Hydraulic fracking: we can decide now

American's are discovering fracking. More precisely, citizens are finding that while hydraulic fracturing has been around since just after World War II, its incidence and effects were unknown, until recently, to many, including regulators.

Fracking involves creating deep-reservoir fractures to increase the productivity of a well. A cocktail mix of chemicals in water along with a "propping agent" such as sand is injected at pressures that exceed the strength of the drillied rock. Most fracking targets natural gas from shale and tight sands formations; some involves oil. Fracking happens along a chain of activities - from the decision to search for energy reserves on public or private land to delivery of an energy product to an end user.

At least 16 states in the U.S. have important reserves of natural gas (or oil) accessible through hydraulic fracking. Companies as large as ExxonMobil are in the fracking business but so too are very small local operators.

The pace of discovery and the pace of new fracking initiatives are accelerating. Fracking produces an increasingly important amount of the nation's energy and is a part of the story of the U.S. moving closer to energy independence, a prediction that would have seemed laughable five or 10 years ago.

But fracking is controversial and it should be. Its environmental effects are still being debated while its contributions to a weak economy are trumpeted. President Barack Obama recently stated that 600,000 jobs had been created from shale gas development and there are anecdotal stories of individuals and groups of neighbors reaping huge windfalls in leasing fees.

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Fracking's effects and its relative impacts, say compared to those associated with the carbon economy, are debated but reports link living near fracking sites to disease clusters. Documentaries show tap water on fire and marred landscapes in fracking regions. Excessive noise, threats to wildlife and to water sources - their quality and quantity - as well as air pollution are real concerns.

Until very recently, regulation of the core activity of fracking at the federal level was very limited, and it is still in an early stage of evolution. However, already a dozen laws from the Clean Water Act to the National Environmental Policy Act can
be used to manage fracking in an environmentally responsible way.

States are a major source of regulation of the fracking enterprise. Targeted activities include seismic testing, construction of roads to the sites and transporting equipment to them, habitat preservation and conservation around the wells, drilling and casing, control of air emissions, water quantity and quality regulation near and at the sites, waste storage and disposal, and site restoration.

State laws on fracking vary widely. Some states, including California, do not even have records of how many sites are being fracked and where those sites are. Other states have fairly aggressive approaches to some steps in the process including New York, Louisiana and Texas.

Local law is potentially potent in fracking decisions. Local zoning can address the aesthetics of fracking facilities. Counties, cities and towns can ban the practice or impose moratoriums on it until its effects are better understood and better controlled. Furthermore, common law actions remain available to individual property owners under nuisance, trespass, negligence and liability schemes.

Formal federal and state law may begin to catch up with the practice of fracking as public interest grows. Meanwhile citizens remain the best source of information about the risks and benefits, both observed and anticipated, of this process. They can act under existing law even while new rules are being developed.