

Mark D. Kane

Director of Community Planning and Design
Burlington, Vermont

Mark brings over 25 years of experience in environmental and land use planning and analysis to the SE Group team. Mark often focuses on the permitting and entitlement issues of projects, in addition to providing consulting and expert testimony related to aesthetic and land use alteration and developing strategies and techniques for promoting environmental sustainability on land development projects. Mark is a consummate strategist: as the principal overseeing all aspects of the company's land planning and design projects, he always has an eye on the bigger picture issues.

Mark's areas of expertise include:

- Regional and Land Use Planning
- Aesthetics and Environmental Impact Analysis
- Permitting and Entitlement
- Geographic Information Systems

REPRESENTATIVE PROJECTS - AESTHETICS AND VISUAL ANALYSIS

Timber Creek at Okemo, Vermont. As project manager and key expert witness, Mark worked with the developer of the Timber Creek project at Okemo in the Town of Ludlow. In addition to reviewing and providing expert testimony before the district environmental commission on Criterion 8, Mark also provided similar input to the Town of Ludlow process for the project. The work included detailed viewshed analysis for the project and a testing of the project's impact using the Quechee Test.

Jackson Gore at Okemo, Vermont. Working on behalf of the Okemo Mountain, Mark provided analysis and support on the development of new structures, a golf facility and other related improvements at Jackson Gore. The work included the development of an analysis report covering the visual aesthetic issues (using the Quechee Test), supportive viewshed analysis and simulation/perspective drawings and testimony before the district environmental commission and Town of Ludlow.

PROFESSIONAL AFFILIATIONS AND ASSIGNMENTS

American Planning Association (APA) - Member (2004-Present)

Vermont Planners Association (VPA) - Past-President, Executive Council Member (2013-Present)

Northern New England Chapter of APA (NNECAPA) - Member (2014-Present)

American Society of Landscape Architects - Affiliate Member (2010-Present)

Colorado Chapter of the APA (COAPA)- Member (2014-Present)

Town of Fairfax, VT - Planning Commission (2013-2019)

Graham Environmental Sustainability Institute - External Advisory Board Member (2005-2008)

University of Massachusetts Amherst - New England Greenways Initiative Committee Member (2002-2003)

CONFERENCES AND PRESENTATIONS

2019 - NNECAPA 2019 ,Town Forest Planning Process, Bretton Woods, NH

2018 - VPA/Act 250 What's Next (*Facilitated Aesthetic Breakout Session*), Randolph, VT

2017 - NNECAPA (*Meet + Interact*), Manchester, VT

2017 - Sun Valley Economic Development Summit (*Resort Community of the Future*), Sun Valley, ID

2015 - APA Region 1 (Panelist, *Mad River Valley Economics Study*), Saratoga Springs, NY

2013 NNECAPA (, Mills Falls, NH

2013 CO APA (Panelist, *Multi-Season Recreation Planning*), Vail, CO

2012 Colorado Association of Ski Towns (*Multi-Season Recreation Planning and Communities*), Minturn, CO

2012 NNECAPA, Brunswick, ME

2011 NNECAPA (*Energy Development at the Community Scale*) - Burlington, VT

2010 National Ski Area Association Eastern Conference, Lincoln, NH

2009 International Wind Energy Association (IWEA), Chicago, IL

2007 National Ski Areas Association Conference - Palm Springs, CA

EDUCATION

University of Vermont, School of Natural Resources, B.S. Environmental Studies, 1991

PROFESSIONAL EXPERIENCE

Director, SE Group, VT (2000- Present)

Principal, Dunn Hamelin Kane, VT- (1996-2000)

Senior Environmental Planner, WH&N, VT (1999-1996)

Killington Resort Master Plan, Vermont: Mark provided aesthetic analysis and testimony on behalf of the developer of the Killington Resort master plan. The project included both a parking lot expansion and a redevelopment of existing resort base areas into a new village complex. Mark testified on impacts through the Quechee Test process; covering issues related to land use compatibility and visual conformity.

Ferrisburgh Solar Farm, Vermont. As project manager and key expert witness, Mark worked with a local private developer on the permitting for a 1 MW photovoltaic solar farm located adjacent to a business state highway. The project was the first solar project proposed in Vermont of this size and generated a number of issues related to aesthetics and land use compatibility that were vital to address before the Vermont Public Service Board. Following review of materials and testimony provided by SE Group, the project was granted a Certificate of Public Good and began operations in 2010.

CRL Solar, Vermont. As project manager and key expert witness, Mark worked with a local private developer on the permitting 2+ MW integrated solar facility located adjacent to I91 in the town of Hartford, Vermont. While the project site was visually constrained, its proximity to the major highway required careful documentation of existing and proposed conditions and close coordination on effective mitigation strategies to less offsite impacts. The project was granted a Certificate of Public Good in 2011 and is awaiting construction in spring of 2012.

New Haven Solar Farm, Vermont. As project manager and key expert witness, Mark worked with a local private developer on the permitting 2 MW integrated solar and organic farming operation located along a busy state highway in a largely rural area of Vermont. The scale of the project required careful evaluation of potential impacts (aesthetic, noise, land use) to adjacent open lands and residential properties. A mitigation plan was developed, working with the regional planning agency, to ameliorate the visual impacts of the project. The project was granted a Certificate of Public Good in 2011. The project was appealed to the VT Supreme Court on aesthetic issues, but the CPG was upheld. The Project came online in 2014

Charlotte Solar Farm, Vermont. Mark is actively engaged in the permitting and analysis for a 2.2 MW solar farm within an open meadow in a small rural town in Vermont. Working with the design team, Mark oversaw the development of visual and noise analyses and established a comprehensive mitigation strategy to address visual impacts of the project on adjacent residential properties. The project was granted a Certificate of Public Good in 2013.

Vermont Department of Public Service - Wind Energy Generation Aesthetic Analysis, Vermont. As project manager and principal expert witness, Mark has worked with the Department on its review of three major wind farm applications since 2005. Mark has directed the SE Group team as it analyzed the landscape-scale visual and noise impacts of these projects and addressed in reports and testimony, the compatibility of these large-scale wind generation systems with ridgelines and in sensitive environments. The analysis has included computer-assisted 3D graphics and visual simulations, noise monitoring, site reconnaissance and evaluation and GIS spatial modeling. Mark has provided input to the Governor of Vermont related to these issues and provides on-going assistance to the Department. Under these contracts Mark has worked on three large scale wind projects (Deerfield Wind, Sheffield Wind and Lowell Wind) and one community scaled project (East Haven Wind). All major wind projects have been granted Certificates of Public Good by the Vermont Public Service Board.

Utility Line Location Issues Paper, Vermont. Working on behalf of the Vermont Department of Public Service and the regulated electric utilities, Mark directed the preparation of a paper on state policy regarding the extension of distribution lines within the State. The goal of the project was to formulate policy options that addressed the land use, aesthetic and environmental issues often associated with line extensions. Included in this paper were substantive discussions of land use and sprawl impacts of infrastructure extension, costs of under grounding and overhead installation forms, economic equity and aesthetic mitigation.

Cellular Town Siting Analysis - Town of Milton, Vermont. Working with the Town Manager and Planner, a series of line-of-site analysis plates were created to evaluate potential cell tower sites

within the town. Using a 3D computer model of the site and LandSat thematic mapping information, a series of alternatives were evaluated and the amount of land by classification (commercial, industrial, etc.) within direct line-of-site for each alternative was calculated. Expert testimony was provided to the Chittenden Regional Planning Commission for this project.

Scenic Ridgeline Evaluation, Woodstock, Vermont. As part of the development of a new home and horse breeding farm, a study of three alternative house sites was conducted. Specifically, a scenic ridgeline district in Woodstock provided guidance to the developers on where sites would be most acceptable. Prepared a 3D computer model and GIS analysis of view sheds from each of these sites in support of proceeding with more detailed design plans. Viewsheds used digital elevation models and satellite land cover to derive the approximate extents that the rooftop and eaves could be viewed from. This was interpreted through the ridgeline district ordinance and will be used in discussions with the town. Testimony was presented to various town boards on the evaluation of this structure.

Site and Environmental Analysis; Nextel Communications, Vermont. Working with the site acquisition division of the firm, a series of projects for site around the state were completed to address visual analysis and aesthetic issues. Complex spatial analysis of viewshed and parcel data was completed on several projects throughout the State of Vermont as were 3D wireframes and photocomposition images to document existing and proposed tower configurations.

SUMMARY OF AESTHETIC AND LAND USE TESTIMONY IN PAST 10 YEARS

Case	Tribunal	Parties	Date	Description of Work
Bolton Wind	VT PSB	Bolton Valley Resort, Statutory Parties	Aug-09	Aesthetics - Quechee
Kingdom Community Wind- PSB Docket #7628	VT PSB	Green Mountain Power Corporation, Vermont Electric Cooperative, Inc., Vermont Electric Power Company, Inc., and Vermont Transco, LLC, John Nelson + Statutory Parties	Dec-09	Aesthetics - Quechee
Ferrisburg Solar Farm	VT PSB	Ferrisburg Solar LLC, Eagles Club, Statutory Parties	Feb-10	Aesthetics - Quechee
Leunigs Solar	VT PSB	Merrick Foods, LLC d/b/a Leunig's Bistro, Statutory Parties	Apr-10	Aesthetics-Quechee Historic
Middlebury Reliability Project - PSB Docket #7596/7597	VT PSB	Green Mountain Power, Bingham Statutory Parties	Jun-10	Aesthetics- Quechee
New Haven Solar Farm	VT PSB	Cross Pollination, LLC, John Madden, Town of New Haven,	Jul-10	Aesthetics- Quechee

Case	Tribunal	Parties	Date	Description of Work
		ACRPC, Statutory Parties		
VTA Bethel	VT PSB	Vermont Telecommunications Authority, Town of Bethel, Statutory Parties	Sep-10	Aesthetics- Quechee
Mount Snow Master Plan Act 250 Process	VT District Environmental Commission	Mount Snow, Statutory Parties	Oct-10	Aesthetics - Quechee
Heritage Flight	VT PSB	Heritage Flight, Statutory Parties	Nov-10	Aesthetics - Quechee
Hartford Solar	VT PSB	CRL Solar, LLC, Statutory Parties	Dec-11	Aesthetics- Quechee
Grand View Wind	VT PSB	Encore Derby Line Wind, LLC, Statutory Parties	Dec-11	Aesthetics-Quechee
Charlotte Solar	VT PSB	Charlotte Solar, LLC. Colvin, et al., Statutory Parties	Jan-12	Aesthetics-Quechee
Killington Resort Master Plan	VT District Environmental Commission	SP Land Company, Durkee, Statutory Parties, RRPC, WRPC	Aug-12	Aesthetics - Quechee
Killington Resort Master Plan	VT Superior Court	P Land Company, Durkee, Statutory Parties, RRPC, WRPC	Dec-14	Aesthetics - Quechee
North Springfield Biomass	VT PSB	North Springfield Sustainable Energy Poject LLC for itself and as agent for Winstanley Enterprises, LLC, Statutory Parties	Oct-12	Aesthetics-Quechee
Timber Creek at Okemo	VT District Env. Commission	Timber Creek, Okemo Ltd, RRPC, Statutory Parties	Dec-12	Aesthetics - Quechee
Barton Solar	VT PSB	Barton Solar LLC, Menards, Statutory Parties	Oct-13	Aesthetics-Quechee

Case	Tribunal	Parties	Date	Description of Work
Cold River Solar	VT PSB	Rutland Renewable Energy LLC, Joseph Romeo, Charles Flanders, Ted Hubbard, Robert Carrara Jr. as Trustee of the Robert Carrara Jr. Trust, and David Fucci, Statutory Parties	Nov-13	Aesthetics - Quechee
City Solar Garden	VT PSB	Rutland Renewable Energy LLC, Statutory Parties	Nov-13	Aesthetics-Quechee
Limerick Road Solar	VT PSB	Limerick Road Solar, LLC, Statutory Parties	Feb-14	Aesthetics-Quechee
Bridport Solar	VT PSB	Bridport Solar Holdings, LLC, Statutory Parties	Mar-14	Aesthetics-Quechee
Sudbury Solar	VT PSB	Sudbury Solar, LLC, Statutory Parties	Mar-14	Aesthetics - Quechee
Chelsea Solar Project	VT PSB	Ecos Energy LLC, Apple Tree HOA, Statutory Parties	May-14	Aesthetics - Quechee
Hartford Solar Project	VT PSB	Superior Solar LLC, Statutory Parties	Jul-14	Aesthetics - Quechee
AT&T/Richmond	VT PSB	AT&T Mobility/ATC	Aug-14	Aesthetics - Quechee
AT&T Brookfield	VT PSB	AT&T Mobility/ATC, Statutory Parties, Town of Brookfield	Oct-14	Aesthetics - Quechee
Royalton Solar	VT PSB	Novus Energy LLC	Dec-14	Aesthetic - Quechee
Berlin Solar -	VT PSB	Novus Energy LLC	Apr-14	Aesthetic - Quechee
Apple Hill Solar	VT PSB	Ecos Energy LLC, Apple Tree HOA, Statutory Parties	Mar-15	Aesthetic - Quechee, Land Use
Williston Solar	VT PSB	GroSolar	2015	Aesthetic - Quechee, Land Use
Weathersfield Solar	VT PSB	GroSolar	2017	Aesthetic - Quechee, Land Use
Panton Solar	VT PSB	GroSolar	2015	Aesthetic - Quechee, Land Use

Case	Tribunal	Parties	Date	Description of Work
Blackberry Lane Solar	VT PSB	AEDG	2017	Aesthetic - Quechee, Land Use
North Hartland Solar	VT PSB	GroSolar	2017	Aesthetic - Quechee, Land Use
Middletown Springs Solar	VT PSB	GroSolar	2016	Aesthetic - Quechee, Land Use
Hartford Sand Pit Solar	VT PSB	GroSolar	2015	Aesthetic - Quechee, Land Use
Broad Brook Solar	VT PSB	Novus	2015	Aesthetic - Quechee, Land Use
Beckley Hill Solar	VT PSB	Novus	2016	Aesthetic - Quechee, Land Use
Montpelier Solar	VT PSB	Novus	2016	Aesthetic - Quechee, Land Use
Sharon Solar	VT PSB	Novus	2015	Aesthetic - Quechee, Land Use
Pine Hill Solar	VT PSB	Novus	2015	Aesthetic - Quechee, Land Use
Colonel Page Rd Solar	VT PSB	AEDG	2016	Aesthetic - Quechee, Land Use
Cross Road Solar	VT PSB	AEDG	2016	Aesthetic - Quechee, Land Use
Pierce Road Solar	VT PSB	AEDG	2016	Aesthetic - Quechee, Land Use
Rewes Drive Solar	VT PSB	AEDG	2015	Aesthetic - Quechee, Land Use
Coolidge Solar - PSB 8585	VT PSB	VT Department of Public Service	2016	Aesthetic - Quechee, Land Use
VELCO Connecticut River Project	VT PSB	VT Department of Public Service	2015	Aesthetic - Quechee, Land Use
Velco PV20	VT PSB	VT Department of Public Service	2015	Aesthetic - Quechee, Land Use
National Grid - PSB 8444	VT PSB	VT Department of Public Service	2015	Aesthetic - Quechee, Land Use
Swanton Wind PSB 8816	VT PSB	VT Department of Public Service	2017	Aesthetic - Quechee, Land Use
Holland Wind PUC	VT PUC	VT Department of Public Service	2017	Aesthetic - Quechee, Land Use

