

10.1 Introduction

The federal Endangered Species Act (ESA) requires that Section 10 permit applicants specify in a Habitat Conservation Plan (HCP) what alternative actions to the take of federally listed species were considered and the reasons why those alternatives were not selected. The *Endangered Species Consultation Handbook* (U.S. Fish and Wildlife Service and National Marine Fisheries Service 1998) identifies two types of alternatives commonly used in HCPs: (1) an alternative that would reduce take below levels anticipated under the HCP and (2) an alternative that would avoid take and, hence, not require a permit from the U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS).

This chapter identifies the alternative measures considered that would reduce or avoid the potential for take of species covered in the Butte Regional Conservation Plan. The alternatives to take (i.e., take alternatives) addressed in this chapter are the No Take Alternative, Project-by-Project Permitting Take Alternative, Reduced Number of Covered Species Take Alternative, and Reduced Permit Term Take Alternative. These take alternatives are assessed in relation to the effects on covered species described in Chapter 4, *Effects of Covered Activities*, for the proposed conservation strategy and covered activities.

As part of National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) process, a wider range of project alternatives has been identified and evaluated in the Plan's Environmental Impact Statement/Environmental Impact Report (EIS/EIR). The analysis of take alternatives in this chapter serves a specific and narrow regulatory purpose, which is separate and distinct from the analysis of project alternatives under CEQA and NEPA.¹ The EIS/EIR for the BRCP identifies a reasonable range of project alternatives and evaluates the potential environmental impacts of those alternatives on resources in relation to the no-action or no-project alternative.

10.2 No Take Alternative

An alternative that would restrict BRCP covered activities to avoid all adverse effects on covered wildlife and fish species and avoid all take of federally listed species would obviate the need for issuance of incidental take permits (ITPs) by USFWS and NMFS. This alternative that would avoid all incidental take was rejected because it would (1) severely constrain the implementation of the general plans and thus preclude achieving the objectives for planned growth and development, including providing state-mandated Regional Housing Need Allocations (RHNA) in the County and cities; (2) preclude improvements and maintenance of infrastructure supporting the health, safety, and economy of the Plan Area (e.g., road construction, improvements, and maintenance; wastewater systems improvements and maintenance; solid waste capacity expansion; and agricultural water

¹ The term *take alternative* refers to take alternatives associated with the Plan; the term *alternative* refers to the project alternatives evaluated in the EIR/EIS.

conveyance facilities improvement and maintenance); and (3) eliminate the need for the BRCP Conservation Strategy and thus preclude implementing actions that exceed mitigation of impacts and would contribute to the recovery of covered wildlife and fish species.

10.3 Project-by-Project Alternative

Under the Project-by-Project Alternative, proponents of each covered activity or project, public or private, would seek their own take authorization as needed to conduct activities that are likely to result in take of a federally listed (and/or state-listed) species. The BRCP's comprehensive regional planning approach would contribute to the preservation and enhancement of functioning habitat blocks and linkages. Under the Project-by-Project Alternative, a landscape-level reserve system would not be established. Rather, the Plan Area's landscape might end up as a mosaic of small, protected land parcels surrounded by development or other disturbances, with potentially no connectivity between the protected areas. This could lead to greater adverse effects on listed species and a decrease in the species' ability to recover and thrive. Comprehensive regional planning also would protect a broader number of species than the Project-by-Project Permitting Take Alternative's approach.

Additionally, the activities described in Chapter 2, *Covered Activities*, make project-by-project permitting logistically challenging for the Permittees. Project-by-project permitting would increase the burden on USFWS and NMFS (and California Department of Fish and Wildlife, U.S. Army Corps of Engineers, and U.S. Environmental Protection Agency, and the Regional Water Quality Control Board) compared with the BRCP, which will coordinate and streamline the permitting process by allowing local entities to issue state and federal permits. With this streamlined process, both costs and uncertainties would be reduced substantially, thus ensuring a more efficient use of public dollars.

Finally, the BRCP addresses changed circumstances (Chapter 6, *Implementation*) that a project-by-project approach does not cover proactively. In this way, the proposed BRCP offers greater operational flexibility and integrates better planning and budgeting to address rare but foreseeable events (such as wildfires) in the Plan Area.

The Project-by-Project Alternative was rejected because the BRCP provides a biologically superior mitigation approach, increases administrative efficiency for the Permittees and the permitting agencies, and provides operational streamlining for changed circumstances.

10.4 Reduced Number of Covered Species Take Alternative

The Reduced Number of Covered Species Take Alternative would reduce the number of species on the proposed covered species list to those that are listed as threatened or endangered under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA) and eliminate from the list species that are not currently protected under the ESA or CESA. Eliminating nonlisted species would result in a covered species list of 10 wildlife species, three fish species, and five plant species : tricolored blackbird, western yellow-billed cuckoo, greater sandhill crane, California black rail, Swainson's hawk, white-tailed kite, giant garter snake, Central Valley steelhead,

Central Valley Spring-Run Chinook salmon, green sturgeon, valley elderberry longhorn beetle, vernal pool tadpole shrimp, Conservancy fairy shrimp, vernal pool fairy shrimp, Hoover's spurge, Butte County meadowfoam, hairy Orcutt grass, slender Orcutt grass, and Greene's tuctoria . This revised list would not include four wildlife species, one fish species, and one plant species: western burrowing owl, western pond turtle, foothill yellow-legged frog, western spadefoot, and Central Valley fall-/late fall-run Chinook salmon, and Butte County checkerbloom.

The Reduced Number of Covered Species Take Alternative would result in the same level of take for the species covered by this alternative. However, for those species not covered under this alternative (i.e., the nonlisted species), take is likely to increase compared to the BRCP because, based on their listing status, there are no laws restricting take of these species. Not including the nonlisted species in project planning means take of these species is likely to increase because measures to avoid or minimize effects on these species would not be required.

This alternative would provide some benefits to the Permittees in the short term because narrowing the list of covered species would reduce the Permittees' obligations to implement avoidance, minimization, mitigation, and conservation measures for these species, thereby reducing costs. However, covering fewer species would result in a biologically inferior program relative to the proposed Plan, and may require additional compliance (if species become listed) during the permit term.

The Reduced Number of Covered Species Take Alternative was rejected because it would result in less protection of and less mitigation for rare and sensitive species. Also, one or more of these rare and sensitive species might be listed in the future; if this were to happen, the Plan would not be authorized for take and any project affecting a newly listed species would be required to go through a separate permit process. In addition, this alternative could result in fewer long-term efficiencies as high-risk, nonlisted species become listed over the permit term.

10.5 Reduced Permit Term Take Alternative

The Reduced Permit Term Take Alternative includes the issuance of an ITP to authorize incidental take of the covered species in association with the covered activities discussed in Chapter 2, *Covered Activities*. Under this alternative, however, the term of the ITP would be 25 years rather than the 50 years identified under the proposed BRCP. Under the Reduced Permit Term Take Alternative, the types of effects on covered species resulting from the covered activities would be the same as or similar to those under the proposed BRCP. Implementing the avoidance and minimization measures listed in Chapter 6, *Conditions on Covered Activities*, would still minimize the effects. Authorized take levels for the covered species, however, would be less than those under the proposed Plan due to the reduced permit term.

This alternative would provide the Permittees with less flexibility than the proposed BRCP during project planning and implementation of the covered activities. The proposed BRCP provides sufficient time to accomplish the following critical elements of the Plan (as described in Section 1.3.6, *Permit Duration*).

- Implementation of current general plans
- Implementation of the Permittees' projects that are covered by the BRCP
- Implementation of the Permittees' conservation measures for the longest duration feasible

- Assembly of the Reserve System from willing sellers and partnerships with local agencies and private landowners
- Funding for BRCP implementation during the permit term and funding for management of the Reserve System in perpetuity
- Development of an effective adaptive management program that would be implemented in perpetuity, given the uncertainties about the ecology of covered species and appropriate responses to resource management
- Restoration and monitoring

A 50-year permit term provides sufficient incentive for the Permittees to commit the substantial resources necessary to implement and complete the Plan. The longer permit term covers all planned projects and conservation measures, making the large up-front investment in the Plan more cost-effective.

The Reduced Permit Term Alternative was rejected because it would cover less growth and development, which would result in an inadequate amount of funding for implementation of the BRCP and establishment of the Reserve System. Inadequate funding would reduce the amount of habitat protected and restored. A 50-year time frame, which would accommodate general plan development and the fee revenue it would provide, would ensure that the BRCP can achieve its biological goals and objectives.