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Dear Chairman Sweeney & Members of the Environmental Conservation Committee,

We appreciate the attention your committee has given to the important issue of hydrofracking in New York. Unfortunately, due to illness, we were unable to attend the public hearing and provide testimony. Citizens' Environmental Coalition represents thousands of members and organizations throughout New York State. We have attempted to summarize some of the major issues associated with hydrofracking, which are attached. Our position on Hydrofracking is that it cannot be done safely in NY. Our position is based on the facts associated with this practice and the untoward outcomes that have already occurred, as well as the severely impaired ability of the Department of Environmental Conservation to propose a stringent regulatory program with adequate oversight and enforcement. We recommend banning hydrofracking in NY until comprehensive studies are done as pilot projects, which can document all aspects of this new technology and its potential for environmental impacts. We believe that as proposed hydrofracking is in violation of both the State's Environmental Conservation Law, and any reasonable interpretation of the Public Trust doctrine that seeks to protect natural resources for the public and future generations.

We have also been advocating the Precautionary Principle in relation to Toxic Chemicals and the reform of laws that review and regulate the use of carcinogens, persistent bioaccumulative toxins, endocrine disruptors and other toxins. We have a DEC that is pursuing an agenda consistent with the Precautionary Principle in its support for the Pollution Prevention Institute and the Interstate Chemicals Clearinghouse, working to prevent pollution, reduce the use of highly toxic chemicals and identify safer alternatives. At the same time the DEC is moving forward with plans for hydrofracking that include allowing companies to inject massive quantities of highly toxic chemicals into the ground.

In the case of Hydrofracking DEC is pursuing the exact opposite of the Precautionary Principle because it will be permitting the use of these toxic chemicals in hydrofracking. The Precautionary Principle consists of several elements which have been embraced by many other states, including the ten making up the Interstate Chemicals Clearinghouse. The EPA Administrator, Lisa Jackson has also articulated most of these principles and is taking action to reform our chemical system.

The Elements of the Precautionary Principle are:

- **Require Safer Substitutes and Solutions**
- **Phase Out Persistent, Bioaccumulative, or Highly Toxic Chemicals**

- **Give the Public and Workers the Full Right-to-Know and Participate**
- **Act on Early Warnings**
- **Require Comprehensive Safety Data for All Chemicals**
- **Take Immediate Action to Protect Communities and Workers**

We are hopeful that your committee and the legislature as a whole will act to protect New Yorkers from hydrofracking by passing legislation to ban it unless and until the industry assumes full responsibility and liability for the entire lifecycle associated with gas production, including all wastes and any untoward outcomes.

Thank you for your attention.

Sincerely,



Barbara Warren
Executive Director

What is wrong with Hydrofracking?

New technology with lots of unknowns and no well formulated regulatory structure

Hydrofracking uses new technology and has large numbers of unknown or poorly understood impacts. There has been no independent comprehensive study of these practices that do not point to substantial cause for concern.

Hydrofracking uses large quantities of clean, fresh water.

This fresh water represents an important resource for New Yorkers that needs protection. Instead the hydrofracking process deliberately contaminates this water, an estimated 9 billion gallons of water annually, and rather than internalizing the full costs of cleaning up their own contamination, companies will discharge toxic contamination to New York's environment.

Environmental pollution, destruction and health impacts

Experience in NY & other states has documented water contamination of surface & drinking waters, fires, explosions, ecosystem destruction, toxic air emissions and human health impacts.

Fracking uses large quantities of very toxic chemicals and deliberately injects them into the ground to create pathways for natural gas to flow.

Large quantities of very toxic chemicals are deliberately added to the fracking fluid used to aid the extraction of natural gas from the Marcellus Shale. Neither DEC or industry itself has proposed restricting the list of chemicals used so that the most hazardous are not used. DEC seeks only to receive information about which chemicals are being used or found in flowback. Chemicals known to cause cancer and birth defects, to disrupt the endocrine system, to persist in the environment and bioaccumulate will be used. These include well understood chemicals like benzene, a known human carcinogen, and naphthalene, a persistent, bioaccumulative toxin.

Used Fracking fluids are also contaminated with radioactive materials.

Fracking Fluids also become contaminated underground from naturally occurring radioactive materials present in the rock formations. The State Dept of Health has found the levels of radioactivity to exceed health guidelines.

Sewage Treatment Plants have never been capable of removing toxic chemicals or radiation as part of sewage treatment.

Treatment at sewage treatment plants will release these contaminants to receiving waters such as lakes and rivers.

Storage of used fracking fluids poses hazards.

Not all fracking fluids are recovered. A significant portion is never recovered. However, used fracking fluids are often stored in open pits or holding ponds, where they can impact ground and surface waters. Evaporation from these ponds also results in air pollution. Wildlife can also be attracted to this poisonous brew.

The public is NOT protected from air toxics resulting from hydrofracking operations.

In general air emissions have not been well-studied in other states. This is partly because the oil and gas industries have been exempted from so many federal environmental laws. In NY, DEC has relied completely on industry for information about air emissions. However recently an environmental organization studied emissions at drilling sites and found High levels of carcinogens and hydrogen sulfide around fracking operations in New Mexico and Colorado (*Gassed! Citizen Investigation of Toxic Air Pollution from Natural Gas Development*: <http://gcmonitor.org/downloads/gassedreport.pdf>).

Site Geology will always represent an unknown before drilling and surprises should be expected.

Drilling occurs vertically and over a wide horizontal area. The actual geology of such a large area cannot be known in advance of drilling. Those of us who have dealt with hazardous waste sites understand this problem, as initial site concepts are shown to be faulty when fissures and sand lens are identified that allow movement of liquid and gaseous contamination.

Potential for increased earthquake activity

While there have been some questions about whether hydrofracking affects seismic activity and earthquakes the experience in Missouri is instructive. Increasing seismic activity led to a moratorium on drilling and injection of wastes into the ground. The moratorium resulted in an immediate decrease in seismic activity. Increased seismic activity could have significant impacts on hazardous waste sites, chemical and petroleum storage tanks and other kinds of facilities handling hazardous materials.

The DEC is UNDERSTAFFED and will not be able to effectively manage the influx of an estimated 1,600 well permits per year or regulate the industry. DEC has suffered severe budget cutbacks and the loss of qualified personnel. The public has received only assurances about the adequacy of future regulation and oversight of this industry. This has already resulted in the transfer of critical environmental reviews to applicants and the regulated businesses and industry. We predict that hydrofracking will largely be self-regulation by industry. Experience with drilling in NY already points to significant problems. Recently DEC turned over well closures to EPA to handle.

Industry self-regulation will never be adequately protective of the environment or public health. The Industry is simply not capable of regulating itself.

Industry has failed to responsibly deal with serious environmental issues, choosing instead to deny their role in the situation. Industry provides only verbal assurances instead of performance commitments that will be translated into permitting requirements.

Energy may not be the primary purpose of fracking, but plastics production.

The primary supposed purposes for this activity – energy resources and independence- are questionable based on industry plans to use this gas production to produce more cheap plastics. Plastics continue to increase in the waste stream, while the plastics industry has been the most irresponsible industry at trying to increase its recovery and recycling efforts and decrease its use of virgin materials. The economic costs associated with plastics have largely been shifted onto the public, rather than the industry internalizing the full costs of plastics production.

Gas production is TAX EXEMPT in New York, providing no money for the state to plug wells or to clean up environmental damages. Many other states collect taxes on gas production. See National Conference of State Legislatures at <http://www.ncsl.org/default.aspx?tabid=12674>

Additionally, the regulations put forth by the DEC exempts drillers from posting a bond to plug wells less than 6,000 feet in length and caps the liability at 8 wells per operator. There are already thousands of abandoned gas wells in New York State that remain unplugged and have become pathways for groundwater contamination. The DEC does not have a plan or the funds to plug any of these already existing abandoned wells and will not have the funds to plug hydrofracking wells once they are abandoned by the industry.

Economic gains to industry from hydrofracking have been overstated

In August of this year, the US Geological Survey cut estimates of natural gas in the Marcellus Shale by 80%. Without adequate upfront fees to the state, the industry could cause environmental damage and walk away when the profits of the venture prove disappointing.

State-owned lands are NOT protected from hydrofracking operations.

Although a hydrofracking well pad cannot be built on state-lands, drilling CAN occur under state-lands. Hydrofracking could contaminate waterways on public land, create toxic air emissions and impact wildlife. At the same time gas withdrawals could be from public lands without paying fees to the public.

Hydrofracking could seriously hinder NY's plans to take action on climate change.

Cracks & fissures can provide pathways for drinking water contamination as well as for the escape of natural gas to the atmosphere that is uncontrolled, and neither captured or measured. Methane is understood to have significant global warming potential particularly over the short term (the next 20 years). It has a global warming potential (GWP) over 100 times that of CO₂ according to NASA. NY's existing draft climate action plan includes no estimates of methane emissions from gas drilling. Unless emissions are carefully studied at all drilling sites, future climate plans will not be able to accurately estimate actual emissions from hydrofracking. As a result NY will have difficulty developing a meaningful plan to address climate change.

Hydrofracking is unlawful under New York's Environmental Conservation Law.

State Law speaks clearly about the state's responsibilities under the state's environmental conservation laws. We believe the Governor and the DEC are moving forward to permit widespread hydrofracking in violation of these laws, which emphasize prevention of pollution and protection of our natural resources now and for future generations.

There is simply no way that the DEC can proceed to permit thousands of hydrofracking operations in the state and not be in violation of the Environmental Conservation Law's statement of policy under Article One as well as Article 28 related to Pollution Prevention.

Under Article 1 § 1-0101. Declaration of policy.

*1. The quality of our environment is fundamental to our concern for the quality of life. It is hereby declared to be the policy of the State of New York to conserve, improve and **protect its natural resources and environment and to prevent, abate and control water, land and air pollution**, in order to enhance the health, safety and welfare of the people of the state and their overall economic and social well being.*

2. It shall further be the policy of the state to improve and coordinate the environmental plans, functions, powers and programs of the state, in cooperation with the federal government, regions, local governments, other public and private organizations and the concerned

individual, and to develop and manage the basic resources of water, land, and air to the end that the state may fulfill its responsibility as trustee of the environment for the present and future generations.

3. It shall further be the policy of the state to foster, promote, create and maintain conditions under which man and nature can thrive in harmony with each other, and achieve social, economic and technological progress for present and future generations by:

a. Assuring surroundings which are healthful and aesthetically pleasing;

b. Guaranteeing that the widest range of beneficial uses of the environment is attained without risk to health or safety, unnecessary degradation or other undesirable or unintended consequences;

c. Promoting patterns of development and technology which minimize adverse impact on the environment;...

Article 28 of the State's Environmental Conservation Law addresses Pollution Prevention.

§ 28-0101. Declaration of policy.

It is declared to be the policy of the state of New York to promote affordable and cost effective methods to reduce energy and resource consumption and reduce or eliminate the use of hazardous substances and the generation of such substances, pollution or waste at the source in order to conserve, improve and protect New York's environment and natural resources; enhance the health, safety and welfare of its citizens; and increase the economic competitiveness of New York businesses.

Allowing hydrofracking is a violation of the Public Trust Doctrine.

The public trust doctrine has a long history of protecting natural resources for public uses. The public trust doctrine is applicable in New York and over the years the interpretation of the doctrine has been expanded to encompass the preservation and conservation of natural resources, including entire ecosystems. New York's Environmental Law even references the State as a Trustee of the environment to **"manage the basic resources of water, land, and air to the end that the state may fulfill its responsibility as trustee of the environment for the present and future generations."**

Hydrofracking egregiously violates the precautionary principle.

Hydrofracking egregiously violates the precautionary principle.

The Precautionary Principle was articulated in the Louisville Charter for Safer Chemicals.

The Louisville Charter for Safer Chemicals

A Platform for Creating a Safe and Healthy Environment through Innovation

Fundamental reform to current chemical laws is necessary to protect children, workers, communities, and the environment. We must shift market and government actions to protect health and the natural systems that support us. As a priority, we must act to phase out the most

dangerous chemicals, develop safer alternatives, protect high-risk communities, and ensure that those responsible for creating hazardous chemicals bear the full costs of correcting damages to our health and the environment.

By designing new, safer chemicals, products, and production systems we will protect people's health and create healthy, sustainable jobs. Some leading companies are already on this path. They are creating safe products and new jobs by using clean, innovative technologies. But transforming entire markets will require policy change. A first step to creating a safe and healthy global environment is a major reform of our nation's chemicals policy. Any reform must:

Require Safer Substitutes and Solutions

Seek to eliminate the use and emissions of hazardous chemicals by altering production processes, substituting safer chemicals, redesigning products and systems, rewarding innovation and re-examining product function. Safer substitution includes an obligation on the part of the public and private sectors to invest in research and development of sustainable chemicals, products, materials and processes.

Phase Out Persistent, Bioaccumulative, or Highly Toxic Chemicals

Prioritize for elimination chemicals that are slow to degrade, accumulate in our bodies or living organisms, or are highly hazardous to humans or the environment. Ensure that chemicals eliminated in the United States are not exported to other countries.

Give the Public and Workers the Full Right-to-Know and Participate

Provide meaningful involvement for the public and workers in decisions on chemicals. Disclose chemicals and materials, list quantities of chemicals produced, used, released, and exported, and provide public/worker access to chemical hazard, use and exposure information.

Act on Early Warnings

Act with foresight. Prevent harm from new or existing chemicals when credible evidence of harm exists, even when some uncertainty remains regarding the exact nature and magnitude of the harm.

Require Comprehensive Safety Data for All Chemicals

For a chemical to remain on or be placed on the market manufacturers must provide publicly available safety information about that chemical. The information must be sufficient to permit a reasonable evaluation of the safety of the chemical for human health and the environment, including hazard, use and exposure information. This is the principle of "No Data, No Market."

Take Immediate Action to Protect Communities and Workers

When communities and workers are exposed to levels of chemicals that pose a health hazard, immediate action is necessary to eliminate these exposures. We must ensure that no population is disproportionately burdened by chemicals.

Dates must be set for implementing each of these reforms. Together these changes are a first step towards reforming a 30-year old chemical management system that fails to protect public health and the environment. By implementing the Louisville Charter and committing to the innovation of safer chemicals and processes, governments and corporations will be leading the way toward a healthier economy and a healthier society.