

# WE ARE FAILING THE CLIMATE CHANGE ULTIMATUM

*By Jamie Sayen*

*January 2021*

During the hot summer of 1988, climate scientist James Hanson testified before Congress that the burning of fossil fuels was releasing carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and other gases into the atmosphere where they trapped and held heat, causing global warming. If unchecked, he warned, rising temperatures could melt polar ice caps, raise sea levels, and trigger extreme weather events such as hurricanes and tornadoes.

Fifteen months later, Bill McKibben's *The End of Nature* raised the alarm that if climate change went unchecked, a warming planet could drive the coniferous forests of northern New England out of the region. Iconic species such as red spruce, balsam fir, moose, loons, and American bitterns might be unable to reproduce successfully in the once-cool, damp habitats that have sustained them for millennia.

McKibben outlined a science-driven climate policy: reduce use of fossil fuels immediately, limit human population, diminish our consumer demands and desires, and change a belief system that seeks to dominate Earth. A third of a century after Hanson and McKibben sounded the alarm, most Americans believe anthropogenic climate change is a major crisis. Nevertheless, atmospheric carbon levels have increased from 350 parts per million (ppm) in 1988 to 417 ppm in 2020—a 20 percent increase.

We are failing the climate change ultimatum.

The climate crisis contains scientific, ethical, and political challenges: Abide by natural limits or suffer catastrophic consequences. Since we cannot change immutable laws of physics, chemistry, and biology, we have no choice but to transform human behavior. Unfortunately, political conservationists— establishment conservation groups, government agencies, industry leaders, and the politicians beholden to industry campaign contributions—are unwilling to acknowledge that our growth-at-any-cost, high carbon, consumerist, throwaway culture is the problem that must be transformed. They are failing the ethical imperative.

When the paper companies began to sell off remote, undeveloped, overcut forest lands in 1988, political conservationists ignored preservationists who called for public land acquisition to preserve habitat and protect water and air quality. New Hampshire could have acquired the 40,000-acre Nash Stream Forest for \$211 an acre. Instead, it was forced to pay a sketchy developer \$282 an acre three months later.

Political conservationists continue to oppose ambitious public land acquisition proposals. Instead, they ridicule wilderness for “locking up” the economic value of forest land, as if the optimal wildlife habitat, water, and air quality were of no economic, ecological, or psychological value.

As the paper mills closed, political conservationists failed to learn the economic lessons of the decline of the regional paper industry. Absentee ownership of land and mills had failed our natural and human communities. Reliance on commodity pulpwood and wood chips prevented the development of diverse, high-value, low-carbon manufacture of niche wood products. Dependence on one major economic sector, coupled with the ascendance of the global economy, has reduced our local economies to shambles.

To replace the failed paper mills, conservation elites supported construction of industrial biomass plants that would never be built without hundreds of millions of dollars of taxpayer and ratepayer subsidies. The opening of the 75 MW Burgess Bioenergy plant in Berlin, NH seven years ago set off a new epidemic of unregulated clearcuts that are turning our forests from carbon sinks that lock up carbon for long periods of time into major sources of carbon emissions at precisely the moment we need to optimize a forest stand's ability to withdraw carbon from the atmosphere.

Berlin's inefficient Burgess Bioenergy plant wastes three-quarters of the energy contained in the wood chips it burns. Industrial wood-burning emits more carbon dioxide than coal-fired plants per unit of energy produced. Reckless politicians have falsely decreed that industrial biomass is "carbon-neutral," thereby allowing it to qualify for massive public subsidies intended for truly low- and no-carbon energy sources.

Upwards of \$300 million has been pumped into the 75 MW Burgess Biomass plant and a roughly equal amount for the construction of two new prisons in the Berlin community, yet, six derelict storefronts sit directly across the street from Berlin's City Hall. Prosperity has not trickled downtown.

By marginalizing citizens who promote science-driven conservation policies, political conservation has contributed to the politicization of climate science and a weakening of democracy. Today, 88 percent of Democratic voters believe the climate crisis is a major threat to the well-being of the United States. After decades of fossil fuel funded climate science denialism, only 31 percent of Republicans agree, while 24 percent of them deny it poses any threat. Deniers act as agent provocateurs to provide political cover for climate change ditherers at a time when urgent action is required.

Political conservationists perform many valuable education, research, and advocacy services. Unfortunately, they have embraced market-based, supply-side solutions that seek to replace fossil fuels, but fail to require substantial reductions in demand for energy and manufactured goods. Supply-side strategies draw away resources that could substantially reduce carbon emissions.

Science-driven conservation accepts that natural laws and limits circumscribe our economic, political, and cultural options. It advocates for policies that abide by those limits and protect land health. Instead of viewing land as a commodity to be exploited, its proponents view Earth and its denizens as a biotic community to which we belong.

To address the climate crisis, we need to reduce atmospheric carbon levels to 350 ppm or lower. We cannot continue to increase our emissions while we wait for a more favorable political climate or for some miraculous techno-fix to be available. Time is not on our side.

The cheapest and most cost-effective method for reducing carbon emissions is "demand reduction"—a combination of energy avoidance, conservation, and efficiency measures. Consume less; waste less. Global elites and utilities hate demand reduction because it decreases consumption and does not swell the global growth economy that is the chief culprit of anthropogenic climate change.

The gains from an energy policy centered upon demand reduction would enable us to shut down older, inefficient power plants without having to construct new, lower carbon energy sources. A business-as-usual growth economy continues to cancel out the gains of demand reduction. A "conserving culture" that meets basic needs as simply and efficiently as possible can

sustain those gains. A new Civilian Conservation Corps can provide jobs performing energy audits and retrofitting older buildings, as well as carry out land health restoration projects, and other work that will facilitate the transition to a low carbon economy.

Instead of chipping and incinerating our forests, let us draw upon our vaunted Yankee ingenuity to construct super-insulated and weatherized low-income housing and other new buildings with low value wood. Local mills could utilize small diameter green poles that are lightly milled on one side to construct double-stud walls that allow for thicker insulation. The waste wood would be minimal, and adding value to low economic value wood pays the landowner, logger, and forester much more than commodity wood chips. Greenhouse gas emissions are dramatically lower.

Small diameter wood can be used for parallel trusses for long span floors and cathedral ceilings that also create large spaces for cellulose insulation. Bundles of small, low-value trees can become posts. Wood waste would be minimal, whereas squaring off logs wastes roughly 40-60 percent of the log as slabs, planer shavings, and sawdust. Green poles do not require kiln drying, another significant energy hog.

Demand reduction reduces the rate at which we increase atmospheric carbon levels; it does not reduce current atmospheric carbon concentrations. Photosynthesis performs that service by withdrawing carbon from the atmosphere and storing it in trees and soils for decades and centuries.

Researchers Jared Nunery and William Keeton wrote: “We showed that even with consideration of C sequestered in harvested wood products, unmanaged northern hardwood forests will sequester 39 to 118% more C[arbon] than any of the active management options evaluated.” Their conclusion? “This finding suggests that reserve-based approaches will have significant C[arbon] storage value.”

Today’s deteriorating infrastructure is long overdue for a transformation to support a low carbon culture. Instead of long transmission lines and ubiquitous pavement, let us design an infrastructure that serves small, decentralized energy sources that meet our dramatically reduced energy demands.

And, let us preserve and restore our natural infrastructure. We must relentlessly agitate for networks of protected green spaces that connect inner cities with the remote, undeveloped wildlands that abound in northern New England. Nature, whether in the midst of skyscrapers or groves of ancient trees, brings joy to the heart whether new-born or aged. It costs next to nothing, and pulls carbon out of the heavens. It is our life-support infrastructure.

We have a dearth of maturing and older forest stands that sequester and store the most carbon. A 3.2 million acre Manie Woods National Park would optimize carbon storage while preserving and restoring wildlife habitat and ecosystem integrity. Protected, unfragmented landscapes may be the difference between survival and extirpation of climate-stressed species in search of viable habitat.

In the late 1990s, New Hampshire’s Ecological Reserves Steering Committee was moving the state in this direction until the State’s political conservation insiders moved to kill off the promising initiative. Given the acuteness of our climate crisis, it is essential that citizens demand the revival of the NH Ecological Reserves project. When we value green spaces and vibrant natural landscapes that provide clean air, clean water, abundant wildlife, natural beauty, and

puzzling over the mysteries of untrammelled nature, we will make rapid progress in reducing atmospheric carbon levels.

A favorite trope of many establishment conservation organizations is that wilderness “locks up” “the resource.” While the politics of this awful eco-label may play well with the timber lobby, it undermines efforts to advance long-lasting land health protection and the reduction of atmospheric carbon. It treats wild, evolving, complex, symbiotic forest ecosystems as one-dimensional resources. It promotes the myth that only a logged over forest is a “working forest.”

Wilderness teaches us to live within limits. It informs us what we must do to protect land health and reduce the climate crisis. Unmanaged wild forests provide optimal air and water quality, the healthiest, most diverse wildlife habitat, all the while locking up the most atmospheric carbon.

Large wilderness reserves provide the incentive to develop local, niche, value-added manufacturing instead of subsidized, low-value, commodity wood chips destined for biomass boilers. Unmanaged lands diminish the threat of over-production that depresses timber prices.

Wilderness can sustain as many, or more, jobs than intensive logging. In the 1990s northern Maine’s industrial forest supported roughly one job per 800 acres. A study conducted by The Wilderness Society in 2000 estimated that one new job is created for every 550 acres of eastern wilderness protected. By contrast, unregulated, large-scale clearcutting forecloses job opportunities for decades to come. *Unmanaged forests are the hardest working forests of them all, and our most valuable forest product.*

When political conservationists align their considerable political clout with science-driven conservation advocates, we can begin to implement policies that honor our obligations to all humans, all our fellow species, and future generations. We can reduce atmospheric carbon levels and retain New England’s beloved spruce-fir, northern hardwood forests. We can enjoy the frugal prosperity of a low carbon economy that meets basic needs without degrading our land, air, water, and fellow wild critters. We can turn away from consumerism and back to the mysteries and beauty of untrammelled nature.

Let us unite to acquire absentee-owned, undeveloped timber lands formerly owned by paper companies *as they come on the market, as they surely will in the near future.*

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