

DATE	07 March 2014
SOURCE	Listosaur
RE	Ocean Warming



5 Global Warming Contingency Plans Being Made Now

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The scientific consensus is that global warming is real, and it poses a serious threat to civilization. Rising seas and higher temperatures are a potential problem that confronts us all, regardless of political affiliation. Yet politicians, pundits, scientists and nations squabble over climate change issues, with many people still questioning mankind's role in this phenomenon. But as debates rage on regarding this issue, many agencies and governments that stand to be impacted most by a warming planet are already taking steps to prepare for and mitigate the potential damage.

5. Insurance Companies Are Planning For Potential Losses

When actuaries and other insurance number crunchers — all of who have a legendary reputation for ignoring political bias to protect their bottom line — move to protect themselves against possible losses due to global warming, then maybe it's time for everyone to pay closer attention. In June 2013, the [Geneva Association](#), an international insurance think tank, issued a report stating that, "ocean warming has effectively caused a shift towards a 'new normal' for a number of insurance relevant hazards ... even if greenhouse gas emissions completely stop tomorrow, oceanic temperatures will continue to rise." The think tank called upon insurers to start setting rates based on climate-modeling scenarios rather than historic trends traditionally employed. The bottom line for those in coastal flood-prone areas is that rates will go up, and many may be refused insurance all together.

4. U.S. Navy is Studying Risks Rising Seas Pose to Operations

Sea-level rise is a strategic concern, with the potential to change familiar waterways and coastal geography. Rising seas could threaten many U.S. naval bases; one study released by the U.S. Army Corps of Engineers in 2013 revealed that a 1.5-foot to 3-foot rise in sea levels by 2050 would leave the vital Norfolk Naval Station—the world's largest naval base — vulnerable to flooding from big storms, possibly swamping it for days. A 2011 report by the [National Research Council](#) estimated that \$100 billion of U.S. Navy infrastructure would be at risk from a sea-level rise of 1 meter or more. The [National Oceanic and Atmospheric Administration](#) projects a sea level rise of 0.5 to 2 meters by 2100.

Navy officials are using this information to guide the planning and construction of future ports and renovation projects. The Navy would also face other challenges in a warmer world; for example, melting Arctic ice means that the Navy would require greater capabilities to patrol and protect U.S. interests in the region, all in a time of shrinking budgets. Of course, in the case of some navies, global warming could actually be a boon, opening up northern ports that are normally icebound for much of the year.

USDA Planning For Possible Effects on Agriculture and Livestock

We're all familiar with the negative effects of global warming in terms of rising seas and more powerful storms. But global warming has the potential to wreak havoc with agriculture, a threat the USDA is taking seriously. The United States, one of the few net food-exporting nations in the world and the top grain exporter — to the tune of 49 million net tons in 2012 — could see harsh consequences. The USDA's [Climate Change Adaption Plan](#), released in 2012, notes that changes in precipitation patterns are

especially troubling, and that “shifts in the amount, intensity, duration, timing, and distribution of precipitation will influence agricultural production because of the uncertainty in water availability ...” Fluctuations in temperatures and precipitation could also give rise to an increase in pests and pathogens harmful to crops.

The USDA action plan includes a number of suggested strategies, including the development of new crop varieties that require less water and are more heat-resistant; encouraging better land-use practices, such as the restoration of grazing lands; and identifying and stopping the spread of pests and diseases that thrive in warmer climates.

2. Coastal Cities Are Making Preparations

Many coastal areas in the U.S. are already seeing the reality of sea-level rise and accelerating beach erosion. A 2009 report published by the [Florida Oceans and Coastal Council](#) found that rising seas would mean more than just flooding and erosion issues; it would also have a negative impact on coastal water supplies, wastewater treatment and forest ecologies. Mayors of coastal cities are sounding the alarm: in late 2013 in the Hampton Roads area of Virginia — which has experienced the highest rate of sea-level rise on the East Coast — Virginia Beach Mayor Will Sessoms spoke at a conference, “Adaptive Planning for Flooding and Coastal Change.” Sessoms told the bipartisan audience, “The time to act is now ... we cannot afford to do nothing.”

Many cities face an uphill economic battle in preparing for rising sea levels, as billions of dollars will be required to invest in moving and/or protecting vital infrastructure. A 2013 report by the New York Academy of Sciences estimated that New York City alone might need to spend \$24 billion to create buffer zones and storm-surge barriers to protect against future damage from storms similar to hurricanes Irene and Sandy.

1. U.S. DOT Studying Impact on Transportation Infrastructure

The U.S. Department of Transportation’s [Climate Adaptation Plan](#), released in 2013, underlines numerous threats rising temperatures pose to the country’s transportation infrastructure, from ports and railways to highways. Higher temperatures will mean higher construction and maintenance costs for highways and bridges (increased expansion of bridge joints and paved surfaces during heat waves will be one of the main culprits). Asphalt degradation will also mean shorter replacement cycles. Tunnels may become submerged and require pumping. Seaports will face the threat of flooding or may have to be abandoned altogether. Train derailments due to rail buckling during hot days will become more frequent.

While governments and transportation agencies can take obvious steps to reduce the impact of climate change — cities will certainly think twice before building a coastal road that might be flooded out a couple of decades from now — resilience can only be built into future transportation infrastructure to a certain extent. Roads and bridges will have shorter lifespans and some will face threats from more frequent severe storms. That means higher taxes and tolls for motorists.

One More: Agencies Gauging the Impact on Forest Land

A changing climate also means altering ecologies. According to the EPA, forestland covers some 750 million acres of the United States, or roughly one-third of its total land area. Global warming poses several threats to those resources, including drought, an increased risk of forest fires, extinction of some native species, and an explosion in population growth for others. For example, some types of disease-carrying ticks can now be found in many areas year-round, and are moving progressively northward each year. These sorts of infestations and other dilemmas will be just some of the challenges posed by life in a warmer world.