HOUSE COMMITTEE ON
# NATURAL RESOURCES
CHAIRMAN BRUCE WESTERMAN

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| **To:** | Subcommittee on Water, Wildlife and Fisheries Republican Members |
| **From:** | Subcommittee on Water, Wildlife and Fisheries Staff: Richie O'Connell (richie@mail.house.gov) and Jackson Renfro (jackson.renfro@mail.house.gov); x5-8331 |
| **Date:** | Tuesday, January 6, 2026 |
| **Subject:** | Oversight Hearing titled *"Fix Our Forests for Affordable and Reliable Water and Power Supplies"* |

The Subcommittee on Water, Wildlife and Fisheries will hold an oversight hearing titled *"Fix Our Forests for Affordable and Reliable Water and Power Supplies"* on **Thursday, January 8, 2026, at 10:00 a.m. in room 1324 Longworth House Office Building**.

Member offices are requested to notify Hannah Garrett (hannah.garrett@mail.house.gov) by 4:30 p.m. on Wednesday, January 7, 2026, if their Member intends to participate in the hearing.

## I. KEY MESSAGES

- A century of fire suppression and decades of mismanagement have created a perfect storm of overstocked, unhealthy, and fire-prone federal forests, which have destabilized water and power supplies across the West.

- These conditions have produced more frequent and destructive wildfires. An active fire can disrupt nearly every stage of an already vulnerable water and power delivery system, from forcing closures of hydropower facilities to damaging dams, canals, reservoirs, and other critical infrastructure.

- But even without wildfires, overstocked forests can disrupt natural hydrological processes, choke off downstream water yield, and force utilities to limit power deliveries to customers.

- There is scientific consensus that active forest management, including thinning and prescribed burns, can restore resiliency to our federal forests and reliability to our water and power supplies.

- The House has passed the *Fix Our Forests Act* to restore healthy forests and promote affordable and reliable water and power supplies. It is time for the Senate to act.

## II. WITNESSES

**Panel I (Outside Experts)**

- **Mr. Travas Deal,** Chief Executive Officer, Colorado Springs Utilities, Colorado Springs, CO
- **Mr. Randy Howard,** General Manager, Northern California Power Agency, Roseville, CA (member company of the American Public Power Association)
- **Mr. Ea'mon O'Toole,** Director, Family Farm Alliance, Savery, WY
- **Ms. Madelene McDonald**, Senior Watershed Scientist, Denver Water, Denver, CO *[Minority Witness]*

## III. BACKGROUND

*Wildfire Risk, Water Scarcity, and Grid Instability*

Across the country, over one billion acres are at risk of wildfire.[1] Federal land management agencies have identified a combined 117 million acres of federal land at high or very high risk of wildfire, representing nearly one-fifth of the overall land overseen by the agencies.[2] These high-risk federal forests are overloaded with dangerous dry fuels that have accumulated through a century of fire suppression, combined with a lack of thinning, prescribed burns, and mechanical treatments.[3] California forests exemplify this drastic change. Before European settlement, the area's forests had roughly 64 trees per acre. Those same forests now have over 300 trees per acre.[4]

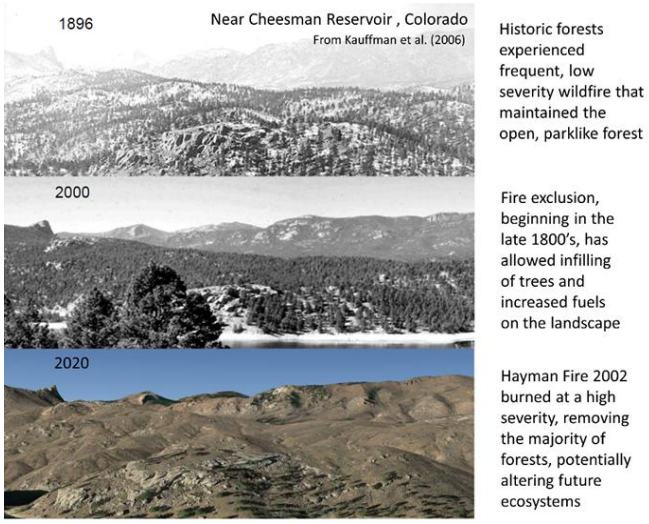


*Figure 1*: A century of change | Source: U.S. Forest Service

Overstocked forests significantly reduce water availability. Compared to healthy forests, overgrown stands move more water from the ground to the atmosphere, lowering water levels in soil, streams, and aquifers.[5] They also diminish snowpack, a vital resource in the western United

[1] Testimony of Christopher French, Deputy Chief, U.S. Forest Service, before the Senate Energy and Natural Resources Committee, June 24, 2021, https://www.energy.senate.gov/services/files/AAF7DF40-2A47-4951-ADA4-4B124AD3894F.
[2] Katie Hoover, "Federal Wildfire Management: Ten-Year Funding Trends and Issues (FY2011-FY2020)," October 28, 2020, CRS, R46583.
[3] Robert G. Ingram, "Robert G. Ingram: Forest Fuel Management - the Ugly Truth." TheUnion.com, October 9, 2020, www.theunion.com/opinion/columns/robert-g-ingram-forest-fuel-management-the-ugly-truth/.
[4] Data provided by the U.S. Forest Service, on file with the Subcommittee on Water, Wildlife and Fisheries.
[5] Roger C. Bales, et al., "Forests and Water in the Sierra Nevada: Sierra Nevada Watershed Ecosystem Enhancement Project," Sierra Nevada Research Institute, November 29, 2011, https://cawaterlibrary.net/wp-content/uploads/2019/10/Bales-et-al.pdf.

States that stores much of the region's annual precipitation and functions as a natural upstream reservoir, supplementing downstream capacity.[6] In California's Sierra Nevada range, for example, snowpack storage volume is estimated to exceed the reservoir capacity of both the San Joaquin and Sacramento river basins.[7] In overgrown forests, however, up to a third of snowfall accumulates in tree canopies rather than on the forest floor, exposing it to early-season sunlight and accelerating sublimation rates.[8] This disruption of the hydrologic cycle shortens snowpack duration[9] and reduces summer streamflow, precisely when demand for irrigation and hydropower generation is highest.[10]

Unprecedented and prolonged drought across the West has further weakened overgrown national forests, leaving them extremely vulnerable to wildfire. Recent research has shown that some areas are experiencing the driest conditions in 1,200 years.[11] In addition, over 173 million trees died in California alone over the past 20 years, and an estimated 36.3 million trees died in 2022, a 282 percent increase from the year prior.[12] The result is a uniform, tightly packed forest with limited regeneration and heightened vulnerability to disturbance—a ticking time bomb that can ignite with a single spark. It is no longer a question of *if* these areas will experience catastrophic wildfire but *when*.

These extreme fire-weather conditions undermine power deliveries before fires even ignite. Since little more than a spark could trigger a catastrophe, Western utilities must operate with an abundance of caution—an approach that brings added costs. Hazardous weather conditions, coupled with mismanaged federal forests, often require utilities to cut power to households and businesses throughout their service areas. This practice, known as Public Safety Power Shutoffs (PSPS),[13] is intended to prevent power lines from igniting fires. While undoubtedly prudent in certain instances, PSPS ultimately leave utility customers paying a high price for such caution. During peak fire season in October 2019, for example, Pacific Gas & Electric, California's largest utility company, cut power for nearly 2.5 million people as a precautionary measure.[14]

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[6] *Id.*
[7] *Id.*
[8] Robert Stottlemyer & C. A. Troendle, *"Effect of Canopy Removal on Snowpack Quantity and Quality, Fraser Experimental Forest, Colorado," Journal of Hydrology* 245 no. 1-4 (2001): 165–176, https://doi.org/10.1016/S0022-1694(01)00351-1.
[9] Ning Sun, et al, *"Forest Canopy Density Effects on Snowpack Across the Climate Gradients of the Western United States Mountain Ranges."* Water Resources Research, vol. 58, no. 1, 2022, Art. no. e2020WR029194, American Geophysical Union (AGU), https://doi.org/10.1029/2020WR029194.
[10] Robert Stottlemyer & C. A. Troendle, *"Effect of Canopy Removal on Snowpack Quantity and Quality, Fraser Experimental Forest, Colorado," Journal of Hydrology* 245 no. 1-4 (2001): 165–176, https://doi.org/10.1016/S0022-1694(01)00351-1.
[11] *Id.*
[12] Devin Fehely, "California drought leading to tens of millions of trees dying in state," CBS News, July 25, 2022, https://www.cbsnews.com/sanfrancisco/news/california-drought-leading-to-tens-of-millions-of-trees-dying-in-state/. "Drought and disease in California forests leaves behind an estimated 36 million dead trees, survey finds," CNN, February 10, 2023, https://www.cnn.com/2023/02/10/us/california-drought-millions-trees-dead/index.html.
[13] "Public Safety Power Shutoffs," Pacific Gas and Electric Company, pge.com/en/outages-and-safety/safety/community-wildfire-safety-program/public-safety-power-shutoffs.html.
[14] "California Power Outage: PG&E Cuts Electricity to Hundreds of Thousands as Wildfire Risk Rises," The New York Times, October 9, 2019, https://www.nytimes.com/2019/10/09/us/california-power-outage-PGE.html.

This drastic action left untold businesses, schools, and households without electricity[15] and cost the state's economy upwards of $2 billion.[16]

*The Cascading Impacts of Wildfire on Water and Power Supplies*

*Figure 2:* A wildfire burns near high-voltage lines in Washington state | Source: Washington State Department of Transportation

Wildfires exacerbate existing system vulnerabilities by damaging infrastructure and severely constraining water and power supplies, which are federally owned, federally operated, or dependent on federal land management decisions. During the massive 2021 Bootleg Fire in southern Oregon, wildfires threatened major transmission lines and nearly destabilized California's power grid.[17] Wildfires burned within miles of the California-Oregon Intertie, a critical interstate transmission corridor that crosses federal lands and carries power from Bonneville Power Administration's (BPA) hydroelectric dams in the Pacific Northwest to California, thus serving as a key source of summer electricity for the state.[18] Concerned by thick smoke from the nearby fires, which can cause power lines to ground out and spark additional fires,[19] BPA reduced the lines' capacity from 4,400 megawatts (MW) to just 428 MW.[20] This sharp curtailment coincided with an intense heatwave that was already straining California's electrical grid.[21] Although other power sources, including natural gas generation, prevented widespread outages, the severity of the situation underscored a stark reality: as uncontrollable wildfires undermine power deliveries, grid reliability crises are poised to become increasingly frequent across the West.

In addition to disrupting transmission systems, active wildfires pose major threats to hydropower production. Hydropower supplies more than 22 percent of electricity generation in the West and is heavily concentrated on federally managed lands and watersheds.[22] To harness the water needed for electricity, hydropower facilities are typically located near rivers and reservoirs in

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[15] *Id.*
[16] Patrick Murphy, "Preventing Wildfires with Power Outages: The Growing Impacts of California's Public Safety Power Shutoffs," PSE Healthy Energy, March 19, 2021, https://www.psehealthyenergy.org/preventing-wildfires-with-power-outages-the-growing-impacts-of-californias-public-safety-power-shutoffs/.
[17] Paulina Firozi, et al., "Bootleg Fire Rages in Oregon, Burning 50 Structures and Threatening California's Power Supply," The Washington Post, July 13, 2021, www.washingtonpost.com/climate-environment/2021/07/12/bootleg-fire-oregon-disaster-environment/.
[18] *Id.*
[19] "Despite Wildfires and Record Heat, Bonneville Kept Power Flowing," Northwest Power and Conservation Council, September 17, 2021, www.nwcouncil.org/news/2021/09/17/despite-wildfires-and-record-heat-bonneville-kept-power-flowing/.
[20] Paulina Firozi, et al., "Bootleg Fire Rages in Oregon, Burning 50 Structures and Threatening California's Power Supply," The Washington Post, July 13, 2021, www.washingtonpost.com/climate-environment/2021/07/12/bootleg-fire-oregon-disaster-environment/.
[21] *Id.*
[22] "Hydro in the States," National Hydropower Association, https://www.hydro.org/waterpower/why-hydro/available/hydro-in-the-states/, accessed December 9, 2025.

heavily forested areas, making them especially vulnerable to wildfire impacts. As fires encroach on these facilities, operators must evacuate personnel and temporarily disconnect projects from the grid—an interruption that can cost up to $200,000 per day, per facility.[23]

These risks have already materialized. During the 2023 Sourdough Fire in Washington state, for example, Seattle City Light, the city's public utility, disconnected two major dams from the grid for nearly a week.[24] Similarly, the 2020 Creek Fire in California's Sierra National Forest threatened much of the Big Creek Hydroelectric Project, which provides 12 percent of the state's hydroelectric power.[25] Workers were forced to evacuate, reservoir releases were reduced to minimum levels, and hydropower production ground to a halt at several sites.[26]

*Figure 3:* A Big Creek powerhouse nestled in the heavily wooded Sierra Nevada | Source: The Huntington Library

The Creek Fire's impacts extended beyond electricity generation. A series of upper reservoirs in the Big Creek system feed into Millerton Lake, which in turn supplies the Friant-Kern Canal, a vital irrigation artery for the San Joaquin Valley, especially during the fall harvest season.[27] As Big Creek operators curbed releases from reservoirs, water levels in Millerton Lake approached dangerously low levels, jeopardizing millions of acres of farmland.[28]

Recognizing the severity of the situation, operators returned to Mammoth Pool Reservoir, an upper reservoir that feeds Millerton Lake. After initial efforts to manually open a release valve were delayed by hazardous, smoke-laden air, a two-person crew eventually entered the facility and successfully opened the valve.[29] Although downstream flows were restored at the eleventh hour, this episode reveals the startling fragility of the interconnected power system: over hundreds of miles downstream from the fire, thousands of farmers nearly lost access to water during peak harvest season.

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[23] "2020 megafires create risks for California's water supply," Sierra Nevada Conservancy, March 3, 2021, https://sierranevada.ca.gov/2020-megafires-create-risks-for-californias-water-supply/.
[24] Jenn Strang, "Updated: Sourdough Fire Continues to Burn Near City Light's Skagit Hydroelectric Project," Powerlines, Seattle City Light, August 10, 2023, https://powerlines.seattle.gov/2023/08/10/sourdough-fire-update/.
[25] Gabriela Ornelas, "Big Creek's Powerhouse 8 Marks 100 Years of Hydroelectric Power," Energized by Edison, October 8, 2021, https://energized.edison.com/stories/big-creeks-powerhouse-8-marks-100-years-of-hydroelectric-power.
[26] Lois Henry, "Dominoes from the Massive Creek Fire Teetering over San Joaquin Valley Farmers." SJV Water, September 29, 2020, sjvwater.org/dominoes-from-the-massive-creek-fire-teetering-over-san-joaquin-valley-farmers/.
[27] Shulie Tornel, "SCE's Hydro Team Helps Deliver Water Amid Creek Fire," Energized by Edison, December 22, 2020, energized.edison.com/stories/sces-hydro-team-helps-deliver-water-amid-creek-fire.
[28] Lois Henry, "Dominoes from the Massive Creek Fire Teetering Over San Joaquin Valley Farmers," SJV Water, September 29, 2020, sjvwater.org/dominoes-from-the-massive-creek-fire-teetering-over-san-joaquin-valley-farmers/.
[29] Shulie Tornel, "SCE's Hydro Team Helps Deliver Water Amid Creek Fire," Energized by Edison, December 22, 2020, energized.edison.com/stories/sces-hydro-team-helps-deliver-water-amid-creek-fire.

*Figure 4:* Damage to the Yakima-Tieton Main Canal | Source: Yakima-Tieton Irrigation District

Apart from their indirect effects on water supplies, wildfires have also directly damaged the critical, federally supported infrastructure needed to transport water. In 2024, for instance, the Rimrock Retreat Fire in Washington destroyed sections of the Yakima-Tieton Main Canal.[30] More than 115 years old, this 120-mile-long waterway is the sole water source for a region that annually generates approximately $700 million in crop sales.[31] Fire debris impaired much of the canal's concrete lining, created more than 2,000 leaks, and threatened catastrophic system failure. Failure would likely have cost the region billions of dollars in crop revenue, job losses, and hollowed-out communities.[32]

To avert widespread economic devastation, the Yakima-Tieton Irrigation District, the entity responsible for operating the canal, raced to stabilize the structure's most vulnerable sections, drastically reducing water flow and spending millions of dollars on emergency repairs.[33] Despite these temporary fixes, the canal system remains fragile. A future La Niña weather event could bring excessive rainfall to the region, further stressing infrastructure that is still reeling from wildfire damage and underscoring the compounding risks posed by unmanaged forests.[34]

*Downstream Consequences of Wildfire*

A wildfire's most severe impacts on water and power supplies often remain concealed until after the flames are extinguished, as they stem primarily from long-

*Figure 5:* Mud and debris flow down a fire-scorched hillside | Source: Los Angeles Times

[30] Joshua Partlow "On the brink of a devastating canal collapse, a GOP district waits for Trump's help," The Washington Post, September 10, 2025, https://www.washingtonpost.com/climate-environment/2025/09/10/washington-yakima-tieton-canal-trump-funding/.
[31] *Id.*
[32] *Id.*
[33] "Case Study: Accessing Diverse Funding Streams for Post-Fire Recovery in North Yakima County, Washington," After the Fire Washington, 2025, https://afterthefirewa.org/wp-content/uploads/2025/03/Yakima-Tieton-Case-Study-Final.pdf.
[34] "Rimrock Wildfire Information," Yakima-Tieton Irrigation District, https://yakimatietonirrigation.com/water/wildfire-info/#thefold, accessed December 10, 2025.

term landscape damage. [35] At a basic level, wildfires strip away soil-stabilizing vegetation, reduce water absorption by altering soil chemistry, and leave hillsides exposed and unstable. Precipitation then rapidly runs off hardened surfaces instead of percolating underground, eroding loose sediment and transporting it downstream into rivers and reservoirs. This process degrades water quality, reduces storage capacity, and can compromise the structural integrity of hydropower infrastructure.

Water and forest managers across the West are all too familiar with the correlation between wildfires and post-burn erosion. After the 2014 King Fire burned nearly 100,000 acres of the El Dorado National Forest in California, 330,000 tons of topsoil eroded from the mountains and settled in three reservoirs owned and operated by the Placer County Water Agency, which had to spend between $5 million and $10 million to clean each one.[36] Similarly, a reservoir owned by the Northern California Power Agency lost 10 percent of its storage capacity from sediment buildup, reducing its hydropower output by the equivalent of twenty 11-MW peaking plants.[37] Unfortunately, sediment buildup is only expected to worsen as wildfires become more frequent, with the U.S. Geological Survey (USGS) predicting that soil erosion may double in parts of the West by 2050.[38]

Beyond diminishing storage capacity and hydropower generation, post-fire runoff also contains contaminants that seriously degrade water quality. A 2016 USGS study documented elevated levels of multiple heavy metals and organic pollutants in streams near Los Angeles and traced the contaminants back to the 2009 Station Fire in the nearby Angeles National Forest.[39] Such degradation poses serious challenges for drinking water treatment systems and threatens aquatic habitats for certain species, many of which are threatened or endangered.[40]

Tujunga Watershed following the 2009 Station Fire | Source: USGS

[35] "Water Quality after a Wildfire," U.S. Geological Survey, California Water Science Center, June 5, 2018, https://www.usgs.gov/centers/california-water-science-center/science/water-quality-after-a-wildfire, accessed December 11, 2025.
[36] Marc Heller, "High Stakes for Water Supplies in Wildfire Debate," E&E News by Politico, August 8, 2018, https://subscriber.politicopro.com/article/eenews/1060093017.
[37] "Sediment Buildup at Hydropower Reservoirs Jeopardizes Water Availability, Power Production, and Dam Integrity," Northern California Power Agency, November 2025.
[38] "Wildfires May Double Erosion Across a Quarter of Western US Watersheds by 2050," U.S. Geological Survey, November 5, 2015, https://www.usgs.gov/news/wildfires-may-double-erosion-across-quarter-western-us-watersheds-2050.
[39] "Water Quality after a Wildfire," U.S. Geological Survey, California Water Science Center, June 5, 2018, https://www.usgs.gov/centers/california-water-science-center/science/water-quality-after-a-wildfire, accessed December 11, 2025.
[40] Hearing Memorandum: Legislative Hearing on a Discussion Draft of H.R. ____ (Rep. Westerman), "To expedite under the National Environmental Policy Act of 1969 and improve forest management activities on National Forest System lands, on public lands under the jurisdiction of the Bureau of Land Management, and on Tribal lands to return resilience to overgrown, fire-prone forested lands, and for other purposes.," House Committee on Natural Resources, Subcommittee on Federal Lands, April 17, 2024, https://naturalresources.house.gov/uploadedfiles/hearing_memo_--_sub_on_fl_leg_hrg_on_the_forestry_package_discussion_draft_04.17.24.pdf, accessed December 12, 2025.

*Restoring Resiliency to Our Forests*

The cascading damage that catastrophic wildfires inflict on water and power systems alone underscores the need for forest management. The benefits of responsible land management for water and energy reliability are well established. By reducing the frequency and severity of wildfires, active forest management protects critical infrastructure, averts costly disruptions, and supports consistent essential services to the communities that depend on these systems.

Active management also delivers direct hydrological benefits. When excess vegetation is selectively removed, competition for water among remaining trees and understory plants decreases, allowing a greater proportion of precipitation and snowmelt to infiltrate the soil, recharge groundwater, and travel downstream to fill rivers and reservoirs.[41] In some cases, thinning can increase water yield by up to 9 percent, or roughly 2.2 million acre-feet annually.[42] Forest thinning can also shift as much as a third of snowfall from the canopies to the forest floor, increasing snowpack retention and delaying snowmelt until later in the spring when water is most valuable for irrigation, hydropower generation, and municipal use.[43]

Sponsored by Chairman Bruce Westerman (R-AR-04), H.R. 471, the "Fix Our Forests Act" (FOFA) directly targets the failures that allowed these risks to compound. By designating high priority fire-shed management areas based on wildfire exposure to communities, municipal watersheds, and the risk of forest conversion, FOFA focuses federal action on the landscapes most critical to protecting downstream water and energy infrastructure.[44] The bill establishes an interagency Fireshed Center and publicly accessible Fireshed Registry to consolidate fire science, improve predictive modelling, and reduce fragmentation across federal land managers—ensuring that hazardous fuel treatments are implemented where they will provide the greatest system-wide benefit.[45]

FOFA also accelerates on-the-ground action. It expands and modernizes categorical exclusions, codifies emergency environmental review authorities, and limits frivolous litigation that has delayed essential fuels reduction projects for years.[46] These reforms will enable federal agencies to carry out mechanical thinning, prescribed and cultural burning, removal of dead and dying trees, and the creation of strategic fuel breaks at the pace and scale necessary to protect transmission corridors, hydropower facilities, and municipal watersheds.[47] Importantly, FOFA strengthens shared stewardship authorities, allowing states, Tribes, utilities, and federal agencies

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[41] Roger C. Bales et al., "Forests and Water in the Sierra Nevada: Sierra Nevada Watershed Ecosystem Enhancement Project," Sierra Nevada Research Institute, November 29, 2011, https://cawaterlibrary.net/wp-content/uploads/2019/10/Bales-et-al.pdf.
[42] *Id.*
[43] Robert Stottlemyer & C. A. Troendle, *"Effect of Canopy Removal on Snowpack Quantity and Quality, Fraser Experimental Forest, Colorado," Journal of Hydrology* 245 no. 1-4 (2001): 165–176, https://doi.org/10.1016/S0022-1694(01)00351-1.
[44] House Committee on Natural Resources, Subcommittee on Federal Lands, "Fix Our Forests Act: Section by Section", 2025, https://naturalresources.house.gov/uploadedfiles/fofa_-_section-by-section_-_final.pdf.
[45] *Id.*
[46] *Id.*
[47] *Id.*

to coordinate across boundaries and mitigate wildfire risk where ownership lines and infrastructure intersect.[48]

Further, FOFA directly improves the safety and reliability of energy infrastructure by expanding vegetation management authorities within electric transmission and distribution rights-of-way on federal lands, streamlining approvals, and providing new categorical exclusions for routine maintenance and hazard tree removal.[49] These provisions respond directly to the transmission disruptions, power shutoffs, and emergency curtailments that have become increasingly common during wildfire season.

Acknowledging the urgency of restoring forest health and protecting interconnected infrastructure systems, the House of Representatives passed FOFA in January 2025.[50] FOFA is currently awaiting a vote in the Senate.

[48] *Id.*
[49] *Id.*
[50] H.R. 471, Fix Our Forests Act, 119th Congress, https://www.congress.gov/bill/119th-congress/house-bill/471/all-actions.