shooting shall not occur at distances from an occupied structure less than indicated below.

- For .308 Caliber Rifle, not less than 2,750 feet (without suppressor) or not less than 225 feet (with suppressor).
- For 12-Gauge Shotgun, not less than 1,200 feet (without suppressor) or not less than 70 feet (with suppressor).
- For .22 Caliber Rifle, not less than 350 feet (without suppressor) or not less than 25 feet (with suppressor).
- For bolt-action .22 Caliber Rifle with integrated suppressor and using sub-sonic ammo, not less than 1 foot.

MM-NOISE-13 For nighttime shooting activities involving an **8-hour duration**, shooting shall not occur at distances from an occupied structure less than indicated below; if shorter distances are required, reduce the duration of shooting activities until such distance can meet the nighttime standards, as prescribed in MM-NOISE-14 to MM-NOISE-16, or conduct the shooting activity during the daytime following distance/duration restrictions prescribed in MM-NOISE-9 to MM-NOISE-12.

- For .308 Caliber Rifle, not less than 18,000 feet (without suppressor) or not less than 5,200 feet (with suppressor).
- For 12-Gauge Shotgun, not less than 12,500 feet (without suppressor) or not less than 2,000 feet (with suppressor).
- For .22 Caliber Rifle, not less than 7,000 feet (without suppressor) or not less than 900 feet (with suppressor).
- For bolt-action .22 Caliber Rifle with integrated suppressor and using sub-sonic ammo, not less than 2 feet.

MM-NOISE-14 For nighttime shooting activities involving a **4-hour duration**, shooting shall not occur at distances from an occupied structure less than indicated below; if shorter distances are required, reduce the duration of shooting activities until such distance can meet the nighttime standards, as prescribed in MM-NOISE-15 to MM-NOISE-16, or conduct the shooting activity during the daytime following distance/duration restrictions prescribed in MM-NOISE-9 to MM-NOISE-12.

- For .308 Caliber Rifle, not less than 16,500 feet (without suppressor) or not less than 4,200 feet (with suppressor).
- For 12-Gauge Shotgun, not less than 11,000 feet (without suppressor) or not less than 1,500 feet (with suppressor).
- For .22 Caliber Rifle, not less than 5,500 feet (without suppressor) or not less than 650 feet (with suppressor).
- For bolt-action .22 Caliber Rifle with integrated suppressor and using sub-sonic ammo, not less than 2 feet.

MM-NOISE-15 For nighttime shooting activities involving a **2-hour duration**, shooting shall not occur at distances from an occupied structure less than indicated below; if shorter distances are required, reduce the

duration of shooting activities until such distance can meet the nighttime standards, as prescribed in MM-NOISE-16, or conduct the shooting activity during the daytime following distance/duration restrictions prescribed in MM-NOISE-9 to MM-NOISE-12.

- For .308 Caliber Rifle, not less than 14,500 feet (without suppressor) or not less than 3,200 feet (with suppressor).
- For 12-Gauge Shotgun, not less than 9,500 feet (without suppressor) or not less than 1,100 feet (with suppressor).
- For .22 Caliber Rifle, not less than 4,500 feet (without suppressor) or not less than 450 feet (with suppressor).
- For bolt-action .22 Caliber Rifle with integrated suppressor and using sub-sonic ammo, not less than 1 foot.

MM-NOISE-16 For nighttime shooting activities involving a **30-minute duration**, shooting shall not occur at distances from an occupied structure less than indicated below; if shorter distances are required, conduct the shooting activity during the daytime following distance/duration restrictions prescribed in MM-NOISE-9 to MM-NOISE-12.

- For .308 Caliber Rifle, not less than 11,000 feet (without suppressor) or not less than 2,000 feet (with suppressor).
- For 12-Gauge Shotgun, not less than 6,500 feet (without suppressor) or not less than 550 feet (with suppressor).
- For .22 Caliber Rifle, not less than 2,750 feet (without suppressor) or not less than 225 feet (with suppressor).
- For bolt-action 22 Caliber Rifle with integrated suppressor and using sub-sonic ammo, not less than 1 foot.

2.3.5.3 Finding

Consistent with CEQA Guidelines Section 15126.4(a)(1), feasible measures that can minimize significant adverse impacts were developed for the potentially significant impacts described in Section 2.3.5.1, Potentially Significant Impacts to Noise. These feasible measures, MM-NOISE-1 through MM-NOISE-16, are listed in Section 2.3.5.2, Mitigation Measures.

The CDFA finds that these mitigation measures are feasible, are adopted, and would reduce the potential noise impacts of the Proposed Project/Proposed Action to less than significant. Accordingly, the CDFA finds that, pursuant to CEQA Section 21081(a)(1) and CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in or incorporated into the Proposed Project/Proposed Action that will mitigate or avoid potentially significant impacts from noise.

2.3.5.4 Facts in Support of the Findings Related to Noise

Indirect impacts associated with the increase in ambient noise levels would be reduced to less than significant with the incorporation of MM-NOISE-1 through MM-NOISE-4 because timing, location of WDM activity, and/or duration

of WDM activity would be specified and structured to reduce sensitive receptors' exposure to noise generated from indirect WDM activities. Direct impacts associated with the increase in ambient noise levels would be reduced to less than significant with the incorporation of MM-NOISE-5 through MM-NOISE-14 and MM-NOISE-16 because timing, location of WDM activity, and/or duration of WDM activity would be specified and structured to reduce sensitive receptors' exposure to noise generated from direct WDM activities. Impacts associated with the exposure of those residing or working in an airstrip or airport land use plan to excessive noise would be reduced to less than significant with the incorporation of MM-NOISE-2, MM-NOISE-3, MM-NOISE-6, and MM-NOISE-9 through MM-NOISE-16 because timing, location of WDM activity, and/or duration of WDM activity would be specified and structured to reduce sensitive receptors' exposure to noise generated from WDM activities. Furthermore, cumulative noise impacts would be reduced to less than significant impact with the incorporation of MM-NOISE-1 through MM-NOISE-16. There would be no significant, unavoidable impacts related to noise after implementation of these measures. This is noted in the findings for the applicable impacts.

3 Findings on Project Alternatives

CEQA requires that an EIR describe a range of reasonable alternatives to a project, or to the location of the project, that could feasibly attain the basic objectives of that project, and to evaluate the comparative merits of the alternatives (14 CCR 15126.6[a]). The CEQA Guidelines direct that the selection of alternatives be governed by "a rule of reason" (14 CCR 15126.6[a], [f]). As defined by the CEQA Guidelines, "The range of alternatives required in an EIR is governed by a 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR needs to examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project" (14 CCR 15126.6[f]).

3.1 Alternatives Considered and Eliminated During the Scoping/Project Planning Process

The CEQA Guidelines provide that an EIR should "identify any alternatives that were considered by the Lead Agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the Lead Agency's determination" (14 CCR 15126.6[c]). The following is a discussion of the Proposed Project/Proposed Action alternatives proposed during the scoping and planning process and the reasons they were not selected for detailed analysis in the EIR/EIS.

With respect to the feasibility of potential alternatives to the Proposed Project/Proposed Action, CEQA Guidelines Section 15126.6(t)(I) states, "Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries … and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site."

In determining an appropriate range of Proposed Project/Proposed Action alternatives to be evaluated in the EIR/EIS, a number of possible alternatives were initially considered and then rejected. Proposed Project/Proposed Action alternatives were rejected because they could not accomplish the basic objectives of the Proposed Project/Proposed Action or they would not have resulted in a reduction of significant adverse environmental impacts.

Bounty System for Reducing Animals Causing Damage

Bounty systems involve a payment of funds for killing of animals considered "undesirable," and they are usually proposed as a means of reducing or eliminating any species causing damage to human valued assets, especially predators. An example of an active bounty system on predators (i.e., coyotes) is an experimental mule deer protection program taking place in Utah.

WS-California has no authority to establish a bounty system; that authority falls to the states. Over half the states have outlawed bounties or repealed bounty laws. Bounties can become a costly endeavor. The use of bounties is arbitrary because it is difficult to ensure animals claimed for bounty are from the geographic area within which the damage is occurring. Therefore, a bounty system alternative was not considered further.

Use of Only Non-Lethal WDM Technical Assistance

Under a non-lethal WDM technical assistance alternative, the CDFA/Counties/WS-California would provide only non-lethal technical WDM assistance. They would not implement or advise others on the use of lethal methods. Non-lethal technical assistance is included in Alternatives 1 through 4. If the requestor has taken all reasonable non-lethal actions and the wildlife damage problem still persists, the CDFA/County/WS-California WDM specialist would not be able to offer additional WDM methods. This would not meet the Proposed Project/Proposed Action's purpose and need or objectives; therefore, the non-lethal WDM technical assistance alternative was not considered further.

3.2 Alternatives Selected for Further Analysis

This section discusses a reasonable range of alternatives to the Proposed Project/Proposed Action, including a No Project Alternative, in compliance with CEQA Guidelines Section 15126.6(e). These alternatives are as follows:

- **Alternative 1:** No Project/Continuation of WS-California
- **Alternative 2:** Non-Lethal Operational WDM, Except for Human/Companion Animal Health and Safety, Threatened and Endangered Species Protection, and Airport WHM
- **Alternative 3:** Non-Lethal Operational WDM
- **Alternative 4:** Financial Reimbursement Assistance
- **Alternative 5:** No Project/Cessation of WS-California

These alternatives are evaluated for their ability to avoid or substantially lessen the impacts of the Proposed Project/Proposed Action identified in the EIR/EIS and in consideration of their ability to meet the basic objectives of the Proposed Project/Proposed Action as described in the EIR/EIS. The alternatives identification and screening process undertaken is described in Section 3.5 of the Final EIR/EIS. The Proposed Project/Proposed Action and overview of the alternatives considered are provided in Sections 3.7 and 3.8, respectively, of the Final EIR/EIS.

3.2.1 Alternative 1: No Project/Continuation of WS-California

Section 15126.6(e) of the CEQA Guidelines requires that an EIR evaluate and analyze the impacts of a No Project Alternative. The "purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project" (14 CCR 15126.6[e][1]). When defining the No Project Alternative, the analysis must be informed by "what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services" (14 CCR 15126.6[e][2]).

Description

Section 15126.6(e) of the CEQA Guidelines requires that an EIR evaluate and analyze the impacts of the No Project Alternative, which reflects the "circumstances under which the project does not proceed." Under Alternative 1, no new CDFA or county WDM would be established. This alternative would not include any CDFA or county-led emergency/rapid response activities. This alternative would not allow the CDFA to formalize a statewide program that provides an adaptive and integrated approach to WDM activities.

Under this alternative, WS-California would continue to provide WDM. WS-California would continue to provide technical assistance on lethal and non-lethal techniques and/or provide lethal and non-lethal operational WDM assistance. This would include T&E species protection and WHM at airports. Components of this alternative include collaboration and identification, education and training, technical assistance, non-lethal and lethal operational WDM, and monitoring. WS-California could also loan equipment to cooperators/requestors for WDM activities.

A comprehensive description of the WDM activities and methods carried out by WS-California is included in Appendix C of the Final EIR/EIS.

For all alternatives in which WS-California provides WDM, the APHIS-WS Decision Model (Figure 2-3 in the Final EIR/EIS; Wildlife Services Directive 2.201) is a tool for evaluation of the specific situation. It outlines the process for determining the most effective approach to address the individual situation.

The APHIS-WS Decision Model requires wildlife specialists to go through a problem-solving exercise to address the wildlife damage problem. WDM is often described as similar to the way a fire department responds to an emergency situation. When a fire department responds to a call for service, based on the information available (including biological, economic, and social considerations), the fire personnel make a determination about the most effective and safe response to resolve the emergency. WS-California wildlife specialists are trained in WDM and respond to calls for service using the APHIS-WS Decision Model.

Following the wildlife specialist's initial response, additional WDM methods are incorporated in a management strategy to be monitored and evaluated by the property owner. If needed, the approach can be modified, adjusted, or discontinued based on the effectiveness of the activity.

Under Alternative 1, WS-California would continue ongoing WDM work in California, with no changes in the scope of management and sharing of WDM responsibilities (not sharing responsibilities with the CDFA and participating counties). In comparison, Alternatives 2 through 5 would add, reduce, or modify the actions that are described in this Proposed Project/Proposed Action.

Under Alternative 1, WS-California, in consultation with the CDFW, the USFWS, and other regulatory agencies as appropriate, would continue to respond to calls for service in the following ways:

- Taking no action;
- Providing non-lethal and/or lethal technical assistance to property owners/managers on actions they could take to reduce wildlife damage; or
- Building upon the non-lethal and/or lethal technical assistance by providing non-lethal and/or lethal operational assistance to a property owners/managers.

WS-California would continue to consider implementation of effective non-lethal operational WDM assistance before implementing lethal operational WDM assistance. All WDM activities taken would be consistent with federal and state laws and regulations.

Finding

The CDFA rejects Alternative 1 as undesirable because it would not meet any objectives set by the CDFA, as provided in Section 1.4, CEQA Project Objectives, and Section 3.6, Project Objectives, of the Final EIR/EIS, for the Proposed Project/Proposed Action.

Rationale

Under Alternative 1, the CDFA's full set of defined project objectives would not be achieved. This alternative would not allow the CDFA to provide leadership addressing the impacts of wildlife damage on agriculture or to inform the implementation of WDM activities conducted by state and local agencies in California. Under Alternative 1, state and local agencies could continue to provide WDM, but without the involvement of the CDFA. This alternative would not allow the CDFA to promote a broader understanding and awareness of wildlife pest identification, potential impacts, or WDM activities, and the CDFA's ability to elicit stakeholder participation in addressing these factors would not be implemented.

Under Alternative 1, the CDFA would not provide rapid response to high-risk wildlife damage scenarios to prevent harm to agricultural resources and property, human health and safety, and natural resources. WS-California and other entities could continue to provide WDM in these situations; however, the CDFA would not be able to provide state-wide response coordination. Without CDFA involvement, responses to high-risk wildlife damage scenarios could be delayed and fragmented, resulting in extended human health risks and/or greater economic losses. Additionally, this alternative would not provide for the increased health and productivity of agricultural resources, and the ability to improve current and deploy new WDM methods and materials would not be realized.

This alternative would not allow for the CDFA to develop and implement measures to avoid, minimize, and mitigate unintended impacts of WDM activities to natural resources, watercourses, protected species, and wildlife habitats. The development and implementation of mitigation measures would depend on other public or private entities, which may lack the expertise, resources, or initiative to accomplish this function. This alternative does not support the development of a statewide information management, reporting, and data sharing system for wildlife damage incidents and WDM activities. With this system, the CDFA would be able to monitor WDM activities at a state-wide level and provide coordination to an integrated and adaptive WDM approach for county-led WDM programs. As wildlife do not stay within county and other municipal borders, this type of approach is needed for a comprehensive WDM monitoring system. Without CDFA involvement, county-led WDM program monitoring would remain the responsibility of local WDM providers.

This alternative is not feasible because it does not allow for an administrative mechanism for California Counties to streamline their environmental compliance. California Counties that wish to provide WDM would be required to prepare their own environmental compliance documents, demanding staff, expertise, and resources they may lack.

Activities under this alternative would not substantially decrease environmental impacts examined in the EIR/EIS. Thus, this alternative would not avoid or substantially lessen any of the Proposed Project/Proposed Action's significant and unavoidable impacts.

3.2.2 Alternative 2: Non-Lethal Operational WDM, Except for Human/Companion Animal Health and Safety, Threatened and Endangered Species Protection, and Airport WHM

Description

Under Alternative 2, the CDFA/Counties/WS-California would provide technical assistance on lethal and non-lethal techniques and/or provide non-lethal operational WDM assistance, but would not provide operational lethal WDM assistance, except for cases of human health and safety, companion animal health and safety, T&E species protection, and airport WHM.

Under Alternative 2, the CDFA, participating counties, and WS-California (in consultation with the CDFW, the USFWS, and other regulatory agencies as appropriate), would respond to calls for service in the following ways:

- Taking no action;
- Providing lethal technical and operational WDM only in the case of human or companion animals health and safety, T&E species protection, and airport WHM; or
- Providing lethal and non-lethal technical and non-lethal operational assistance.

Finding

The CDFA rejects Alternative 2 as undesirable because it would only partially meet all the objectives set by the CDFA for the Proposed Project/Proposed Action.

Rationale

As described under the Alternative 1 rationale, the full set of defined objectives that the CDFA has laid out would not be achieved under Alternative 2. The circumstances that would warrant use of WDM activities, including lethal and non-lethal, are diverse (Appendix C of the Final EIR/EIS) and are beyond the limitations set by this alternative.

Alternative 2 would not allow for alignment with several of the CDFA's historic and new WDM program objectives. For instance, in a situation of continued wildlife damage on a premises that has exhausted reasonable non-lethal management options, the CDFA would not be able to provide lethal operational assistance. Such situations would likely be addressed by other local and private entities, which may lack the expertise, resources, or initiative to accomplish this function. Thus, the CDFA would not be able to provide leadership addressing the impacts of wildlife damage on agriculture; support improvement of current, and deployment of new, wildlife pest control materials and methods in response to ongoing research; elicit cooperator and stakeholder participation in addressing wildlife pest impacts to agriculture and, incidentally, natural habitats and public health and safety; and support development and implementation of measures to avoid, minimize, and mitigate unintended impacts to watercourses and protected species and their habitats from wildlife pest control materials and methods.

Under Alternative 2, the CDFA would not provide lethal rapid response to high-risk wildlife damage scenarios to prevent harm to agricultural resources and property and natural resources. Such responses would be handled by other local and private entities, which may lack the expertise, resources, or initiative to accomplish this function.

Responses to high-risk wildlife damage scenarios could be delayed and fragmented, resulting in extended human health risks and/or greater economic losses.

3.2.3 Alternative 3: Non-Lethal Operational WDM

Description

Under Alternative 3, the CDFA/Counties/WS-California would provide technical assistance on lethal and non-lethal techniques and provide only non-lethal operational WDM assistance. No lethal operational WDM assistance would be provided. Components of Alternative 3 include collaboration and identification, education and training, technical assistance, non-lethal operational WDM, and monitoring. The CDFA/Counties/WS-California could also loan equipment used for non-lethal techniques and/or other WDM activities. Alternative 3 could include CDFA/County/ WS-California emergency/rapid response activities, but no lethal methods.

Finding

The CDFA rejects Alternative 3 as undesirable because it would only partially meet all the objectives set by the CDFA for the Proposed Project/Proposed Action. As described above under Alternatives 1 and 2, the CDFA has defined a set of objectives, including the option to implement lethal and non-lethal WDM activities. This alternative would not provide for the fulfillment of those objectives.

Rationale

As noted for Alternatives 1 and 2, the full set of the CDFA's objectives could not be achieved under Alternative 3. Similar to Alternative 2, choosing Alternative 3 would not allow for alignment with several of CDFA's historic WDM program objectives. For instance, in a situation of continued wildlife damage on a premises that has exhausted reasonable non-lethal management options, the CDFA would not be able to provide lethal operational assistance. Such situations would likely be addressed by private entities, which may lack the expertise, resources, or initiative to accomplish this function. Thus, the CDFA would not be able to provide leadership addressing the impacts of wildlife damage on agriculture; support improvement of current, and deployment of new, wildlife pest control materials and methods in response to ongoing research; elicit cooperator and stakeholder participation in addressing wildlife pest impacts to agriculture and, incidentally, natural habitats and public health and safety; and support development and implementation of measures to avoid, minimize, and mitigate unintended impacts to watercourses and protected species and their habitats from wildlife pest control materials and methods. These objectives would be hampered by foregoing lethal operational assistance and limiting WDM methods to non-lethal operational assistance in instances where non-lethal methods have proven ineffective.

Under Alternative 2, the CDFA would not provide lethal rapid response to high-risk wildlife damage scenarios to prevent harm to agricultural resources and property and natural resources. Such responses would be handled by other local and private entities, which may lack the expertise, resources, or initiative to accomplish this function. Responses to high-risk wildlife damage scenarios could be delayed and fragmented, resulting in extended human health risks and/or greater economic losses.

3.2.4 Alternative 4: Financial Reimbursement Assistance

Description

Alternative 4 is for CEQA consideration only. Under Alternative 4, participating counties could establish an assistance program or cost-sharing initiative that provides monetary compensation to affected cooperators/ requestors (producers), with a focus on funding improved protection from damaging wildlife (e.g., upgrade of fencing, acquisition of guard animals). This alternative would not include operational assistance provided by wildlife specialists. This alternative would not preclude the right of private entities to conduct lethal WDM on their own in accordance with state and federal laws.

Alternative 4 would require identification of an ongoing financial source (e.g., county-provided, private grants) and management of that reimbursement budget at a county level. This would require establishment of a protocol to determine what WDM cases would be eligible for funding (e.g., livestock or poultry type), appropriate disbursement of funds (e.g., determination if funds are for discretionary uses or for specific measures such as purchase of fencing, purchase of livestock protection animals, scare devices), and amounts and type of reimbursement (e.g., cost-share). It would likely require new personnel to establish program/initiative guidelines, conduct site visits, evaluate claims, and monitor ongoing WDM situations. As part of this alternative, education and WDM resources related to best management practices for managing nuisance animals, excluding predators, and preventing predation could be required.

This alternative would require administrative support and extensive data collection and tracking, which would include but not be limited to the following:

- Establishment of a program/initiative with geographic/target recipients and affected animals/resources;
- Tracking of requests for financial reimbursement assistance;
- Investigation of request (efficacy of claim);
- Tracking of disbursements (recipients) and disbursement value; and
- Collection of other inputs for program evaluation (geographic extent, by county, by agricultural type, etc.)

Implementation of Alternative 4 is not available to WS-California because they are directed by Congress to protect American agriculture, and a compensation/reimbursement program has not been legally authorized or funded at a state or federal level.

Under Alternative 4, potential operational WDM would be handled by other entities, including but not limited to tribes, the USFWS, the CDFW, Counties, private-resource owners and managers, private contractors, or other non-federal agencies. Requests for WDM information directed to the CDFA would be redirected to these entities.

Finding

The CDFA rejects Alternative 4 as undesirable because it would only partially meet all the objectives set by the CDFA for the Proposed Project/Proposed Action.

Rationale

As noted for Alternatives 1 through 3, the full set of the CDFA's objectives could not be achieved under Alternative 4. Choosing Alternative 4 would not allow for alignment with several of the CDFA's historic WDM program objectives. For instance, in a situation of wildlife damage being reported by an affected party, the CDFA would not be able to provide assistance, and calls would be redirected to other entities. Such requests for assistance may be addressed by private entities, which may lack the expertise, resources, or initiative to accomplish this function. Thus, the CDFA would not be able to provide leadership addressing the impacts of wildlife damage on agriculture; increase the health and productivity of agricultural resources and, incidentally, natural resources; support improvement of current, and deployment of new, wildlife pest control materials and methods in response to ongoing research; elicit cooperator and stakeholder participation in addressing wildlife pest impacts to agriculture and, incidentally, natural habitats and public health and safety; and support development and implementation of measures to avoid, minimize, and mitigate unintended impacts to watercourses and protected species and their habitats from wildlife pest control materials and methods.

Additionally, in redirecting requests for assistance, Alternative 4 would not allow the CDFA to provide rapid response to high-risk wildlife damage scenarios in order to prevent harm to agricultural resources and property, human health and safety, and natural resources or to support the development and implementation of measures to avoid, minimize, and mitigate unintended impacts to California's important natural resources from WDM materials and technologies.

3.2.5 Alternative 5: No Project/Cessation of WS-California

Description

Alternative 5 would not establish or formalize a CDFA WDM Program in California. No technical or operational assistance with WDM methods described under the Proposed Project/Proposed Action and Alternatives 1, 2, and 3 (and included as Appendix C of the Final EIR/EIS) would be conducted by wildlife specialists. Furthermore, no provision of financial reimbursements as described in Alternative 4 would be provided. Under Alternative 5, potential WDM would be handled by other entities, including but not limited to tribes, the USFWS, the CDFW, Counties, private-resource owners and managers, private contractors, and/or other non-federal agencies. Information about future developments in non-lethal and lethal management techniques that result from the National Wildlife Research Center's[2] ongoing research would also not be available to private-resource owners or managers.

Other entities and organizations conducting WDM would likely increase their efforts in proportion to the reduction of federal (WS-California) services. Requests for WDM information directed to WS-California would be redirected to these entities. Response times for WDM would likely increase and some calls for assistance would be left unaddressed.

[2] The National Wildlife Research Center is the research unit of the U.S. Department of Agriculture APHIS Wildlife Services program dedicated to finding solutions to challenging WDM problems related to agriculture, natural resources, property, and human health and safety.

Finding

The CDFA rejects Alternative 5 as undesirable because it would not meet any of the objectives set by the CDFA for the Proposed Project/Proposed Action.

Rationale

Similar to Alternative 1, under Alternative 5, the CDFA's full set of defined project objectives would not be achieved. This alternative would not allow CDFA to provide leadership addressing the impacts of wildlife damage on agriculture or to inform the implementation of WDM activities conducted by state and local agencies in California. Under Alternative 5, state and local agencies could continue to provide WDM, but without the involvement of the CDFA. This alternative would not allow the CDFA to promote a broader understanding and awareness of wildlife pest identification, potential impacts, or WDM activities, and the CDFA's ability to elicit stakeholder participation in addressing these factors would not be implemented.

Under Alternative 5, the CDFA would not provide rapid response to high-risk wildlife damage scenarios to prevent harm to agricultural resources and property, human health and safety, and natural resources. WS-California and other entities could continue to provide WDM in these situations; however, the CDFA would not be able to provide state-wide response coordination. Without CDFA involvement, responses to high-risk wildlife damage scenarios could be delayed and fragmented, resulting in extended human health risks and/or greater economic losses. Additionally, this alternative would not provide for the increased health and productivity of agricultural resources, and the ability to improve current and deploy new WDM methods and materials would not be realized.

This alternative would not allow for the CDFA to develop and implement measures to avoid, minimize, and mitigate unintended impacts of WDM activities to natural resources, watercourses, protected species, and wildlife habitats. The development and implementation of mitigation measures would depend on other public or private entities, which may lack the expertise, resources, or initiative to accomplish this function. This alternative does not support the development of a statewide information management, reporting, and data sharing system for wildlife damage incidents and WDM activities. With this system, the CDFA would be able to monitor WDM activities at a state-wide level and provide coordination to an integrated and adaptive WDM approach for county-led WDM programs. As wildlife do not stay within county and other municipal borders, this type of approach is needed for a comprehensive WDM monitoring system. Without CDFA involvement, county-led WDM program monitoring would remain the responsibility of local WDM providers.

This alternative is not feasible because it does not allow for an administrative mechanism for California Counties to streamline their environmental compliance. California Counties that wish to provide WDM would be required to prepare their own environmental compliance documents, demanding staff, expertise, and resources they may lack.

Activities under this alternative would not substantially decrease environmental impacts examined in the EIR/EIS. Thus, this alternative would not avoid or substantially lessen any of the Proposed Project/Proposed Action's significant and unavoidable impacts.

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4 General CEQA Findings

Based on the foregoing findings and the information contained in the Record of Proceedings, and as conditioned by the foregoing, the Secretary of California Department of Food and Agriculture has determined the following:

1) The plans for the Proposed Project/Proposed Action have been prepared and analyzed so as to provide for public involvement in the planning and the CEQA processes (see Final EIR/EIS Appendix A, Scoping Report, and Appendix E, Tribal Consultation).

To the degree that any impacts described in the Draft EIR/EIS are perceived to have a significant effect on the environment, or such impacts appear ambiguous as to their effect on the environment, any significant effect of such impacts has been substantially lessened or avoided by the mitigation measures set forth in the Draft and Final EIR/EIS.

Comments regarding the Draft EIR/EIS received during the public review period have been adequately addressed, as reflected in Appendix G, Responses to Comments Received, in the Final EIR/EIS. Any significant effects described in such comments were avoided or substantially lessened by the mitigation measures described in the Draft and Final EIR/EIS.

4.1 Findings Regarding Recirculation

The CDFA finds that the Draft EIR/EIS does not require recirculation under CEQA (CEQA Section 21092.1; 14 CCR 15088.5). CEQA Guidelines Section 15088.5 requires recirculation of an EIR prior to certification of the Final EIR when "significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review." As described in CEQA Guidelines Section 15088.5:

> New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. "Significant new information" requiring recirculation includes, for example, a disclosure showing that:
>
> 1. A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented;
>
>   A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance;
>
>   A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it;

The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

In addition, CEQA Guidelines Section 15088.5(b) provides that "recirculation is not required where the new information added to the EIR merely clarifies and amplifies or makes insignificant modifications in an adequate EIR." Recirculation also is not required simply because new information is added to an EIR; indeed, new information is oftentimes added given CEQA's public/agency comment and response process and CEQA's post-Draft EIR circulation requirement of proposed responses to comments submitted by public agencies. Recirculation is "intended to be an exception rather than the general rule" (*Laurel Heights Improvement Assn. v. Regents of University of California* [1993] 6 Cal.4th 1112, 1132).

As such, the CDFA makes the following Findings:

1) None of the public comments submitted to the CDFA regarding the Draft EIR/EIS present any significant new information that would require the Draft EIR/EIS to be recirculated for public review.

No new or modified mitigation measures are proposed that would have the potential to create new significant environmental impacts.

The Draft EIR/EIS adequately analyzed alternatives and there are no feasible alternatives or mitigation measures considerably different from others previously analyzed that would clearly lessen the significant environmental impacts.

The Draft EIR/EIS was not fundamentally and basically inadequate and conclusory in nature and did not preclude meaningful public review and comment.

In this legal context, the CDFA finds that recirculation of the Draft EIR/EIS prior to certification is not required. In addition to providing responses to comments, the Final EIR/EIS includes revisions to expand upon information already presented in the Draft EIR/EIS (Appendix G of the Final EIR/EIS); explain or enhance the evidentiary basis for the Draft EIR/EIS's findings; update information; and to make clarifications, amplifications, updates, or helpful revisions to the Draft EIR/EIS. The Final EIR/EIS's revisions, clarifications, and/or updates do not result in any new significant impacts or increase the severity of a previously identified significant impact.

The Final EIR/EIS demonstrates that the Proposed Project/Proposed Action would not result in any new significant impacts or increase the severity of a significant impact compared to the analysis presented in the Draft EIR/EIS. The changes reflected in the Final EIR/EIS also do not indicate that meaningful public review of the Draft EIR/EIS was precluded in the first instance. Accordingly, recirculation of the EIR/EIS is not required because revisions to the EIR/EIS are not significant as defined in Section 15088.5 of the CEQA Guidelines.

4.2 Legal Effects of Findings

To the extent that these Findings conclude that the proposed mitigation measures outlined herein are feasible and have not been modified, superseded, or withdrawn, the CDFA hereby commits to implementing these measures. In connection with its approval of the Proposed Project/Proposed Action, CDFA will adopt an MMRP that includes such measures. These Findings and associated MMRP, in other words, are not merely informational, but rather identify a binding set of obligations that will come into effect upon approval of the Proposed Project/Proposed Action.

The mitigation measures that are referenced herein and adopted concurrently with these Findings will be effectuated through the process of construction and implementation of the Proposed Project/Proposed Action as indicated in the concurrently adopted MMRP.

5 Statement of Overriding Considerations

Pursuant to PRC Section 21081(b) and CEQA Guidelines Sections 15093(a) and (b), the decision-making agency is required to balance, as applicable, the economic, legal, social, technological, or other benefits of a project against its unavoidable environmental risks when determining whether to approve a project. If the specific economic, legal, social, technological, or other benefits of a project outweigh the unavoidable adverse environmental effects, those effects may be considered "acceptable" (14 CCR 15093[a]). CEQA requires the agency to support, in writing, the specific reasons for considering a project acceptable when significant impacts are not avoided or substantially lessened. Those reasons must be based on substantial evidence in the Final EIR/EIS or elsewhere in the Record of Proceedings (14 CCR 15093[b]).

Courts have upheld overriding considerations that were based on a variety of policy considerations, including new jobs; stronger tax base; implementation of an agency's economic development goals, growth management policies, or redevelopment plans; the need for housing and employment; conformity to community plan; and provision of construction jobs (see *Towards Responsibility in Planning v. City Council* [1988] 200 Cal App. 3d 671; *Dusek v. Redevelopment Agency* [1985] 173 Cal App. 3d 1029; *City of Poway v. City of San Diego* [1984] 155 Cal App. 3d 1037; *Markley v. City Council* [1982] 131 Cal App. 3d 656).

In accordance with the requirements of CEQA and the CEQA Guidelines, the CDFA finds that the mitigation measures identified in the Final EIR/EIS and the MMRP, when implemented, will avoid or substantially lessen virtually all of the significant effects identified in the EIR/EIS for the California WDM Program. However, certain significant impacts of the Proposed Project/Proposed Action are unavoidable even after incorporation of all feasible mitigation measures. These significant unavoidable impacts result from biological resources impacts, specifically biological resources impacts regarding the potential lethal removal of mountain lion. The significant and unavoidable impact would only exist if two conditions occur simultaneously—(1) the mountain lion is state-listed under CESA and (2) a mountain lion is lethally removed from Alameda, Contra Costa, Imperial, Los Angeles, Monterey, Orange, Riverside, San Benito, San Bernardino, San Diego, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, or Ventura Counties.

The CDFA finds that all feasible mitigation measures identified in the Final EIR/EIS that are within the purview of the CDFA would be implemented with the Proposed Project/Proposed Action, and that those mitigation measures that may be within another agency's discretion have been, or can and should be, adopted by that other agency. As identified below, the CDFA further finds that the remaining significant unavoidable effects are outweighed and are found to be acceptable due to the following specific overriding economic, legal, social, technological, or other benefits based on the facts set forth above, the Final EIR/EIS, and the record.

5.1 Biological Resources

This section addresses the CDFA's obligations under PRC Sections 21081(a)(3) and (b) (see also 14 CCR 15091(a)(3), 15093). The Final EIR/EIS analyzes and discusses the significant and unavoidable environmental effects the CDFA expects could occur in Section 4.2.2.4.1, pp. 4.2.2-11 to 4.2.2-12. As this section previously mentioned discusses in detail, that implementation of the Proposed Project/Proposed Action may result in significant and unavoidable effects to biological resources, specifically mountain lion, due to the lack of feasible mitigation that can ensure that impacts would be less than significant.

Significant Effect: Impact BIO–01 (mountain lion only and only in candidate counties if the mountain lion is CESA listed). Would the Proposed Project/Proposed Action have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

5.2 Findings per CEQA Guidelines

The CDFA finds that any one of the benefits set forth below is sufficient by itself to warrant approval of the Proposed Project/Proposed Action. This determination is based on the Findings herein and the evidence in the record. Having balanced the unavoidable adverse environmental impacts against each of the benefits, the CDFA hereby adopts this statement of overriding considerations for the reasons set out in Section 5.3.

5.3 Balancing the Benefits of Final Action by the CDFA with the Significant and Unavoidable Environmental Effects

As noted above, the CDFA is charged by CEQA to balance, as applicable, the economic, legal, social, technological, or other benefits, including regional or state-wide benefits, of the Proposed Project/Proposed Action against the backdrop of significant unavoidable environmental impacts. This section describes those benefits. In addition, the CDFA finds that, after weighing the benefits of the Proposed Project/Proposed Action against related potential unavoidable significant environmental impacts, the benefits of the Proposed Project/Proposed Action outweigh this potentially unavoidable adverse environmental effects so that the adverse environmental effects may be considered "acceptable" (14 CCR 15093[a]).

The CDFA has determined that the Proposed Project/Proposed Action should be approved and that any unmitigated environmental impacts attributable to the Proposed Project/Proposed Action are outweighed by the following specific overriding considerations, each one being a separate and independent basis upon which to approve the Proposed Project/Proposed Action. In other words, any single benefit described below is adequate to support the approval of the Proposed Project/Proposed Action in spite of its unavoidable environmental impacts. Substantial evidence in record demonstrates the following benefits would occur as a result of the Proposed Project/Proposed Action:

- The Proposed Project/Proposed Action may not in fact result in the significant and unavoidable impact described above. The significant and unavoidable impact would only exist if two conditions occur simultaneously—the mountain lion is state-listed under CESA and a mountain lion is lethally removed from Alameda, Contra Costa, Imperial, Los Angeles, Monterey, Orange, Riverside, San Benito, San Bernardino, San Diego, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, or Ventura Counties. If mountain lion becomes listed under CESA, lethal take of mountain lion would not be conducted by the CDFA or the counties in candidate counties; however, WS-California might occasionally lethally take a mountain lion if, as stated in MM-BIO-02, the subject mountain lion has been designated by a law enforcement official as an imminent threat to public health or safety or a depredation permit has been issued by the CDFW. In addition, because WS-California is a separate and independent federal

agency, the CDFA does not have authority to control WS-California's activities or otherwise avoid this potentially significant and unavoidable impact. WS-California would only undertake these actions when requested and would follow documented procedures.

- The Proposed Project/Proposed Action would formalize a statewide framework for WDM, thereby providing consistency, expertise, training, and other measures to minimize impacts. The Proposed Project/Proposed Action identifies WDM methods and activities and mitigation measures to be used by wildlife specialists that would minimize impacts to the environment and human and companion animals.
- From 2010–2019 WS-California recorded over $25.4 million of confirmed losses of agriculture from wildlife damage. Confirmed losses are verified by WS-California specialists during a site visit and do not reflect actual damages, which are higher than those reported by WS-California. In reality, only a fraction of losses are reported by WS-California, and there are limited data available for Counties that do not maintain a Cooperative Service Agreement with WS-California. The objective of the Proposed Project/Proposed Action is to protect California agriculture from wildlife damage. Implementing the Proposed Project/Proposed Action's WDM activities throughout California is expected to have beneficial impacts to agriculture by reducing damage to agricultural products (crops, livestock, and animal products). Reducing damage and loss to agricultural products, even incrementally, would improve total market value for California agricultural products, which would preserve or improve existing agricultural employment and income/earnings for agricultural workers.
- The Proposed Project/Proposed Action would reduce the burden of operational damage management on the resource owner, other governmental agencies, private businesses, and/or private individuals. Under the Proposed Project/Proposed Action, wildlife specialists, with specialized knowledge and experience, would conduct WDM, which would reduce risk to human health and safety. The Proposed Project/Proposed Action would ensure that wildlife specialists have consistent training and/or experience to conduct efficient and effective WDM.
- Implementation of the Proposed Project/Proposed Action is anticipated to reduce the burden on emergency service providers that currently respond to calls for human and companion animal health and safety, compared to existing conditions. Implementation of the Proposed Project would allow requests for WDM assistance from the public, private landowners/entities (or their agents), other agencies and governmental bodies, and Native American tribes in California to addressed by (or directed to) the CDFA, WS-California, or the Counties themselves, alleviating calls for service to emergency service providers and representing a beneficial impact. The Proposed Project/Proposed Action would represent an increased opportunity for individual Counties to partner with the CDFA and/or WS-California (for human and companion animal health and safety calls and for emergency/rapid response activities), as well as to carry out WDM on their own.

Taken individually and cumulatively, the CDFA finds that there are specific economic, legal, social, technological, and other benefits, including regional and statewide benefits, associated with the Proposed Project/Proposed Action that serve to override and outweigh the significant unavoidable effects of the Proposed Project/Proposed Action, and, thus, the adverse effects are considered acceptable. Therefore, the CDFA hereby adopts this Statement of Overriding Considerations.

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6 Conclusion

The mitigation measures listed in conjunction with each of the findings set forth above, as implemented through the MMRP, will eliminate or reduce to a less than significant level most of the significant environmental impacts of the Proposed Project/Proposed Action. The significant and unavoidable impacts of the Proposed Project/Proposed Action have been rendered acceptable by the specific economic, legal, social, technological, and other benefits identified in Chapter 5 of this document. Taken together, the Final EIR/EIS, the mitigation measures, and the MMRP provide an adequate basis for approval of the Proposed Project/Proposed Action.

Statement of Location and Custodian of Documents

PRC Section 21081.6(a)(2) requires that the CDFA, as the lead agency, specify the location and custodian of the documents of other materials that constitute the record of proceedings upon which its decision has been based. The following location is where review of the record may be performed:

California Department of Food and Agriculture
1220 N Street, Suite 344
Sacramento, California 95814

The CDFA has relied on all of the documents contained within the record of proceedings in reaching its decision on the project.

CERTIFICATION OF FINAL EIR/EIS

The Secretary hereby finds and declares that she has reviewed and considered the Final EIR/EIS in evaluating the Proposed Project/Proposed Action, that the Final EIR/EIS is an accurate and objective statement that fully complies with CEQA and the CEQA Guidelines, and that the EIR reflects the independent judgment of the CDFA. The Secretary further finds and declares that no new significant impacts as defined by CEQA Guidelines section 15088.5 have been identified after circulation of the Draft EIR/EIS and that recirculation of the EIR/EIS is therefore not required. On behalf of the CDFA, the Secretary certifies the Environmental Impact Report.

ADOPTION OF FINDINGS OF FACT, STATEMENT OF OVERRIDING CONSIDERATIONS, AND MITIGATION REPORTING PLAN

The Secretary adopts these Findings of Fact and the Statement of Overriding Considerations set forth above. In addition, pursuant to PRC Section 21081.6, the CDFA hereby adopts the MMRP. In the event of any inconsistencies between the mitigation measures as set forth herein and the MMRP, the MMRP shall control.

APPROVAL OF PROGRAM

The Secretary finds that the approval and implementation of the Proposed Project/Proposed Action is necessary to fulfill the mandates and duties of the CDFA to promote and protect the agricultural industry of the state and protect the public health, safety and welfare. Based on the entire record before the CDFA, including the above Findings of Fact and all written and oral evidence presented to CDFA, the Secretary hereby approves the California Wildlife Damage Management Program, with all the mitigation measures as set forth in this document.

DIRECTION TO STAFF

The Secretary directs the CDFA staff to prepare and file a Notice of Determination with the Office of Planning and Research as soon as practicable and no later than 5 working days after the date of Proposed Project/Proposed Action approval as set forth immediately below.

ADOPTED this 16 day of August 2024.

Annette Jones Digitally signed by Annette Jones Date: 2024.08.16 11:52:41 -07'00'

Annette Jones, DVM
State Veterinarian, California Department of Food and Agriculture

ATTEST:

Amanda Murray Digitally signed by Amanda Murray Date: 2024.08.16 15:32:29 -07'00'

7 References Cited

Ammo To Go. 2019. "Silencer Guide With Decibel Level Testing." Accessed December 2022. https://www.ammunitiontogo.com/lodge/silencer-guide-with-decibel-level-testing/.

Benson, J.F. 2023. "The Ecology of Human-Caused Mortality for a Protected Large Carnivore." Proceedings of the National Academy of Sciences. https://doi.org/10.1073/pnas.2220030120.

Brashares, J.S., L.R. Prugh, C.J. Stoner, and C.W. Epps. 2010. "Ecological and Conservation Implications of Mesopredator Release." In *Trophic Cascades: Predators, Prey, and the Changing Dynamics of Nature*, edited by J. Terborgh and J.A. Estes, 221–240. Island Press.

CDFG (California Department of Fish and Game). 2005. "Letter from CDFG to USDA in response to recent discussions regarding the take of exotic red foxes in California for depredation purposes." June 3, 2005.

CDFW (California Department of Fish and Wildlife). 2016. "California Wildlife Habitat Relationships, Predicted Habitat Models." California Department of Fish and Wildlife, California Interagency Wildlife Task Group. Accessed January 2022. Sacramento, CA.

CDFW. 2017. "Human/Wildlife Interactions in California: Mountain Lion Depredation, Public Safety, and Animal Welfare – Amendment to Department Bulletin 2013-02." Department of Fish and Wildlife Departmental Bulletin 2017-07. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153021.

CDFW. 2022. "Special Animals List." California Natural Diversity Database. CDFW, Biogeographic Data Branch. April 2022. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline=1.

CWHR (California Wildlife Habitat Relationships). 2022. "Life History and Range." https://wildlife.ca.gov/Data/CWHR/Life-History-and-Range.

Dominoni, D.M., W. Halfwerk, E. Baird, R.T. Buxton, E. Fernández-Juricic, K.M. Fristrup, M.F. McKenna, D.J. Mennitt, E.K. Perkin, B.M. Seymoure, D.C. Stoner, J.B. Tennessen, C.A. Toth, L.P. Tyrrell, A. Wilson, C.D. Francis, N.H. Carter, and J.R. Barber. 2020. "Why Conservation Biology Can Benefit from Sensory Ecology." *Nature Ecology & Evolution* 4:502–511.

E.A.R. Customized Hearing. 2023. "Gunfire Noise Level Reference Chart." Accessed August 2023. https://earinc.com.

FAA (U.S. Department of Transportation, Federal Aviation Administration). 1997. *Advisory Circular: AC36-1G Noise Levels for Aircraft*. August 27, 1997.

Felix, T. 2022. Existing management activities occurring in counties that overlap the known geographic range of the Sierra Nevada red fox. Verbal communication between T. Felix (USDA) and M. Henry (Dudek). August 17, 2022.

FHWA (Federal Highway Administration). 2008. *Roadway Construction Noise Model*, Version 1.1. December 8, 2008.

Francis, C.D., and J.R. Barber. 2013. "A Framework for Understanding Noise Impacts on Wildlife: An Urgent Conservation Priority." *Frontiers in Ecology and the Environment* 11:305–313.

HUD (U.S. Department of Housing and Urban Development). 2009. *HUD Noise Guidebook*. 24 CFR 51 Subpart B. March 2009. Accessed Feb 14, 2022. https://www.hudexchange.info/resource/313/hud-noise-guidebook/.

PIF (Partners in Flight). 2022. "Population Estimates for California." https://pif.birdconservancy.org/population-estimate-database-scores/.

Prugh, L.R., C.J. Stoner, C.W. Epps, W.T. Bean, W. J. Ripple, A.S. Laliberte, and J.S. Brashares. 2009. "The Rise of the Mesopredator." *Bioscience* 59:779–791. https://nature.berkeley.edu/BrasharesGroup/wp-content/uploads/2015/06/Prugh-et-al.-2009-Rise-of-the-Mesopredator1.pdf.

Reed-Joseph. 2022a. "Scare-Away LP Gas Cannon Specifications." Accessed December 2022. https://reedjoseph.com/scare-away-lp-gas-cannon-versus-zon-propane-exploder/.

Reed-Joseph. 2022b. "CAPA Pyrotechnics Specifications." Accessed December 2022. https://reedjoseph.com/products/pyrotechnics/capa-25-round-box/.

Reed-Joseph. 2022c. "Screamer Siren Pyrotechnics Specifications." Accessed December 2022. https://reedjoseph.com/products/pyrotechnics/scare-away-pyrotechnics/screamer-siren-100-round-box/.

Roemer, G.W., M.E. Gompper, and B. Van Valkenburgh. 2009. "The Ecological Role of the Mammalian Mesocarnivore." *BioScience* 59:165–173. https://www.researchgate.net/publication/232688215_The_Ecological_Role_of_the_Mammalian_Mesocarnivore.

Sacks, B.N., M.J. Statham, J.D. Perrine, S.M. Wisely, and K.A. Aubry. 2010a. "North American Montane Red Foxes: Expansion, Fragmentation, and the Origin of the Sacramento Valley Red Fox." *Conservation Genetics* 11:1523–1539.

Sacks, B.N., H.U. Wittmer, and M.J. Statham. 2010b. *The Native Sacramento Valley Red Fox*. Report to the California Department of Fish and Game. May 30, 2010. https://mecu.ucdavis.edu/wp-content/uploads/sites/491/2017/11/The-Native-Sacramento-ValleyRedFox_2010.pdf.

USDA (U.S. Department of Agriculture). 2018. *Final Environmental Assessment: Predator Damage Management in Colorado*. USDA-APHIS. April 2018.

USDA. 2019a. "The Use of Firearms in Wildlife Damage Management." In *Human Health and Ecological Risk Assessment for the Use of Wildlife Damage Management Methods by USDA-APHIS-Wildlife Services.* Final. September 2019. https://www.aphis.usda.gov/wildlife_damage/nepa/risk_assessment/6-firearms-use-peer-reviewed.pdf.

USDA. 2019b. "The Use of Aircraft in Wildlife Damage Management." In *Human Health and Ecological Risk Assessment for the Use of Wildlife Damage Management Methods* by USDA-APHIS-Wildlife Services, pp. 1–28.

USDA. 2021. "The Use of Dogs and Other Animals in Wildlife Damage Management." Chapter 5 in *Human Health and Ecological Risk Assessment for the Use of Wildlife Damage Management Methods by USDA-APHIS-Wildlife Services*. Final. February 2021.

USFWS (U.S. Fish and Wildlife Service). 1985. *Recovery Plan for the Red-Cockaded Woodpecker (Picoides borealis), Second Revision*. USFWS, Atlanta: Georgia.

USFWS. 2015. "12-Month Finding on a Petition to List Sierra Nevada Red Fox as an Endangered or Threatened Species." Proposed Rule by the U.S. Fish and Wildlife Service on October 8, 2015. https://www.govinfo.gov/content/pkg/FR-2015-10-08/pdf/2015-25289.pdf#page=1.

USFWS. 2021. "Endangered Species Status for the Sierra Nevada Distinct Population Segment of the Sierra Nevada Red Fox." Final Rule by the U.S. Fish and Wildlife Service on August 3, 2021. https://www.govinfo.gov/content/pkg/FR-2021-08-03/pdf/2021-16249.pdf.

USFWS. 2022. Informal Section 7 Consultation between USFWS and USDA regarding Red Fox.

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