

WILD MATTERS: VISUAL RESOURCES AND WILDERNESS

June 2011

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“Live each day as you would climb a mountain. An occasional glance towards the summit puts the goal in mind. Many beautiful scenes can be observed from each new vantage point. Climb steadily, slowly, enjoy each passing moment; and the view from the summit will serve as a fitting climax to the journey.”

-- Joe Porcino



View from Chiricahua National Monument

What does visual resources and scenery have to do with wilderness?

The Wilderness Act says that wilderness “may also contain ecological, geological, or other features of scientific, education, **scenic**, or historical value” and that wilderness “Generally **appears** to have been affected primarily by the forces of nature, with the imprint of man’s work (is) substantially **unnoticeable**.” Wilderness is to be “devoted to the public purposes of recreational, **scenic**, scientific, educational, conservation and historical use”. *Keeping It Wild*,

the 2008 strategy for monitoring wilderness character, addresses visual quality in terms of night sky visibility and the degree of “Remoteness from **sights** and sounds of people within wilderness.” Scenic values, scenic use, the appearance of naturalness, and visibility of different elements are all important to wilderness character.

Visual resources in wilderness are affected by many things from within, including air quality, fire, insect infestations, signs, trails, vegetation treatments, visitor activities, and cultural resources. Views from wilderness that extend beyond boundaries are affected by a number of activities, including urbanization, transportation corridors, mining, and many aspects of energy development (oil and gas, solar arrays, wind farms, and transmission lines). Human perception of landscapes is diverse, influenced by cultural background and values. For example, many tribes consider wilderness areas as their traditional homelands. In general, the Wilderness Act indicates that wilderness should look as natural-appearing as possible; however, one ecologically-healthy area may be perceived as more “scenic” than another ecologically-healthy area. Viewing petroglyphs or historic cabins may enhance visitor experience. Is it possible for managers to navigate policy and human values to take any action to protect visual resources?

Managing Visual Resources

For decades, land managing agencies have been developing and using tools to assess visual quality and manage visual resources. The U.S. Forest Service began work in the late 1960’s on a Visual Resource Management (VRM) system to inform management decisions such as timber sales, and published a succession of guidance. Other agencies including the Bureau of Reclamation, Bureau of Land Management, U.S Department of Agriculture, and Federal Highway Administration produced more guidance over time. The National Park Service did not produce its own set of handbooks, but looked to the growing body of tools and adopted systems to assess visual quality specific for park needs, and integrated the information into planning and management. What these VRM systems have in common is the integration of human observation and classification, computer-generated analysis, social science, and a process to evaluate the effects of change. This information can be used by park managers to make informed decisions about management actions within wilderness to protect or enhance visual quality. Outside of wilderness, park managers have no direct control but can use the information to inform adjacent communities and land managers of the impacts to visual quality in wilderness (including formal comments on environmental documents for external projects).

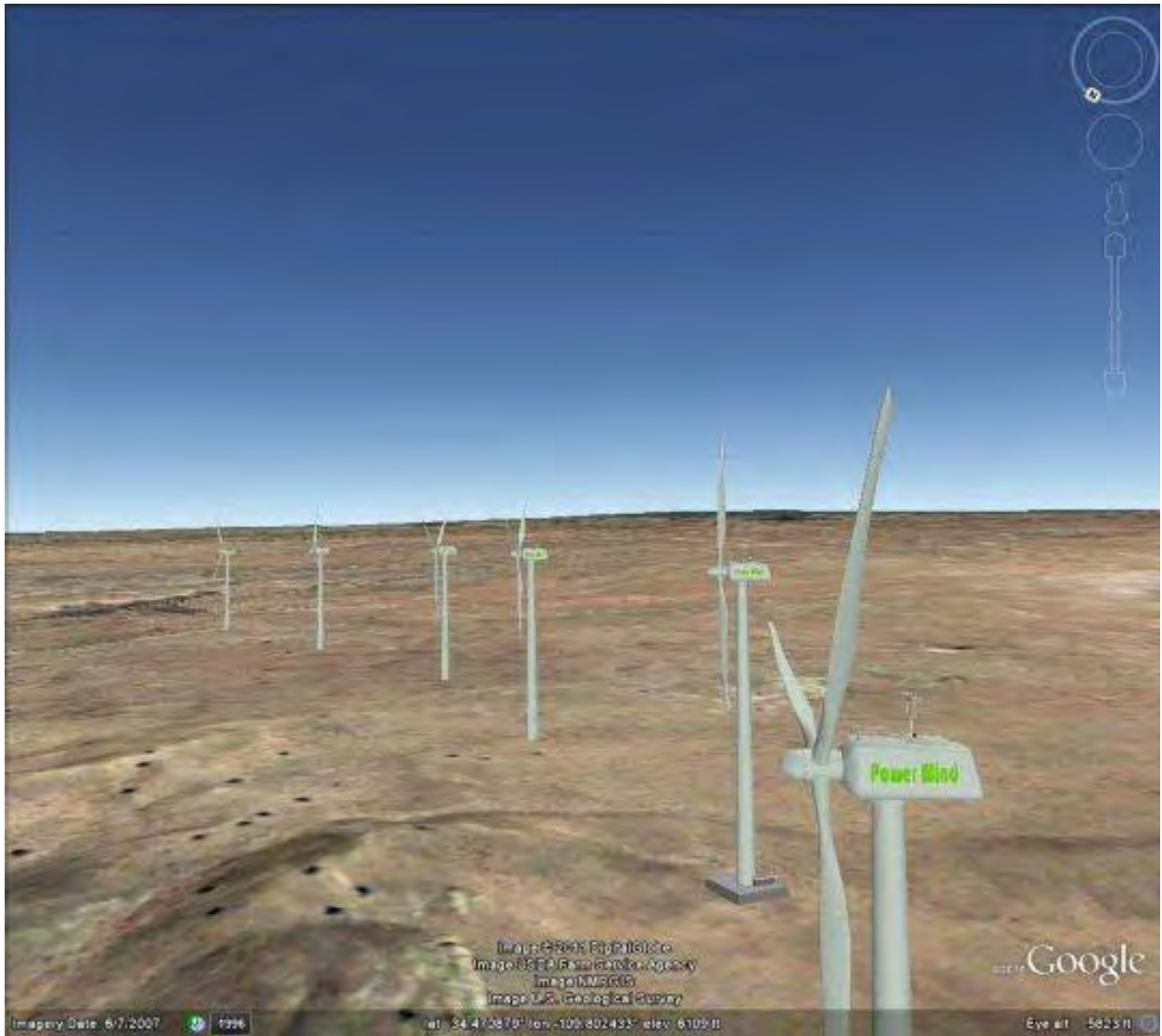
Currently parks have a number of options for assessing visual resources and proposed actions:

- The IMR GIS Program has the capability to model the terrain and features visible from specified vantage points. Determining WHAT can be seen is a very important step. Topography and vegetation are two key layers of data that are readily available for modeling. More sophisticated techniques also account for curvature of the earth, air

quality (humidity, haze), and distances of features. Visual simulations can look at before and after effects on the landscape by introducing proposed actions, such as transmission lines, wind turbines, or roads, into the analysis and realistic simulations of these features can be created. These techniques can use computer models or photographs taken from specified vantage points. An IMR GIS intern, Susan McPartland, is conducting research about how visitor experiences in National Parks are potentially impacted by viewing landscapes altered by renewable energy development. This information will be invaluable to park superintendents and staff in presenting data rather than just intuition about the effects of this development on our stakeholders. The IMR GIS Program has a variety of talent to assist with visual resource assessment; please contact Darcee Killpack the IMR GIS Coordinator for more information.

- The Bureau of Land Management's current Visual Resources Management system is an excellent way to evaluate scenic values and visual resources within and outside wilderness. Within the BLM system, wilderness is one type of special area where management objectives may ". . . require special consideration for the protection of visual values. This does not necessarily mean that these areas are scenic, but rather than one of the management objectives may be to preserve the natural landscape setting." (BLM VRM website). Minimizing the degree of contrast is a key to retaining visual quality: criteria like form, color, and location can be used to determine how much a specific management action, whether a new trail within wilderness or facility development outside wilderness, contrasts with the existing landscape. When involved in analyzing external projects on adjacent BLM land, the BLM can assist with providing visual resource assessment. The BLM offers training courses on their VRM system, and these courses are listed in DOI Learn.
- The National Park Service is currently developing interim guidance on scenery conservation beyond park boundaries, primarily to address viewshed threats presented by large-scale renewable energy development projects. The interim guidance document will provide an outline approach for effectively practicing scenery conservation on lands adjacent to an NPS unit. A primary objective of the guidance document is for unit managers to be able to do two things for scenery conservation beyond boundaries. The first is to make an informed determination about level of impacts to scenery. Second is for the manager to provide an appropriate level of response about proposed renewable energy facilities on adjacent lands and the potential effects of those impacts.

Link: BLM Visual Resources Management system: <http://www.blm.gov/nstc/VRM>



Modeling of Wind Turbines

