

Babbitts' Stable Environment Ideal for Climate Studies

As the debate continues over whether human-caused carbon emissions are the primary cause of global warming, Dr. Mike Palecki is one of the leaders of the National Oceanic and Atmospheric Administration effort to precisely measure climate change across the land area of the continental United States.

Palecki is the science project manager for the U.S. Climate Reference Network. In October, the 114th USCRN station was commissioned at Coos Bay, Ore., completing the planned deployment of the first Climate Reference Network in the continental U.S.

Article IV Cowboy Essence Character Qualities Section 9. Patience

The ability to wait and calmly persevere.

The Cataract Ranch is part of that network. A station was installed just last spring.

"This is very interesting work and very exciting indeed because what we're developing here is one of the preeminent networks for monitoring climate change in the world."

The goal of the program is to maintain continuous measurements for 50 or more years. Information from the USCRN is expected to provide insights into our climate during the 21st century, tracking temperature changes, shifts in precipitation patterns and modifications in soil moisture.

"What's important about the

station design and location of the stations is the stable environments like the Babbitt Ranches. We don't expect those environments to change and we'll be able to track the climate variation data without worrying about encroaching development or other land use that would interfere with the climate signal."

One other further development with regard to deployment is the National Integrated Drought Information System. This spring, NOAA will start the two- to three-year process of installing soil probes and atmospheric relative humidity instruments at most of the stations. The soil probes will measure soil temperature and moisture and provide information about the status of drought across the continental U.S.

Palecki says the long-term science

gain will be providing stakeholders and policy makers improved climate information they need to make decisions affecting business, industry, or environmental management.

Scientists began setting up USCRN stations earlier in this decade. While it's too early to detect long-term climate change signals with this network, Palecki says scientists at the NOAA National Climatic Data Center work diligently to provide the best climate change information possible from currently existing sources. In the meantime, the USCRN observations can be used to monitor climate variability and provide a standard against which older climate networks can be compared.

"We think it's doing really well and giving us less noisy signals than some of the other networks.

The data from the USCRN also will be useful for calibrating and validating our understanding of surface temperature and moisture measurements made by current and new generation satellites that have global measuring capabilities."

Palecki, a climatologist for 20 years, has studied climate change with some of the world's leading geographic climatologists and held two faculty positions in the U.S., but working with the Climate Reference Network he says is the pinnacle of his career.

To take a look at current temperature and precipitation information from the USCRN on Babbitt Ranches, log on to www.ncdc.noaa.gov/crn/hourly and click on AZ Williams 35NNW.



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Vision continued from page 1

Towler gives credit to Babbitt Ranches for including an Aldo Leopold inspired philosophy in the plan that says, "The answer, if there is any, seems to be in a land ethic, or some other force which assigns more obligation to the private landowner. A land ethic, then, reflects the existence of an ecological conscience, and this in turn reflects a conviction of individual responsibility for the health of the land."

The Comprehensive Plan includes a Conservation Framework with ecological principles and guidelines for decision making. Developed with the assistance of an independent Science Advisory Group, Towler says this framework provides the context for the plan's goals and policies by detailing relevant scientific principles and guidelines and explaining their importance to the planning process.

"By more fully integrating conservation and development, the Comprehensive Plan seeks to ensure that planning decisions meet

human needs while maintaining the county's ecological integrity. The county continues to use scientists in the decision-making process."

One of the goals identified in the plan is to preserve working ranches, unfragmented landscapes and the county's natural character. The plan allows ranch owners to petition the Board of Supervisors to form a Rural Planning Area with the intent of protecting traditional agricultural uses.

Thus, the award-winning Diablo Canyon Rural Planning Area was established including the Bar T Bar Ranch, the Flying M Ranch, and state and federal lands for a total of 426,000 acres. It is located south-east of Flagstaff, bordered by I-40 on the north, Lake Mary Road on

Article IX Priceless Values

Section 4. Community

Babbitt Ranches is part of a large and diverse community of land owners, communities and organizations who have a responsibility and obligation to the broad regional perspective. It is in this context of community that relationships are formed and quality regional planning can begin.

the west and extending south to Blue Ridge.

"This idea developed from Governor Janet Napolitano's Growing Smarter Initiative," said Coconino County Supervisor and Flying M Ranch owner Mandy Metzger. "It is a first attempt to put a toolbox of ideas and different practices together that might occur on the land to keep open spaces open and the ranches viable."

One of the tools in that toolbox includes harvesting wind energy. "This is one of the best ways to supplement

ranch income," said Towler.

Test towers already are located on the CO Bar Ranch near Grey Mountain. Meantime, a wind farm has been approved on the Bar T Bar Ranch though it has not yet

been built.

Another tool to generate profits is mining ore such as the sand and gravel operation on Babbitt Ranches. Ranchers also might look at the creation of products such as value-added beef or using the land to raise not just cattle, but also ducks, geese, turkeys, ostriches, goats and sheep.

Towler says ranch-based tourism, recreation and educational activities represent great potential as economic development tools to keep ranches sustainable. Bed and breakfast ventures, bird watching tours and renting cabins to hunters are some ideas for ranches to consider to avoid selling large tracts for development.

"Conservation easements are desirable, but not always realistic," said Towler, noting that Babbitt Ranches has created easements with The Nature Conservancy and Coconino County to protect about 41,000 acres of open space in perpetuity. Another 640 acres have

been protected at Cedar Ranch under the Forest Legacy Program, the first one of its kind established in Arizona.

"During the whole 23 years that I've worked in planning for the county and for a number of different boards of supervisors, every single one has been supportive of planning and the environmental direction we've been going. You have to plan for the growth that's coming and understand the homebuilders' perspective but the supervisors still have been very conservation oriented and supportive of open space," said Towler. "I feel great about the plan and its conservation framework. Each goal refers to a conservation guideline."

The Coconino County Comprehensive Plan serves as a handbook for implementing the county's vision and is used as a decision-making tool by residents, landowners and developers.



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