Rutland Herald & Barre-Montpelier Times-Argus Published: August 19, 2012
http://www.rutlandherald.com/article/20120819/ENVIRONMENT/708199965

Finding our way to a sustainable future

Alan Betts (http://alanbetts.com/writings)

This summer most of the central United States has been suffering the worst drought and highest temperatures in 75 years. These conditions follow record temperatures and reduced snow cover during winter and spring, with low rainfall in April, May and June. Wildfires have been more severe and extensive, and crop losses are expected. Except for the western United States, most states have seen record temperatures for the first seven months of this year.

Vermont has been exceptionally warm in 2012, with January to July temperatures running almost 5 degrees above normal. This was the first summer in years that I have had to water my vegetable garden a couple of times — in most Vermont summers since 2002 we've had rainfall well above normal amounts.

Last year's floods washed a lot of phosphorus into Lake Champlain from agricultural land and bank erosion. The excess of this nutrient, combined with warm temperatures, has led to excessive algal blooms in the lake. But conditions are even worse in the Midwest, where high temperatures and low stream flows have killed tens of thousands of fish.

There is no doubt that the climate is changing. The Arctic snow cover in June set a new record low, and in mid-August the sea ice is melting at a record pace. The warming of the Arctic appears to be changing the large-scale weather patterns in the northern hemisphere. Scientists are still trying to understand the many processes involved. At the same time the subtropical drought areas are spreading northward. Last year Texas and New Mexico were severely affected; this year it is the central United States.

Each year brings unique weather patterns, and this country sees only one small part of a global phenomenon. We can only grasp the broad picture when we look back at the whole year — or the past decade.

Our society is afraid to look critically at the broad picture, and we suffer as a consequence. The 2012 political platform of the Texas Republican Party actually opposes the teaching of "critical thinking skills" in schools, on the grounds that critical thinking challenges student's fixed beliefs and undermines parental authority.

Traditional beliefs and authority are immensely valuable if we are living with a stationary climate and a long-term, "seven-generation" vision of a sustainable society. But our society has a very short-term horizon, which treasures growth — till the bubble bursts — and is happy to trash the Earth if it is profitable. We must teach energy and climate literacy in our schools; yet in many parts of the country these subjects cannot be taught because they are correctly perceived to undermine traditional beliefs and vested interests.

What happens if we don't accept responsibility for our actions and policies? The Earth simply responds to our inputs of greenhouse gases and the contaminants we add to the waterways. We don't like that — but there is little we can do about it as long as we are heading defiantly in the wrong direction.

One central issue we must face is how to use our technology to benefit both humanity and the Earth. Technology created our present human world and many of our global environmental problems, and it is embedded in a world where humans struggle with greed, injustice, inequity and warfare. We need new technology to find our way to a sustainable future — but clearly we have to manage it better because the current impacts on the Earth have become unsustainable.

This means that by design, our infrastructure and our products must maximize their energy efficiency and minimize their waste streams. End-to-end recycling or remanufacturing is essential. The transition will take time and will require constructive community discussion because it is so radically different from our present economic model.