

Strafford Energy & Climate Committee (SECC) Meeting Minutes

1/14/20

7:00 PM

Strafford Town Hall

Meeting called by:	Doc Bagley	Type of meeting:	SEC meeting
Facilitator:	Doc Bagley	Note taker:	Jim

Attendees: Doc Bagley, David Lutz, Kevin Grady, Tii McLane, Gus Speth, plus David Paganelli, Susan Hodges

Next Meeting: February 10, 2020 MONDAY

Minutes

Agenda items:

1. **Minutes:** Review minutes from November. Approved.

2. Forestry impact on the energy plans for the town

Gus introduced this discussion by explaining that when the proposal for a climate-action commitment was presented to the town, Sharon Varley objected that the list of activities and achievements didn't describe the work being done in Strafford's farms. As part of their loan/grant funding from Iroquois Valley, the Strafford Village Farm is participating in close monitoring of carbon impacts and absorption, and Gus would like to have her present what they're doing to us. Shannon had a school-meeting conflict this evening, so we'll re-invite her, but tonight we'll hear from David Paganelli (Orange County Forester) and Tii McLane (local forester).

In the U.S, 15% of carbon emissions are sequestered by trees; in New England, 35%; and in Vermont almost 50%.

152 enrolled current-use parcels in Strafford (minimum is 25 acres with at least 20 acres of forest; average acreage is probably 105–110 acres for the current use participants). David will collect exact numbers. Biggest parcels are Hemenway and Emerson. Harold and Vivian Kill's land is privately owned, but timber rights are owned by a New Hampshire company.

Podunk Wildlife Area is owned and managed by the state. The Kibling Hill property (was Andy Carter's, bought by Denny Emerson) is private.

In terms of "carbon sequestration," Tii made a distinction between "carbon sequestration" which is the absorption of CO2 from the atmosphere that occurs at higher rates in a vigorously growing stand of young trees and "carbon storage," which is highest older forests with intact soils and large trees.

Money matters to people with forests; it's not that trees = money, but there are many financial considerations in active management of woodlands. The challenge is to harvest trees when they achieved their growth and are leveling off in growth and have value still, not beginning to decay. Each species on each site condition might have a diameter to which it can productively grow (in terms of monetary value), after which it stops increasing in value or even declines.

When you cut a tree, people say "you're losing that carbon," but you're releasing that site for new growth and accelerating the growth on adjacent trees.

Discussion of wood heat: pellets are produced from low-quality "waste" wood; the Clarendon pellet mill uses white pine that would otherwise would be used for pulp.

There are high-quality and low-quality products: oak table is a high value: landowner, logger, mill, furniture-maker makes money. Low-value wood has a very low carbon-residence time (ephemeral, disposable), and no one makes money on these.

Tii asked: If you cut a tree in the woods and let it fall, how much of that carbon will go into the soil and how much will be released into the atmosphere? Organic matter on the forest floor, acts as a natural mulch. There's no photosynthesis without water, and decaying wood enhances growth. As temperature warms, decomposition accelerates. So leaving more organic matter in the woods after harvesting allows more decomposition and allows humus to hold moisture and nutrients.

Gus spoke about climate-change consequences of changing composition of our forests. Species mix are the result of many factors over thousands of years: moisture, seasonal temperatures and precipitation cycles. For instance, historically maples have done very well here, and oak hasn't; typically snow has melted right when the maple trees are breaking bud and the trees take up the water; but now snow is melting much earlier and it's dry by the time the maples break bud. Oaks can tolerate greater dryness (much bigger seeds) so they're pushing in.

Used to be that winter logging had lower impact but winters are harder and harder to work in, so loggers are more active in summer which has negative implications to soil health.

What about ash? 5–8% of our forests are ash. The highest moisture content of any tree but basswood, so it's doing a very good job of cycling nutrients back into the soil as leaves fall; there also might be a very distinctive fungal sheath associated with ash trees that will be lost when they disappear, and mycorrhizal relationships are very complex. No one is cutting all the ash, but high-value ash (saw logs) in the forest has been getting cut in recent years.

Tii has been thinking about leaving more material in the woods rather than send chips to Maine; Dave says as a county forester he encourages that. Foresters change practices more quickly and readily than loggers do, since loggers have big investments in equipment based on certain practices. If chip markets disappear, there will be disruptions for some people's jobs.

Dave presented a list of principles of good forestry management:

- Even-aged management vs. Multi-age management: the latter includes diversity of species, ages, structures, densities
- Treat invasive plants: In some areas can't regenerate native trees if the invasives are dominating.
- Maintaining legacy trees: Old pasture relics. Used to be cut because they weren't "productive," but they have other values. Those were the original trees of this place: provide habitat for lichens, birds, animals; contribute their genetic material.
- More coarse woody debris on the ground. Relax the "utilization standards" of lower-value byproducts of logging; also lowers the risk for loggers, lower the fuel use to truck chips. Tii would like to see a shift from chips to round wood (which goes to papermaking, pellets). 90% of nutrients are in the fine twigs and limbs. Burning that at a power plant boils water at only 25% efficiency. Middlebury College's wood-heat plant uses hardwood chips, essentially chipped firewood (moved as "round wood," logs); most of the schools are using wood chips that come from the trunks, too; "whole-tree chips," by contrast, takes everything.
- Plan harvesting to enhance regeneration. Deer are a wild-card factor, since they can seriously interfere with regeneration by browsing. (The state is changing rules to increase deer hunting options and yields.)

ACTION ITEM: Doc noted that the state is looking for a municipal partner to develop a model project in a town forest.

3. WindowDressers update – Doc, Kevin & David

- Community Workshop completed 1/12/20.
- Summary of the highly successful program: 17 households received windows; 6 paid in full and 11 qualified for low-income subsidies. Overall in the Strafford-Thetford partnership, 77% of participants qualified for low-income.
- \$3,870 received in New England Grassroots Environmental Fund; \$2,500 went to WindowDressers. There are some expenses to be reimbursed for the space, food, etc.
- 125 people volunteered. Frames were built in advance by a smaller group, so assembly went smoothly, 20 windows per session, two sessions per day.
- At VECAN conference in December, 20 towns signed up, so they're anticipating doing 4,000 inserts in Vermont next year.
- Estimate is half-gallon to full gallon per square foot of house; maybe about \$25 in fuel savings, but considerable improvement in comfort.
- Local coordinators (David, Kevin, Doc, Heather, Bob Walker and Mary Bryant)

4. Town Meeting

- Energy Committee Report for warning: Doc will write a draft and circulate; Jim will edit.
- Regional Energy Coordinator in the budget (~\$7,000/yr.): approved by SB
- Susan reported on a FAQ summary to help people know how to respond to questions. The Climate Action Committee and the Energy Committee could meet together to prepare for town meeting.

5.

ButtonUp and Capstone follow-up: ButtonUp didn't have successful follow-through, and we've conveyed this. We will continue to help people with Capstone applications.

6.

Thoughts for future focus for SEC

- Repeat the WindowDressers program in 2020

- Kevin spoke about cooperation opportunities with energy committees from adjacent towns (subcommittees)
- Increasing membership: consider merging with the climate-action committee?

Additional Notes from David Paganelli:

Before trees shed their leaves in the fall they try to draw the minerals in the leaves back into the twigs. Ash leaves have more minerals than any of the other leaves in the forest, with the exception of basswood, and therefor act as a source of fertility for other trees when they fall to the forest floor.

Strafford has three State Wildlife Management Areas. Podunk WMA is owned entirely by the State. Clover Hill WMA is owned by the State, but the timber rights are owned by two different private interests. The Kill family owns timber rights on a portion of the WMA, and a timber company from NH owns timber rights on the remainder. Kibling Hill WMA is entirely privately owned. A large portion was owned by Andy Carter, and now the Emerson family. There is an easement in place, that is held by the State, the ~~ean~~ guarantees public access for hunting.

The point I was trying to make about forest management and money, is that while money is not the overriding reason that most folks own land, it plays a role in allowing them to keep the land they own. Land ownership is expensive and most people need some periodic revenue to justify (or enable) continued ownership. For some unknown reason, we tax undeveloped forest land as if it was real estate. This results in higher tax than responsible management can offset, and often results in over aggressive cutting and eventual subdivision and development.

There are two principal types of logging that we see in our region. Logging that is directed by loggers or landowners, with no professional input from foresters. And that which is directed by and supervised by foresters. Most of the cutting in Current Use is done under the direction of foresters. We really need to have forester involvement in most timber harvests, and those foresters should modify ~~_~~and adapt their practices to account for changes in climate.

Adjourned: 9:07 pm.

Respectfully submitted by Jim Schley