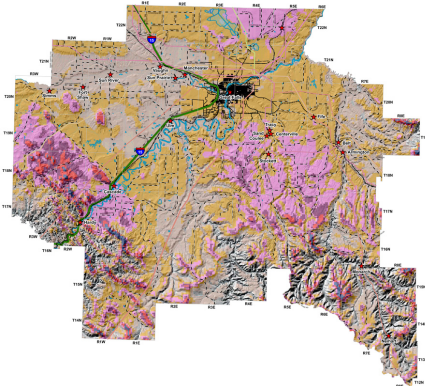


Cascade County

Wind Power

PUT WIND TO WORK FOR YOU



Marketing the Wind

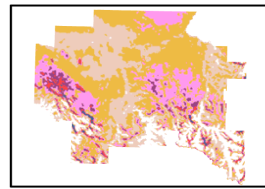
Situated on the East slopes of the Rocky Mountain Front, Cascade County Montana is known for strong and predictable winds. People endure the wind here, and now with a smile. This month a local business energized the County's first commercial wind power project.



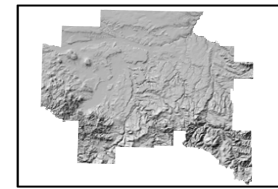
Horseshoe Bend Wind Park is a reality, in part, because of an aggressive wind power marketing effort initiated by Cascade County Commissioner Peggy Beltrone in 2002.

The nine megawatt wind park received assistance from several aspects of the County's marketing program. Cascade County developed this first-of-its-kind wind power marketing program for strategic reasons. Wind is a generic commodity variable in strength and duration. With a limited number of wind power developers and an enormous international and regional supply of wind, Cascade County's challenge was to differentiate its wind resource to attract power development.

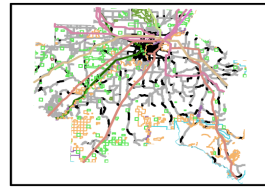
This strategy was adopted as part of a plan to reverse declining tax base and expand economic opportunities outside of the County seat, Great Falls. According to a May 2003, Community Development Needs Assessment, the population of Cascade County (79,849) has remained stable for the for the past ten years and is not projected to grow over the next 20 years. The population is aging faster than the nation and the poverty rate is 13.5%. School enrollments are declining throughout the County (particularly in rural areas) and will continue to do so unless there is population growth. The Cascade County Wind Marketing Program is one of many steps taken by local officials to promote growth and sustainability in our community.



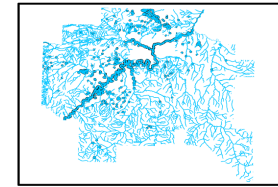
Wind Power Data



Digital Elevation Model



Roads and Transmission Lines and Land Ownership



Rivers and Streams

Value-Added Wind Maps

The first step in the marketing program added value to the federal wind map data that exists in a standard format for all wind rich counties. Former Cascade County GIS Department director Eric Spangenburg drew down this national data and added themes of land ownership, roads, transmission lines, elevation and other features. The computerized Cascade County Wind Power and Wind Speed Maps brought together into one complete package all the essential wind data as a free service to wind developers. It is the centerpiece of the wind marketing program. Today the maps are available over the internet on the County website. (www.co.cascade.mt.us)



"Cascade County has established itself as the most 'wind friendly' county in Montana," Montana Wind Working Group coordinator Van Jamison said. "The County distinguished its wind assets from the generic 'windy area' somewhere else and offered developers a complete product. Wind generators will multiply and spread across Cascade County's landscape from the nurturing and encouragement the County has given."

Map in hand, a team of county officials assembled to brainstorm next steps. Interestingly, in Cascade County the most wind-knowledgeable employees are not the planners who work with land use issues. It is the Weed and Mosquito Abatement department. This staff has more



than 100 years experience monitoring and adjusting for wind conditions as it sprays herbicides and insecticides in the 2,660 square miles of the County. Department director Doug Johnson took one look at the map and questioned the data, “Shaw Butte is much windier than the Sieben area.”

Challenging the Data Sources

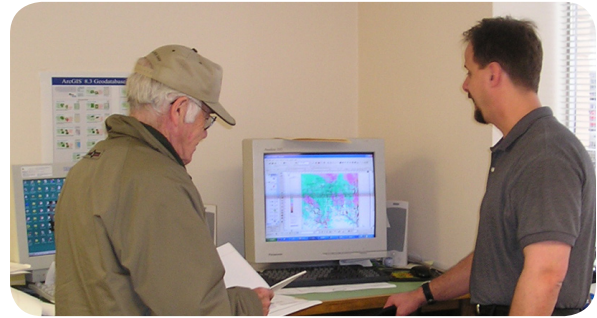
This self testing of the nationally supplied data led the team to question the sources of original wind data used to calculate the map. The Montana Department of Environmental Quality helped track down the data used in the map and assisted the county with offers to help recalibrate the map with data from anemometers the state could loan the county. “Cascade County asked the right questions about the existing wind data, and the timing was perfect to take advantage of opportunities to use monitoring equipment provided by the National Renewable Energy Laboratory. They were able to identify the best locations for development,” said Kathi Montgomery, with the Montana Department of Environmental Quality.

In the meantime, officials promoted county wind resources to developers as far away as Florida. One California executive reacted to the map with these words, “You’ve just cut weeks of costly ground time that we would have had to perform just to ‘prospect’ your wind resources.” The county land managers, in GIS, Planning, Road and Weed and Mosquito serve as conduits for connecting landowners with interested developers. Cascade County’s helpfulness includes knowing the capacity and location of transmission lines, avian patterns, and which landowners might be cranky about development. When projects reach the permitting stage, developers are assisted by wind savvy County Planner John Nerud.

Aggressive Community Outreach

Connecting wind developers to the County is only part of the equation. Land owners also needed to know about their resource and how to interact with wind power developers. The Wind Map was introduced to the public with much fanfare in February of 2002. County officials arranged for an evening public meeting where the wind map was projected on a large screen while a panel of experts detailed strategies for landowners to

“get in the game.” Several hundred residents braved sub zero temperatures to attend this educational session. It generated numerous requests for technical assistance from the marketing team.



Landowners and developers drop into the Cascade County GIS department for assistance and printed maps from director Tom Mittal. “I am very impressed with the great effort Cascade County officials have accomplished in spearheading this timely effort to support wind generation in an area of such great potential,” local landowner, Fred Davison said.

Visual Economic Success



Four years of intense wind energy marketing to developers in eight states has paid off, winning Cascade County national praise and the prize of being home to one of the state’s first utility grade wind farms. Exergy Development Group, LLC availed itself of the County’s technology and designed, procured, and installed the Horseshoe Bend Wind Park for owner United Materials

of Great Falls, Inc., the County’s 24th largest taxpayer employing over 125 people. Cascade County assisted United Materials owner Bob McIntyre and Exergy Development president James Carkulis in assuring a flawless Greenfield to Commission project.

Cascade County was able to provide a direct assistance link to the developer, lowering early costs by borrowing an industrial grade meteorological tower from the state of Montana. The 40 meter tower gathered wind speed and wind power data at the commercial level for more than one year. The United Materials construction materials operation is the first major industrial customer in the state, if not the nation, who will be able to displace its entire electrical power (diesel) load because of wind-based energy generation.



While United Material's Horseshoe Bend Wind Park represents the first fruits of county involvement, the program is not resting on its laurels. With the assistance of the Department of Environmental Quality, the Cascade County wind map is set to be re-calibrated with new data that has been recently gathered at commercial heights, increasing the reliability and value of the map.

Sharing Strategies with Other Counties

Cascade County has willingly shared its success strategies. Wind Powering America team leader Larry Flowers worked with Cascade County on national and regional workshops, including the National Association of Counties Western Interstate Region conference and workshops at the Montana Association of Counties.



"Wind Powering America has recognized the critical facilitator role that county commissioners can play in getting wind projects properly sited and deployed. Commissioner Peggy Beltrone has been a model of leadership, encouragement, and perseverance to the multiple stakeholders involved in the Great Falls nine megawatt wind project," Flowers said. "Because of her demonstrated leadership, WPA has initiated a partnership with NACO to develop a wind energy guidebook for county commissioners, with Beltrone as a principal on the steering committee for same." Negotiations are currently underway to secure grant funding from the Northwest Area Foundation for training County officials to use the Wind Handbook.

Next Steps: Transmission and Other Projects

Interest in the marketing program has jumped since the wind towers broke the skyline. County officials are now working with policy makers and private interests to increase transmission capabilities in the County as the next step in promoting wind development.

Furthermore, Exergy Development Group is actively investigating other opportunities in the County due primarily to the County's technology and established protocol for wind park development. James Carkulis expounds, "The number one concern associated with all business ventures is how to mitigate risk. Peggy Beltrone and Cascade County have led Montana and the nation in assuring continuity between business, community, and government in wind resource development."



Most recently, Cascade County Commissioners have been in contact with entrepreneurs who are interested in bio fuels and hydro/wind renewable energy projects. The strategy is to link these scientists, landowners, and renewable energy developers to expertise and resources in the early, middle and final stages of their projects.

The word is out about the Cascade County marketing program. The Wind Map has been featured for its innovation in the book, *Geography and GIS: Serving our World*, published by ERSI software. Several newspaper and TV accounts have been produced as well as articles in association newsletter. Rhys Roth co-director of the Seattle based, Climate Solutions, believes Cascade County's proactive strategy to market and harness its wind resource is groundbreaking. "This is an outstanding model program for wind-rich rural communities everywhere. It is an example of how a smart and visionary local leader can bootstrap together available resources, and craft a program that makes the wind business efficient and rewarding for both the developer and for the county's citizens." Roth said.