

# The HIGHLANDS Current



Tibetan Songs  
Page 2

## Too Hot to Learn, or Teach?

*Amid global warming, schools seek ways to cool classrooms*

By Joey Asher

Learning can be challenging enough without a sweltering classroom. Many students face this situation, as global warming has forced schools locally and worldwide to find ways to cool buildings during warmer months. In New York, it has inspired a legislative proposal to cap classroom temperatures. Last week in Beacon, voters overwhelmingly approved a \$50 million capital plan, a quarter of which will pay for HVAC upgrades that include “cooling centers” at Rombout Middle School and the district’s four elementary schools, said Matt Landahl,

the superintendent. The cooling centers will be larger spaces such as cafeterias and gyms that can be used to “address the hazards associated with high heat days, wildfire smoke and periods with high cases of infectious disease,” he said. Beacon High School, which opened in 2002, is air-conditioned, unlike 40 percent of schools nationwide that need new HVAC systems, according to the General Accounting Office in Washington D.C. Hot classrooms hinder learning, Landahl said. “The first week of the 2023-24 school year [in September] was very hot and it negatively impacted our elementary school students and staff who have limited access to air conditioning,” he said. “High heat” days are increasing locally. *(Continued on Page 6)*



Parking is prohibited at Mayor’s Park until the Fair Street culvert is replaced.  
*Photo by M. Turton*

## Costly Repairs Needed on Fair Street

*Severe storms in 2023 caused major damage*

By Michael Turton

At their May 23 meeting, members of the Cold Spring Village Board continued the painful task of dealing with aging — and often failing — infrastructure. The village has been working with an engineering firm since early 2022 to prioritize upgrades and repairs to the stormwater system, whose origins go back

a century or more. Those needs were clearly evident in July 2023, when a severe storm caused a 30-inch metal culvert to collapse under Fair Street. For safety reasons, parking has since been prohibited at Mayor’s Park. In a presentation to the board, Will Angiolillo of Hahn Engineering explained that the root of the problem is a 160-acre drainage basin that takes runoff from as far upstream as Bull Hill. From there, stormwater flows in some areas through underground culverts and *(Continued on Page 6)*

Wildfires  
Part 1

# What Are the Risks?

*The Highlands don’t have the terrain or conditions for the type of disaster that killed 101 people last year on the island of Maui in Hawaii. But that doesn’t mean flames fed by 30-foot kindling couldn’t spread out of control.*

By Richard Kreitner

Some residents would see the smoke and assume it was morning mist. Others would smell it and wonder if they had missed an air-quality alert. Many would hear the sirens and spot the helicopter buzzing between river and woods, water sloshing over the sides of a 200-gallon bucket. A few people would not realize anything was amiss until they received an automated text urging them to evacuate — assuming fire wasn’t blocking their escape. Given last year’s soggy summer, the threat of a deadly wildfire may seem remote. New York doesn’t have the same risks as the bone-dry scrublands of California and Colorado or the boreal forests in Alberta and Quebec.

But there are risks, especially with global warming rapidly changing conditions on the ground. That’s because the Highlands is a perfect example of a “wildland-urban interface,” which the Federal Emergency Management Agency (FEMA) defines as a boundary or zone at which human development meets “vegetative fuels.” Think of the unpaved backroads of Garrison, the homes tucked deep in the Nelsonville woods and the forest-bound neighborhood of Beacon Hills. Precisely what makes living in the Highlands so special — its proximity to expanses of protected nature — is also what could make a wildfire so dangerous.

*(Continued on Page 14)*



Breakneck burned in March 2020. *File photo by Peter Bach*





The August wildfires in western Maui spread so quickly that many people did not have time to escape.

Photo by Paula Ramon/AFP



Helicopters lowered containers into the Hudson River to gather water that was dumped on the Breakneck fire in March 2020.

File photo by Brian Wolfe



Thousands of trees killed by invasive pests, such as these pines on Mount Beacon, have essentially become 30-foot-tall, 3-foot-thick kindling.

File photo by Brian PJ Cronin

# Wildfires

(from Page 1)

The August wildfire on the island of Maui was the third-deadliest in U.S. history, with 101 deaths in Lahaina, a seaside town about the size of Beacon. Over the course of a few horrific hours, a brushfire started by a downed power line ripped through the town, fed by 70-mph winds. Temperatures in Lahaina rose to 1,000 degrees — hotter than the surface of Venus — vaporizing victims. More than 7,000 residents abandoned their homes and 2,200 structures were destroyed or severely damaged. Four thousand vehicles were incinerated, leaving streaks of molten metal trickling down streets. Firefighters could not draw water from hydrants because the water system collapsed.

The Lahaina fire fed on changes in the landscape that took place over decades, both natural and manmade, such as agricultural irrigation systems that dried out the land. When plantations closed, the terrain was colonized by non-native, highly flammable grasses. Years of warnings about the risk of a devastating wildfire went ignored. These types of changes have no analog in the Highlands. Our deciduous hardwoods are far less fire-prone than the grasses and conifers that cause so much trouble in Hawaii, Australia, Greece and Canada. While droughts seem to be getting more frequent and more intense, even the worst dry spells here pale in comparison to the desertification of much of the West. Nevertheless, local emergency responders and forest rangers have concerns. Thousands of oak and ash trees, killed by invasive pests such as the emerald ash borer and the hemlock woolly adelgid, have become 30-foot-tall, 3-foot-thick kindling.

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In September 2019, Hank Osborn of the New York-New Jersey Trail Conference, who grew up in Garrison, was crossing the Newburgh-Beacon Bridge when he spotted smoke rising above Sugarloaf Mountain. Evan Thompson, the manager of the Hudson Highlands State Park Preserve, saw it around the same time as he drove south from Dennings Point in Beacon. Thompson and others went up the mountain, but they didn't have the right tools. They came back the next day, along with rangers from the state Department of Environmental Conservation, which is responsible for fighting wildland fires. The blaze, which likely started at an illegal campfire, had grown substantially overnight. State parks employees, DEC rangers and volunteers used heavy rakes, pickaxes, hoes and shovels to clear a 10-foot-wide firebreak around the base of Sugarloaf — a stan-

dard method meant to deprive the fire of fuel. But after a dry summer, the fire burned into tree roots, raising the risk that it could emerge on the other side of the firebreak. That meant the team had to not only clear the surface but dig trenches — tough work on the slopes. Meanwhile, a DEC helicopter scooped water from the Hudson and dumped it on the flames. The firebreak seemed to be working. But when the flames spread close to a cluster of homes along Route 9D on the northwest shoulder of the mountain, the firefighters had to “back burn,” intentionally burning everything between the break and the fire, a tactic designed to deprive the blaze of energy before it reaches the line. The firefighters were able to stop the Sugarloaf blaze, largely because it was not windy. That was not true the next time a major fire broke out in the park, six months later, just as the coronavirus began running rampant. March 9, 2020, was warm and gusty. That afternoon, the diesel locomotive of a Metro-North work train cast off embers that ignited the scrubby grasses near Breakneck Ridge. The flames scorched several parked cars, then ran across 9D and up the hillside. Early spring can be as dangerous for fires as summer and fall. Bare branches mean the sun hits the leaf litter on the forest floor and dries it out. But because the ground is moist from snowmelt, spring fires have a hard time spreading underground into the roots and rarely grow hot enough to burn living trees. Still, the Breakneck fire burned through nearly 300 acres before firefighters from 16 municipalities and state agencies contained it. These incidents demonstrate the risks of wildfires but offer reassurance: They can be contained. A few factors worked to mitigate the damage, including that each fire occurred in a fairly accessible part of the park. While the Sugarloaf fire burned into the ground, making it harder to eradicate, the middling winds kept it from spreading. The Breakneck fire, though it spread rapidly, happened in the spring, when it wasn't hot or dry enough to become an inferno. Had the train ignited a fire in the late summer or fall, it might have been a different story, says Thompson. In a statement, a Metro-North representative says that, after the Breakneck fire, the agency “took steps to prevent such incidents, including enhanced maintenance and testing of diesel locomotives.”

(Continued on Page 15)

70,000

Wildfires in the U.S. each year, of all sizes, according to the National Interagency Fire Center

217

Average number of wildfires annually in New York State, according to the Department of Environmental Conservation



*(Continued from Page 14)*

Firefighters used axes and chainsaws to remove combustible material and build a fire line. They brought in four-wheelers and small trucks to put water on the blaze. They contained it, although not before it scorched scores of trees.

Had the flames escaped the perimeter, Lucchesi's next call would have been to Joseph Pries, the DEC fire ranger for Dutchess and Putnam. Pries has nearly two decades of experience fighting wildland fires. Last summer, he and other local firefighters traveled to Quebec to help Canadian authorities battle the gargantuan blazes that clouded much of the East Coast (including the Highlands) in a pall of orange smoke.

On days when the fire risk is elevated because of high temperatures and low humidity, Pries travels with his flame-resistant Nomex firefighting pants already on. (The DEC must show up if a fire reaches 10 acres.) On the scene, Pries will survey the fire, check its direction and determine if there are particular areas to worry about. He'll call in a helicopter if necessary and assign someone to coordinate with the pilot where to drop water.

"The fire season around here has gotten longer," he says. "It used to be April to October, but now we're seeing fires in November and December and February and March." The potential for a major wildfire in the Highlands, under the right conditions, has risen, he says, but he offered assurances that the state has the resources, technology and training to keep people safe.

However, Pries acknowledged that, if several major fires broke out in New York State at the same time during a hot, dry season, it would be difficult for rangers to fight them all full force. That's the perfect storm of flame that no one wants to see.



Wildfires need three ingredients: ignition, fuel and their version of perfect weather (hot, dry and windy).

Starting one can be as simple as discarding a shard of glass that focuses the sun on a dry leaf, or a piece of metal dragging along the road on a dry day, or a homeowner tossing ashes and a solitary ember from a wood stove into the compost pile, confident because the steel bucket is cool.

But in most cases, forest fires begin as campfires or leaf fires that were insufficiently extinguished or allowed to burn out of control. In 2009, New York enacted a statewide burn ban covering the spring (this year, it was March 16 to May 14) because the season's conditions are so welcoming for fires. According to the Department of Environmental Conservation, the ban has led to fewer fires and less acreage lost.

Unfortunately, you can't fight the fuel. Throughout state parks and along major roads, scores of dead ash trees are evidence of the invasion of the emerald ash borer, a small but destructive beetle. Microbursts of intense wind also topple trees. Those dead trees represent "a jackpot" for fires, says Pries. Fires that feed on that fuel burn hotter, damaging the soil. A tree 2-to-3-feet around could burn for days, he says.

Fallen trees also make fires harder to contain because they become walls that block the path of responders.



Crews on Sugarloaf Mountain in September 2019 used shovels and other hand tools to create the firebreak meant to contain the blaze uphill from them. NYS Parks

Many of the trees attacked by invasive bugs are weak but still standing. That poses its own problem, says Evan Thompson. "A lot of times you don't know a tree is rotten until you have a fire and you'll see the tree smoking and burning."

Some trees in the Highlands are not only fire-prone but fire-dependent. Pitch pines, for example, have resinous, waxy needles

than native species and are changing the region's fire profile. Dense stands of mountain laurel, built up over decades, provide "ladder fuels" that allow a fire to spread from the ground to the canopy, turning a smoldering brushfire into a "crown fire" that wind spreads from treetop to treetop.

Climate change is a factor, but not only because of worsening drought. Unusu-

***"During protracted droughts, a devastating forest fire not infrequently sweeps over one of our mountains [in the Highlands], leaving thousands of scorched snail shells."***

— Dr. Edgar Mearns, U.S. Army, 1898

that combust easily. It's a useful attribute, since the trees can only propagate and regenerate themselves when they burn hot enough to open their cones to release the seeds. Native grasses likely depend on fire, as well, since it returns nutrients to the soil.

In general, however, the mix of trees in the Highlands should be less conducive to large wildfires. When healthy and full of water, common hardwoods like oak, maple, beech and birch do not burn as easily as pines.

Enter invasive species such as privet, burning bush (*euonymus alatus*) and Japanese barberry, which are more flammable

ally wet seasons, such as the summer and fall of 2023, encourage more underbrush. Followed by a dry year, that growth turns into a potential bounty for flames.

The average temperatures in the Highlands are projected to rise dramatically in the coming decades, with heat waves coming more frequently and lasting longer. More water will evaporate than is provided by rain or snow, leading to more drought conditions. In the summer of 2022, water levels in the Cold Spring reservoir dropped by half, to about 50 percent, over a few months. The village instituted mandatory water restric-

# 2,103

Average number of acres burned annually in New York

# 88

Percentage of New York wildfires that burn less than 10 acres

# 95

Percentage of New York wildfires caused by humans. Lightning accounts for the rest.

# 52

Percent of wildfires in New York that occur in April and May. Beginning in 2010, the state banned brush and debris fires from mid-March to mid-May.

# 46

Percentage drop in wildfires caused by burning brush and debris since the law was enacted.

Source: DEC, 1993 to 2017

tions, along with a ban on outdoor fires.

The region's summer humidity can suppress fires. But the spring is often dry, making the seasonal burn ban all the more vital. A fire last spring near Travis Corners in Philipstown, which came within a few hundred yards of homes, was likely started by an illegal campfire set by a hiker on the Appalachian Trail.

Topography plays a role. Fires spread uphill because they heat the air and vegetation above them. Flames advance slower downslope. Fire is more likely to spread from town into the mountains than from the mountains into town. That means the chance that a fast-moving, catastrophic blaze sweeping down the slope of Mount Beacon into the city's neighborhoods is low, though not impossible, given the gusty winds that often blow off the mountain.

More concerning to the park officials and firefighters is the encroachment of residential development into the woods, which could put homes at risk if the wind turns the wrong way on a hot, dry day. If a fire started on a mountainside in some parts of Philipstown, "it would be difficult to control," says Thompson.

Next week:

**Fire against fire, and escape**



# The HIGHLANDS Current



A Funky Cookie  
Page 16

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## Clearwater Finds Safe Harbor

*Raises \$347,000 to surpass emergency fundraising goal*

By Brian PJ Cronin

A month ago, Clearwater was on the brink of financial insolvency, with employees being furloughed and the future of the storied environmental organization in doubt. But on Tuesday (June 4), the Beacon-based nonprofit announced it had surpassed its emergency fundraising goal of \$250,000 by \$97,000 and counting. “The response proves that we’re critically important to our community and to the Hudson Valley,” said David Toman, the group’s executive director. “Now we need to steward this goodwill and take it forward into the future.” While financial difficulties are not new for the 55-year organization, the most recent shortfall was unprecedented. When Toman spoke to *The Current* last month, he attributed the deficit to factors such as the pandemic, years of decreased bookings for

educational field trips aboard the historic sloop after the 2007 financial crisis, and several costly rainouts and cancellations of the Great Hudson River Revival fundraising concert. The problems were compounded by Clearwater falling behind over four years on annual voluntary third-party audits, which led to the group briefly losing its nonprofit status and becoming ineligible for grants. Although many in Clearwater felt that the group was turning things around because of increased bookings for the sloop, a new strategic plan and executive director was needed. Toman, who was chief financial officer for the Mohonk Preserve, was hired two years ago for his financial acumen and brought the group’s financial reporting back up to speed. The gap in grant funding meant it could no longer afford to pay staff or chart a course forward without immediate outside help. Toman said that gifts, small and large, poured in, including a \$25,000 matching grant. Alerted by news stories, two foun-

*(Continued on Page 9)*

## Pleas Grow for Bridge Fencing

*Lawmakers, advocates call for suicide barriers*

By Leonard Sparks

Lorraine Lein brought her grief and anger, and an urn with her son’s ashes. She replayed June 30, 2023, for members of the New York State Bridge Authority (NYSBA) board: driving her son, Jake Simmons, 17 years old and distraught over problems with his girlfriend, to Bear Mountain State Park for a mood-elevating hike; Jake fleeing after they arrived; police cars speeding to the Bear Mountain Bridge; Lein begging an officer blocking her path to grant access to where Jake had jumped. “A policeman standing next to me said, ‘Let her see’ and I saw him floating in the water,” Lein told the board Feb. 15. “I fell to my knees, screaming: ‘No, Jake! What did you do? What did you do?’” Simmons’ leap to his death is the kind of act that Lein and an increasingly frustrated chorus of surviving families and Hudson Valley lawmakers want to prevent on the



Bear Mountain Bridge Bridges and Tunnels

Bear Mountain and Newburgh-Beacon bridges, and the three other spans that NYSBA oversees: the Kingston-Rhinecliff, Mid-Hudson and Rip Van Winkle bridges. For years, NYSBA has been pressed to install suicide-deterrent fencing on those bridges. But the independent agency, which is funded primarily through tolls, has instead prioritized training employees working at the spans and relying on cameras and call boxes for emergencies. On Tuesday (June 4), the state Senate passed legislation authored by Sen. Pete Harchuk requiring that NYSBA install “climb-deterrent” fencing on its five

*(Continued on Page 7)*

Wildfires  
Part 2

# What Are the Risks?

*The Highlands doesn’t have the terrain or conditions for the type of disaster that killed 101 people last year on the island of Maui in Hawaii. But that doesn’t mean there are no risks, especially if simultaneous fires forced a mass exodus.*

By Richard Kreitner

Native Americans used sophisticated tools and strategies to shape the landscape. One of the most important was fire. Indigenous peoples set fires to open land for planting and to clear crinkly underbrush that alerted game to a hunter’s presence. Burning the land returned nutrients to the soil and encouraged growth that deer, turkey and quail depended on for food. Archaeologist Lucianne Lavin has uncovered evidence of controlled burns near Albany around the year 1000 A.D. They were almost certainly used in the Highlands, as well. “Such a fire is a spectacular sight when one sails on the rivers at night while the forest is ablaze on both banks,” wrote Adriaen van der Donck, an important leader in New Netherlands in the 1640s. In the past few decades, controlled burns, or prescribed fires, have become a common part of preventing wildfires such as a 1988 blaze that consumed nearly 800,000 acres in Yellowstone National Park. The argument is now widely accepted that more than a century of rigorous fire suppression has created the conditions for even worse fires to break out and spread.

*(Continued on Page 20)*



A state forest ranger monitors a controlled, or “prescribed,” burn on Long Island last month. DEC



# Escape Route



In August, the seaside town of Lahaina on the island of Maui burst into flames. Critical infrastructure faltered under the strain, and cellphone service failed. In some neighborhoods, evacuation notices arrived after homes were already ablaze.

As darkness descended and winds whipped up, confusion reigned. Which roads were blocked by flames? The main road near the waterfront became choked with panicked residents. Some leaped into the ocean and were pulled from the ashy water by Coast Guard crews as they dodged embers.

The disaster in Maui may seem remote from Mount Beacon's vantage point, but Natalie Simpson of the University at Buffalo School of Management notes that Lahaina shares certain features with Beacon and Philipstown: fairly compact communities lodged between mountains and water, with only two-lane highways to get in and out.

"You could have the same problems," she says. "It's important for communities nestled this way to think about what it would look like if everybody had to get out."

The Highlands has no evacuation plan specific to wildfires, although there is one for nuclear disasters. For decades, municipalities within 10 miles of the Indian Point nuclear power plant south of Peekskill were required to have robust protocols in place. (The southern half of Philipstown is within range; Beacon is just outside it.) A booklet created by Putnam County, *Are You Ready?*, included a map in which all the arrows pointed north; a page at [putnamcountyny.com/](http://putnamcountyny.com/) already has advice on preparing for disasters such as blizzards, extreme heat, flooding, tornadoes and nuclear explosions but not wildfires.

Tina Volz-Bongar, a community activist in Peekskill, says the plans never inspired much confidence. For instance, while they called on parents to wait to pick up their children at school bus stops, she predicts they would, in fact, rush to the schools, likely disrupting the "orderly movement of people" envisioned.

Ralph Falloon, a former Cold Spring mayor who is deputy commissioner of the Putnam County Bureau of Emergency Services, says the evacuation plans for Indian Point are still useful. "We will forever be grateful

for having that technology and planning still at our disposal," he says. The Putnam agency is now more focused on threats such as severe storms or toxic chemical spills related to the huge volumes of freight traffic that cross through the area by truck and train.

Kelly McKinney has two decades of experience responding to disasters for the American Red Cross and the New York City Office of Emergency Management. "Evacuation is a challenging, complex situation," he says. "There will be multiple simultaneous operations going on all at the same time."

If the emergency is a massive wildfire, authorities must predict where the fire is going, notes McKinney, who is now chief of emergency management at NYU Langone Health in New York City. If necessary, officials would use the Integrated Public Alert & Warning System (IPAWS), a reverse 911 system, to send automatic emergency alerts to cellphone users in designated areas.

According to Dutchess County's Hazardous Materials Community Emergency Response Plan, the decision to evacuate residents is made by "incident commanders" — whoever is in charge — taking into account the severity of the danger, the resources available and the time it would take to evacuate.

Once the call is made, police officers would go door-to-door alerting residents and directing traffic. Others would prepare buses and other forms of transportation for people without cars. Sections in the county's 38-page Comprehensive Emergency Management Plan relate to evacuating livestock and pets, although Red Cross shelters don't allow animals.

Evacuees are warned not to use phones so they don't overwhelm networks used by emergency responders. Those fleeing by car should close vents and keep the AC off.

"Emergency preparedness is a labor-intensive process," McKinney says, noting that cash-strapped local governments rarely have the budgets to anticipate every scenario. "New York City has resources because of 9/11 and Hurricane Sandy," he says. "You learn those lessons. Maui is going to be resourced after this. East Palestine [Ohio, the site of a 2023 train derailment and chemical fire] is going to

be resourced. You want to be resourced before the disaster, rather than after."

Local governments should involve the public in planning, he says, noting that unorganized volunteers are worse than no volunteers. Natalie Simpson of the University of Buffalo cautions against overreliance on cellphone alerts. "If that goes down, as cellular communication did in Lahaina, you have nothing," she says.

If the power goes out or some other widespread disaster strikes, a better bet might be more old-fashioned: the car radio. Specific stations issue alerts (primarily, in our region, 1420 AM and 100.7 FM). If a massive cyberattack takes down the power grid and cell towers, AM and FM transmitters would likely be brought back online first, she says.

Simpson notes that the Highlands has a resource that Maui did not: neighboring communities. "There are things that I'm not impressed with in Lahaina's emergency response to the wildfire, but I sympathize with them, because they're on an island and there aren't secondary resources to draw on," she says. "Flying things in is much, much slower. In the Hudson Valley, you can draw on nearby towns and counties to help out."

But Erica Smithwick, director of the Earth and Environmental Systems Institute at Penn State University, points out that East Coast municipalities "are intermingled in a way that's different from in the West. Even if the fire risk is less severe, the potential human impact could be larger under the right conditions."

What especially concerns Smithwick is that, when a fire does break out, it's not always clear who's in charge. "The complexity of land use and management is more heterogeneous and intermingled than in the West," she explains. "Here you have so many municipalities and government agencies that have to coordinate and manage smaller tracts of land."

That could pose a problem in the Highlands, where, thanks to quirky municipal boundaries (e.g., Mount Beacon is in Fishkill), overlapping jurisdictions (Cold Spring is part of but also distinct from Philipstown) and huge parcels of state-owned land, the lines of responsibility can be confusing. "In the context of emergency preparedness," Smithwick says, "that often leads to more trouble."



Joseph Pries, the DEC fire ranger for Dutchess and Putnam, traveled with other firefighters to battle blazes in Quebec last year.

Photo provided

## Wildfires (from Page 1)

Erica Smithwick, director of the Earth and Environmental Systems Institute at Penn State University, who specializes in eastern U.S. wildfires, has studied the issue of controlled burns and worked with land managers, hunters and conservationists to put intentional fire back on the radar in Pennsylvania.

While the practice faced some resistance, she notes that managers in the Pine Barrens region of New Jersey have been conducting controlled burns for years. As part of her pitch, she points out that controlled burns reduce tick populations.

There are two problems with controlled burns, however. The first is capacity, because it takes training. New York State does some training at the Albany Pine Bush Preserve, in Minnewaska State Park and on Long Island, but not enough for fire agencies around the state to adopt the practice.

Evan Thompson, the manager of the Hudson Highlands State Park Preserve, believes it would be difficult to introduce controlled burns in the park's rugged landscape, which spans some 25,000 acres on both sides of Route 9. "You can't burn everything from Garrison to Fahnstock," he says.

Still, Joseph Pries, the state Department of Environmental Conservation fire ranger for Dutchess and Putnam counties, says the agency is ready to draw up plans for controlled burns for any agency or manager who wants them.

The second limitation is public acceptance. Many people, thoroughly indoctrinated by decades of Smokey Bear commercials, remain skeptical of the idea that starting a fire can stop a fire. Liability is key: If a controlled burn gets out of control and destroys property (which has happened), who pays the bill? Anticipating this, in 2009, the Pennsylvania Legislature passed a law protecting public agencies and non-governmental organizations that employ trained burned bosses from lawsuits over damage.

Because there are so many homes along the perimeter of the Hudson Highlands State Park Preserve, Thompson worries about a

(Continued on Page 21)





Smoke from Canadian wildfires blanketed the Highlands last year. Photo by Michael Turton



Intense drought, low humidity and wind gusts fed the Walland and Gatlinburg fires in Tennessee in November 2016. Photo by Bruce McCamish

(Continued from Page 20)

controlled burn that escapes its handlers. “It could have disastrous consequences,” he says.

The same thing that could make a wildfire in the Highlands so destructive — the encroachment of homes into the woods — is what makes using controlled burns to mitigate the risk so difficult.



According to Smithwick, many places lack a forest management plan to sort through the intricate web of entangled species and conflicting demands that make up forest ecology.

Lauren Martin, a park steward at the Hudson Highlands State Park Preserve, agrees. “Forest management is a constant give-and-take,” she says. Dead trees can fuel intense fires but also shelter wildlife and would be expensive to remove.

“Something you do for one reason is always going to be detrimental to some other goal you have,” Martin says. A comprehensive plan for the Hudson Highlands park, if the state provided the funds, would be an invaluable resource in helping park managers balance the interests of wildlife management and fire protection, she says.

Smithwick recommends that communities concerned about wildfires join a program called Firewise USA, developed by the National Fire Protection Association, which has programming that can provide a bridge between land-management agencies and residents.

Educators “help people learn how important it is to clear brush from around their homes, not to stack wood under their decks” and to clean their eaves and gutters — measures that help reduce the risk of a wildfire spreading quickly to a home, she says. Firewise communities are also encouraged to develop evacuation protocols, especially near retirement communities.

The type of blaze most likely to break out in the Highlands is not the Maui inferno of 2023, or any of the fires that have scorched Califor-

nia, but the Walland and Gatlinburg fires of November 2016, which devastated tourism-dependent communities in eastern Tennessee. Exacerbated by intense drought, remarkably low humidity and wind gusts as high as 87 mph, the fires tore through 10,000 acres, killed 14 people and injured nearly 200. The destruction would have been far wider had it not started to rain, recalled Bruce McCamish,

a Knoxville photographer on the scene.

This past November, fires ignited again in the region, forcing the closure of the Blue Ridge Parkway and the Appalachian Trail.

Because of climate change, those fires could foreshadow what’s ahead for the northern Appalachians, which includes the Highlands. “I don’t want to be the person who tells people not to worry,” Smithwick says.

## How to Prepare Your Home

- ☐ Remove vegetation (e.g., grass, weeds, shrubs, vines, plants, trees) and ground covering (e.g., mulch, pine straw) within 5 feet of your home, and trim branches that overhang.
- ☐ Install ground cover such as gravel, pavers, river rocks, stepping stones or concrete in the zone, as well as around decks or covered porches, including under stairs.
- ☐ Replace wood or plastic fencing in the zone with aluminum or chain-link.
- ☐ Do not park or store vehicles, boats, RVs or ATVs within 5 feet of the home. Ideally, they should be in a closed garage or parked at least 30 feet away.
- ☐ Do not store anything combustible, such as firewood, potted plants, outdoor furniture, trash cans, pet houses, lawn tools or playsets in the zone.
- ☐ Remove dry grass, brush and dead leaves within at least 30 feet of your home. Space trees and shrubs at least 10 feet apart. Reduce the number of trees in heavily wooded areas.
- ☐ Remove branches within 10 feet of your chimney. Cover chimney outlets with nonflammable screens of ½ inch or smaller mesh.
- ☐ Locate liquid propane gas tanks at least 30 feet from any structure and surround them with 10 feet of clearance on all sides.
- ☐ Stack firewood and scrap wood piles away from any building and clear flammable vegetation close to the piles.
- ☐ Prune the lower branches of tall trees to within 6 feet of the ground to keep ground fires from spreading into treetops.
- ☐ Clear pine needles, leaves or other debris from your roof and gutters. Remove limbs or dead branches hanging over the roof. Remove nearby heavy ground vegetation and stumps.

Sources: Insurance Institute for Business & Home Security ([ibhs.org/wildfireready](https://ibhs.org/wildfireready)), New York State Division of Homeland Security and Emergency Services ([dhses.ny.gov/wildfire-safety-tips](https://dhses.ny.gov/wildfire-safety-tips))

## Types of Wildfires

### Crawling

Spreads via low-level vegetation, e.g., bushes.

### Crown

Spreads to the top branches of trees; can advance at an incredible pace.

### Jumping

Burning branches and leaves carried by wind jump over roads and rivers to start distant fires.

Source: [dhses.ny.gov/wildfire-safety-tips](https://dhses.ny.gov/wildfire-safety-tips)

## The Fire Above

Beacon is named for fire, taking its name from the signals lit by the Continental Army on the mountain. The 60-foot metal watchtower at the top of the southern summit, built in 1931 to replace wood structures that were vulnerable to lightning strikes, is a monument to the ongoing danger.

In 1922, *The New York Times* reported on a fire that burned for three days and threatened the cottages and hotel on the northern summit. Five years later, a hotel on the mountain burned to the ground. It was rebuilt, but in 1936, 30 passengers descending on the incline railroad had to pass between walls of flame attributed to a discarded cigarette.

In the ensuing decades, the incline railway fell prey to fires that finally put it out of commission in 1978. Five years later, 50 acres burned, destroying what remained of the hotel.

For Part I of this series, see [highlandscurrent.org](https://highlandscurrent.org).

“Forest management is a constant give-and-take. Something you do for one reason is always going to be detrimental to some other goal you have.” — Lauren Martin, Hudson Highlands park steward