

Jim Levitt

Opening Remarks – not the day to try to determine policy, intend to get a common understanding of the DCF forests plus private forests because DCR is not the only stewards of Mass forests

Sullivan

Purpose of day is to lay Foundation for Forest Futures process, to begin a dialog – take care of forests for future generations – agency role oversight of private forests – forests under pressure today, invasive species impacts of climate change, many sides to how forests are managed, a lot of attention on dcr, have made some mistakes, never possible to satisfy everybody; some say crazy for me to convene forums:

What process is: step back, find balance, MODR to design process, careful to seek input every step of way, need for integrity – let MODR design process w/o dcr input: TSC: Advisory Group: Public forum June 23 – want to be a leader, a model for private lands; open to making changes in our stewardship, and will do so.

Lisa Vernegaard - Trustees of Reservations [TTOR] – chair TSC

TTOR – caring about place; forests of Mass define the nature of our home; what is special about the forests, will talk about some of the services forests provide; intro of TSC members; have a good sense of our forests; vision? What is dcr's role in that vision?

Levitt: *Land Use History & Potential Features of Mass Forests*

A time when we can make great strides w/conservation measures globally; likens this moment to Rachel Carson, Silent Spring, forums in 60s, Clean Air Act, etc...a big change then in the way toxins were regulated; similar window today – climate change, ecosystem services, land protection, stewardship; take this task seriously because it could have long term consequences, eg. cites Chile visit with D. Foster re land trust movement there; what starts in Mass can have worldwide significance, we lead by example; are in an important time and place. Mass was the first place where self governing people protected land in perpetuity; the *Boston Commons*, tax themselves to purchase open space 1634 led by John Winthrop – cow pasturing, training militia, became recreational land. 'City on hill, eyes of all people upon us.' Used for *private* and public purpose, regulated publically, ordinances; *avoided* tragedy of the commons, managed for the people; multiple use landscape [example of Boston Common – my note: but it did not devolve back to private use!]. Mt. Auburn Garden Cemetery, first public garden in Boston. Est. AMC 1876, Trustees of Public Reservations, 1891; 1893 MPC Eliot; nation's oldest 1896 Audubon Society, Mass Audubon; 5 characteristics of Mass leadership:

- Creativity and novelty in conception
- Public significance
- Measurable effectiveness
- Global transferability
- An ability to endure across future generations

Tully Trail Initiative: multiple purposes incl. sustainable forestry TTOR, Mt. Grace Land Trust, Harvard Forest, State funded, private input for planning, protection of tens of thousands of acres in Petersham region

Kaiser comment: - overgrazing of commons

Kellett – first national park, Acadia; spirit extends to *all* of North East not just Mass

David Kittredge (UMass) & **David Foster**; *Land Use History and Potential Futures of Mass Forests*; Forest Futures process needs to be embedded in *regional-global context*

David Foster: NE forest landscape changing more quickly; long term stresses + disturbances can lead to dramatic alterations; *no need for us to encourage natural disturbance processes*, frequency of hurricanes in NE have a predictable impact to forests; 1938 hurricane – clearcutting does not replicate left over natural plants found in hurricane impacts; missing from today's landscape are natural structures like large swaths of old growth forests; stands do not regenerate to exactly what was there before once disturbed. Thoreau appreciated varieties of forests and forest management (preservation and conservation and humanized landscapes dominated by agriculture). Thoreau lamented that all the woods will be gone – but then observed ecological succession, saw fields restoring with forest growth; Foster: *we have an opportunity to reverse trends, ability to achieve dreams, can reverse deforestation today*. Carbon Uptake: reforestation = forests growing rapidly, taking up CO_2 Bulk of American forests are in the eastern US. In temperate region where actively growing forests contribute to carbon uptake.

Modern disturbances and conservation issues: a) deforestation, and b) development; Harvesting and forest conservation are *antagonistic* processes. The single greatest thing facing our forests is conversion of forests, second deforestation movement taking place today is *hard* deforestation – *no recovery*; generates parking lots and buildings, forests will **not** re-emerge from this deforestation. Need for conservation, protected openspace. Need to knit together unprotected forests. Wildlands and Woodlands project: forests are disappearing, future scenarios will not see knit together forestlands unless steps are taken. W&W goal: Protect 50% of Mass land as forest cover. Allow big swaths of forests to be driven by natural processes alone: 10% of the 50% of Mass land protected as forests should be set aside as untouched forests. This means 90% of Mass forests to be managed for all varied interests of people. Not based on biodiversity; forests are part of our lives so we want to achieve vision for people as well as for nature, ecosystem services or infrastructure (provides us with a healthy life – all the services and values it provides us, instead of inventing these services via other infrastructure). Best example is the Quabbin, nature + tourism + local economy + water; no need for building filtration plant to gain the benefit from the protected resource. To do this we use our land trusts, agencies, local, state, municipal, national government for conservation easements onto private lands since private owners control most of Mass forested land. Implementation: create *local* Woodland Councils or Regional Partnerships for W&W partnerships. **No need to do any more science**, have more than enough knowledge to create maps for priority forest blocks.

Q, Ryan : Isn't there a contradiction between your statement that there is enough science already and your contention that we have to get our management right; isn't it important that management be based on knowledge of good science? A; agreed.

Q, Kellett: Why only 10% unmanaged? Foster A; Some thought that is too large, 'fallow forests' but of course arguments can be made for larger areas.

Management and conservation; modern stresses eg. Climate change, invasives: how to respond?

- Large continuous landscapes offer best resistance to change
- Change tends to be gradual in the absence of disturbance – don't cut down the existing forest, retain extensive wildland landscapes; protect the forest land base first, ***there is an eternity to manage it***
- **Combat hubris** – nature does not need our help, be suspicious of claims of improving forest health, resistance or integrity; forests are not destroyed by natural disturbances, no need to reproduce them, doing nothing is a viable management activity, "decide to do nothing," need to protect nature from humankind
- Big old forests are rare
- Much of our management seeks to maintain cultural landscapes; continue processes found in recent past

Need to be more critical in our thinking about management; **O'Conner interjects: " but what about working landscapes importance in W&W vision? Isn't management important? Foster: "Oh yes,...we should be managing our forests more."**

What can state do? Land protection effort, landowner outreach and public engagement with nature; translate science in ways that can be used more effectively; complete ch. 132 regs; keep all forests as priority; Support regular compilation analysis archiving and web-distribution of forest harvesting data.

Kittredge talk; Fewer than 20% forested land owners have management plans, work with professionals; smaller parcels cannot be harvested for timber or provide wildlife habitat, working landscapes decline;. **Will ownership size be so small as to inhibit harvest for biomass?**

Touts 'Illusion of Preservation'; book: bring protection back home, relieve impacts on other parts of the world, if people saw how forestry works they will be more mindful of conserving forests...

Bob O'Connor remarks: Why is now a good time for visioning process? Balance all these values.

- Controversy re cutting on dcr lands; moved too fast, needed better involvement with public on land, have made some mistakes, but we are doing well on most of cutting
- biomass industry is moving into Mass; how does dcr and private forest owners deal with this?;
- climate change is here, now do we adapt to climate change, store carbon.

60% of Mass is forested; 900,000 acres is protected

Brewer commission 1999 report, aggressively managed (based on Foster book, *Thinking in Forest Time*)

Andy Finton

Recalls visiting Adirondacks & Catskills, thinking: 'somebody made good decisions 100 years ago.'

Mass: 5mm acres total/ 3mm forested/1mm protected/DCR 285,000

Diversity: Species and ecosystems

Challenges; development, invasives, warming; *Need* variety of forests; 'forest core areas', buffered area, landscape matrix ring Resilience; capacity for renewal, resist and recover from change or disturbance: sufficient size, represent environmental settings, connectivity: Big forests – there are some species which survive only in large forests, resilient to big weather events, variety of species, protect diversity of forest settings – species richness requires big forest block landscapes.

Locate and protect Forest blocks: minimally fragmented by existing roads; elevation, geology, landform, ecological land unit: support biodiversity over time: two main Types: A) Mid elevation, granitic; B) Low elevation, sedimentary

Create multiple replicas of these forest types. 24 blocks in Mass Forest interior habitat buffered from effects of roads, development and other fragmenting features. Forest Resilience, Forest Cores in W. Mass. Size and representation mapped. 50,000 reserves = protecting these cores. Connectivity: critical linkages ? *how to create?*

Q: Kellett: reserves, why not recommend *all* state lands be reserved? A: (not making recommendations, purpose of vision process is to lead to proposals).

Q: Is area *not* shown in reserves not worth protecting? A: need surrounding land protection

Kittredge: Mass forest ownership: Private 69% State 19% Municipal 9% Federal 3%
Private: older, resident on land, interested in wildlife, privacy, changes hands every 26 years; average ownership size is diminishing. Forest Cutting Plans: 73%-87% on private lands; *52% of harvest area in Mass was private lands..most forested land is owned not primarily for harvesting., their woods run in the background, like computer virus protection not managed. Need to understand landowners attitudes if we want to maximize connectivity of forest blocks.*

Q: Heidi; why more intense harvesting on state lands vis-à-vis private lands? A: Private owners want more trees left on their property, concerned about aesthetics; don't want more intense harvesting techniques. (My note: very revealing comment: the corollary is that these aesthetic values are **not** important on public lands – meaning that if there is no public resistance similar to private resistance the DCR BoF is able to open forests to industrial logging.)

Hector Galbraith, Climate Change Initiative Manomet Center for Conservation Sciences: *Confronting Climate Change in the Northeast*; he works with applied ecology, impact on avian populations, adaptation approaches, need to evaluate ecosystem vulnerabilities: which ecosystems? Are traditional conservation tools sufficient? *How to avoid cures as bad as the illness?* "We have great potential to do really stupid stuff." Study underway: Which habitats will be most affected by climate change? Increase resistance to climate change

stressors: region wide views/solutions as land managers of sites in adaptive ways, evaluate sites, come up with prescriptions for management plans. Rural Northeast depends on eco systems goods and services. Eg.. loss of snow mass for skiing. Forest products industry. Replacement forests will come in unique new ways. Forests undergo dynamic change disassociate-reassemble process. Make sure the 'stage' (the forest) is preserved so the process can continue. Forests are preserved for the actors (people), not the stage (forest) itself.

Robert Perschel: *Sequestering Carbon in the Forests*; Places we have decided to manage, the working forests, the managed forests (yes, some decisions are *not* to actively manage). What are we trying to accomplish when we decide to set wilderness areas aside? Certain species, certain habitat? Certain elements protected from climate change, let evolution continue, let nature take its course. I am mostly talking about 'working forests' areas.

Adaptation options: • create resistance to change (eg: *speed up* regeneration to establish growth earlier to continue stands for a longer time). Increase redundancy and buffers, more diversity, age structure, connect landscapes. Mitigation Options: Sequester Carbon keep sites fully occupied with minimal spatial gaps in non forest conditions, maintain healthy vigorous trees; avoid wildfire, longer rotation cycles, avoid high-grading, liquidation cutting, diameter limit cutting, create and maintain forest reserves – leave forest alone. Rule of thumb: future forests: • More carbon • higher sawtimber volumes with • increased value

Q: Why avoid wildfire? Fire is natural feature and provides ecology benefits? A: Whatever.

Q: Mary Booth: why assumption that biomass is carbon neutral? A: Saying it is relatively better than burning fossil fuels. (sub answer to interjected question: ok, it could be worse)

Bill Hill: Acknowledge problems in dcr forest mgt program lack of oversight, poor planning

Ecological Condition and Mgt. status lands of dcr Div. State Parks and Recreation

308,000 acres total facilities; 291,000 acres state forests, parks and reservations; multiple use management has been the norm incl timber production.

1891 Trustees of Public Reservations 1897 Mass Forestry Assn 1897 Mt Greylock

Alfred Akerman: for the purpose of growing timber in public forests, could produce timber, not inconsistent with the production of timber

1908 Reforestation act; state forester replant for best forest growth practical forestry results" state nurseries system,

1914 State Forest Commission – acquiring 'unproductive or wastelands" for reforestation and eventual timber production 1915 Otter River State Forest created

Haynes Report on Mt Grace purchase: "commercial standpoint and still afford every opportunity for recreation and pleasure" Whitney Estate >Oct Mtn 1922

CCC: planted on 8856 acres by 1934; 40,000 acres of state forest land acquired during CCC era; Oct. Mtn : "one camp...set out hundreds of thousands of seedlings."

1938 Hurricane destroyed 6mm board feet destroyed on Mass state land 4m bd feet salvaged and sold; pine dominated forest significantly affected; 80 years ago growth dates from then (the even aged forest 'problem' argument!).

WWII - 2.5 m bd feet harvested from young forests; Forestry expands: 1960s forest management program to improve the forests. Forest products sales, inventory; 1960s-80s emphasis on recreation increased, moved away from harvesting towards looking at forests as long term ecological function. Historical summary; precursors Viewed recreation and forest management compatible when done correctly.

David Goodwin; Current dcr forest landscape characteristics: lost 65,999 acres last 9 years. 91% of dcr land is forested. Age classification: 46 years average;

Historic harvest levels: DCR harvested 17% of the net increase in volume during the last 21 years.

Reserves: goal = 20% of all DSPR land in reserves; criteria: 6% have old growth, [99% of old growth on dcr land]

Sullivan & Lisa Vernegaard conclusion;

Sullivan: Set the tone, a public based discussion, science based conclusions, a larger issue than how dcr manages its lands, need to manage from a broader basis.

Lisa- think big; informed by past land use, past management good bad ugly, present values, recognize that societal values which change over time, impose today's values on new directions, knowledge brings responsibilities eg. Climate change; future – beware of hubris, and avoid tight formulas.

Q&A period:

Gildesgame: Where did 20-80 split come from? A: much sputtering: Finton (that's where the special features are located); someone else: 'that's the way Quabbin was managed' – arbitrary split, can be changed.

Laura Johnson: What % of logging has been plantations? A: Do not know.

Heidi: Need to revisit reserves, change amoebic shapes to circles?

Q: Why no data on invasives? A: no answer – just didn't do it.

Mike R: No new dcr logging contracts during Futures process? A: Sullivan: yes.