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Winter, Wilderness, and Climate--Threats and
Solutions (October 12)

2016

10-12-2016

SLIDES: Winter, Wilderness & Climate: Threats & Solutions

Jim Ramey

Lindsay Bourgoine

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Winter, Wilderness & Climate: Threats & Solutions

Jim Ramey, The Wilderness Society
Lindsay Bourgoine, Protect Our Winters
October 2016



How to participate in poll questions

- 1) text the message TWSCO to the number 22333
- 2) send a second text indicating your answer to the question (A, B, C...)
- 3) at the end of tonight's event, send a final text with the message LEAVE so that you logout of the poll



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Snowboarding

POW 
PROTECT OUR WINTERS

 THE
WILDERNESS
SOCIETY



BRECK
2015-16
SEASON 4

Also, Snowshoeing



*The Wilderness Society's mission is to
protect wilderness and inspire Americans to
care for our wild places.*



MORE THAN
80 YEARS
AS AN ORGANIZATION

Founded in 1935, The Wilderness Society has led the effort to permanently protect **109 million** acres of wilderness and to ensure sound management of our shared national lands.

700,000



WILDERNESS SUPPORTERS



1.3 MILLION

ACRES PERMANENTLY
PROTECTED, including more
than **1 million acres** designated
as national monuments and
275,000 acres as wilderness.

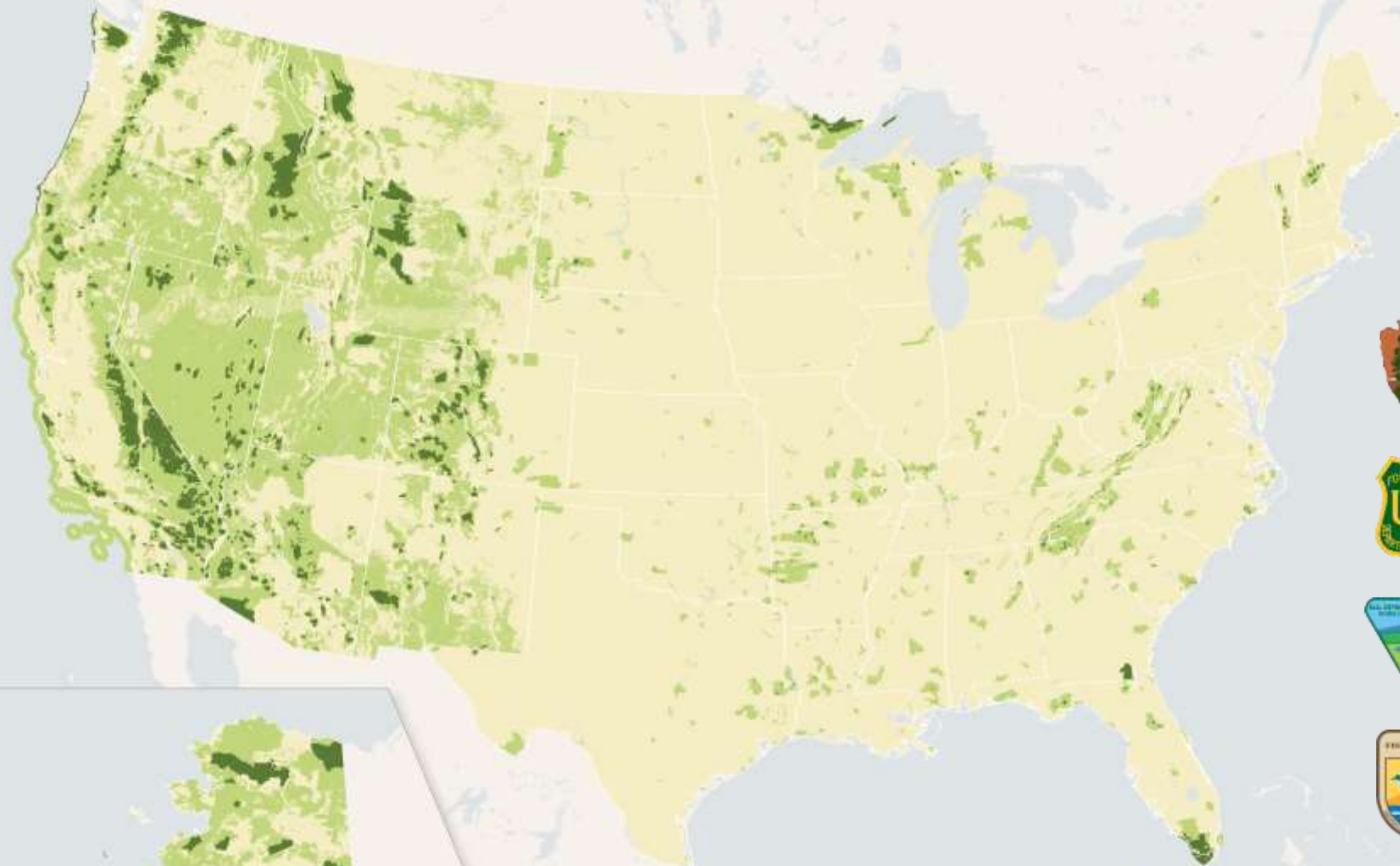


12 OFFICES AROUND
THE COUNTRY



6.5 MILLION people
engaged through Facebook,
Twitter and Instagram in 2015

PUBLIC LANDS & WILDERNESS



■ Designated Wilderness
■ Other Federal Public Land



SOURCE: WILDERNESS NET, PAC-US, NATURAL EARTH



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Fueling Climate Change: Our Broken Public Lands Energy Programs

Energy Development on Public Lands

1. Coal
2. Oil
3. Natural Gas
4. Solar
5. Wind
6. Geothermal



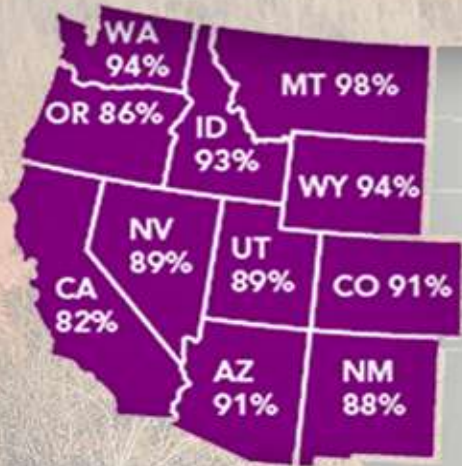
Credits: Kentucky Photo File, flickr; Mason Cummings; Black Rock Solar, flickr; Credit Daniel Hoherd, flickr; U.S. Dept. of Energy.

NO EXIT:



How much land in your state is on the highway to oil & gas development?

PERCENT OF LAND OPEN TO LEASING:



A staggering **90 %** of public lands and minerals managed by the BLM are open to oil and gas leasing







THE DURANGO HERALD

Since 1881

Study finds oil and gas industry largest contributor to 'hot spot'

Aug. 15, 2016

THE DAILY SENTINEL

Air impacts from Utah projects hit BLM radar screen

Oct. 3, 2016

THE DENVER POST

Ground-level ozone pollution alert issued for Denver, Front Range

Aug. 16, 2016

Coal from Public Lands



ABOUT

41%

of American coal is
produced on public
lands.

OVER

85%

of that comes from
the Powder River
Basin in Montana and
Wyoming.

Photo: The Powder River Basin, Ecoflight



Credit: CSIRO; Wikimedia.



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Powder River Basin in 1984



Landsat 5
June 29, 1984

0 5 10 Miles



Credit: NASA, USGS.

Powder River Basin in 2016



Landsat 8
June 21, 2016

0 5 10 Miles



Public Coal Costs Less than a Big Mac





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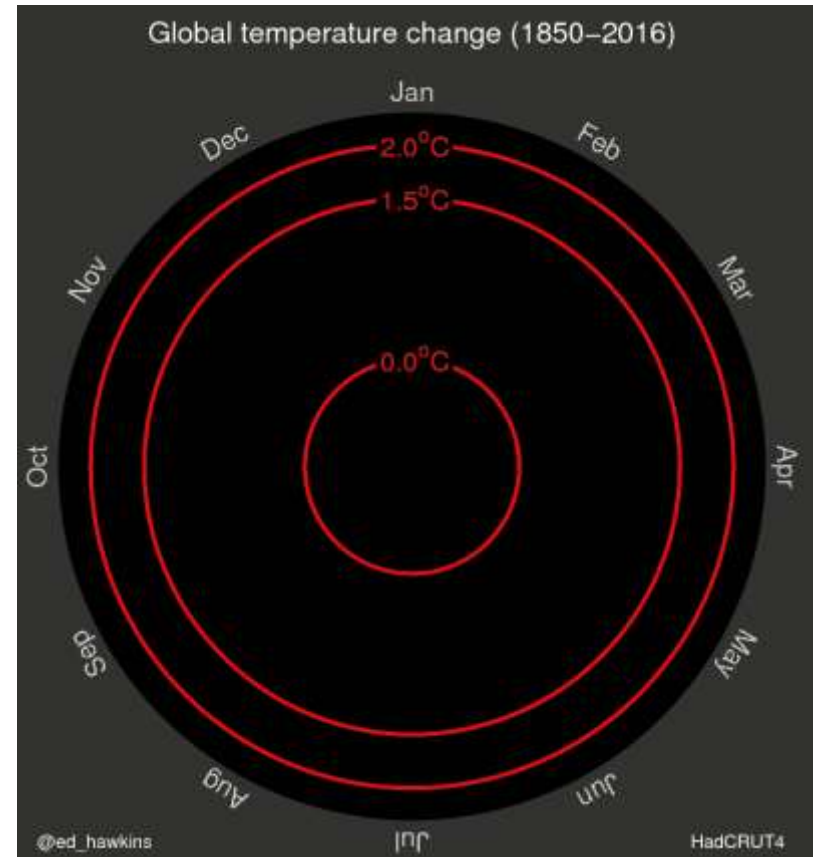


August marks ongoing trend of record-breaking heat for the globe

Climate | Climate analyses and statistics

SHARE |    

September 20, 2016 —





Press Release: Interior Secretary Jewell Announces Study Showing Spring Starting Earlier in National Parks

10/6/2016



Climate Impacts on Winter & Outdoor Recreation





POW 
PROTECT OUR WINTERS

PROTECT OUR WINTERS

A POW OVERVIEW



130,000+
supporters globally

Chapters In:

- United States
- Canada
- Europe
- Australia

Partners:



Founded in 2007
by professional
snowboarder
Jeremy Jones

80+ pro athletes
Our POW Alliance is
continually growing

*Jimmy Chin: 14 year Team Athlete for The North Face,
photographer and documentary filmmaker*

160,000+
social media
community

PROTECT OUR WINTERS

**POW IS THE LEADING
VOICE ON CLIMATE
CHANGE FOR THE
OUTDOOR SPORTS
COMMUNITY.**

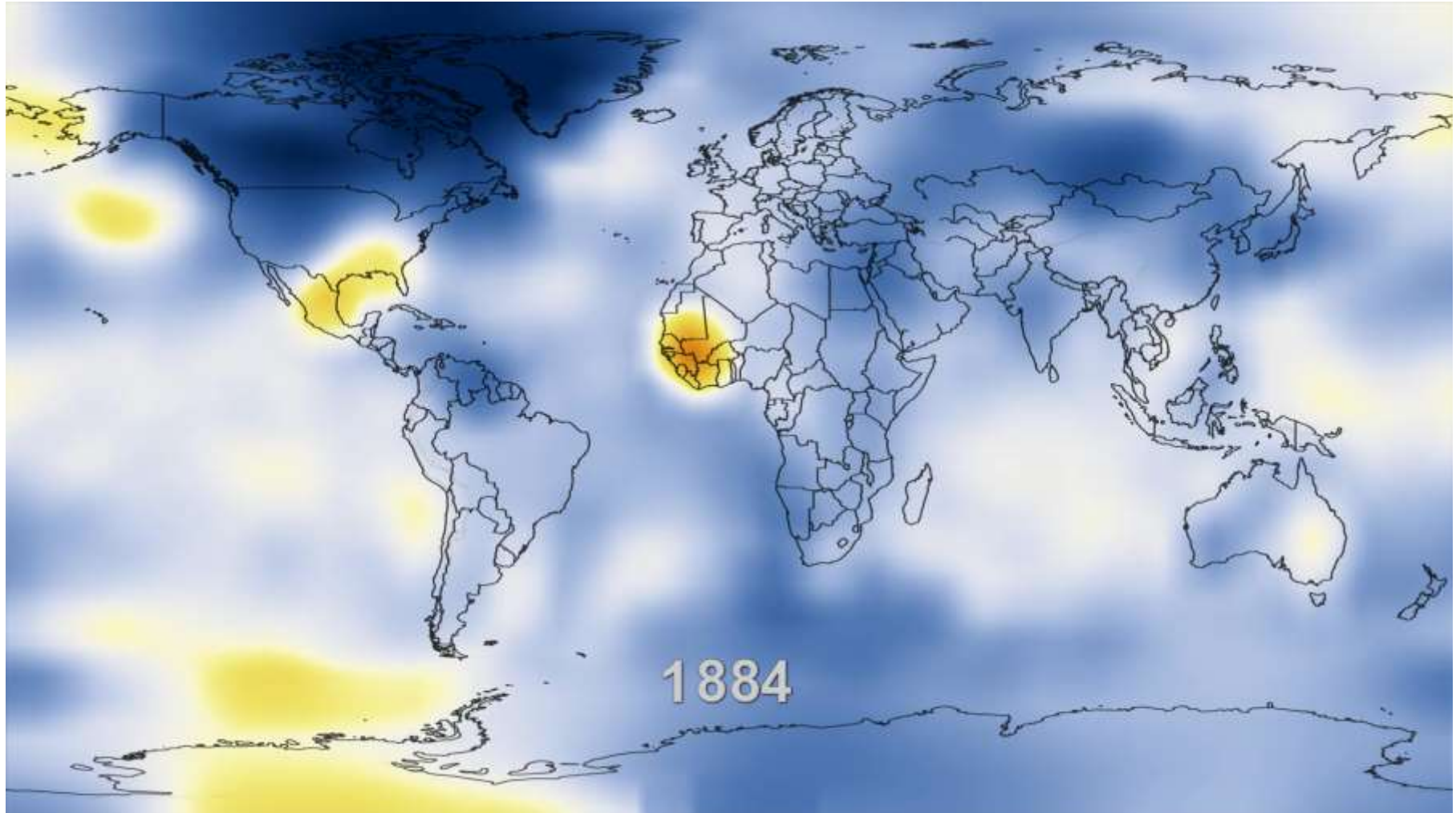
**We're building
a social movement for
positive climate action
around the globe.**



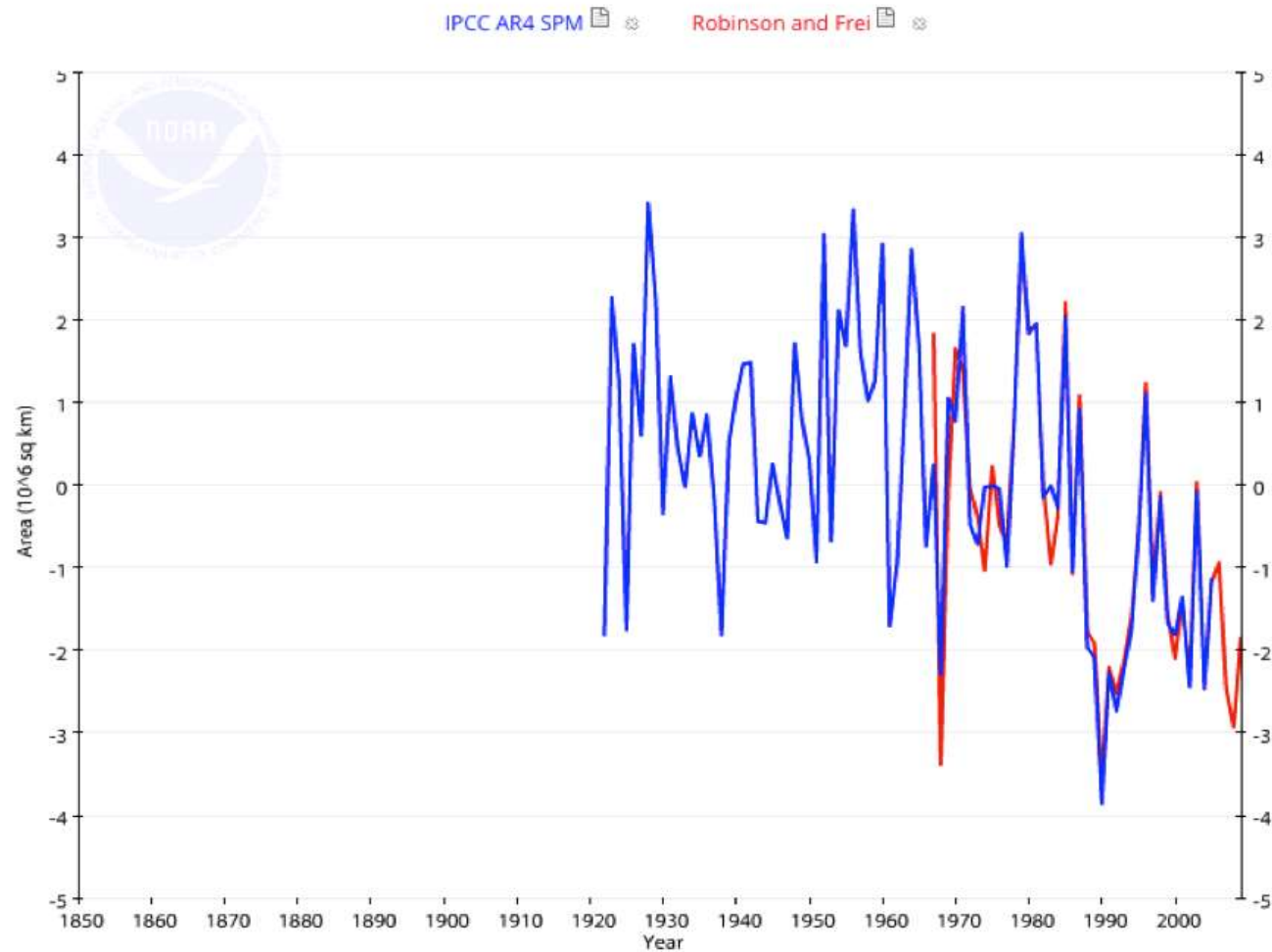
Meet Jake Black



Global Surface Temperatures 1884-2012



Northern Hemisphere (March-April) Snow Cover





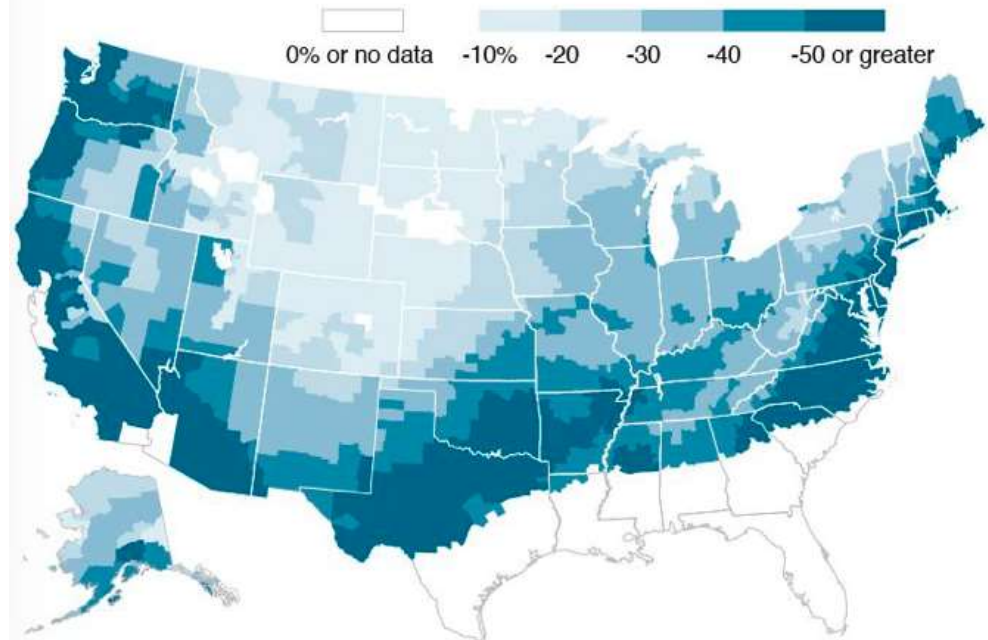
How is climate change impacting winter?

- Diminished snowpack
- Glacial recession
- Snow levels rising
- Shorter season

Longterm snow dropoff predicted for the U.S.

Annual snowfall is likely to greatly decrease by the end of this century if carbon dioxide emissions continue to grow at a modest rate.

Simulated percent change in average annual snowfall, present day vs. end of century



SOURCE: NOAA Geophysical Fluid Dynamics Laboratory

AP



How is climate change impacting snowsports?

- Spring arrives in Lake Tahoe three weeks earlier now than it did in 1965
- Under a high emissions scenario, by 2100, Aspen's climate will be more like Texas today
- With a temperature rise of 4C, about 40% of precipitation that currently falls as snow will fall as rain at 7,000 feet, which is the base elevation at Canyons, Park City, and Deer Valley

Why is the snowsports industry so important?

- The winter sports community generates \$66 billion annually and supports 965,000 jobs
- Outdoor recreation spending generates \$646 billion, supporting 6.1 million jobs
- What other industry has economic power to speak out on climate?



What is at risk?

- The downhill ski resort industry is estimated to have lost \$1.07 billion in revenue
- In a high emissions scenario:
 - In the Northeast, only 4 out of 14 major ski resorts will remain profitable by 2100
 - Park City will lose all mountain snowpack by 2100 while Aspen's snowpack will be confined to the top quarter of the mountain



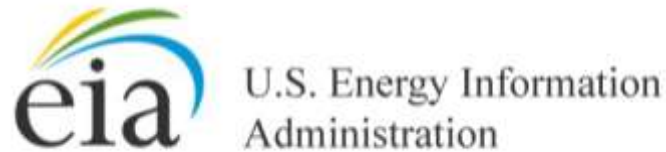


Climate Solutions

The New York Times

**Can Economies Rise as Emissions
Fall? The Evidence Says Yes**

Apr. 6, 2016



**Energy-related CO2 emissions for first six
months of 2016 are lowest since 1991**

Oct. 12, 2016

TIME

**Paris Climate Change Agreement Set to Take
Effect After Quick Ratification Process**

Oct. 5, 2016

theguardian

**Paris climate deal a 'turning point' in
global warming fight, Obama says**

Oct. 5, 2016



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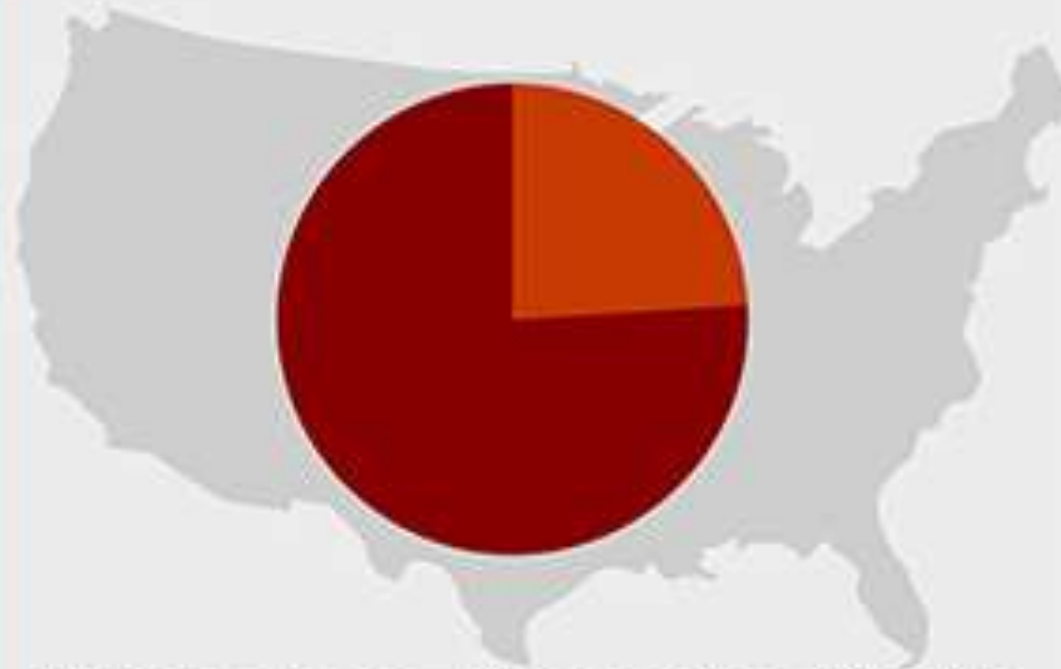
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ACTING ON CLIMATE



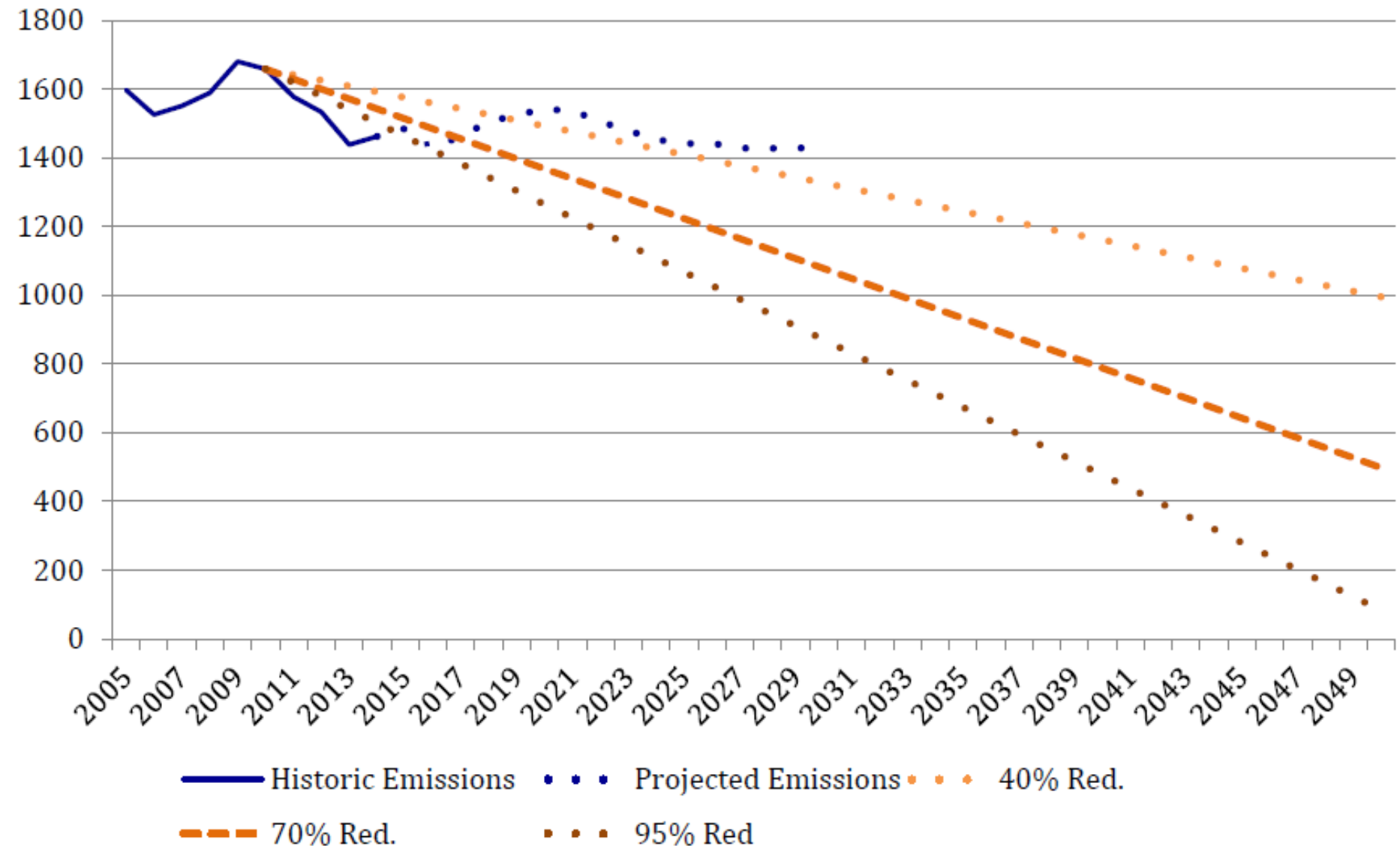
**A BLIND SPOT:
GREENHOUSE GAS
EMISSIONS
FROM OUR
PUBLIC
LANDS**



Public lands account for more than 1/5 of the greenhouse gas footprint in the U.S.

Carbon Budget

Federal Lifecycle CO₂e Compared to IPCC 2°C and 1.5°C Reduction Goals (million tons)





Press Release: Secretary Jewell Launches Comprehensive Review of Federal Coal Program

1/15/2016



UTILIZING INNOVATIVE TRANSPORTATION





PUT A PRICE ON IT

SETTING AN ECONOMY WIDE PRICE ON CARBON

INVESTING IN A CLEAN ENERGY ECONOMY





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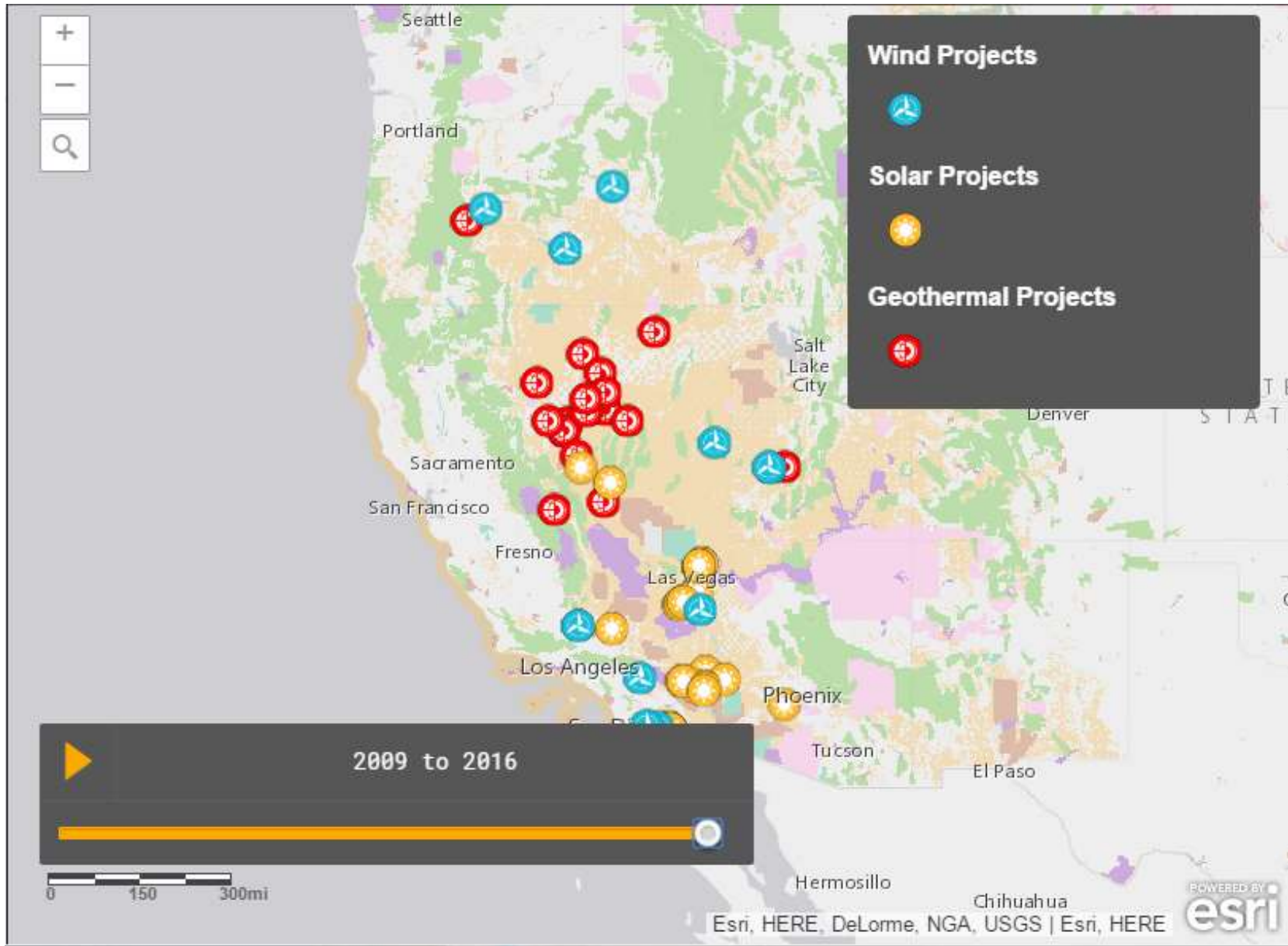
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Renewable Energy on Public Lands





“more cost effective
than natural gas”



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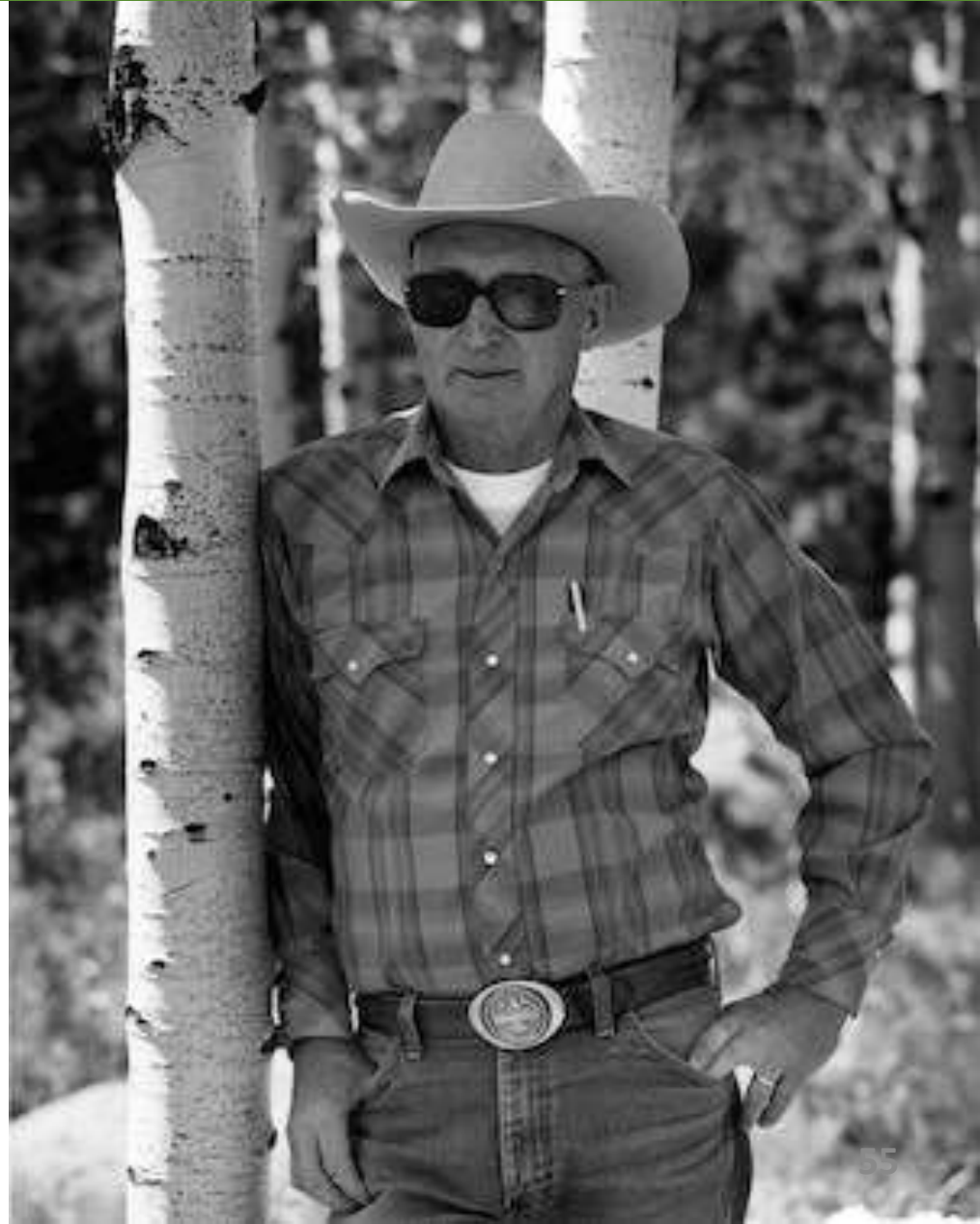
100 DAYS TO CHANGE OUR WAYS!

protectourwinters.org/100days

ALSO,
HAVE A PINT!

“In such moments of vulnerability, ambivalence, and detachment from one another, we must choose: Do we get involved with saving something bigger than ourselves or do we remain silent and watch it slowly disappear?”

- Tom Bell



#ActOnClimate



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Lindsay@protectourwinters.org
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