



The Consortium's River Summer program is a multi-institutional field program which uses the Hudson River as an extended laboratory and classroom to investigate the development of the watershed within an interdisciplinary framework.



River Summer 2011 Readings & Annotated TOC



Dear River Summer Participant:

First let us note that this is not as much to get through as it might look. These are VERY READABLE pieces written for the general public.

As was noted when we sent “The Psychology of Climate Change Communication” booklet we have assembled a few readings that deal more directly with the topic of climate change itself – the science, the anticipated local impacts, the nay sayers, the geo-engineering concepts, the role of carbon and what you can do.

There is an enormous amount of information available. We have made choices based on careful consideration and review and have provided some of our thinking on the next page in the Annotated TOC. Any number of other choices could have been made and if you have other favorites we encourage you to bring them up in the conversations we have onboard this summer, and even bring copies with you for others to read.

In this list of readings there is only one piece that is a science journal article (although for this article we included a more generalist summary by the lead author, item #4 on the TOC, if you find this more readable) the rest are pieces addressed to the general public. You should find this information highly accessible and not too time consuming to read through. **We ask you to make a commitment to our time, the time of our presenters and the overall program and read this information BEFORE joining us on the boat.** Our evening conversations and many of our daytime activities will draw from this information. If you have ANY questions please feel free to contact Margie or Tim. We are looking forward to a wonderful River Summer!

Looking forward to talking CLIMATE with all of you!

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RIVER SUMMER 2011
READING LIST
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- 1. Defusing the Global Warming Time Bomb** by *Jim Hansen, NASA*
Appeared in Scientific American March 2004
Jim Hansen is an atmospheric scientist and climatologist.
We felt it was important to include a piece from Jim as he is considered one of the contemporary frontrunners in the climate science community to advocate on behalf of the science behind the warming Earth being real and irrefutable,
- 2. Abrupt Climate Change** by *Richard Alley, Penn State*
Appeared in Scientific American November 2004
Richard Alley is a geoscientist who has stepped into the climate arena as he has studied the dramatic and accelerating changes in the polar regions.
We felt it was important to include a piece from Richard because he has been a leader in exploring new ways to reach the general public including running specials on PBS (Earth: The Operators' Manual available online at http://www.earththeoperatorsmanual.com/broadcast_info)
- 3. An Introductory Overview of Climate Change (an annotated ppt)** by *Art DeGaetano, Cornell*
Presented for a NYS Climate Planning Meeting 2006
Art DeGaetano is an atmospheric scientist and the director of the federally-supported Northeast Regional Climate Center (NRCC).
We felt it was important to include a piece from Art because he has focused on the impact on the Northeast and also touches on the role of models, certainties and uncertainties.
- 4. Sea Level Rise and Storm Hazards, New York City** by *Vivian Gornitz, Center for Climate Systems Research, Columbia University and Goddard Institute for Space Studies*
Paper presented at Stevens Institute 2008 (a generalist summary of the following science paper)
Vivian Gornitz is a geologist and climate scientist who began looking at global sea levels in the 1980s. She has published and presented extensively on sea level and storm surge in the NYC and lower Hudson area. This paper is the science brief from the following paper.
- 5. Impact of Sea Level Rise in the New York City Metropolitan Area** by *Vivian Gornitz^a, Stephen Couch^b and Ellen Hartig^c, ^aCenter for Climate Systems Research, Columbia University and Goddard Institute for Space Studies, ^bUS Army Corp of Engineers, NY, ^cWildlife Trust, LDEO*
Appeared in Global and Planetary Changes, 2002
This is the only science journal article we included but we felt it was an important assessment of storm impacts and sea level rise. If you do not make it through this paper please read #4.

6. **Reflections on the Scientific Process, as Seen in Climate Studies** by *Spencer Weart*
 Spencer Weart is a physicist and a historian specializing in the history of modern physics and geophysics. This piece is from his comprehensive website based on his book “*The Discovery of Global Warming*”
<http://www.aip.org/history/climate/index.htm>
 Understanding how science is done i.e. the scientific process is key to the climate conversation and nicely summarized in this very readable assessment.

7. **The Climate Science Isn’t Settled** by *Richard Lindzen, MIT*
 An opinion piece from the Wall Street Journal in Nov. 2009. (Note that while it might appear that a section of the print is missing it is all there – just the type became a little split in the conversion to pdf.)
 Richard Lindzen is one of the highest profile, and often cited, nay sayer scientists of climate change/global warming. It is important to see what the argument on the other side is.

8. **An Inconvenient Truth: SOS from Al Gore** – by *Patrick Bedard* Article from *Car and Driver*, September 2006
 We included this article since much of the climate debate is directed at Joe Public or Joe Plumber! This is the car buying community. Again a nay sayer. (ps Tim’s Dad used this article as ammunition on him about why there is no climate crisis!)

9. **The Geo-engineering Gambit** – by *Kevin Bullis*,
 An article from Technology Review Jan/Feb 2010. This article addresses some of the geo-engineering ‘fixes’ that have been considered and determined as too extreme in the past but are being given further consideration as we see the climate conversation become more accepted. For example the carbon sequestering deep down in the rockbase currently under study for the Lower Hudson area – in the Newark Basin along I-287 in Rockland NY and The Garden State Parkway in New Jersey.

10. **A Plan to Keep Carbon in Check** by *Robert Socolow and Stephen Pacala, Princeton University*
 A piece from Scientific American Sept. 2006. Robert Socolow is a mechanical engineer and Stephen Pacala an ecologist, together they lead the Carbon Mitigation Initiative there. This piece addresses changes they suggest we can and should make to keep carbon in check.

11. **Take Action Cards** by *Eve Mosher, Founder of the Highwaterline Project*
<http://www.highwaterline.org/>
 Eve Mosher, artist who developed this public artwork project in 2007 as a way to reach those people who are not traditionally involved in the climate conversations. She walked throughout lower Manhattan and as she drew the highwaterline on the ground she spoke to the residents and handed out information on “what to do”. These are her information cards.