# Negative Declaration

1. Project title:
   Reintroduction of Fishers (*Martes pennanti*) to Sierra Pacific Industries Stirling Management Area.

2. Lead agency name and address:
   California Department of Fish and Game
   1416 Ninth Street
   Sacramento, CA 95814

3. Contact person and phone number:
   Dr. Eric Loft, (916) 445-3555

4. Project location:
   The project area encompasses 648 $km^2$ (250 $mi^2$) of private timberlands in portions of Butte, Tehama, and Plumas counties. Big Chico Creek, Little Chico Creek, Butte Creek, and Feather River are the primary watersheds in the project area.

5. Project sponsor's name and address:
   California Department of Fish and Game
   1416 Ninth Street
   Sacramento, CA 95814

6. General plan designation:
   Timber (Tehama County);
   Timber/Mountain (Butte County);
   Important Timber, Mining (Plumas County)

7. Zoning:
   Timber Production Zone (TPZ),
   General Forest, Mining

8. Description of project:
   The project will reintroduce fishers to a portion of their historic range in the northern Sierra Nevada and southern Cascades. Fishers have not been documented to occur in the northern Sierra Nevada and southern Cascades (south of State Highway 299) in recent decades. Important factors in the extirpation of fishers from the project area are thought to have been trapping and changes in vegetation structure and composition resulting from forest management and fire suppression. The project is described in detail in the California Department of Fish and Game's *Translocation Plan for the Reintroduction of Fishers (Martes pennanti) to Sierra Pacific Industries Lands in the Northern Sierra Nevada and Southern Cascades* (Callas and Figura 2008).

   The project area is owned by Sierra Pacific Industries, an industrial timberland owner, and is designated as the "Stirling Management Area" (SMA). The project duration will be approximately seven years. During that period fishers will be captured from the donor population, released in the translocation area, and monitored to determine their survival, movements, habitat use, and reproduction. If the project is successful, fishers will re-inhabit a portion of their former range.

   Beginning as early as fall 2009, as many as 40 fishers will be introduced to the

SMA over a period of three years. During the first year, up to 15 adult fishers (6 Male:9 Female) will be released during fall and winter months. Each of these animals will be equipped with a radio-telemetry collar, and will be monitored daily (if possible) from the ground or by aircraft.

If monitoring results during the first year indicate that introducing additional animals is warranted, an additional 15 radio-collared adults (6M:9F) will be released during the second fall and winter. Monitoring will continue at an equivalent intensity. If monitoring results continue to suggest that the release of additional animals was warranted, an additional 10 adults (4M:6F) will be released during the third fall and winter. In years two and three, additional releases will not be warranted if a substantial number of animals fail to survive (males and females) and reproduce (females) and that failure is associated with factors that cannot be overcome by modifying the study design or release methodology (e.g., factors such as habitat quality, habitat quantity, disease, or anthropogenic causes of mortality). Monitoring will continue for four additional years after the third fisher release. Monitoring objectives are detailed in DFG's *Translocation Plan*.

To minimize local impacts, fishers released as part of the project will be captured from widely dispersed subpopulations in northwestern California. Potential capture/donor areas include public and private lands in northern and western Siskiyou County, northwestern Shasta County, eastern and western Trinity County, Humboldt County, and Mendocino County. Animals will be captured within at least three separate donor areas annually.

All captured fishers will be trapped and handled humanely. Capture and handling techniques and procedures will be consistent with DFG's Wildlife Animal Capture Handbook and approved by DFG's Wildlife Investigations Laboratory. All captured animals will be examined for visible evidence of disease or injury and their blood will be tested for the presence of previous exposure to several pathogens. Animals not meeting specific health criteria and/or showing evidence of previous exposure to certain diseases (e.g., canine distemper virus) will not be translocated. All animals selected for translocation release will be immunized against canine distemper and rabies viruses, treated for endoparisites, and treated for flea and tick infestations (as needed). All animals captured (whether translocated or released at the point of capture) will be released as soon as possible to minimize stress and accidental injury in captivity.

9. Surrounding land uses and setting:
   The primary landowners and managers adjacent to the area are Collins Pine Company (an industrial timberland owner) and two national forests (Lassen National Forest and Plumas National Forest) managed by the USDA Forest Service. Small, private properties (lands designated in the Butte County General Plan primarily as "Foothill Area Residential" and "Agricultural Residential") and other public lands are located to the west and southwest of the area.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)
    None.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

| | | |
|---|---|---|
| ❒ Aesthetics | ❒ Agriculture Resources | ❒ Air Quality |
| ❒ Biological Resources | ❒ Cultural Resources | ❒ Geology/Soils |
| ❒ Hazards & Hazardous Materials | ❒ Hydrology/Water Quality | ❒ Land Use/Planning |
| ❒ Mineral Resources | ❒ Noise | ❒ Population/Housing |
| ❒ Public Services | ❒ Recreation | ❒ Transportation/Traffic |
| ❒ Utilities/Service Systems | ❒ Mandatory Findings of Significance | |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

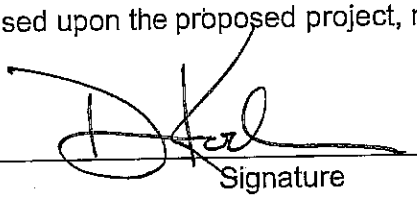
☒ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

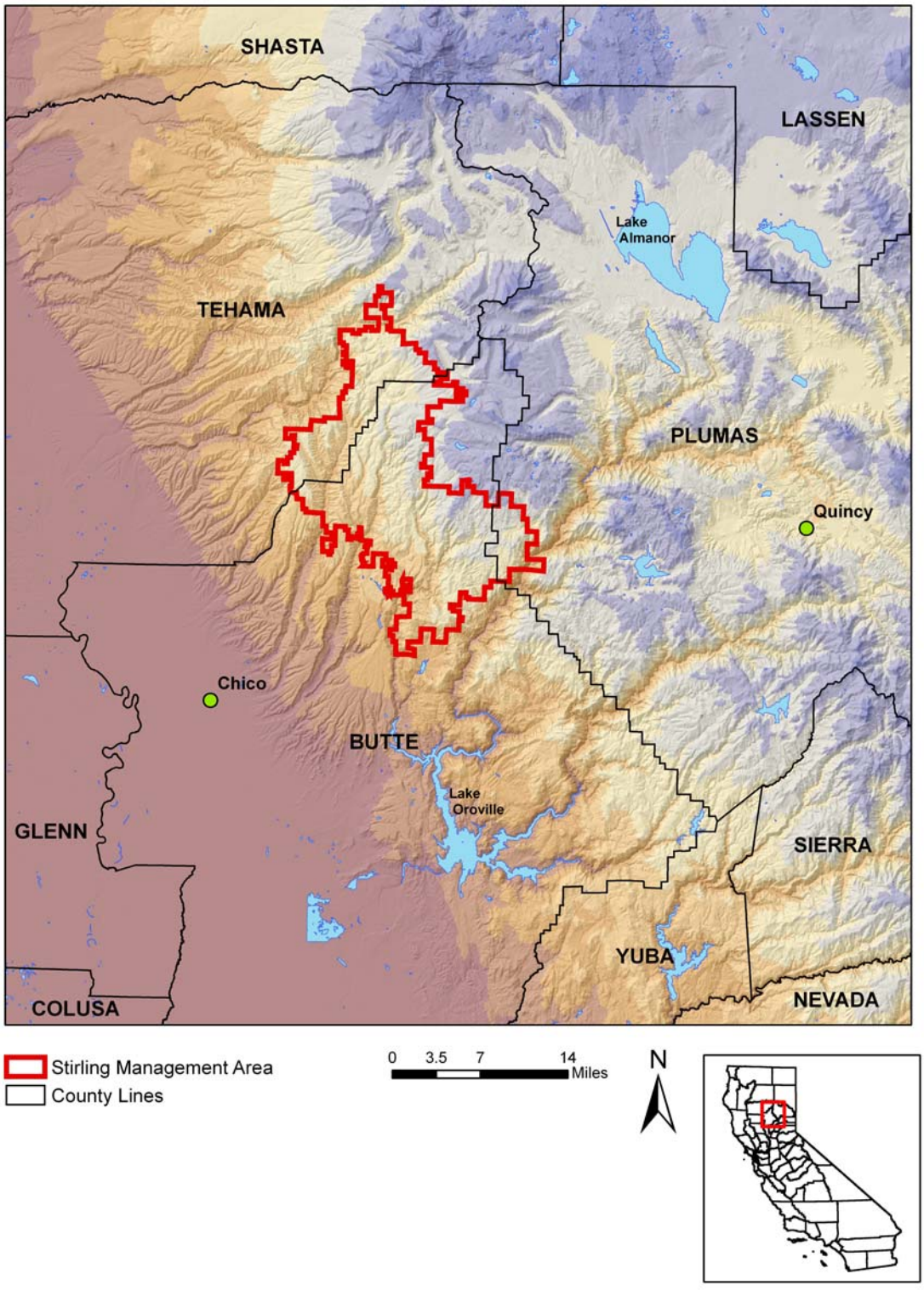
☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



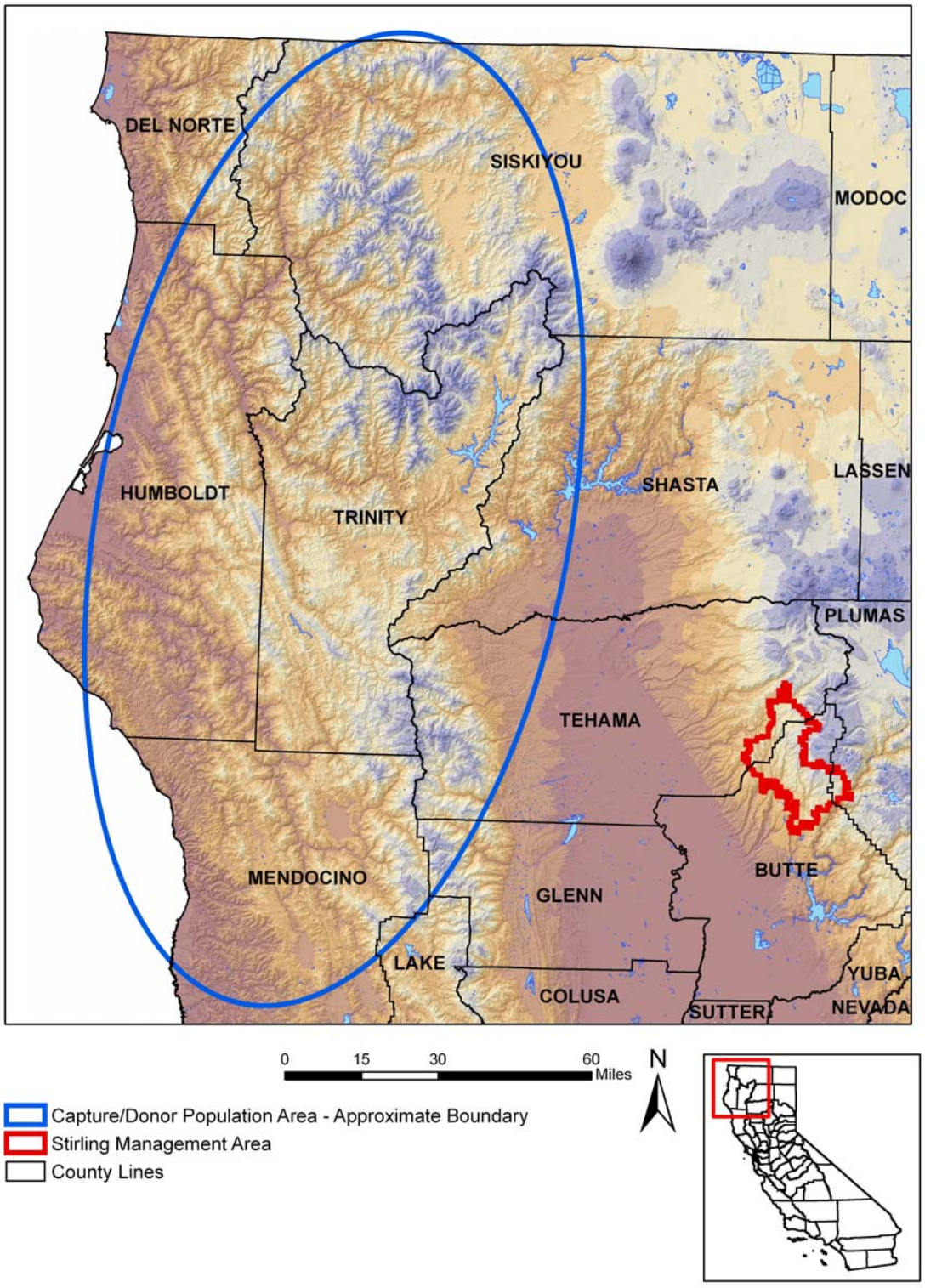
Signature — 12/8/08 Date

Donald Koch
Printed Name — For

**PROJECT AREA MAP #1 – Stirling Management Area (fisher reintroduction site)**



**PROJECT AREA MAP #2 – Donor population (fisher capture area)**



# CEQA Initial Study Checklist

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **I. AESTHETICS** -- Would the project: | . | . | . | . |
| a) Have a substantial adverse effect on a scenic vista? | ❒ | ❒ | ❒ | ☒ |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | ❒ | ❒ | ❒ | ☒ |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | ❒ | ❒ | ❒ | ☒ |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | ❒ | ❒ | ❒ | ☒ |

**DISCUSSION**

a) The project will not involve any construction or land alteration and thus will not affect scenic vistas.

b) The project will not involve any construction or land alteration and thus will not damage scenic resources.

c) The project will not involve any construction or land alteration and thus will not degrade the visual character of the site and its surroundings.

d) The project will not involve any construction and thus will not create any new sources of light or glare. Biologists will drive pickup trucks within the project area while translocating and/or monitoring the fishers. Some of this traffic may occasionally occur before sunrise or after sunset. However, this transient traffic in a sparsely populated, largely forested area will not constitute a new source of substantial light or glare that will affect day or nighttime views in the area.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **II. AGRICULTURE RESOURCES:** In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. -- Would the project: | . | . | . | . |
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | ❒ | ❒ | ❒ | ☒ |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | ❒ | ❒ | ❒ | ☒ |
| c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | ❒ | ❒ | ❒ | ☒ |

**DISCUSSION**

a) The project will not take place on or impact farmland, so it will not involve the conversion or modification of farmland.

b) The project will not conflict with existing agricultural zoning or any Williamson Act contracts.

c) The project will not involve any construction, land alteration, or land use changes and thus will not result in the conversion of Farmland to non-agricultural use.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. -- Would the project: | | | | |
| a) Conflict with or obstruct implementation of the applicable air quality plan? | ☐ | ☐ | ☐ | ☒ |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | ☐ | ☐ | ☐ | ☒ |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | ☐ | ☐ | ☐ | ☒ |
| d) Expose sensitive receptors to substantial pollutant concentrations? | ☐ | ☐ | ☐ | ☒ |
| e) Create objectionable odors affecting a substantial number of people? | ☐ | ☐ | ☐ | ☒ |

**DISCUSSION**

a) The project will not involve any construction, land alteration, or land use changes. The project will not conflict with or obstruct implementation with the applicable air quality plan.

b) The project will not involve any construction, land alteration, or land use changes, and will not violate air quality standards or contribute substantially to any existing air quality violations. Pickup trucks and aircraft will be used to monitor the translocated fishers, and their internal combustion engines will produce some emissions. The impacts to air quality produced by the use of these vehicles during the project will be negligible.

c) The project will not involve any construction, land alteration, or land use changes. The project will not result in a cumulatively considerable net increase of any criteria pollutants for which the project region is non-attainment.

d) The project will not release cumulatively considerable pollutants nor will it alter

population distribution or patterns of human activity.

e) The project will not release any odors or expose people to odor sources.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **IV. BIOLOGICAL RESOURCES**<br>-- Would the project: | | | | |
| a) 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 Game or U.S. Fish and Wildlife Service? | ☐ | ☐ | ☒ | ☐ |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service? | ☐ | ☐ | ☐ | ☒ |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | ☐ | ☐ | ☐ | ☒ |
| d) 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? | ☐ | ☐ | ☐ | ☒ |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ☐ | ☐ | ☒ |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | ☐ | ☐ | ☐ | ☒ |

DISCUSSION

a) <u>Effects of the project on fishers</u>

The fisher is currently considered a “Species of Special Concern” by the California Department of Fish and Game. The U.S. Fish and Wildlife Service determined in 2004 that the West Coast Distinct Population Segment of the fisher (which includes the California populations) is a Candidate for listing pursuant to the federal Endangered Species Act.

The goal of the proposed project is to improve the status of fisher in California by

reintroducing fishers into an area they formerly inhabited. The project area lies between the existing, widely separated California fisher populations in northwestern California and the southern Sierra Nevada. If successful, the translocation will have substantial beneficial impacts for fishers in the state. However, reintroduction requires the translocated fishers to be removed from a separate source population.

As described in the Department's *Translocation Plan* (Callas and Figura 2008), the fisher population in the California's Klamath Mountains and North Coast Ranges is proposed as the source for the translocation. The fisher population in this area is the largest in the Pacific states; estimates of its size range from approximately 1,000 to 3,000 animals (Carroll, personal communication; Self et al. undated). Its spatial distribution seems to have changed relatively little since the 1920s (U.S. Fish and Wildlife Service 2008). The project will involve the removal of up to 40 fishers from this population over a three-year period. A maximum of 15 adult animals (6 males and 9 females) will be removed in any one year. Based on a conservative population estimate of 1,000 fishers, this rate of removal will represent approximately 1.5 percent or less of the population during each of three project years. To minimize local effects of fisher removal within a given year, animals will be captured from least three spatially separated locations. The timing, number of fishers released, and locations used to release individuals will depend on a number of factors including the results of annual monitoring of previously released animals. If annual monitoring suggests released fishers have failed to survive, subsequent releases may be modified to reduce the mortality of translocated animals. The project may be terminated if a substantial failure of animals to survive and reproduce is associated with factors such as habitat quality, habitat quantity, disease, or anthropogenic causes of mortality that can not be overcome by modifying the project design. This would limit the number of animals removed from the donor population under the project.

Population modeling has suggested mortality resulting from trapping may cause declines of fisher. Powell (1979) concluded that annual trapping success greater than 1-4 fishers per 100 $km^2$ area in upper Michigan could result in population declines. For comparison, based on the approximate area occupied by the northwestern California population, the proposed project will involve the annual removal of less than one fisher per 1,000 $km^2$. Further, those removals will only occur for three years and are not anticipated to result in mortality due to capture.

Capture and relocation of fisher is not the same as harvesting that occurs in some states or provinces, but an examination of harvest level effects on fisher populations elsewhere indicates that the proposed translocation project involving no more that 1.5 percent of the population will have negligible effects. Douglas and Strickland (1987) indicated harvest rates of 20-25 percent generally resulted in population stability in Ontario (Canada), while Berg (cited by Douglas and Strickland 1987) found that harvests of 15-20 percent of the pre-trapping population in Minnesota resulted in stability. Kohn et al. (1993) indicated that annual harvests of approximately 15 percent of the Wisconsin fisher population were sustainable. A more recent analyses by the Wisconsin Department of Natural Resources suggested that a "conservative" harvest of 5-7 percent of the fall fisher population from 1998-2000, facilitated population growth while "more liberal" harvests of 14-15 percent in 2001-2002 "appeared to stabilize population growth" (Rolley and Woodford 2007). In Maine, an annual harvest rate of 25 percent of the fisher population was thought to be sustainable (Maine Department of Inland Fisheries

and Wildlife 1990). Weir (2003) indicated "it is probable" that British Columbia fisher populations "may be capable of sustained harvest" of approximately 15 percent.

Rates of sustainable fisher harvest are influenced by various factors, including population carrying capacity, reproductive rate, and adult and juvenile survival rate. These factors vary over space and time, making comparisons among studies and geographic areas difficult. For example, it is not known whether there are statistically significant differences in fecundity or survival between California fisher populations and those in eastern and midwestern states. These difficulties notwithstanding, the proposed annual rate of fisher removal from the northwestern California population under the proposed project (a maximum of approximately 1.5 percent) is substantially lower than the annual harvest rate that is considered sustainable by several other states and provinces (approximately 14-25 percent). It is anticipated that adult fishers removed for translocation in California will be quickly replaced by juvenile animals either present in the vicinity of capture sites or subsequently produced by fishers remaining in the population.

Powell and Zielinski (2005) used the population matrix modeling software VORTEX to evaluate the potential effects of removing animals from the proposed donor population in northwestern California. The model included assumptions by the authors about the population and environmental conditions, including the effects of timber harvest, the rate of timber harvest, fisher vital rates, and the sex ratio of adult fishers. The authors cautioned that the output of the model was an index of population viability for the purpose of investigating possible effects of translocation projects, not a dependable estimate of the probability of extinction of the population. The authors initially modeled baseline conditions for the population. Assuming an initial population size of 1,000 fishers in northwestern California and a carrying capacity of 2,000 (±250) animals, they calculated a 5 percent probability of population extinction over a 100 year modeling period. Halving the initial population size increased the probability of extinction by 1 percent. The authors then modeled the effects of removing 20 fishers annually from the population for 3, 5, and 8 consecutive years. Modeling scenarios also involved variation in the number of subpopulations that fishers were drawn from, and the number of fishers drawn from them (fifty "subpopulations" were included in the models, with each subpopulation considered an "accounting unit" rather than a distinct population subcomponent.). The largest predicted increase in the probability of extinction by any of the modeled fisher removal scenarios was 3 percent (Table 1). As the proposed project involves the removal of only 40 animals over a three year period, it is likely to have lesser effects on the northwestern California population than any of the modeled scenarios.

Table 1. Summary of fisher removal modeling scenarios conducted by Powell and Zielinski (2005) and their effects on the probability of extinction of the northwestern California population. Adapted from Table 2 in Powell and Zielinski (2005).

| Number fishers removed per year | Number years fishers removed | Number subpopulations from which fishers were removed | Number fishers removed from each subpopulation | Total number fishers removed | Increase in probability of extinction |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 20 | 3 | 20 | 1 | 60 | 0% |
| 20 | 5 | 20 | 1 | 100 | 3% |
| 20 | 3 | 4 | 5 | 60 | 2% |
| 20 | 5 | 4 | 5 | 100 | 0% |
| 20 | 8 | 4 | 5 | 160 | 1% |

Fishers have been removed from donor populations numerous times for reintroductions or to augment populations that are small in number. Lewis and Hayes (2004) summarized 31 reintroductions of fishers in North America from 1947 through 2003. The number of animals released ranged from 4 to 190 and averaged 41. Although they were not monitored specifically to determine the effects of removals, none of these projects are known or thought to have had long-term adverse impacts to fisher donor populations. Most of the donor populations were subject to trapping before and after the removals, and post-removal harvest reports did not suggest population declines (Roger Powell, personal communication).

The proposed project will not substantially reduce the number, and it will not negatively affect the range, of fishers in northwestern California. Based on modeling conducted by Powell and Zielinski (2005), the small number of fishers that will be removed (40 fishers total over a three year period, with animals captured from at least three widely separated sites annually) will have a negligible effect on the probability of extinction. Additionally, the percentage of fishers that will be removed from the population annually is much lower than levels of removal believed to be sustainable in several states and provinces where legal fisher trapping is regulated. The proposed project has been designed to 1) reduce potential temporary impacts on the northwestern California fisher population to less-than-significant levels, and 2) benefit fishers in California by establishing a new population in a portion of the species' historic range.

Effects of the project on other candidate, sensitive, or special status species

Fishers introduced into the Stirling Management Area may adversely affect other wildlife in the area by predation and competition. Candidate, sensitive, or special status species that may potentially be affected by the translocation of fishers to this area are the northern goshawk, California spotted owl, American marten, Sierra Nevada red fox, and wolverine. Fishers coexisted with all of these animals in the northern Sierra Nevada and southern Cascades until fishers were extirpated from those areas. To the extent that fishers may use areas occupied by those species, increased competition for food and other resources may occur after reintroduction. It is also possible that fishers may occasionally prey on goshawks or California spotted owls, especially juveniles. Historically, fisher interactions with California spotted owls, northern goshawks, and American martens were probably common. Interactions with wolverines and Sierra Nevada red foxes were probably relatively rare, as the fox and wolverine were probably never common in the Sierra Nevada and tend to use different habitats than fishers.

The northern goshawk is a California Species of Special Concern. Its range overlaps that of fishers in much of California, as both species use similar forest types and prey on many of the same species. Therefore, when food is limited fishers and goshawks may compete with one another, although the diverse diet of both suggests such competition

may be minimal (Lewis and Hayes 2004). Erdman et al. (1998) suggested that fishers were a major cause of goshawk nest failure and mortality of incubating females in northern Wisconsin. However, the Department is not aware of any other studies reporting substantial competition between the two species or fisher predation on goshawks. Although fishers frequently consume birds, diet analyses suggest that raptors are consumed relatively infrequently (Powell 1993, Golightly et al. 2006, Aubry and Raley 2006). Fishers and goshawks currently coexist in northwestern California and in the southern Sierra, as well as throughout several states in the northern U.S. and in each Canadian province. For these reasons, and because of the low densities of fisher populations, Lewis and Hayes (2004) concluded that translocating fishers to Washington's Olympic peninsula would not have a significant adverse impact on goshawk populations.

The California spotted owl is also a California Species of Special Concern. Fishers introduced into the Stirling Management area will likely use similar forest types and prey on some of the same species as do California spotted owls. Fishers have been observed "loafing" in spotted owl nest trees and they may prey on eggs or young in the nest (Gutierrez et al. 1995). Fishers may also be nest predators of barred owls, a significant competitor of spotted owls (Mazur et al. 1997). Fishers currently coexist with northern spotted owls in northwestern California and California spotted owls in the southern Sierra. Due to the typically low densities of fisher and northern spotted owl populations, possible predation of fishers on barred owls, and the fact that fishers and spotted owls coexist in many areas, Lewis and Hayes (2004) concluded that translocating fishers to Washington's Olympic peninsula would not have a significant adverse impact on spotted owl populations.

The American marten is considered a Sensitive Species by the U.S. Forest Service. Martens generally occupy mature, contiguous forests in western North America and, like fishers, predominantly use large trees, snags, and logs as resting sites. In California, marten are generally associated with mature forest conditions in the true fir, lodgepole pine, and subalpine conifer habitats. It is likely that there is competition between fishers and martens when they occur sympatrically. However, fishers and martens generally use different habitat types in California. Fishers are most often found at lower and middle elevations, primarily in mixed conifer and montane hardwood-conifer habitats. Martens are most often found at higher elevations within true fir, lodgepole pine, and subalpine conifer habitats. Therefore, though localized adverse competitive interactions between the species may result from an experimental reintroduction, it is unlikely that reintroduced fishers or their progeny will substantially displace martens from the higher-elevation habitats they currently occupy.

The Sierra Nevada red fox was listed as Threatened by CDFG in 1980 and is considered a Sensitive Species by the US Forest Service. Relatively little is known about the ecology of the Sierra Nevada red fox, and interactions between it and the fisher have not been documented. The fox is currently only known to occur in the vicinity of Lassen Volcanic National Park and its abundance appears extremely low. This species generally uses high elevation habitats (subalpine forests, talus slopes, montane chaparral), especially during the summer. The limited abundance and limited current distribution of the Sierra Nevada red fox, as well its propensity to utilize high elevation habitats, suggest that the likelihood of adverse interactions with reintroduced fishers in the southern Cascades and northern Sierra Nevada is low.

A single wolverine documented on the Tahoe National Forest in 2008 represents the only verified contemporary record of a wolverine in California. Despite occasional contemporary sighting reports of wolverines in the Sierra Nevada, principally by inexperienced observers, no others have been documented by photograph, track, or carcass in many years. Although wolverines use high-elevation coniferous forest habitats, their significant use of non-forest subalpine and alpine habitats distinguishes them from fishers. If wolverines persist in the Sierra Nevada, they occur at extremely low densities. The rare status of the wolverine, coupled with its use of very high-elevation habitats, makes interactions between translocated fishers and wolverines unlikely.

Additional supporting information regarding the potential for interactions between fishers and these special interest species is included in the Department's *Translocation Plan* for the project (Callas and Figura 2008). Although fishers may interact with individuals of some or all of these species after translocation, these interactions are not expected to result in substantial adverse effects on the populations of these special interest species.

As fisher co-evolved with each of the species mentioned above, and all were apparently more abundant when they co-existed together, it is equally plausible that fisher may not have an adverse effect on these other species, but instead a positive effect through unstudied interspecific relationships among species, among and between predators/prey, among prey species, and modification of social behavior/interactions and influences on the various prey species that have their own interspecific hierarchy of interactions. As fisher returning to historic range would be considered a significant step toward restoration of a forest community, the overall effects would be considered a positive rather than a negative impact on other species.

b) The project will not involve any construction, land alteration, or land use changes. Riparian habitats and other sensitive natural communities will not be affected by the project.

c) The project will not involve any construction, land alteration, or land use changes. Wetlands will not be affected by the project.

d) The project will not involve any construction, land alteration, or land use changes. It will not interfere with the movement of native fish and wildlife species or interfere with wildlife movement corridors.

e) The project will not involve any construction, land alteration, or land use changes. It will not conflict with any local policies or ordinances protecting biological resources.

f) The project will not involve any construction, land alteration, or land use changes. It will not conflict with the provisions of any approved local, regional, state, or federal habitat conservation plans.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **V. CULTURAL RESOURCES** -- Would the project: | | | | |
| a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5? | ❒ | ❒ | ❒ | ☒ |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5? | ❒ | ❒ | ❒ | ☒ |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | ❒ | ❒ | ❒ | ☒ |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | ❒ | ❒ | ❒ | ☒ |

DISCUSSION

a) The project will not involve any construction, land alteration, or land use changes. It will not affect any historical resources.

b) The project will not involve any construction, land alteration, or land use changes. It will not affect archaeological resources.

c) The project will not involve any construction, land alteration, or land use changes. It will not affect paleontological resources or unique geological features.

d) The project will not involve any construction, land alteration, or land use changes. It will not disturb any human remains.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **VI. GEOLOGY AND SOILS** -- Would the project: | | | | |
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | ☐ | ☐ | ☐ | ☒ |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | ☐ | ☐ | ☐ | ☒ |
| ii) Strong seismic ground shaking? | ☐ | ☐ | ☐ | ☒ |
| iii) Seismic-related ground failure, including liquefaction? | ☐ | ☐ | ☐ | ☒ |
| iv) Landslides? | ☐ | ☐ | ☐ | ☒ |
| b) Result in substantial soil erosion or the loss of topsoil? | ☐ | ☐ | ☐ | ☒ |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | ☐ | ☐ | ☐ | ☒ |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | ☐ | ☐ | ☐ | ☒ |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? | ☐ | ☐ | ☐ | ☒ |

DISCUSSION

a) The project will not involve any construction or land alteration, and will not result in the increased exposure of people or structures to seismic and landslide risks.

b) The project will not involve any construction or land alteration, and will not result in soil erosion or the loss of topsoil.c) The project will not involve any construction or land alteration, and will not result in an increased risk to people or property risk from any type of soil instability.

d) The project will not involve any construction or land alteration, and will not create risks to life or property resulting from the movement of expansive soils.

e) The project will not involve any construction or land alteration, and no septic tanks or waste water disposal systems will be utilized or installed as part of the project.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **VII. HAZARDS AND HAZARDOUS MATERIALS** -- Would the project: | | | | |
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | ☐ | ☐ | ☐ | ☒ |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | ☐ | ☐ | ☐ | ☒ |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | ☐ | ☐ | ☐ | ☒ |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | ☐ | ☐ | ☐ | ☒ |
| e) For a project located within 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, would the project result in a safety hazard for people residing or working in the project area? | ☐ | ☐ | ☐ | ☒ |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | ☐ | ☐ | ☐ | ☒ |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☐ | ☒ |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | ☐ | ☐ | ☐ | ☒ |

**DISCUSSION**

a) The project will not involve the transport, use, or disposal of hazardous materials.

b) The project will not involve the transport, use, or disposal of hazardous materials.

c) The project will not involve the transport, use, or disposal of hazardous materials.

d) The project will not be located on a hazardous material site.

e) The project will not be located within an airport use plan area.

f) There are no airstrips within the project area.

g) The project will not involve any construction, land alteration, or land use changes. It will thus not interfere with the implementation of emergency response or evacuation plans.

h) The project will not involve any construction, land alteration, or land use changes. It will not expose people or structures to a significant risk of loss, injury, or death related to wildfire.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **VIII. HYDROLOGY AND WATER QUALITY** -- Would the project: | | | | |
| a) Violate any water quality standards or waste discharge requirements? | ☐ | ☐ | ☐ | ☒ |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | ☐ | ☐ | ☐ | ☒ |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | ☐ | ☐ | ☐ | ☒ |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | ☐ | ☐ | ☐ | ☒ |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | ☐ | ☐ | ☐ | ☒ |
| f) Otherwise substantially degrade water quality? | ☐ | ☐ | ☐ | ☒ |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | ☐ | ☐ | ☐ | ☒ |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | ☐ | ☐ | ☐ | ☒ |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | ☐ | ☐ | ☐ | ☒ |

| | | | | |
|---|---|---|---|---|
| j) Inundation by seiche, tsunami, or mudflow? | ❒ | ❒ | ❒ | ☒ |

**DISCUSSION**

a) The project will not involve any construction, land alteration, water use, or water discharge.

b) The project will not involve any construction, land alteration, or groundwater use.

c) The project will not involve any construction or land alteration, and thus will not alter drainage patterns in the project area.

d) The project will not involve any construction or land alteration, and thus will not alter drainage patterns in the project area.

e) The project will not involve any construction or land alteration, and thus will not have any impact on runoff within the project area.

f) The project will not involve any construction or land alteration, and thus will not have any adverse impacts on water quality.

g) The project will not involve any construction or land alteration. No new housing will be constructed.

h) The project will not involve any construction or land alteration. No new structures will be associated with the project.

i) The project will not involve any construction, land alteration, or land use changes. No people or structures will be exposed to new risks related to flooding as a result of the project.

j) The project will not involve any construction, land alteration, or land use changes. The risks of inundation due to seiche, tsunami, or mudflow will not change as a result of the project.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **IX. LAND USE AND PLANNING**<br>-- Would the project: | | | | |
| a) Physically divide an established community? | ☐ | ☐ | ☐ | ☒ |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | ☐ | ☐ | ☐ | ☒ |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | ☐ | ☐ | ☐ | ☒ |

**DISCUSSION**

a) The project will not involve any construction, land alteration, or land use changes. Thus, no established communities will be physically divided.

b) The project will not involve any construction, land alteration, or land use changes. The project will not conflict with the land use plans, policies, or regulations of the agencies with jurisdiction over the project.

c) The project will not involve any construction, land alteration, or land use changes. The project will not conflict with any habitat conservation plans or natural community conservation plans.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **X. MINERAL RESOURCES** -- Would the project: | . | . | . | . |
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | ❒ | ❒ | ❒ | ☒ |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | . ❒ | . ❒ | . ❒ | . ☒ |

**DISCUSSION**

a) The project will not involve any construction, land alteration, or land use changes. Mineral resources will not be affected by the project.

b) The project will not involve any construction, land alteration, or land use changes. Mineral resources will not be affected by the project.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XI. NOISE** -- Would the project result in: | | | | |
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | ☐ | ☐ | ☐ | ☒ |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | ☐ | ☐ | ☐ | ☒ |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | ☐ | ☐ | ☐ | ☒ |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | ☐ | ☐ | ☒ | ☐ |
| e) For a project located within 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, would the project expose people residing or working in the project area to excessive noise levels? | ☐ | ☐ | ☐ | ☒ |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | ☐ | ☐ | ☐ | ☒ |

**DISCUSSION**

a) The project will not involve construction or physical alteration of land, and its implementation will not involve the generation of noise levels in excess of agency standards.

b) Implementation of the project will not result in groundborne vibration or substantial groundborne noise levels. Groundborne noise associated with the project will only involve occasional pick-up truck traffic on existing public and private roads.

c) The project will not involve construction or physical alteration of land, or the creation of any permanent noise sources.

d) Radio-collared fishers in the project area will frequently be monitored by a single-

engine airplane and occasionally by a helicopter. The aircraft will fly throughout the project area and its vicinity until telemetry signals from each fisher are located and the coordinates of each animal can be recorded. The aircraft may sometimes fly at relatively low elevations while locating a collared animal. After each fisher establishes a home range and begins to exhibit fidelity to that particular area, the amount of time that the aircraft will spend over the project area searching for signals will lessen. It is likely that several monitoring flights per week will occur for the duration of the project. The maximum number of flights will be one per day.

Aircraft flying at low elevation will result in a periodic increase in the ambient noise levels within the project area. However, the aircraft will only linger over specific locations for brief periods while locating a specific animal, and then will move to locate another animal. Additionally, the project area is zoned as timber production zone and is very sparsely populated. Therefore, the temporary increases in ambient noise resulting from monitoring flights will not be significant to humans within the project area. Because the monitoring aircraft will be relatively quiet (i.e., single engine airplanes and helicopters rather than jets) and because the aircraft will only linger over specific areas short periods, the temporary noise increases will also not significantly affect wildlife within the project area.

e) The project will not be located within an airport use plan area or within two miles of a public airport or public use airport.

f) The project will not be located within the vicinity of a private airstrip.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XII. POPULATION AND HOUSING** -- Would the project: | . | . | . | . |
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | ❒ | ❒ | ❒ | ☒ |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | . ❒ | . ❒ | . ❒ | . ☒ |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | . ❒ | . ❒ | . ❒ | . ☒ |

**DISCUSSION**

a) The project will not involve any construction, land alteration, or the creation of new infrastructure. It will not induce population growth in or adjacent to the project area.

b) The project will not involve any construction, land alteration, or land use changes. No existing housing units will be displaced or affected.

**c)** The project will not involve any construction, land alteration, or land use changes. No residents of the project area or its vicinity will be displaced by the project.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XIII. PUBLIC SERVICES** – Would the project: | | | | |
| a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: | | | | |
| Fire protection? | ☐ | ☐ | ☐ | ☒ |
| Police protection? | ☐ | ☐ | ☐ | ☒ |
| Schools? | ☐ | ☐ | ☐ | ☒ |
| Parks? | ☐ | ☐ | ☐ | ☒ |
| Other public facilities? | ☐ | ☐ | ☐ | ☒ |

**DISCUSSION**

a) The project will not involve any construction, land alteration, or land use changes. Public services will not be affected by the project.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XIV. RECREATION** – would the project: | | | | |
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | ☐ | ☐ | ☐ | ☒ |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | ☐ | ☐ | ☐ | ☒ |

**DISCUSSION**

a) The project will not involve any construction, land alteration, land use changes, or population changes. The use of existing parks and recreation facilities within or adjacent to the project area will not be affected.

b) The project will not involve any construction, land alteration, or land use changes. No recreational facilities will be utilized or constructed as a result of the project.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XV. TRANSPORTATION/TRAFFIC** -- Would the project: | | | | |
| a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)? | ☐ | ☐ | ☐ | ☒ |
| b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways? | ☐ | ☐ | ☐ | ☒ |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | ☐ | ☐ | ☐ | ☒ |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | ☐ | ☐ | ☐ | ☒ |
| e) Result in inadequate emergency access? | ☐ | ☐ | ☐ | ☒ |
| f) Result in inadequate parking capacity? | ☐ | ☐ | ☐ | ☒ |
| g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? | ☐ | ☐ | ☐ | ☒ |

**DISCUSSION**

a) The project will not involve any construction, land alteration, land use changes, or population changes. Increases in traffic resulting from the project will involve only occasional pick-up traffic on existing rural forest/logging roads as project staff visited the area to monitor fishers and habitat conditions.

b) The project will not involve any construction, land alteration, land use changes, or population changes. Its implementation will not result in traffic service level standards being exceeded.

c) The project will involve regular monitoring flights by a single-engine airplanes and/or a helicopter. These flights will not result in changes to local air traffic patterns nor will they represent substantial changes in air traffic levels. Substantial new air traffic-related safety risks will not result from the project.

d) The project will not involve any construction or land alteration, including road construction. It will occur on rural timberland. The project will not affect or increase traffic and road hazards.

e) The project will not involve any construction or land alteration, and will occur on rural timberland. Emergency access within or adjacent to the project area will not be affected by the project.

f) The project will not involve any construction or land alteration, and will occur on rural timberland. Parking capacity within or adjacent to the project area will not be affected by the project.

g) The project will not involve any construction or land alteration, and will occur on rural timberland. It will not conflict with adopted policies, plans, or programs supporting alternative transportation.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XVI. UTILITIES AND SERVICE SYSTEMS** -- Would the project: | | | | |
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | ☐ | ☐ | ☐ | ☒ |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | ☐ | ☐ | ☐ | ☒ |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | ☐ | ☐ | ☐ | ☒ |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | ☐ | ☐ | ☐ | ☒ |
| e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | ☐ | ☐ | ☐ | ☒ |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | ☐ | ☐ | ☐ | ☒ |
| g) Comply with federal, state, and local statutes and regulations related to solid waste? | ☐ | ☐ | ☐ | ☒ |

**DISCUSSION**

a) The project will not involve any construction or land alteration. Wastewater treatment requirements will not be exceeded.

b) The project will not involve any construction or land alteration, including the construction or expansion or water or wastewater treatment facilities.

c) The project will not involve any construction, land alteration, or the creation of new infrastructure. No storm water drainage facilities will be constructed or expanded as a

result of the project.

d) The project will not involve any construction, land alteration, or the creation of new infrastructure. No new or expanded water supply entitlements will be needed in order to implement the project.

e) The project will not involve any construction, land alteration, or the creation of new infrastructure. The project area consists of rural timberland, and little or no wastewater will be produced as a result of the project.

f) The project will not involve any construction, land alteration, or the creation of new infrastructure. The project area consists of rural timberland, and little or no solid waste will be produced as a result of the project.

g) The project will not involve any construction, land alteration, or the creation of new infrastructure. The project area consists of rural timberland, and its implementation will be in compliance with applicable statutes and regulations related to solid waste.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XVII. MANDATORY FINDINGS OF SIGNIFICANCE** – Would the project: | | | | |
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare or threatened species, or eliminate important examples of the major periods of California history or prehistory? | ☐ | ☐ | ☒ | ☐ |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | ☐ | ☐ | ☒ | ☐ |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | ☐ | ☐ | ☐ | ☒ |

**DISCUSSION**

a) The U.S. Fish and Wildlife Service considered the West Coast Distinct Population Segment of the fisher (which includes the California populations) to be a Candidate for listing pursuant to the federal Endangered Species Act in 2004. The Fish and Wildlife Service however, is supportive and a partner agency of this project as a means to enhance the fisher population.

In its evaluation of a petition to list the fisher as threatened or endangered pursuant to the California Endangered Species Act (CESA), the Department of Fish and Game recently (2008) concluded “there is not sufficient information at this time to indicate that the petitioned action may be warranted”. Further, the Fish and Game Commission concurred with this recommendation in August 2008. Therefore, the Department does not consider the fisher to be a rare, threatened, or endangered species (as defined in Section 15380 of the CEQA Guidelines).

The Sierra Nevada red fox and the wolverine are threatened species that could potentially be affected by this project. The potential effects of this project upon these species are detailed in Section IV (Biological Resources) of this Initial Study. Both

species generally use different habitats than the fisher, are extremely rare, and are not known to occur in the vicinity of the Stirling Management Area. The introduction of fishers into the Stirling Management Area will not substantially reduce the number or restrict the range of the fox of the wolverine, and thus, any impacts to these species will not be significant.

b) Fisher population trends in northwestern California are unknown. While the fisher's overall distribution in California has contracted since Euro-American settlement, its distribution in northwestern California seems to have changed relatively little since the 1920s (U.S. Fish and Wildlife Service 2008). Removing up to 40 animals from widely scattered subpopulations over a three-year period will be very unlikely to affect the fisher's distribution and population size in northwestern California (see detailed discussion in Section IV (Biological Resources). Potential cumulative adverse impacts from the proposed project are not anticipated to be significant. If successful, the project will re-establish the fisher in a significant portion of its former range, benefiting the species in California and countering the past impacts that resulted in its apparent extirpation from the southern Cascades and northern Sierra.

c) The project will not involve any construction, land alteration, or the creation of new infrastructure. The project will not cause either direct or indirect substantial adverse affects on human beings.

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## PERSONAL COMMUNICATIONS

Dr. Carlos Carroll, Klamath Center for Conservation Research. Email reply to Pete Figura, California Department of Fish and Game. April 14, 2008.

Dr. Roger Powell, North Carolina State University. Email to Richard Callas, California Department of Fish and Game. October 24, 2008.