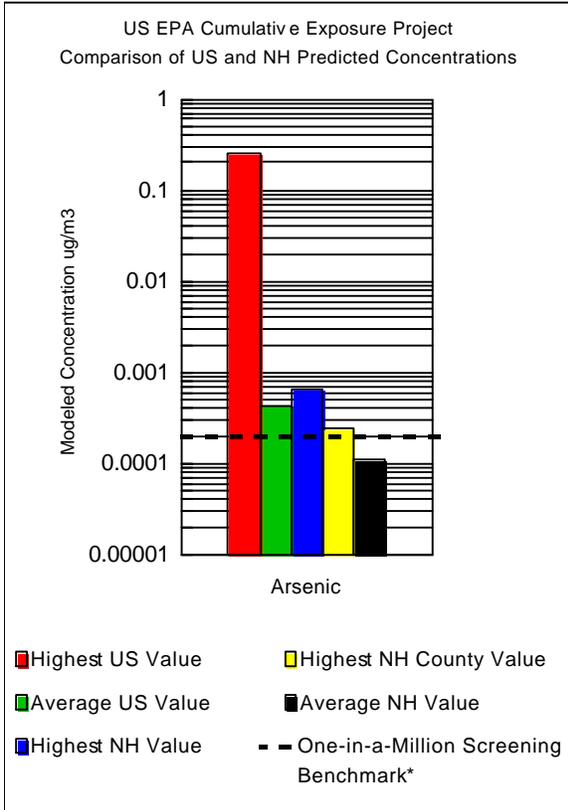


# Health Effects Information for Toxic Air Pollutants of Concern in New Hampshire (as identified in the US EPA Cumulative Exposure Project)

## ARSENIC COMPOUNDS



CEP Concentration Data (ug/m <sup>3</sup> )	
CEP Screening Benchmark*	0.00023
CEP Background Concentration	n/a
Maximum US Concentration	0.26
Average US Concentration	0.00043
Maximum NH Concentration	0.00065
Maximum NH County Concentration	0.00024
Average NH Concentration	0.00011

NH CEP Concentration Comparison Summary	
Percent by w.t. of all toxics evaluated in the CEP	0.00082%
NH highest value as a % of US highest value	0.25%
NH average value as a % of US average value	25.3%
NH highest value as a % of US average value	149%
NH avg. as a % of CEP Screening Benchmark*	48%

Source Apportionment in NH**	
% contribution from Point Sources	22.1%
% contribution from Area Sources	47.7%
% contribution from Mobile Sources	30.3%

**Overview of Health Effects**

Known carcinogen, based on sufficient evidence from human data. An increased lung cancer mortality was observed in multiple human populations exposed primarily through inhalation. Also, increased mortality from multiple internal organ cancers (liver, kidney, lung, and bladder) and an increased incidence of skin cancer were observed in populations consuming drinking water high in inorganic arsenic. Noncancer effects to blood cells, heart function, blood vessels, and nervous system. High levels can lead to sore throat and irritated lungs.

**Carcinogenicity Classification**

**Known Human Carcinogen (EPA Group A)**

\* In developing the CEP, EPA established screening benchmark concentrations for each modeled toxic air pollutant below which there is likely to be no public health concern. To estimate potential cancer concerns, the CEP used a screening benchmark of 1-in-a-million excess risk of cancer. A risk level of 1-in-a-million means that one person out of one million equally exposed people would potentially contract cancer if exposed continuously (24 hours per day) to the specified concentration over 70 years (an assumed lifetime). This one case would be in addition to the number of cancer cases that would normally occur in a normally exposed population of one million people.

\*\* Source apportionment reflects the estimated contribution from each of the three source categories. Point sources include major industrial emission sources such as power plants and manufacturing plants. Area sources are typically smaller sources such as gasoline stations, dry cleaners, auto body shops, and the use of consumer products in the home. Mobile sources include emissions from automobiles, trucks and buses.