



**BLOOM BIOLOGICAL INC.**  
research | consulting | conservation



## Statement of Qualifications 2021

Los Angeles - Santa Ana - San Diego | phone 949-272-0905 | [www.bloom.bio](http://www.bloom.bio)



For more than 40 years, Bloom Biological, Inc. (BBI) has provided biological consulting services for large and small clients. Our resume of services includes raptor and endangered species research, biological monitoring, impact assessment, permitting, conservation planning and geospatial analysis. Our innovative approach has provided solutions to complex problems for clients and projects throughout a range of industries including alternative energy, residential development and the public sector. Collectively, the management and staff of BBI hold permits or memoranda of understanding for participating in the conservation and recovery of more than a dozen endangered or threatened species, as well as several other special-status species, in California and the western United States. Over the years, BBI has established an impeccable relationship with the resource agencies, project proponents, and environmental organizations by skillfully balancing the needs and objectives of land planning, resource conservation, and the public interest. In addition to our work in California and the western United States, BBI biologists have worked in Alaska, Central and South America, Europe, Southern Asia, and the western Pacific. BBI has been in business as Bloom Biological, Inc. for 16 years (2005-present), and our Founder/Vice-President operated Bloom Biological as a sole proprietor since 1997. We are currently a certified Woman-owned Business Enterprise and (WBE) and Small Business Enterprise (SBE).

BBI has enjoyed a long and successful working relationship with the U.S. Fish and Wildlife Service, U.S. Forest Service, Bureau of Land Management, Department of Defense, California Department of Fish and Game, California State Parks, CalTrans, University of California, Davis, Southern California Edison, San Diego Gas & Electric, the Transportation Corridor Agencies, and the counties of Orange, Riverside, and San Diego. As a small company, we focus our efforts on each client, responding to issues, concerns and questions as they arise. We have established an impeccable relationship with resource agencies, project proponents, and environmental organizations by skillfully balancing the needs and objectives of land planning, resource conservation, and the public interest. This approach of combining our knowledge and expertise with the specific needs of our clients, allows us to provide the highest level of work from pre-construction, study design and implementation, to surveys and monitoring and finally analysis and report writing.

Our goal is to create relationships that last beyond the individual project by providing exemplary service and exceeding client expectations. We take great pride in keeping abreast of the latest science, guidelines and protocols, and publishing our research efforts frequently in peer reviewed journals. In this way, our clients can know that they are getting the highest quality of work and attention to detail available.

Our staff biologists have familiarity preparing documents that fulfill the requirements of the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), federal and state Endangered Species Acts (federal ESA Section 10(a) permits and Section 7 consultation, state ESA Section 2081 permits), single and multiple-species habitat conservation plans, and other regulatory requirements. Examples of this work include nesting bird surveys and environmental assessments for various entities such as Southern California Edison, San Diego Gas & Electric, Metropolitan Water District, as well as, preparing nesting bird management plans for two major Southern California Transmission line projects, and providing biological monitors, nesting bird survey specialists, and botanists for several such projects during the initial, pre- construction, construction and restoration phases.

**Bloom Biological Inc. is certified  
WBE - Women's Business Enterprise, and SBE - Small Business Enterprise.**



## OUR SERVICES

### *RAPTOR RESEARCH*

Founder and Vice President, Peter H. Bloom, Ph.D., is an internationally acclaimed raptor biologist, having spent more than four decades studying, banding, and tracking hawks, eagles, kites, condors, and owls, and working with landowners and the regulatory agencies in conserving their habitats. Dr. Bloom has published on the biology of raptors in more than 40 peer-reviewed scientific papers and technical reports and has spent over 1000 hours conducting helicopter and fixed-wing nest survey work and aerial radio-tracking of raptors. He and colleagues have captured more than 950 Golden Eagles and more than 35,000 other raptors, mostly nestlings, in a quest to learn more about the importance of natal dispersal, philopatry, movements, and unusual migration patterns as they relate to conservation biology. BBI also employs many lead and supporting biologists with raptor expertise.

Having previously directed the successful efforts to capture all remaining wild free flying California Condors (*Gymnogyps californianus*) in the 1980's, BBI has also been called upon by numerous clients to provide expertise on this highly-endangered species. Recent projects include a fatal flaw analysis for AES Wind, a condor conservation and management plan for Tejon Ranch Corporation, consultation regarding the condor for Yokohl Ranch, fatal flaw analyses for Padoma Wind in San Benito, Mendocino and Monterey counties, and consultation on the condor for the Alta-Oak Creek Mojave wind project at the Tehachapi Wind Resource Area.

In addition to the condor projects listed above, BBI is also called upon frequently to advise on the effects or potential effects of wind power on raptors and other birds. As such, BBI has provided consulting services for Altamont Pass; the Homestead, Manzanita and Pine Tree projects at the Tehachapi Wind Resource Area; and the Mesa Wind project near Palm Springs. BBI has also provided similar field studies and technical guidance for proposed solar projects, including the Rice, Rio Mesa, and Palen solar projects between Palm Springs and Blythe, the Hidden Hills solar project near Las Vegas, and the Panoche solar project in San Benito County.



## *BIOLOGICAL SURVEYS AND MONITORING*

BBI staff can perform any survey for any biological resource anywhere in the State of California. BBI biologists also have experience and selected permits to conduct surveys for species outside of the State of California. Our services range from standard, agency-mandated protocol surveys for endangered, threatened, and sensitive species, to carefully developed and project-specific surveys for a wide array of resources, including protocol designs subject to rigid statistical analysis as is becoming commonplace for solar and wind energy siting cases.

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Recently, BBI has provided highly-regarded biological monitors for the following projects:

- Tehachapi Renewable Transmission Project (Southern California Edison and ICF International), Kern and Los Angeles Counties, California
- Construction at MCAS Camp Pendleton (LSA), San Diego County, California
- Devers-Palo Verde 2 Transmission Project (Southern California Edison and CH2MHILL), Riverside and San Bernardino Counties, California
- Various tree trimming projects (Southern California Edison) throughout southern California.

Work to conduct surveys for endangered and threatened species has been completed by BBI on the following projects:

- Several detention basins (County of San Bernardino), San Bernardino County, California
- Newhall Ranch (Newhall Land), Los Angeles County, California
- Dam removal project in the San Bernardino Mountains (PSOMAS), Riverside and San Bernardino Counties, California
- Los Angeles Department of Water and Power facilities (ESA), Los Angeles County, California
- BBI has also conducted recent, large-scale bird counts on several proposed wind and solar facilities in the California deserts.

## *HABITAT ASSESSMENTS & DUE DILLIGENCE*

BBI uses the latest in field techniques and computer technology to assess a study area's habitat composition and determine the potential presence of sensitive biological resources. BBI biologists have many years of experience conducting general habitat assessments and due diligence studies. These are often the first steps in determining the types of surveys and other studies likely to be required during environmental review for elucidating project impacts and shaping feasible mitigation measures. BBI biologists are capable and experienced in evaluating a site's potential to support endangered or otherwise sensitive species or their habitat, evaluating the nature and significance of project impacts on these resources, and working with project proponents in developing feasible mitigation measures to avoid, eliminate, or reduce these impacts.

BBI biologists have also conducted due diligence analyses for many proposed residential developments in Southern California, as well as larger projects such as 35,000 acres north of Las Vegas and 50,000 acres near Albuquerque, New Mexico.

## *IMPACT ASSESSMENT & PERMITTING*

Our biologists have extensive experience preparing documents for alternative energy, residential development and other industries that fulfill the requirements of the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), federal and state Endangered Species Acts (federal ESA Section 10(a) permits and Section 7 consultation, state ESA Section 2081 permits), single and multiple-species habitat conservation plans, and other regulatory requirements.

Proper and accurate documentation of findings is a crucial aspect of the environmental and regulatory compliance processes, and BBI prides itself in the abilities of its biologists to prepare highly professional, attractive, concise, and readable reports in a timely fashion to both its clients and the resource agencies, whether they be daily monitoring reports, monthly or annual summaries, or final documents.

BBI has assisted with the permitting of many a solar and wind projects under the Bald and Golden Eagle Protection Act. This work includes the design and implementation of field studies, reporting, collaboration with state and federal agencies, and the development of impact models and mitigation for Eagle Conservation Plans.

## STATISTICAL ANALYSIS & GIS

BBI's geospatial consulting services provide unmatched depth, detail and background to any analysis of potential project-related resources. Our cartography results in "artful" maps that make the data easy to understand and lend authority and clarity to your permitting documents.

BBI has taken a unique approach to geographic information systems by using a variety of open-source enterprise-level tools combined in a distinctive way. We utilize the most advanced techniques in GIS to retain and analyze all project data, from simple survey results to the most detailed impact analysis and mitigation planning. The outcome is a central database that drives consistency and efficiency in field data collection. Work products derived from our GIS system are not commonly found throughout the consulting community and improve the quality and appearance of BBI's reports.

# **SPECIES AND PERMITTING**

**BBI BIOLOGISTS ARE PERMITTED TO CONDUCT SURVEYS AND ANALYZE POTENTIAL PROJECT EFFECTS FOR MOST THREATENED AND ENDANGERED SPECIES OCCURRING IN THE STATE OF CALIFORNIA.**

## **Threatened and Endangered Species**

### **Birds**

- Bald Eagle (*Haliaeetus leucocephalus*)
- Swainson's Hawk (*Buteo swainsoni*)
- Peregrine Falcon (*Falco peregrinus*)
- Snowy Plover (*Charadrius nivosus*)
- California Least Tern (*Sterna antillarum browni*)
- Western Yellow-billed Cuckoo (*Coccyzus americanus*)
- Southwestern Willow Flycatcher (*Empidonax traillii extimus*)
- Least Bell's Vireo (*Vireo belli pusillus*)
- California Gnatcatcher (*Polioptila californicas*)

### **Mammals**

- Mohave Ground Squirrel (*Xerospermophilus mohavensis*)
- Pacific Pocket Mouse (*Perognathus longimembris pacificus*)

### **Reptiles & Amphibians**

- Desert Tortoise (*Gopherus agassizii*)
- Arroyo Toad (*Anaxyrus californicus*)
- California Red-legged Frog (*Rana draytonii*)
- Mountain Yellow-legged Frog (*Rana muscosa*)
- Invertebrates
- Delhi Sands Flower-loving Fly (*Rhaphiomidas terminatus abdominalis*)
- Quino Checkerspot Butterfly (*Euphydryas editha quino*)





# **SPECIES AND PERMITTING - continued**

## **Non-Agency-listed Sensitive Species**

### Birds

- Golden Eagle (*Aquila chrysaetos*)
- Northern Harrier (*Circus cyaneus*)
- Northern Goshawk (*Accipiter gentilis*)
- Burrowing Owl (*Athene cunicularia*)
- California Spotted Owl (*Strix occidentalis occidentalis*)
- Long-eared Owl (*Asio otus*)
- Short-eared Owl (*Asio flammeus*)
- Loggerhead Shrike (*Lanius ludovicianus*)
- Cactus Wren (*Campylorhynchus brunneicapillus*)

### Mammals

- San Diego Desert Woodrat (*Neotoma lepida intermedia*)
- Los Angeles Pocket Mouse (*Perognathus longimembris brevinasus*)
- Ringtail (*Bassariscus astutus*)
- American Badger (*Taxidea taxus*)
- Bighorn Sheep (*Ovis canadensis*)
- Bats

### Reptiles & Amphibians

- Coast Range Newt (*Taricha torosa torosa*)
- Western Spadefoot Toad (*Spea hammondi*)
- Western Pond Turtle (*Actinemys marmorata*)
- Orange-throated Whiptail (*Aspidoscelis hyperythra*)
- California Legless Lizard (*Anniella pulchra*)
- Coast Horned Lizard (*Phrynosoma coronatum*)
- Flat-tailed Horned Lizard (*Phrynosoma mcallii*)
- Mountain Kingsnake (*Lampropeltis zonata*)
- Two-striped Garter Snake (*Thamnophis hammondi*)
- South Coast Garter Snake (*Thamnophis sirtalis infernalis*)
- Southern Rubber Boa (*Charina umbratica*)



## **KEY SCIENTIFIC STAFF**

### **Peter H. Bloom, Ph.D. - Founder / Zoologist/ Vice President**

Dr. Bloom has been a professional environmental consultant for more than 40 years. He specializes in the environmental sciences, is an internationally recognized expert in raptor biology and conservation and possesses extensive knowledge and experience with all terrestrial vertebrate groups (amphibians, reptiles, birds, and mammals) and the vascular plants. Corporate clients for whom he has prepared or contributed to the production of numerous biological assessments and environmental impact reports include The Irvine Ranch Conservancy, Rancho Mission Viejo, Tejon Ranch, Newhall Ranch, Ahmanson Ranch, Metropolitan Water District, and Los Angeles Department of Water and Power. He has also worked extensively with the Department of Defense, U.S. Fish and Wildlife Service, National Park Service, Bureau of Land Management, U.S. Forest Service, California Department of Fish and Game, and various non-profit conservation groups providing valuable research and advice, primarily on raptor ecology and conservation. He has conducted avian and herpetological research in the western United States, Alaska, Peru, Ecuador, Europe and India and has been responsible for a wide variety of biological, ecological, and conservation studies ranging from local biological assessments to regional conservation planning. Dr. Bloom has published more than 40 peer-reviewed scientific papers and technical reports and taught California natural history at a local junior college for more than 12 years.

### **Kerry Ross - Biologist**

Kerry Ross has over 21 years of professional experience as an avian biologist, on a wide variety of field-based projects throughout California and Nevada. He is a well-traveled, avid birder and possesses superior field identification skills for raptors and all other avian taxa. Mr. Ross began working with BBI in 2015 and has performed a variety of avian surveys during that time and has utilized every protocol for bird surveys within California. He is adept at recording detailed data forms and spatial data while maintaining maximal coverage of each survey area. Mr. Ross has conducted a broad array of avian surveys for private sector, utility, and other municipalities in California, at locations in San Diego, San Bernardino, Riverside, Kern, Humboldt, Del Norte, Mendocino, Trinity and Sonoma counties, including construction and preconstruction surveys, and infrastructure-related surveys for wind farms and utility transmission lines. Avian sampling techniques employed included bird use count (BUC), eagle point count (EPC), linear transects, point counts along a transect line, and area bird surveys, all in accordance with published California Energy Commission and California Department of Fish and Wildlife (CDFW) guidelines for projects in California.

### **Rainey Barton - Biologist / Project Manager**

Ms. Barton provides services for a wide range of project sizes and types - from single family homes to large spanning utility projects. In her capacity as a PM, she serves as a communication point with staff, sub consultants, outside vendors, clients, and regulatory agencies ensuring that all project needs are met with close adherence to project timelines and budgets. In addition, Ms. Barton is an experienced field biologist, and has worked many various field-based projects throughout California and Louisiana. She has extensive experience with invasive species research and management, and habitat restoration. She also provides geospatial analysis and insight using a variety of Geographic Information System (GIS) platforms. Ms. Barton began working with BBI in 2019 and has performed a variety of power infrastructure-related surveys during that time at various SCE and private utility company transmission lines in addition to smaller-scale avian surveys conducted for private entities. She is adept at recording detailed and spatial data according to protocol while maintaining maximal coverage of each survey area.