

Climate and Conservation: Why we need nature to solve climate change

Ontario Land Trust Alliance
October 19, 2018

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1. *Climate change is happening now.*
2. *Climate change is impacting nature and people.*
3. *Canada's natural landscapes store a substantial amount of carbon.*
4. *Conserving nature will help nature and people adapt to climate change.*



Climate change = climate uncertainty

Carbon = carbon pollution

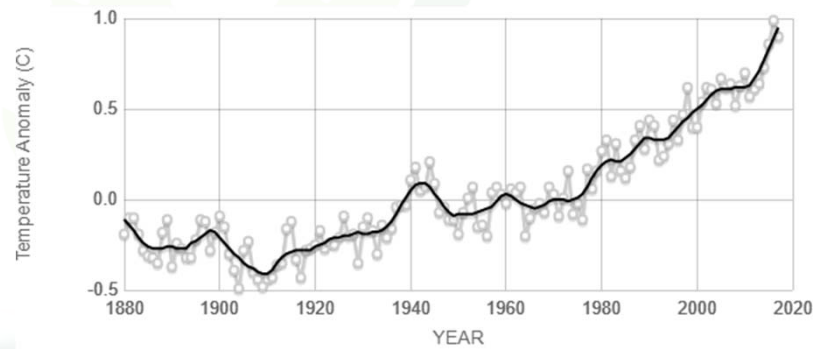


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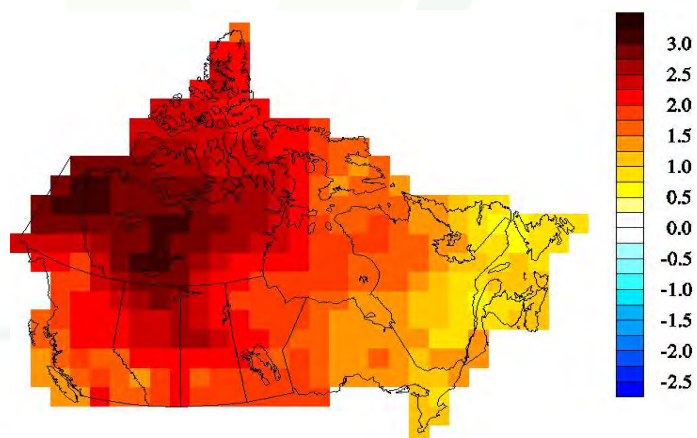
Average global temperatures are rising



Source: climate.nasa.gov



Temperatures are rising faster in Canada Warming in Canada is not even



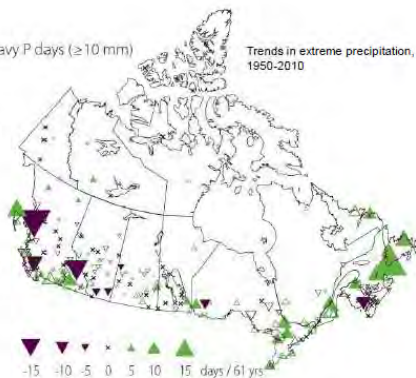
It's getting wetter, and drier

- No consistent pattern of change for Canada

Heavy P days (≥ 10 mm)

Trends in extreme precipitation, 1950-2010

- Observed changes are consistent with those for North America and Northern Hemisphere land areas
- Global analyses indicate trends towards more severe drought in southern and western Canada since 1950



Vincent and Mekis, 2006, updated

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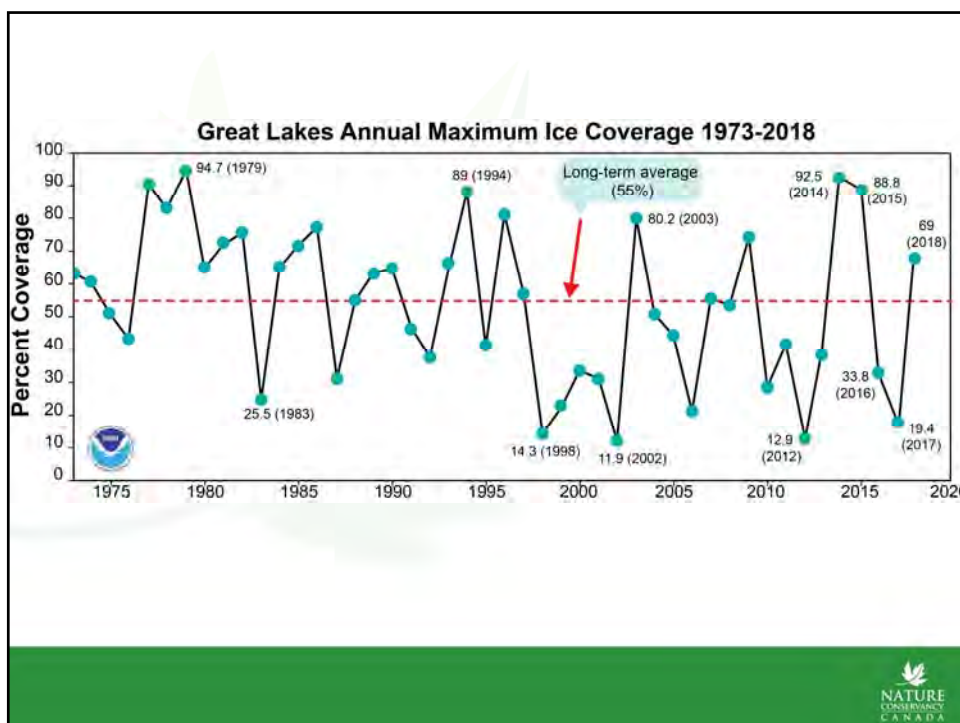
Burlington, 2014



Toronto, 2013

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Sea levels are rising



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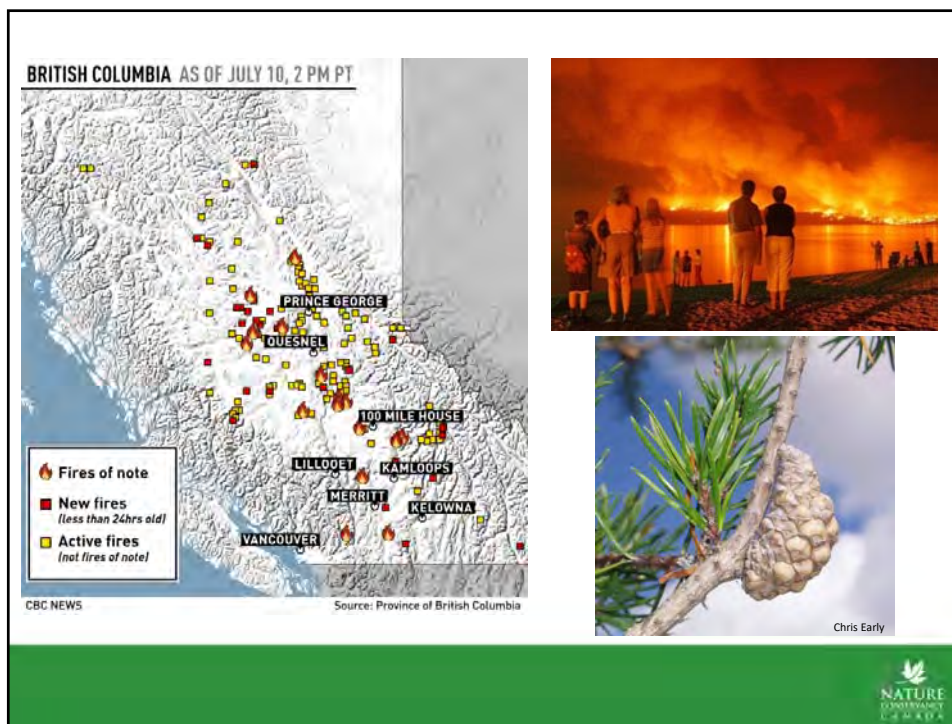




AMERICAN PIKA



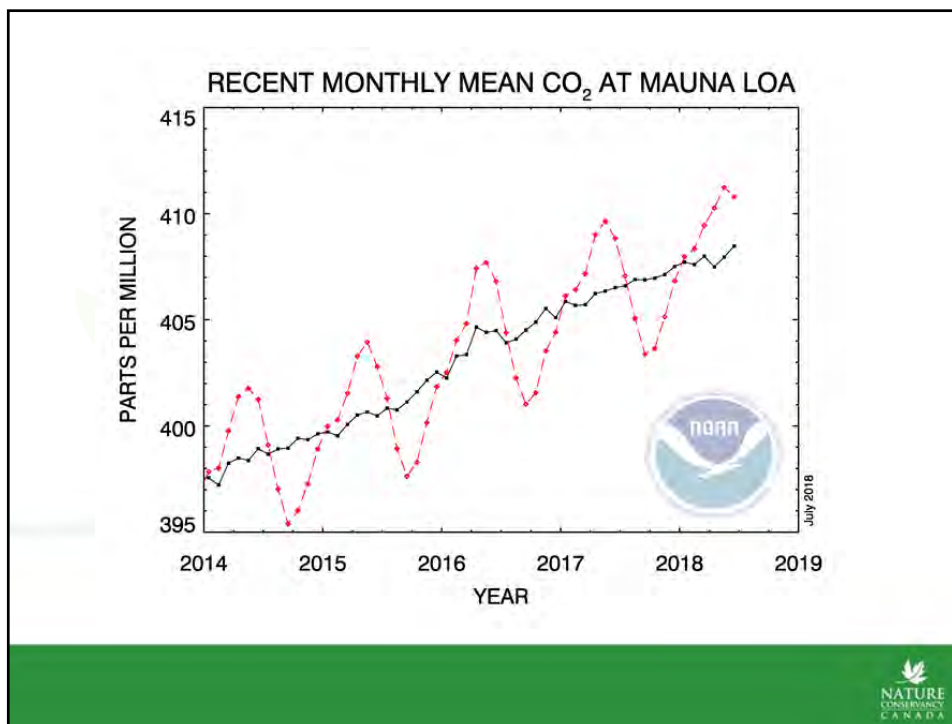
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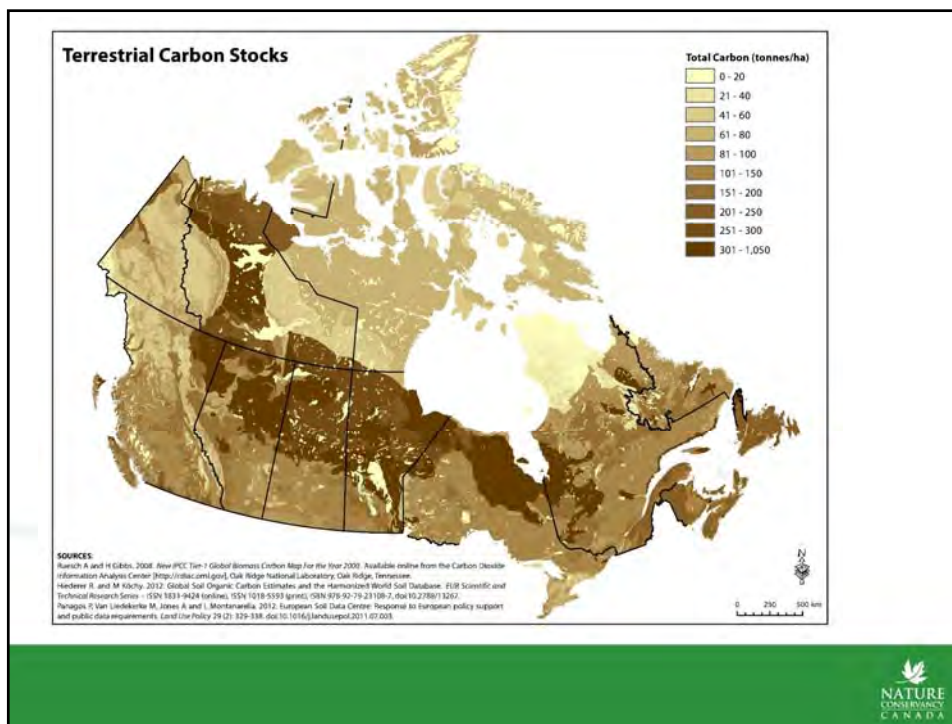




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Almost \$118 billion worth of US homes threatened by rising sea levels: Report

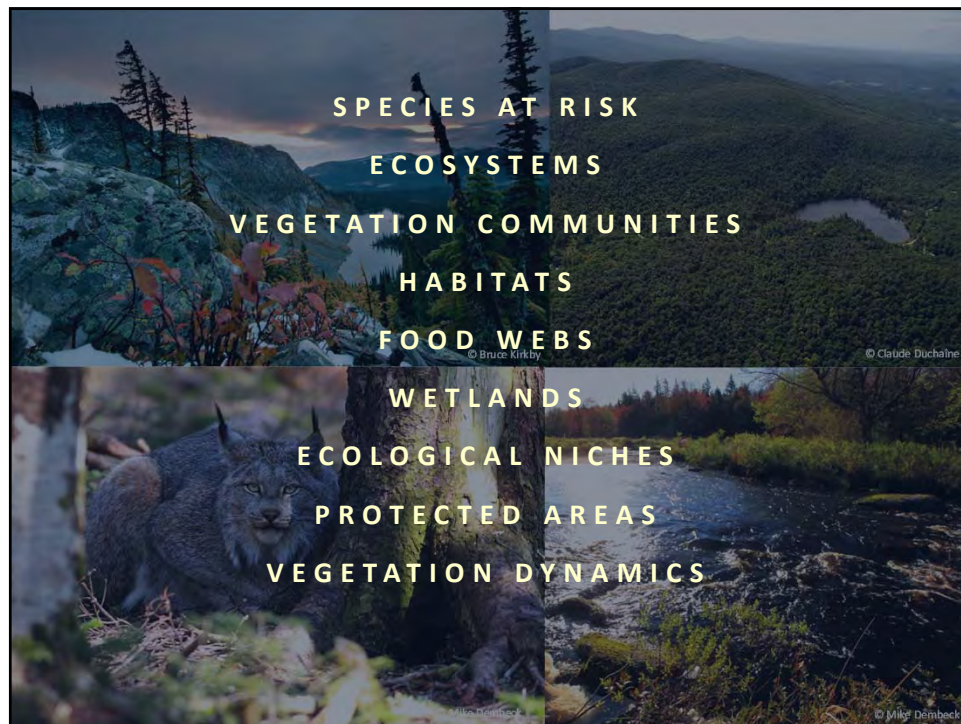
By KAROLINA RIVAS Jun 19, 2018, 10:28 PM ET

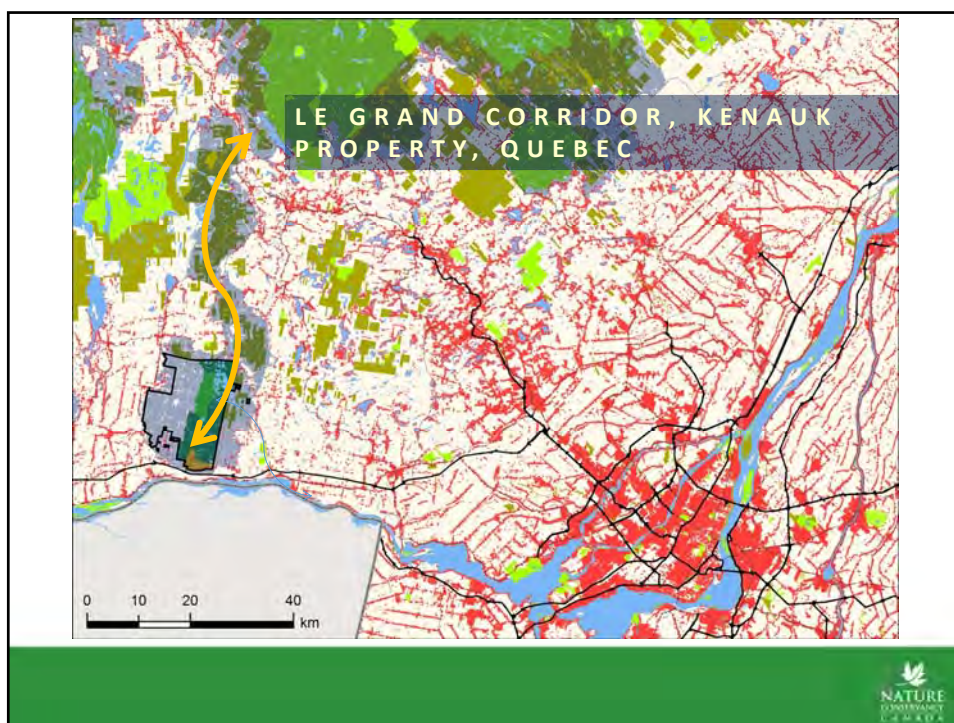
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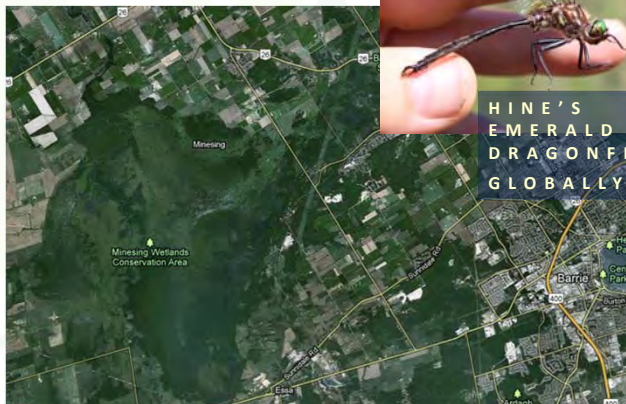


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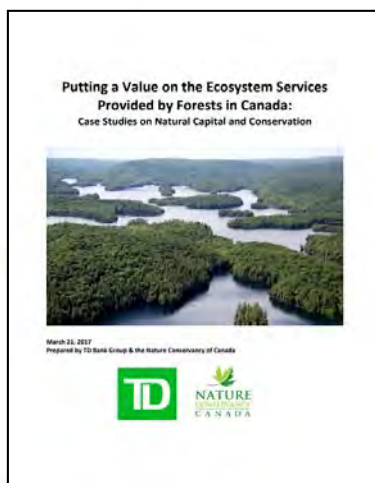






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EMERALD
DRAGONFLY
GLOBALLY RARE





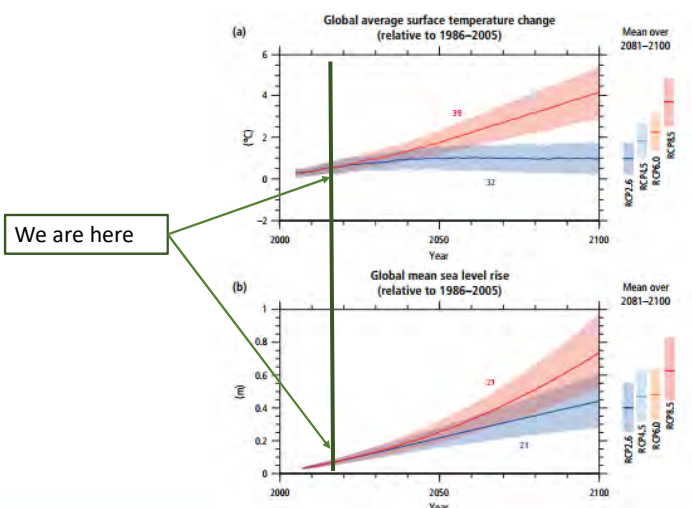
Natural Capital Value of Conserved Forests

Great Lakes Forest:
\$20,000/ha/year

Boreal Forest:
\$5,800 - \$26,000/ha/year

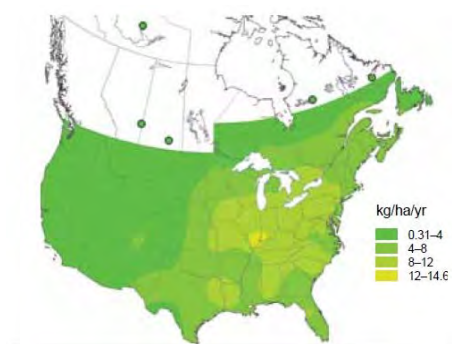


Our Canadian Climate Future?

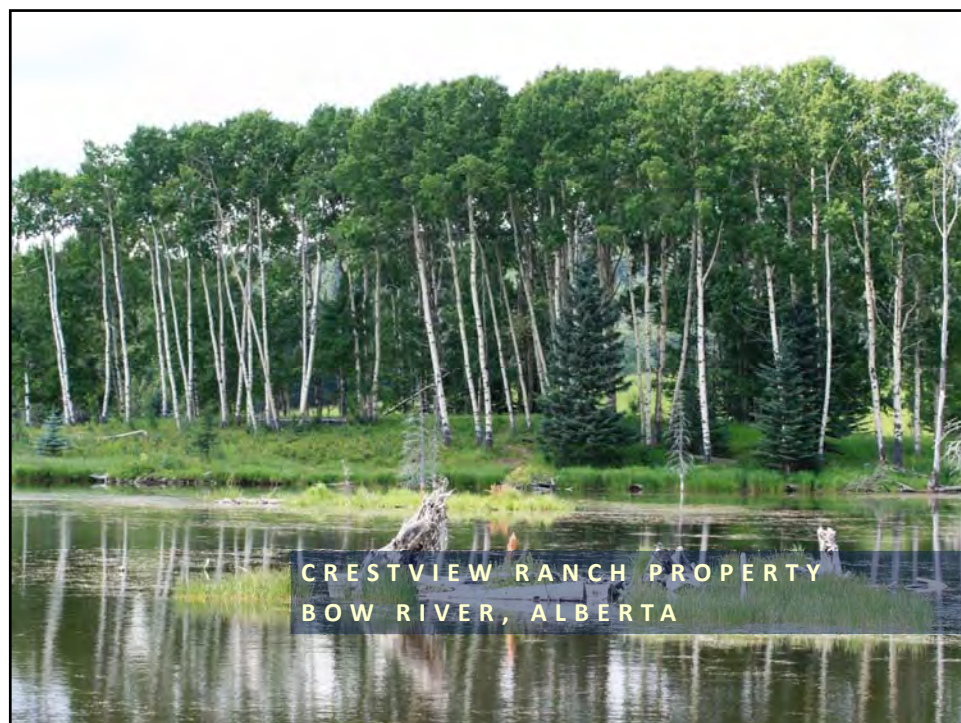
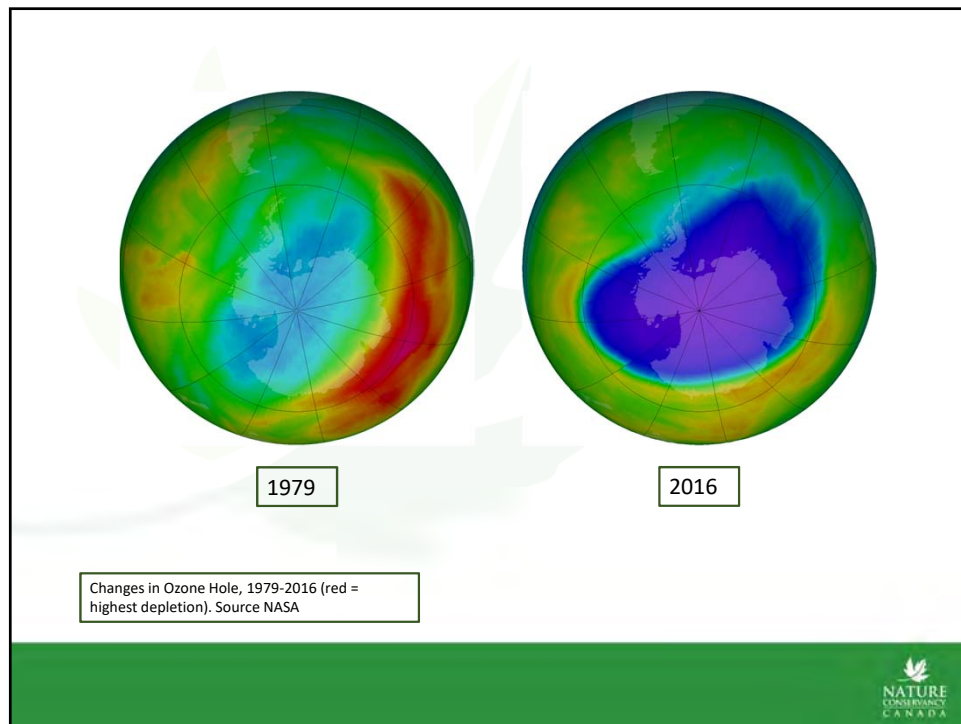




Changes in Annual Wet Sulfate and Wet Nitrate Deposition, 1990-2010

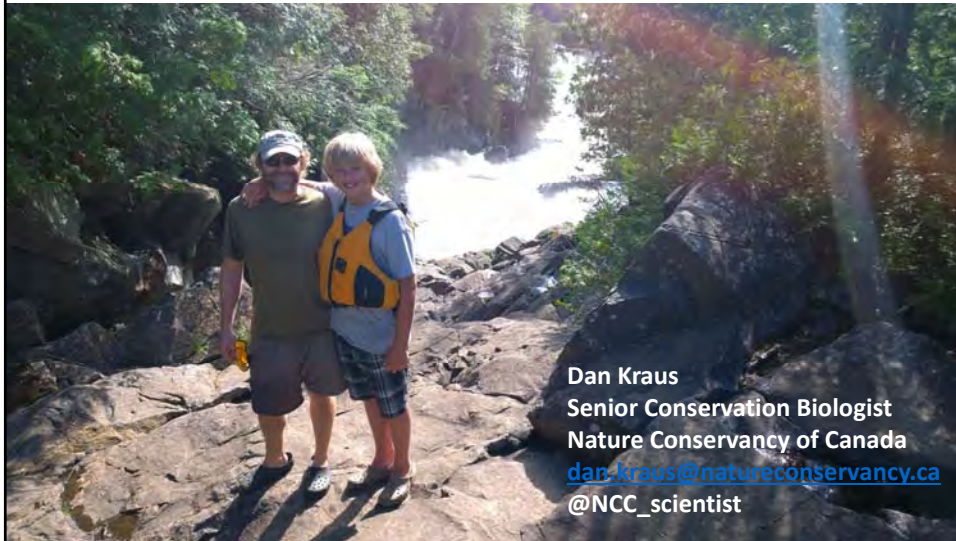


Source: Canada-United States Air Quality Agreement
Progress Report 2012



www.natureconservancy.ca

 @NCC_CNC



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