

# FEDERAL EA REVIEW

## New Generation 2017: Science

One view:

EAs can assess the sustainability of:

communities & natural systems

by focusing on:

Science, Economy, Law, Ethics

# Science: Three areas to note

- 1 Panel compositions
- 2 Dismissed Evidence: Site C example
- 3 Climate:

# 1 Panel Composition

Composition of panels:

It would be prudent to ensure that one member has at least in part, a science background,

ensuring science as a way of thinking and analyzing

## 2. Evidence dismissed: Site C

- The Site C panel found that *evidence* for the value of long-term agriculture was not relevant or convincing;  
it was therefore dismissed.
- Scientific information is not just a product of experts studying a particular project in time and place.

It is an accumulation of evidence by multiple researchers and agencies over time and can be presented by any informed person, even one with confirmation bias.

\* Citations outlining the impacts of the loss agriculture for the Peace Valley

0	BC Agriculture Climate Change Action Plan. (2010-2013) <u>The Climate Action Initiative</u> , BC Agriculture and Food. BC Government
1	National Oceanic and Atmospheric Administration. National Climatic Data Center. (October 2013) Globe's unbroken warm streak approaches 29 years. Cited in <u>Climate Central</u> . November 19, 2013. <a href="http://www.climatecentral.org/news/globes-unbroken-warm-streak-approaches-29-years-16758">http://www.climatecentral.org/news/globes-unbroken-warm-streak-approaches-29-years-16758</a>
2	Keven E. Trenberth journal: <u>Climatic Change</u> . November 2012, Volume 115, <u>Issue 2</u> , pp 283-290,] <a href="http://link.springer.com/article/10.1007%2Fs10584-012-0441-5">http://link.springer.com/article/10.1007%2Fs10584-012-0441-5</a>
3	Regional patterns and proximal causes of the recent snowpack decline in the Rocky Mountains, U.S.. Gregory T. Pederson· Julio L. Betancourt· Gregory J. McCabe· <u>Geophysical Research Letters</u> . Vol. 40, Issue 9. Pp.1811–1816, 16 May 2013
4	<u>Michael D. Dettinger</u> and <u>B. Lynn Ingram</u> (January 2013) Megastorms could drown massive portions of California. <u>Scientific American</u> Energy and Sustainability.
5	David Lewis (January 25, 2013) California's "Other Big One: A Historical Flood. <u>The Energy Collective</u>
6	Kenneth E Kunkel, et al. (April 12, 2003) Probable maximum precipitation and climate change. <u>Geophysical Research Letters</u> . Vol 40, issue 7, pages 1402–1408, 16 April 2013]
8	Paltsev. S, Schlosser. C.A. et al. (2009) Joint Program on the Science and Policy of Global Change. <u>American Meteorological Society's Journal of Climate</u> . Massachusetts Institute of Technology, Cambridge, Massachusetts
9	Dieter Gerten, Wolfgang Luch et al. (May 03, 2013) Asynchronous exposure to global warming: freshwater resources and terrestrial ecosystems. <u>Potsdam Institute for Climate Impact Research</u> [published in <u>Environmental Research Letters</u> , May 03, 2013, p. 2] <a href="http://iopscience.iop.org/1748-9326/8/3/034032/article">http://iopscience.iop.org/1748-9326/8/3/034032/article</a>

10	Mora, C. Abby, G. Longman, J. Ryan et al. The projected timing of climate departure from recent variability. (October, 2013) <u>Nature</u> 502, 183-187. <a href="http://www.nature.com/nature/journal/v502/n7470/full/nature12540.html">http://www.nature.com/nature/journal/v502/n7470/full/nature12540.html</a>
11	World's Dams Unprepared for Climate Change Conditions. Julia Pyper. (September, 2011) Cited in <u>Scientific American</u> by John Matthews. Journal <i>PLoS Biology</i>
12	Adaptation to Climate Change: "Climate Change Adaptation and Canada's Crops and Food Supply. (July 03, 2013) <u>Simon Fraser University</u> (WWW.SFU.CA/ACT)
13	Food and Agriculture Organization of the United Nations (2013) <a href="http://www.fao.org/publications/SOFI/en/">http://www.fao.org/publications/SOFI/en/</a>
14	Secretary-General of the OECD and the Director General of the FAO-regarding the Agricultural Outlook 2013 to 2022 (2013) ( <a href="http://www.oecd.org/publishing/corrigenda">www.oecd.org/publishing/corrigenda</a> .)
15	Andrew Barkley. (September 04, 2013) Kansas State University. Wheat research indicates rise in Mean temperature would cut yields. Cited in <u>Science Daily</u> ; funded by the Kansas Agricultural Experiment Station
16	Alvaro Calzadilla, Katrin Rehdanz, Richard Betts, Pete Falloon, Andy Witshire, Richard S.J. Tol. (September 2013) Impacts on global agriculture. <u>Climatic Change</u> . Volume 120, <u>Issue 1-2</u> , pp 357-374
16	Lester Brown. (January 2011) The Great Food Crisis of 2011. <u>Foreign Policy</u> September 24, 2013
17	Robert Bailey (June 2011) Growing a better future, Food justice in a resource-constrained world. Published by Oxfam GB for <u>Oxfam International</u> under ISBN 978-1-84814-852-9 ( <a href="http://www.oxfam.org/grow">www.oxfam.org/grow</a> )
18	<u>BC Ministry of Agriculture and Lands</u> , (2006) BC's Food Self-Reliance. Can B.C's Farmers Feed Our Growing Population? <a href="http://www.al.gov.bc.ca/resmgmt/Food_Self_Reliance/BCFoodSelfReliance_Report.pdf">http://www.al.gov.bc.ca/resmgmt/Food_Self_Reliance/BCFoodSelfReliance_Report.pdf</a>
19	Ipsos Reid Public Affairs. (2008). <u>Poll of Public Opinions Toward Agriculture, Food and Agri-Food in BC</u> . Vancouver BC: (Investment Agriculture Foundation of BC.)
20	<u>Fifth Intergovernmental Panel on Climate Change</u> (IPCC) September, 2013

# Science

## Climate

- All assessments should have to view project impacts in centuries, through the lens of the lens of a new and changing climate normal,  
  
both in terms of mitigation and adaptation.
- Climate considerations should be built in to the process.

Thank you