The Health Effects and Treatment Costs from Shale Gas Air Pollution will be borne by all New Brunswick Taxpayers

Places around the world where shale oil and gas production has been allowed are now experiencing **skyrocketing costs for public services** (health, roads, etc.) that are **directly caused by the industry**. Those costs have proven to be significantly more than the royalties and taxes the shale gas industry pays.

Even states like Texas, which has a long history of dealing with oil and gas, have been caught completely unprepared for these costs. One of the most notable areas where **new costs are gobbling up money** is the **health care system**.

Air Pollution at Every Stage of Shale Gas Production

The shale industry releases **significant amounts of nitrogen oxides** (NOx) and **volatile organic compounds** (VOC's) in all of its daily operations. NOx and VOC's are two primary constituents of ozone. Chronic exposure to ozone leads to **asthma, chronic obstructive pulmonary diseases,** and is **particularly damaging to children, young adults** who spend time outdoors**, and the aged**.

The **American Lung Association** measured the health costs of air pollution from NOx and VOC's. It says that the **cost impact o**f such pollutants **on the health of the people** who live in heavily drilled regions is about **$1648 per ton** (2010 dollars).

NOx and VOC Air Pollution in Texas, Arkansas, and Pennsylvania

State / Shale Gas Field	NOx & VOC Emissions into the air	Increased Annual Health Cost (rounded)
Texas (Barnett shale)	44,165 Tons per year	**$73,000,000**
Arkansas (Haynesville shale)	20,347 Tons per year	**$33,500,000**
Pennsylvania (Marcellus shale)	19,300 Tons per year	**$32,000.000**

Emission figures from Texas Commission on Environmental Quality, Arkansas Department of Environmental Quality, Pennsylvania Department of Environmental Protection

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Externalities of Shales: Health Impact Costs, Deborah Rogers http://energypolicyforum.org/2013/04/03/shale-externalities-health-impact-costs

"Water pollution is a possibility.
Air contamination is a certainty."
Dr. Theo Colburn,
The Endocrine Disruption Exchange

Air Pollution from Shale Oil and Gas Fields Harms People more than 300 Kilometers Away

Gas field ozone has created a previously unrecognized air pollution problem in rural areas, similar to that found in large urban areas, and can spread up to 320 kilometres beyond the immediate region where gas is being produced.
Source: International Journal of Human and Ecological Risk Assessment, September 2011; Natural Gas Operations from a Public Health Perspective; Theo Colborn, Carol Kwiatkowski, Kim Schultz, and Mary Bachran

Rural areas near gas fields in sparsely populated Wyoming and Utah have higher ozone levels than Los Angeles and New York City.

New Brunswick's Chief Medical Officer for Health Makes Two Important Points in her Report on Shale Gas:

1. **There has not been, and there are no plans for, a comprehensive risk analysis of the industry as a whole to the province.**

2. **There is no framework for assessing health risks in our regulatory structure.**

We strongly urge reading NB's Chief Medical Officer for Health's report on shale gas. You can see this report on-line at:

http://www2.gnb.ca/content/gnb/en/departments/ocmoh/publications.html#reports

Select:: Chief Medical Officer of Health's Recommendations Concerning Shale Gas Development in New Brunswick (September 2012)