

Testimony on H.789 and Forest Fragmentation Jamey Fidel, General Counsel/Forest and Wildlife Program Director, Vermont Natural Resources Council

February 9, 2016

Thank you for the opportunity to testify on H.789. Before commenting on H.789, I would like to provide some background on the growing need to maintain the integrity of forests in Vermont.

For the past nine years, Vermont Natural Resources Council has been convening a Forest Roundtable on forest fragmentation, and strategies for maintaining the integrity of Vermont's forests into the future. These conversations have included diverse stakeholders, many of whom joined together last year to submit a sign-on letter the Vermont Legislature.

As outlined in the attached letter, sixty organizations and individuals agreed on that it is important for policy makers to play a positive role in maintaining or increasing the contribution of our forests to the state's economic, ecological, and cultural wellbeing.

Our forests are a <u>major driver of our economy</u>. Forest based manufacturing, recreation, and tourism employ approximately 13,000 Vermonters and contribute about \$1.5 billion in revenue to the state every year.

Our forests also provide a <u>rich array of important ecological functions</u>. They support wildlife habitat, protect water quality and help insulate communities from the effects of extreme weather, such as flooding. According to the Gund Institute every acre of forestland provides approximately \$318.50 worth of benefits for services like rainfall regulation and flood control on an annual basis.

In addition, Vermont's forests remove an estimated 75,000 metric tons of carbon and 1,610 metric tons of other pollutants from the atmosphere each year — a function that would be worth about \$16 million if we paid for these pollution control services out-of-pocket.

Vermont's forests are productive in many respects. From supporting forest products, including maple syrup, to the leaf-peeping economy, to providing ecosystem services and recreational opportunities like hiking, skiing, hunting, and wildlife watching, forests contribute to the health and wellbeing of our state.

It is important to note that in recent decades, we have improved how our forests are managed. Because of the Current Use Program and technical assistance efforts, more forests are being managed in accordance with management plans. The utilization of Acceptable Management Practices helps maintain water quality on logging jobs. More landowners are managing their woodlands for wildlife and biodiversity, and every year more forestland is conserved due to landowners working proactively with conservation groups.

Yet the continuation of these successes cannot be taken for granted, especially since <u>for first time in</u> <u>over a century our forests are actually declining in extent.</u> While it is hard to pin down the exact amount of acreage that has been lost, between 1982 and 1997, 51,000 acres were converted to other land uses. A more recent Forest Service report suggests that Vermont may have lost up to 75,000 acres of forestland from 2007 to 2013, although the Forest Service does not report this as a statistically significant change due to the margin of error in the analysis. Regardless of the actual number of forest acres lost in recent years, there are certainly reasons to be concerned about the impacts of forestland conversion.

From above, the Vermont landscape has an appearance of densely forested lands; however a closer look at the surface reveals that our forests are being compromised and fragmented by rural sprawl. Data from the Forest Service demonstrates that we lost five percent of forests over 100 acres in size between 2001 and 2006. Research by VNRC indicates that the amount of woodland parcels larger than 50 acres that were undeveloped decreased by about 34,000 acres between 2003 and 2009 due to subdivision and the development of dwellings.

This highlights an increasing trend in Vermont; smaller parcels are being created through the fragmentation and parcelization of land from subdivision. According to a VNRC research report, the amount of land in parcels larger than 50 acres decreased by about 42,000 acres. This correlated with an increase of 4,300 parcels under 10 acres in size between 2003 and 2009.

In addition, VNRC has analyzed subdivision trends across the state and through twenty-two case studies in municipalities. Over a study period of 2002-2010, there were 2,749 lots were created from 925 subdivisions affecting a total of 70,827 acres. On average, each subdivision resulted in 2-4 lots, which means subdivision is mostly happening in small, but cumulative increments.

The majority of subdivision did not trigger Act 250. Only 1% - 2% of subdivisions in the case study towns were large enough to independently trigger Act 250. <u>This means local regulations play a major role in guiding subdivision patterns.</u>

In Vermont, we value well-planned development and a growth pattern of supporting downtowns and village centers surrounded by rural countryside. If we are smart about our future, we can continue to accommodate new housing while ensuring that our forests provide for diverse forest products, modern and efficient wood energy, intact wildlife habitat and clean, healthy water.

Vermonters overwhelmingly value our working lands, our rural character, natural environment, and forested hills and iconic mountains. We have an incredible opportunity to be proactive and develop lasting policies that will keep our forests intact.

That is why the sixty organizations and individuals called on the Vermont Legislature to support a stakeholder process to develop legislative recommendations to maintain the integrity of Vermont's forests into the future.

That stakeholder process was incorporated into Act 61 last year. Act 61 called on Commissioner Snyder to collect stakeholder input and report back on regulatory and non-regulatory strategies for maintaining forest integrity. We understand this report is forthcoming.

As part of our Forest Roundtable, we sponsored five working groups to provide stakeholder input on strategies related to education and outreach, land use planning, landowner incentives, land conservation, and maintaining a viable forest products industry. We hope that stakeholder input will be presented in Commissioner Snyder's upcoming report.

In regards to H.789, VNRC supports the bill, and strongly supports the bills purpose to amend the goals and requirements for municipal and regional land use planning to address forest fragmentation. We have reviewed the bill, and offer proposed language that provides some additional input to accomplish these goals. We did not focus on the concept of a freestanding bylaw, but acknowledge that there are approximately 20% of municipalities that do not have zoning. Since 50% of municipalities do not have subdivision regulations, we focused in particular on language to improve the consideration of impacts to forests through the subdivision review process.

In addition, we have proposed language to strengthen Act 250 to consider the issue of forest fragmentation. Criterion 9(C) currently requires that a permit will not be granted for the development or subdivision of productive forest soils only when it is demonstrated by the applicant that, in addition to all other applicable criteria, either, the subdivision or development will not result in any reduction in the potential of those soils for commercial forestry. There is a strong sentiment that 9(C) is underutilized, and is not a relevant criteria in promoting commercial forestry. How are productive forest soils mapped? Does the state have a productive forest soils map? Could a state map be developed?

In regards to 9(C), the criterion does not adequately address maintaining forest integrity for functions beyond forest soils, and for reducing forest fragmentation. The criteria could be enhanced to address the maintenance of forest blocks for commercial forestry and other functions.

Criterion 8 currently reviews impacts to rare and irreplaceable natural areas, and Criterion 8(A) reviews impacts to necessary wildlife habitat and endangered species. Criterion 8 could be enhanced to also consider impacts to significant forest blocks and impacts to habitat connectivity. In addition, mitigation could be required for impacts to these features. The Natural Resources Board and the ANR could help develop guidance on mitigation requirements based on the significance of the forest block. Mitigation lands could be banked at VHCB, much like mitigation required under 9(B).

The following bullets provide an overview to the attached language:

- 1. Strengthen Chapter 117 of Title 24.
  - Add language to the definition and goals section of municipal and regional planning to address forest resources and maintenance of forest blocks, working forests, and habitat connectivity;

- Add more clarity to what is required in the land use plan map for forest resources.
- Add the concept of promoting the maintenance of forest blocks and connectivity as a principle in the creation of forest districts;
- Add language to subdivision bylaw requirements to require standards for the protection of natural resources, including forest blocks.
- Expressly enable consideration of criteria related to natural resource as part of conditional use review under § 4414(3)(B).
- 2. Modernize Act 250 to better address forest fragmentation and the maintenance of intact forest blocks and connectivity.
  - Add definitions to Act 250 so that features of forest integrity can be addressed.
  - Update criterion to focus on the maintenance of intact forest blocks versus just the maintenance of forest soils. The current criterion related to forest soils is outdated, underutilized, and not effective in maintaining the integrity of forests.
  - Update criterion to promote development that is designed to maintain working forests and the maintenance of forest blocks and habitat connectivity areas.
  - Consider requiring mitigation for impacts to forest blocks and direct mitigation to high priority forestland protection. The mitigation requirement could be limited to impacts in high priority forest blocks.
  - Consider addressing jurisdictional loopholes that are leading to increasing fragmentation, for example by reinstating the road rule (this would apply to roads or driveways, not forestry roads).
  - Clarify that in regards to triggering jurisdiction, forestry and logging operations would still be exempt from Act 250 review. The goal is to maintain intact forest blocks for forestry and other natural resource values.

The attached input reflects the work of VNRC in collaboration with members of the Forest Roundtable's land use planning working group, and the Vermont Land Trust, the Nature Conservancy (Vermont Chapter), Audubon Vermont, The Trust For Public Land and Vermont Conservation Voters.

## 24 V.S.A. §4303. Definitions.

"Forest blocks" means contiguous areas of forests, which could include wetlands and other natural features, that are not fragmented by roads, development, and agriculture. (This could be further defined by percent of forest cover).

"Habitat connectivity" means lands and waters that link patches of wildlife habitat within a local or regional landscape, allowing the movement, migration, and dispersal of animals and plants and the functioning of ecological processes.

Note: The Agency of Natural Resources has developed maps to help identify these features.

## 24 V.S.A. §4302. Purpose; goals

(6) To maintain and improve the quality of air, water, wildlife, <u>forests</u>, and <u>other</u> land resources.

(A) Vermont's air, water, wildlife, mineral and land resources should be planned for use and development according to the principles set forth in 10 V.S.A. § 6086(a).

(B) Vermont's water quality should be maintained and improved according to the policies and actions developed in the basin plans established by the Secretary of Natural Resources under 10 V.S.A. § 1253.

(C) <u>Vermont's forestlands should be managed so as to maintain and improve forest</u> <u>blocks and habitat connectivity.</u>

(9) To encourage and strengthen agricultural and forest industries.

(A) Strategies to protect long-term viability of agricultural and forest lands should be encouraged and should include maintaining low overall density <u>and intact forest blocks</u>.

(C) The use of locally-grown food <u>and forest</u> products should be encouraged.

## 24 V.S.A. §4348a. Elements of a regional plan

(a) A regional plan shall be consistent with the goals established in section 4302 of this title and shall include the following:

(A) indicating those areas proposed for forests, <u>forestry</u>, recreation, agriculture (using the agricultural lands identification process established in 6 V.S.A. section 8) residence, commerce, industry, public, and semi-public uses, open spaces, and areas identified by the State, regional planning commissions or municipalities, which require special consideration for aquifer protection, wetland protection, <u>the maintenance of forest</u> blocks, wildlife habitat, and habitat connectivity, or for other conservation;

(F) indicating those areas that would maintain forest blocks, wildlife habitat, and habitat connectivity, and recommendations to promote the health, viability, and ecological function of forests.

## 24 V.S.A. §4382. The plan for a municipality

#### (2) A land use plan:

(A) consisting of a map and statement of present and prospective land uses, indicating those areas proposed for <u>forestry</u>, recreation, agriculture (using the agricultural lands identification process established in 6 V.S.A. § 8), residence, commerce, industry, public, and semi-public uses and open' spaces <u>those areas</u> reserved for flood plain, wetland protection, <u>the maintenance of forest blocks</u>, wildlife habitat and habitat connectivity, or other conservation purposes;

(5) A statement of policies on the preservation of rare and irreplaceable natural areas, scenic and historic features and resources, and forest blocks, wildlife habitat and habitat connectivity.

### 24 V.S.A. §4414. Zoning; permissible types of regulations

(1) (B) Agricultural, rural residential, forest, and recreational districts. Where, for the purposes set forth in section 4302 of this title, it is deemed necessary to safeguard certain areas from urban or suburban development and to encourage that development in other areas of the municipality or region, the following districts may be created:

(i) Agricultural or rural residential districts, permitting all types of agricultural uses and

prohibiting all other land development except low density residential development.

(ii) Forest districts, <u>encouraging the maintenance of forest blocks</u>, and permitting commercial forestry <u>forestry operations</u>, <u>forest management</u> and related uses and prohibiting all other land development.

(iii) Recreational districts, permitting camps, ski areas, and related recreational facilities, including lodging for transients and seasonal residents, and prohibiting all other land development except construction of residences for occupancy by caretakers and their families.

(2)Overlay districts. Special districts may be created to supplement or modify the zoning requirements otherwise applicable in underlying districts in order to provide supplementary provisions for areas such as shorelands and floodplains, aquifer and source protection areas, ridgelines, <u>forest blocks</u>, <u>wildlife habitat and habitat connectivity</u>, and scenic features, highway intersection, bypass, and interchange areas, or other features described in section 4411 of this title.

(3)Conditional uses.

(B) The general standards set forth in subdivision (3)(A) of this section may be supplemented by more specific criteria, including requirements with respect to any of the following:

- (i) Minimum lot size.
- (ii) Distance from adjacent or nearby uses.
- (iii) Performance standards, asunder subdivision (5) of this section.

(iv) Criteria adopted relating to site plan review pursuant to section 4416 of this title.

(v) <u>Criteria related to the protection of natural resources including air and water</u> <u>quality, wildlife, forests, agriculture, or other natural resource features.</u>

(vi) (v) Any other standards and factors that the bylaws may include.

(C) One or more of the review criteria found in 10 V.S.A. § 6086 may be adopted as standards for use in conditional use review.

#### § 4418. Subdivision bylaws

(1) Subdivision bylaws shall be administered in accordance with the requirements of subchapter 10 of this chapter, and shall contain:

(A) Procedures and requirements for the design, submission, and processing of plats, any drawing and plans, and any other documentation required for review of subdivisions.

(B) Standards for the design and layout of streets, sidewalks, curbs, gutters, streetlights, fire hydrants, landscaping, water, sewage and stormwater management facilities, public and private utilities, and other necessary improvements as may be specified in a municipal plan. Standards in accordance with subdivision 4412(3) of this title shall be \_required. for lots witbout frontage on or access to public roacls or public waters.

(C) Standards for the design and configuration of parcel boundaries and location of associated improvements necessary to implement the municipal plan and achieve the desired settlement pattern for the neighborhood, area, or district in which the subdivision is located.

(D) Standards for the protection of natural resources, <u>including forest blocks</u>, <u>agricultural</u> <u>lands</u>, <u>water resources</u>, <u>wildlife habitat</u>, and cultural features and the preservation of open space</u>, as appropriate in the municipality.

#### Chapter 151 Proposed Language February 9,2016

#### 10 V.S.A. § 6001. Definitions

In this chapter:

"Forest blocks" means contiguous areas of forests, which could include wetlands and other natural features, that are not fragmented by roads, development, and agriculture. fThis could be further defined by percent of forest cover, or by prioritizing the most important forest blocks based on ranking by the Agency of Natural Resources).

"Forest Fragmentation" is division or conversion of contiguous forest into smaller pieces leaving remnant patches of forest that vary in size and isolation separated by nonforested lands or other vegetation and land-use types.

"Habitat Fragmentation" is the division or conversion of tracts of wildlife habitat into smaller pieces leaving remnant patches of habitat that vary in size and isolation separated by developed or, generally, non-forested lands.

"Habitat connectivity" means lands and waters that link patches of wildlife habitat within a local or regional landscape, allowing the movement, migration, and dispersal of animals and plants and the functioning of ecological processes.

Note: The Agency of Natural Resources has developed maps to help identify these features.

#### § 6086. Issuance of permit; conditions and criteria

(a) Before granting a permit, the District Commission shall find that the subdivision or development:

(8) Will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, rare and irreplaceable natural areas, <u>forest blocks</u>, <u>or habitat connectivity</u>.

(A) Necessary wildlife habitat and endangered species. A permit will not be granted if it is demonstrated by any party opposing the applicant that a development or subdivision will destroy or significantly imperil necessary wildlife habitat or any endangered species; and

(i) the economic, social, cultural, recreational, or other benefit to the public from the development or subdivision will not outweigh the economic, environmental, or recreational loss to the public from the destruction or imperilment of the habitat or species; or

(ii) all feasible and reasonable means of preventing or lessening the destruction, diminution, or imperilment of the habitat or species have not been or will not continue to be applied; or

#### Chapter 151 Proposed Language February 9, 2016

(iii) a reasonably acceptable alternative site is owned or controlled by the applicant which would allow the development or subdivision to fulfill its intended purpose.

(B) Forest blocks. A permit will not be granted unless it is demonstrated by the applicant that a development or subdivision will not have an undue adverse impact on forest blocks as defined in § 6001 of this section. Undue adverse impacts to forest blocks may be reduced or eliminated through project design that minimizes forest fragmentation, or through mitigation according to 10 V.S.A. § 6094.

Placeholder for additional guidance on how to minimize adverse impacts.

(C) Habitat connectivity. A permit will not be granted unless it is demonstrated by the applicant that a development or subdivision will not have an undue adverse impact on habitat connectivity as defined in § 6001 of this section. Undue adverse impacts to habitat connectivity may be reduced through project design that minimizes habitat fragmentation, or through mitigation according to 10 V.S.A. § 6094.

Placeholder for additional guidance on how to minimize adverse

#### impacts. § 6094. Mitigation of forest blocks and habitat connectivity.

## (a) Mitigation for undue adverse impacts to forest blocks and habitat connectivity, and to satisfy subdivision 6086(a)(8)(B)-(C) of this title shall depend on where the project tract is located.

(1)Project located in a designated village center, downtown, new neighborhood or growth center. If the project is located in a designated village center, downtown, new neighborhood or growth center, in order to address undue adverse impacts from development, the district commission may consider a pro\_posal to mitigate the undue adverse impacts of the development through the protection of areas of a similar quality and character, or other compensation measures outlined by the agency of natural resources in rules, procedures of guidelines, which could include a deposit into an offsite mitigation fee into the Vermont Housing and Conservation Trust Fund established under section 312 of this title for the purpose of preserving forest blocks and landscape and habitat connectivity of equal or greater value.

(2)Project located outside designated village center, downtown, new neighborhood or growth center. If the project is not located in a designated village center, downtown, new neighborhood or growth center, mitigation may be allowed if the applicant demonstrates the following:

(A) The applicant has first avoided direct, indirect or other impacts by relocating, redesigning or making adjustments to the project so there is not forest fragmentation;

#### Chapter 151 Proposed Language February 9, 2016

(B) If avoidance of impacts is not possible, the applicant has minimized direct, indirect or other impacts by relocating, redesigning or making adjustments to the project to minimize forest fragmentation;

(C) If the applicant has taken all practicable measures to avoid and minimize =due adverse impacts of the development consistent with subcriteria (A) and (B) above, but there is still an undue adverse impact, the district commission may consider a proposal to mitigate the undue adverse impacts through compensation. Compensation may include the protection of areas of a similar quality and character, or other compensation measures outlined by the natural resources board in consultation with the agency of natural resources in rules, which could include a deposit into an offsite mitigation fee into the Vermont Housing and Conservation Trust Fund established under section 312 of this title for the purpose of preserving forest blocks and habitat connectivity of equal or greater value.

# This is the existing Criterion 9(C) language in statute —copied here for purposes of committee discussion

(9) Is in conformance with a duly adopted capability and development plan, and land use plan when adopted. However, the legislative findings of subdivisions 7(a)(1) through (19) of Act 85 of 1973 shall not be used as criteria in the consideration of applications by a District Commission.

(C) Productive forest soils. A permit will be granted for the development or subdivision of productive forest soils only when it is demonstrated by the applicant that, in addition to all other applicable criteria, either, the subdivision or development will not result in any reduction in the potential of those soils for commercial forestry; or:

(i) the development or subdivision will not significantly interfere with or jeopardize the continuation of agriculture or forestry on adjoining lands or reduce their agricultural or forestry potential; and

(ii) except in the case of an application for a project located in a designated growth center, there are no lands other than productive forests soils owned or controlled by the applicant which are reasonably suited to the purpose of the development or subdivision; and

(iii) except in the case of an application for a project located in a designated growth center', the subdivision or development has been planned to minimize the reduction of the potential of those productive forests soils through innovative land use design resulting in compact development patterns, so that the remaining forest soils on the project tract may contribute to a commercial forestry operation.

Dear Vermont Legislator:

Forests define the Green Mountain State!

Forests encompass 75% of the state and are vitally important for our economic and ecological wellbeing.



Our forests are a <u>major driver of our economy</u>. Forest based manufacturing, recreation, and tourism employ approximately 13,000 Vermonters and contribute about \$1.5 billion in revenue to the state every year.

Our forests also provide a <u>rich array of important ecological functions</u>. They support wildlife habitat, protect water quality and help insulate communities from the effects of extreme weather, such as flooding. According to the Gund Institute every acre of forestland provides approximately \$318.50 worth of benefits for services like rainfall regulation and flood control on an annual basis.

In addition, Vermont's forests remove an estimated 75,000 metric tons of carbon and 1,610 metric tons of other pollutants from the atmosphere each year — a function that would be worth about \$16 million if we paid for these pollution control services out-of-pocket.

Vermont's forests are productive in many respects. From supporting forest products, including maple syrup, to the leaf-peeping economy, to providing ecosystem services and recreational opportunities like hiking, skiing, hunting, and wildlife watching, forests contribute to the health and wellbeing of our state.

It is important to note that in recent decades, we have improved how our forests are managed. Because of the Current Use Program and technical assistance efforts, more forests are being managed in accordance with management plans. The utilization of Acceptable Management Practices helps maintain water quality on logging jobs. More landowners are managing their woodlands for wildlife and biodiversity, and every year more forestland is conserved due to landowners working proactively with conservation groups.

Yet the continuation of these successes cannot be taken for granted, especially since <u>for the first</u> <u>time in over a century our forests are actually declining in extent.</u> While it is hard to pin down the exact amount of acreage that has been lost, between 1982 and 1997, 51,000 acres were converted to other land uses. A more recent Forest Service report suggests that Vermont may have lost up to 75,000 acres of forestland from 2007 to 2013, although the Forest Service does not report this as a statistically significant change due to the margin of error in the analysis. Regardless of the actual number of forest acres lost in recent years, there are certainly reasons to be concerned about the impacts of forestland conversion.

From above, the Vermont landscape has an appearance of densely forested lands; however a closer look at the surface reveals that our forests are being compromised and fragmented by rural sprawl. Data from the Forest Service demonstrates that we lost five percent of forests over 100 acres in size between 2001 and 2006. Other research indicates the amount of forested parcels larger than 50 acres that were undeveloped decreased by about 34,000 acres between 2003 and 2009.

In Vermont, we value well-planned development and a growth pattern of supporting downtowns and village centers surrounded by rural countryside. If we are smart about our future, we can continue to accommodate new housing while ensuring that our forests provide for diverse forest products, modern and efficient wood energy, intact wildlife habitat and clean, healthy water.

Vermonters overwhelmingly value our working lands, our rural character, natural environment, and forested hills and iconic mountains. We have an incredible opportunity to be proactive and develop lasting policies that will keep our forests intact.

With this in mind, it is important for policy makers to play a positive role in maintaining or increasing the contribution of our forests to the state's economic, ecological, and cultural wellbeing. Therefore, the undersigned organizations and individuals <u>call on the Vermont Legislature to support</u> a stakeholder process to develop legislative recommendations to maintain the integrity of Vermont's forests into the future.

Vermont Natural Resources Council The Nature Conservancy of Vermont Vermont Land Trust Vermont Woodlands Association Vermont Audubon The Trust for Public Land [Vermont Office Upper Valley Land Trust The Lyme Timber Company National Wildlife Federation, Northeast Regional Center Green Mountain Division Society of American Foresters Forest Guild Vermont Coverts Vermont Conservation Voters Vermont Council of Trout Unlimited Vermont Sustainable Jobs Fund The Vermont Chapter of the Sierra Club North Woods Forestry Meadowsend Timberlands Ltd. Green Mountain Club The Working Lands Coalition **Rural Vermont** The Conservation Fund Conservation Law Foundation North Woods Stewardship Center Manomet Center for Conservation Sciences Northeast Master Logger Certification The Trust to Conserve Northeast Forestlands **Conservation Collaboratives** Two Countries, One Forest Northern Forest Center New England Forestry Foundation

Wildlife Management Institute Little Hogback Community Forest Cold Hollow to Canada, Inc. Green Mountain Conservancy New England Backcountry Hunters & Anglers Vermont Center for Ecostudies Highstead William Keeton on behalf of the UVM Rubenstein School Forestry Program Robert Moses, President of Britton Lumber Company Doug Britton, Britton Lumber Company Jeffrey Smith, Butternut Hollow Forestry Rodney Elmer, Mountain Deer Taxidermy Eric Zencey, Fellow of the Gund Institute for Ecological Economics\* Bob Lloyd, Forest landowner and President Emeritus of Vermont Coverts Steve Faccio, Conservation Biologist, Vermont Center for Ecostudies Rosalind Renfrew, Vermont Center for Ecostudies Marc Lapin, Faculty, Program in Environmental Studies, Middlebury College Beverley Wemple, Associate Professor, Geography and Natural Resources, University of Vermont Eric Palola, Guanacaste Dry Forest Conservation Fund\* Leo Laferriere, Retired consulting forester Farley Brown, Faculty at Sterling College\* Kathy Doyle, Doyle Ecological Services and Visiting Instructor, Middlebury College Lynn Levine, Consulting forester, Forest\*Care and Heartwood Press John M. Fogarty, Fogarty Forestry, LLC John McNerny Forest landowner, and Past President of Vermont Coverts Leon Whitcomb and Rhoda Bedell, Forest landowners Leslie and Jim Morey, Forest Landowners Hugo Liepmann, Forest Landowner Don Dickson, Member of Forest Roundtable