

## Chuck Graver

There is significant evidence that natural gas development, and its related operations, which include all the phases of the hydraulic fracturing ("fracking") process, from the first stage of industrial land preparation; to the storage, handling, and use of chemicals and additives for extraction and stimulation; to drilling and fracking; to the withdrawal of and degradation of large volumes of water and its discharge and disposal as waste, has substantial adverse effects on public health, property interests, agriculture, and on our air, water, and land.

The most recent statistical analysis of the body of scientific literature by the Concerned Health Professionals of New York and Physicians for Social Responsibility, 685 peer-reviewed papers examining gas drilling and/or hydraulic fracturing ("fracking") were reviewed and the overwhelming majority of studies found evidence of or potential adverse impacts on water, air, and human health.

Pennsylvania Department of Environmental Protection (PADEP) has determined that there are 301 cases of private water well contamination caused by oil and gas operations in the Commonwealth; over 4,400 water complaints related to oil and gas have been filed by the public with PADEP. Between 2004 and 11.2016, PADEP lists 9,443 public complaints about environmental problems in shale gas drilling areas.