

Resources for Landowners: Establishing Best Management Practices (BMPs) for Bumble Bees

Overview

In June 2019, the California Fish and Game Commission declared four species of bumble bee - Crotch bumble bee, Franklin's bumble bee, Western bumble bee, and Suckley cuckoo bumble bee - [as candidate species](#) under the California Endangered Species Act (CESA). In an effort to provide California's agricultural industry with information to help protect these species from potential adverse impacts, California Department of Food and Agriculture has partnered with the California Department of Fish and Wildlife and the California Department of Pesticide Regulation to compile available resources including guidance on pesticide use, habitat management options, funding opportunities, and general regulatory information.

Pesticide Use

- [US EPA's Bee Advisory Box](#): Understanding EPA's pesticide label to protect pollinators
- [Protecting Bees and Other Pollinators from Pesticides](#): US EPA guidance and resources, including Risk Assessment
- UC IPM's [Best Management Practices to Protect Bees from Pesticides](#)
- [How to Reduce Bee Poisoning from Pesticides](#): Pacific Northwest Extension Publication (PNW 591)
- Xerces Society's [Guidance to Protect Habitat from Pesticide Contamination](#)
- Health Canada's [Pollinator Protection and Responsible Use of Treated Seed](#)

Searchable tools:

- [PRESCRIBE](#): DPR's digital database to help pesticide applicators identify nearby endangered species and associated pesticide use limitations
- [Bee Precaution Pesticide Ratings](#): UC IPM's ratings for pesticide effects on bee species (categorized by active ingredient)

Habitat Management

- USDA and US DOI's [Pollinator-Friendly Best Management Practices for Federal Lands](#): Guidance for identification of pollinator habitat sites and BMPs to protect pollinators when taking management actions
- NRCS and Xerces Society's [Pollinator Biology and Habitat in California](#): Management practices that protect pollinators, including protection for ground nesting bees
- Xerces Society's [Conserving Bumble Bees](#) and [Bumble Bee Conservation](#): Includes BMPs (e.g. timing) for mowing, fire, grazing, and tillage

- Xerces Society's [Maintaining Diverse Stands of Wildflowers Planted for Pollinators](#)

Habitat Creation

- NRCS and Xerces Society's [Conservation Cover for Pollinators in the Central Valley, Central Coast, and Southern California](#)
- UC ANR's [Establishing Hedgerows on Farms in California](#) and NRCS and Xerces Society's [Hedgerow Planting for Pollinators](#)

Funding Opportunities

- CDFA's [Healthy Soils Program](#): Eligible practices include cover cropping and conservation plantings
- NRCS's [Environmental Quality Incentives Program](#) and [Conservation Stewardship Program](#): Includes eligible practices that can benefit pollinators
- Project Apis m.'s [Seeds for Bees](#): Provides seeds to support honeybees, with co-benefits to native bees

Regulatory Information

- California Endangered Species Act
 - Fish and Game Code: [Division 3, Chapter 1.5, Endangered Species Act, Section 2050-2089.26](#) (includes the statutes for VLPs (2086-2089) and SHAs (2089.2-2089.6))
 - California Code of Regulations: [Title 14, Chapter 6, Regulations for Implementation of the California Endangered Species Act and Native Plant Protection Act](#) (includes VLPs 786-786.7)
 - California Fish and Game Commission [CESA webpage](#): Provides overview of the CESA listing process and information on the petition to list the four bumble bee species
 - California Department of Fish and Wildlife
 - Main [CESA webpage](#): Provides basic information on CESA listed species, permitting requirements, and links to additional resources.
 - [CESA Permitting webpage](#):
 - CDFW [Safe Harbor Agreements](#)
- California Department of Pesticide Regulation
 - [Pollinator Protection Page](#)