

Creating an Evidence Based Strategy for

UK Wildfire Resilience

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Introduction

- Example of wildfire knowledge transfer between US and UK
- Result of connections made during Wildfire 2022 –Belfast
- Over a year's worth of meetings and discussions
- Informational paper on wildfire mitigation lessons learned
- Compilation of best practices



Who Is Involved?

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Linda Kettley

Firewise UK, Dorset Council, UK

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Wildfire Division Director, National Fire Protection Association, US



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Student Involvement

- Science – practice integration
- Widen networks for future collaborations
- Diverse group members = diverse viewpoints
- Opportunities for discussion with different career stages
- Integrating most recent research outcomes



From: Stooft & Ketteridge, *Living with Fire and the need for diversity*, *Earths Future*, 10(4)

The Informational Paper




UK WILDFIRE BACKGROUND

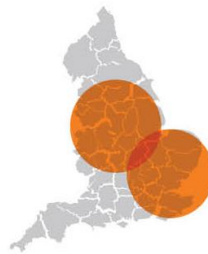
Wildfires occur annually in the UK [1]. Episodic in nature and often small in size [2], peak wildfire years have previously corresponded with drier and warmer years, such as 1995, 2003, 2006, 2010 and 2011, as well as more recent periods between 2018 and 2022.

The UK has two fire seasons:
A MAIN FIRE SEASON IN SPRING AND A SECONDARY SEASON IN MID-LATE SUMMER [3,4].

 **Humans are responsible for starting almost all UK wildfires [1].**

 **Higher temperatures and more variable precipitation patterns projected under climate change are expected to increase wildfire risk slightly in spring and significantly in summer [2,3,5].**

Increases in dangerous fire weather will likely lengthen UK fire seasons and increase the average number of fire danger days [1,2,5].



Southeast and Central England are projected to experience the most significant increases in fire risk [1,2,5].



Wildfire interacts with other climate change stressors and natural hazards, including heatwaves, droughts, extreme temperatures (hot and cold), and high winds.

These projections emphasise the urgent need for action towards reducing UK wildfire risk, with implications for human health, transport infrastructure, homes, and communities, especially for areas of greatest exposure at the Rural-Urban Interface (RUI).

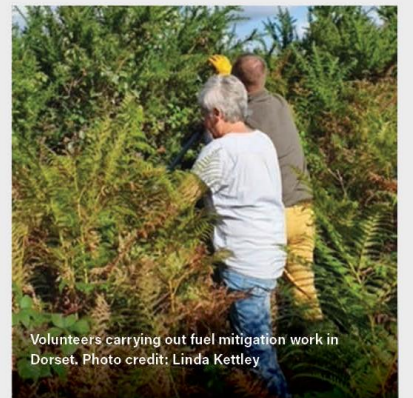
all and allow them to understand the risks from wildfire and empower individuals and communities to reduce their risk. Consideration should also be given by government to the provision of resources to allow recovery for communities affected by wildfires.



Fire Defendable Space, Canford Heath fire, Dorset 23 April 2022. Photo credit: Andy Elliott.



Firewise community in Dorset convened for fire mitigation work. Photo credit: Linda Kettley



Volunteers carrying out fuel mitigation work in Dorset. Photo credit: Linda Kettley



Goal of Group and Paper

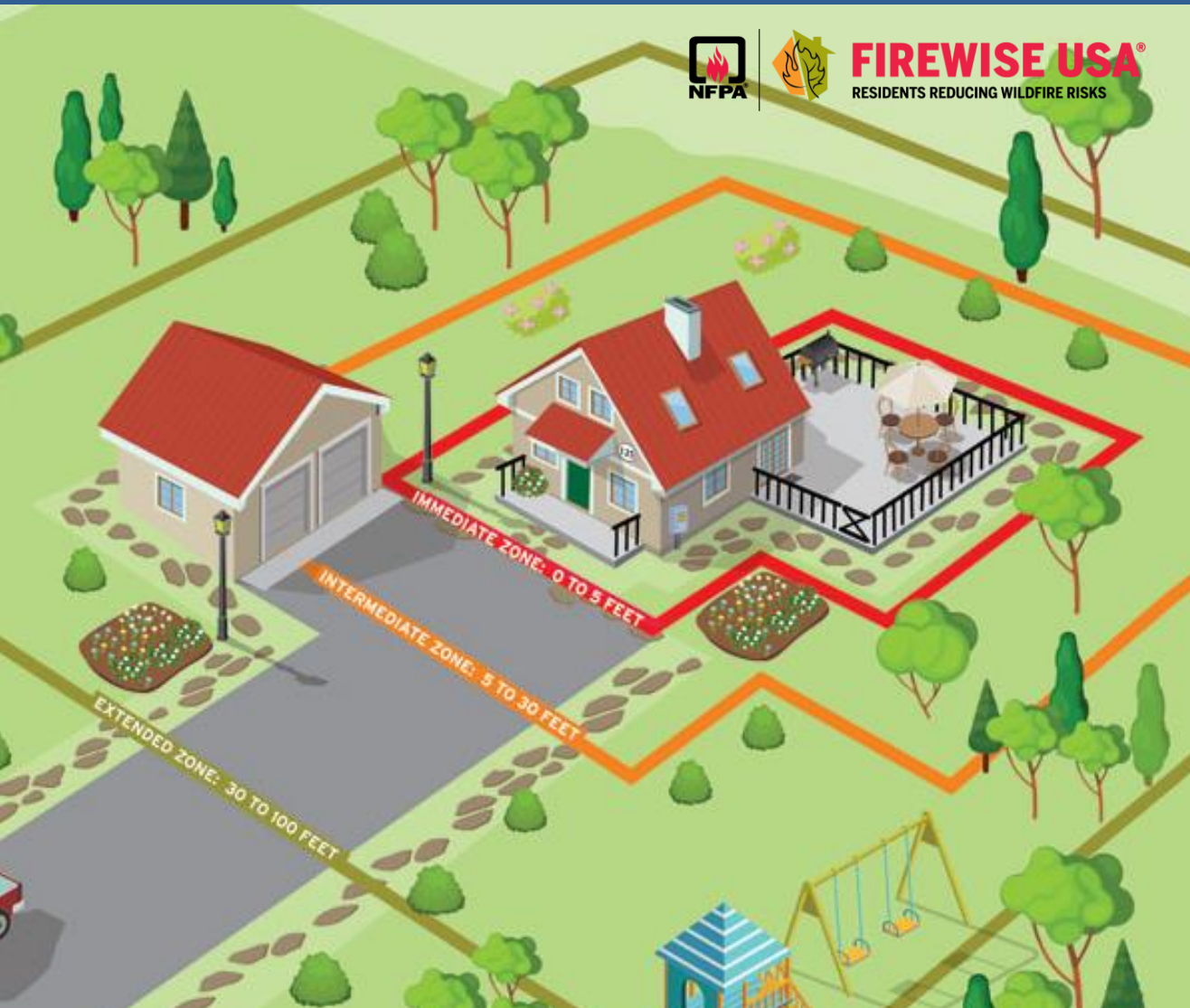
- Consolidate wildfire mitigation best practices
- Share wildfire science and lessons learned
- Consider measures that could inform a UK wildfire mitigation framework
- Build community of knowledge and reinforce information transfer between US and UK

Case Studies

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The Home Ignition Zone has three subzones:
Immediate, Intermediate, and Extended

Firewise USA[®]

- National Fire Protection Association (NFFPA) US recognition program for community-wide risk reduction
- Voluntary participation
- Standard criteria
- Neighbours must work together and individually to address risk on private property
- Builds local resiliency and creates ignition-resistant communities

United Kingdom - Firewise

- Wildfire in Upton (2011) highlighted a lack of preparedness and no plan
- 2017 UK Wildfire Conference (Dorset) - NFPA rep spoke about Firewise
- Firewise seen as a positive move for Dorset as wildfires become emerging threat.
- US Firewise documents tailored to UK
- Core message remained
- Process continually re-evaluated
- “Don’t be afraid to try new things”



Make homes and communities more resilient to wildfire.



Encourage communities to learn more about wildfire and their adjacent landscapes.



Create a network of Firewise communities that can support each other.



International Skills Exchange

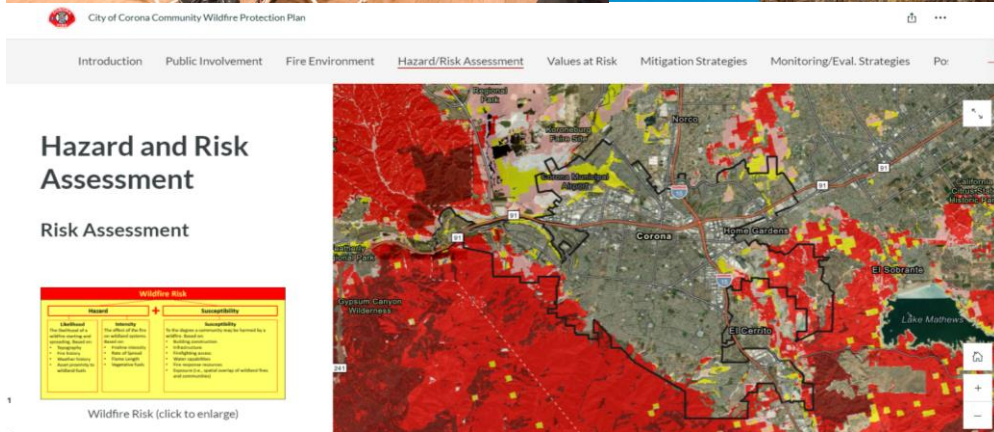
Examples include.....

- Hampshire and Isle of Wight FRS **annual exchange programme** with the Sisters Fire Department in Oregon.
- The **Prescribed Fire Training Exchange (TRES)** offers training opportunities in Canada, Spain, Portugal, and South Africa.
- The United States Fire Administration, FEMA and NFCC provide a meeting platform for US and UK subject matter experts to **share information on wildfire planning**, preparedness, mitigation and response.
- UK fire practitioners and academics participate at **global wildfire conferences**, including the International Wildland Fire Conference, the International Fire Behaviour and Fuels Conference, and the Annual National Cohesive Wildland Fire Management Strategy Workshop.

Community Wildfire Protection Plans (CWPPs)



- Convene stakeholders
- Engage residents
- Identify wildfire risk and hazard
- Gather and compile data
- Identify wildfire mitigation actions
 - Fire Response
 - Hazardous fuels
 - Education and Outreach
- Guide implementation



**SWCA'S WILDFIRE
PLANNING SERVICES**





Legislation and Guidance

WUI (RUI) Codes

- Structure density
- Building materials
- Vegetation management
- Access
- Water supply
- Fire protection

Model codes

- International WUI Code



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How Could You Use the Paper?

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Best Practices Governance and Property Protection



Governance

- Co-operation across agencies - unified policies and shared responsibilities
- Science informed, evidence-based fire mitigation principles
- Creation of region-specific databases



Community and property protection

- Lessons learnt from other risks e.g. floods
- Empowerment of local governments to regulate RUI development
- Standardised defensible space, education and outreach for homeowners

Firewise UK

Firewise Checklist

- CLEAR leaves and other vegetation from roofs, gutters and decks
- REMOVE dead vegetation and other items from under your deck and within 10 feet of your house
- SCREEN areas below patios and decks with wire mesh to prevent from accumulating
- REMOVE flammable materials eg. wood piles, from the vicinity of your house if possible
- PRUNE trees so that the lowest branches are 6-10 feet from the ground
- KEEP your lawn hydrated (use grey/waste water if necessary) and maintained
- DISPOSE of lawn cuttings and debris quickly and responsibly to reduce fuel for any fire
- INSPECT roof tiles and replace or repair as necessary to prevent ember penetration



Messaging

Keep it simple

Ask questions to establish needs

Actively listen

Work with partners

Celebrate success

Successes

Community building-book club

Knowledge of vulnerable citizens

Volunteers

Firewise plant leaflet

K9 Firewise Patrols

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VIEW THE
PAPER HERE

