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Restoring America’s Forests

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The American Chestnut Foundation

Collaborative efforts to restore the benefits of healthy public forests
Restoring America’s Forests

big American chestnut in Sherwood, Oregon
Today:

• Explain the TNC Restoring America’s Forests program
• Discuss strategies for Federal policies on forest restoration
• Explore linkages with American Chestnut Foundation goals
Restoring America’s Forests

The mission of The Nature Conservancy is to conserve the lands and waters on which all life depends.
We have nearly 60 years of experience.

A Bobolink enjoys the results of a high-diversity prairie restoration carried out at the Conservancy’s Dahms Tract near Wood River, Nebraska ©Chris Helzer
We own and manage the largest network of private preserves in the United States.
We work with the trust and support of more than one million members.
People are a forest-dependent species
Some Forest Values in the US

- Store and filter half the nation’s water supply;
- Provide jobs to about one million forest products workers;
- Over 500 million acres of recreational lands that generate well over $13 billion in economic activity on National Forests alone;
- Absorb 13 percent of the USA’s carbon emissions;
- Provide habitat to thousands of species.
Restoring America’s Forests

The vision is:

“We want healthier, more resilient forests that sustainably support improved services for people, wildlife, and plants, with a durable constituency that can carry those values forward.”
North American Priorities – Forest Priority: Restore America’s Forests

TNC LANDS & FORESTED AREAS IN THE U.S.

LEGEND
- TNC lands
- forested areas (U.S.)

TNC land dataset includes TNC tracts, easements (past and present), and leases from OU databases and the Conservation Lands System (CLS) database. It does not yet include all TNC land transactions stored in the legal database (CLS) since there is not a requirement for spatial data except for easements.

MAP FOR INTERNAL TNC USE ONLY

v. 14 Dec 2010
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Please send corrections to lrank@tnc.org
North American Priorities – Forest Priority: Restore America’s Forests
Goal:
In the next ten years we will help make major, positive changes to the manner in which over 200 million acres of priceless federal forestlands and waters are managed.
A Montana-sized forested area is unhealthy

- Megafire-- 57% more acres burned this past decade
- Invasive species are harming forests and people
- Forests are going untreated due to lack of agreement
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Solution:
Focus on policies and practices that increase the pace, scale and quality of restoration of U.S. federal forests, with emphasis on the U.S. Forest Service.
Major threats to America’s forests:

- Over-stocked forests from a history of fire suppression
- Increased wildfires, windstorms, droughts and floods related to climate change
- Gridlock on logging and restoration;
- Lack of native forest structure due to past habitat conversion;
- Diseases and invasive species that degrade forests;
- Wildfire suppression policies and practices;
- Extensive poorly built, eroding logging roads;
- Lack of funding for beneficial watershed activities;
- Rural and urban sprawl.
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More forests need restoration treatments
More destructive fires in 2012:

Waldo Canyon - Colorado

Whitewater-Baldy - New Mexico
Burning through wildfire budgets

As seasons grow longer and more intense, U.S. runs out of funds

By DARCY FEAR

In the worst wildfire season on record, the U.S. Department of Agriculture Forest Service ran out of money to pay for firefighters, aircraft and aircraft that dump retardant on moving flames. So officials did what the only thing they could — take money from other forest-management programs. But many of the programs were aimed at preventing giant fires in the first place, and redirecting their budgets meant putting off the removal of dried brush and dead wood over vast stretches of land — the things that fuel eye-popping blazes, threatening property and lives.

Recently, Congress stepped in and reinstituted the Forest Service and the Interior Department, which plays a far lesser role in fighting fires, with $405 million in the 2011 continuing resolution, allowing fire prevention work to continue. But experts at state agencies and environmental groups proceed on good news.

But they also wanted Congress to provide the $1.5 billion it actually cut to fight this year’s fires. They argued that the traditional method that members of its appropriations conference committee use to fund wildland suppression — swelling the cost of fighting wildfires over the previous 10 years — to fund Congress was a way to fund the preparation to prevent large fires, not fight them.

Each year that money was removed from brush-disposal and timber salvage budgets, the Forest Service’s efforts to prevent huge fires would have to be “cut and further reduced,” said Dan Duncan, senior director of forestry for National Association of State Foresters. “Even with the appropriations they got, they’re not able to catch up. We’re thankful that Congress did not remove them this time but that hasn’t always been the case.”

Three years ago, Congress appeared to lose its mission that satisfied all parties. It created the Federal Land Assistance, Management and Environmental Act, or PLAME. The premise was simple. In the few good fire years when the Forest Service and Interior had just enough money to spend every penny appropriated to fight fires, the balance would go into the PLAME account to pay for suppression in years when things really heat up.

Congress allocated $10 million for PLAME’s first fiscal year. 2010 — a mild fire season, it turned out. As luck would have it, the following season also presented fewer fires, and a small budget surplus went into PLAME.

But in 2011, Congress went right in a fiscal year, taking at least $200 million from the fund and placing it into the general treasury to use for other purposes.

"It defeats the purpose of PLAME,” Topik, a former staff member for the House Appropriations Committee, said of the Forest Service. “It’s a precarious money that this emergency activity is funded this way.”

Hardhead Congress is doing its best in lean financial times, but the problem isn’t going away. "With all that's facing us, how do we accommodate [fiscal] pressures with our budget?" he asked. The network ability to remove forest thinning and present fires from growing bigger and hotter is at stake, Topik said. A third of the nation is federally owned — vast stretches of grassland, vegetation and woodland.

National forests battle with lite and a fair share of death — tree nears by insects, scrub brush. And lightning fires by the sun, old and diseased timber killed off, causing human misery and a tale with season.
Urban and developed land use area increases across all scenarios.

Forest and rangeland use area declines in all scenarios, as do cropland and pasture use areas.

Non-federal land use change by RPA scenario 2010-2060, conterminous United States
Key Theme: Land Development

Forests are most impacted by urban and developed uses, with up to 8% of the forest land base in the South lost by 2060.

Change in nonfederal forest area by RPA scenario, 2010-2060, conterminous United States

2010 RPA Assessment Overview (2/22/12)
Housing growth in and near NFS lands

Cleveland NF

Mt Evans Wilderness

Huron-Manistee NF

1940

2000

Housing Density (units / square km)

Black: 0
Light Blue: 0 - 2
Gray: 2 - 5
Light Green: 5 - 10
Yellow: 10 - 25
Orange: 25 - 50
Red: 50 - 100
Dark Red: > 100
A construção da BR 101 e do Polo Madeireiro de Itabela, nos anos 60 e 70, aprofundou o processo de degradação ambiental da região. Após a substituição da maior parte das matas por pastos, a dinâmica sócio-econômica e ambiental é hoje fortemente determinada pela pecuária extensiva e eucaliptocultura, com presença de café e mamão.
IMPACT OF NON-NATIVE FOREST INSECTS AND DISEASES

• **Emerald Ash Borer**
  • Has killed 60 million ash trees in 15 states and 2 Canadian provinces

• **Asian Longhorned Beetle**
  • Has killed maple, ash, willow and other hardwood trees in New York, New Jersey, the greater Boston area, and most recently Ohio

• **Sudden Oak Death**
  • Has killed more than 1 million trees along California and Oregon’s scenic coast
IMPACT OF NON-NATIVE FOREST INSECTS AND DISEASES

- Annual costs per year for tree removal, replacement, treatment of trees, and property value lost due to non-native forest insects and diseases:
  - Local governments: $1.7 billion
  - Homeowners: $830 million

- **Source**: National Center for Ecological Analysis and Synthesis at University of California, Santa Barbara, funded by TNC’s Forest Health Protection Program
OUTREACH AND EDUCATION

Don’t Move Firewood
8 million reached since 2008
Collaborations with 45 states
35,000 reached in person

Lurking in the Trees
100 TV airings nationwide
11,000 DVDs distributed
Strategy One - Demonstrations

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DEMONSTRATION SITES

with Fire Learning Network Landscapes and Collaborative Forest Landscape Restoration Program sites

Legend

- 15 projects that the Conservancy partners with were awarded FY2012 Collaborative Forest Landscape Restoration (CFLR) funding
- 3 landscape projects that the Conservancy partners with received special funding associated with the CFLR program
- 47 Fire Learning Network (FLN) landscapes

Restoring America's Forests Demonstration Sites

(Shaded green)

1. Tongass National Forest
2. Tapash Sustainable Forest Collaborative
3. Oregon Forest Project
4. Northern Sierra Partnership
5. Clearwater Basin Collaborative
6. Four Forest Restoration Initiative
7. Jemez Mountains / Southern Sangre de Cristos
8. Front Range Roundtable
9. Shortleaf Pine-Oak Ecosystem Restoration Project
10. Great Lakes Project
11. Central Appalachians
12. Southern Blue Ridge Demonstration Area
13. Great Basin Forests
North American Priorities – Forest Priority: Restore America’s Forests
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Strategy #2 – build coalitions

Create broad, effective coalitions and influential constituencies focused on achieving common restoration goals.
strategy #3 – reform public policy
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Strategy #4
Communications, Education, Marketing

• Utilize capacity of TNC organization
• Partners and Agencies
• News and various new media
• Legislative and policy arenas

CNN filming prescribed burn on Apalachicola Bluffs Longleaf Pine site, Florida
Major Stakeholders:

**US Federal agencies:** USDA Forest Service & NRCS; DOI BLM, USFWS, NPS, BoR, & BIA; NMFS, EPA and Army Corps of Engineers;

**States:** Individual states, Nat. Assoc. State Foresters, Western Governors Assoc., many state fish and wildlife agencies, water and air agencies;

**Professional societies**

**NGOs**

**Forest Products Industry**

**Tribes; Local and County governments**

**Local land & water interests**

**Utilities**

**Academics**

**Recreation and Tourism interests**

**Foundations:** National Forest Foundation, National Fish and Wildlife Foundation
Collaboration:

Tried and true, Cheerios® is the first finger food so many moms trust for their little ones.
Collaboration:

Essential for effective, common visions

*Use science to create social license*

1. Build **trust** among forest managers, interest groups and forest dependent communities
2. Build capacity for community involvement
3. Support learning networks to engage science, managers, local governments and tribes, and citizens
4. Enhance modern communication to expand story to urban citizens
Practices:

Efficient and Effective Forest Service Land Management and Project Planning

• National Forest land management planning rule & directives governs all National Forest future actions.
• bring science-manager and learning networks for fire, communities & climate to planning table
• adaptive and iterative NEPA planning for large scale or more efficient forest treatment
• monitoring protocol on Integrated Resources Restoration budget structure
Use of Fire as a Management Tool

- safe and effective use of wildland fire
- Reduce smoke-related barriers to large-scale use of prescribed fire
- encourage increased use of prescribed fire where needed
- Expand interaction between communities and land managers
- Community wildfire protection plans to increase fire use and increase more sectors to engage
Fire Learning Network landscapes 2012
What does the Fire Learning Network do?

We work with community and agency partners to:

1. improve community capacity to live with fire
2. convene high functioning collaborative planning
3. build trust and understanding amongst stakeholders
4. address climate change and other emerging threats or opportunities
5. leverage learning to accelerate large scale success
Allegheny and Potomac Highlands
Ecosystem Restoration Project:
Implementation Areas

- Smokey Hole Canyon: 210 acres, NNIS treatment
- Brushy Run Mine: 225 acres, NNIS treatment
- Pike Knob: 130 acres, NNIS treatment
- Panther Knob: 400 acres, NNIS treatment
- Humpman Valley: 150 acres, Controlled burn
- Shenandoah Mountain: 5,000 acres, Controlled burn (400 acres, NNIS treatment)
- Allegheny 55: 2,000 acres, Controlled burn
- Cowpasture River: Private landowner outreach
- Douthat State Park: 100 acres (pending), Controlled burn
- Warm Springs Mountain Restoration Project: 8,000 acres, 2 controlled burns
- Chestnut Ridge: 1,000 acres, Controlled burn
- Buckhorn Draft: 2,000 acres, Controlled burn
- Jackson River: Private landowner outreach
- Peach Orchard: 1,000 acres, Controlled burn
- Staunton

- Monongahela National Forest
- George Washington National Forest
- The Nature Conservancy Preserve
- State Forest
- State Park
- State Wildlife Management Area
- Major Road
- State Boundary
Scaling-up to Promote Ecosystem Resiliency

- Ashland Forest Resiliency WUI
- Southwest Montana Fire Initiative
- Trinity Integrated Fire Management Partnership
- Upper Fountain Creek Watershed Restoration Project
- Allegheny and Potomac Highlands Ecosystem Project
- Ozark Pine-Woodlands and Glade Restoration
**Policies: Funding:**

Federal Funding for Forest Service management and adaptation

- hazardous fuels reduction
- Collaborative Forest Landscape Restoration
- integrated resource restoration & legacy roads program
- Research & development
- Cooperative forestry assistance
- Stewardship contracting authority
Policies- Funding:

Non-Federal Funding for Forest Service management and adaptation

- Water funds
- Biomass and wood products development
- Tourism, recreational and insurance sector companies invest in restoration projects
- State or local funds from bonds or local assessments
- Fire funds for mitigation & risk reduction activities
Funding:

Alternative Emergency Wildfire Suppression Funding

• develop a new, alternative budgeting method for wildfire suppression & mitigation

• economic case showing avoided costs of suppression and emergency actions by investing in proactive forest restoration treatments
Innovative Funding

Develop State Funding Component
- $2M annually – Forest Collaborative
- $10M annually - Match to USFS
Going to Scale: Major Impediments:

1. Social license to use active forest management is delicate

2. Inadequate funds for support of agency personnel, interest groups, action on ground

3. Wildfire costs and impact on beneficial use of fire, and smoke management

4. Insufficient general public interest in using ecological forest management
Opportunities for TNC – TACF collaboration:

1. Central Appalachians
2. Southern Blue Ridge
3. Northern Appalachians
4. Short-leaf Pine ecosystems
Global Challenges Global Solutions
North American Focus on “Whole Systems”
Central Appalachians Forests
Virginia/West Virginia/Kentucky
Resilient Sites for Terrestrial Conservation in the Northeast and Mid-Atlantic Region

The Nature Conservancy · Eastern Conservation Science
Mark G. Anderson, Melissa Clark, and Arlene Olivero Sheldon

January 30th 2012
Cherokee National Forest in TN
- Plan revised in 2004
- Restoration planning complete for ½ Forest.

Nantahala/Pisgah National Forests in NC.
- Plan currently under revision
- Restoration planning currently being considered

Our hope is for these two Forests to lead efforts to incorporate restoration science into both NEPA and NFMA planning throughout the Southern Blue Ridge ecoregion (5 National Forests).
Percentages of the different “classes” of Dry-Mesic Oak Forest on the North Zone of the Cherokee National Forest. Blue bars represent the Natural Range of Variation; red bars represent the current condition; green bars depict the results of implementing the U-B-Gone management scenario for 50 years. (White Pine and Pine-Dominated classes are uncharacteristic, meaning they did not exist in the pre-European settlement condition of this ecological system. Models show that the chosen management regimen eliminates these classes over time.)
The Northern Appalachian forest in the East

The most ecologically intact temperate forest in the east

>70 million acres in large intact blocks
Big land ownerships sold to smaller
Forest landowners with shorter time horizons
Each time there is a sale the price goes up
Public funds have all but run out.
Forest land is being fragmented and land uses are changing
Climate changing - More floods and droughts
1. Focus land efforts on keeping forest
2. Restore and Maintain habitat connectivity
3. Focus freshwater conservation on road infrastructure
4. Promote forest health

All towards building resilience to climate change
Opportunities for TNC – TACF collaboration:

Shortleaf Pine Initiative

RESTORING AN AMERICAN FOREST LEGACY
Historical Fire Burned At Landscape Scale
Low Intensity Surface Fires
Fire history of oak–pine forests in the Lower Boston Mountains, Arkansas, USA
Guyette and Spetich, 2003

Fire Return Interval

(Guyette and Spetich, 2003)
Altered Ecosystem!
Challenges are ahead--
can it be done? YES!
“God has cared for these trees, saved them from drought, disease, avalanches, and a thousand tempests and floods. But he cannot save them from fools.

—John Muir
Restoring America’s Forests Demonstration Landscapes

The Nature Conservancy’s goal for U.S. forests is to collaboratively accelerate the pace and scale of forest restoration to address threats to people, water, and wildlife. The thirteen sites on this map are at the forefront of that effort. For more, visit http://www.nature.org/ourinitiatives/habitats/forests/restoring-americas-forests.html or contact Chris Topik (ctopik@tnc.org)

- Fire Learning Network (FLN) landscapes
  The FLN is a cooperative program of the Forest Service, Department of the Interior agencies—Bureau of Indian Affairs, Bureau of Land Management, Fish and Wildlife Service and National Park Service—and The Nature Conservancy. The partnership has a ten-year track record of helping to restore our nation’s forests and grasslands and to make communities safer from fire. For more on the FLN, see http://www.conservationgateway.org/FLN

- Collaborative Forest Landscape Restoration Program (CFLRP) projects
  Circles are scaled to cover about the area of each CFLRP project. Many of these projects overlap in space and in partners—RAF and FLN landscapes. For more on this program, see http://www.fs.fed.us/restoration/CFLRP/

- Fire Adapted Communities (FAC) Learning Network pilot communities
  The FAC Learning Network encourages the development and sharing of best practices and innovations to accelerate the adoption of fire adapted community concepts nationwide. For more on the network, see http://nature.ly/FireAdapted