

Science for the Public

By Chamois Andersen, Wyoming State Geological Survey (Summer 2014)

Scientists and policymakers have frequently cited the phrase “public understanding of science.” In natural resource management, this is often associated with the public having knowledge of the science used to support management plans or policy initiatives, but more precisely, it relates to the creation of a more scientifically “literate” and better informed society.

Scientific experts are frequently called upon to contribute to public debate, decision-making, and legislation. And it is helpful when the public understands the science behind these debates and decisions. State and federal agencies are often charged with this task because much of their work is in the public domain and agencies also have outreach staff designated for this purpose. When it comes to communicating the geology of Wyoming, this role largely falls on the Wyoming State Geological Survey (WSGS).

WSGS is committed to improving public knowledge of science and public appreciation for the contributions of science in natural resource decision-making.

“You can have the best applied science, but if you are not making it available to a variety of audiences, especially the public, its usefulness is diminished,” said Tom Drean, director of the WSGS. “The public is vital in this effort because what we do in terms of our geologic research is to further knowledge of the state’s geologic resources, the public’s resources, and in many cases, such as with geologic hazards, it’s for the well-being of our citizens.”

Geology and Earth science are inherently technical. Scientific information in this context benefits other scientists, members of academia, and other technical audiences.

“Scientists often describe their research using technical jargon, but this is not the appropriate language to explain their research to those outside of their particular area of expertise, such as citizens and legislators,” Drean said. “For these audiences, we need to essentially translate the science into a language they can understand.”

The WSGS website is a good example of the agency’s efforts to contribute to the public understanding of science. It allows users to sign up for and receive email information (as well as social media posts) on new reports, publications, and maps published by the WSGS, as well as other geology news – all created with the public in mind. “The goal of our outreach efforts is to allow the WSGS to better engage the public with science in a very direct and cost-effective way,” Drean said.

The website has also been redesigned to include interactive online maps. For instance, the public can use these maps to query the locations of earthquakes and landslides in the state. The WSGS website also includes multi-media formats, graphics, and other visuals for the public to better understand the science and technology used for the extractive industries such as oil, natural gas, and coal. Multi-media formats such as GIS

shape files of data and video-shorts of experts in the field also allows the agency to better reach a variety of users, from members of the scientific community and industry to citizens and students.

Most notable in providing scientific information to the public is the text and supporting content developed for the WSGS website. This involves communications staff working with the scientists to create copy for the agency's informational pages, easy-to-read text on everything from energy and water resources to gemstones and geologic hazards. From these introductory pages, a scientist or engineer, for example, can then click to find the more technical information on each topic, along with the scientific data that they may find useful.

Over the last few years, the WSGS website has evolved to better cover "the public understanding of science" in geology, and it is the intent of the agency to continue this effort, while keeping pace with the fast-moving field of Internet Technology.