

Mary Catherine Dunphy
2704 9th Street South #101
Arlington, VA 22204-2367

September 19, 2015

Mr. Ken Blodgett
Office of Environmental Analysis
Surface Transportation Board
395 E Street, S.W.
Washington, D.C. 20423-0001

Re: Environmental Filing Docket No. FD 30186
Tongue River Railroad Company, Inc. -- Rail Construction and Operation
In Custer, Powder River and Rosebud Counties, Montana

Dear Mr. Blodgett:

On January 8, 2013, I wrote and requested that the "No-Action Alternative" be taken by your organization with regard to the Tongue River Railroad Company's Revised Application Seeking to Construct and Operate a Rail Line in Southeastern Montana. And, by this letter, today I am once again formally requesting that the "No-Action Alternative" be taken by the Surface Transportation Board. The Tongue River Railroad ("TRR") should not be constructed. I would appreciate your ensuring that this letter is entered into the public record; as well as my letter and comments and exhibits of January 8, 2013.

As written previously, I am formally requesting that the "No-Action Alternative" be taken by the Surface Transportation Board with regard to the construction of the Tongue River Railroad for reasons that pertain to global warming/climate change, air quality, environmental justice and human rights. My request is based on the fact that the coal hauled by the TRR will, when burned anywhere, release huge amounts of carbon dioxide into Planet Earth's atmosphere. The carbon dioxide, one of the most toxic of the green house gasses, will accelerate global warming/climate change and the effects will be detrimental to the health and welfare of every human being and species on Earth. The environmental impact will be experienced worldwide and by several generations. It will be a crime against humanity to allow this to happen and no one should be permitted to profit from hauling coal anywhere.

Since I last wrote in January 2013, the news regarding global warming/climate change keeps getting worse. In making your decision on whether or not to permit the TRR, I urge you and the Surface Transportation Board to read and consider the warnings expressed in the "Fifth Assessment Report" issued by the United Nations' Intergovernmental Panel on Climate Change ~~Fifth Assessment~~ on September 27, 2013. The Report is the work of 209 lead authors and 50 review editors from 39 countries, and over 600 contributing authors from 32 countries. In addition 25 NASA scientists helped author and review the Report. (See, **Exhibit 1.**) The full

report may be read at www.ipcc.ch/report/ar5/wg1/. The shorter version or "Summary of Policy Makers may be read at: www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1ARS_SPM_FINAL.pdf.

If your organization heeds the warnings of ^{the} IPCC Report, I do not understand how it can justify permitting the Tongue River Railroad to haul coal anywhere.

I would also urge your organization to consult what other U.S. governmental agencies are publishing about the perils of global warming/climate change. A good one is at NASA's website: climate.nasa.gov

The news regarding global warming and climate change really does keep getting worse. Here is just one example from an article in the September 15, 2015 issue of the *Washington Post* written by Darryl Fears, entitled "California Hasn't Been this Dry in 500 Years."

"... A study by scientists at NASA and Columbia University said California was one of several states in the Southwest facing a mega-drought, a pervasive event that could last up to 30 years, if greenhouse gas emissions are not dramatically curtailed by 2050. A study by scientists at Stanford University said a future of more-frequent drought in California is a near certainty because temperatures are increasing at a time when precipitation rates are steady, allowing heat to overwhelm the moisture.

A Columbia study analyzed month-to-month climate data between 1901 and 2014 to find fluctuations in precipitation, wind, temperature and humidity. It said average temperatures in California have increased by 2.5 degrees Fahrenheit over 113 years. And, starting in the 1960s, heat increased with the introduction of more greenhouse gases from automobiles and other sources." (Emphasis added.)

This past week hundreds of homes burned to the ground in a terrible wildfire in Middletown, California. Wildfires are just one of the terrible types of disasters the climate scientists are telling us will happen with greater frequency as the Earth warms. Rising sea levels pose great risk to many major cities and states in the U.S. as well as to many nations. (See, **Exhibit 2.**)

I also read that July, 2015 has been the hottest July on record. And, according to the climate scientists, it is going to get even hotter.

Since I wrote in January, 2013, multiple studies published in peer-reviewed scientific journals show that 97 percent or more of actively publishing climate scientists agree: Climate-warming trends over the past century are very likely due to human activities. In addition, most of the leading scientific organizations worldwide have issued public statements endorsing this position. See, **Exhibit 3**. The following website lists the nearly 200 worldwide scientific organizations that hold the position that climate change has been caused by human action: http://opr.ca.gov/s_listfororganizations.php

The following website contains information on what federal agencies are doing to adapt to climate change: <http://www.c2cs.org/docUploads/federal-agencies-adaptation.pdf>

Another change is the measurable levels of carbon dioxide in Earth's atmosphere has risen. Exhibit 4 shows how much the level of carbon dioxide in the atmosphere has increased:

"The level of CO₂ in the atmosphere has risen from around 317 ppm in 1958 (when Charles David Keeling began making his historical measurements at Mauna Loa) to 400 ppm today. It's projected to reach 450 ppm by the year 2040. To some, crossing the threshold of 400 ppm is a signal that we are now firmly seated in the 'Anthropocene,' a human epoch where people are having major and lasting impacts on the planet. Because of the long lifetime of CO₂, to others it means we are marching inexorably towards a 'point of no return,' into territory that is unknown for the human race."

Even Pope Francis has extended concern and warnings in his recent encyclical entitled Laudo Si. It can be found online at:
w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_2150524_encyclica-laudo-si.html.

The Surface Transportation Board should heed the warnings from both the scientific community and moral leaders.

I, respectfully, ask you to consider that if the Surface Transportation Board goes ahead and permits this rail line, you will be contributing to what portends to be the greatest planetary emergency Planet Earth has ever faced in our lifetime. The Tongue River Railroad should not be built.

Thank you for your consideration of this human rights matter of grave concern.

Best regards.

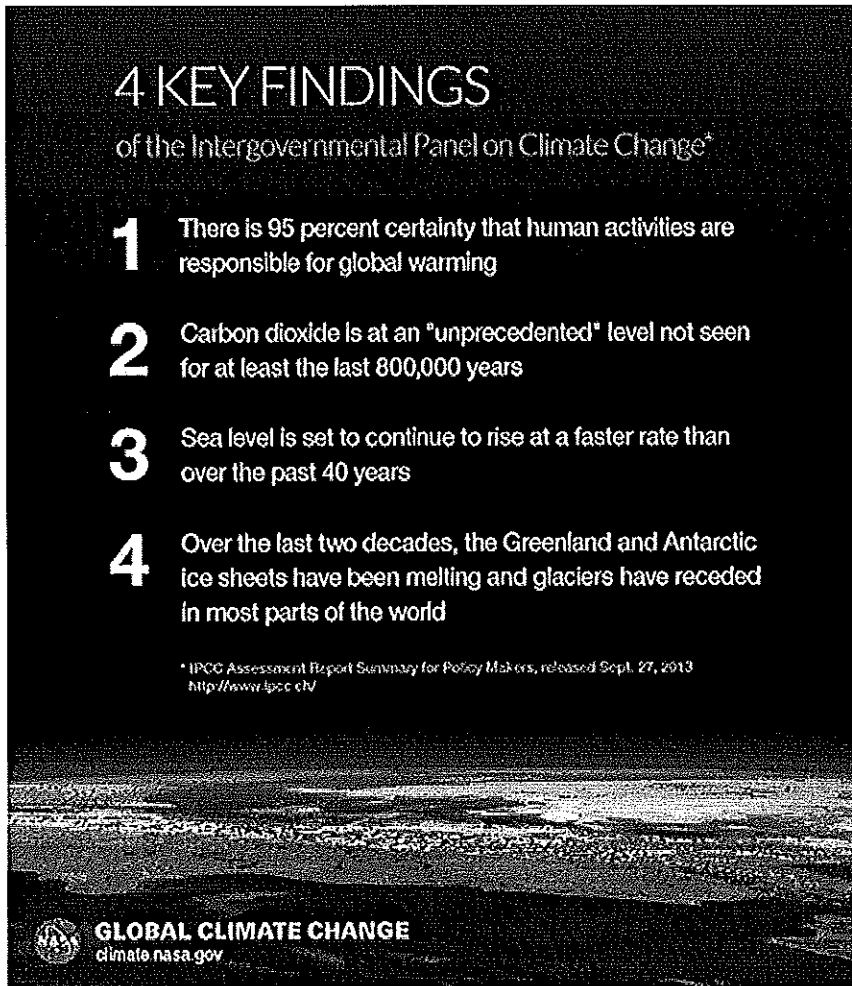
Very truly yours,

Mary Catherine Dunphy
Mary Catherine Dunphy

Exhibit 1

EXPLORE

Graphic: The IPCC's four key findings



ENLARGE

Downloads

Graphic: The IPCC's four key findings
274 KB
image/jpeg

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Fact Sheets
Graphics
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Atmosphere
Global Warming
Oceans and Ice

The above graphic lists four highlights from the Intergovernmental Panel on Climate Change's (IPCC) Fifth Assessment Report Summary for Policy Makers, released September 27, 2013, which more than 25 NASA scientists helped author and review.

The report is the work of 209 lead authors and 50 review editors from 39 countries, and over 600 contributing authors from 32 countries.

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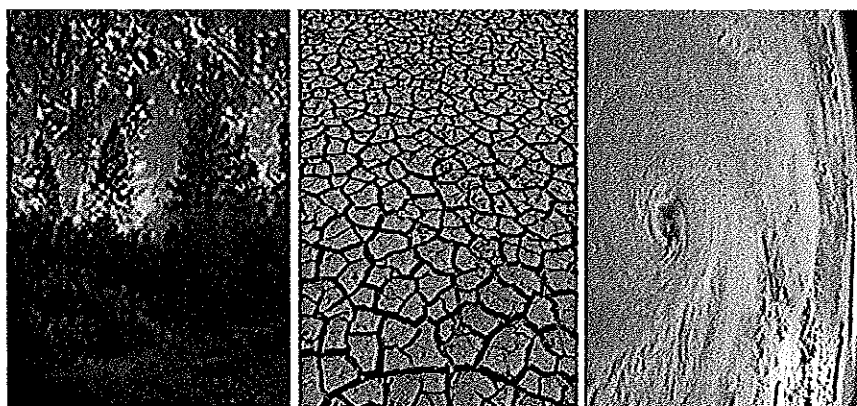
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GLOBAL CLIMATE CHANGE

Vital Signs of the Planet

The current and future consequences of global change

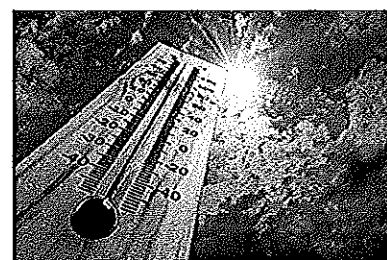


The potential future effects of global climate change include more frequent wildfires, longer periods of drought in some regions and an increase in the number, duration and intensity of tropical storms.

Global climate change has already had observable effects on the environment. Glaciers have shrunk, ice on rivers and lakes is breaking up earlier, plant and animal ranges have shifted and trees are flowering sooner.

Effects that scientists had predicted in the past would result from global climate change are now occurring: loss of sea ice, accelerated sea level rise and longer, more intense heat waves.

A degree of difference



So, the Earth's average temperature has increased about 1 degree Fahrenheit during the 20th century. What's the big deal?

One degree may sound like a small amount, but it's an unusual event in our planet's recent history. Earth's climate record, preserved in tree rings, ice cores, and coral reefs, shows that the global average temperature is stable over long periods of time. Furthermore, small changes in temperature correspond to enormous changes in the environment.

For example, at the end of the last ice age, when the Northeast United States was covered by more than 3,000 feet of ice, average temperatures were only 5 to 9 degrees cooler than today.

Find out more

Taken as a whole, the range of published evidence indicates that the net damage costs of climate change are likely to be significant and to increase over time.

- Intergovernmental Panel on Climate Change

Scientists have high confidence that global temperatures will continue to rise for decades to come, largely due to greenhouse gasses produced by human activities. The Intergovernmental Panel on Climate Change (IPCC), which includes more than 1,300 scientists from the United States and other countries, forecasts a temperature rise of 2.5 to 10 degrees Fahrenheit over the next century.

According to the IPCC, the extent of climate change effects on individual regions will vary over time and with the ability of different societal and environmental systems to mitigate or adapt to change.

The IPCC predicts that increases in global mean temperature of less than 1.8 to 5.4 degrees Fahrenheit (1 to 3 degrees Celsius) above 1990 levels will produce beneficial impacts in some regions and harmful ones in others. Net annual costs will increase over time as global temperatures increase.

"Taken as a whole," the IPCC states, "the range of published evidence indicates that the net damage costs of climate change are likely to be significant and to increase over time."

1

Below are some of the impacts that are currently visible throughout the U.S. and will continue to affect these regions,

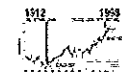
The U.S. Global Change Research Program's Third Assessment Report

The IPCC's 2014 report on climate change impacts, adaptation and vulnerability

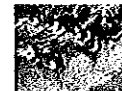
Latest resources



Infographic: Sea level rise



Top 10 coldest and warmest years



Aleutian clouds

according to the Third National Climate Assessment Report², released by the U.S. Global Change Research Program:

Northeast. Heat waves, heavy downpours, and sea level rise pose growing challenges to many aspects of life in the Northeast. Infrastructure, agriculture, fisheries, and ecosystems will be increasingly compromised. Many states and cities are beginning to incorporate climate change into their planning.

Northwest. Changes in the timing of streamflow reduce water supplies for competing demands. Sea level rise, erosion, inundation, risks to infrastructure, and increasing ocean acidity pose major threats. Increasing wildfire, insect outbreaks, and tree diseases are causing widespread tree die-off.

Southeast. Sea level rise poses widespread and continuing threats to the region's economy and environment. Extreme heat will affect health, energy, agriculture, and more. Decreased water availability will have economic and environmental impacts.

Midwest. Extreme heat, heavy downpours, and flooding will affect infrastructure, health, agriculture, forestry, transportation, air and water quality, and more. Climate change will also exacerbate a range of risks to the Great Lakes.

Southwest. Increased heat, drought, and insect outbreaks, all linked to climate change, have increased wildfires. Declining water supplies, reduced agricultural yields, health impacts in cities due to heat, and flooding and erosion in coastal areas are additional concerns.

1. IPCC 2007, Summary for Policymakers, in *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, Cambridge, UK, p. 17.

2. USGCRP 2014, Third Climate Assessment.

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Site Manager: **Randal Jackson**

Senior Science Editor: **Laura Tenenbaum**

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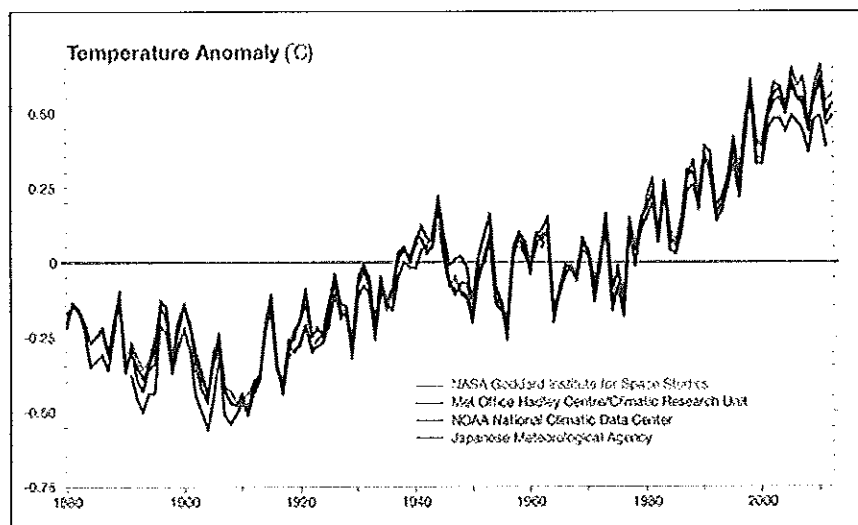


GLOBAL CLIMATE CHANGE

Vital Signs of the Planet

Exhibit 3

Consensus: 97% of climate scientists agree



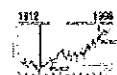
Temperature data from four international science institutions. All show rapid warming in the past few decades and that the last decade has been the warmest on record.

Multiple studies published in peer-reviewed scientific journals¹ show that 97 percent or more of actively publishing climate scientists agree: Climate-warming trends over the past century are very likely due to human activities. In addition, most of the leading scientific organizations worldwide have issued public statements endorsing this position. The following is a partial list of these organizations, along with links to their published statements and a selection of related resources.

AMERICAN SCIENTIFIC SOCIETIES

Statement on climate change from 18 scientific associations

Latest resources



Top 10 coldest and warmest years

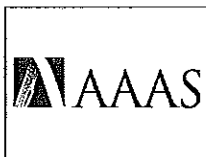


Aleutian clouds



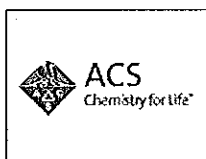
Ghadamis River in Libya

"Observations throughout the world make it clear that climate change is occurring, and rigorous scientific research demonstrates that the greenhouse gases emitted by human activities are the primary driver." (2009)²



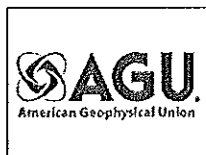
American Association for the Advancement of Science

"The scientific evidence is clear: global climate change caused by human activities is occurring now, and it is a growing threat to society." (2006)³



American Chemical Society

"Comprehensive scientific assessments of our current and potential future climates clearly indicate that climate change is real, largely attributable to emissions from human activities, and potentially a very serious problem." (2004)⁴



American Geophysical Union

"Human-induced climate change requires urgent action. Humanity is the major influence on the global climate change observed over the past 50 years. Rapid societal responses can significantly lessen negative outcomes." (Adopted 2003, revised and reaffirmed 2007, 2012, 2013)⁵



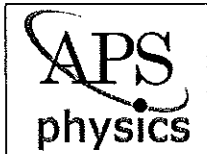
American Medical Association

"Our AMA ... supports the findings of the Intergovernmental Panel on Climate Change's fourth assessment report and



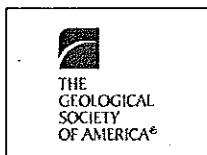
concur with the scientific consensus that the Earth is undergoing adverse global climate change and that anthropogenic contributions are significant." (2013)⁶

"It is clear from extensive scientific evidence that the dominant cause of the rapid change in climate of the past half century is human-induced increases in the amount of atmospheric greenhouse gases, including carbon dioxide (CO₂), chlorofluorocarbons, methane, and nitrous oxide." (2012)⁷



American Physical Society

"The evidence is incontrovertible: Global warming is occurring. If no mitigating actions are taken, significant disruptions in the Earth's physical and ecological systems, social systems, security and human health are likely to occur. We must reduce emissions of greenhouse gases beginning now." (2007)⁸



The Geological Society of America

"The Geological Society of America (GSA) concurs with assessments by the National Academies of Science (2005), the National Research Council (2006), and the Intergovernmental Panel on Climate Change (IPCC, 2007) that global climate has warmed and that human activities (mainly greenhouse-gas emissions) account for most of the warming since the middle 1900s." (2006; revised 2010)⁹

SCIENCE ACADEMIES

International academies: Joint statement

"Climate change is real. There will always be uncertainty in understanding a system as complex as the world's climate. However there is now strong evidence that significant global warming is occurring. The evidence comes from direct measurements of rising surface air temperatures and subsurface ocean temperatures and from phenomena such as increases in average global sea levels, retreating glaciers, and changes to many physical and biological systems. It is likely that most of the warming in recent decades can be attributed to human activities (IPCC 2001)." (2005, 11 international science academies)¹⁰



U.S. National Academy of Sciences

"The scientific understanding of climate change is now sufficiently clear to justify taking steps to reduce the amount of greenhouse gases in the atmosphere." (2005)¹¹

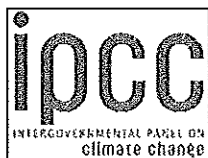
U.S. GOVERNMENT AGENCIES



U.S. Global Change Research Program

"The global warming of the past 50 years is due primarily to human-induced increases in heat-trapping gases. Human 'fingerprints' also have been identified in many other aspects of the climate system, including changes in ocean heat content, precipitation, atmospheric moisture, and Arctic sea ice." (2009, 13 U.S. government departments and agencies)¹²

INTERGOVERNMENTAL BODIES



Intergovernmental Panel on Climate Change

"Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level."¹³

"Most of the observed increase in global average temperatures since the mid-20th century is very likely* due to the observed increase in anthropogenic greenhouse gas concentrations."¹⁴

*IPCC defines 'very likely' as greater than 90 percent probability of occurrence.

OTHER RESOURCES

List of worldwide scientific organizations

The following page lists the nearly 200 worldwide scientific organizations that hold the position that climate change has been caused by human action.

http://opr.ca.gov/s_listoforganizations.php

U.S. agencies

The following page contains information on what federal agencies are doing to adapt to climate change.

<http://www.c2es.org/docUploads/federal-agencies-adaptation.pdf>

References

1. J. Cook, et al, "Quantifying the consensus on anthropogenic global warming in the scientific literature," *Environmental Research Letters* Vol. 8 No. 2, (June 2013); DOI:10.1088/1748-9326/8/2/024024

Quotation from page 3: "Among abstracts that expressed a position on AGW [Anthropogenic, or human-cause, Global Warming], 97.1% endorsed the scientific consensus. Among scientists who expressed a position on AGW in their abstract, 98.4% endorsed the consensus."

W. R. L. Anderegg, "Expert Credibility in Climate Change," *Proceedings of the National Academy of Sciences* Vol. 107 No. 27, 12107-12109 (21 June 2010); DOI: 10.1073/pnas.1003187107.

P. T. Doran & M. K. Zimmerman, "Examining the Scientific Consensus on Climate Change," *Eos Transactions American Geophysical Union* Vol. 90 Issue 3 (2009), 22; DOI: 10.1029/2009EO030002.

N. Oreskes, "Beyond the Ivory Tower: The Scientific Consensus on Climate Change," *Science* Vol. 306 no. 5702, p. 1686 (3 December 2004); DOI: 10.1126/science.1103618.

2. Statement on climate change from 18 scientific associations (2009)
3. AAAS Board Statement on Climate Change (2006)
4. ACS Public Policy Statement: Climate Change (2010-2013)
5. Human-Induced Climate Change Requires Urgent Action (2013)
6. Global Climate Change and Human Health (2013)
7. Climate Change: An Information Statement of the American Meteorological Society (2012)
8. APS National Policy 07.1 Climate Change (2007)
9. GSA Position Statement on Climate Change (2010)
10. Joint science academies' statement: Global response to climate change (2005)
11. Understanding and Responding to Climate Change (2005)

12. Global Climate Change Impacts in the United States (2009)
13. IPCC Fourth Assessment Report, Summary for Policymakers (2007)
14. IPCC Fourth Assessment Report, Summary for Policymakers (2007)

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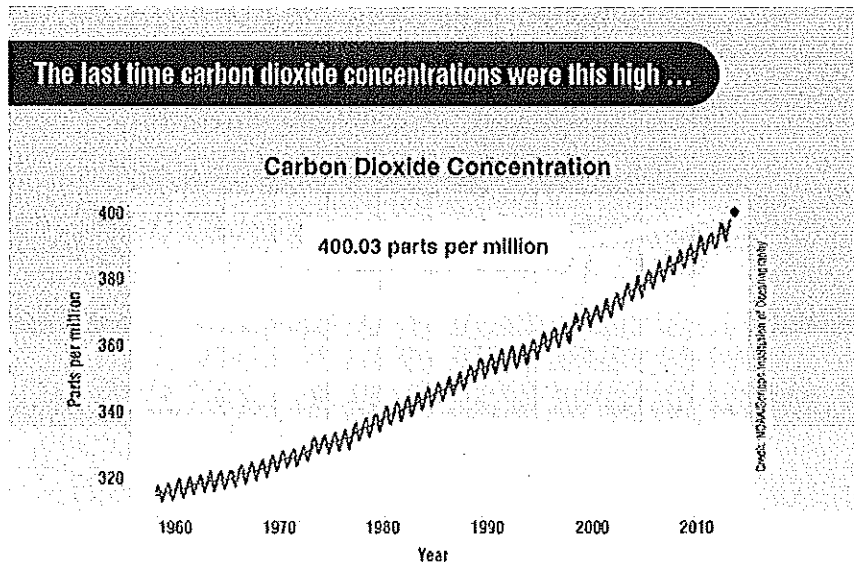
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Exhibit 4

EXPLORE

Graphic: Carbon dioxide hits new high



ENLARGE

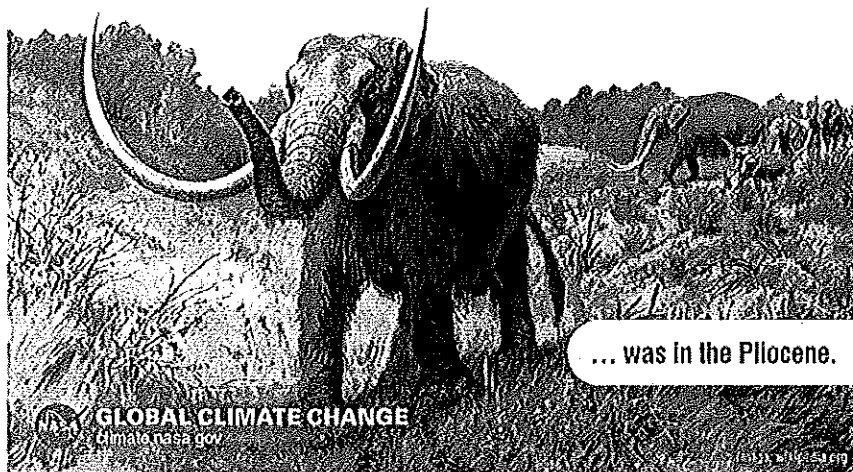
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Graphic: Carbon dioxide hits new high

276 KB

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Imagine there are no people. Imagine a planet where the sea level is about five to 40 meters (16 to 131 feet) higher than normal. Imagine a planet that is hotter and wetter. Imagine, worldwide, it's roughly 3 to 4 degrees Celsius (5.4 to 7.2 degrees Fahrenheit) warmer than today. And the North and South poles are even warmer still – as much as 10 degrees Celsius (18 degrees Fahrenheit) hotter than today.

Welcome to the Pliocene. That was the Earth about three to five million years ago, very different to the Earth we inhabit now. But in at least one respect it was rather similar. This is

the last time that carbon dioxide (CO₂) levels were as high as they are today.

NASA's Jet Propulsion Laboratory | California Institute of Technology

On May 9, 2013, CO₂ levels in the air reached the level of 400 parts per million (ppm). This is the first time in human

history that this milestone has been passed.

Site Editor: **Holly Shaffel**

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CO₂ is the most important man-made greenhouse gas. It means (in a simple sense) that it acts like a blanket trapping

heat near the surface of the Earth. It comes from the burning

of fossil fuels such as coal, oil and natural gas, as well as

deforestation. The level of CO₂ in the atmosphere has risen

from around 317 ppm in 1958 (when Charles David Keeling began making his historical measurements at Mauna Loa) to

400 ppm today. It's projected to reach 450 ppm by the year 2040.

To some, crossing the threshold of 400 ppm is a signal that we are now firmly seated in the "Anthropocene," a human epoch where people are having major and lasting impacts on the planet. Because of the long lifetime of CO₂, to others it means we are marching inexorably towards a "point of no return," into territory that is unknown for the human race.

Credit

NASA Climate Change website.