

Energy & Natural Resources Advisory Committee

MINUTES

October 28, 2021

Present: Camilla Lockwood, Chair, *Town of Temple*; Jane Johnson, *Town of Swanzey*; Scott Maslansky, *CDFA*; Richard Mellor, *Town of Rindge*; Brett Amy Thelen, *The Harris Center*; Francie Von Mertens, *Town of Peterborough*; Marge Shepardson, *Town of Marlborough* (remote).

Staff members present: Lisa Murphy, *Senior Planner*; Rich Clough, *Office Support Specialist*.

Guests present: Chris Skoglund, *NH Department of Environmental Services (NH DES)*.

I. Call to Order and Introductions

Chair Lockwood called the meeting to order at 3:35 p.m. and introductions were made.

II. Minutes of March 23, 2021

Motion: To approve the minutes of March 23, 2021.

Motion by Jane Johnson, seconded by Scott Maslansky. Approved by unanimous roll call vote, with Brett Amy Thelen abstaining.

III. Presentation: Weathering the Storm

Lisa Murphy introduced Chris Skoglund from NH DES, who gave a presentation regarding climate change entitled *Weathering the Storm*.

Key takeaways from the presentation include:

Basic Points:

- Climate is the average set of conditions over a 30-year period; weather is the set of conditions at any given point in time.
- Global Warming and Climate change are real, serious and already happening.
- Multiple years from 2010-2020 saw record breaking weather events. The top 10 hottest years on record have occurred since 2005.
- Studies agree that climate warming trends are due to human activity. Oil companies knew about it decades ago. The effects of climate change are in the present.
- It is essential to slow the rate and extent of climate change by reducing emissions of CO₂ and greenhouse gases.
- Solutions to the problem exist now but take time to implement and become effective.
- Whether municipalities chose solutions that prevent the causes, manage the impacts or do both is up to each municipality.
- Delayed action will increase the total impacts and costs incurred by individuals and communities.

Responses: Preparation and Adaptation:

- Prepare for current and future impacts.
- Essential because climate has already changed and will continue to change.

- Climate change will affect food and water supplies.
- Climate change will create new migration patterns for various species, and has already affected the lobster population off the coast of Maine.
- The atmosphere works like a blanket, with CO₂ as the main insulator. Main contributors to CO₂ are fossil fuel combustion, agriculture and land use change.
- A significant amount of CO₂ is dissolved in oceans and has been having record peaks in the last 10 years.
- The Earth is not warming evenly as the jet stream is having greater range variations. The temperature difference between arctic and equator is getting closer. As an example, the 2021 heat dome in British Columbia, was a 1 in 1000-year event, recording a temperature of 118 degrees which caused a recording thermometer to shut down.
- Changes in climate patterns create temperature and precipitation incidents that are more intense.
- An increase in extreme weather, and changing seasonality creates a longer growing season but unpredictable freezes counteract the possible benefits.
- Multiple droughts can destroy resilience.
- Impacts on public health; more days of over 90 degrees, more consecutive hot days, increase in mosquitos and ticks. In summertime more moisture in the atmosphere creates less cooling. Strains the electric grid and at-risk populations. There is also an increase in diseases because of the longer warm season.
- The US military acknowledges the rise of the sea level as a threat.
- The chance of drought increases with climate change, along with an increased chance of a megadrought. California currently is in a mega drought with much of its water reservoirs at only 40% capacity.
- Groundwater may not recover if climate change and water usage isn't controlled.
- When there is more precipitation in the winter, it isn't absorbed and runs-off which means it doesn't reach aquifers. Stormwater runoff from impervious surfaces needs to be addressed as it is happening more frequently.
- Wastewater plants are more susceptible to flooding as it becomes more intense and frequent.
- Warm water expands the ocean level and land-based water from glacier melt adds to sea level rise.

Future trends and impacts:

- The temperature in northern NH could rise 4 to 10 degrees between the years of 2020-2100. Mitigation could limit it to 2 degrees. Sea level in NH has risen .6 of a foot in the last 20 years. This could rise 2 feet by 2050 and 6.6 feet by 2100.
- Individual weather events are larger and create more sediment and runoff. We need to examine nature-based storing and cleaning and use natural or nature-friendly treatments to remove contaminants which will allow human based systems to act more as an ecosystem and less like a throughput system.
- We need to rethink the use and placement of wastewater facilities and find different ways to work with stormwater. Better outreach and education is needed to inform people to create public support.
- To help keep discussion open, we need to use less controversial terminology; extreme weather instead of climate change.
- Identify and re-use/repurpose grey water (shower, food). Explore onsite water filtration systems where practical.
- DES should incorporate a lens of extreme weather into all program areas.
- Separate stormwater from cleaner water for treatment, so more can be reused.
- Encourage new municipal projects to account for climate change in the planning stage.
- Account for and mitigate supply issues that happen with more extreme events, as an example tropical storm Irene in VT.
- Connect with other groups investigating options like the NH Coastal Adaptation Workgroup and the Upper Valley Adaptation Workgroup.
- Work on both short- and long-term priorities.

- Explore community power aggregation.
- Explore tax benefits for programs that help to mitigate human impact on climate.

Lisa Murphy stated that there needs to be more educational opportunities brought to municipalities. Scott Maslansky asked what are possible uses for Electric Vehicles (EV) in municipalities? Is Keene a prime place for EV? Use of school busses, is there a role to help pursue things or incentives to purchase? Chris Skoglund replied that there weren't funds at the State level, there was a federal tax credit, he noted that grants might be available. Francie Von Mertens asked what vehicles do towns own? What energy systems charge them, and could there be an energy system discount for a bus system? Could multiple municipalities aggregate and lease/own vehicles? Scott Maslansky stated that EV busses could send power back into the grid when not in use, they would act as stationary storage. Richard Mellor stated that the topic of Climate Change could be explored over the course of multiple meetings.

IV. Next Meeting January 27, 2022 at 3:30 p.m.

The next meeting is scheduled for January 27, 2022 at 3:30 p.m.

V. Adjourn

The meeting adjourned at 5:22 p.m.

Respectfully submitted,

Rich Clough
Office Support Specialist