

GALEN GUERRERO-MURPHY, CPESC

EDUCATION

M.B.A., Managing for Sustainability, Marlboro College Graduate School, 2012

B.S., Science and Technology in Society, Stanford University, 2005

PROFFESIONAL REGISTRATIONS/CERTIFICATIONS

Certified Professional in Erosion and Sediment Control (CPESC #6237)

AREAS OF EXPERTISE

Mr. Guerrero-Murphy has technical experience in the following general areas:

- Biological Resource Assessments and Field Surveys
- Threatened and Endangered Species Consultation
- Storm Water Pollution Prevention and Permitting
- Environmental Impact Assessment, Planning, and Permitting
- Environmental Compliance Management and Monitoring

REPRESENTATIVE EXPERIENCE

With an interdisciplinary background in environmental science, conservation biology, and sustainability, Mr. Guerrero-Murphy has provided expert technical support and environmental project management on a diverse range of energy generation, transmission and utility projects throughout the United States. The following projects exemplify his work:

Vermont Electric Company (VELCO), New Ascutney Substation Project – Weathersfield, Vermont (Project Manager/Biologist: 2010 – 2014)

Mr. Guerrero-Murphy served as Project Manager and EPSC Specialist on this new electric substation project in Weathersfield, Vermont. During project planning, he coordinated and conducted rare, threatened and endangered (RTE) species botanical surveys, vernal pool surveys, and natural community assessments, and consulted with state and federal natural heritage and wildlife agencies to obtain RTE species clearances. He supported VELCO's Petition for a Certificate of Public Good under 30 V.S.A. §248 and was responsible for obtaining a State of Vermont Individual Wetland Permit for impacts to state significant wetland buffer zones and a Vermont General Permit for impacts to Waters of the U.S. under Section 404 of the Clean Water Act.

TransCanada Hydro Northeast, Consolidated Control Center at Wilder Power Station – Wilder, Vermont (Project Manager and Expert Witness: 2013)

Mr. Guerrero-Murphy served as Project Manager on this project that involves the construction of a new consolidated control center building at the Wilder Power Station in Wilder, Vermont. He oversaw the development of a Natural Resource Assessment Report to provide the basis of environmental impact testimony for TransCanada's Petition for a Certificate of Public Good under 30 V.S.A. §248, and he provided prefiled testimony for the Petition.

VELCO, Bennington Substation Project – Bennington, Vermont (Project Manager/Biologist and Expert Witness: 2010 – 2014)

Mr. Guerrero-Murphy served as Project Manager on this new substation project in Bennington, Vermont. He coordinated and conducted rare, threatened and endangered species surveys, wetland delineation, and natural community assessments within a 220-acre project assessment area. He prepared a Natural Resource Assessment Report for the project to document the results of the natural resource evaluations and to provide the basis of environmental testimony for VELCO's Petition for a Certificate of Public Good under 30 V.S.A. §248. He prepared the permit application filing for a Vermont General Permit for impacts to Waters of the U.S. regulated under Section 404 of the Clean Water Act, and provided expert testimony regarding project environmental impacts during discovery under 30 V.S.A. §248 review. Additionally, he managed the compliance program during construction, overseeing TRC's Environmental Inspector/EPSC Specialist and bi-weekly reporting to the State of Vermont.

VELCO, Structure Condition Improvement Program, VT (Project Manager: 2013)

Mr. Guerrero-Murphy managed and coordinated the completion of approximately 50 linear miles of natural resource assessments and surveys along VELCO transmission corridors in support of the Structure Condition Improvement Program. He oversaw the deployment of two field teams and was responsible for providing senior technical guidance for wetland determinations, field form completion, tentative wetland classification, stream characterization and flood hazard assessments.

VELCO and Green Mountain Power (GMP), Threatened and Endangered Species Best Management Practices (Project Manager/Biologist: 2012 – 2013)

Mr. Guerrero-Murphy oversaw the development of Best Management Practices (BMPs) to Protect Threatened and Endangered (T&E) Species along VELCO and legacy-Central Vermont Public Service (now GMP) transmission lines throughout the state of Vermont. He provided stakeholder outreach, strategic guidance, biological surveying, geographic information system (GIS) data analysis and management, and cross-functional planning to develop a comprehensive set of practical and effective BMPs to protect T&E species during integrated vegetation management and operations and maintenance activities, while fostering the creation of stable plant communities that improve the potential for general wildlife habitat and plant biodiversity, and promote conditions for threatened and endangered species to develop pioneer populations.

VELCO, System-wide Rare, Threatened and Endangered Botanical Species Surveys (Project Manager/Biologist: 2013 – 2014)

In support of the aforementioned BMPs, Mr. Guerrero-Murphy managed and conducted botanical species surveys for more than 40 known occurrences of rare, threatened and endangered (RTE) plant species along VELCO transmission lines throughout the state of Vermont. He was responsible for preparing RTE species dataforms, survey reports and providing updated GIS shapefiles of identified botanical species populations.

Vermont Electric Company (VELCO), Southern Loop Project – Southeastern Vermont (Project Scientist/Biologist: 2009 – Present)

Mr. Guerrero-Murphy supported the development of the Vermont Agency of Natural Resources (ANR) Conditional Use Determination application for impacts to state-

regulated wetlands, the Clean Water Act (CWA) Section 404 wetland permit application for impacts to Waters of the U.S., and the legal proceedings for a Petition for a Certificate of Public Good under Section 248 on this comprehensive electric reliability project. He assessed potential impacts to the federally endangered plant species Northeastern Bulrush (*Scirpus ancistrochaetus*) and assisted with preparation of a conservation plan through consultation with US Fish and Wildlife Service, which obviated the need for obtaining an endangered species taking permit. He assisted with development of the Vermont state-threatened Black Racer (*Coluber constrictor*) survey report and conservation plan, and prepared the Erosion Prevention and Sediment Control (EPSC) Plan for a SPDES Individual Construction Stormwater Discharge Permit. During construction and restoration of the project, he performed comprehensive environmental inspections to ensure compliance with all environmental permits and approvals. He is currently responsible for managing annual mitigation and rare species monitoring for the duration of the required timeframes (5 and 10 year periods). Since 2010, he has overseen mitigation monitoring efforts, including vernal pool monitoring at more than 20 pools to document biological productivity in the project right-of-way and the 287-acre off-site mitigation area, and reported findings to the US Army Corps of Engineers. Also since 2011, he has conducted the required annual monitoring efforts for rare, threatened and endangered plant species and habitat and reported findings to the VT ANR and USFWS.

National Grid, Bellows Falls Substation Revitalization Project – Bellows Falls, VT (Project Scientist/Inspector: 2011 – 2014)

Mr. Guerrero-Murphy supported the regulatory assessment and project permitting for this substation revitalization project in Bellows Falls, Vermont. He supported environmental compliance management during construction, including performing environmental inspections to ensure construction activities remained in compliance with project permit requirements and National Grid Best Management Practices (BMPs).

Power Plant Management Services/Kleen Energy Systems, LLC, Kleen Energy Systems Project - Middletown, CT (Compliance Specialist: 2008 – Present)

Mr. Guerrero-Murphy provided environmental compliance oversight services for the plant owners during construction and commissioning of a 620 megawatt (MW) natural gas-fired power plant, water collector wells, and associated facilities in Middletown, CT. He was responsible for assessing compliance with project permits and authorizations under attorney-client privilege and provided recommendations to address potential compliance challenges. He prepared the site Stormwater Pollution Prevention Plan for operation, and completed registration for coverage under the General Permit for Discharges Associated with Industrial Activity (SPDES). He provided environmental oversight during construction of two wetland enhancement and replication areas and two vernal pools per the site Wetland Mitigation Plan and is responsible for overseeing annual wetland mitigation monitoring efforts to document progression of the mitigation objectives, such as establishment of wildlife functions and value, hydrology, and vegetative communities.

Pacific Gas and Electric Company, Delta Distribution Planning Area Capacity Increase Substation Project – Antioch, CA (Assistant Project Manager/Biologist: 2007)

Mr. Guerrero-Murphy served as Assistant Project Manager during the final permitting phase of this project, including developing the Notice of Intent for the SPDES

Construction General Stormwater Permit, and was responsible for writing the project Stormwater Pollution Prevention Plan, including calculating runoff and erosion potentials, and selecting placement of erosion and sediment control BMPs. He coordinated preconstruction biological surveys for California Red-legged Frog (*Rana draytonii*) and the required permit submittals and developed the environmental compliance management program, including protocol for the submittal of variances and reporting of noncompliances. He developed the environmental inspection reporting system in MS Access. The project was regulated by the California Public Utilities Commission.

Pacific Gas and Electric Company, Midway to Gregg 500 kV Transmission Line Feasibility Study – CA (Project Scientist: 2006)

Mr. Guerrero-Murphy assisted in the development of a routing and feasibility study for a proposed 80-mile long 500 kV electrical transmission line in central California. He conducted preliminary studies within three proposed corridors to assess potential biological resource issues (including rare, threatened or endangered species occurrences; designated Critical Habitat; preserves; etc.), land use issues (prime farmland, airports, zoning, etc.), and regulatory issues, and he developed a subsequent feasibility report with routing recommendations.

Stanford University Architect/Planning Office – Stanford, CA (Intern: 2005)

Mr. Guerrero-Murphy identified fish and amphibian species and riparian habitat characteristics of numerous creeks in the San Francisquito Watershed in northern California. He performed California red-legged frog (*Rana draytonii*), San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), and steelhead trout (*Oncorhynchus mykiss*) surveys, and monitored and maintained artificial vernal pools constructed for California tiger salamander (*Ambystoma californiense*) breeding. Mr. Guerrero-Murphy conducted field sampling of native fish and amphibian species at Jasper Ridge Biological Preserve. He utilized dip net, electro-fishing, and eye-shine surveying techniques. He managed a California native tree and grass nursery, and developed data reports on survey projects.

SPECIALIZED TRAINING AND SKILLS

- Spring Wetland Ephemerals Identification, sponsored by the Association of Massachusetts Wetland Scientists, 2009
- Salamanders of Vermont, presented by James S. Andrews, 2009
- Biology and Management of the California Red-legged Frog (*Rana draytonii*), presented by Norman Scott, Ph.D. and Galen Rathbun, Ph.D., 2006
- Special-status Reptiles and Amphibians of Northern California, by Sean Barry, 2006

PROFESSIONAL AFFILIATIONS

- Society for Conservation Biology, Member
- International Erosion Control Association, Member
- Natural History Network, Member
- Net Impact, Member; VP of Finance and Membership, Marlboro College Chapter (2011-2012)