

Watershed Characterization – An Aid for Managing Energy Development

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Local governments and local conservation districts are key for determining if energy development will be a success or failure for people who live in the country. A combination of foresight, caution, vision, skepticism, optimism, and experience is needed to manage boom and bust developments like coalbed methane. Yet with careful study, constant communication, and good information, all players can experience some benefit.

And the players are many – Federal government, Federal agencies, State government, State agencies, commissioners, assessors, operators, visionaries, entrepreneurs, ranchers, farmers, outdoorsmen, and little old ladies in tennis shoes all play a part and have something to offer. The trick is to see broadly by seeing what is out there, what has occurred in the past, and what might occur in the future. This is so difficult – we all live so much in the present.

A tool exists today that wasn't available even two years ago, and that is visually-oriented, computer-assisted watershed characterizations for the development areas. What this means is that, at your fingertips, can be available a complete description of the areas in which development will occur laid out in a logical pattern – the watershed – and laid out in pictures, maps, figures, and photos. Because this information is also based on a computer system, all information can be kept current. Even better, different types of information can be overlaid so that the relationship, for example, of roads, and water wells, and drainages, and CBM wells can all be seen at a glance. Patterns of development and hotspots can be rapidly and easily discerned. And baseline conditions can be cast in concrete so that a measuring stick for change is available to all.

The beauty of this system is that a great deal of information can be summarized and synthesized so that informed management decisions can be made rapidly and can be based on the most current available information. We have an example of a watershed in the heart of CBM development in Wyoming that can be reviewed to see what types of information can be harvested – from climate to geology, wildlife, ranch infrastructure, water wells, oil and gas wells, compressor stations, vegetation, soils, and topography, to name a few. The possibilities are vast and the need is an important one – both for decision-making and documentation. Because successful management means not only accepting change, but making it work for you. And without baseline information, the rate and magnitude of change can not be measured. This beautiful tool can be applied to any size watershed, large or small, and the benefit in seeing patterns in the landscape will become immediately apparent.