Planning for Fires: Using Firewise to Adapt to Future Climate Conditions

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Agenda:

Wildfire - it's natural

Wildland/Urban Interface – what is it?

Climate Change and Wildfire Impacts

Adaptation to Changing Conditions

Resources to help you

How many of you have experienced wildfire on Cape Cod? How about grass fires? Marsh fires? Escaped trash/debris burning fires? Wildfire is a natural phenomenon that has cycles and seasons just like floods, blizzards and windstorms. It has natural and beneficial functions in fire-adapted ecosystems. The Cape and Islands hold many examples of fire-dependent ecosystems, especially pine barrens ecosystems. These systems and the species in them need fire to thrive. There is a long history of natural fire and human uses of fire dating back to aboriginal use of fire. Fire and humans adapt together. In our current (last couple hundred years') history, fire has become the enemy and in general we have tried to exclude it from the landscape. The problem with exclusion is that we inadvertently help to create conditions that make the inevitable fire greater in magnitude and potentially more destructive, not just to human habitation but also to the very ecosystems we wish to preserve and enhance.

I want to emphasize to you that we CAN live compatibly with nature (wildfire) if we understand and adapt to the conditions that put our homes and values at risk.

We live with wildfire as part of our environment whether we realize it or not. In many areas of the country, we have termed this tenuous relationship "the wildland/urban interface," or "WUI" to try to describe a place or site where humans live amidst flammable vegetation. However, in recent years our national program has been working to communicate that the WUI is not really a place but a set of conditions that can exist almost anywhere. In the Northeast in general and in Plymouth and Barnstable Counties in particular, since we largely successfully suppress unwanted vegetation fires, most people don't understand these conditions and the implications of living with wildfire. Exposure to wildfire – whether it's just in the backyard or across a large swath of the landscape – changes the equation due to the many complicating factors of weather, terrain and available fuel – so it may make it impossible for fire responders to cope with protecting structures when the fire comes.

What has climate change got to do with all this? When I agreed to make this presentation, I emphasized to the coordinators that we are busy in the Firewise program with trying to get people to adapt to the reality of the fire risks they face RIGHT NOW – our whole program is about adapting to wildfire and living compatibly with this natural phenomenon. Climate change will impact wildfire in the following ways: -- more of it; larger, hotter fires; more frequent fires; fires in places that forgot this was part of the environment. This is because the wet-dry cycles are becoming more dramatic; temperature change means we are seeing changes in the species that "typically" thrive in our local environments; stresses on the

ecosystem create conditions that invite wildfire and its cleansing effects along with further ecosystem alterations. In short, adaptation to fire in light of climate change is simply adaptation to fire writ larger. It is certainly not just a California problem.

However, the California and Western and Southern experiences with adapting to wildfire can help us in the Northeast. We need not wait until these changes are upon us, nor until the fire is bearing down on our communities. Indeed we CAN live compatibly with nature (wildfire) if we understand and adapt to the conditions that put our homes and values at risk. Fire experts at the Cape Cod National Seashore and UMass Amherst Department of Natural Resources and Conservation are researching and experimenting with fire-based management of pine barrens and other fire-dependent ecosystems in the region. And national research points to smart things – Firewise things – we can do in our own communities and around our own homes to begin to be safer from wildfire. We can modify our home ignition zones (our existing homes and the areas around them within about 100 feet) to greatly reduce the likelihood of home loss due to wildfire. And we can work with our neighbors, perhaps using the Firewise Communities/USA process, to reduce our common hazards and protect our communities.

But simply modifying existing conditions that we control (our homes/landscapes) may not be enough. Adaptation also extends to future development and land use decisions. The Firewise message for adaptation boils down to "where we live; how we live". Where are we building? Is it marginal land? Is there access/egress? Can we adapt for fire safety without harming the environment in a particular location? Are we willing to self-regulate? How are we building? Are we considering needs for vegetation management, home construction/design/maintenance, water supply for firefighting? When we create our plans – long-range plans, comprehensive plans, open space plans, housing plans, economic development plans, conservation plans – are we doing so with the natural phenomenon of wildfire in mind? Or do our wildfire protection plans get developed separately, in a stovepipe among a few departments/agencies? Is fire protection an afterthought?

There are tremendous resources available nationally and locally to help us consider wildfire along with all the other conditions and issues we have to review when shaping plans for future land use and development. One great example is the American Planning Association's "Planning for Wildfires," which explores the major issues for planners and other community officials and offers examples of what some communities have done, as well as a model for good comprehensive plans that include consideration of wildfire. More resources are available in the handouts, at www.firewise.org, and at www.nfpa.org.