From: <email address removed>
Sent: Thursday, November 28, 2019 12:01 PM
To: Grassy Mountain (IAAC/AEIC) <iaac.grassymountain.aeic@canada.ca>
Subject: RE: Exposure to PM 2.5 was associated with increased brain atrophy

I regret that relevant articles are rejected by the panel. They are far more convincing than my summary would be – and they hold critical information that the panel should be considering, especially the effects of air pollution from coal fly ash.

This first application from Riversdale Resources and the others bound to follow are very frightening with respect to our health. Do we stay with friends and community in a landscape we love or are we pushed out of our home because we are not willing to put ourselves at risk to coal effluent that could kill us with lung or heart disease or cross the blood brain barrier and cause dementia.

Would you or the panel like to have this choice? I send reports of studies already parsed into easy reading by credible sources because they are critical to the future of those who live here and the choice the panel will make.

We are very afraid in this political climate that the choice will be yes to coal and our only hope is to offer credible data that shows why coal mining is wrong in so many ways.

Jillian Lynn Lawson

From: Grassy Mountain (IAAC/AEIC) <iaac.grassymountain.aeic@canada.ca>
Sent: Thursday, November 28, 2019 9:40 AM
To: <email address removed>
Cc: Grassy Mountain (IAAC/AEIC) <iaac.grassymountain.aeic@canada.ca>
Subject: RE: Exposure to PM 2.5 was associated with increased brain atrophy

Good afternoon Ms. Lawson,

Thank you for sending the below email. As previously noted in our email to you on November 13, 2019, for the Panel to consider the article, we would need a summary of **your** concerns related to the Grassy Mountain Coal Project as a result of reading the article.

While your last submission (CIAR #293) was posted without a summary of your concerns, we really do need you to make the connection between the news article(s) presented and the Grassy Mountain Project currently under review.

If it is helpful, our Resource Document that we use for public comment periods is a good place to start.

When reviewing the environmental assessment information, participants should consider the technical validity of the information, methods and analysis used, as well as the conclusions regarding the significance of any environmental effects, proposed mitigation measures and plans for related follow-up programs. The same applies when participants wish to submit other documentation for the Panel to consider.

Please let us know if you have any further questions.

Sincerely,

Panel Secretariat
Grassy Mountain Coal Project
CEAA.GrassyMountain.ACEE@canada.ca

From: <email address removed>
Sent: Wednesday, November 27, 2019 10:39 PM
To: Grassy Mountain (IAAC/AEIC) ; Grassy Mountain (IAAC/AEIC)
Subject: Exposure to PM 2.5 was associated with increased brain atrophy

For The Grassy Mountain Panel - An from the New York Times.

Jillian Lynn Lawson
Porcupine Hills AB

Air Pollution May Damage the Brain
Tiny air pollutants may cause changes in brain structure that resemble those of Alzheimer's disease.

Nicholas Bakalar
By Nicholas Bakalar
Nov. 25, 2019

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Long-term exposure to air pollution is associated with lower scores on tests of mental acuity, researchers have found. And one reason may be that air pollution causes changes in brain structure that resemble those of Alzheimer's disease.

The scientists studied 998 women ages 73 to 87 and free of dementia, periodically giving them tests of learning and memory. They used magnetic resonance imaging to detect brain atrophy, or wasting, and then scored the deterioration on its degree of similarity to the brain atrophy characteristic of Alzheimer's disease. They matched Environmental Protection Agency data on air pollution to the women's residential addresses.

Over 11 years of follow-up, they found that the greater the women's exposure to PM 2.5, the tiny particulate matter that easily penetrates the lungs and bloodstream, the lower their scores on the cognitive tests.

After excluding cases of dementia and stroke, they also found a possible reason for the declining scores: The M.R.I. results showed that increased exposure to PM 2.5 was associated with increased brain atrophy, even before clinical symptoms of dementia had appeared. The study is in the journal Brain.

“PM 2.5 alters brain structure, which then accelerates memory decline,” said the lead author, Diana Younan, a postdoctoral researcher at the University of Southern California. “I just want people to be aware that air pollution can affect their health, and possibly their brains.”

Correction: Nov. 25, 2019
An earlier version of this article misstated the affiliation of the lead author, Diana Younan. She is a researcher at the University of Southern California, not the University of California.