



## Resume

Mark D. Kane

*Principal – Director of Environment and Entitlement Solutions*

SE GROUP

Burlington, Vermont

Mark brings nearly 20 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 environmental planning 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

*Vermont Department of Public Service – Wind 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 including East Haven, Sheffield Wind and Deerfield. 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 following issuance of Certificates of Public Good.

*Addison Solar Farm – Ferrisburgh, Vermont.* Mark provided visual resource and land use analysis for a 1 MW solar farm proposed along Route 7 in Ferrisburgh, Vermont. Working closely with the project developer, the analysis identified the existing visual resource issues and proposed a landscaping and screening plan to help further mitigate impacts. Mark provided expert testimony before the Public Service Board on the matter. The project has been approved and is currently under construction.



*New Haven Solar Farm* – New Haven, Vermont. Mark provided visual resource and land use analysis for a 1 MW solar farm proposed along Route 7 in New Haven, Vermont. The project included both a active solar array and an agricultural component that needed to be integrated together to improve harmony with the surroundings. A complete aesthetic and historic sites analysis was completed and submitted to the Public Service Board along with prepared testimony. The project is currently under review by the Public Service Board.

*Leunigs Solar* – Burlington, Vermont. Mark was principal consultant on the CPG process for a 50 kW rooftop solar project proposed for the Leunig’s Restaurant building in Burlington. Directing staff on the preparation of photo-realistic simulations, Mark prepared testimony on behalf of the Petitioner and assisted in coordinating input and feedback from the Division for Historic Preservation.

*Timber Company, Idaho*. As technical PM on a large-scale master planning study for a timber company, Mark was responsible for evaluating and providing recommendations on land stratification means and methods using GIS software tools for the roughly 200,000 acres comprising the holdings. A spatial database, originally crafted by the client, was expanded and enhanced through addition of public data layers and added resource data, to broaden its abilities to evaluate highest and best use (HBU). As part of the HBU process, a series of GIS-based models were developed to evaluate land suitability for a variety of potential use classes. All data layers were maintained in a standardized state-plane based protocol and a document report describing options for enhancement of the process prepared to improve its future utilization.

*Continuing Care Facility – Clustered Development Planning, Hanover, New Hampshire*. Mark is project manager for SE GROUP on a site development plan for a 250-unit Continuing Care Retirement Community (CCRC) and associated residential dwellings within a 250-acre parcel adjacent to the village core of the Town of Hanover, New Hampshire. Home of Dartmouth College and the Dartmouth-Hitchcock Medical Center, Hanover has seen extensive “sprawl” along minor roads leading out of the village core. The subject property, an inactive farm parcel, had been zoned for development of CCRC and residential uses. SE GROUP, recognizing the potentially contentious nature of this project, worked closely with the developer and a team of engineers and environmental consultants to create an environmentally-driven design philosophy for the project. This included an array of sustainability initiatives for the development including extensive riparian protection zones, wildlife corridors, clustering, low-impact stormwater management solutions, bio-swales, community gardens and neighborhood trails, parks and recreation facilities. The multi-generational project limited development to just over 20 percent of the entire property and most importantly preserved a large 90-acre tract adjacent to Mink Brook, a small drainage identified by the Town and Conservation Commission as critical for protection. The project has included a number of community outreach initiatives.



*Town of Telluride – Conceptual Land Development Study, Colorado.* Mark is project manager for SE GROUP on the conceptual land use plan, environmental and market analysis in formulating the ‘highest and best use’ of a 716-acre site on the Telluride Valley Floor. The Telluride Valley Floor is the gateway to the picturesque mining town of Telluride, Colorado. In 2001, The National Trust for Historic Preservation named the Valley Floor one of its 11 Most Endangered Places. Recognizing the important role the Valley Floor plays to the aesthetic and environmental character of the region, the Town has entered into a condemnation process with the owner of the land, with the goal of acquiring roughly 550 acres and preserving it for open space. SE GROUP has worked closely with the San Miguel County Planning staff and the town to understand the complex regulatory framework of the property and developed several studies to evaluate alternative build out scenarios. These scenarios have demonstrated the limited capability of the area to accommodate growth and have strengthened the position that a conservation strategy is reasonable. Key SE GROUP staff has been called to testify in support of the project on a range of issues including land use policy, wetland mitigation and remediation and public lands access.

*Glacier-Winner Creek/ Alyeska Resort Master Plan, Alaska.* Mark is the project manager for SE GROUP on the development of a master plan for a new mountain resort located adjacent to the existing Alyeska Resort in Girdwood, Alaska. Working initially for the Municipality of Anchorage, the project involved a complex stakeholder team including representatives from the City, the Heritage Land Bank, on-mountain stakeholders, the community of Girdwood and the Alaskan Department of Natural Resources. Planning addressed all facets of the mountain resorts from real estate, recreational access, design, housing, etc. Ongoing work has now shifted to Alyeska where existing master planning is being updated and augmented to reflect new realities of resort design. Complex issues of circulation and service within high density core areas is being studied.

*Interstate 89/Exit 17 Growth Management Study, Colchester, Vermont.* Working with the Town of Colchester, Mark prepared land use analysis for commercial and residential uses within the Exit 17 area for use in creating new zoning language. Assisting the town’s land use planning consultants, Mark prepared graphic standards and language to define building envelopes, design factors and appropriate land uses. The primary goal of the study was to define acceptable development forms that projected critical environmental and aesthetic factors (wetlands, stormwater runoff, streams, noise, etc.).

*Milton Town Core Master Plan, Milton, Vermont.* Working with the Town and David H. Spitz, Mark managed the development of a town core master plan a new growth center in Milton, Vermont. Through an extensive public process including a community survey and creation of an interactive web site, a series of design studies and land use concepts were presented. Based upon input from the community, marketing information and planning efforts, a final master plan was created indicating areas for new growth and creating an implementation framework. The town has continued work on the recommendation of the plan and work has continued with the town in the development of a recreational master plan for Bombardier Park.



*Utility Line Location Issues Paper, Vermont.* Working with 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.

*Open Space Analysis: Northwest Regional Planning Study, Vermont.* As part of the state land use permitting for a large industrial user in northwest Vermont, SE GROUP prepared a detailed visual assessment involving 44 scenic vistas and field collection of digital photographs was conducted using an analysis method developed exclusively for the project. Mark authored a study documenting the inventory, development potential analysis and visual assessment methods. Several public meetings were held with various town and regional planning commissions, Selectboards, and conservation committees. Mark provided testimony to various bodies on the study and before State Land Use Development Boards.

*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 a number of projects throughout the State of Vermont as were 3D wireframes and photocomposition images to document existing and proposed tower configurations.

*GIS-Based Regional Open Space Study, Northwest Vermont.* Using a collection of available GIS resources from a variety, LandSat thematic mapping information, and digitized data sources, a series of inventory plans were created showing variety of physical, cultural and environmental resources for a 100 square kilometer area in the northwestern portion of Vermont. A detailed visual assessment



involving 44 scenic vistas and field collection of digital photographs was conducted using a method developed exclusively for the project. A GRID-based overlay analysis was done using the information contained in the inventory maps, and a resulting analysis plan for development potential was created. A complete report documenting the inventory, development potential analysis and visual assessment methods and results was prepared. Several public meetings were held with various town and regional planning commissions, Selectboards, and conservation committees. A collection of the GIS data was prepared on CDROM for distribution to the cooperating parties. Act 250 testimonies by the consulting team on open space issues, landscape design and compliance with local and regional plans.

#### PROFESSIONAL AFFILIATIONS

Graham Environmental Sustainability Institute – External Advisory Board Member Emeritus  
American Planning Association/Vermont Planners Association – Member  
Urban Land Institute – Past Associate Member  
American Society of Landscape Architects – Associate Corporate Member  
University of Massachusetts Amherst – New England Greenways Initiative Committee Member (2002-03)  
Vermont Geographic Information Systems – Geospatial Technical Advisory Board (1999-2003)  
American Water Resources Association – Member (1992-98)

#### RECENT CONFERENCES

2009 Presenter – “Resort Energy: What’s Next?” – New England Winter Sports Summit, Bretton Woods, NH  
2008 International Association of Amusement Parks and Attractions Expo – Orlando, FL  
2008 International Trade Finance Conference – NH International Trade Resource Center  
2007 National Ski Areas Association Conference – Palm Springs, CA  
2006 Vermont Planners Association Annual Meeting  
2005 Urban Land Institute (ULI) – New York City  
2005 National Ski Area Association – Eastern Conference

#### EDUCATION

Bachelor of Science, School of Natural Resources - Environmental Studies, University of Vermont, 1991

#### PROFESSIONAL EXPERIENCE

Principal/Director of Environment and Entitlement Solutions, SE GROUP, Burlington, Vermont  
Land Planner/Principal, Dunn Hamelin Kane, Burlington, Vermont  
Senior Environmental Scientist, Wagner, Heindel & Noyes, Burlington, Vermont