From:	Nolan, James [/O=MSXBP/OU=EXTERNAL		
	(FYDIBOHF25SPDLT)/CN=RECIPIENTS,		
Sent:	26/11/2018 23:21:19		
To:	Jefferiss, Paul H. [/o=MSXBP/ou=Ex <u>change Administra</u> tive Group		
	(FYDIBOHF23SPDLT)/cn=Recipients ; McMahon, Michael (HSE) [/o=MSXBP/ou=Exchange		
	Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/		
	[/o=MSXBP/ou=External (FYDIBOHF25SPDLT)/cn=Recipients/cn		
	Mary [/o=MSXBP/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients,		
Subject:	RE: FOURTH NATIONAL CLIMATE ASSESSMENT		

## **Redacted - First Amendment**

From: Jefferiss, Paul H.		
Sent: Monday, November 26, 2018 4:38 AM		
To: McMahon, Michael (HSE)	@uk.bp.com>; Stout, Robert <	Dbp.com>; Nolan, James
		s op.com/, Nolari, James
< @bp.com>; Streett, Mary	pbp.com>	
Subject: FW: FOURTH NATIONAL CLIMATE ASSE	SSMENT	
FYI		
From: Hill, Gardiner		
Sent: 24 November 2018 13:54		

 To: Khan, Omayma < @uk.bp.com</td>
 @uk.bp.com
 @uk.bp.com
 ; Emery, Dominic
 @uk.bp.com
 ; Jefferiss, Paul H.

 @uk.bp.com
 ; Eyton, David G P
 @uk.bp.com
 ; Strank, Angela RE
 @uk.bp.com
 ;

 Dale, Spencer
 @uk.bp.com
 @uk.bp.com
 ;
 Cc: Lawson, Nicholas J.
 @uk.bp.com
 ;

Subject: FOURTH NATIONAL CLIMATE ASSESSMENT

Just in case you may have not seen this.....

Here is the link to the FOURTH NATIONAL CLIMATE ASSESSMENT: Volume II: Impacts, Risks, and Adaptation in the United States <u>https://nca2018.globalchange.gov/</u>

Key points:

1. Climate change creates new risks and exacerbates existing vulnerabilities in communities across the United States, presenting growing challenges to human health and safety, quality of life, and the rate of economic growth.

2. Without substantial and sustained global mitigation and regional adaptation efforts, climate change is expected to cause growing losses to American infrastructure and property and impede the rate of economic growth over this century.

3. Climate change affects the natural, built, and social systems we rely on individually and through their connections to one another. These interconnected systems are increasingly vulnerable to cascading impacts that are often difficult to predict, threatening essential services within and beyond the Nation's borders.

4. Communities, governments, and businesses are working to reduce risks from and costs associated with climate change by taking action to lower greenhouse gas emissions and implement adaptation strategies. While mitigation and adaptation efforts have expanded substantially in the last four years, they do not yet approach the

scale considered necessary to avoid substantial damages to the economy, environment, and human health over the coming decades.

5. The quality and quantity of water available for use by people and ecosystems across the country are being affected by climate change, increasing risks and costs to agriculture, energy production, industry, recreation, and the environment.

6. Impacts from climate change on extreme weather and climate-related events, air quality, and the transmission of disease through insects and pests, food, and water increasingly threaten the health and well-being of the American people, particularly populations that are already vulnerable.

7. Climate change increasingly threatens Indigenous communities' livelihoods, economies, health, and cultural identities by disrupting interconnected social, physical, and ecological systems.

8. Ecosystems and the benefits they provide to society are being altered by climate change, and these impacts are projected to continue. Without substantial and sustained reductions in global greenhouse gas emissions, transformative impacts on some ecosystems will occur; some coral reef and sea ice ecosystems are already experiencing such transformational changes.

9. Rising temperatures, extreme heat, drought, wildfire on rangelands, and heavy downpours are expected to increasingly disrupt agricultural productivity in the United States. Expected increases in challenges to livestock health, declines in crop yields and quality, and changes in extreme events in the United States and abroad threaten rural livelihoods, sustainable food security, and price stability.

10. Our Nation's aging and deteriorating infrastructure is further stressed by increases in heavy precipitation events, coastal flooding, heat, wildfires, and other extreme events, as well as changes to average precipitation and temperature. Without adaptation, climate change will continue to degrade infrastructure performance over the rest of the century, with the potential for cascading impacts that threaten our economy, national security, essential services, and health and well-being.

11. Coastal communities and the ecosystems that support them are increasingly threatened by the impacts of climate change. Without significant reductions in global greenhouse gas emissions and regional adaptation measures, many coastal regions will be transformed by the latter part of this century, with impacts affecting other regions and sectors. Even in a future with lower greenhouse gas emissions, many communities are expected to suffer financial impacts as chronic high-tide flooding leads to higher costs and lower property values.

Hard hitting news for the USA!

Kind regards,

Gardiner