



Wildfire Forestry: Managing National Forests with Unplanned Fire

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Introduction

Wildland fire suppression costs of the United States Forest Service have risen from \$1 billion USD in the fire season of 2012 to \$4.5 billion today, in just eight years. The actual rise in Forest Service expenditures is more than double the number projected in a 2015 Forest Service report which speculated that fire suppression costs would increase to about \$2 billion by 2026. The requested total budget for 2021 is \$4.5 billion for Wildland Fire Management (WFM) appropriated dollars including discretionary dollars and operational reserves, more than four times as much money and was needed in 2012.

At the same time, staffing in the agency has fallen from 28,800 in 2018 to 27,600 today, Expenditures are rising, staffing levels are falling, and Forest Service programs are dramatically reduced across the board due to the pressure of wildfire suppression programs, wildfire suppression operational reserves, and wildfire-related activities.

The most-costly new strategy in wildland fire suppression is the drive to use wildfire (running head fires) to manage the National Forests by widespread, firefighter-assisted, broadcast burning. Put another way, the Forest Service is using WFM dollars to perform prescribed burning at the height of the fire season and is doing so without oversight or public input of any kind. This new reality avoids environmental documentation requirements, normal smoke management guidelines, and any requirement to consult with other agencies, or the need to involve interested and affected parties. Using unplanned fire relieves the Agency of the need to use Congressional appropriations for the purposes for which they were intended.

It's easy to understand why the new policy is so expensive. During an active wildfire, the Forest Service does not have to do the environmental documentation, public involvement, records of decision, and other years-long preparatory work that applied wildfire implementation would entail. They can implement such a plan by simply bringing in thousands of firefighters who become fire-lighters and holding crews, pay them from the bottomless WFM and reserve accounts, commit hundreds of pieces of heavy equipment from dozers to fire engines, build hundreds of miles of fire lines, use hundreds of light, medium and heavy aircraft, and keep all of

those assets in the field supported by thousands of support personnel in huge artificial cities with everything from mobile motels to hot showers and high-end caterers.

The massive increase in wildfire suppression costs is inexplicable in that it is not documented as applied wildfire expenditures and not memorialized in Agency documentation. There is no legal basis for the expenditures and no environmental documentation disclosing how and why the money is being spent. By comparison, USDI wildfire suppression costs have reached a much more modest 10-year average of \$430 million in the same period. The Congressional Research Service (CRS) observed that “[the] FS did not report its 10-year suppression obligation for FY2020 since suppression appropriations are now tied to the FY2015 baseline (DOI reported its 10-year obligation average to be \$403 million).⁸⁰ This may raise concerns related to accountability and oversight of suppression spending.”

Alarming, firefighter casualties have not diminished even though the Agency claims its indirect firefighting tactics and use of unplanned fire are safer for firefighters. This claim is demonstrably not true. Putting more fire on the ground on purpose and then allowing large fires to burn unabated naturally creates many more risk factors for firefighters, from longer duration fires to more extreme fire behavior. Dr. Timothy Ingalsbee estimated that Forest Service firefighters on the Big Bar Fire on the Shasta-Trinity National Forests in northern California were responsible for burning 40 percent of the final fire footprint on purpose. This figure was controversial at the time, and a very low figure in fire operations today. Experts estimate that 60 percent of the Las Conchas fire in New Mexico was burned on purpose by firefighters. Photography of the Las Conchas fire fight by Kari Greer and multiple Instagram postings for the period bear this out and support the fact that Forest Service firefighters today are as likely to use a drip torch as a Pulaski in fire suppression work.

The Forest Service is spending more than half of its 2021 total requested budget of \$8,131,346,000 (\$8.1 billion) on fighting fire.

Unplanned Fire Use: Wildfire by Prescription

Chief of the Forest Service Victoria Christiansen gave wildland fire management direction to the field for the fire seasons of 2018 and 2019 that includes a discussion of the matter that we believe is at the heart of the massive new surge in suppression expenditures. Her direction raises ethical, legal, and accountability issues that we believe explain the out-of-control spending.

*“...we often have windows of opportunity, in accordance with our Federal Wildland Fire Management Policy, to **reinstate "the role of fire as an essential ecological process and natural change agent" by using both planned and unplanned ignitions "to restore or maintain the natural fire regime where safe and possible."** I expect us to use our decision support process in evaluating the potential for using fire under conditions where it can be done safely and effectively.*

*Whether using or suppressing fire, we remain committed to the goals of the National Cohesive Wildland Fire Management Strategy. **We will continue to create resilient natural landscapes...***” Vicki Christiansen

*“The strategy’s vision is to safely and effectively extinguish fire when needed; **use fire where allowable; manage our natural resources**; and as a nation, live with wildland fire... The FS practices sound risk management that considers all ownerships in developing and implementing **strategies and tactics that commit responders** to operations to protect values at risk and **to meet other land management objectives**... The FS is capitalizing on new authorities provided in the 2018 Omnibus Bill and using all available tools to **improve forest conditions and reduce fire risk through active management** of the 65-82 million acres of National Forest System land in need of restoration. Tools include mechanical treatments, prescribed fire, **and unplanned fire in the right place at the right time**. In 2018, the FS **reduced hazardous fuels on 3.4 million acres** of National Forest System, state, and private lands.*

Fire suppression is no longer the prime objective of Forest Service firefighting operations in fact, though it is clearly the prime objective in law. In two short letters to the field in 2018 and 2019, Chief Christiansen outlined the paradox of current Forest Service land management that is both bankrupting the Agency and resulting in policies that are burning our National Forests to ruin. The dueling aspirational objectives of 1) managing and protecting our natural resources in perpetuity and 2) using applied wildfire to achieve land and resources management are on a collision course which cannot coexist and which the Agency likely cannot survive in its role as the arbiter of multiple-use, sustained yield forest and rangeland management. The attempt is driving both dramatic increases in burned acres and spiraling costs of fire suppression, and resulting in diminished forest staffs and management capabilities. Curiously, and cynically, the acres burned each year are being counted by the Forest Service as fuels acres of accomplishment. WFM appropriated dollars have now become hard target accomplishment funds.

To add to the complexity of the Chief’s formal *carte blanche* handed to Forest Supervisors and Incident commanders to use wildfire for any purpose with unlimited budgets, there has been no Nation-wide programmatic look at the cumulative effects of using wildfire as a natural resource management tool in place of normative and systematic management including prescribed fire. In the new world of Forest Service fire suppression, letting wildfires burn to “reintroduce fire to fire depleted ecosystems” is the new norm, unaccompanied by any record of decision under the National Environmental Policy Act (NEPA), and without satisfying any of the standards for environmental documentation for major ground disturbing activities under the National Forest Management Act (NFMA). It is the Age of Blowtorch Forestry and it’s an alarming and destructive trend.

There is no extant direction in law specifically allowing the Agency to spend WFM money to manage natural resources above and beyond the purposes for which the money was appropriated:

For the purposes of the adjustment, wildfire suppression operations include spending for the purposes of • the emergency and unpredictable aspects of wildland firefighting, including support, response, and emergency stabilization activities; • other emergency management activities; and • funds necessary to repay any transfers needed for these costs.

The Chief's assertion that the Omnibus legislation and the two laws that guide it provide for the use of unplanned fire for natural resource management objectives is not supported in the language of the law(s) or in fact. She has offered no narrative otherwise.

Wildland Fire Management (WFM) account funding is "provided to the Suppression Operations program to fund the control of wildfires that originate on federal land. This includes firefighter salaries, equipment, aviation asset operations, and incident support functions in direct support of wildfire response, plus personnel and resources for post-wildfire response programs." This specifically does not include the "use of unplanned fire in the right place at the right time" to "reintroduce fire to fire depleted ecosystems."

Reintroduced Fire: A Theology of Wildland Fire Management

The impetus to use wildland fire suppression to achieve goals that cannot be achieved through normative channels comes from decades of environmental pressure from, among others, Tim Ingalsbee at Firefighters United for Safety, Ethics, and Ecology (FUSEE). Under the guise of "Ending the war on wildfire," FUSEE, the Leonardo DiCaprio Foundation, and many other "natural processes" groups have been strong proponents of letting fire play a more natural role in modern forest management. "More natural" is meant to convey a sense that fire is natural, is normative, and should be allowed to run its course across natural landscapes with certain exceptions for developed areas.

These proponents of widespread wildfire have for years pressured the Forest Service and the Interior Agencies to stop the aggressive wildfire suppression strategies first embodied in the 10 a.m. suppression policy from 1910 to 1990, and then modified suppression strategies that nevertheless focused on putting the fire out as a final outcome. In various court cases in the early 2000s and then in subsequent challenges to Forest Service policy these groups have managed to steer Forest Service wildfire suppression policy away from direct attack and full suppression and into the policy direction that we see today where fires are widely managed for multiple objectives including reintroducing fire and using wildfire to manage other resources and reduce fuels.

The thesis is that forest management is bad, that fuels reduction by timber cutting, mechanical fuels treatments, thinning from below, and that chemical applications and the like are poor substitutes for periodic fire. It follows that since periodic prescribed fire in meaningful amounts in any given year is virtually impossible to attain, the next best thing is applied wildfire. For a host of reasons, the Forest Service agrees with this premise and thesis and is putting the idea into widespread practice.

Ingalsbee and others have even coined a new term for the resulting landscapes after running head fires slick off forested areas leaving snag fields and scorched earth. They call the resulting mess a “sorrel forest” and claim it is an important ecological type in forest management. They are, of course, referring to the brush fields that now dominate much of the Boise National Forest and others, the brush fields University of Idaho Professor Leon Neuenschwander warned us about in 1993 after the 1992 Foothills Fire. “We don’t know what will replace forest burned in massive running head fires,” he told us. Ingalsbee’s cynical label of “sorrel forest” types is meant to identify and mainstream Neuenschwander’s nightmare. One has only to visit Sheep Creek in the Boise Range to understand that trees will be glacially slow to return to these burned out lands.

“We will continue to create resilient natural landscapes,” Christiansen wrote, but the resilience she may hope for is lost in the uniformly burned acreages of the Rim Fire, the Butte Fire, Sheep Creek, Foothills, Fremont, Silver and Galice and so many more since the first uncharacteristically large wildfires broke out on the Boise National Forest in 1986 at Anderson Creek, the first alarming sign of things to come.

A popular analogy among forest management practitioners is the story of the cancer victim whose husband was a believer in holistic natural medicine. When the woman was diagnosed with cancer, her husband sorrowfully informed her that it was nature’s way and they’d do what they could to make her last days meaningful and fun. The alternative, to try to use science and medical management to stem the tide of the cancer and perhaps eliminate it altogether was not an option for the purist husband. The analogy is not far-fetched. Ingalsbee and others have written off other management solutions in favor of applied wildfire, and the Forest Service, taking the path of least resistance, is following suit. Nor can we blame them. After all, writing the environmental documents and pushing the complex fire plans through the public process is a nightmare of regulations, frustrations, and opposition. Who can blame the agency for taking the easy road? As a bonus, with the help of sheriff deputies who enforce fire evacuation orders and in spite of often vehement opposition from cooperating agencies who are opposed to wildfire use but who have no power to stop it, the Forest Service can operate at will, spending whatever amount of money it deems fit for the occasion, with no oversight, no witnesses, and no questions from anyone. It is the last place in Forest Service management history where prerogatives are unlimited and their judgment unquestioned.

The argument that wildfire has a place in forestry and forest management is legitimate. It is a matter of record that we erred in ending light burning in California and in limiting widespread broadcast burning following the Big Burn in 1910. We all agree that allowing fire to play a more natural role in fire dependent ecosystems makes sense and is good policy. Florida and the Southeast is living proof that applied fire and widespread prescribed fire makes sense.

We do not agree that using running head fires to color in the lines created in Big Boxes around major wildfires in the height of fire season is the way forward. A cursory review of new research

on big fire effects reported in High Country News 16 April 2020 reiterated what we all know about running head fires that eat the canopy, sterilize the soil, and kill the trees:

Actions taken before a wildfire, including tree thinning and prescribed burns, can help mature trees survive even extremely big and hot fires. Scientists from the University of Washington and the U.S. Forest Service examined vegetation for three years following the devastating 2014 Carlton Complex Fire — one of Washington’s biggest fires. Parts of its footprint were treated with tree thinning and prescribed burns before the blaze while other parts were not, enabling scientists to study the effects of such efforts. In areas that received treatment, more mature ponderosa pines survived the fire. That may not seem surprising, but the researchers hadn’t expected the strategy to be so effective during such an extreme and long-lasting fire, said Susan Prichard, a fire ecologist at the University of Washington and lead author on the study. As huge wildfires like the Carlton Complex become more common, preparatory land management will be even more crucial. Actions like tree thinning and prescribed burns help preserve fire-resistant trees that can spread seeds for future vegetation growth after a blaze. “I really hope that our study comes off as an optimistic view of what we can expect in the future if we are proactive,” Prichard said.

Wildfire as a resource management tool

Ironically, Ingalsbee argued in 2010 that big fires were driving big costs. He rightly surmised that fire managers were unwilling to take on the risks of not being perceived to be fighting fire aggressively. This perception causes forest supervisors and incident commanders to spend whatever it took to put fires out, even when putting a fire out was not possible due to external forces including climate factors, human development, and political sentiment. He reasoned that human factors in operations were driving fire costs more than fuels or climate.

He challenged the Agency to instead confront its history of aggressive fire suppression and let fires burn where it could, saving its force for point protection, protection of the urban interface and infrastructure, and addressing what he called the “fire deficit” in Western forests. He believed this approach would save money and require fewer resources. He was wrong.

The Forest Service listened and did so as only a large bureaucratic organization listens. Without dropping any of their former strategies and tactics, with no relief on pressure points from the public and politicians, and with the full support of enthusiastic line officers and incident commanders, the Agency incorporated Ingalsbee’s ideas, published his policy paper as their own, and forged ahead with “using unplanned fire in the right place at the right time” with often catastrophic results for the suite of natural resources, from clean water to wildlife habitat, and increased risk to firefighter safety.

Without giving up any of their latitude to act aggressively to fight fire, Agency leaders constructed a new paradigm of “managed fire” on steroids, an idea that had been around since the early “Let burn” fires at Yellowstone National Park in the summer of 1970 under then-Chief Ranger Les Gunzel and applied in earnest in 1971-72 at Saguaro National Monument (Park) when wildfires were allowed to burn for weeks across the Rincon Mountains.

Instead of retooling the fire world to adopt the “use of unplanned fire,” the Forest Service adopted and incorporated the idea. Unplanned fire use,” the proverbial “Let Burn” policy of 1970, arrived to reintroduce fire to fire-deficit ecosystems and dramatically increase the complexity of an already complex wildfire picture. In just a few short years the Agency took unplanned fire use to the next level resulting in major fires like the Lolo Peak Fire at Missoula, MT and the 2018 Pole Creek and Bald Mountain Fires in Utah setting a new bar for management expectations for fire management. These fires also exposed the underbelly of the policy and signaled trouble for the Forest Service on multiple fronts.

The 2012 Flat Fire

In the summer of 2012, two small fires along a highway ignited when a lowboy carrying a Timco harvester lost a tie-down chain. The chain dragged along the road causing sparks which then caused two small fires. Three guys with a broom and a rake put out the first fire. By the time they turned to fight the second fire a Forest Service fire engine arrived. The captain jumped out, lit his drip torch, and proceeded to light the highway corridor in each direction increasing the fire size beyond immediate control. What no one knew at the time was that the 1600-acre area formed by the highway and bounded by two previous big fires was the last part of the Trinity Alps that had not burned in the past 20 years. The Shasta-Trinity National Forest decided in advance to allow any fire in that area to consume the entire acreage and they proceeded to do so on that July day, a perfect execution of wildfire use preplanning.

As it turned out, burning conditions were not optimal. High relative humidity and sparse vegetation meant the fire would not cooperate. The Type 2 Incident Command team with orders to burn out the 1600-acre island would take extraordinary actions to complete the assignment. Using dozens of aircraft including helicopter-borne aerial drip torches, the team elected to doggedly burn, prepare defensive lines, and burn again, day after day. At one point the burn-out operation on the east flank escaped and burned over a fire engine doing significant damage to the vehicle and threatening the crew.

The fire might have gone unnoticed except that the Forest Service, in keeping with its experience with “enhanced cost recovery” on the Geysler, Copper, and Moonlight Fires in California, decided to charge the two companies that allegedly started the fire with fire trespass and negligence and issued a \$12.6-million-dollar fire suppression and natural resource damage bill for payment, about \$500,000 per mile of fire line. The companies decided to fight.

The Forest used a fire that might otherwise have been expected to cost a few hundred thousand dollars to meet their predetermined natural resource objective by using appropriated

WFM dollars to achieve prescribed fire results. In addition, using the newly applied developed Habitat Equivalency Analysis (HEA) protocols developed by Robert Unsworth, Industrial Economics, Inc., the Forest Service claimed over \$7-million dollars in wildlife habitat loss. Later analysis confirmed that the fire was, indeed, an almost perfect low-intensity burn that improved wildlife habitat, achieved effective fuels reduction, and markedly improved forest health. The Forest Service should have paid the companies for the great work. The Agency took credit for the acres of fuels reduction in any event.

Faced with a determined legal defense and aware that all of the issues related to using “unplanned fire” and WFM dollars to do project work would be aired at trial, the Forest Service opted to settle the case just before trial in Sacramento. This has been the pattern across the West as the new policy begins to impact private property owners, municipalities, and water districts, among others.

The Lolo Fire at Missoula, Montana demonstrated another problem with the new fire use model; opting to use an extended indirect attack by building a big box around the fire and burning out from roads and private property, the incident commander caused millions of dollars of damage to well-managed private forest lands in an attempt to reintroduce fire to poorly managed federal lands. The Agency was required to consult with affected landowners but did not do so. To the contrary, firefighters ordered landowners to evacuate for many days and then used their well-managed private lands as anchor points for burning operations. There was no recourse for private property owners who were left with burned-out forests and widespread damage. The intense push back gave the Agency a black eye with the state, which had opposed the big box burn, and with locals who no longer trust firefighting objectives or the leaders who promote them.

A lighting strike on mount Nebo near Spanish Fork, Utah on September 6, 2018 looked like a perfect opportunity to use the new unplanned fire use direction to burn a big area of the Wasatch Front. Firefighters hiked to the fire, a smoldering log burning in a light rain, and decided to let it burn. The fire would roar to 120,000 acres incurring \$30 million in suppression costs, \$20 million in State recovery expenditures (and counting), and over \$40 million in tort claims for damages caused when fire officials decided to allow the Bald Mountain and Pole Creek Fires to burn. While they were within their delegated authority according to their understanding, they were nevertheless responsible for damages resulting from their decisions.

The Forest Supervisor in his Facilitated Learning Analysis admitted that the State of Utah vehemently opposed his decision to let the fires burn. He also allowed that he had not appropriately involved interested and affected parties to weigh in on his decisions. He said his objectives were “aspirational,” that he hoped to do the right thing by reintroducing fire to fire-depleted ecosystems, reduce fuels, and protect firefighters through indirect action. He took this action even though weather predictive services called for several days of red flag warnings. He said he and his people had never seen anything like the fire year of 2018, that weather and fuel moisture were out of norms, that the rain fooled him into thinking he’d have a nice, low-intensity, fall, prescribed wildfire. He also averred that the pressure to perform to the new

expectations for using unplanned fire had an effect. He had made similar decisions for several years with no problems. Oddly, he also concluded that if he had just done a better job of explaining his intent with his “red/green” maps that predisposed areas of the forest to applied wildfire, the State and local residents would have supported him. Anger in the community and distrust by the State still dominate discussions of the fire two years later.

In each case, push back from people with no voice in fire management but with strong private interests brought the unplanned fire use to a halt and forced the Agency to settle major claims. While some of these claims are on-going, the outcomes seem certain. In no case since the 2012 Flat Fire on the Shasta-Trinity has the government pursued its claims for fire trespass when faced with court action.

In each case, the use of appropriated dollars to do things other than fight fire and to achieve objectives other than those specified in the law is highly questionable. The authors assert that it is not proper or legal. While the Forest Service claims that they are covered under new provisions of the Omnibus Bill, they do not have a coherent narrative or any formal record that explains or supports their position. There is no programmatic or site-specific document that supports their actions, either Nation-wide or site specifically.

The Need for Environment Documentation of Major Federal Actions

At the heart of NEPA and NFMA is the requirement to disclose to the public the expected environmental consequences of major federal actions in land management and project implementation. Unique among major Forest Service management programs, the use of unplanned fire in the right place at the right time is a ghost policy, a program so veiled in secrecy as to be invisible, even to Congress. There is no written record of how it came into being, how it is being implemented, by what rules, delineating specific standards and guidelines, and having passed muster with the public participation processes required by law.

In the years since we began various administrative and legal activity to challenge the practice, or at the very least to have the Forest Service show cause about why it should continue, the environmental consequences of the policy, and actual and expected cumulative outcomes of widespread applied wildfire, a few Forest units have begun desultory environmental assessments with Findings of No Significant Impact (FONSI) and little public process. People who protest the actions are told to take it to court. The Agency has no interest in pursuing the matter and is cynically preparing documentation only when challenged, and then only to minimal legal requirements.

It's understandable. After 40 years of non-stop forest planning most Forest Service personnel are burned out by the egregious and outrageous exigencies of land management planning. The process is soul-destroying. Multiple cases of post-traumatic stress disorder have resulted in staff subjected to the endless and hopeless process for several decades at a time. Of all the government requirements of public service in the Modern Age, none is more depressing than to be caught in the inertia and obstructionism of forest planning. Environmentalist interests have

made it so, and the government impulse to play by the rules has exacerbated things. Government lawyers rarely support government personnel in legal actions, preferring to surrender to the squeaky wheels rather than defend the professional staff.

Against this difficult and uneven history of stop-and-go forest planning since 1980, it is little wonder that Agency personnel are not anxious to do public fire planning. Additionally, professional fire personnel are no longer suited to the complexities of NEPA/NFMA planning. The days when natural resource professionals integrated fire into forest management are long gone and, with them, the corporate knowledge to be able to do the work and achieve a reasonable outcome in a reasonable time with desired outcomes. Firefighters today have created an independent kingdom or stove-piped organization of professionals divorced from normative Agency legal requirements and oversight and answerable only to themselves.

Following the Los Alamos fire of 2000 that threatened the National Laboratories and burned several hundred homes in Los Alamos, the Nation entered a new wildfire management phase. The Agency turned once again to heavy-handed aggressive tactics designed to placate the political world and capitalize on their newfound “first-responder” popularity after years of banging their heads against the singularly dissatisfying work of rational strategic planning. Suddenly, the major fires of the previous decade, combined with an increasing passion for fighting human-caused climate change, handed fire leaders the key they needed to vastly increase the fire industrial complex and build new stove-piped fire organizations hiding in plain sight and able to accomplish anything, anything at all, with little meaningful oversight.

Led by Tom Harbor, a famous California fireman who had already started the move to a CalFire-like professional staff apart from the usual Forest Service programs, and abetted by Jim Hubbard, an affable outsider who supported Tom completely and who brought in another firefighter, Victoria Christiansen, to be his assistant, the new fire organization grew to dominate the Agency budget and, then, Agency leadership. Today, the natural resource-centric agency based on multiple-use sustained yield principles and dedicated to the greatest good in the long run has surrendered to a new regime dedicated to the dominance of applied wildfire as the overarching natural resource management strategy.

The reasons for this are straightforward. Wildfire is such a consuming problem for the Forest Service that solving the annual wildfire dilemma is the first priority if the Agency is to remain relevant. A corollary to this idea is that wildfire dominance is the only real ground the Forest Service can cling to that keeps it from being subsumed under the Interior Department, a perennial effort by Administrations on both sides of the aisle. By becoming a professional and dominant wildland fire department, The Forest Service assures its place as a unique and irreplaceable organization, too big and complex to fail, with some other natural resource management duties as assigned.

In discovering and then embracing using unplanned fire in the right place at the right time, a marvelous construction of assumed bureaucratic power that allows agency leaders to decide whatever they want to do, wherever they want to do it, the Forest Service meets two

objectives: 1) their leadership in wildfire management in Western Forests remains unchallenged and, 2) they are under no obligation to participate in onerous strategic planning exercises that have proven so disastrous for Forest Service programs. Applied wildfire is a perfect bureaucratic solution to what ails the Forest Service. Applied wildfire has the added benefit of keeping the Agency front and center in the public eye and in Congressional appropriations. At its heart the Forest Service is a white hat agency and they know it. People want them to succeed and are willing to pay to make it happen.

Lost in the machinations and *Weltpolitik* of Forest Service policy and practice is the intent of the various public participation and oversight Acts designed to daylight agency activities and hold people to account.

Burning millions of acres of public forestlands and grasslands on purpose at the height of fire season, and doing it by using billions of dollars of public funds without Congressional oversight or public participation, is by definition a major federal action that requires full disclosure.

Conclusions

The fire agencies are moving to permanently memorialize the institutional change to full-time fire departments, a paradox that is lost on senior leaders. “Forest Service Chief Vicki Christiansen said yesterday the agency is seriously considering turning its seasonal firefighting force into a full-time operation, surrendering to the year-round nature of wildfire in a changing climate...During lulls in wildfires, a full-time fire force could work on forest maintenance and other priorities, Christiansen said.” They cannot be both firefighters and project crews under current law, policy, and regulation. Their funding would come from WFM which is suppression focused. Project work would have to come from separate appropriated funds, the same funds that are so dramatically diminished because of wildfire suppression spending. The full-time fire service would spend a lot of time polishing fire engines and inventing fancy uniforms.

Many of us in forestry-related pursuits and industries have, for many years, been unsettled by both the pace and magnitude of evolving wildfire policies. Most of us who dedicated our lives to natural resource conservation are deeply offended by the wanton destruction of forests and all that forests represent by what appears to be out-of-control and unaccountable Agency actions that are so at odds with perpetuating natural resources for human use and sustainable wildlife habitat. The current practices look like surrender to some strange new religion, a theology that holds that fire is good, period, and needs to be applied to a sinful and backward land and people to purge the past and bring on a new fire-dominated order whose purposes are unknown or poorly understood. Are we lighting fire for fire’s sake? It seems so.

We are appalled by the sophistry of “unplanned fire use” and “fire-depleted ecosystems” and angered by the outrageous costs in treasure and blood, and the programs and infrastructure foregone as we feed the Wildfire Dragon that now dominates the halls of the Forest Service even as Smaug dominated the halls of Erebor under the Lonely Mountain. We are looking for a dragon slayer, or, at least, a reasonably qualified burglar, or just an explanation for why the

dragon lives there and what the plan is for the dragon. Dragons create havoc and must be controlled.

It's telling in this year of the terrible Corona virus pandemic that the Forest Service is being reined in by those in Congress who suspect that "managed fire" is not financially or environmentally sustainable. They have extracted a promise from Chief Christiansen that she will return to the 10 a.m. policy for now, at least for this season, so that interactions between firefighters, contractors, concessionaires, and the public will be minimized. These Congressmen reason that, without the usual use of prescribed killing wildfires, fire season will be shorter, damages will be less, and fewer resources will be required to put fires out. It will certainly cost less money to feed the Wildfire Dragon. They are probably right. Key staff at NIFC are alarmed that the new "aggressive fire suppression" focus will be applied with Draconian intensity with no room for indirect attack under any circumstances. Field commanders will no doubt take appropriate action to fight fire aggressively while providing for safety first. The policy pendulum swings widely in crisis as expected. Firefighters on the ground will continue to bring common sense to firefighting but aggressive fire suppression as was practiced in the 1970 fire season is to be expected and is welcome if for no other reason than to reset the clock, test how far managed fire has driven the agency from its roots, and show what can happen when fires are suppressed and forest management is accomplished separately with project management.

In her last letter on the subject at this writing, Chief Victoria Christiansen spelled out competing and diametrically opposite priorities shaped in part by Agency desires and energies and in part by outside pressure and expectations. Her priorities are a declaration that Forest Service fire plans will move forward with or without other partners "where priorities differ." Most state foresters and most Interior agencies do not support the Forest Service's applied wildfire aspirational objectives. Most fear it and rightly do not understand it. They have seen the outcomes and the wreckage of this cynical experiment. They know they do not have the vast bureaucratic structure, plausible deniability, or federal protection to weather the storms that would surely come if they joined the Chief in her quest to institutionalize wildfire forestry.

With this in mind, I issue this direction to ALL employees. Each of you has a role to play in carrying out our key agency priorities of reducing wildfire risk and improving forest conditions. As you continue to focus on work that delivers successes in these priority areas in 2019, these principals apply: We will maintain our commitment to improve the wildland fire system to one that more reliably protects responders and the public, sustains communities and conserves the land. We will be responsible for ensuring sound, risk informed decision making that takes into account the best science available and most appropriate use of the right tools at the right time. We will engage early with our partners and communities to strengthen relationships even where priorities may differ, to ensure we are sharing risk before fires start, to work towards achieving our shared goals and missions. We will use active management that focuses on wildfire risk reduction, forest products and

restoration, engaging in cross-boundary collaboration to set landscape-scale treatment priorities with our partners. We will also use wildland fire to achieve desired ecological conditions where possible and where it makes sense, setting that intention together with our partners. We recognize we work in complex environments and the importance of continuing to be committed to the goals of the National Cohesive Wildland Fire Management Strategy: safe and effective wildfire response, creating resilient landscapes, and working toward fire adapted communities. The Strategy's Vision is to safely and effectively extinguish fire when needed; use fire where allowable; manage our natural resources; and as a nation, live with wildland fire.

Victoria may well ask herself how she can conserve the land while creating her version of “resilient landscapes,” sorrel forest types of vast brush fields where trees do not grow. She may contemplate what it means to “share risks” with unwilling partners like the State of Utah when it’s time to let fires burn into Utah towns on the Wasatch Front. How will she “improve forest conditions” while burning those same forests to ruin in killing head fires with the stated goal of improving forest diversity, knowing that killing wildfires in high summer create monocultures, vegetative site conversions, and reduced biological diversity. How, she might wonder, would allowing major fires to burn, and adding to the fires by intentionally burning even more, “achieve desired ecological conditions?” Is it possible to have the one with the other in such huge portions? Most timber producers don’t think so. Most State natural resource agencies don’t think they can stand the losses in precious natural resources. The terrible tension between these competing ideas is tearing apart the very fabric of Gifford Pinchot’s vision for sustainable forests.

The ghost program that Chief Christiansen champions is a money-spending machine on steroids. Half of the current fire suppression budget of \$4.5 billion is spent on “using unplanned fire at the right place at the right time.” There are no figures for comparative analytics, but our research into specific fires reveals this pattern of excessive and unaccountable-spending to support a program that is essentially off the grid. Congress doesn’t know how it works and how it’s being implemented. Forest Supervisors can’t tell you what the implications are for their own forests, never mind the Agency as a whole. It’s a perfect bureaucratic solution for the thorny problem of how to “manage fire” and achieve very narrow program goals without consequences and without oversight.

Whatever her answers, they should be written down, revealed, disclosed in the full light of day so that all Americans may judge whether the cure is worth the cost. “We will continue to create resilient natural landscapes,” the Chief wrote last year. Perhaps sorrel brush fields are resilient in their own way, in some fashion, but certainly not in an acceptable way to most Americans who think that living breathing forests and rangelands are the real objective.

Christiansen’s admonition that “Communities and residents must take responsibility to prepare for wildfire” ignores the often-catastrophic impacts of applied wildfire to private and public

property. After all, communities cannot take responsibility for actions perpetrated by federal firefighters when they can neither understand the policy nor provide any input to the process or any guidance to affect outcomes. The Forest Service is imposing wildland fire on communities and individuals in ad hoc decisions taken with aspirational objectives, the end results of which have never been quantified or disclosed.

For the foreseeable future, unplanned fire use without legally disclosing cumulative effects and in the face of opposition from every major partner is a losing proposition. The misapplication of appropriated dollars and counting wildfire burned acres as targets met are neither legal nor desirable practices. The Agency is bleeding treasure and wreaking havoc among the people it needs the most for continuing support. Not least among these are the increasingly disheartened Agency staff and angry retiree communities.

This is a good year to step back and take a hard look at what's happening and why, and what the outcomes will be, who pays, and the exit strategy from this long and protracted war on wildfire that has morphed into a war on natural resources for wildfire's sake.

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References and selected text:

Author notes and comments in orange. Author text highlights in red.

- Victoria Christiansen: Letter of 20 April 2018

As you know, we manage many landscapes that evolved with fire. Our first priority is to protect the people and communities we serve from wildfire. However, we often have windows of opportunity, in accordance with our Federal Wildland Fire Management Policy, to reinstate "the role of fire as an essential ecological process and natural change agent" by using both planned and unplanned ignitions "to restore or maintain the natural fire regime where safe and possible." I expect us to use our decision support process in evaluating the potential for using fire under conditions where it can be done safely and effectively.

Whether using or suppressing fire, we remain committed to the goals of the National Cohesive Wildland

Fire Management Strategy. **We will continue to create resilient natural landscapes**, help build fire-adapted communities, and respond safely and effectively to wildfire based on risk analysis for all ownerships. We will extinguish fire where we must, use fire where we can and as a nation, learn to live with wildland fire.

By passing the omnibus bill of 2018, Congress has given us more of the means we need to succeed as wildland fire managers. A fire funding fix will take effect in fiscal year 2020, ending the disruptive transfer of funds from nonfire programs to cover firefighting costs while also stopping the erosion of our nonfire programs due to **soaring suppression budgets**. Passage of the omnibus bill is a measure of the trust that Congress and the administration have placed in the Forest Service. I expect each of us to earn that trust by continuing to protect lives and property while also restoring balance to our program delivery on behalf of the people we serve, in part by finding more efficient and effective ways to get our work done.

I am proud of our employees and the work we do in meeting the wildland fire challenges we face. As each of you uses or suppresses fire, **I expect you to engage with our partners and our communities early and often** to ensure that we are effectively managing risk and working together to achieve common goals.



- Vicki Christiansen direction to USDA Forest Service (FS): 2019 Fire Year Key Messages

*The FS remains committed to the goals of the [National Cohesive Wildland Fire Management Strategy](#), which seeks to create resilient landscapes, fire adapted communities and safe and effective wildfire response that bases decisions on risk analysis for all ownerships. The strategy's vision is to safely and effectively **extinguish fire when needed; use fire where allowable; manage our natural resources; and as a nation, live with wildland fire.***

Safe and Effective Wildfire Response

*The FS shares stewardship of the wildland fire environment, ownership of the challenges it presents, and a commitment to meeting those challenges with federal, state, tribal, and local partners who work together in an “all lands, all hands” approach to respond to wildfires safely and effectively while respecting all ownership values.

*Firefighter and public safety is the number one priority for the FS in wildfire response. The FS practices sound risk management that considers all ownerships in developing and implementing strategies and tactics that commit responders to operations to protect values at risk and **to meet other land management objectives** only when and where they can be successful while maintaining relationships with the communities we serve.

*Response to wildfires in specific fire sheds is based on dialogue and agreements with partners and stakeholders, local Land Management Plan guidance, FS fire year direction, and sound risk

management that considers values at risk, including exposure of responders; fuel and weather conditions; availability of wildfire management assets; probability of success, and; other factors.

*Managing wildfires is inherently complex and challenging and compounded by many factors, including longer fire seasons, rising size and severity of wildfires, and expanding risk to communities, natural resources, and firefighters.

*The FS is ready to lean forward together to respond to wildfires in 2019. This year, the agency has more than 10,000 firefighters, 900 engines, and hundreds of aircraft available to respond to wildfires. Federal, state, tribal, and local partners have additional assets available in all categories. The FS has taken action to ensure that the agency's wildland fire organization is ready to respond to the 2019 fire year in light of the government shutdown, such as maintaining close ties with partners, completing the hiring of wildland fire employees, and rescheduling training.

*FS programs help enhance wildfire and emergency response of state and local fire departments by providing them with free equipment and supplies from the Department of Defense.

*The FS works closely with other federal and state partners to predict and mitigate smoke impacts on individuals and communities during wildfires.

USDA Forest Service (FS) 2019 Fire Year Key Messages (continued)

Resilient Landscapes

*The FS is working closely with states and other stakeholders to implement USDA's Shared Stewardship Strategy and President Trump's Forest Management Executive Order by enhancing efforts to reduce wildfire risk to communities and landscapes. The agency, states, and other stakeholders are using the most advanced science tools to identify and implement the most effective strategies to reduce fire risk across jurisdictional boundaries in the long term.

*The FS is capitalizing on new authorities provided in the 2018 Omnibus Bill and using all available tools to improve forest conditions and reduce fire risk through active management of the 65-82 million acres of National Forest System land in need of restoration. Tools include mechanical treatments, prescribed fire, and unplanned fire in the right place at the right time. In 2018, the FS reduced hazardous fuels on 3.4 million acres of National Forest System, state, and private lands.

*The FS prioritizes preparations for hazardous fuels reduction treatments to be ready to execute them when weather conditions are right. The FS will take advantage of favorable weather conditions as they occur to conduct as many hazardous fuels treatments as possible before the 2019 fire year intensifies.

*Lands the FS manages often have vegetation and wildlife habitat that require fire to remain healthy and functioning watersheds. On forested lands, up to 60 percent more of the landscape burned historically than now, especially in the West. To diminish the “fire deficit” and thereby mitigate fire risk, the FS and partners will need to step up the use of prescribed fires and managed wildfires in concert with mechanical treatments. Working with partners and stakeholders, the FS can find opportunities in fire adapted forests to reintroduce the right kind of fire at the right time in the right places to achieve desired ecological conditions.

*In 2018 over 1,200 hazardous fuels treatments on National Forests and Grasslands were tested by 240 different wildfires. Post-fire evaluations indicate that 75% of these fuel treatments were effective in reducing fire behavior which translates into increased firefighter and public safety, better fire control options for firefighters, and reduced damages and losses from wildfires.

*The **USDA Forest Services’ investments in hazardous fuels reduction, wildfire response,** wildfire prevention, community mitigation and other efforts not only protect our nations forests, but also help our partners from other federal, state, tribal, and local governments [with or without their consent] achieve our common goals of creating communities and landscapes that can better withstand wildfire, and provide for safer, more effective wildfire response that results in fewer damages and losses from wildfire regardless of where those fires might occur.

*reference [NIFC 2018 Wildland Fire Summary](#)

*Years of research confirms that hazardous fuels reduction treatments result in better fire suppression outcomes and help firefighters in their response efforts. Assessments of more than 4,000 interactions between wildfires and treated areas since 2006 indicate that fuels treatments are effective in reducing fire behavior about 80% of the time.

USDA Forest Service (FS) 2019 Fire Year Key Messages (continued)

*Mechanical treatments coupled with prescribed fires with minimal, short term impacts to air quality can help prevent future severe unplanned wildfires under unpredictable conditions with smoke that may pose significant risks to public health and safety.

*The FS capacity to conduct hazardous fuels reduction treatments will expand in Fiscal Year 2020 when the fire funding fix Congress passed in 2018 takes effect. The FS budget will become more stable, freeing up funds to help accomplish critical on-the-ground work to increase forest health and resilience, as well as protect lives, communities and resources.

Fire Adapted Communities

*The FS helps communities reduce wildfire losses by working with them to reduce community wildfire risk within the Wildland Urban Interface before large scale fire events occur, preparing our public in advance, and working together for a more collaborative response.

*Wildfires destroyed a total of nearly 26,000 structures in 2018, including more than 18,000 residences. This is more than double the previous record in total structures lost over the last 20

years. Research has shown that reducing a structure’s vulnerability to ember intrusion, known as “structure hardening,” is the most effective way to reduce risk to structures.

*The FS works in partnership with national, regional, state, tribal, and local government and non-government organizations to achieve cross-boundary wildfire risk reduction. The biggest challenge to wildfire risk reduction is local capacity to promote and accomplish risk reduction projects on the ground.

*Communities and residents must take responsibility to prepare for wildfire.

*Reducing the loss of lives, property, infrastructure, and natural and cultural resources from wildfires depends on long-term, sustainable collaborative community actions for fire adaptation: structure hardening and defensible space, local fire protection resources, prevention education, safe zones, hazardous fuels reduction in and near communities through collaborative partnerships.

*FS Community Mitigation Assistance Teams (CMAT) take advantage of smoke in the air or high wildfire risk periods to work locally with cross-boundary partners to build sustainable mitigation efforts at times when awareness of the need for mitigation is high.

*Nationally, nearly nine out of ten wildfires are human-caused through debris burning, equipment sparks, campfires, and other means. Information about preventing human caused wildfires is available on the Smokey Bear [website](#).

- [Congressional Research Service \(CRS\) https://fas.org/spp/crs/misc/R45696.pdf](https://fas.org/spp/crs/misc/R45696.pdf)

This report summarizes and analyzes selected forest management provisions enacted in the 115th Congress and compares them with prior law or policy. These provisions were enacted through two legislative vehicles: • The Stephen Sepp Wildfire Suppression Funding and Forest Management Activities Act, enacted as Division O of the Consolidated Appropriations Act, 2018 (P.L. 115-141, commonly referred to as the FY2018 omnibus) and signed into law on March 23, 2018.2 • The Agricultural Improvement Act of 2018 (P.L. 115-334, Title VIII), signed into law on December 20, 2018. This law is commonly referred to as the 2018 farm bill.

- USDA Forest Service: The Rising Costs of Wildfires <https://www.fs.usda.gov/sites/default/files/2015-Fire-Budget-Report.pdf>
- CRS - Congressional Research Service <https://crsreports.congress.gov> R45696

Page 20. Within FS’s and DOI’s respective Wildland Fire Management (WFM) account, funding is provided to the Suppression Operations program to fund the control of wildfires that originate on federal land.⁷¹ This includes firefighter salaries, equipment, aviation asset operations, and incident support functions in direct support of wildfire response, plus personnel and resources for post-wildfire response programs.

Overall appropriations to FS and DOI for wildland fire management have increased considerably since the 1990s. A significant portion of that increase is related to rising suppression costs, even during years of relatively mild wildfire activity, although the costs vary annually and are difficult to predict

For the purposes of the adjustment, wildfire suppression operations includes spending for the purposes of • the emergency and unpredictable aspects of wildland firefighting, including support, response, and emergency stabilization activities; • other emergency management activities; and • funds necessary to repay any transfers needed for these costs.

Page 21. The wildfire funding fix raises several potential concerns for Congress. As one example, FS did not report its 10-year suppression obligation for FY2020 since suppression appropriations are now tied to the FY2015 baseline (DOI reported its 10-year obligation average to be \$403 million).⁸⁰ This may raise concerns related to accountability and oversight of suppression spending. Another concern may be that the FY2015 baseline and the annual adjustment limits are not tied to any inflationary factors. Further, the wildfire funding fix is a temporary procedural change for how Congress funds suppression operations and does not address a variety of other concerns related to suppression costs, such as improving suppression cost forecasting, evaluating the effectiveness of suppression methods, or addressing any of the drivers of increasing suppression costs, among other concerns broadly related to wildland fire management.

- USDA Forest Service: 2021 Budget Justification, Explanatory Notes

Forest Service Priorities

Page 1. The Forest Service is focused on maximizing results and outcomes to meet USDA Strategic Goal 6: “Ensuring Productive and Sustainable Use of our National Forest System Lands.” The FY 2021 Budget request prioritizes investments in risk-based wildland fire management and in improving forest conditions.

Implementation includes the development of a common operating picture of all fire resources through data capture and systems development and will significantly increase accountability for how the agency uses assets and spends budgetary resources. A common operating picture will allow the agency to monitor, analyze, and evaluate how tactical decisions and resource utilization influences incident outcomes. This information will create a feedback loop, allowing the agency to learn where, when, and how resources are most effective.

Page 1. Risk-based Wildland Fire Management

The Risk Management Assistance framework provides for a holistic and integrated approach to incident response and decision-making beginning in the planning cycle. This new approach, developed in concert with State, local, and county partners to increase the decision space for

fire managers and to provide line officers with more opportunity to influence incident outcomes.

Page 2. Improving Forest Conditions

Active management tools, including the Good Neighbor Authority, timber harvests, stewardship contracts, and planned and unplanned wildfire ignitions, will be used to treat 3.5 million acres to reduce hazardous fuels and increase the pace and efficiency of improving forest conditions by selling 4 billion board feet of timber in support of the President’s Executive Order 13855 - Promoting Active Management of America’s Forests Rangelands and Other Federal lands. These investments will increase the agency’s ability to do the right work in the right places at the right scale. The Forest Service will also build coalitions of stakeholders that support investments to reduce risk and improve forest conditions.

Page 3. Statutory Program Authorization

The State and Private Forestry program is authorized in part by the Cooperative Forestry Assistance Act of 1978 (16 U.S.C. 2101 et seq.). The purpose of the program is to help sustain State and private forests and provide support to keep working forests intact. Through coordinated efforts in management, protection, conservation education, and resource use, the program helps facilitate sound stewardship of lands across all ownerships, on a landscape scale, producing ecological, social, and economic benefits for the American people.

The Wildland Fire Management program is authorized in part by the Organic Administration Act of 1897 16 U.S.C 551). The program’s purpose is to protect life, property and natural resources on the National Forest System and 20 million acres of adjacent State and private lands. The program ensures timely, appropriate, risk informed, and effective response operations to all wildland fires.

Page 4. Audits currently in progress:

In-Progress Forest Service GAO Reports

102653 Wildland Fire Fuel Management Activities Audit fieldwork in progress

103305 Chetco Bar Fire Audit fieldwork in progress

In-Progress Forest Service OIG Reports

08601-0011-41 Forest Service Use of Settlement Funds Audit

Page 5.

Wildland Fire Management 2020 Enacted\$2,350,620,000

2021 Request

\$11,668,215 27,631

Page 91. Total Wildfire

2018 Actual

4,011,455 11,605

2019 Actual

3,588,937 10,515

2020 Enacted

3,496,861 10,487

2021 Request

3,899,306 10,487

Page 93. Increased funding of \$7.5 million for the Risk Management Assistance framework will enhance line officer capacity to make risk-informed wildfire response decisions by providing training and exploring, planning, and making initial progress on new technologies and analytical products being developed. The Risk Management Assistance framework provides for a holistic and integrated approach to incident response and decision-making beginning in the planning cycle. The framework is developed with State, local, and county partners and is leveraged to create operational tools that increase the decision space for fire managers and provide line officers with more opportunity to influence incident outcomes. [This deeply cynical assertion is not supported by the facts. The State of Utah opposes increased decision space for fire managers and regret line officer influence that resulted in the 2018 Pole Creek Bald Mountain Fires, for example, yet the policy continues without State or Federal Interior agencies' support] Increased funding will be utilized to develop Risk Management Assistance frameworks and provide the data analytics support to leverage tools for decision-making.

Page 94. Suppression: **The Suppression program** is the primary funding source for wildfire extended attack suppression response and large fire support. The Suppression program allows the Forest Service to maintain a strong emergency response role, working alongside other Federal, state, tribal, and local government partners to protect life and property in suppression response operations. In addition, **this program helps improve forest conditions and maintain resilient landscapes by managing naturally ignited, unplanned wildfires to accomplish resource management goals.** Over the last 10 years, across all jurisdictions, an average of more

than 64,000 wildfires burned about 6.9 million acres of Federal, Tribal, State, and private land and more than 4,600 structures. Of these wildfires, about 85 percent are human caused. The cost of suppression varies greatly between fires based on a variety of factors, including fuels, weather, and topography. (Division O of Public Law 115-141)

- DIVISION O—WILDFIRE SUPPRESSION

FUNDING AND FOREST MANAGEMENT ACTIVITIES ACT

SEC. 101. SHORT TITLE.

This division may be cited as the “Wildfire Suppression Funding and Forest Management Activities Act”.

[What part of this legislation gives authority to use Wildland fire at the right place in the right time as a natural resource management tool?]

Congress provides discretionary appropriations for wildland fire management to both FS and DOI through the Interior, Environment, and Related Agencies appropriations bill.⁶⁹ Funding for DOI is provided to the department, which then allocates the funding to the Office of Wildland Fire and four agencies—BLM, the Bureau of Indian Affairs, the National Park Service, and the U.S. Fish and Wildlife Service.⁷⁰ Within FS's and DOI's respective Wildland Fire Management (WFM) account, funding is provided to the Suppression Operations program to fund the control of wildfires that originate on federal land.⁷¹ This includes firefighter salaries, equipment, aviation asset operations, and incident support functions in direct support of wildfire response, plus personnel and resources for post-wildfire response programs. If their suppression funding is exhausted during a fiscal year, FS and DOI are authorized to transfer funds from their other accounts to pay for suppression activities; this is often referred to as *fire borrowing*.⁷²

- https://www.everycrsreport.com/reports/R45696.html#_Toc6416109

Overall appropriations to FS and DOI for wildland fire management have increased considerably since the 1990s. A significant portion of that increase is related to rising suppression costs, even during years of relatively mild wildfire activity, although the costs vary annually and are difficult to predict. FS and DOI frequently have required more suppression funds than have been appropriated to them. This discrepancy often leads to fire borrowing, prompting concerns that increasing suppression spending may be detrimental to other agency programs. In response, Congress has typically enacted supplemental appropriations to repay the transferred funds and/or to replenish the agency's wildfire accounts. Wildfire spending—like all discretionary spending—is currently subject to procedural and budgetary controls. In the past, Congress has sometimes—but not always—effectively waived some of these controls for certain wildfire spending. This situation prompted the 115th Congress to explore providing wildfire spending outside of those constraints, as discussed below.

The wildfire funding fix raises several potential concerns for Congress. As one example, FS did not report its 10-year suppression obligation for FY2020 since suppression appropriations are

now tied to the FY2015 baseline (DOI reported its 10-year obligation average to be \$403 million).⁸⁰ This may raise concerns related to accountability and oversight of suppression spending. Another concern may be that the FY2015 baseline and the annual adjustment limits are not tied to any inflationary factors. Further, the wildfire funding fix is a temporary procedural change for how Congress funds suppression operations and does not address a variety of other concerns related to suppression costs, such as improving suppression cost forecasting, evaluating the effectiveness of suppression methods, or addressing any of the drivers of increasing suppression costs, among other concerns broadly related to wildland fire management.

FS's authority is derived primarily from its responsibilities to:

- protect the NFS from destruction as specified in the Organic Administration Act of 1897;⁸⁶
- manage the national forests for multiple use and sustained yield as specified in MUSY; and
- maintain forest conditions designed to secure the maximum benefits and provide for a diversity of plant and animal communities as specified in the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended by NFMA.⁸⁷

Issues for Congress to consider: For example, the Forest Service has identified around 52-58 million acres of NFS lands at high or very high fire risk or insect infestation and in need of restoration treatments.¹⁵⁴ **FS reports that they accomplish around 2-6 million acres of treatments annually.¹⁵⁵** [This number includes end-of-season tallies of wildfire acres burned as fuels treatment targets according to NIFC sources] At that pace, it would take at least 9 but possibly up to 29 years to eliminate the backlog of treatment needs, and that does not account for maintaining already treated areas to the desired resource conditions. Some estimate that hazardous fuels are accumulating three times faster than the rate of treatment.¹⁵⁶ To address these concerns, FS has proposed to increase the scale, scope, and implementation of forest management projects generally, and forest restoration treatments specifically.¹⁵⁷ *[Includes wildfire acres burned as accomplishments? reported after the fire season in a WO summary]

- Ingalsbee, Timothy. FUSEE Getting Burned: A Taxpayer's Guide to Wildfire Suppression Costs 2010

Part of the reason suppression costs are rising is because wildfire activity is increasing, especially the frequency of large-scale wildfires. Large fires account for less than 2% of all wildfires but consume 94% of total suppression costs. Despite huge increases in money, resources, and personnel being devoted to fire suppression, the number of burned acres continues to increase. While currently 6-8 million acres defines a "bad" fire season, experts predict an average 10-12 million acres will burn annually in the near future primarily under the impact of global warming. Suppression costs are increasing due to several reasons that can be categorized according to socioenvironmental, institutional, and operational factors. The most popularly cited reasons for rising suppression costs are the socio-environmental factors of excess

fuels accumulations caused in part from past fire suppression, expansion of housing development in the wildland/urban interface (WUI), and climate change from global warming fueled primarily by human-caused fossil fuel burning. Of these three, climate change is the dominant factor affecting increased wildfire activity and fire size due to its effect on weather and vegetation and length of wildfire season. Next to total fire size, the presence of private property or human structures in the vicinity of wildfires is the other factor most affecting the rise in suppression costs. Fire managers speculate that up to half of total suppression expenditures are related to private property protection in the WUI. Over 44 million homes in the U.S. are currently located in fire-prone WUI areas, but the Forest Service predicts a 40% increase in new homes in the WUI by 2030 which some studies estimate could raise annual suppression costs from \$2 to 4 billion. Among the institutional drivers of rising suppression costs are the budgetary structure for the Forest Service that authorized deficit spending for suppression operations. This has nurtured an “open checkbook” attitude among managers to order whatever resources or actions they desire regardless of cost, and this inhibits efforts to contain costs. Worse, some critics argue that the budget system with authorized deficit spending has set up a system of “perverse incentives” for agencies to rely on reactive fire suppression actions rather than proactive fuels reduction or ecosystem restoration projects since these must be funded by fixed budgets, and impose more legal requirements (e.g. environmental analysis and public involvement) in comparison to firefighting actions which have almost no budgetary limits, legal constraints, or public oversight due to their “emergency” status. Another institutional driver of rising suppression costs is the growing use of private contractors to provide firefighting crews, aircraft, vehicles, supplies and services. Private contractors typically account for over half of total expenditures on large wildfire suppression incidents, with some suppression resources costing Getting Burned: A Taxpayer’s Guide to Wildfire Suppression Costs www.fusee.org 4 several thousands of dollars per hour to use. The privatization of firefighting has been driven largely by political and ideological interests seeking to shrink the size of the federal workforce, and has been sustained by the promise that private businesses would provide cheaper, better, more efficient service. However, private contractors not only cost more than public agency crews, but there have been concerns about the inferior work performance of some contractors whose lack of productivity (e.g. fireline construction) also raises suppression costs. Another institutional factor is the inequity structured into cost-share agreements between the federal and state governments. The federal government usually pays the bulk of suppression expenses on multijurisdictional wildfires, even if the major reason a wildfire is being suppressed is to protect private or state lands. Local, county, and state governments receive all of the benefits of new development in the WUI (e.g. increased property taxes, building permits revenue, etc.), but do not pay their full share of wildfire protection costs. The result is that taxpayers across the country are essentially “subsidizing” private development in an expanding WUI by providing free/low-cost fire protection to private property owners. More equity in cost-share agreements would not necessarily reduce suppression costs, but might provide more incentives to local governments to restrict or regulate WUI development in ways that reduce the risk of wildfire damage and therefore reduce the pressure for aggressive suppression on adjacent public lands. Operational factors are the least-discussed reasons for rising suppression costs, but the human factors influencing the objectives, strategies and tactics managers employ to respond to wildfires have huge cost

implications. First, the agency is sensitive to external cultural expectations by the public and political demands by politicians to aggressively fight all wildfires. Expensive suppression resources or actions are sometimes ordered to satisfy agencies' public relations needs even though conditions on the ground make them unnecessary, inefficient, or ineffective. There is far more pressure placed on managers to prevent wildfire damage than to reduce suppression costs, consequently, there is a general lack of accountability for suppression spending, and numerous reports and recommendations for containing suppression costs have largely been ignored. Along with external pressures to fight fires, and a lack of accountability for reducing suppression costs, there is a lack of incentives for managers to implement alternatives to aggressive suppression, especially wildland fire use. Managers fear public reaction, personal liability, or professional demerits on their careers if any accidents (e.g. firefighter fatalities, destroyed homes, scorched private lands) were to occur from a wildfire they were managing for resource benefits. These so-called "risk-adverse" managers are actually comfortable with imposing risk on firefighters by exposing them to the inherent health hazards and safety risks of firefighting, and externalizing risk to ecosystems due to the biological effects of fire suppression/exclusion and the potential increased severity of future wildfires. Consequently, many wildfires are unnecessarily or over-aggressively suppressed when they could have been managed at lower risk to firefighters and lower cost to taxpayers. Of all the factors accounting for rising suppression costs, operational factors have the most potential to immediately reduce suppression costs. Managing wildfires—as opposed to simply "fighting" them—with alternative strategies and tactics that maximize the social and ecological benefits of burning while minimizing their potential adverse effects is far more economically and ecologically rational. A more strategic and selective approach to fire suppression would focus it on front country communities which absolutely cannot tolerate fire, and then implement fire use tactics in backcountry wildlands which generally require more fire. This approach would not necessarily reduce overall taxpayer expenditures since managing wildfires that burn larger and longer will still cost money. But, instead of these being pure "costs" whose only benefit is the avoidance of adverse outcomes, fire management operations that use fire Getting Burned: A Taxpayer's Guide to Wildfire Suppression Costs www.fusee.org 5 would become more like investments in beneficial community protection, fuels reduction, and ecosystem restoration that enhances long-term community sustainability and land stewardship.

- A MANUAL FOR CONDUCTING NATURAL RESOURCE DAMAGE ASSESSMENT: THE ROLE OF ECONOMICS Prepared for: Division of Economics Fish and Wildlife Service U.S. Department of the Interior Prepared by: Robert E. Unsworth and Timothy B. Petersen Industrial Economics, Incorporated, Cambridge, Massachusetts [See especially Unsworth's work on the Moonlight (and Geyser) Fire in California that resulted in Sierra Pacific settling damage claims by turning over 25,000 acres of prime west coast private timberland to the Forest Service and millions of dollars to settle the HEA assessed claim. Sierra Pacific later regretted the settlement and attempted to reverse it on appeal but were denied.]
- High Country News April 16, 2020

Actions taken before a wildfire, including tree thinning and prescribed burns, can help mature trees survive even extremely big and hot fires.

What it means: Scientists from the University of Washington and the U.S. Forest Service examined vegetation for three years following the devastating 2014 Carlton Complex Fire — one of Washington’s biggest fires. Parts of its footprint were treated with tree thinning and prescribed burns before the blaze while other parts were not, enabling scientists to study the effects of such efforts.

In areas that received treatment, more mature ponderosa pines survived the fire. That may not seem surprising, but the researchers hadn’t expected the strategy to be so effective during such an extreme and long-lasting fire, said Susan Prichard, a fire ecologist at the University of Washington and lead author on the study.

As huge wildfires like the Carlton Complex become more common, preparatory land management will be even more crucial. Actions like tree thinning and prescribed burns help preserve fire-resistant trees that can spread seeds for future vegetation growth after a blaze. “I really hope that our study comes off as an optimistic view of what we can expect in the future if we are proactive,” Prichard said.

- EE News

Critics of the Forest Service sometimes joke that the agency is so obsessed with funding wildfire programs that it ought to be called the Fire Service instead.

Now the punchline may be stepping closer to reality.

Forest Service Chief Vicki Christiansen said yesterday the agency is seriously considering **turning its seasonal firefighting force into a full-time operation**, surrendering to the year-round nature of wildfire in a changing climate.

"We have been studying this intensely for over a year," Christiansen said at a hearing of the House Interior and Environment Appropriations Subcommittee.

"All signs to our analysis point that we need to shift the mix of our workforce to full time," she added. During lulls in wildfires, **a full-time fire force could work on forest maintenance and other priorities**, Christiansen said.