

# CONFRONTING CLIMATE CHANGE

## Statement of the Issue

Earth is experiencing unprecedented climate change and human activities are primarily responsible. Scientists warn that we must take immediate, effective action if we are to avoid passing a “tipping point”—a point of no return for avoiding the most extreme consequences of global climate change. They also stress the need to start preparing for those climate changes we cannot avoid – those consequences “locked in” by our actions to date. VCN’s current positions on issues like land use, transportation, coal-fired power plants, and others provide detailed action plans to address both today’s challenges and the larger challenge of climate change. This paper looks at the broader climate change issue as it impacts Virginia.

The scientific consensus is overwhelming. In 1979, well before global warming became a hot-button, political issue, a National Academy of Sciences report concluded, “We now have incontrovertible evidence that the atmosphere is indeed changing and that we ourselves contribute to that change. Atmospheric concentrations of carbon dioxide are steadily increasing, and these changes are linked with man’s use of fossil fuels...A wait-and-see policy may mean waiting until it is too late.”

In the last 20 years we have seen 14 of the warmest years in history. The Arctic Ice sheet is smaller than at any point since human measurements began and is predicted to disappear altogether during the summer in 20- 30 years.. In recent years, the global ocean temperature has risen to the highest ever recorded. The rate of sea level rise has doubled in recent decades. Virginia’s Governor’s Commission on Climate Change warned in 2008 that climate change will lead to more frequent and severe droughts, floods, heat waves, and storms.

The link between man-made green house gases and these climate change indicators is better studied and understood than most areas of science. This fact highlights the central reality about climate change: we have had plentiful information about the issue for decades; what we have lacked is the political will to implement solutions. It is clearly time to act.

## Background

### *Impacts to Virginia*

Virginia is likely to experience some of the worst impacts of climate change of any state along the Atlantic Coast. From Appalachia to the Northern Neck, climate change will significantly alter growing seasons, increase severe precipitation events, and result in summertime droughts, severely threatening agriculture, forestry, fisheries, tourism, and many other economic sectors.

Water levels in the Chesapeake Bay and along Virginia's coastline are expected to rise by 2 to 5 feet this century. The Hampton Roads region is the nation’s most populated area at the greatest risk from sea level rise outside of New Orleans. Hampton Roads has the tenth largest set of infrastructure and building assets at risk of inundation in the world.

### *Virginia Should Lead*

Given the high risk of climate change impacts on Virginia, it is imperative for us to take immediate steps to combat climate change. Virginia is a serious contributor to climate change— greater than some individual countries— and its role is increasing. Old Dominion Electric Cooperative is proposing what would be the single-largest coal-fired power plant in Virginia. If built, the ODEC coal plant would emit another 11.7 million tons of CO<sub>2</sub> annually – putting it on the list of one of the top 50 dirtiest power plants in the nation, keeping company with power stations that are several decades old.

Electricity generation is only one part of the problem. Our buildings and transportation account for approximately 75 percent of our energy use and greenhouse gas emissions. Sprawling suburban development and road-centered transportation policies force increased driving and fuel consumption, thus increasing carbon dioxide emissions. Virginia has had one of the largest increases in carbon dioxide emissions from cars and trucks in the nation. Additionally, sprawl destroys

# CLIMATE CHANGE RECOMMENDATIONS

We can move Virginia in the right direction by:

- Expanding effective energy efficiency and conservation programs that not only offset peak demand, but also further reduce generation needs 24 hours a day, 365 days a year.
- Rejecting proposals for conventional-style, coal-fired power plants that would significantly increase global warming emissions, thus exacerbating the Commonwealth's contribution to climate change.
- Promoting the responsible development of low- and no-carbon renewable energy sources;
- Reforming Virginia's land use and transportation policies to promote green building in more compact communities, transit and other alternatives to driving, and more efficient, cleaner vehicles.
- Providing local governments and state agencies with the planning tools (e.g. LiDAR data) they need to minimize the effects of climate change on communities and infrastructure.
- Encouraging greater investment in conserving forest, agricultural, and marshlands that can act as carbon sinks.

farmlands, woodlands, and other open space that help store carbon.

## **Federal Action**

In 2009, the U.S. House of Representatives passed a bill, the American Clean Energy and Security Act, which would have established a cap-and-trade program for greenhouse emissions similar to the successful program used to stop the spread of acid rain. Unfortunately, that bill languished in the Senate and eventually died

More positively, the U.S. EPA has responded to a 2007 court order from the Supreme Court of the United States, in *Massachusetts v. EPA*, and has promulgated regulations that would reduce greenhouse gas pollution from both mobile sources (e.g., car and trucks) and stationary sources (e.g., power plants and factories). The new EPA climate protections are set to go into effect on January 2, 2011. Virginia's Attorney General, Ken Cuccinelli, however, has joined big coal and oil interests in filing a lawsuit challenging EPA's new greenhouse gas initiatives.

## **State Action**

In 2008, the Virginia Commission on Climate Change reported on the need to reduce greenhouse

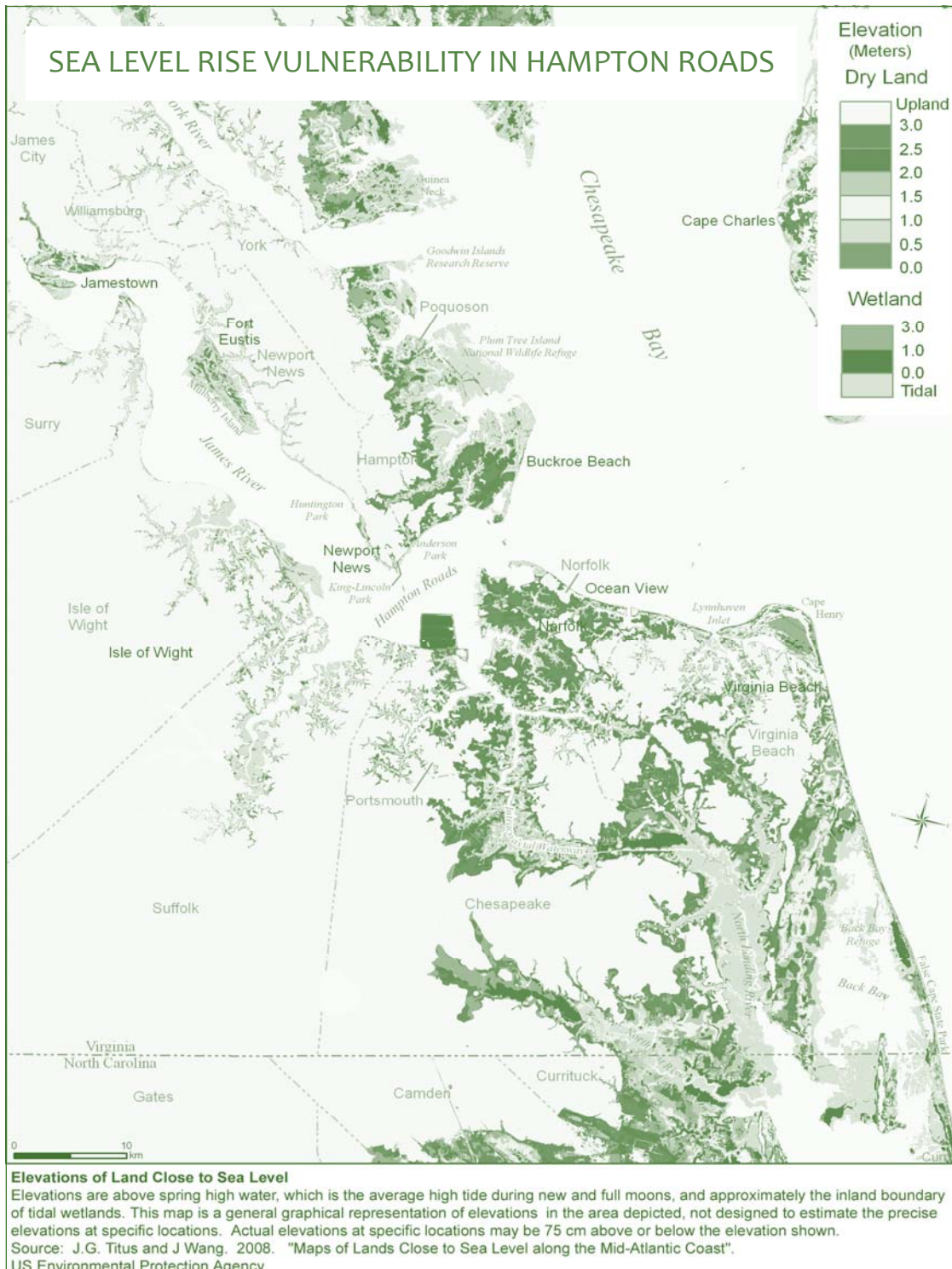
gases and start to prepare for climate change impacts on Virginia. Unfortunately, few of the commission's recommendations were acted upon by the governor or General Assembly. Meanwhile, the governor's 2010 Virginia Energy Plan deleted any mention of "climate" whatsoever.

Legislation has been introduced in recent sessions to limit the ability of EPA to regulate greenhouse gas pollution. With hard work, these bills have been blocked, but we can expect more to come.

## **Opportunities for Progress**

Despite setbacks, there is progress that can be made to combat climate change. Local governments are taking action, including joining the Sierra Club's "Cool Cities" and "Cool Counties" programs and the Virginia Municipal League's "Go Green Virginia" initiative, demonstrating that progress can be made.

Alternative energy investments in Virginia are on the rise. Offshore wind generation in particular presents a great opportunity to generate clean energy cost-effectively and create new Virginia-based jobs fabricating and installing wind turbines. Likewise, energy conservation work puts building trades back on the job, reviving that sagging employment market. Federal stimulus spending and



tax credits will greatly expand the market for home weatherization providers and help Virginia's community colleges establish training programs in that field. Sustaining job growth beyond the two-year window of the stimulus, however, will require state leadership.

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