

FIELD CAMP FOR POLICY-MAKERS

Paul W. Bauer

In late January, the New Mexico state legislature began its 60-day session. One of the first major bills introduced is to formulate a state water plan — something that is desperately needed in New Mexico but will be immensely challenging to actually achieve. Before this session, the bill's co-sponsor, Rep. Mimi Stewart (D-District 21), had only limited interest in water. But after she attended a three-day geology field trip and conference in 2001 sponsored by the New Mexico Bureau of Geology and Mineral Resources (NBGM), Rep. Stewart requested a seat on the Water and Natural Resources Committee and has since been an outspoken advocate for progressive water planning. In addition, both the committee's chair, Rep. Joe M. Stell (D-District 54), and co-chair, Sen. Carlos R. Cisneros (D-District 6), have attended the Bureau's conferences, and both will be involved in this year's conference.

Joined by several federal, state and local governmental agencies, NBGM has been conducting annual, three-day field conferences for influential New Mexico decision-makers — politicians, government agency directors, appointed and elected commissioners, educators, media leaders, citizen advocates and business leaders. This aggressive program aims to close the traditional disconnect between scientists and policy-makers in natural resource/earth science issues in New Mexico. Over the coming years, these conferences will scrutinize a diversity of issues — geologic, hydrologic, natural resource, geologic hazard and environmental — that affect the future of the state and its citizens.

During this time of budget cuts and uncertain futures, we must emphasize the critical role that state geological surveys play in maintaining and enhancing their states' economic vigor and environmental health. Surveys provide for the timely collection and dissemination of earth science information. Modeled after a successful program developed by the Kansas Geological Survey, our outreach program is ambitious, costly and work-intensive. However, the paybacks have been immediate and substantial.

Most decision-makers are not well trained in science, nor do they have the time

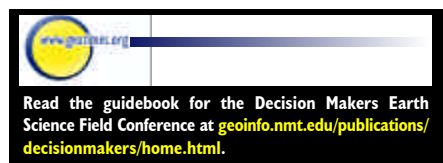
to read scientific reports. At the same time, effective natural resource legislation, accurate news reporting and high-quality public school science education all depend on decision-makers having a basic grasp of modern science. Technical publications and reports have not proven effective in reaching decision-makers, but well-organized technical conferences can be spectacularly successful.

The primary objective of our program is to present decision-makers with the opportunity to learn first-hand about current opportunities, problems and solutions concerning vital earth science issues, and to learn them in an informal outdoor setting. We present earth science from the latest research by our agency and by other state and federal agencies. The instructors are science and policy experts, carefully chosen as capable of making credible, well-balanced, succinct and enthusiastic presentations.

The conferences are field-oriented, and therefore give participants a chance to visit sites that are the focus of legislative concerns. The field-trip format stimulates onsite debates about public policy, strategies for growth and methods for solving problems. The conferences are also an opportunity for state agencies and allied groups to demonstrate to decision-makers their ability to work cooperatively and to deal constructively with real-world issues. The trips are not a lobbying opportunity for any specific agency or program.

How to run a science conference for nonscientists

Our greatest challenge is to persuade decision-makers to invest their valuable time in our three-day conferences, which include an ice-breaker on the night before the trip, two full days of field trips (four to five stops per day), evening keynote speakers and discussions, and a half day of field stops on the last day. Many want to know who else is attending before they register. We have made use of this pattern by first lining up several high-profile people who will commit to go on the trip, and who will allow us to drop their names as an enticement for the other invitees. Invitations are made through personal letters six months in advance, with email reminders and follow-up phone calls, if necessary. Our first two conferences have been so successful that



state legislators have suggested that the conferences become part of the legislative committee meetings process.

Selecting the proper blend of decision-makers is crucial for a successful conference. We send out at least 100 invitations, selecting people based on their professional activities or potential activities in some aspect of the conference theme. We strive for a quality experience for participants, and thus limit the registration to about 40, allowing us to keep all attendees and the technical experts in a single bus.

A properly planned conference brings together an unusual mix of political leaders, state officials and influential citizens who are focused on listening, learning and problem solving in a civil manner. The state legislative invitees are state senate and house members with appointments to resource, environment or other science-oriented committees, the leaders of both parties, science staffers, and legislative staffers who write natural resource legislation. Legislators from the geographic area involved are also invited. State executive branch invitees include the governor and the governor's top staff, the governor's science advisor, and cabinet secretaries and directors of natural resource agencies. We also invite our congressional delegates and their key in-state science staffers. Other government invitees include elected and appointed leaders from select federal agencies (such as the Bureau of Land Management, U.S. Forest Service or Department of Energy), city and county governments, Native American tribes, and assorted commissions, boards and districts. Nongovernmental invitees include a mix of science reporters and editors from local media, as well as educators, environmental advocates, community activists, business or industrial leaders and other influential citizens.

We have found that it is essential that our trip leaders are meticulous planners, experienced field trippers and superb organizers of people. Safely navigating 50 people (some elderly, and many unaccustomed to the rigors of field conferences) through three days of physical challenges



The conference has many outcomes, including a guidebook that decision-makers can use as a reference long after the field trip is over. Pictured is the cover of the 2002 guidebook.



New Mexico Bureau of Geology and Mineral Resources

Conference attendees listen and learn near the Angostura Dam along the Rio Grande, New Mexico. Providing comfort, such as soft chairs and shade, is essential.

"This was the best technical conference for non-technical persons that I have attended."

**Tom Pollard, executive director,
New Mexico Finance Authority**

"[You] ran a fantastic field trip. I've really enjoyed reading the guidebook."

**Robin McKinney Martin,
editor, The Santa Fe New Mexican**

"The initiative, skill, organization, and enthusiasm demonstrated restores one's faith in the possibility of social improvement."

**John Bartlit,
New Mexico Citizens for Clean Air and Water**

"I really think this was the best overall conference I've ever attended. The outdoor backdrop sites were a brilliant idea. I am so glad that I was able to attend this conference. It was extremely well run, highly informative, and thoroughly enjoyable. I now feel much more competent to put forward water solutions. I now trust you all more, and now understand the issues so much more. And I am excited by my new knowledge and feel very "charged-up" and ready to dive in and add my "decision-making" to yours."

Rep. Mimi Stewart (D-District 21)

"I am a policy-maker, and being better informed and having additional contacts will allow me to better research issues and make policy based on in-depth and balanced information."

**Doug Bland, director of Mines and
Minerals Division, New Mexico Energy,**

(think sunburn, stinging insects, storms, dehydration, sprains, hypothermia and sickness) and mental challenges (long work days, potentially uninspiring technical discussions) can be treacherous, and only the most careful preparation can overcome the potential pitfalls of such an undertaking. Careful selection of field stops and speakers, comfortable lodging, quality food, comfortable transportation, and well-organized discussion sessions all are essential components for a positive educational experience. We have also found that participants benefit from an occasional fun stop where they have time to relax and chat informally among them-

selves and with our science staff.

Although participants may be asked to pay a small registration fee, these trips work best and attract the broadest cross section of decision-makers when expenses are underwritten by participating agencies and other funding sources. For each participant, we cover three nights lodging, all food, meeting rooms and field-trip transportation. The attendees incur no expenses during the conference. The cost of running such a conference is high, approximately \$150,000, including printing the guidebook. Our greatest expense (about \$100,000) has been for internal staff time to organize the field trip, target speakers and

authors, produce the guidebook, raise funds, invite participants, manage trip registration, and handle logistics and related matters. We actively solicit matching funds from our partner organizations and non-profit charitable foundations. For each of the last two years, we have raised \$50,000 in this manner. We do not accept money from private industry and special interest groups, although we will accept certain in-kind services such as sponsored meals.

Measuring success

We do not have one unequivocal measuring device for assessing the program's suc-

Information and visibility

"My knowledge has increased 100-fold. I appreciate the opportunity to have been invited, and have met so many knowledgeable and kind professionals."

**Dr. Raymond Loretto,
Lt. Governor, Pueblo of Jemez**

"It gave me a lot of security to know that we have such expert people in all types of issues in New Mexico to turn to ... and I am encouraged that they get into the process in terms of consulting with the legislature for the proper remedies. ... The more that we can get into documentation, scientific input, clear and true information as opposed to hearsay, I think the more we will be able to move into the solving of these tremendous issues with proper remedies. And it was very, very non-partisan and we really were there to learn."

**Sen. Sue Wilson Beffort (R-District 19),
as heard on Journal News Talk Radio
Show, May 2001**

For the third year in a row, the New Mexico Bureau of Geology and Mineral Resources will sponsor a three-day field trip for the state's media representatives, policy-makers and other decision-makers. The program is designed to:

- Educate people who make decisions related to earth science issues in New Mexico.
- Convey to decision-makers the great variety of unbiased scientific expertise that exists within the Bureau and across state government.
- Cultivate productive working relationships between Bureau researchers and decision-makers, including encouraging them to call on us for help with earth science issues.
- Promote better communication and working relationships among staff of government agencies in the state.
- Produce a topical publication that can be used as an authoritative reference for years to come.
- Inform earth science policy-makers by sharing with them modern, high-quality information, especially at the level of state government.
- Increase the Bureau's visibility within the state.

cess. Many different lines of evidence demonstrate the program is valuable. We survey the attendees after the conference, and the most important question we ask them is whether their field conference experience will help them make better decisions in their jobs. Nearly all participants have stated that they think it will. In the future, we may send participants a follow-up letter asking if indeed a conference has helped them in their professional work. Another indicator of success will be whether these decision-makers choose to return for subsequent conferences; and whether word spreads to other decision-makers that the conferences are worthwhile.

The success of our guidebook is also a measure of the success of the conference and the relevancy of its subject matter. A full color, professionally designed and edited, offset-printed, softbound book, it contains approximately 30 short papers written for the non-scientist, with abundant photos and illustrations. We carefully choose each topic and author to provide a comprehensive volume of succinct summaries of all of the crucial technical issues related to the conference topic. Bureau editors review all the papers for content, style, length and readability. Authors must understand that they are writing for a specific audience, and

the editors must be ready to completely rewrite some papers. An important component of each article is a brief biography of each author that contains detailed contact information. We print several thousand copies, as we expect that the books will be a valuable resource for many years. We mail a guidebook to all attendees at least a week before the trip in order to supply them with background information. We also distribute each guidebook free-of-charge to all state legislators and many government agencies.

The guidebooks for the first two conferences were very successful. The book for the first conference, which was held in Santa Fe in 2001, was titled *Water, Watersheds, and Land Use in New Mexico: Impacts of Population Growth on Natural Resources*. It won the 2002 Geological Society of America/Association of American State Geologists John C. Fry Memorial Award for best environmental geology publication in the United States. The 2002 conference explored the complex topic of the state's conventional and renewable and alternative energy resources. Its guidebook, called *New Mexico's Energy, Present and Future: Policy, Production, Economics, and the Environment*, was adopted as an Interstate Oil and Gas Compact Commission "Best Practice."

Other known benefits are:

- decision-makers are more knowledgeable on natural resource issues;
- state legislators who attended a conference have introduced new legislation based on what they learned;
- media attendees have written newspaper columns and editorials or produced radio shows;
- decision-makers are holding improved discussions and debates and calling upon us to provide impartial scientific data and opinions;
- our profile within the state and our own university has improved;
- and we have improved working relationships with other state and federal agencies.

The 2003 conference will go back to water, one of the state's key and ongoing issues. The site will be in southeast New Mexico, and the conference will explore the state's most pressing water problem: the supply, quality and availability of water along the Pecos River.

Bauer is a Senior Geologist and Associate Director at the New Mexico Bureau of Geology and Mineral Resources. He is also the manager of the state's geologic mapping program. When he escapes the office, he heads to Taos to carry on a long-term, mapping-based research project of the Proterozoic through Cenozoic evolution of north-central New Mexico. E-mail: bauer@gis.nmt.edu