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To: All Department of Fish and Wildlife Scientific Staff

Subject: Policy and Procedures for Conservation Translocations of Animals and

Plants.

POLICY STATEMENT

The Department of Fish and Wildlife (Department) is committed to maintaining a high level of scientific quality in its management of natural resources. Part of maintaining such quality is assuring that translocations conducted or approved by the Department for conservation purposes significantly contribute to species and ecosystem conservation, and are planned, executed, and supported in a manner consistent with best scientific practices.

I. Background and Discussion

For the purposes of this policy statement, "translocation" is the deliberate movement by humans of individual plants and animals, or gametes, propagules, or reproductively viable plant parts from one location in the wild to another, or from captivity to the wild. "Conservation translocation" is intended to provide measurable conservation benefits at the species, population, or ecosystem levels, as well as provide benefits to the translocated individuals.

Translocation is only one of many possible management techniques, and may not be the most effective conservation action in any particular situation. Specifically, translocation of listed native plants is challenging, and the most scientifically sound conservation action may be to protect existing populations of native plants in their natural habitat. Similarly, introductions of plant and animal species outside their indigenous range, including "assisted colonization" may be more challenging to successfully implement and have unexpected outcomes as compared to translocations within a species' indigenous range. Thus, at this time the Department generally does not consider introductions of species outside their historical ranges to be sound conservation measures, except when extinction or substantial ecosystem damage is likely without such intervention and there are no other viable alternatives.

II. Scope

This Bulletin provides guidance on the justification, design, and implementation of conservation translocations (including assisted colonization) that are intended to benefit

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wildlife population-level conservation and applies to species of any listing status. This Bulletin also identifies the relevant authorities to use in conducting or authorizing conservation translocations, and internal decision authority. This Bulletin does not address translocation for other purposes, such as salvage or rescue, stocking fish or game for harvest, activities required as conditions of Incidental Take Permits, or resolving human-wildlife conflicts; it does not supersede other existing guidance and policy, such as the Department's Fish Rescue Policy. Nonetheless, the basic precepts discussed in the supplemental Attachments would generally apply and should be considered when taking those actions.

Responsibility for implementation resides with the appropriate Regional Manager, Branch Chief, Deputy Director, or Chief Deputy Director depending on the specific circumstances, as described in the attachments.

Signed original on file.

Kevin W. Hunting
Chief Deputy Director

Attachments: A. Background

B. Implementation

C. Decision Factors and Evaluation Matrix

D. Recommended Metadata

ATTACHMENT A. Background

Translocation is the deliberate movement by humans of individual plants and animals, or gametes, propagules, or reproductively viable plant parts from one location in the wild to another, or from captivity to the wild. Translocations of plant and animal species in California have occurred for a variety of purposes including public use, game and ecosystem management, managing wildlife/human interactions, mitigation, and species recovery. "Conservation translocations" are those intended to provide measurable conservation benefits at the population, species, or ecosystem levels, as well as provide benefits to the translocated individuals (IUCN 2013). Conservation translocations are distinguished by their purpose, planning, and conduct from other categories of translocation, such as translocations intended to reduce human-wildlife conflict, stock animals for harvest, or to salvage or rescue plants and animals to minimize project-related impacts, or for other purposes.

The Department conducts and collaborates in conservation translocations (e.g. Pacific fisher, Tule elk, spring run Chinook salmon), and is called upon to evaluate translocations proposed by others (such as the 2010 Institute for Wildlife Studies proposal to introduce wolverine in California), and in some cases, requires them as permit conditions (e.g. in Incidental Take Permits). From its inception to the late 1900's, the Department's focus has shifted from an emphasis on harvest species (including the introduction of exotic animals) to restoring and recovering at-risk populations of native plants and animals. Translocations are an important conservation tool; as such, they must be adequately justified, planned and executed.

A number of regulations, codes, and policies govern various aspects of translocations. The Department has developed at least nine internal practices and policies regarding translocation that focus on specific needs, such as the Fish Rescue Policy, Staff Report on Burrowing Owl Mitigation, and others. There are approximately: 13 Fish and Game Commission policies that address translocation in some form; eight sections in Title 14 of the California Code of Regulations; and 34 sections in the Fish and Game Code. This document is not intended to replace any of the aforementioned policies or authorities. Instead, this document is intended to inform any translocation conducted under those policies or authorities.

Several factors contribute to the need for the Department to evaluate current practices, and establish broader direction for conservation translocation activities it conducts, sponsors, or approves. These factors include increased risks of species' extinction or extirpation, advances in scientific understanding, changing public expectations, a need for consistency and transparency, and the need to effectively allocate limited public resources in light of increasing conservation needs. Translocation is only one tool for species and ecosystem management, and should be considered in the context of all potentially available management actions.

The design and execution of translocations has become increasingly complex, reflecting a better understanding of ecological, institutional, fiscal, social and other factors that

bear on the success of a translocation. The most comprehensive general guidance on conservation translocations has been prepared by the International Union for the Conservation of Nature Species Survival Committee (IUCN/SSC, 2013, Guidelines for Reintroductions and Other Conservation Translocations. Version 1.0. Gland, Switzerland: IUCN Species Survival Commission).

The IUCN recommends that any conservation translocation include an assessment of need; development of clear objectives; identification and assessment of risks; thorough planning; provision of adequate resources to carry out the plan; consideration of sociological and other factors; performance measures; and monitoring. In short, a robust translocation project should attempt to: maximize conservation value; make best use of available resources; minimize risks; and maximize the likelihood of success. This policy also attempts to establish a more unified approach to planning and implementing translocations as well as developing a centralized recording of translocations. Addressing these considerations is a reasonable and prudent practice, but, in a review of 454 translocations from several countries, it was found that most addressed fewer than half the basic IUCN recommendations, and many were either unjustified from a conservation perspective or inadequately designed to ensure success or preclude negative consequences (Perez, et al., Front. Environ 2012; 10(9): 494-501, doi:10.1890/1 10175 (published online 16 Oct 2012).

Although this Bulletin does not address translocations conducted for the primary benefit of an individual organism (e.g., the release of rehabilitated animals and emergency recues of individuals), nor stocking fish, plants or wildlife for harvest opportunities, to fulfill cultural purposes, or to resolve human-wildlife conflicts, its technical content may inform those actions.

Conservation translocations are expected to maintain or improve the status of the focal species and maintain or restore natural ecosystem functions or processes. Within a species' indigenous range, conservation translocations may be intended to either (1) augment existing populations to improve their viability, or (2) reestablish (reintroduce) species to areas from which they have been extirpated.

Some conservation translocations may attempt to establish a species outside of its indigenous range (generally termed "assisted colonization", or "introduction"). These efforts are typically intended to establish populations to lessen the chance of extinction, adapt to climate change, or for ecological replacement; that is, to provide ecosystem functions such as predation, grazing, pollination, etc., previously supplied by another extirpated or extinct species. Climate change adaptation and the extreme threat of extinction of a species in its indigenous range are examples of situations where this approach might be considered.

Introductions of species outside of their indigenous range have been known to result in substantial adverse effects on ecological, social and economic systems. These outcomes are often difficult to foresee, and may be evident only long after the introduction. Given these potentially high risks that are often difficult or impossible to

predict with accuracy, such introductions should be considered extreme measures and generally avoided. If considered, they require exceptionally robust evaluation, planning, and execution, including robust monitoring and adaptive management.

For any conservation translocation, the IUCN recommends a set of critical elements that should be addressed in order to design and execute a credible project which attempts to minimize risk and increase the chance of success. They fall into the general categories of Need, Risk, Feasibility, and Other (technical, logistical, sociological); these are addressed in Attachment B, Implementation, and Attachment C, Decision Factors. In addition to identifying or analyzing these elements, effective means to address them must also be provided. This should be done in advance of deciding to conduct a conservation translocation. If any of these elements present significant risks, considered in the context of existing risks and possible benefits, the IUCN recommends that the conservation translocation be redesigned, or not conducted. Where a high degree of uncertainty remains or it is not possible to assess reliably that a conservation translocation presents low risks, it should not proceed, and alternative conservation solutions should be sought.

ATTACHMENT B. Implementation

DFW Authority

The Department's authority to permit, condition, or require translocations is distributed across a number of Fish and Game Code and California Code of Regulations Title 14 sections, and informed by various policies. Because "take" is necessary to conduct translocations, authorizing others to conduct translocations requires, at a minimum, authorizing them to take. The Department may authorize others to take Rare, Threatened, Endangered or unlisted species for scientific, educational or propagation purposes by issuing Scientific Collecting Permits (FGC section 1002). For threatened or endangered species, take authorization may be issued pursuant to Consistency Determinations if the take is consistent with a federal take authorization for dually-listed species (FGC section 2080.1); or by issuing a Memorandum of Understanding for scientific, educational or management purposes (FGC section 2081(a)); or by issuing an Incidental Take Permit authorizing take incidental to otherwise lawful activities (FGC section 2081(b)). Natural Community Conservation Plans (FGC section 2835) may authorize take of unlisted, rare, threatened, endangered, and fully protected species, and necessary scientific research or recovery actions for Fully Protected Species Other authorities might apply in particular cases.

Procedures

The basic process for the Department to approve, require, or conduct a conservation translocation is as follows:

- 1. A proposal or concept is generated from within the Department or by external parties or collaborators.
- 2. It is reviewed by the affected Regions and Branches. The affected Regional Managers and Branch Chiefs will determine if the concept should be further developed (see "Scope of Evaluation", below).
- 3. If the concept is approved for further development, a more detailed evaluation following the format presented in Attachment C is required. This is prepared under the authority of the appropriate Regional Manager (if within a Regional scope of authority) or Branch Chief (if occurring across multiple Regions), employing engagement of Department staff from Regions, Branches, and the Science Institute as appropriate and feasible. If at any step the evaluation indicates inadequate information or the presence of critical issues, the conservation translocation proposal must be redesigned, or discontinued.
- 4. When a proposed conservation translocation is deemed adequate by the affected Region(s) and Branch(es) (based on the scope of evaluation that follows), the conservation translocation may be approved by the Department positions as described later in this section.
- 5. The originating unit shall coordinate with affected Branches and Regions. These parties' concurrence with the plan shall be documented in writing.

6. Record-keeping requirements and recommended metadata are described in Attachments C and D.

Scope of Evaluation

Proposed conservation translocations shall be evaluated in a stepwise manner based on the IUCN critical elements, as adapted and presented below, and using the best available scientific information. All questions shall be addressed, and other considerations introduced as necessary, to fully evaluate the translocation. Ideally, these critical elements should be evaluated at the conceptual stage of considering a conservation translocation, and addressed in the planning process. This will lead to efficient use of limited resources, and focuses those resources on species most in need of conservation management, and actions that provide significant conservation benefits with lower risk.

Early stage evaluations should consider all the questions posed below, and identify critical flaws or missing information. If the project proceeds to detailed evaluation and design, the decision factor matrix presented in Attachment C should be completed, and supporting documentation provided as directed in Attachments C and D.

The rigor of the evaluation, subsequent planning, and execution shall be commensurate with the level of threat to the species involved, and the consequences of failure. For common species, the evaluation need not be rigorous, could be based on existing information and knowledge of the species and situation, and simple "Yes/No" answers and brief discussions could suffice. At the highest levels, for example the translocation of a species outside of its indigenous range in the face of probable extinction, the evaluation must be in-depth and highly rigorous, and requires the approval of the Chief Deputy Director (more detail on the decision authority is discussed later). A good example of technical analysis is the CDFW evaluation of the 2010 proposal to reintroduce wolverine (California Department of Fish and Game Briefing Document: California Wolverine Population Augmentation Considerations; November 7, 2011; D. Applebee, et al.).

Critical elements to consider are presented as questions in the outline below, and in greater detail in the Attachments.

Need:

- What is the reason to consider a translocation? How critical is the need for a translocation, in the context of conserving the species or genetic element?
- Is a translocation the best solution to the perceived problem?
- What is the relative priority of this action in the context of the allocation of Department resources?

Risks / Potential for Success:

- What is the likelihood of success?
- What are the consequences of failure?

- What are the potential unintended consequences, including but not limited to implications for stocking or harvest of game species at the translocation receiver site, or increased regulatory pressure (in the case of listed species) on adjacent landowners or industries?
- Are risks for the target species acceptable?
- Are risks for other species, populations or the ecosystem acceptable?
 - (Note: If there are potential effects to listed species in the receiving habitat, or other possibly significant impacts, other official biological assessments or environmental reviews may be required, such as analysis under CEQA, or a USFWS or NOAA Biological Opinion).
- Does the translocation pose risks to property or human health and safety?
- Does the translocation potentially spread known diseases into currently uninfected areas?
- Can the donor population sustain removal of the number of proposed translocated animals?
- Are the number of individuals to be moved sufficient in number and genetic diversity to (re) establish a robust population or attain the conservation goal of the translocation?

Feasibility:

- Are plans for execution, monitoring, and adaptive responses adequately prepared?
- Are there adequate staff and funding resources to support the effort, especially over time?
- Will there be sustained documentation of all stages of the program (including post-implementation), in a form and venue that can guide future efforts?
- Are there contingency plans, specific triggers, and exit strategies for either favorable or unfavorable outcomes?
- Are there required partnerships in place (e.g. USFWS, NOAA, zoos)?

Other (Technical, Logistical):

- Does the project include clear goals and monitoring?
- Is there monitoring (often long term), that informs adaptive management and exit strategies?
- Are the possible effects of the translocation acceptable to directly and indirectly affected stakeholders?
- Has there been appropriate communication and coordination among the involved and affected parties?

The evaluation shall be prepared in writing under the authority of the appropriate Regional Manager (if within a Regional scope of authority) or Branch Chief (if occurring across multiple Regions), with coordination among the involved Regions and Branches. If at any step any of the major elements (Need, Risk, Feasibility, Other) is considered inadequate, or the translocation presents significant risks or likelihood of failure, the translocation should be redesigned, or aborted. The goal is to design, approve, and conduct translocations for the most needed species and situations; with low risk and

high chance of success; and executed according to the best scientific and logistic practices.

Where a high degree of uncertainty remains or it is not possible to assess reliably that a conservation introduction presents low risks, it should not proceed, and alternative conservation solutions should be sought. A possible exception might be a case in which the consequences of not implementing a plan with substantial risks could likely allow extinction of a species.

Decision Authority

The decision authority to approve a conservation translocation shall be as follows:

- Conservation Translocations planned and conducted within a Region:
 - o for non-harvest or non-listed species, Regional Manager;
 - for harvest or listed species (or where such species or harvest of these species may be affected by the translocation), Regional Manager with concurrence of the relevant Branch Chief and appropriate Deputy Director.
- Conservation Translocations planned and conducted as a statewide or multi-Region effort: relevant Branch Chief, with concurrence of the affected Regional Managers and the appropriate Deputy Director.
- Controversial conservation translocations, including conservation translocations outside of species' indigenous range or where disease issues are known: Chief Deputy Director, or as delegated.
- Interstate conservation translocations: Chief Deputy Director, or as delegated.

Record-keeping

Documentation of conservation translocations as described in this guidance shall be maintained in the CDFW Document Library and also the originating Region or Branch. This documentation shall include the written evaluation, decision to implement or not implement the translocation, the translocation plan, and monitoring and other follow-up reports. The Department may also establish a comprehensive database of translocations; in that case, key information on each translocation shall be incorporated into that database, under separate guidance. The intent of this record-keeping requirement is to provide documentation of analyses and decisions, and also of the technical aspects of translocation efforts, to inform future decisions on translocations. Recommended metadata are listed in Attachment D.

Animal Welfare

Conservation translocations should incorporate existing guidelines for research involving fish and wildlife. In addition to any Department guidelines in effect, other recognized guidelines include:

- Mammals: <u>Guidelines of The American Society of Mammalogists For The Use of Wild Mammals In Research</u>, Journal of Mammalogy, Volume 88, Issue 3 pp. 809-823, 2007.
- Birds: <u>Guidelines to the Use of Wild Birds in Research</u>, The Ornithological Council, Washington, DC, 3rd ed., 2010.
- Amphibians and reptiles: <u>Guidelines for the use of live amphibians and reptiles</u> <u>in field research</u>. Joint publication of the American Society of Ichthyologists and Herpetologists, The Herpetologists' League, and Society for the Study of Amphibians and Reptiles. 2nd Ed., 2004.
- Fishes: <u>Guidelines for the use of fishes in field research</u>. Joint publication of the American Society of Ichthyologists and Herpetologists, American Fisheries Society, and American Institute of Fisheries Research Biologists. Fisheries, Vol. 13, No. 2, pp. 16-23, 1988.
- Euthanasia: American Veterinary Medicine Association Guidelines for the Euthanasia of Animals: 2013 Edition.

Special Considerations for Plants:

Conservation translocation of plants requires consideration of a number of factors that might not be considered for animal species, such as microclimate, soil, pollinators, herbivory, weed management, mycorrhizal associations, and adequate monitoring that could reasonably span many years. These factors considerably increase the complexity and risk of failure of plant translocations.

Conservation translocations of rare, threatened, endangered, and sensitive native plant populations into apparently suitable habitat is often experimental; success is often difficult and may take years to achieve. This high risk of failure requires rigorous planning, monitoring, and contingency measures to support efforts to translocate rare, threatened or endangered plants. The California Native Plant Society, independent plant conservation organizations, and the Department's Native Plant Program periodically issue guidance, which should be consulted in addition to species-specific studies.

<u>Conservation Translocations of Plants or Animals to Areas Outside Their Indigenous Range, Including Assisted Colonization.</u>

Global evidence shows that introductions of species outside their indigenous range can frequently adversely affect ecological, social, or economic systems. These effects are often difficult to foresee, and can become evident only long after the introduction. Conservation translocations outside a species' indigenous range may, therefore, bring potentially high risks that are difficult or impossible to predict with accuracy.

<u>Using Translocation as a Project Mitigation Measure</u>

"Mitigation translocation" is translocation intended to minimize or mitigate the impacts of a specific action or project. The intent is to effect benefits to the affected species, population, or ecological community- that is, to provide conservation benefits at a level higher than mere survival of an affected individual organism.

The use of translocation to mitigate project impacts is questionable and requires careful consideration (see Germano, et al., Mitigation-driven translocations: are we moving wildlife in the right direction? Front. Ecol. Environ. 2015; doi:10.1890/140137; and The International Union for the Conservation of Nature Species Survival Commission (IUCN) "Guidelines on Reintroductions and Other Conservation Translocations" (IUCN/SSC [2013], Version 1.0). A translocation might offset only a portion of a project's impacts, even if effective, and should be carried out in a manner equivalent to a conservation translocation, and with additional contingency measures in case it is not successful.

Note that in Incidental Take Permits (ITPs), conservation translocations are often included as a component of offsetting project impacts, or minimizing take of covered species. The ITP process and regulatory standards are considered outside the scope of this guidance. However, the basic information presented here can guide such efforts towards greater success.

ATTACHMENT C. Decision Factors for Evaluating Proposed Conservation Translocations

Consider the topic questions, and provide a qualitative rating response to each, followed by an explanatory comment. Consider need, benefit, risks, feasibility, and other factors to evaluate the conservation translocation. Please include citations for any relevant reports, publications, or other information, and add pertinent comments.

The intensity of evaluation should be appropriate to the significance of the conservation translocation. For example, the conservation translocation of common wildlife short distances would warrant less consideration than the re-establishment of an extirpated population of a listed species.

Note that it may be the case that a translocation of species X is proposed to conserve species Y (such as translocating pollinator, prey, or keystone species). The same evaluation factors apply, but the framework may require some modification to reasonably reflect that circumstance.

A written record of this evaluation, supporting information, and the decision shall be maintained at the deciding office as described earlier in this guidance.

Evaluation Factors for Conservation Translocations

| Species | | |
|--------------------|--------------|----------|
| Donor Site | | _ |
| Receiving Site | | _ |
| Approved \square | Not Approved | |
| Name | F | Position |
| Date | Signatur | re |
| | | |
| | | |

| | | | RATING | | | | |
|-------------|--|------|--------|-----|------|---------|-------------------|
| | Need: [NOTE: Higher ratings in this section indicate a more needed and potentially higher value translocation] | High | Medium | Low | None | Unknown | Not Applicable |
| 1 | Current level of threat to the species | | | | | | |
| Exp | lanation | | | | | | |
| 2 | Urgency to take action | | | | | | |
| Explanation | | | | | | | |

| 3 | Relative priority of the proposed action to the Department in the context | | | | | | |
|------|---|---------|-------------|-----------|---------|-----------------|--------|
| | of other needs, and to the | | | | | | |
| | management of the | | | | | | |
| | species | | | | | | |
| Ехр | lanation | | | | | I | |
| - | | | | | | | |
| 4 | Existing level of threat to | | | | | | |
| | the source population | | | | | | |
| Ехр | lanation | • | | | | 1 | |
| - | | | | | | | |
| 5 | Existing level of threat to | | | | | | |
| | the receiving population | | | | | | |
| Ехр | lanation | | | | | 1 | |
| - | | | | | | | |
| 6 | Relative potential | | | | | | |
| | effectiveness of the | | | | | | |
| | translocation compared | | | | | | |
| | to other conservation | | | | | | |
| | methods | | | | | | |
| Exp | lanation | | | | | | |
| | 0 1 0 0 0 0 | 1 | | | | | |
| 7 | Consistency with CDFW | | | | | | |
| | Mission, and existing | | | | | | |
| | conservation and | | | | | | |
| Evn | recovery strategies | | | | | | |
| Exρ | lanation | | | | | | |
| | Based on the above, | | | | | | |
| | the overall need/benefit | | | | | | |
| | is[high-medium-low]: | | | | | | |
| Co | mments: | | | | | | |
| | minents. | | | | | | |
| | | | | | | | |
| Ris | k [NOTE: In this section, hig | her rat | ings indica | ate a hig | her pot | ential risk fro | om the |
| tran | slocation] | | | | | | |
| 8 | Risk from the | | | | | | |
| - | translocation to the | | | | | | |
| | statewide population of | | | | | | |
| | the target species | | | | | | |
| Ехр | lanation | | | | | | |
| | | | | | | | |
| | | | | | | | |

| 9 | Risk from the | | | | | | |
|----------|--|--|--|----------|--|--|--|
| 9 | | | | | | | |
| | translocation to the donor | | | | | | |
| | population of the target | | | | | | |
| | species | | | | | | |
| Exp | lanation | | | | | | |
| | | | | | | | |
| 10 | Risk from the | | | | | | |
| | translocation to other | | | | | | |
| | species or the ecosystem | | | | | | |
| | , | | | | | | |
| Exp | lanation | | | | | | |
| 4.4 | In the receiving erectors | | | | | | |
| 11 | In the receiving area, are | | | | | | |
| | there existing threats to | | | | | | |
| | the species that are not | | | | | | |
| | controlled? | | | | | | |
| Exp | lanation | | | | | | |
| | | | | | | | |
| 12 | Possible responses of | | | | | | |
| | directly and indirectly | | | | | | |
| | affected stakeholders | | | | | | |
| | | | | | | | |
| | might adversely affect the translocation | | | | | | |
| | | | | | | | |
| Exp | lanation | | | | | | |
| | | | | | | | |
| 13 | Does the translocation | | | | | | |
| | pose risks to property or | | | | | | |
| | human health and safety, | | | | | | |
| | including those | | | | | | |
| | conducting it? | | | | | | |
| Exp | lanation | | | <u> </u> | | | |
| | | | | | | | |
| 4.4 | | | | 1 | | | |
| 14 | Does the translocation | | | | | | |
| | create risks of | | | | | | |
| | inadvertently co- | | | | | | |
| | translocating disease, | | | | | | |
| | pest, or invasive | | | | | | |
| | organisms along with the | | | | | | |
| | target species? | | | | | | |
| Fxn | lanation | | | | | | |
| | | | | | | | |
| | | | | | | | |
| <u> </u> | | | | | | | |

| | Based on the above, the overall risk is: Based on the above, is | | | | | | |
|-----|--|-------|-------------|------------|-----------|--------------|--------|
| | the anticipated benefit to the species worth the anticipated risks? | | | | | | |
| Co | mments: | | | | | | |
| | sibility / Implementation [lible translocation] | NOTE: | In this sec | ction, hig | gher rati | ngs indicate | a more |
| 15 | Have the proposed methods been used successfully with the target or a similar species? | | | | | | |
| Ехр | lanation | | | | | | |
| 16 | Is there a clear purpose and intended outcome? | | | | | | |
| Ехр | lanation | | , | | | | |
| 17 | Does the translocation include clear goals, long and short-term monitoring methods, success criteria, adaptive management measures, contingency plans and exit strategies? | | | | | | |
| Ехр | lanation | | | | | | |
| 18 | Are there adequate economic and human resources available to support the project? | | | | | | |

| Exp | lanation | | | |
|-----|------------------------------|------|------|------|
| | | | | |
| 19 | Has appropriate internal | | | |
| | and external coordination | | | |
| | been established? | | | |
| Ехр | lanation | | | |
| | | | | |
| 20 | Will there be ongoing | | | |
| | documentation of all | | | |
| | phases the project in a | | | |
| | manner that allows | | | |
| | retrieval of information for | | | |
| | evaluation and guiding | | | |
| | future work? | | | |
| Exp | lanation | | | |
| LXP | anation | | | |
| 21 | Will the Department NOT | | | |
| | have any new legal or | | | |
| | ethical liabilities as a | | | |
| | result of the | | | |
| | translocation? | | | |
| Ехр | lanation | | | |
| | | | | |
| 22 | If the translocation would | | | |
| | establish the species | | | |
| | outside of its historic | | | |
| | range, does the | | | |
| | Department, outside | | | |
| | scientists, and/or | | | |
| | stakeholders consider | | | |
| | this desirable? | | | |
| Exp | lanation | | | |
| | anation | | | |
| | Based on the above, is | | | |
| | the proposed | | | |
| | translocation feasible? | | | |
| | | | | |
| Co | mments: | | | |
| | mmento. | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Overall, should the conservation translocation be conducted?

Please attach comments, analyses, and other relevant information, or provide accessible citations for supporting materials.

ATTACHMENT D. Recommended Metadata

The following information is recommended in order to better track CDFW's history of conservation translocations. These are envisioned as potential data fields for CDFW-wide translocation database, but it is recommended that this basic information be maintained at least in the office responsible for each project.

General:

<u>Date Entered</u> [mm/dd/yyyy] <u>By</u> [name and office]

Taxa: [Mammal, Bird, Fish, Herptile, Plants]

Legal Status: [Rare, SSC, T, E, FP, Harvest, other]

Is there an applicable permit? [Y/N] [permittee] [permit number]

If yes, attach permitting documents.

Collection:

Date(s) collected

<u>Location(s) collected</u>: [Region] [County] [map function & Lat Long]

Rationale for translocation:

Method(s)

Number Collected:

Adult : M/F Juvenile: M/F

Alternate descriptors

Number and types of Injuries:

Number of Mortalities

Conducted by: [Individual(s)] [Affiliation]

Photos of site

Land Ownership: Contact information for access:

Release:

Date Released

Location(s) Released: [Region] [County] [map function & Lat Long]

Rationale for release site selection:

Method(s)

Number Released:

Adult: M/F Juvenile: M/F

Alternate descriptors

Number of Injuries:

Number of Mortalities:

Conducted by: [Individual(s)] [Affiliation]

Photos of site

Land Ownership: Contact information for access:

Monitoring:

<u>Is there a monitoring plan or requirement?</u> [Y/N] If yes, attach monitoring plan and monitoring reports

If Yes, what is:
the frequency of monitoring,
where reports will be filed,
who will conduct the monitoring

Translocation Decision Determination:

Is there a record of factors considered prior to the translocation, and a written determination? [Y/N]

If YES,

From where was it issued? [office]

From where was it issued? [office]

Who made the determination? [name, position, office]

Attach Review / Determination Matrix []

Attach (or provide reference and link for) supporting reports, analyses, and plans []

Additional Comments:

Evaluation of Success or Failure (to be filled in at a later date)