LA 489/589 Landscape Architecture Site Planning and Design Studio

Wildfire Recovery and Resilience

Developing adaptive capacity in the aftermath of unprecedented wildfire

Department of Landscape Architecture • University of Oregon • Winter 2021

Prof. Bart Johnson, Dept. of Landscape Architecture • Office hours: Wed. 10:00 AM -12:00 PM or by appt. • 541-346-2235 • bartj@uoregon.edu

MWF 1:00-5:00 PM • LA 312 • 6 credits • Grading P/NP

Fire impacts at one of our stakeholder's properties on Goodpasture Rd. near Vida

This studio will focus on assisting recovery and increasing resilience + adaptive capacity in a rural residential neighborhood in which with private landowners who have lost homes and vegetation are open to new ideas about how they recreate their homes and landscapes. This involves not only creating greater safety to future wildfire but rethinking the kinds of vegetation and landscape features (gardens, lawns, naturescaping, etc.) they want to create and maintain.

We will work with a neighborhood of approximately 10 landowners whose homes have been destroyed and vegetation largely killed to the ground in the Holiday Farm Fire. Each student will be paired (as individuals or teams of two) with a landowner and will interact with them via remote tools and potentially, with safe, socially distanced interactions if each party agrees and the university permits. Students will work with the landowner to understand their goals for recovery and help them explore their options through landscape design.

In addition to working with individual landowners, students will explore the potential for creating a more fire-resilient neighborhood through coordinated actions across individual properties and adjacent lands, and to link this effort to broader proposals for building adaptive capacity to future wildfire in the McKenzie watershed. The homes destroyed in this neighborhood represent a small fraction of the 341 houses lost in the Holiday Farm fire. Yet the types of design and management explorations students conduct could have broader value as graphic investigations of site, neighborhood, and landscape-scale resilience. To this end, students may explore management on public parks, forestry lands and conservation lands in the broader landscape. *See images on the following pages.*

To build resilience and adaptive capacity at landscape scales, we must also situate the 2020 wildfires, the losses suffered by people, and the extensive vegetation mortality in the context of the longer time scales and broader spatial extents at which large wildfires periodically reset successional trajectories and contribute to the dynamic resilience of vegetation, rivers and streams in our region.

The primary goals of this studio are for students to:

Develop knowledge and skills in helping people build adaptive capacity to climate-driven disturbances that disrupt the conventional wisdom of what makes a good landscape, and,

Gain understanding and practical experience of the challenges facing individuals and organizations in modifying cherished ways of living in order to adapt to a future with hazards and risks substantially different than those they have grown to expect.

These lessons are intended to support your lifelong process of learning by designing in an era of rapid environmental and societal change.

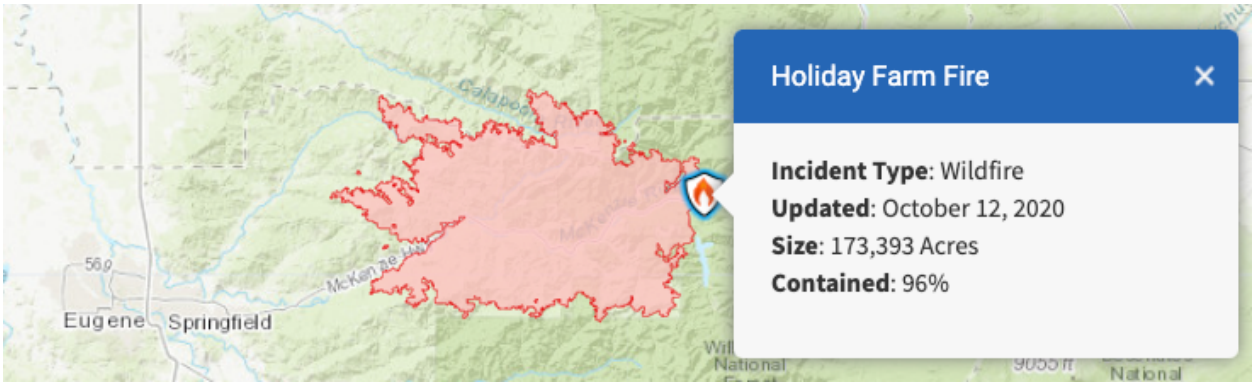
Questions to be addressed through investigations and design proposals

- Why were the 2020 fires so destructive and could they have been anticipated?
- How can landowners, neighborhoods and communities retain, recover and enhance desired landscape qualities, while adapting to the potential for increased wildfire?
- How can water quality in a sensitive river system be protected post-fire while also allowing the delivery of sediment and large wood that renew rivers systems after large fires?
- How willing are individuals and organizations to alter their priorities or embrace new forms of landscape design and management in the face of changing risk?

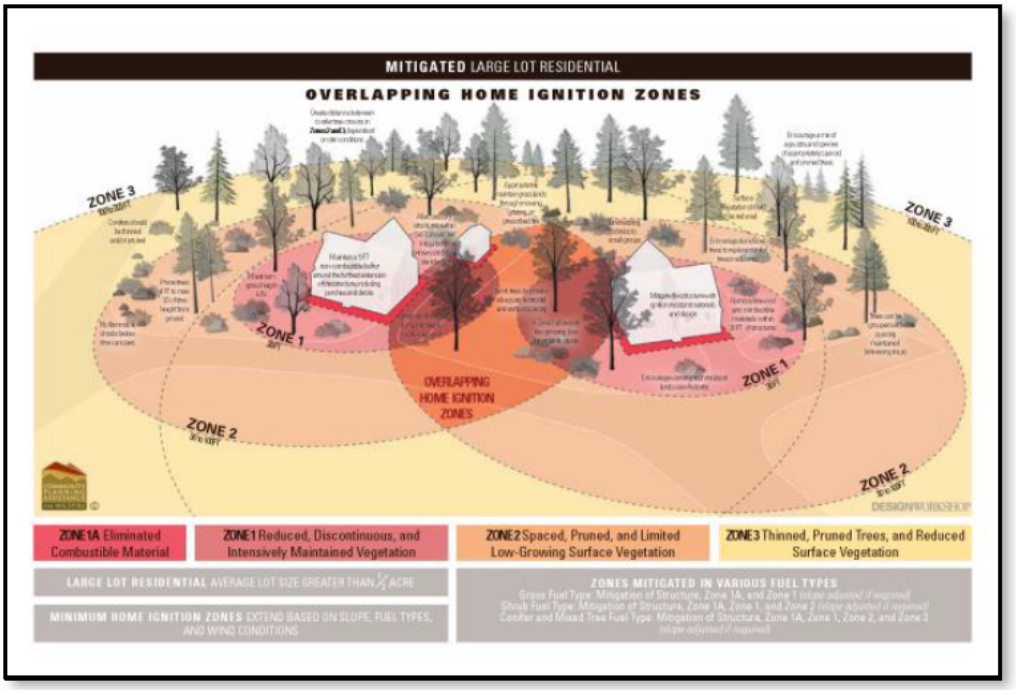
Learning Outcomes

By the end of the course, students will be able to:

- Define and apply key concepts related to hazard, risk, resilience, regenerative design, and adaptive capacity in the context of landscape management and change
- Link site-scale design and management to Firewise landscaping and home protection strategies
- Prescribe vegetation recovery and management plans intended to reduce future fire hazard and confer greater resilience to future wildfire
- Link site-scale solutions to the landscape-scale challenges of increasing wildfire risk and vice versa.
- Apply and critique emerging proposals for treating wildfire recovery as a “hot moment” of opportunity for change
- Engage productively with land-management experts from different agencies and organizations assisting in wildfire recovery and planning
- Work with individual clients to serve their goals and aspirations while helping them imagine new possibilities in the context of changing wildfire risk
- Use remote sensing tools and products at both landscape and site scales to inform their assessments and proposals



Before and after the fire at the same property as shown previously



From: Wildfire Planning International. 2018. Community Guide for Wildland-Urban Interface Visuals.

High-severity fire effects near Finn Rock, OR. Drone images courtesy McKenzie River Trust.

Mixed-severity fire effects near Finn Rock, OR. Drone images courtesy McKenzie River Trust.