APPENDIX 8.2C

Qualifications/Resumes of Field Surveyors

Qualifications of Field Personnel

Robert Aramayo, M.S.—*Aquatic Ecologist*
Mr. Aramayo is an aquatic biologist with eight years professional experience who has conducted research on fisheries, amphibians, and aquatic insects throughout California. His experience includes investigations on aquatic systems ranging from small, intermittent tributaries to large rivers. In addition to Mr. Aramayo's expertise in fisheries, he has extensive experience with aquatic invertebrate sampling and identification. He is also familiar with census methods and the natural history of amphibians and reptiles in western North America.

Mr. Aramayo has held a California Scientific Collectors Permit with authorization to use electrofishing equipment for the past 12 years. He has worked on numerous fish population surveys and habitat characterizations throughout California. Recently, Mr. Aramayo participated in a workshop sponsored by the National Marine Fisheries Service (NMFS) and California Department of Fish and Game (CDFG) to develop electrofishing protocols to be used when sampling listed salmonids.

Mr. Aramayo has worked with several threatened and endangered species, including evaluating habitat suitability and conducting surveys for salmon and steelhead. He served as GANDA's lead field investigator for fish habitat and species composition surveys on the Las Pilitas Creek Bridge project in San Luis Obispo County and the Cirby Creek Flood Control project in Sacramento County, both of which involved steelhead habitat. He has held an endangered species recovery permit from the U.S. Fish and Wildlife Service to work with the tidewater goby, and has had specific modifications to his scientific collector's permit to work with steelhead. Mr. Aramayo earned a M.S. degree in Wildland Resource Science at the University of California at Berkeley, emphasizing fisheries and aquatic ecology.

Kenneth Burton, M.A. – *Wildlife Ecologist*
Mr. Burton is an ecologist and interpretive naturalist who has specialized in ornithology since 1981. He is experienced in a wide variety of census and monitoring techniques, including bird, mammal, and herptile trapping; point counts, transects, and spot mapping; and radio telemetry. He has surveyed and done construction monitoring for sensitive species including California spotted owl, great gray owl, desert tortoise, northern goshawk, bald eagle, western snowy plover, California red-legged frog, and several endangered butterflies. He also has extensive experience in program administration and in training professional and amateur biologists in monitoring techniques, particularly mist netting and point counting of landbirds. He was coordinator of the Monitoring Avian Productivity and Survivorship (MAPS) Program, the largest coordinated bird-banding program in history, for six years; edited the MAPS newsletter and wrote the MAPS manual; and developed a program of bird-banding courses offered throughout the U.S. He has created, managed, and manipulated databases of hundreds of thousands of records using dBase and is proficient in using relational databases and dBase programming. He was responsible for the formation of the North American Banding Council (NABC) and one of its first certified Trainers, and he is currently Vice-President of the Western Bird Banding Association (WBBA) and WBBA's NABC representative. He has written numerous peer-reviewed papers and spoken at dozens of professional meetings.

Mr. Burton's research, training, and guiding duties have taken him all over the world. He has studied birds in Canada and Australia; birds and mammals in Antarctica, Indonesia, and Mexico; birds, mammals, and reptiles in Kenya; and birds and insects in Costa Rica and Madagascar. He has studied French, Spanish, Latin, Portuguese, Swahili, and Indonesian.

Mr. Burton received his M.A. in Ecology and Evolutionary Biology from Indiana University in 1990 and his B.A. in Biology and Natural History in 1983 from the University of California. His M.A. thesis was a statewide study of loggerhead shrike distribution, status, demographics, and habitat requirements in Indiana.

Virginia Irene Dains, M.S. – *Botanist*
Ms. Dains is a senior botanist specializing in vegetation mapping and soil interpretation. She has worked since 1979

throughout California in a variety of habitats conducting special-status plant surveys, riparian vegetation mapping, and wetland delineation. She served a s a naturalist guide for the Nature Conservancy in the Sierra Nevada, reviewed proposed wetland management plans for the County of Sacramento, and wetland mitigation design and implementation.

Ms. Dains has a B.S. in Field Biology from California Polytechnic State University and a M.S. in Plant Ecology from California State University, Sacramento, where she studied the water relations of *Alnus rhombifolia*.

Joseph Drennan, M.S.—*Wildlife Ecologist/Wetland Specialist*
Mr. Drennan is a terrestrial ecologist with 8 years of environmental consulting experience. He has managed a variety of projects ranging from focused, special status species surveys on small parcels to multi-disciplinary inventories and assessments of large, linear projects. His consulting work has involved a variety of clients and project types. Mr. Drennan has led numerous special status species inventories for linear projects, including transmission lines, highways, and railroads. He delineated wetlands along a 400-mile long natural gas transmission line in California operated by Pacific Gas Transmission and Pacific Gas and Electric Company. He has prepared reports and negotiated permits for a variety of regulatory agencies and permitting authorities including the US Fish and Wildlife Service, US Army Corps of Engineers, California Department of Fish and Game, US Forest Service, and the Federal Aviation Administration.

Mr. Drennan is proficient with a variety of field research techniques including radio telemetry, small mammal trapping, reptile and amphibian surveys, bird identification, population estimation, and wetland delineation. In addition, he is experienced in the development of study designs, statistical analysis and technical writing. He has authored over 30 technical reports and published in peer-reviewed journals.

Mr. Drennan specialties include raptor ecology. In northern Arizona, he conducted a 4-year study of the foraging ecology of northern goshawks. During that study he captured and radio tagged 30 adult northern goshawks, conducted radio telemetry, and indexed bird and small mammal abundance. In Baja California, Mexico, Mr. Drennan led an exploratory survey for raptor and passerine migration routes for Echo Bay corporation. Mr. Drennan received his M.S. degree in Forestry in 1995 from Northern Arizona University (NAU).

Pierre Fidenci, M.S. – *Wildlife Ecologist & Ecological Risk Assessor*
Mr. Fidenci is a Wildlife Ecologist and a Eco-Risk Assessor with a strong background in database development and modeling related to analyzing environmental impacts and relationships. As a Wildlife Ecologist, his emphasis is on reptiles and amphibians. His research has focused on marine and freshwater turtles and their environment. He has also conducted environmental risk assessments related to pollutant fate and transport and has developed complex computer models to analyze the impacts of pollutants and other environmental factors on wildlife and humans. He is proficient with a variety of field research techniques, including: radio telemetry, turtle and small mammal trapping, amphibian and reptile surveys, population estimation, bird observation, and water quality sampling and analysis. He created and directed environmental projects in Central America and the Philippines focused on managing National Parks, risk assessment, mangrove studies and water quality.

Mr. Fidenci specialties include turtle ecology. He conducted research on the western pond turtle in northern California and focused his study on the potential relationship between cattle grazing and the western pond turtle. At numerous sites around the world, he has conducted field surveys directed at studying both marine and freshwater turtles, including designing and conducting radio telemetry studies to track their movements. Additionally, he has actively participated in conservation programs in Europe directed at turtle and tortoise preservation and protection.

Mr. Pierre Fidenci received his M.S. degree in Environmental Management in 1999 from the University of San Francisco.

Charleen Gavette, M.A. – *GIS Specialist/Geographer*
Ms. Gavette has over 12 years experience with geographic information systems with a particular emphasis on pcARC/INFO and ArcView software platforms. She has managed geospatial labs, integrating components from the Global Positioning System (GPS), remotely sensed imagery, aerial photography, digital cartography, and GIS.

Project experience has included development of georeferenced data sets for projects in California, Arizona, Idaho, Nevada, the Republic of Palau, and Nepal. These projects have involved creation of habitat, vegetation, and cultural data sets, followed by modeling, risk assessment and site suitability analyses within the GIS.

Ms. Gavette recently completed compiling vegetation resource information in support of PG&E's Pit River and North Fork Mokelumne River Hydroelectric FERC re-licensing. For both, she collected, assessed, and processed the GPS information collected for each sampling and habitat unit location. Using GPS, as well as federal and state databases, she has developed and updated information on threatened, endangered, or special-status species for the Plumas National Forest, City of Roseville, Sacramento Municipal Utility District, and CalTrans. She concluded the GIS assessment for GANDA's 10-year riparian monitoring study for the Bureau of Reclamation's Tonto Creek Project in Arizona. In addition, she developed a fire hazard risk assessment model for the Crystal Springs Watershed in San Mateo County based on variables such as vegetation, slope, aspect and road networks. Prior work has included providing geospatial support to a multi-year study of Nepalese snow leopards by compiling, cleaning, digitizing and mapping field data. Ms. Gavette also developed a raptor mortality predictive model for the Altamont Pass windfarm area east of San Francisco.

Ms. Gavette received her M.S. in geography from San Francisco State University in 1992. Her thesis project focused on the dispersal, distribution and disposition of pinnipeds released from California marine mammal rehabilitation facilities.

Lisa Infante, M.S. *Botanist*
Ms. Infante is a plant ecologist with over six years of experience in field botany and plant community ecology research. Her work with GANDA has focussed on the flora of the northern Sierra Nevada and southern Cascade habitats, and includes extensive rare plant survey work, noxious weed surveys, riparian habitat assessment, aerial photo interpretation, and vegetation mapping. Ms. Infante's knowledge of Geographic Information Systems complements her ecological expertise; she has analyzed and prepared spatial data for report presentation. Ms. Infante, who conducted forest pathology research as a graduate student, is currently receiving training in field identification of old-growth-dependent fungi for biological indicator surveys.

Specific project experience for GANDA includes serving on the botanical team for Pacific Gas and Electric's Poe Powerhouse, Transmission Line Separation, and Pit 3,4,5 relicensing projects. These projects comprised surveys of the North Fork Feather River and associated transmission lines, riparian habitat mapping on the lower North Fork Feather River, and habitat mapping of the Pit River watershed.

Ms. Infante is conversant in Spanish and has studied the ecology of the montane tropical forests of Panamá, Colombia, Costa Rica, Puerto Rico, and the Dominican Republic. Prior to joining GANDA, Ms. Infante served as field manager for a multi-national research project. She has conducted independent research in Central America for her M.S. degree, receiving grants from the University of California and the Organization for Tropical Studies to examine the changes in soil and seedling microenvironment caused by the transition of forest to pastureland. Previous research experience in the neotropics also focussed on restoration ecology; she worked as a research technician for the University of Puerto Rico, where she studied the natural recovery of forest following large-scale disturbance. While employed at UPR, she joined other tropical botanists in an effort to document the flora of a newly-created National Park in the Dominican Republic, part of the United Nation's Man in the Biosphere program. Other experience includes a student internship at the U.S. Fish and Wildlife Service and editing biology textbooks for Prentice Hall Publishing. Ms. Infante received her M.S. in Ecosystem Sciences from the University of California, Berkeley in 1999 and a B.S. in Natural Resources from Cornell University in 1994.

Erik J. Koford

Senior Biologist/Project Manager

Education

M.S., Ecology, 1987
B.A., Zoology, 1977

Professional Registrations

Certified Wildlife Biologist: The Wildlife Society

Relevant Experience

Mr. Koford has more than 20 years of experience in preparing environmental permitting documents, wildlife and fisheries investigations, threatened and endangered species surveys, EIS/EIRs, water quality evaluations, and environmental regulatory compliance. He has assisting clients in satisfying the requirements of CEC, FERC, SMARA, CERCLA, RCRA, NEPA, and CEQA. Mr. Koford has expertise in the California and federal Endangered Species Acts and has performed endangered species field surveys in 18 states and countries.

Representative Projects

- **Application for Certification for East Altamont Energy Center, Tracy California.** Deputy project manager to prepare AFC for 1,100-MW natural-gas powered electricity center. Task leader for wildlife and water quality elements of the AFC and responsible for team coordination, budget tracking, and quality control.

  Application for Certification for Natural Gas-fired Energy Facilities, Pacific Gas & Electric Company, San Mateo, Santa Clara, and San Francisco. Deputy project manager responsible for preparing water, biology, soil and agricultural resources sections of three AFCs on an expedited schedule. Special legislation required preparation of the three documents in 15 days. As deputy PM, was responsible for proposal, costing, scheduling, team management and direction, as well as project execution within the required time.

  Feasibility Analysis for Potential Cogeneration Sites, Nevada Calpine Corporation, Clark County and Washoe County, Nevada. Project manager for identifying necessary permits and approvals under NEPA, UEPA, county, local, and tribal jurisdictions. Addressed potential water supply issues and constraints represented by the presence of state or federally listed endangered species. Also provided guidance on a strategic approach to permitting the proposed generating facilities.

- **EIR/EIS for Teayawa Energy Center, Riverside County, California.** Conducted biological analysis, including field surveys, agency consultations, and wetland determinations for proposed 600-MW generating facility site. Also investigated approximately 40 miles of alternative alignments for gas, water, and transmission lines.

  Biological Constraints Analysis and Strategic Permitting Support for Three Potential Central Valley Generating Facility Sites, Calpine Corporation, Tracy, Lathrop, and Lodi, California. Conducted biological constraints analysis and field surveys and provided permitting support for potential cogeneration facilities in the Central Valley.

The scope of the investigations included wetlands, endangered species, water quality, water supply, and compliance issues.

Storm Water Pollution Prevention Plan for DEC Generating Facility Construction, Calpine Corporation, Pittsburg, California. Prepared SWPPP for project construction at the proposed Delta Energy Center cogeneration plant site and for gas, water, and transmission line alignments.

Application for Certification, Metcalf Energy Center Cogeneration Project, Calpine Corporation, San Jose, California. Prepared responses to comments from the public and California Energy Commission (CEC) on biological and water quality issues addressed in the AFC, which was prepared for the CEC. Conducted supplemental environmental analyses for West End Access Road and utility alignments, water supply, erosion control, and drainage plans. Provided strategic advice and assistance on mitigation measures for Bay checkerspot butterfly and serpentine habitat.

Devil's Nose/Cross County Water-Power Project, FERC License Application, County Water Resources Agency, Amador County, California. Conducted spotted owl and bald eagle surveys for impact analysis of proposed hydroelectric development. Provided location, mapping, and habitat quality verification for spotted owl habitat to replace habitat to be inundated by reservoir. Habitat verification consisted of review of aerial photographs, vegetation, and use maps and ground truthing.

- **Stockton Cogeneration Plant and Supplementary EIR, Air Products Corporation, Stockton, California.** Performed wildlife assessment and survey and project review for potential impacts to public health, water quality, and fish and wildlife resources resulting from cogeneration facility discharges. Primary author of SEIR. Analyzed fish, wildlife, and threatened and endangered species impact of cooling tower discharges for supplemental EIR. Involved field surveys, literature research, documentation, and toxics analysis.

- **Threatened and Endangered Species Surveys for New Transmission and Gas Line Corridors, Sacramento Municipal Utility District, Sacramento County, California.** Performed threatened and endangered species surveys of 80 miles of alternative new utility corridors in Sacramento and Yolo counties. Located occurrences of state-protected species, including giant garter snake, Swainson hawk, tri-colored blackbird, and vernal pool invertebrates (i.e., *Branchinecta, Linderiella,* and *Lepidurus*).

- **Wildlife and HEP Evaluations for Ramsey-French Meadow Hydroelectric Project, Northern California Power Agency, Upper Stanislaus River, Tuolumne County, California.** Performed wildlife and threatened and endangered species evaluations of proposed diversions, tunnel, storage reservoirs, and transmission lines for hydroelectric project. Prepared Initial Consultation Package, performed spotted owl, goshawk, and deer surveys, and facilitated HEP team agency meetings.

California-Oregon Transmission Project EIS/EIR, Transmission Agency of Northern California. Performed threatened and endangered species evaluations for portions of 300-mile, 500-kV transmission line. Reviewed proposed transmission line routes for impacts on wildlife and threatened and endangered species (spotted owls, bald eagles, deer winter range) and sensitive habitats (vernal pools, wetlands).