

## **HYDROFRACKING FORUM AT LIMESTONE PRESBYTERIAN CHURCH HELD ON JANUARY 25, 2012 – summary by Lorraine Fleming, Chad Tolman and Pat Todd**

A public information forum on hydrofracking for natural gas (methane) sponsored by the LWV-NCC and Nurses Healing Our Planet was attended by over 75 people. Rev. Bruce Gillette, Pastor of Limestone Presbyterian Church, and Pat Todd, LWV-NCC welcomed the audience. Moderator Coralie Pryde, LWV-NCC, introduced the speakers: Dr. Roberta Winter, Vice President – Advocacy and Issues, LWV PA; Kathleen Stiller, Director, Division of Water, DNREC; and Faith Zerbe, Biologist with Delaware Riverkeeper Network. While the League attempted to provide an industry spokesperson, no one was forthcoming. A lively Q and A session followed the presentations.

Hydraulic fracturing or “hydrofracking” is the process of releasing natural gas from shale formations deep underground by drilling vertical and horizontal wells and injecting a mixture of water, sand and organic chemicals (some toxic) at high pressure to fracture the shale, hold open spaces between layers (the role of the sand), and release the natural gas so that it can be collected and pumped by pipeline to be burned to produce heat or electricity. This industrial process has spread rapidly across the country (34 states) since Congress passed the Energy Policy Act of 2005 which exempted extraction of natural gas from regulatory provisions of the Clean Air Act and Safe Drinking Water Act. This lack of environmental controls has been a bonanza for developers who are making fortunes with little or no state or federal oversight – like the California Gold Rush of 1849 noted Winters. Economic studies can be found on the LWV PA website.

Some 15 million people depend on the Delaware River Basin for their drinking water, including 70% of New Castle County residents. Of particular concern to Delaware is the potential contamination of ground and surface waters in the Delaware River Basin from fracking operations in the Pennsylvania Marcellus Shale formation which underlies about 2/3 of the state. Of lesser but significant concern is methane leakage into the atmosphere and into underground aquifers. Winters cautioned vigilance over pipelines that will cross the Brandywine, Red Clay and White Clay Creeks. There are cases where water in streams or even kitchen sinks can be ignited, the quantity of leaked methane in the water is so great. Methane also is a very potent greenhouse gas, much more potent than carbon dioxide and in the course of its oxidation produces ground-level ozone, causing damage to both plant leaves and human lungs.



(Pictured L-R) Faith Zerbe, Kathleen Stiller, Dr. Roberta Winter

Faith Zerbe, Biologist with the Delaware River keeper Network, discussed the Delaware River Basin Commission’s (DRBC) role in permitting water usage in the Basin and the DRBC draft fracking regulations which were to have been voted on November 21, 2011. The vote was postponed and not rescheduled when Governor Markell notified commissioners that Delaware would vote NO. Markell has asked DNREC to answer the several technical questions on how fracking can be conducted safely. Governors of Delaware, Pennsylvania, New Jersey and New York, plus a representative of the U.S. Army Corps of Engineers (the President’s alternate) comprise the DRBC commissioners.

Though drilling companies have not been forthcoming about what organic chemicals are in fracking fluid, there is evidence of benzene and other carcinogenic compounds. Only about 20% of the material is produced (released) with the natural gas for storage and possible reuse; the fate of the rest is unknown. Zerbe stated that the used fluid frequently contains high concentrations of salt as well as arsenic, heavy metals and even radioactive elements, very destructive to stream life. Many of these substances cannot be removed by conventional wastewater treatment plants and would need expensive, specialized

treatment—like the processes used at the DuPont Chamber Works in NJ—before the used water could be safely released into the Delaware River.

The need for tight regulations and oversight of hydrofracking is evident. There were over 70,000 comments in response to the first draft regulations released in the spring of 2011. The second draft of regulations was released November 8, 2011. Many are still concerned that these proposed regulations are not sufficiently protective of public health and the environment; nor has the public been allowed to comment on the second draft. The process forward must be followed closely and public involvement continued unabated to ensure that any hydrofracking in the Delaware Basin is conducted with utmost safety.