

Appendix C Surveyor Qualifications

SHIRLEY INNECKEN

EDUCATION

- **B.S. Interdisciplinary Degree, Ethnobotanical Ecology, 1999**
California State University, Chico

EXPERIENCE

7 Years

- **California State University, Chico Research Foundation**
Environmental Project Coordinator
- **Streamminders**
Botanist
- **Department of Water Resources**
Scientific Aid
- **Kok'ee State Park, Kauai, HI**
Restoration Assistant

Shirley Innecken has over 7 years of experience conducting delineation of waters of the U.S. ranging from 5 to 2,400 acres, performs valley elderberry longhorn beetle surveys (VELB), rare plant surveys, and habitat classification and mapping for the California Department of Water Resources in Northern California. Ms. Innecken has also participated in the Camp Tehama science education segment of the camp annual elementary school retreat. For four consecutive years she co-taught a unit introducing students to the field of plant ecology. Her areas of expertise include delineation of waters of the U.S., general botanical surveys, rare plant surveys, habitat characterization, and VELB surveys. Her work experience includes providing botanical support for the Oroville Dam Hydroelectric Relicensing Project (Federal Energy Regulatory Commission) and the Sites Reservoir Feasibility Project. In addition, Ms. Innecken was the project coordinator and botanist for the *Big Chico Creek Stream Condition Inventory* and co-wrote the final document for the Big Chico Creek Watershed Alliance. Ms. Innecken was also employed by the CSUC Research Foundation as the Environmental Projects Coordinator for the Bidwell Environmental Institute. Her more recent work experience includes conducting protocol-level rare plant surveys and a wetland inventory for a 2,400 acre Butte County meadowfoam (BCM) preserve in the northern Sierra Nevada foothills, and conducting a wetland inventory for the 1,700 acre Wildlands-Daley Ranch Mitigation Bank project in Palermo, CA. Ms. Innecken was instrumental in preparing the innovative Greenway Management Plan for the New Urban Builders Meriam Park project, Chico, CA.

REPRESENTATIVE EXPERIENCE

Butte County Meadowfoam Preserve

Shirley Innecken led a comprehensive biological resource assessment on a 2,400-acre ranch in North Chico, CA. The assessment included the documentation of protocol-level special-status species surveys and a formal delineation of waters of the U.S.. Ultimately, previously unknown populations of Butte County meadowfoam, adobe lily, Bidwell's knotweed and wooly meadowfoam were documented. Ms. Innecken also delineated over 15 acres of wetlands including clay flats, vernal pools, vernal swales, seasonal wetlands, and drainages.

Floristic Inventories and Rare Plant Surveys

Ms. Innecken has a wide range of experiences conducting botanical surveys and preparing floristic inventories in a variety of habitats and bio-regions. She has worked extensively in Northern California between the San Francisco Bay and Southern Cascade Regions. She is knowledgeable about vernal species and habitat conditions, and protocols surveying for rare plant species such as orcutt grasses and Butte County meadowfoam. Ms. Innecken develops native plant schedules for restoration projects, vegetation maps using CWHR and other habitat classification systems, and species-specific mitigation plans for rare plants. Also, Ms. Innecken routinely performs soil sampling to assess and characterize wetland soil types.

New Urban Builders, Greenway Management Plan

Shirley Innecken prepared an innovative management plan aimed at improving the overall habitat health of Little Chico Creek while preserving mature riparian stands, and providing an attractive and functional community retreat. The plan included a habitat assessment, invasive species eradication and management plan, native landscaping plant list, management objectives, and a design consistent with local, state, and federal legislature. Shirley worked collaboratively with the City of Chico, and the Dinsmore Sierra and Alpine Landscaping firms in drafting the final plan.

Willow Creek and Shasta Valley Wildlife Areas Updated Management Plan, CDFG

Ms. Innecken is currently compiling biological data to update the Shasta Valley Wildlife Area and Willow Creek Wildlife Area Management Plans. The tasks involved in preparing these plans include review of existing literature, field surveys, data analysis, habitat classification, and coordination between both federal and state agencies. The updated plan will include habitat and species descriptions, an inventory of all wetland resources, management goals, and a public use discussion which will include hunting and educational opportunities.

CHRISTY DAWSON

EDUCATION

- **B.S., Fisheries and Wildlife Sciences – Emphasis in Wildlife**, 2000
North Carolina State University, Raleigh

EXPERIENCE

5 Years

- **United States Forest Service**
Biological Science Technician
- **Dr. J.H. Carter III & Associates, Inc., North Carolina**
Biological Science Technician

Ms. Dawson has over 5 years of professional experience in natural resource management and regulatory compliance. She specializes in Endangered Species Act Compliance, Clean Water Act compliance and permitting, and mitigation planning. Currently, Ms. Dawson is a project manager at Gallaway Consulting and is responsible for several large public works projects in Butte, Yolo, and Sutter Counties. These projects require a multidisciplinary approach and Ms. Dawson manages sub-consultants, staff, data collection, budgets, and routinely meets with clients to communicate project progress. Ms. Dawson routinely performs delineation of waters of the U.S., wildlife surveys, raptor surveys, and is responsible for original research and report preparation. She is qualified to conduct protocol-level surveys for endangered aquatic invertebrates, and the valley elderberry longhorn beetle (VELB). She has worked closely with developers, the USFWS, and the COE to design projects that avoid impacts to the greatest extent possible and has developed appropriate mitigation strategies, mitigation and monitoring plans, and open space preserve plans for single and multi-species impacts as well as wetlands. Ms. Dawson stays current with recent studies, current literature, HCP's, and proposed USFWS policy regarding mitigation. In addition, Ms. Dawson regularly conducts multi-species raptor surveys for spotted owls, Swainson's hawk, burrowing owl, northern goshawk, Cooper's hawk, and white-tailed kite.

REPRESENTATIVE EXPERIENCE

Project Management

Ms. Dawson is currently managing multiple projects for Gallaway Consulting. In this capacity, she is responsible for managing timelines and budgets, staff workload, maintaining internal communication, reviewing products for quality control, and coordinating with clients and regulatory agencies to identify and implement alternatives and conservation strategies. Current management projects include the Willow Creek and Shasta Valley Management Plans, the Feather River Recreation

and Park District Riverbend Park project, including permitting, construction monitoring, and endangered species monitoring, public and private development permitting projects, ranging from 5 to 500+ acres, and City of Chico, Oroville, and Redding municipal projects.

Caltrans and FHWA Experience

Ms. Dawson has worked closely with biologists and local agency coordinators in both Caltrans districts 2 and 3. She has prepared single and multi-species Natural Environmental Studies, Biological Assessments and Preliminary Environmental Reviews for projects in Butte, Yolo, Shasta, Plumas, and Nevada Counties for bridge replacement, road widening, and road improvement projects. In addition, Ms. Dawson has worked closely with Caltrans, FHWA, and the regulatory agencies to develop mitigation plans that satisfy all parties involved.

Regulatory Compliance

As a regulatory biologist, Ms. Dawson has assisted public and private industry through the tedious task of permitting. She specializes in Endangered Species Act Compliance, Clean Water Act compliance and permitting, and mitigation planning. She has prepared biological assessments and negotiated with developers, land use planners, and regulatory agencies to successfully resolve land use conflicts in a timely manner. Ms. Dawson has worked closely with developers to incorporate field studies and potential project constraints into permissible projects. She has developed a good working relationship with local regulators by assisting developers with innovative mitigation solutions and alternatives that incorporate the goals of the USFWS, EPA, CDFG, and the COE. Her permitting experience includes CDFG 1600 agreements, CDFG 2801 take permits and consistency determinations, RWQCB 401 water certifications, and COE 404 Nationwide and Individual permits, as well as processing application through the Letter of Permission process.

Once clients have received their permits, Ms. Dawson prepares any final documentation required within the permits. She has prepared Mitigation and Monitoring Plans, Property Analysis Record (PAR) analysis, Open Space Preserve Plans, and Conservation Easements, as well as assisted clients with finding a COE approved third party conservation oriented entity to hold conservation easements.

Wildlife Studies

Ms. Dawson is qualified to conduct protocol level vernal pool invertebrate studies, valley elderberry longhorn beetle surveys, spotted owl, burrowing owl, Swainson's hawk, and goshawk surveys, as well as numerous general biological surveys. Ms. Dawson worked for the U.S. Forest Service conducting spotted owl habitat assessments, pellet counts, and fuel hazard assessments. Previous work includes, participating in a 20 year study on the endangered red-cockaded woodpecker on the Fort Bragg Military Base, gopher tortoise surveys, and fresh water muscle surveys.

MARY L. BAILEY

EDUCATION

- **B.S., Biology - Emphasis in Botany and Minor in Business Administration**, 1994
California State University, Chico
- **B.A. Anthropology - Emphasis in Archaeology**, 2000
California State University, Chico

EXPERIENCE

18 Years

- **Owner of Goldenhills Consulting**, specializing in botanical resources, 2000-present
Chico, California
- **Eco-Analyst Biologist and Environmental Scientist**, 1991-2000
Chico, California
- **Army Corps of Engineer's certified training in wetland delineations**, 2002
Sacramento, California
- **Advanced wetland delineation training**, 2003
San Diego, California

Ms. Bailey has over 18 years of professional experience in botanical research, floristic inventories, and rare plant surveys. She was previously employed by Eco-Analysts of Chico, California as a botanist and environmental scientist from June 1991 through September 2000, and is currently accepting work as an independent contractor/sub-contractor for delineation of waters of the U.S., botanical, and archaeological services as owner of Goldenhills Consulting. As a member of Eco-Analysts, a full-function environmental consulting firm, Ms. Bailey was involved in assisting on-site surveys for botanical, archaeological, and biological resources, as well as assisting in delineation of waters of the U.S., noise assessments, mitigation monitoring, VELB surveys and Phase I Hazardous Materials studies. Duties included preparation of environmental documents conforming to CEQA standards, including Initial Studies, Environmental Impact Reports, and Caltrans Natural Environment Studies (NES) and Caltrans Cultural Resource Inventory reports, and preparation of graphics for reports.

REPRESENTATIVE EXPERIENCE

- 2004** Assisted in delineation of waters of the U.S. studies, and performed sensitive plant surveys for a proposed SMUD project, Elkhorn Boulevard, Natomas area, Sacramento County. Also assisted in delineation of waters of the U.S. studies, Elverta Road, Sacramento, Sacramento County.

- 2003-2005** Assisted in the monitoring of restored and created vernal pools, Stillwater Vernal Pool Mitigation Bank Project, Anderson, Shasta County, California.
- 2001** Botanical team member in the production of a special status plant species report for Plumas National Forest, Mt. Hough District. Produced final report with graphics, plus maintained ongoing contact with Mt. Hough District project leaders.
- 1994** Assisted in the development of statistical models used in assessing the success of a riparian revegetation monitoring program. Performed calculations, devised presentation formats for the information. Assisted in interpretation of results. Army Corps of Engineers, Guadalupe River, San Jose, California.
- 1992** One month at Le Laboratoire de Phenerogamie, Paris, France. Assisted in a geobotanical study of Convolvulaceae from Madagascar.
- 1991-Date** Botanical site surveys for the presence of rare, endangered, or threatened species of vascular plants on numerous project sites, both as a representative of Eco-Analysts and as a private consultant. Listed with Butte County as an independent site surveyor. Have performed botanical site surveys as both a crew member, as a sole researcher, and for Eco-Analysts' clientele. Have performed surveys on properties from Perris, California (Riverside County) to coastal areas to near the Oregon/California and Nevada/California borders. Owner of Golden Hills Consulting. Sensitive species surveys conducted using plant lists compiled by USFWS, CDFG, CNPS, as required by lead agency. Further information as to surveys performed for either Eco-Analysts (530-342-1553), or Gallaway Consulting (530-343-8327) follows.

Specific projects with Eco-Analysts:

- Walker Ranch DEIR, Chester, Plumas County. Assisted with botanical survey.
- Botanist for delineation of waters of the U.S., Quincy Airport, Chester vicinity and near Graeagle.
- Assisted with botanical survey, Chester Airport area.
- Botanical and biological team member, Eagle Lake Campgrounds.
- Assisted with botanical surveys and delineation of waters of the U.S., Beckworth area.

Specific projects with Gallaway Consulting:

- Butte County Meadowfoam protocol-level surveys for several project sites, including Bidwell Ranch in Chico, CA.
- Plant inventory and sensitive species survey, McCloud.

- Plant inventory and sensitive species survey, Portola.
- Sensitive species surveys, Taylorsville and Davis Lake area, Plumas County.
- During an off-season survey for potential *Clarkia biloba ssp. brandegeae* habitat, determined that seed morphology for *Clarkia spp.* present conformed to both *Clarkia biloba ssp. brandegeae* and to the more common *Clarkia purpurea*, where both species were apparently intermingled with each other. A peak flowering season survey the following year confirmed the identification.

- 2005** Botanical inventory and survey for rare, endangered and threatened plant species, Plumas National Forest, north of Quincy, south of Susanville, in the Diamond Mountains area.
- 1991-Date** Have assisted with delineation of waters of the U.S. and assessment as a member of Eco-Analysts, and performed numerous full delineation of waters of the U.S., with reports, as a private consultant.
- 1988-1993** Renovation and upgrade of the Butte Community College campus Herbarium, with the inclusion of all species found during the floral inventory of the campus. Have worked with the Butte Community College Biology Department to create a database and accession program for the Herbarium collections and campus flora.
- 1988-1992** Employed part-time by Butte Community College to perform an inventory of the flora on the 941-acre campus. Focused on selected species distribution patterns as an aid in delineation of waters of the U.S., surveying for sensitive plant species, providing feedback to land-use committee members and suggested changes and/or restrictions in proposed and ongoing land use.
- 1988 -Date** Technical consultant to the Butte College Land Use committee for wetland and botanical issues, plus in regards to rangeland management.

RYAN BROWN

EDUCATION

- **B.S., Biology**, 2001
California State University, Chico
- **Certified Arborist**, # WE-7377A

EXPERIENCE

5 Years

- **Thomas R. Payne and Associates**
Fish and Wildlife Technician
- **California Dept. of Fish and Game**
Fish and Wildlife Scientific Aid
- **California State University, Chico Research Foundation**
Research Assistant
- **California Department of Water Resources**
Scientific Aid
- **Publication:** CA Fish and Game: Light-trapping of Larval and Juvenile Northern Pike, *Esox Lucius*, in Lake Davis, CA.

Oak Tree Mitigation Strategies

Mr. Brown drafted new municipal mitigation strategies for the City of Oroville. As the City's current oak tree ordinance is not applicable to large-scale development, a scaled mitigation plan for a 54-acre development containing a blue oak woodland was required. After review of numerous tree ordinances from around the state and country, four different mitigation scenarios were presented to the City. These included mitigation plans hinged on individual tree abundance, remote sensing to determine canopy cover using aerial photography and a GIS, health and size class ratios, and 1:1 canopy replacement.