

Carla A. Fenner, PWS, CWS

Vermont Team Leader – Ecological Services



Education

BS, Natural Resource Management, University of Hawaii, 2008

Registrations/Certifications

Professional Wetland Scientist, Society of Wetland Scientists Cert. Prog. Inc., 2016

Certified Wetland Scientist, NH Office of Prof. Licensure, 2023

USFWS Approved Plant Surveyor – *Isotria medeoloides*

OSHA 10-Hour Construction Safety and Health Certificate

Affiliations/Memberships

Society of Wetland Scientists, Northeast Chapter, 2014

Vermont Endangered Species Committee, 2022

Vermont Scientific Advisory Group, for Flora, 2017

Vermont Scientific Advisory Group for Reptiles and Amphibians, 2023

Ecological Society of America

Native Plant Trust, Task Force, New England Plant Conservation Program, 2018

Vermont Association for Wetland Science, 2023

New York Flora Association, 2018

Vermont Pollinator Friendly Solar Working Group, 2017

Carla is a Professional Wetland Scientist, Ecologist, and currently holds the title of Team Leader for Ecological Services for VHB in Vermont. She brings 17 years of demonstrated Vermont-based experience in natural sciences to a diverse range of sectors including renewable energy, transmission and distribution, transportation, recreation, municipality, and land-development industries, as well as non-profit conservation organizations. Carla's advanced proficiencies include detailed ecological investigations, wetland and waters delineations and functional assessments, stream investigation, floristic inventories, rare/threatened/endangered species surveys, vegetation management planning, and wildlife habitat evaluations. Carla's regular duties include natural resources and impact assessments, data analysis, technical reporting and permitting, as well as Client and Project management. Carla has detailed working knowledge of local, state, and federal environmental regulations in Vermont and possesses a breadth of experience in agency consultation and project permitting and expert witness testimony under applicable natural resources, and land development regulatory programs.

17 years of professional experience

Renewable Energy – Solar, Wind, and Hydroelectric Generation, Various Projects

Carla has led natural resource delineations, assessments, and surveys, served as Project Manager, Field Crew Lead, and worked directly with Clients in support of the development of dozens of renewable energy projects across the state of Vermont. Carla's technical responsibilities have included wetland and stream delineation, vegetation management plans, surveys for RTE plant species, wildlife habitat assessments, natural community identification, vernal pool surveys, pollinator habitat planning, and more. Carla has authored numerous natural resources reports, conducted multi-agency regulatory consultations, provided testimony before the Public Utilities Commission, and prepared a range of collateral state and environmental permits.

Energy Transmission and Distribution – Vermont T&D Utilities, Various Projects

Carla has conducted an extensive range of field studies, wetland delineations, rare flora surveys, natural resource reporting, wetland and waters permitting, and development of resource mitigation and monitoring plans for substation reconstruction, decommissioning, and relocation projects as well as for linear reconductoring and other transmission and distribution line projects. Her work on Green Mountain Power and VELCO projects has been spread across many regions in Vermont and have involved extensive coordination and review by state and federal regulators as well as managing multiple tasks with overlapping deliverable deadlines and stakeholders. Carla has also worked on numerous projects for local and regional Vermont utilities such as Morrisville Water & Light and the Vermont Electric Cooperative.

VTrans – Biological Services 2015/2019/2023 Master Services Agreement

Carla has provided natural resource and biological consulting services in support of multiple projects under sequential Biological Services Contracts each with a 3-year duration, being named as the Deputy Project Manager on the 2019 and 2023



agreements. Carla's involvement included leading field natural resource delineations and assessments, managing resource data, developing technical reporting, conducting agency coordination and client communications, permit development, and monitoring for projects across the state of Vermont.

VTrans - Vegetation Management Planning Study

Carla provided VTrans with Vegetation Management Planning services throughout a yearlong assessment and planning study to support the development of policy statements and a framework for decision-making with respect to VTrans' vegetation management practices. Her work included reviewing policy and guidance documentation, leading numerous meetings, developing and conducting a survey for internal and external stakeholders, and developing a white paper to be used by VTrans as a reference in consideration of the development of an agency Integrated Vegetation Management Plan.

Example Projects – Target Rare Flora Surveys Completed

- Green Mountain Power Rutland Area Reliability Project; Florence to Rutland, VT; Botanist; Led survey team on approximately 13 mile corridor for several state-rare and protected plants; survey identified new populations of 10 new rare/protected species occurrences and the largest population of *Aureolaria flava var. flava* (S2 in Vermont) in the state. Lead author on technical report used in Takings and collateral (Section 248) permitting.
- Emera Maine Line 1176 Rebuild Project; Presque Isle to Easton, ME; Botanist; Led survey team for numerous state rare and protected plants in existing and proposed (undeveloped) 17 mile utility corridor, specific target species of bog and fen characteristic flora. Lead author on technical report used for collateral land use permitting.
- Green Mountain Power multiple hydroelectric facilities, multiple towns/counties in Vermont; Botanist; Study design and team lead for general and target floristic surveys of riparian, shoreline, and aquatic rare and protected species, analysis of potential impact from operation of hydroelectric facilities. Technical reporting supporting FERC license applications.
- Dominion Energy Atlantic Coast Pipeline, multiple counties, western Virginia and eastern West Virginia; Botanist; comprehensive floristic surveys in George Washington National Forest, numerous state and private conservation lands; habitat assessments and follow up targeted surveys for federally listed species *Isotria medeoloides*, *Helenium virginicum*, *Heloinias bullata*
- SolarCity Lamoille Valley Solar Project, Milton, VT; Botanist; comprehensive inventory of sandplain habitat and survey of known and previously undocumented occurrences of rare and protected Sandplain community species. Lead author on technical report used for collateral land use permitting.
- Central Hudson Gas and Electric, H&SB Electric Transmission Lines Rebuild Project; Ecologist; Lead surveyor for several threatened and endangered plant species along approximately 23 mile linear project, Catskills region New York

- Green Mountain Power, Lowell to Johnson Line Rebuild; Botanist; technical lead on comprehensive inventory of approximately 20 mile utility corridor, technical lead on riparian corridor impact assessment, rare plant survey which documented more than 13 new rare or protected plant occurrences, wetland delineation and functional assessment
- Bullrock Deutsche Ferry Road Solar Project; Charlotte, VT; Botanist; survey, mitigation transplanting planning and transplanting implementation, annual follow up monitoring for population of *Juncus toreyii* (S2 in Vermont)
- Vermont Gas Systems, Addison Natural Gas Project, Colchester to Middlebury; Botanist; survey for floristic elements in numerous Champlain Valley Biophysical Region habitats, emphasis in calciphile and enriched-site species

Example Projects - Vegetation Monitoring, Natural Community, or General/Comprehensive Floristic Surveys and Vegetation Management Planning

- [Client name withheld] Multiple ski resort locations, Maine; Botanist; Led survey teams on floristic inventory of hundreds of acres of existing and potential expansion of ski area development, mid- and upper elevation forest natural community delineation and characterization, study design for follow up target species surveys per community type and habitat
- Green Mountain Power, Searsburg Wind Facility; Botanist; comprehensive floristic inventory and natural community assessment targeting rare upper elevation forest associated rare flora including high-elevation bogs and wetlands
- Vermont Transco, LLC, St. Albans Substation; Ecologist; comprehensive floristic inventory and non-native invasive plant assessment of multiple habitats including emergent wetlands, riverine system, and mesic upland communities
- Vermont Telecommunications Authority; Botanist/ Environmental Scientist; habitat survey for protected flora on proposed telecommunication infrastructure sites in seven rural towns across Vermont
- Vermont Gas Systems; Botanist; Expert technical support for a vegetation management plan including linear utility corridor invasive plant management; Vermont Takings Permit for *Helianthus strumosus* including development of a transplanting mitigation and monitoring plan
- Bullrock-Deutsche Westminster Solar Project; Westminster, VT; Botanist; survey, seed collection, storage, and mitigation planting plan development for *Chamaecrista nictitans* (S1 in Vermont)
- Berlin Mall Out-Parcel E; Environmental Scientist/ Botanist; created planting plan for wetland mitigation enhancement and restoration for disturbed site reclamation
- Middlebury WCRS(23) – Bridge Replacement; Botanist; Developed natural community restoration planting plan for floodplain forest impact mitigation

- Sugarbush Resort, Lincoln Peak Re-Development; Botanist; riparian corridor natural community and invasive species survey, development of a riparian restoration planting plan, vegetation monitoring

Example Technical/Scientific Reports

- (VHB) Fenner, C.A. Section 248 Natural Resources Report, Contracted under VHB #58017.02 (prepared for VT Real Estate Holdings 2, LLC, or Fair Haven Solar, in support of petition 24-2945-PET)
- (VHB) Fenner, C.A. *Lespedeza hirta* ssp *hirta* Impact Mitigation Plan. Contracted under VHB #58112.00 (prepared for Renaud Bridgman Quarry and as appended to Vermont Takings Permit EH-2022-06)
- (VHB) Fenner, C.A. Bolton Falls Hydroelectric FERC Relicensing: Rare, Threatened, and Endangered Species Study Plan. Contracted report under VHB #57646.50 (prepared for Green Mountain Power Corp.)
- Fenner, C.A. *Juncus toreyii* Surveys, Impact Analysis, and Mitigation Plan – Bullrock Deutsche Ferry Road Solar Project. Contracted report under VHB #57346.01 (prepared for Bullrock Deutsche Eco)
- Fenner, C.A. Section 248 Natural Resources Assessment Report – Rutland Area Reliability Project. Contracted report under VHB #57876.00 (prepared for Green Mountain Power Corp.)
- Fenner, C.A. Section 248 Natural Resources Assessment Memorandum – Saint Albans Substation. Contracted report under VHB #57721.00 (prepared for VELCO)
- Fenner, C.A. Summary of Floristic Field Studies – Line 1176 Rebuild. Contracted report under VHB #55122.00 (prepared for Emera Maine)
- Fenner, C.A. Assessment of Necessary Wildlife Habitat and Rare, Threatened and Endangered Species – Phase I Carinthia. Contract report under VHB #57371.03 (prepared for Mount Snow Resort)

Example Presentations and Instruction

- Ecology Seminar: Rare species of sandy habitats in Vermont – VHB, 2024
- Exemplary Forestry to Achieve Landscape Scale Habitat Enhancement in New England – Yankee Society of American Foresters, 2020
- Wetland Restoration in Action: Vermont Case Studies – Northeast Natural History Conference, 2018
- Achieving Pollinator-Friendly Solar Projects – Renewable Energy Vermont, 2018
- Rare Plant Habitat Avoidance and Mitigation – contracted under Green Mountain Power, staff training, 2017
- Ecology Seminar: Rare Species Element Occurrences and Determining On-Site Habitat – VHB, 2016

- Wetlands and Wetland Delineation – UVM Forestry NREM 205, guest lecturer and lab, 2016, 2017, 2018, 2023
- Ecology Seminar: Vermont's Natural Community Ranking Specifications – VHB, 2014
- Wildlife and Conservation Practices in Forestry – Vermont Woodlands Association, 2014
- What Every Forest Landowner Should Know – RNRCD and Vermont Woodlands Association, 2011
- Managing your Forest for Wildlife – Bennington Sustainable Forestry Consortium, 2011

Professional Training

- National Ordinary High Water Mark Field Delineation for Rivers and Streams – The Swamp School, in progress est. completion 2026 (40 hr)
- Professional Ethics: Elements and Examples – American Geosciences Institute, 2025 (2hr)
- Outreach Event regarding implementation of Nationwide Permit Program in New England – U.S. Army Corps of Engineers, 2025 (2hr)
- Botanical Latin – New York Botanic Garden, 2025 (12 hr)
- Vermont Association for Wetland Science Winter Conference, 2025 (8hr)
- Vermont DEC Wetland Project Review – Vermont Agency of Natural Resources Wetlands Program, 2024 (1 hr)
- Wood Turtle Ecology and Habitat Management and Restoration – Vermont Association for Wetland Science, 2024 (1 hr)
- Vernal Pool Species and Eggs Identification – Vermont Association for Wetland Science, 2024 (1 hr)
- Botany in Winter – Maine Audubon Society, 2024 (12 hr)
- Wetlands Functional Assessment in New England – New Hampshire Department of Environmental Services, 2023 (12 hr)
- Northeast Bat Working Group Annual Meeting – NEBWG, 2023 (12 hr)
- Forest Ecosystem Monitoring Cooperative Annual Conference – FEMC, 2022 (8 hr)
- Technical Service Provider Training – Society of American Foresters, 2022 (3.5 hr)
- Seeds: Wild vs. Commercial – Native Plant Trust, 2021 (1 hr)
- Regulatory Updates – U.S. Army Corps of Engineers and Environmental Protection Agency, 2020 (3.5 hr)
- Forest Vegetation Simulator Regional Training: Region 9 – U.S. Forest Service, 2020 (32 hr)
- Annual National Convention – Society of American Foresters, 2020 (12 hr)

- Forest Ecosystem Monitoring Cooperative Annual Conference – FEMC, 2019 (8 hr)
- The Ecology and Management of Northern Red Oak – University of New Hampshire Cooperative Extension, 2019 (8 hr)
- Advanced NEPA – VHB Center for Education, 2017 (8 hr)
- Survey of Grasses of the Northeast – Native Plant Trust (then New England Wildflower Society), 2016 (10 hr)
- Agricultural Working Lands and Wildlife: Grassland Bird Conservation in Northeastern Haylands and Pasturelands – Natural Resources Conservation Service, 2014 (1 hr)
- Wetland Restoration and Enhancement – U.S. Fish and Wildlife Service, 2013 (36 hr)
- Soil Health and Sustainability – Natural Resources Conservation Service, 2013 (24 hr)
- Designing for Aquatic Organism Passage at Road Stream Crossings – U.S. Forest Service, 2013 (36 hr)
- S130/S190 and L-180: Firefighter Training – National Wildfire Coordinating Group, 2012 (40 hr)
- National Incident Management System – Federal Emergency Management Agency, 2012 (3 hr)
- Regulatory IV: The Federal 40 Hour Course for Wetland Identification, Delineation, and Classification – U.S. Army Corps of Engineers, 2011 (40 hr)
- Advanced Plant Identification: Grasses, Sedges, Rushes and Composites – U.S. Fish and Wildlife Service, 2010 (36 hr)