

A Forest Management Renaissance



It is time for a new approach to on the ground forest management

Stockton State College

5 October 2017

Amos S. Eno

Land Conservation Assistance Network



<https://www.landcan.org>

Today I am going to talk about the elephant in the room that nobody wants to talk about. This will take us back to the dawn of forest management in the United States a century ago. George Orwell once opined: “freedom is the right to tell people what they do not want to hear”. It is time for a forest management Renaissance, a major nationwide reset. It is time we face the realities of on the ground forest management that have been staring us in the face for more than 30 years.

I started my career in conservation working for the Secretary of Interior in 1973, at a time when both our legislative and bureaucratic environment infrastructure was laid in place, like the ties of an

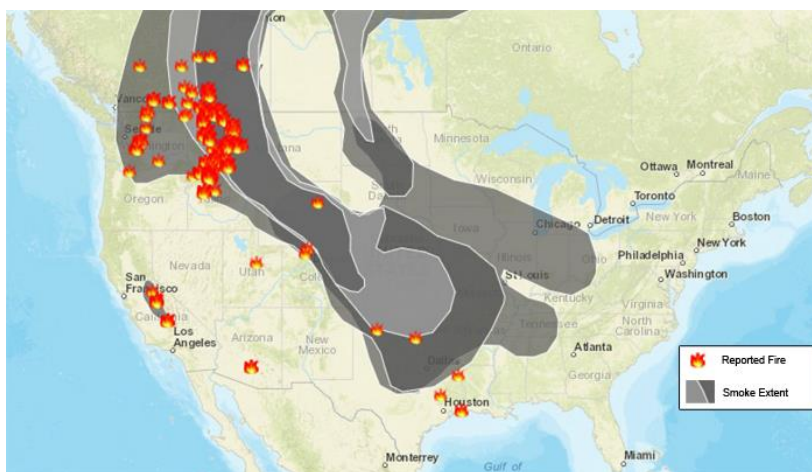


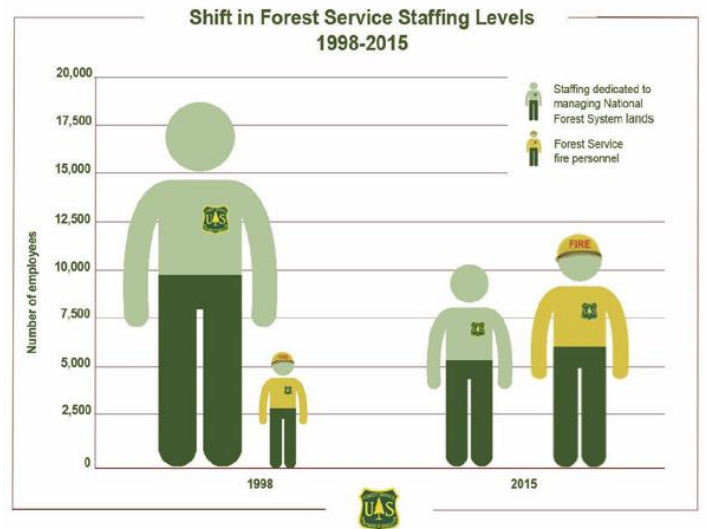
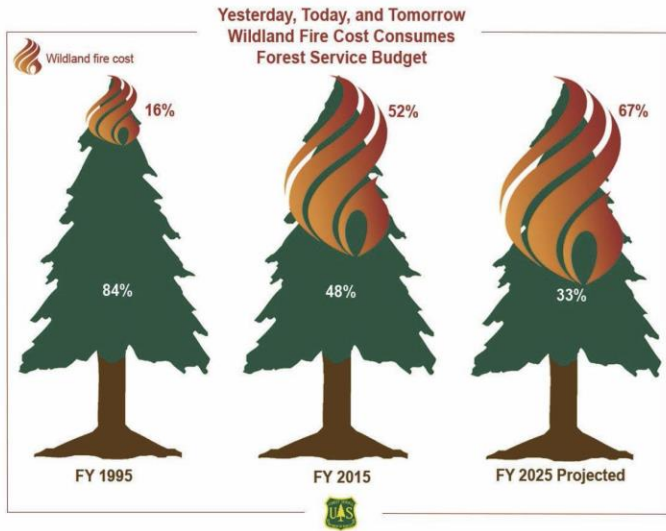
intercontinental railroad: Clean water, Clean air, NEPA, Endangered Species Act (ESA) creation of CEQ, EPA etc. Although I started my career and my focus for the first two decades of work was Interior agencies, I always kept a weather eye focused on the US Forest Service because of family ancestry through my relative Uncle Gifford, as my Dad referred to Gov. Gifford Pinchot, first Chief of US Forest Service. During those years, I read volumes on Pinchot vs. Muir and queried and

plumbed their alternative visions for conservation in America. Early on I was on the fence and kept an open mind to both visions, Pinchot’s more utilitarian forest management vs. Muir’s call for preservation and Wilderness, his paeon from the swaying tree tops. But by the late 1970s I came down firmly in the Pinchot camp, and by the early 1990s all doubts about the ecological verity of Pinchot’s approach were erased from my mind. Why you ask?

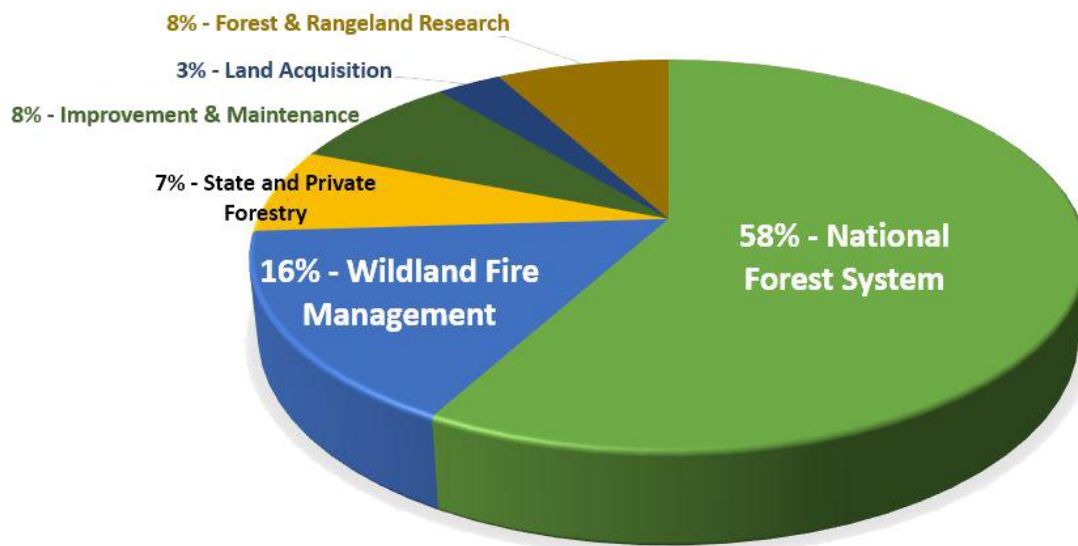
By the turn of the century, 2000, it was clear as day dawning that the Muir vision of wilderness and forest protection had brought us to a rural apocalypse wherein urban metropolitan America was imposing ecological catastrophe upon rural America coast to coast.

On 6 Sept, my Portland, Maine paper brought me the following headline: **“Eighty Wildfires Burning in Nine Western States, covering 2,200 square miles.”** On 12 September Outside Online blared: **Why The West Is Burning. There are 137 large wildfires across 7.8 million acres; the worst fire season ever!** We have been experiencing a **pandemic of western wild fires** for over thirty years. Today 55% of the Forest Service’s budget goes to fighting fires. As a result there is not enough funding to manage our forests. USFS personnel have shifted ineluctably from forest management to fire control.

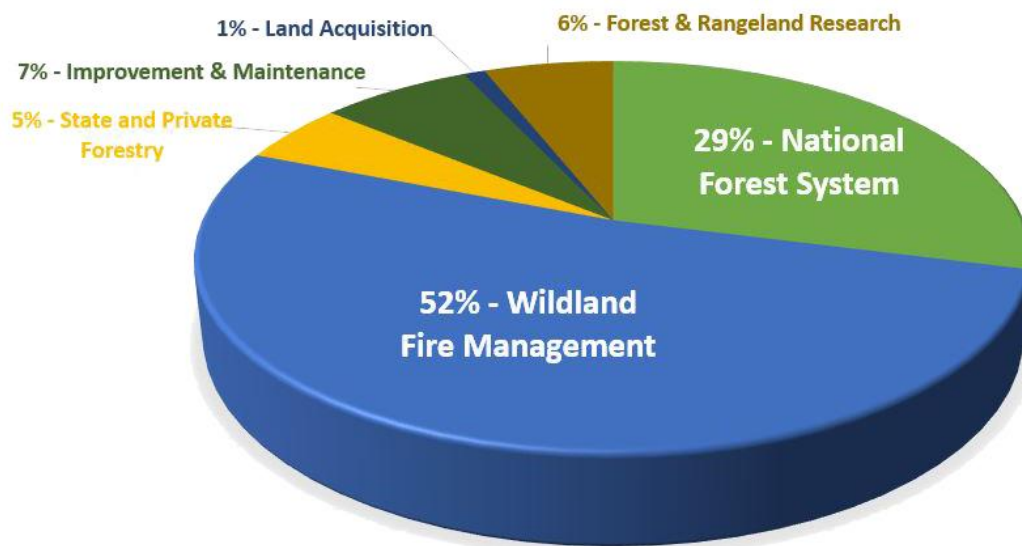




FOREST SERVICE FY 1995 APPROPRIATIONS BY FUND



FOREST SERVICE FY 2015 APPROPRIATIONS BY FUND



Gifford Pinchot wrote:

“In a word, when the forests fail, the daily life of the average citizen will inevitably feel the pinch on every side. And the forests have already begun to fail, as the direct result of the suicidal policy of forest destruction which the people of the United States have allowed themselves to pursue” (The Fight for Conservation p.17).

Yes, at the turn of the century (1900) Pinchot was referring to industrial clear cutting of our forests, but the spirit and pertinacity of his remarks are also, perhaps even more, appropriate to today’s circumstances of fire dominated landscapes. The forest fires we have experienced for thirty years are an ecological waste, and economic disaster for rural America across a dozen states. If you read the headlines of The Washington Post, NY Times, Los Angeles Times, or the evening headlines News of CNN you see the environmental Mantra of Al Gore spewing it is AGW-Anthropogenic Global Warming as the cause celebre. The President characterizes our national media’s preoccupation with manufactured hyperbole, “Fake News”. It is really completely pre-fabricated news; make-believe BS news. "The costs of fires are not going up because of forest management. They're going up because of climate change," said Sierra Club, Kirin Kennedy, E & E News 25 Sept.



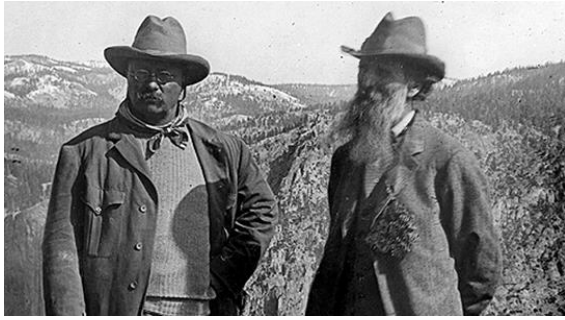
We should call our modern forest phenomenon what it is: **Environmental Fuel Loading-EFL!** Western forests have suffered 7 years of drought, but 50 years of **EFL**. Our western forests were managed by Native Americans for two millenniums. Only with the advent of modern environmentalism have we turned back the ecological clock to self-inflicted disasters through no human management. You have EFL herein New Jersey with a 3,500 acre fire this summer. If you have a 20,000 acre fire with smoke wafting to Newark and Manhattan, you will have hell to pay.



In his 1972 environmental message launching his legislation for environmental reforms, President Nixon quoted President Teddy Roosevelt:

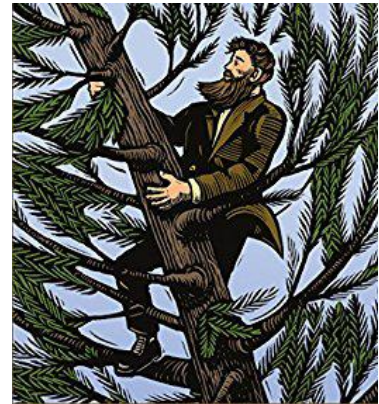
“I recognize the right and duty of this generation to develop and use our natural resources; but I do not recognize the right to **waste** them or to rob by **wasteful** use the generations that come after us.”

In today's world we are **wasting** our forests because of the strangulation of decades of

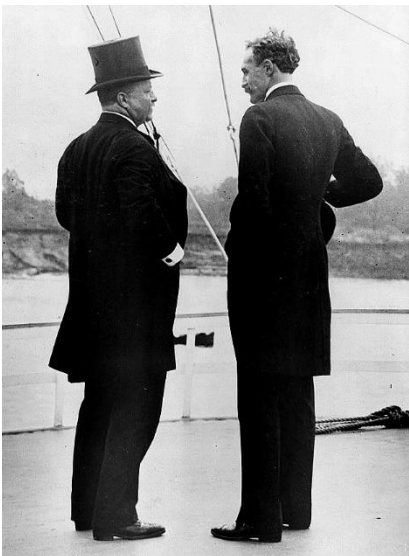


environmental policies and litigation. Over the last 50 years Muir's vision of preservationist management of forests has eclipsed Pinchot's utilitarian management. The designation of Wilderness areas across western forests and the listing of the Spotted Owl by John Turner Director of FWS in 1992 terminated forest management and allowed the building of enormous fuel loads

leading to catastrophic fires every summer. If our preservationist idol, John Muir tried to pull his tree top stunt today, sitting atop a Douglas fir midst a Pacific crest storm ... he would be a toasted Scotsman, kilt aflame, a veritable Caledonia marsh mellow. Today we need to un-manacle environmental regulations and restrictions and bring forest management back to our forests. From the standpoint of historical retrospective, Pinchot was right on both merit and practical application, and Muir was, well, a looney. A forest preservation is lunacy; it is a policy of condemnation of our forests to ecological sclerosis! Muir preached a pantheistic and evangelic for an environmental, forest utopia... what you might expect of a puritanical scot transplanted to the high Sierras. Muir's influence and legacy have been a disaster of national proportions, and it represents environmentalism gone awry.



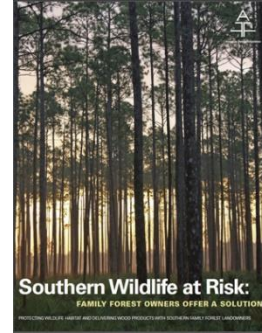
Muir's vision has been adopted by urban/suburban elites from both coasts: in the east Bethesda/Chevy Chase (MD), Scarsdale (NY), Far Hills (NJ), Greenwich (CT), in the west San Francisco (CA), Portland (OR), Seattle (WA), where wealthy elites and environmental philanthropies fund Muir's environmental litigating crusaders – the four horsemen of the apocalypse - The Sierra Club, the Center for Biological Diversity, Defenders of Wildlife and the Natural Resource Defense Council.



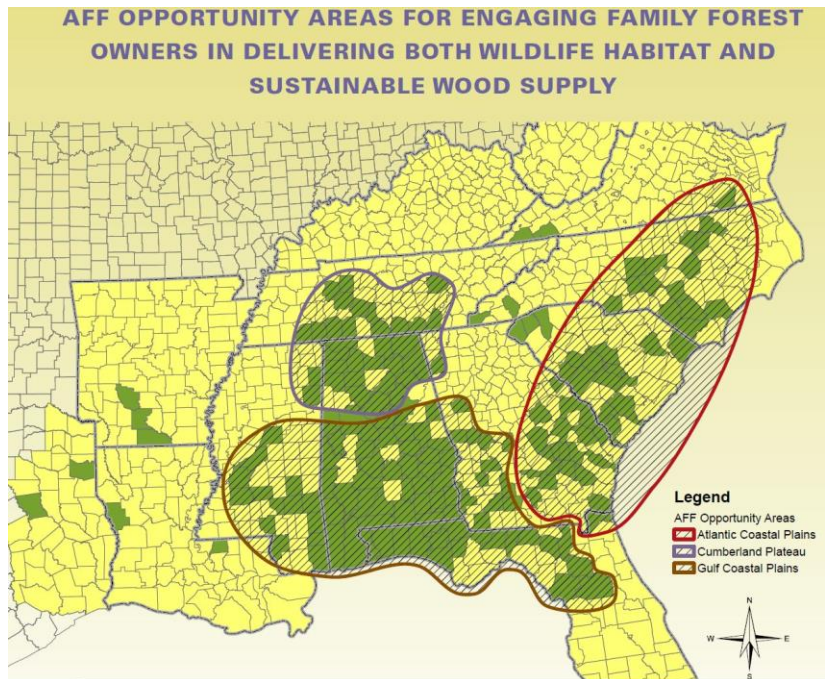
The world has gone topsy-turfy. In Pinchot's day, he had to excoriate the timber barons clear cutting our forests. Today Pinchot's legacy of sound forest management is being carried forward and applied on the ground by leading forest industry companies and by individual private forest owners. In the West today, particularly in California, the best managed forests are those managed by Sierra Pacific Industries, Green Diamond Resource Company, and Collins Pine. Here in New Jersey's Pine Barrens, the best managed forest is on the Haines family cranberry lands managed by my Advisory Board member Bob Williams, consulting forester. NJ Audubon is successfully returning quail to the Pine Barrens on the Haines' forests. In my home state of Maine, which boasts the healthiest forests in the nation, some 17.6 million acres, we executed the two largest

conservation easements in U. S. history on the Pingree lands (762,000 acres) and on Downeast Lakes (342,000 acres). Those two easements by the New England Forestry Foundation are still private forest lands and still working, managed forest lands, on the tax rolls, and providing jobs for rural Mainers on 1.1 million acres. This is a model for the future of our forests.

Two months ago I was in DC, visiting Tom Martin of the American Forest Foundation (AFF). During our meeting he handed me a new pamphlet by AFF: **Southern Wildlife at Risk: Family Forest Owners Offer a Solution.** This is a superbly researched and designed document, which I recommend to everyone here (<https://www.forestfoundation.org/family-forest-owners-solution-at-risk-wildlife>). They examined southeastern counties from east Texas to both Virginias to correlate high concentrations of biodiversity and private forest owners. They identify 3 prime ecoregions as priorities for engaging family forest owners in delivering both wildlife habitat and sustainable wood supply. Needless to say there is also a high correlation with shortleaf pine in these same targeted counties. Their brochure features Dr. Salem Saloom who is restoring long leaf pine on his 2,200 acres. Saloom is on the AFF board and is also a supporter of LandCAN, my foundation. The report concludes with recommendations:

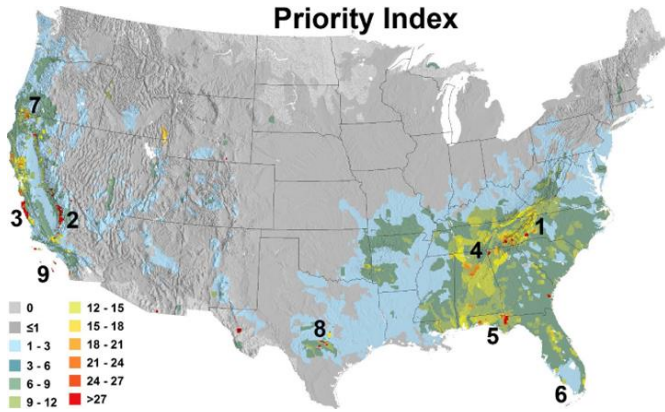


- Develop, invest in, and implement landscape scale landowner outreach and engagement strategies
- Provide funding and policy tools that support family forest landowner engagement,
- Promote markets for sustainably-produced wood and paper products, and encourage voluntary conservation efforts for at-risk wildlife.



My foundation LandCAN is the largest platform of information on the internet for private landowners, and we are the largest host of forestry information, including links to AFF’s Tree Farm network. We host almost 4,000 consulting foresters, another 1,000 seed suppliers and woodlot and timber services and all USFS State and Private Forestry programs. Naturally I have proposed to partner with AFF on their Southeastern initiative. LandCAN has already built state LandCAN’s for Louisiana, Mississippi, and Arkansas.

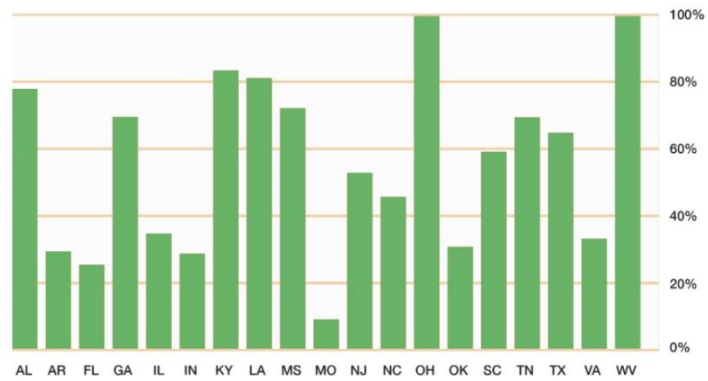
Two years ago a brilliant study was published by Clinton Jenkins et al (Jenkins, Van Houten, Pimm, Sexton, PNAS 2015) entitled: **US Protected Lands Mismatch Biodiversity Priorities**. They point out that the highest concentrations of biodiversity in the US are in the Southeastern states AL TN, FL GA, SC, NC, VA-exactly corresponding to AFF 's targeted initiative-as well as central Texas and California.



So once again as the national media screams with headlines about endangered lesser prairie chickens, sage grouse, grizzly bears, wolves-all of which are well on the way to recovery, and the enviro community tries to lock up more and more federal land from any conceivable type of human usage, very little is being done to address our biodiversity priorities where they do in fact exist, and I might add largely

on private lands in eastern states.

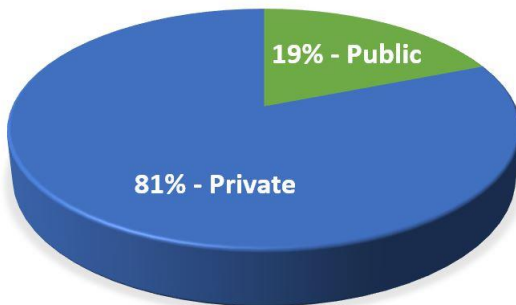
This brings me to our tree, Short Leaf Pine (*pinus echinata*), occurring in 22 states, which has experienced a 53% decline since 1980. Note the correlation with both AFF Southeast initiative and with the Jenkins et al. Biodiversity index. Also note that these 22 states are overwhelmingly private land states. In the United States “56% of forest land remains in private ownership, More than 10 million individual and family forest land owners own 42 percent of total forest land, representing a diverse



Relative declines in shortleaf pine dominated forests range-wide and for each state comparing 1980's timberland inventories with the 2013 inventory. Credit: Chris Oswalt, USFS

group of people who have many reasons for owning their forest land. Most of this family-owned forest is used for aesthetics, as habitat for wildlife, and as part of a family legacy”.

FOREST OWNERSHIP IN THE EASTERN U.S.



(USFS August 2014) How are you going to engage millions of families to restore Short Leaf Pine? How are you going to take forest conservation and restoration across almost two dozen states to scale? Each individual family has a unique aesthetic perspective, a unique set of goals for wildlife habitat, and unique inter-generational transfer plans and objectives? How are you going to get forest and fire management because shortleafs need both at scale?

There is only **one way** of reaching the targeted family forest ownership market on a scalable basis; use the internet and websites that host all the diverse and various needs of the target audience. We have built that web platform on LandCAN. We are the largest host of forest management and conservation, as well as wildlife conservation, and tax and estate planning on the internet in the US. We host all the federal programs targeting forest land owners, all the comparable state programs, every land trust and conservation district in the country and all of Tree Farm assets, and over 40,000 for-profit service providers including consulting foresters, tree nurseries, and estate planners and attorneys specializing in intergenerational transfer.

THE LANDCAN TOOL CHEST

WEB-BASED RESOURCES FOR CONSERVATION ACTION

LANDCAN NATIONAL IMPACT

| | |
|---|--|
|  | Land Conservation Assistance Network www.landcan.org |
|  | Cooperative Conservation America www.cooperativeconservation.org |

LANDCAN SPECIALTY FOCUS

| | |
|---|---|
|  | Habitat Conservation Assistance Network www.habitatcan.org/ |
|  | Keep Working Lands Working www.LandCAN.org/landcan-blog/ |
|  | USDA Energy Estimator Tools www.nrcs.usda.gov/wps/portal/nrcs/main/national/energy/tools/ |

LANDCAN LOCALIZED PORTALS

| | |
|--|---|
|  | Arkansas www.ArkansasLandCAN.org |
|  | California www.CaliforniaLandCAN.org |
|  | Colorado www.ColoradoLandCAN.org |
|  | Idaho www.IdahoLandCAN.org |
|  | Louisiana www.LouisianaLandCAN.org |
|  | Maine www.MaineLandCAN.org |
|  | Mississippi www.MississippiLandCAN.org |
| Coming Soon | |
|  | Texas www.TexasLandCAN.org |
|  | Virginia www.VirginiaLandCAN.org |



We have hosted all the Long Leaf Pine Initiative on-line assets for years. We look forward to adding Short Leaf Initiative to our portfolio of products serving private forest land owners across the country.

The US Forest Service's State and Private Forest program needs to join the digital age to get market penetration with private forest owners. Rather than building another stove pipe program, SPF should partner with and utilize those avenues that exist with a proven track record of performance for delivering product to market: consulting foresters like Bob Williams across your 22 states, American Forest Foundation and the Tree Farm system, and LandCAN nation-wide.

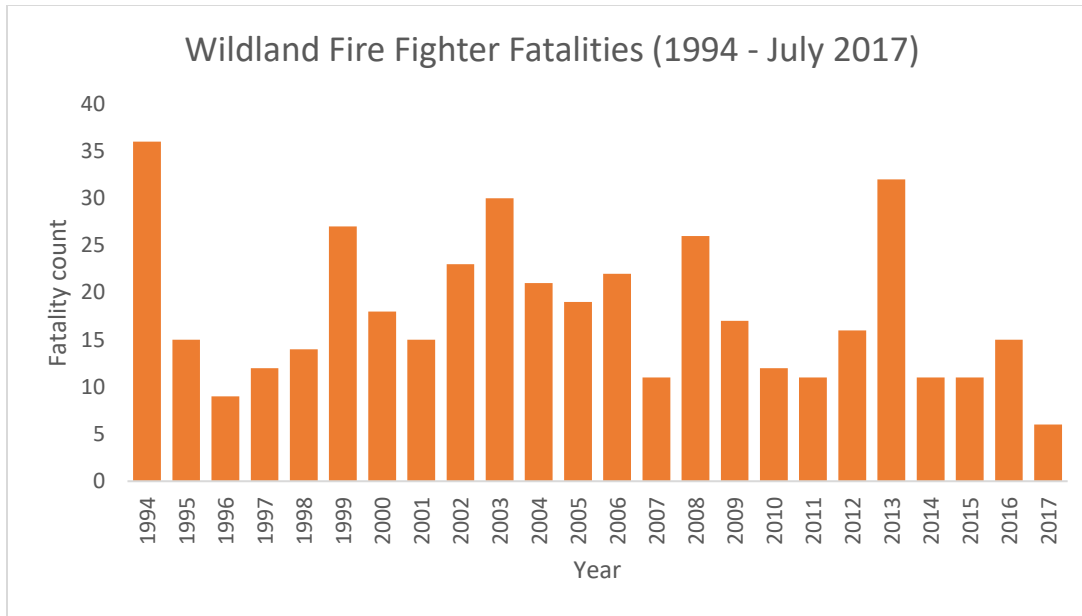
I am going to conclude with another Pinchot quote:

“The central thing for which Conservation stands is to make this country the best possible place to live in, both for us and for our descendants. It stands against the waste of agricultural resources which cannot be renewed, it stands for the perpetuation of resources which can be renewed, such as food producing soils and the forests...” (Pinchot, *The Fight for Conservation* p.79)

If Native Americans could practice ecological forestry for a thousand years, modern American society should be able to replicate this ecological forest management which did not entail forest preservation, but periodic fire management.

Today Smokey Bear is an ursine marshmallow; toast. Fire prevention is not the answer any more than King Canute holding back the tides of Dorset. The only solution to our current predicament is intensive forest management on an unrepresented scale, augmented with prescribed burning. This is the only exit from the theater of our current holocaust. It can be done as Bob Williams has shown with his 600 clients here in New Jersey and adjacent states.





Source: National Institute for Occupational Safety and Health (NIOSH) Division of Safety Research

Source: USDA Forest Service Budget Summary Compiled by the Western Forestry Leadership Coalition (July 20 2017)

| USDA Forest Service Wildland Fire Management (In Millions) | | | | | | | |
|--|-------------------|--------------|-------------|------------------|---------------|-----------------------|---------------------------|
| Program | Total | Preparedness | Suppression | Other Operations | | | |
| | | | | Hazardous Fuels | Fire Research | State Fire Assistance | Volunteer Fire Assistance |
| FY12 Enacted | \$1,974.47 | \$1,004.44 | \$537.86 | \$317.08 | \$21.70 | \$85.96 | \$13.03 |
| FY13 Enacted | \$1,868.80 | \$948.65 | \$509.81 | \$301.06 | \$20.60 | \$78.43 | \$12.36 |
| FY14 Enacted | \$2,162.30 | \$1,057.58 | \$680.49 | \$306.50 | \$19.80 | \$78.00 | \$13.03 |
| FY15 Enacted | \$2,333.30 | \$1,145.84 | \$708.00 | \$361.75 | \$19.80 | \$78.00 | \$13.00 |
| FY 16 Enacted | \$2,386.33 | \$1,082.62 | \$811.00 | \$375.00 | \$19.80 | \$78.00 | \$13.00 |
| FY17 Consolidated Appropriations Act | \$2,833.42 | \$1,082.62 | \$1,248.00 | \$390.00 | \$19.80 | \$78.00 | \$15.00 |
| FY18 USFS Budget Request | \$2,495.04 | \$1,339.62 | \$1,056.82 | \$0.00 | \$17.60 | \$69.40 | \$11.60 |
| FY18 House Interior Bill | \$2,506.36 | \$1,339.62 | \$1,056.82 | \$0.00 | \$19.29 | \$76.01 | \$14.62 |

Wildfire Suppression break down

Source: USDA Forest Service Budget Summary Compiled by the Western Forestry Leadership Coalition (July 20 2017)

USDA Forest Service Wildland Fire Management (In Millions)

| Program | Total | Wildfire Suppression | |
|---|-------------------|-----------------------------|-------------------------|
| | | Cost | Percent of Total |
| FY12 Enacted | \$1,974.47 | \$537.86 | 27.2 |
| FY13 Enacted | \$1,868.80 | \$509.81 | 27.3 |
| FY14 Enacted | \$2,162.30 | \$680.49 | 31.5 |
| FY15 Enacted | \$2,333.30 | \$708.00 | 30.3 |
| FY 16 Enacted | \$2,386.33 | \$811.00 | 34.0 |
| FY17 Consolidated Appropriations Act | \$2,833.42 | \$1,248.00 | 44.0 |
| FY18 USFS Budget Request | \$2,495.04 | \$1,056.82 | 42.4 |
| FY18 House Interior Bill | \$2,506.36 | \$1,056.82 | 42.2 |

Source: National Interagency Fire Center

| Federal Firefighting Costs (Suppression Only) | | | | | |
|--|--------------|--------------|-----------------------|---------------------|-----------------|
| Year | Fires | Acres | Forest Service | DOI Agencies | Total |
| 1985 | 82,591 | 2,896,147 | \$161,505,000 | \$78,438,000 | \$239,943,000 |
| 1986 | 85,907 | 2,719,162 | \$111,625,000 | \$91,153,000 | \$202,778,000 |
| 1987 | 71,300 | 2,447,296 | \$253,657,000 | \$81,452,000 | \$335,109,000 |
| 1988 | 72,750 | 5,009,290 | \$429,609,000 | \$149,317,000 | \$578,926,000 |
| 1989 | 48,949 | 1,827,310 | \$331,672,000 | \$168,115,000 | \$499,787,000 |
| 1990 | 66,481 | 4,621,621 | \$253,700,000 | \$144,252,000 | \$397,952,000 |
| 1991 | 75,754 | 2,953,578 | \$132,300,000 | \$73,820,000 | \$206,120,000 |
| 1992 | 87,394 | 2,069,929 | \$290,300,000 | \$87,166,000 | \$377,466,000 |
| 1993 | 58,810 | 1,797,574 | \$184,000,000 | \$56,436,000 | \$240,436,000 |
| 1994 | 79,107 | 4,073,579 | \$757,200,000 | \$161,135,000 | \$918,335,000 |
| 1995 | 82,234 | 1,840,546 | \$367,000,000 | \$110,126,000 | \$477,126,000 |
| 1996 | 96,363 | 6,065,998 | \$547,500,000 | \$153,683,000 | \$701,183,000 |
| 1997 | 66,196 | 2,856,959 | \$179,100,000 | \$105,048,000 | \$284,148,000 |
| 1998 | 81,043 | 1,329,704 | \$306,800,000 | \$109,904,000 | \$416,704,000 |
| 1999 | 92,487 | 5,626,093 | \$361,100,000 | \$154,416,000 | \$515,516,000 |
| 2000 | 92,250 | 7,383,493 | \$1,076,000,000 | \$334,802,000 | \$1,410,802,000 |
| 2001 | 84,079 | 3,570,911 | \$683,122,000 | \$269,574,000 | \$952,696,000 |
| 2002 | 73,457 | 7,184,712 | \$1,279,000,000 | \$395,040,000 | \$1,674,040,000 |
| 2003 | 63,629 | 3,960,842 | \$1,023,500,000 | \$303,638,000 | \$1,327,138,000 |
| 2004 | 65,461 | 8,097,880 | \$726,000,000 | \$281,244,000 | \$1,007,244,000 |
| 2005 | 66,753 | 8,689,389 | \$524,900,000 | \$294,054,000 | \$818,954,000 |
| 2006 | 96,385 | 9,873,745 | \$1,280,419,000 | \$424,058,000 | \$1,704,477,000 |
| 2007 | 85,705 | 9,328,045 | \$1,149,654,000 | \$470,491,000 | \$1,620,145,000 |
| 2008 | 78,979 | 5,292,468 | \$1,193,073,000 | \$392,783,000 | \$1,585,856,000 |
| 2009 | 78,792 | 5,921,786 | \$702,111,000 | \$218,418,000 | \$920,529,000 |
| 2010 | 71,971 | 3,422,724 | \$578,285,000 | \$231,214,000 | \$809,499,000 |
| 2011 | 74,126 | 8,711,367 | \$1,055,736,000 | \$318,789,000 | \$1,374,525,000 |
| 2012 | 67,774 | 9,326,238 | \$1,436,614,000 | \$465,832,000 | \$1,902,446,000 |
| 2013 | 47,579 | 4,319,546 | \$1,341,735,000 | \$399,199,000 | \$1,740,934,000 |
| 2014 | 63,312 | 3,595,613 | \$1,195,955,000 | \$326,194,000 | \$1,522,149,000 |
| 2015 | 68,151 | 10,125,149 | \$1,713,000,000 | \$417,543,000 | \$2,130,543,000 |
| 2016 | 67,743 | 5,509,995 | \$1,603,806,000 | \$371,739,000 | \$1,975,545,000 |

- The Department of Interior agencies include: Bureau of Indian Affairs, Bureau of Land Management; Natio Park Service; and U.S. Fish and Wildlife Service.
- The U.S. Forest Service is an agency of the Department of Agriculture.

Forestry Related Resources in the LandCAN Directory

| Category | Resource Type | count |
|--------------------------------|---|-------|
| Groups and Associations | CalFire Units / Fire Plans | 21 |
| | Conservation Districts | 2,975 |
| | Cooperative Extension | 3,169 |
| | Fire Safe Councils | 175 |
| | Native Plant Society Chapters | 107 |
| | | |
| | | |
| Land Professionals | Arborists | 430 |
| | Biologists / Ecologists | 410 |
| | Consultants - Land | 728 |
| | Fire Services / Prescribed Burning | 380 |
| | Forest Health | 38 |
| | Foresters | 3,437 |
| | Mapping/Cartographic and GIS services | 191 |
| | Native Species Nurseries | 208 |
| | Riparian and Wetlands Specialists | 186 |
| | Seed / Seedling Suppliers | 404 |
| | Tree Planting Vendors | 54 |
| | Weed / Invasives Management Professionals | 254 |
| | Wildlife / Habitat Specialists | 441 |
| | Woodlot and Timber Services | 602 |
| | | |
| | | |
| Products and Services | Carbon Credits and Sequestration | 63 |
| | Conservation Credit Markets | 34 |
| | Conservation Real Estate | 123 |
| | Mitigation Banks | 13 |
| | | |
| Programs | Department of Interior - Bureau of Land Management | 21 |
| | Department of Interior - Fish and Wildlife Service Programs | 141 |
| | Federal and State Tax Incentives and Programs | 105 |
| | Grant Programs | 106 |
| | Habitat Management Programs | 21 |
| | State Funding / Technical Resources | 514 |
| | USDA - Forest Service Programs | 13 |
| | USDA - FSA Programs | 57 |
| | USDA - NRCS Programs | 207 |

Click through report for the period 6/2008 - 9/2017

| Resource Type | Clicks |
|---|------------------|
| Cooperative Extension | 93,495 |
| Land Trusts | 69,923 |
| Conservation Districts | 61,171 |
| Foresters | 57,385 |
| Ecotourism | 51,899 |
| Rural-Farmer, Rancher, and Fishery Cooperatives | 42,806 |
| Guides and Outfitters | 34,110 |
| State and Federal Land | 31,314 |
| Conservation Groups and Associations | 30,525 |
| Sustainable Ag / Community Supported Agriculture | 29,597 |
| Campgrounds | 29,518 |
| Consultants - Land | 28,705 |
| Lawyers | 28,440 |
| Education Programs | 27,921 |
| Sage Grouse | 27,062 |
| State Funding / Technical Resources | 26,871 |
| Alternative Energy | 20,668 |
| EPA Programs | 18,609 |
| Small Farm Resources | 14,601 |
| Lesser Prairie Chicken | 13,874 |
| Green Building Professionals | 13,570 |
| Estate Planning Attorneys | 13,395 |
| Food Hubs and Farmers Markets | 13,348 |
| Certified Appraisers | 12,688 |
| Grant Programs | 12,269 |
| Wildlife / Habitat Specialists | 11,761 |
| Estate Planners | 11,625 |
| Conservation Real Estate | 11,575 |
| Department of Interior - Fish and Wildlife Service Programs | 11,226 |
| USDA - NRCS Programs | 10,755 |
| Biologists / Ecologists | 10,727 |
| Agritourism | 10,617 |
| Natural Resource Law Attorneys | 10,560 |
| All Others | 290,696 |
| Total | 1,183,306 |