

**ENVR E-161A: Land Conservation Practice in the United States and Around the World**

**Fall 2018**

**Henry Tepper and Frank Lowenstein**

**Tuesdays, 5:40 to 7:40 PM:            1 Story Street, Room 307  
Cambridge, MA 01238**

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[518-859-8852](tel:518-859-8852) (generally easier to reach us at these e-mail  
addresses, not at our Harvard e-mail addresses)**

**Teaching Assistant:**

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**Office Hours: By appointment via Canvas Website or contact  
Instructors or TA by e-mail**

**Course Description**

This course will focus on the growth, success, and impact of public and private land conservation worldwide during the past 150 years and how the changing societal context in which conservation occurs has and will affect conservation practice. We will explore the themes of: environmental advocacy; diversification of conservation to include both urban conservation and wild landscape conservation; increasing attention to environmental justice; the increased demographic diversity of the environmental movement; sustainability; impact investing; and climate change. Early lectures will review the first major trend in US land protection, which was the creation of public parks, forests and nature preserves, including emblematic landscapes like the Boston

Common, Yellowstone and Yosemite National Parks, and the Adirondack State Park.

The course focus will then shift to what has become one of the best-kept secrets in conservation—the growth, effectiveness, scale, and practicality of private land conservation—which, as it increases in the size of the properties being protected, often includes public-private partnerships. We will discuss the range of practice of land trusts in the US, and we will address growing but under-recognized private lands conservation efforts outside the US.

We will pay special attention to the building blocks of land conservation, including: financial and other incentives; practical and flexible legal agreements and instruments, notably conservation easements; financing mechanisms; entities to facilitate land protection projects, including land trusts; protection criteria; community values; landscape-scale, public-private land conservation projects; land conservation in cities; the growing importance of climate change issues in land protection decisions; and the role of protected lands in addressing climate change. Running through the course will be the theme of the inherent practicality and demand for results in private land conservation, and the role of individuals in creating conservation innovations and advancements.

The instructors will call on their experience as conservation practitioners and leaders, and the class will examine a diverse range of complex and interesting case studies, including the conservation of landscape-scale working forest blocs in northern New England and New York State; the Chilean Private Lands Conservation Initiative; the conservation of land as part of the implementation of the European Union's Natura 2000 Framework; and saving smaller, scenic landscapes that are of critical to the fabric of local communities but also coveted for real estate development.

We will ask class members to apply their new knowledge and ideas to practical conservation opportunities and challenges. Class members will both contribute to in-class discussions and lead on-line discussions before classes. The course will include several guest lectures by conservation leaders.

## **Course Logistics**

The course will be taught simultaneously as a lecture capture/distance learning course and via live, video recorded in-person lectures. In-person lectures will be from 5:40 p.m. to 7:40 p.m. every Tuesday at 1 Story Street, Room 307, Cambridge, MA 01238.

## **Grading & Class Participation**

- 1) Attendance and participation, including active participation in the reading discussion (10%)-- Our classroom has a technology feature called Zoom, which will permit students to participate in live video discussions during the scheduled class time on Tuesday evenings, US Eastern Standard Time. While remote students are not required to be present in person or live on line, we strongly encourage you to join the class live via Zoom, *in at least three classes*. Students must let the Teaching Assistant know (by the second class) if they do not intend to participate in Zoom on a regular basis. Students who do not participate via Zoom on a regular basis must also notify the Teaching Assistant the week before each of the three classes that they will join. (If live participation is a significant hardship due to connectivity, time difference, or other obligations please contact us and we will make reasonable accommodations.)
- 2) Leading class discussion of reading assignment (10%)-- Each student will be expected to lead class discussion of one reading on at least one occasion. Details will be provided at the first class.
- 2) Reading response assignments (2 pages each) -- 15%-- Students will be required to complete these written assignments every other week, and to lead one class discussion of the readings. Students are expected to do all of the weekly readings, to be prepared, and to participate in the class discussion of the readings live via Zoom (unless live participation is not possible—see above).
- 4) Early mid-term exam, approximately one-third of the way through the course, intended to provide students with early feedback on their learning of class material-- 15%
- 3) Final paper/project due approximately two-thirds of the way through the class-- 25%. Details below.

## 5) Take home final exam-- 25%

If you have any questions about expectations, please ask.

### **Final Project/Paper**

Students may undertake either a traditional term paper on a current conservation topic, or analyze a case study in land conservation practice. For the case study option, in consultation with the instructors, students will determine the scope of the analysis and articulate its basic components—opportunities, challenges, risks, etc. The challenge or opportunity could include a need for new institutional arrangements to advance land conservation or an on-the-ground land conservation project. Students will define public or private conservation strategies to include: desired outcomes; protection mechanism; expected negotiating strategy or institutional framework; draft documents or legal instruments; fundraising or other financing strategy; communications plan; etc.

### **Writing and Reading Assignments**

Weekly readings will be drawn from the texts and from articles posted on Canvas website and are indicated in draft form in this syllabus.

The class will be divided in two, and each half will alternate providing written reading responses as follows. All students must read the assigned readings for each week, whether or not a written reading response is due. Students will be divided into two groups, Group A and Group B. Each week, alternating groups will:

1. Provide a two-page (double-spaced) assessment of how the main points of the readings relate to the content and issues raised in class, what you found particularly interesting about this week's readings, key questions the readings raise, things you like or don't like about them.
2. Identify key elements from the readings that you would like to see addressed further in the upcoming class. This is your opportunity to guide the instructors on what might need further explanation, what is particularly relevant, provocative, etc.

For full credit, reading responses must be uploaded to the Canvas website *on the Sunday before that week's Tuesday lecture*. This will enable the instructors to review the students' assignments in advance and discuss them in class.

### **Principal Texts:**

Richard Brewer (2003), *Conservancy: The Land Trust Movement in America*. Hanover, New Hampshire: University Press of New England (majority of the book). A general history of the American land conservancy or land trust movement, including discussions of conservation organization and practice focused on the evolution of the larger players.

Thomas R. Wellock (2007), *Preserving the Nation: The Conservation and Environmental Movements, 1870-2000*. Wheeling, Illinois: Harlan Davidson, Inc. This is a good, recent, general survey of the broader conservation and environmental movement. It will be used primarily as a reference.

Additional readings to be provided as PDFs on the Canvas Website.

### **Learning goals:**

1. A deep, global understanding of public and private land conservation—its origins, history, basic tools, future opportunities, and challenges.
2. Increased familiarity with land conservation organizations and the people who make them work.
3. A working understanding of the tools and strategies necessary to complete successful land conservation efforts.

### **Disabilities**

*The Extension School is committed to providing an accessible academic community. The Accessibility Office offers a variety of accommodations and services to students with documented disabilities. Please visit [www.extension.harvard.edu/resources-policies/resources/disability-services-accessibility](http://www.extension.harvard.edu/resources-policies/resources/disability-services-accessibility) for more information.*

### **Academic honesty, cheating and plagiarism**

*You are responsible for understanding Harvard Extension School policies on academic integrity ([www.extension.harvard.edu/resources-policies/student-conduct/academic-integrity](http://www.extension.harvard.edu/resources-policies/student-conduct/academic-integrity)) and how to use sources responsibly. Not knowing the rules, misunderstanding the rules, running out of time, submitting the wrong draft, or being overwhelmed with multiple demands are not acceptable excuses. There are no excuses for failure to uphold academic integrity. To support your learning about academic citation rules, please visit the Harvard Extension School Tips to Avoid Plagiarism ([www.extension.harvard.edu/resources-policies/resources/tips-avoid-plagiarism](http://www.extension.harvard.edu/resources-policies/resources/tips-avoid-plagiarism)), where you'll find links to the Harvard Guide to Using Sources and two free online 15-minute tutorials to test your knowledge of academic citation policy. The tutorials are anonymous open-learning tools.*

### **About the Instructors**

**Henry Tepper** is a Boston-based independent environmental consultant. He has special expertise in land conservation, and has played a direct role in the protection of almost one million acres in the US and Latin America.

Henry's current consulting practice includes serving as a senior advisor to the Chilean Private Lands Conservation Initiative, working with the Chilean Tierra Austral Land Trust on the El Boldo to Cantillana Mediterranean Habitat Corridor Land Conservation Initiative, and working with the Texas Parks and Wildlife Foundation and the Water Institute of the Gulf to establish a conservation and restoration loan fund for the five states along the Gulf of Mexico that were impacted by the Deepwater Horizon oil spill. He recently wrote a "Climate Change Tool Kit" in collaboration with the Land Trust Alliance; the document includes a set practical recommendations to help land trusts integrate climate change strategies into their day-to-day work.

Henry has served as the President of Mass Audubon, as Chief Conservation Officer and a Partner at Patagonia Sur, LLC, an impact investment conservation real estate start-up working in Chilean Patagonia, and as the Vice President of State Programs of the National Audubon Society. He also worked for fourteen years for The Nature Conservancy, as the State Director first in New Hampshire and then in New York State. While at TNC-NY, he led the program through four forest conservation projects that protected more than 300,000 acres in the Adirondacks and Tug Hill Plateau.

Throughout his career, Henry has worked to advance the professional capacities of non-profit land conservation organizations. He has been a member of the Land Trust Alliance's National Leadership Council, and was a founding member of the Land Trust Accreditation Commission. He currently serves on the Boards of the Tierra Austral Land Trust in Chile and the US Friends of Canadian Land Trusts, as a member of the Steering Committee of the International Land Conservation Network, and as a member of the Board of the Adirondack Archives Project. Henry holds a B.A. from the University of Michigan and an M.A. and Admission to Doctoral Candidacy from Cornell University. He lives in Lincoln, MA.

**Frank Lowenstein** serves as Deputy Director and Chief Conservation Officer of New England Forestry Foundation, and leads that organization's Center for Forestry and Conservation Innovation. His responsibilities bridge strategy, land protection, fundraising and communications. New England Forestry Foundation is a 70-year-old non-profit organization devoted to the conservation and sustainable management of New England forests. It holds more than one million acres of conservation easements and owns more than 27,000 acres of land in 140+ community forests.

Prior to his work at NEFF, Frank served as a Senior Manager for The Nature Conservancy—the world's largest conservation non-profit organization. He led organizational initiatives at every scale from community-based conservation in Massachusetts to US national forest health to global climate adaptation, and also worked extensively in Latin America.

Frank's track record includes a history of conservation innovation, including developing the first forever wild conservation easement model, leading one of the first multi-state landscape scale conservation efforts in the East, helping develop the intellectual framework for choosing which areas of the Eastern forest to use as conservation focal points, developing new approaches for analyzing multi-site conservation threats, developing a program to promote wood construction as a climate mitigation strategy, developing the first tool for mapping likely future extremes of climate change (heat waves, droughts, extreme rainfall, etc), and developing a new conservation tool to motivate donations of conservation land now rolling out in the Northeast

He also has served as a senior fellow in the US State Department's Energy and Climate Partnership of the Americas. Frank received his M.S. in Botany, Field Naturalist Option from the University of Vermont and a B.A. cum laude in Geology from Harvard. He lives in Harvard, MA.

Henry and Frank co-teach many classes, and will share teaching and grading responsibilities.

### **ENVR E-161A Course Schedule:**

**Class 1: September 4, 2018 (Tepper and Lowenstein)-- Purpose and Nature of the Course**—Land conservation as an *applied* practical, dynamic, innovative, growing field. We have designed this course in part to directly address a fundamental disconnect between the practical success of land conservation, especially private land conservation, and the dearth of available practical academic training. Our goals are to provide students with an understanding of the historical context and tools of land conservation, and a detailed grasp of the core components of successful land conservation strategies, projects and transactions. *In preparation for the course, please write a few sentences or a paragraph describing why you are taking the course, and a place that is particularly important to you and why. We will call on some students to share their thoughts on this.*

In the first class we will also discuss our professional biographies, relevant accomplishments in land conservation, and perspectives on conservation. We will touch on some of the fundamental issues, trends and themes that will run through the course, including: “forever wild” preservation vs. sustainable resource use; public and private conservation; micro/community scale vs. macro/landscape-scale; the evolution in land conservation practice from working at the species-scale to the ecosystem- or landscape-scale; rural and urban conservation focus; pride about conservation success tempered with concern about ongoing loss, pressure on natural systems, climate change, etc.; changes in the social, economic and climate context that may be game-changing for the conservation movement as we know it.

**(Note—All readings are subject to change and refinement; these changes will be posted online on Canvas and the instructors will tell the class about them):**

**Reading (Text):**

*Preserving the Nation*, “Introduction” pp. 1-11.

**Reading (PDFs on Canvas):**

Leopold, Aldo (1949), *Sand County Almanac*. London: Oxford University Press. “The Land Ethic”, pp. 201-236.

**Class 2: September 11, 2018 (Tepper and Lowenstein): Historical underpinnings of land conservation in the US and abroad**-- Early emblematic conservation movements and protected landscapes, major themes in global conservation in two hours(!), moving from ancient times to the present. Also a discussion of the range and different missions of environmental organizations.

**Readings (PDFs on Canvas):**

Papanastasis, Vasilios, et al (2010) “Environmental conservation in classical Greece.” Journal of Biological Research - Thassaloniki (14: 123-135)

Nash, Roderick (1976). *Wilderness and the American Mind (Third edition)*. New Haven: Yale University Press. “Prologue: The Condition of Wilderness” and “Old World Roots of Opinion”, pp. 1-22.

Fox, Stephen (1981). *The American Conservation Movement: John Muir and His Legacy* (Madison: University of Wisconsin Press). “The American Tradition: People and Politics”, pp 334-357.

Marx, Leo (1964, 35<sup>th</sup> Anniversary Edition, 2000). *The Machine in the Garden: Technology and the Pastoral Ideal in America* (New York: Oxford University Press). Introduction and Chapter 1.

**Class 3: September 18, 2018 (Tepper and Lowenstein): National Parks and Forests in the US and Abroad**— Creating public protected areas in the US in the late 19<sup>th</sup> and early 20<sup>th</sup> century; the visionary work of John Muir, Gifford Pinchot and President Theodore Roosevelt; National Parks and landscape preservation; National Forests and multi-use landscapes, including the Adirondack State Park; The beginning of wilderness conservation and the Wilderness Act; Top-down and bottom-up—Protected areas at multiple scales and for multiple purposes—national, regional, community; The international experience.

**Readings (Text):**

*Conservancy*, “History”, pp. 1-29.

*Preserving the Nation*, “Introduction” pp. 1-13[skim] and “Roots and Progressive Area Conservation”, pp 13 -78.

**Readings (PDFs on Canvas):**

Muir, John (1897) “The American Forest”. *The Atlantic Monthly*

Stegner, Wallace. (1960) “Wilderness Letter” A submission to the Outdoor Recreation Resources Review Commission, published in his anthology *The Sound of Mountain Water*, 1969.

**Saturday, September 22, 2018 (rain date Sunday, September 23)-- Optional Field Trip to the Boston Common (James Levitt, with Frank Lowenstein and Henry Tepper): The origins of conservation in the United States**-- Guest lecture on site at the Boston Common regarding its significance in land conservation, by James Levitt from the Lincoln Institute for Land Policy and the Harvard Forest, including: The idea of setting aside land for the common good; Early visionary recognition of that need as exemplified the creation, use and protection of the Boston Common; The role and evolution of conservation groups such as The Trustees of Reservations. [NOTE: Students are encouraged to attend this “field trip,” and we will also have Jim’s field trip/lecture filmed so online students and those unable to attend can watch it remotely.]

**Class 4: September 25, 2018 (Lowenstein): The Evolution of the Environmental Movement and Its Implications for Land Conservation**

Critical events (e.g. DDT); Links to other social movements— civil rights, antiwar, feminist, etc.; Galvanizing events; Leaders and their books and philosophies—Aldo Leopold, David Brower, Rachel Carson. The first Earth Day. Recent actions by the Trump Administration— deregulation/former EPA Administrator Scott Pruitt; elimination of public lands/Interior Secretary Ryan Zinke, etc.

**Readings (PDFs on Canvas):**

Introduction to *Silent Spring*.

Encounters with the Archdruid, Chapter on David Brower.

Leopold, Aldo (1949), *Sand County Almanac*. London: Oxford University Press. “The Land Ethic”, pp. 201-236.

Rich, Frederic C. (2016). *Getting to Green: Saving Nature, A Bipartisan Solution* (New York: W.W. Norton). Introduction and Chapter 1.]

**Class 5: October 2, 2018 (Tepper and Lowenstein)— Midterm Exam Assignment and Conservation Easements, Part I**—Historical

background on private property ownership in Europe and in English and US Common Law- “bundle of sticks” analogy; the first conservation easements in the US by the Trustees of Reservations in MA in the late 19thc.; development and growth of land trusts throughout the US; why conservation easements have been the transformative tool for private lands conservation—no transfer of title, property remains private, financial incentives, accommodating sustainable land uses and even development, etc.; small and large landscape conservation with conservation easements.

**Reading: (Text)**

*Conservancy*, “Who Will Save the Land”, pp. 78-96. “Choosing the Land to Save” and “How to Save Land”, pp. 97-114 and 139-162 only.

**Readings for Classes #6 and #7 (PDFs on Canvas):**

Elizabeth Byers and Karin Marchetti Pont (2005). *Conservation Easement Handbook*. Washington, D.C.: Land Trust Alliance.  
 “Conservation Easements: The Context”

Connecticut Land Conservation Council (2014), “Model Conservation Easement and Commentary”. Please read the commentary and review cursorily the structure of the actual model document.

Cheever, Federico. (1996) “Public Good and Private Magic” *Denver Law Review*

**Ancillary Readings for #6 and #7 (PDFs on Canvas--for those interested in digging more deeply):**

Bray, Zachary (2010). “Reconciling Development and Natural Beauty: The Promise and Dilemma of Conservation Easements”. *Harvard Environmental Law Review* 34, pp. 119-177.

Perschel, R. 2006. *Working Forest Conservation Easements*. Forest Guild, 48 pp.

[Additional readings this year? What about a reading about CE syndication?]

**Class 6: October 9, 2018 (Tepper and Lowenstein)—Conservation Easements, Part II**— Using conservation easements to protect large landscapes and to achieve strategic conservation goals; financial incentives for conservation easements; controversial issues surrounding conservation easements.

**See above for Classes #6 and #7 Readings.**

**Class 7: October 16, 2018 (Tepper and Lowenstein): Conservation at the Landscape-scale— forever wild and sustainable land uses** — Conservation of biodiversity and of working landscapes (forests, farmland, rangeland); Case study or studies of innovative cases—Forest

projects including the nation's largest easement in Maine and the Gray Ranch conservation project in New Mexico.

**Readings (PDFs on Canvas):**

Foster, David R., et al (2010) *Wildlands and Woodlands: A Vision for the New England Landscape*. Petersham, Massachusetts: Harvard Forest, Harvard University, pp. 2-33 [Note: A new version of Wildlands and Woodlands is due out in September 2017, so we may update this reading.]

Donahue, Brian et al (2014) *A New England Food Vision*. Food Solutions New England.[Skim this example of holistic thinking about alternatives to the industrial agriculture system]

Perschel et al (2014) *Path to Sustainability*. New England Forestry Foundation, 32pp.

**Class 8: October 23, 2018 FINAL PAPER TOPICS DUE. (Guest Lecture by Rand Wentworth, with Frank Lowenstein and Henry Tepper): Reflections on the Land Trust Movement and Opportunities and Challenges in the Future**

—We are particularly pleased to have Rand Wentworth speaking to our class. Rand is currently the Louis Bacon Senior Fellow in Environmental Leadership at the Harvard Kennedy School. Before joining the Kennedy School, Rand served for 16 years as the President and CEO of the national umbrella organization for land trusts in the United States, the Land Trust Alliance. Rand will reflect on his national leadership role in the land trust community, including presiding over the continued exponential growth land trusts across the country, and the opportunities and challenges that accompany the extraordinary success of the private lands conservation movement.

**Readings (PDFs/Video on Canvas):**

Hardin, Garrett (1968). "The Tragedy of the Commons", pp. 3-16 (originally in the journal Science, December 13, 1968).

Feeney David and Birkres, Fiokret, et. al. "The Tragedy of the Commons, Twenty-Two Years Later", pp. 76-94.

**Class 9: October 30, 2018 (Greg Watson, Lowenstein, Tepper): Guest lecture by Greg Watson on emerging trends in land conservation— diversity, community conservation and social justice** —

Greg Watson is the Director of Policy and Systems Design at the Schumacher Center for a New Economics at Tufts University. At the Schumacher Center, Greg is a public voice for sustainability, equity, neighborhood planning through democratic processes, government policies that support human-scale development, and citizen financing of new enterprises. In 2015 and 2016 Greg led the development of the [Cuba-U.S. Agroecology Network](#), which is working to link small farmers and sustainable farm organizations in both countries to share information and provide mutual support. Previously, Greg served as Commissioner of Agriculture in Massachusetts. As Commissioner of Agriculture, he promulgated innovative groundwater protection regulations designed to prevent contamination of aquifer recharge areas; created an outreach program for farmers to adopt integrated pest management techniques; helped make Massachusetts the first state to establish a dairy pricing system; and chaired the state's Public Market Commission, which oversaw the planning and construction of the [Boston Public Market](#).<sup>[1]</sup><sub>SEP</sub> He has also served as Assistant Secretary for Science and Technology with the Massachusetts Executive Office of Economic Affairs; Deputy Director of the Massachusetts Centers of Excellence Corporation; and as Executive Director of the Dudley Street Neighborhood Initiative. As Executive Director of the [Dudley Street Neighborhood Initiative](#), he made urban agriculture a major focus of the community's revitalization plan, which featured community gardens, a farmers' market, and a 10,000 square foot community greenhouse. Greg also served on President-elect Obama's transition team for the U.S. Department of Energy; as Senior Advisor for Clean Energy Technology within the Executive Office of Environmental Affairs; and at the New Alchemy Institute on Cape Cod, first as Education Director and later as Executive Director. The New Alchemy Institute was an applied research center that practiced organic agriculture as well as aquaculture and did pioneering work in bio-shelter design. While there, Watson gained hands-on experience in ecological design and environmental advocacy and organizing.

The lecture will discuss growing efforts to engage a more diverse constituency in environmental experiences and conservation action. These initiatives are an overdue response to long-standing criticism of the environmental movement in the US and abroad is that it is elitist and dominated by wealthy

Caucasians who focus on strategies and projects that ignore the needs of people of color, people who are economically disadvantaged, and people who live in cities, without access to either parks and open space or transportation to get to these amenities. Critics also note that environmentalists seldom took action against a pervasive pattern of government agencies siting noxious infrastructure projects—power and sewage treatment plant, waste dumps, etc. in communities with disenfranchised residents who couldn't fight back.

**Reading (Text):**

*Conservancy*, “A Diversity of Local Land Trusts”, pp. 269-289.

**Reading (PDFs on Canvas):**

Enderly, Emily (2007). *Diversity and the Future of the U.S. Environmental Movement*. (New Haven: Yale University Press). “Action: The Next Step Toward Achieving Diversity and Inclusivity in the U.S. Environmental Movement, pp. 227-244.

*Links relevant to Greg Watson's lecture topic:*

[DSNI Revitalization Plan 1987.pdf](#)

[South End Lower Roxbury Open Space Plan 1990.pdf](#)

[DSNI Revitalization Plan 1998.pdf](#)

[Dwyer Analysis of DSNI Land Trust 2015.pdf](#)

**Class 10: November 6, 2018 (Lowenstein and Tepper): Land conservation and climate change, Part I**—The concept of resiliency and how to plan for it; explanation and discussion of the climate change goals and strategies of Mitigation and Adaptation. Case studies of land trusts adopting and implementing these goals on-the-ground.

**Readings (PDFs on Canvas) (Additional readings to come):**

Heller and Zavaleta (2009). "Biodiversity Management in the Face of Climate Change. *Biological Conservation*, pp. 14-32.

Climate Change Impacts in the United States: The Third National Climate Change Assessment (2014), Chapter 8, "Ecosystems, Biodiversity and Ecosystem Services", pp. 195-219.

Additional readings to be added.

**Class 11: November 13, 2018 (Lowenstein and Tepper): Land Conservation and Climate Change, Part II**—Presentation of three climate change-specific projects and initiatives, two of which are or have been led by Frank and Henry. First, Frank will discuss The Nature Conservancy's Natural Climate Solutions initiative. Second, he will present the New England Forestry Foundation's Build it with Wood and Exemplary Forest initiatives, which he leads. And third, Henry will present the Climate Change Tool Kit for Land Trusts that he wrote in 2017.

Readings TBD

**Class 12: November 20, 2018 (Tepper and Lowenstein)— Guest lecture on forest landscape-level conservation planning and setting conservation goals in the era of climate change**—Mark Anderson, Ph.D, Regional Landscape Ecologist, The Nature Conservancy, Boston, MA. For the past 20 years, Mark Anderson has played a critical and nationally influential role in guiding land conservation practitioners inside and outside The Nature Conservancy in setting goals for forest conservation at the landscape scale. We are lucky to have him deliver a guest lecture on the methodology he has developed to determine the size, scale and location of forest conservation priorities in New York, New England and beyond. He will address key challenges and opportunities, including how to balance ecological preservation with accommodating forestry, and the impact of climate change of forest conservation. **Readings (PDFs on Canvas):**

Anderson, M.G., M. Clark, and A. Olivero Sheldon. 2011 Resilient Sites for Species Conservation in the Northeast and Mid-Atlantic Region. The Nature Conservancy, Eastern Conservation Science. 122pp. Pages 19-45.

**Class 13: November 27, 2018 (Peter Stein with Lowenstein and Tepper):  
Impact Investing and Conservation FINAL PAPERS DUE.**—

Our guest lecturer will be Peter Stein, who is a Managing Director of the Lyme Timber Company in Hanover, New Hampshire. Lyme Timber is a timber investment management organization (TIMO), a specialized company that acquires and manages forestland throughout the United States, usually in partnership with land trusts and government agencies, and then manages that land subject to sustainable forestry conservation easements. Peter is one of the leading authorities on the growing field of impact investing, which integrates private capital into conservation projects. He will discuss a range of impact investment projects, and will also talk about innovative conservation finance strategies. Among his other numerous affiliations, Peter began his career in conservation at the Trust for Public Land, has served on the Board of Directors of the Land Trust Alliance, and was a founding member of the Land Trust Accreditation Commission.

In the second half of the lecture, Henry will present an innovative conservation finance initiative, the effort currently underway to create a Gulf of Mexico-wide conservation and restoration loan fund, which would assist projects designated for financial support from the Deepwater Horizon settlement funding programs, but which face time delays in receiving these funds.

**Readings (PDFs on Canvas):**

Tercek, Mark R and Johnathan Adams. 2013. *The Business Case for Nature. Sustainability, Issue 72, pp. 1-3.*

Worster, Donald (1993). *The Wealth of Nature: Environmental History and the Ecological Imagination*. New York: Oxford University Press. “The Shaky Ground of Sustainable Development”, pp. 142-155.

Additional readings to be added.

**Class 14: December 4, 2018 (Tepper and Lowenstein) — Role play on negotiations techniques and strategy.**

Lowenstein, F. 2016. The Old Manse conservation scenarios and characters. Variable pages depending on character selection.

**Class 15: December 11, 2018 (Tepper and Lowenstein)—International land conservation, Part 1**—Public protected areas strategies; challenges to land protection in developing countries—poverty, indigenous communities, land tenure and title, paper parks, land exploitation. Increased private land conservation outside the United States. Introduction to multi-lateral conservation organizations. Recent efforts by the European Union, and challenges to conservation of old growth forest reserve in Poland.

**Reading (PDFs on Canvas):**

Joppa and Pfaff (2009). “High and Far: Biases in Locations of Protected Areas,” *PlosONE* 4(12): e8273. doi:10.1371/journal.pone.0008273

Johnson, Laura. 2014. An Open Field: Emerging Opportunities for a Global Private Land Conservation Movement. Lincoln Institute of Land Policy Working Paper WP14LJ1. 26 pp.

Agrawal A, and K. Redford. Conservation and Displacement: An Overview. *Conservat Soc* 2009; 7:1-10

Dowie, M. 2006a. The hidden cost of paradise: Indigenous people are being displaced to create wilderness areas, to the detriment of all. *Stanford Social Innovation Review* Spring: 28-36.

**Class 16: December 18, 2018 (Tepper and Lowenstein) International Land Conservation, Part 2-- Case study— The Chilean Private Lands Conservation Initiative-- FINAL TAKE-HOME EXAM ISSUED, due in approximately 1 week (exact date tbd)**

The context-- Why Chile? Why Private Lands Conservation? Why now? Components of the initiative: Private sector leadership; The path to creating a Chilean Conservation Easement, beginning with the *Servidumbre Voluntaria*; forming a Chilean land trust, Fundacion Tierra Austral; protecting properties—Valle California, Chile-Mediterranean habitat; passing land conservation enabling legislation—the *Derecho Real de Conservacion*. Private-

Public National Parks in Chile and Argentina, the Tompkins Conservation Phenomenon.

**Readings (PDFs on Canvas):**

Henry Tepper and Victoria Alonso Chapter on the Chilean Private Lands Conservation Initiative, in James Levitt, Editor, "Conservation Capital in the Americas."

Hiss, Tony. 2017. South Star: Chile and The Future of Conservation Finance. *LandLines*. Winter 2017:

Materials on the Servidumbre Voluntaria Chilean Conservation Easement and the new Derecho Real de Conservacion legislation.