



United States Department of Agriculture

# BehavePlus Fire Modeling System in Prescribed Fire Planning Workshop

Southern GACC  
October 2016



Instructors: LaWen Hollingsworth and Faith Ann Heinsch

## Day 1

0900 – 0930	LaWen Hollingsworth	<b>Introduction</b>
0930 – 1030	Faith Ann Heinsch	<b>Introduction to BehavePlus</b>
1030 – 1045	Break	
1045 – 1130	LaWen	<b>Wind speed and dynamic fuel models</b>
1130 – 1230	Lunch	
1230 – 1300	Faith Ann	<b>Using the tools</b>
1300 – 1430	LaWen	<b>Capstone Exercise on BehavePlus</b>
1430 – 1445	Break	
1445 – 1515	Faith Ann	<b>There are other modules.... Getting Help</b>
1515 – 1545	Faith Ann	<b>Introduction to Prescribed Fire Planning</b>
1545 – 1645	LaWen	<b>Element 4: Description of Prescribed Fire Area Element 5: Goals and Objectives</b>
1645 – 1700	LaWen	<b>Wrap-Up</b>

## Day 2

0830 – 0845	LaWen	<b>Welcome</b>
0845 – 1130	Faith Ann and LaWen	<b>Element 7: Determining the Prescription</b> <i>Take break as needed</i>
1130 – 1230	Lunch	
1230 – 1300	LaWen	<b>Element 8: Scheduling</b>
1300 – 1330	Faith Ann	<b>Element 9: Pre-burn Considerations and Weather</b>
1330 – 1430	LaWen and Faith Ann	<b>Element 16 / 17: Holding / Contingency Plans</b>
1430 – 1445	Break	
1445 – 1545	LaWen and Faith Ann	<b>Capstone Exercise on Prescribed Fire Planning</b>
1545 – 1600	LaWen	<b>Wrap-Up</b>



Forest Service

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## Instructor Biographies

***FAITH ANN HEINSCH***

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***Physical Scientist,  
USDA Forest Service,  
Rocky Mountain Research Station,  
Missoula, Montana***

Faith Ann's earliest experience with fire started in USFS Region 8 and involved bottle rockets. Fortunately, her dad was able to put out that first fire, providing a timely and valuable lesson on fire safety. During her university days, she spent several years studying carbon in a salt marsh near Corpus Christi, Texas, as part of her dissertation research. Summer field work in south Texas drove her to the mountains of Montana where she worked at the University of Montana. While at UM, she studied the relationship between climate and vegetation growth using MODIS satellite data. Faith Ann started her professional career in fire when she joined the Forest Service in 2008 to assist (initially) with BehavePlus support, development, and training. Faith Ann's academic background includes a Ph.D. in Soil Science from Texas A&M University, an M.S. in Atmospheric Science from Oregon State University, and a B.S. in Physical Geography and German from the University of Alabama.

Current work at the Fire Lab includes both fire behavior and fire danger. She provides primary support for the BehavePlus fire modeling system and assists in supporting FireFamilyPlus. In addition to occasionally teaching 5th grade students how to safely light matches (in the burn chamber), she provides support and outreach for the Missoula Fire Sciences Lab as a whole. Recent experience includes training, development, and maintenance for BehavePlus; development of BehavePlus version 6 and the Fire Characteristics Chart program; examining effects of climate change on fire danger rating indices; and studies of fire behavior in masticated fuel. She has taught a number of BehavePlus workshops, as well as WIMS, S-390, S-490, and S-491 in both the Northern Rockies and the Great Basin. Nationally, she has taught S-495, S-590, and Advanced NFDRS. She is currently the chair of the NWCG's new Fire Environment Curriculum Subcommittee, with a focus on improving training across the fire curriculum.

***LAWEN HOLLINGSWORTH***

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***Fire Behavior Specialist,  
USDA Forest Service,  
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Missoula, Montana***

LaWen was recruited into the fire business early after a wildfire burned 20 acres of grass and sagebrush across from her childhood home in central Idaho, and she was able to watch the process of succession over the next 15 years (she swears she has an alibi for when the fire started...). LaWen started her natural resources career in central Idaho on the Payette National Forest as a Range Technician where she also had many opportunities to work with handcrews on wildfires and hike up and down nasty terrain on prescribed fires. After three seasons collecting long-term vegetation data in riparian and upland systems, she set forth across the divide to Montana and worked for the Bitterroot NF as a firefighter. Being a consistently lucky person, she received her permanent appointment as a Fire Ecologist on the Helena NF in her first semester of graduate school and was able to put into action nebulous and fuzzy ideas learned during college such as NFMA and NEPA. The numerous fun times included field work and prescribed fire.

LaWen has worked as a Fire Behavior Specialist for the Fire Modeling Institute at the Missoula Fire Sciences Lab since 2011. She works with the field mentoring folks on how to use the geospatial fire behavior systems, BehavePlus, and FireFamilyPlus in support of planning projects. LaWen serves as co-lead instructor for S-490 in the Northern Rockies, faculty member for RX-510 and S-495 at NAFRI, and lead instructor for the Fire Behavior Workshop in the Northern Rockies. On incidents she mostly works as a Long Term Fire Analyst (LTAN). She has a M.S. in Forestry/Fire Ecology from the University of Montana and a B.S. in Forest Resources from the University of Idaho.