“BOTH WILDFIRE INTENSITY & FREQUENCY ARE WORSE NOW THAN IN THE PAST 10,000 YEARS.” —Linda B. Brubaker

“In 2020, more than 812,000 acres burned, bringing the five-year average destruction up to 488,000 acres. That’s more than five times the average annual burned acreage from the 1990s.”

The Seattle Times
FEB. 26, 2021

LINDA B. BRUBAKER; SCHOOL OF ENVIRONMENTAL AND FOREST SCIENCES, UNIVERSITY OF WASHINGTON, SEATTLE, WA 98195;
"RECENT BURNING OF BOREAL FORESTS EXCEEDS FIRE REGIME LIMITS OF THE PAST 10,000 YEARS". PNAS | AUGUST 6, 2013 | VOL. 110 | NO. 32 | 13055–13060
WILDFIRE EXPENDITURE HISTORY

WA WILDFIRE SUPPRESSION HISTORICAL EXPENDITURES BY FISCAL YEAR

DATA SOURCE: DNR WILDFIRE PROVISO REPORT

NATIONAL AVERAGES OF PROPORTIONAL COSTS OF WILDFIRE

DATA SOURCE: HEADWATERS ECONOMICS
HTTPS://HEADWATERSECONOMICS.ORG/WILDFIRE/HOMES-RISK/FULL-COMMUNITY-COSTS-OF-WILDFIRE/
THE ‘SMOKE STORM’ OF 2020
The Disproportionate Impacts of Uncharacteristic Wildfires

“Certain life stages and populations may be at greater risk of experiencing a health effect due to wildfire smoke and may experience more severe effects.”

AIR QUALITY INDEX
24 HR AVERAGE
9/12/20

DATA SOURCES:
DNR, ECY, NASA EOS

UNIVERSITY WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

dnr.wa.gov
**WILDFIRE IMPACTS US ALL**

**Wildfire is a shared risk, and a shared responsibility.**
Significant increases in area burned are projected across much of the state. Many of these areas overlap with counties with swiftly increasing population and ample undeveloped land in fire-prone areas. In these areas, much of the population faces communication barriers, human-related wildland fires are very common, and wildland fire risk is already very high.

**2040 BURN PROJECTIONS**
- Annual area acres burned projected to quadruple by 2040.
- Annual area acres burned projected to double by 2040.

**2.2 MILLION HOMES ARE AT RISK FROM WILDFIRE**

*UNITED STATES FOREST SERVICE*

DATA SOURCES: 2040 Burn Projections. These are compared to 1980-2006 (Littell et al. 2010); Population Growth (Washington OFM 2018); Wildfire Risk (QWRA 2018); Undeveloped Forestland (Headwaters Economics 2018); Language (2016 American Community Survey); Smoke Incursion (Washington ECY 2018); Human-Caused Fires (Short 2017)
WILDFIRE CREATES SHORT-TERM EXPENSES & LONG-TERM DAMAGES

**ENVIRONMENTAL IMPACTS**
- Loss of Timber
- Loss of Rangelands and Shrub Steppe Habitat
- Destroyed Wildlife Habitat
- Deteriorated Water Quality
- Increased Landslide Risk
- Flooding
- Polluted Drinking Water
- Damaged Water Supply

**SOCIOECONOMIC IMPACTS**
- Homelessness/Housing Insecurity
- Loss of Ecosystem Services
- Decreased Air Quality/Asthma
- Human Casualties
- Health Disparities
- Intergenerational setbacks

**ECONOMIC IMPACTS**
- Energy Infrastructure Repair
- Small Business Loss
- Tax/Revenue Loss

**SOCIOECONOMIC DISPARITIES**
Analysis suggests nearly half of the full community costs of wildfires are paid at the local community level by government agencies, non-governmental organizations, businesses and homeowners. Almost all wildfire costs accrued at the local level are the result of long-term damages of wildfire—landscape rehabilitation, lost business and tax revenues, degraded ecosystem services, depreciated property values and impacts to tourism and recreation.
COLLABORATION
Before, During & After

Transition to Recovery
Community groups and long-term recovery organizations with assistance from FEMA and national volunteer groups help damaged communities rebuild. Agencies such as NRCS and conservation districts help landowners navigate post-fire hazards.

Tribes
Several individual tribes maintain fire organizations and authorities. On other tribal lands, DNR and BIA provide full or partial protection.

Federal Lands
Fire management services for Washington’s approximately 12.5 million acres of federally managed land are provided by USFS, NPS, BLM, BIA and USFWS.

DNR-Protected Lands
DNR is responsible for preventing and fighting wildfires on 13 million acres of private, state and tribal-owned land across Washington.

Local Jurisdictions
Counties and cities are responsible for land use planning and WUI code implementation. Wildfire evacuations are the responsibility of local law enforcement.

Local Fire Service
Approximately 500 fire departments are responsible for localized structural and wildland fire protection across Washington.

Private Lands
Private landowners own and manage over 50% of Washington State’s land area, and they are taking action to reduce fuel and manage vegetation.

Community Preparedness
DNR is responsible for preventing and fighting wildfires on 13 million acres of private, state and tribal-owned land across Washington.
## STRATEGIES FOR SUCCESS: HB 1168

### COMMUNITY RESILIENCE

We know which communities in our state are at risk. We know where we need to target our investments to protect these communities and strengthen their defenses. This bill would help us make investments at the home, neighborhood, and community level to reduce wildfire risk and protect our communities.

That means:
- **Investing in defensive strategies** at the community level, like fuel breaks, prescribed fire, and creating defensible green space
- **Direct assistance to homeowners** to secure their property and neighborhood with programs like FireWise

### FOREST RESTORATION

Building up our forests’ natural fire resistance requires treating them and keeping them healthy. Because fire doesn’t stop at property lines, we must restore forests on federal, state, tribal and private land. This work is underway—we treated 256,000 acres from 2017 to 2019—but it’s slow and difficult due to sporadic and unpredictable funding, and the challenge ahead of us is immense.

This account will:
- **Fully fund – and accelerate – DNR’s 20-Year Forest Health Strategic Plan**, which calls for us to restore natural wildfire resistance to 1.25 million acres of forest
- **An additional $8.5 million for workforce training** is included in this bill to support long-term boots-on-the-ground forest health work
- **Rejuvenate tribal forestlands** that provide critical fish and wildlife habitat, natural and cultural resources, and economic opportunities
- **Develop and expand an integrated Small Forest Landowner Assistance program** for statewide technical assistance

### WILDFIRE RESPONSE

Historically, fire seasons were manageable with the resources we had. In the 2000s, for example, the average acres burned each year was 189,000. In the last five years, that has exploded to an annual average of 488,000 acres. But as fire seasons have gotten more dangerous and destructive, our ability to fight and contain these fires has lagged behind.

This proactive approach would fund:

**100 more firefighters, including:**
- 3 hand crews (20 people each)
- 20 dozer operators
- 2 post-release hand crews (10 people each)
- Additional firefighters to cover unprotected lands

**Expanding our air fleet and new technology:**
- 2 new fixed wing planes
- Upgrading/modernizing our aging Huey helicopters
- Adding infrared/night vision technology and advanced fire detection systems
- Extend wildfire protection to almost 400,000 acres of unprotected land around the state

**Bolster local fire districts** — often the ones who are first to arrive on the ground — with funding for training, equipment, and personnel
WHAT ARE WE BUYING?
RESILIENCY

HB 1168: LONG-TERM FOREST HEALTH & REDUCTION OF WILDFIRE DANGER

- Trained Workforce
- Small Forest Landowner Assistance Program
- Reduction of Flammable Debris

- State & Local Resources
- Firefighters
- Equipment
- Aviation Support Plan
- Training & Recruitment

- Fire Adapted Communities
- Community-Wide Fire Prevention
- Community Fuel Break
LONG-TERM INVESTMENTS IN A PREPARED, SAFE & RESILIENT WA

REACHING OUR STRATEGIC GOALS, TOGETHER

<table>
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<tr>
<th>Current Wildfire Investments</th>
<th>HB 1168</th>
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<td>$57.2 M</td>
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+ Resilient Landscapes
  - Forest Health $34.5 M

+ Clear Vision
  - Strategic Investments

+ Safe, Effective Response
  - Wildfire Response $70.8 M

+ Prepared Communities
  - Community Resilience $19.7 M

+ Performance Management Toolkit $2.97 M

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

dnr.wa.gov
Modern Washington summers are rarely spared a painful surge of wildfires on both sides of the Cascade Mountains ... Every fire-reduction method in the state’s arsenal must be deployed against this perennial menace.

Almost all state spending can be viewed as an investment, but the costs that Washington residents face — in the expenses of fighting wildfires and in the potential losses from those fires — amply makes the case (for HB 1168).

Washington agencies spend an average of $150 million a year fighting wildfires, and that number is only increasing. Putting more money into preventing fires and quickly attacking them when they flare up would be a wise investment for the state.
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<tr>
<th>QUESTIONS</th>
<th>STRATEGIES</th>
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<tr>
<td>Kristine Reeves</td>
<td>20-Year Forest Health Strategic Plan</td>
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<tr>
<td>Legislative Director</td>
<td><a href="http://www.dnr.wa.gov/ForestHealthPlan">www.dnr.wa.gov/ForestHealthPlan</a></td>
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<tr>
<td><a href="mailto:Kristine.Reeves@dnr.wa.gov">Kristine.Reeves@dnr.wa.gov</a></td>
<td>10-Year Wildfire Strategic Plan</td>
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<td>360-764-0013 mobile</td>
<td><a href="#">www.dnr.wa.gov/publications/rp_wildfire_strategic_plan.pdf</a></td>
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