



How LANDFIRE Helps The Nature Conservancy Advance Conservation in North America

LANDFIRE was [named an 'Environmental Dream Team'](#) by the Department of the Interior in 2018. The Nature Conservancy, a partner in this national program, interviewed Jim Smith, LANDFIRE Project Manager, about TNC-LANDFIRE and its place in the Conservancy's "Shared Conservation Agenda" planning.

Tell us about TNC-LANDFIRE and how it fits into the Conservancy's conservation strategy for North America.



Local calibration of LANDFIRE fuel data supports wildfire management in south central Idaho. Photo credit: © Harold E. Malde

Meeting TNC's objective to "secure the prosperity of people and nature in North America by protecting land and water," means that managers and planners must have a foundation of reliable data (ecological, socio-economic, and spatial) at local, regional and national scales upon which to build realistic conservation plans. TNC is a partner with the U.S. Departments of Agriculture and Interior in a program called "Landscape Fire and Resource Management Planning Tools" -- LANDFIRE – that provides a consistent fabric of

thematically rich, ecologically-based spatial data for every acre in the Continental US, Alaska, Hawai'i and the Island Territories. To my knowledge, no other data set currently available matches LANDFIRE's geographic scope and information content.

What's the history of TNC-LANDFIRE? How long has it been around and how has it evolved?

Beginning with the work of former Conservancy Global Fire Initiative Director Ayn Shlisky and Fire Ecologist Kelly Pohl, TNC has been a driving force in LANDFIRE since the project was first conceived in 2002 and has remained a partner in the program since then. Our first five-year cooperative agreement with the Departments of Interior and Agriculture was approved in the Spring of 2004 and has been renewed three times since then.

Originally, TNC LANDFIRE Team was tasked to produce a quantitative simulation model representing native, historic ecosystem dynamics for every major ecological system in the U.S. In the time since that suite of models was created and delivered (2006), we have been engaged in communications activities, process development, data analysis, and most critically, supporting the LANDFIRE user community by fostering appropriate applications of LANDFIRE Program products. We have worked with multiple TNC landscapes programs and chapters, LCCs, Joint Fire Science Networks, state agencies, and many others to provide expertise and assistance as their plans go forward.

Congratulations on the recent award from the U.S. Department of the Interior! How is this team a 'dream team' for you, specifically?



The TNC-LANDFIRE team. © The Nature Conservancy

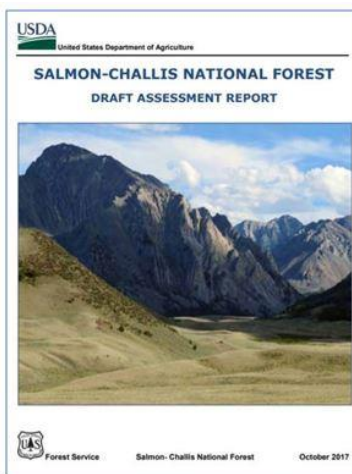
A "team" is all about working together, everyone pulling in the same direction. The Conservancy LANDFIRE Team – Fire Ecologist Kori Blankenship, Spatial Analyst Sarah Hagen, Climate Ecologist Kim Hall, Communications Lead Jeannie Patton, Ecologist Randy Swaty, and I – are dispersed across the country.

For more than a decade, we six have built up a reservoir of trust, we are strengthened by each other's ideas and experience, and though we meet in person only every couple of years, our weekly Skype calls and commitment

to transparency have served us well. It helps that we enjoy our teammates' senses of humor and appreciate our differences.

Also, various contractors and our federal agency partners have demonstrated how to create and maintain effective and efficient teamwork for more than 14 years. Over that time, the LANDFIRE Program created five unique versions of the data sets and is currently working on the sixth. This is an unprecedented success that could only happen through amazing cooperation and collegiality. Our continued ability to work together over distances coast-to-coast is a testament to what great teamwork can accomplish.

LANDFIRE is unique in that it's a program made up of multiple partners. Why is this tight collaboration so crucial?



LANDFIRE data support the Salmon-Challis National Forest plan revision effort.

Conservation needs, whether disrupted disturbance regimes, or invasive species, or land conversion and so on, know no boundaries. When trying to make a difference "at scale," a multitude of partners with different cultures, requirements, constraints, and goals absolutely must be listened to, involved, and truly engaged. There is no other path to success.

What's next for LANDFIRE? What do you hope to accomplish in the next five years?

We are currently engaged in a review/re-creation of all program products. Our TNC team has most recently been reviewing and updating all the ecosystem models (nearly 1,000) and developing a new, web-based search and delivery method that will come online this spring. In addition, all 20+ spatial data sets will either be changed or totally recreated using new satellite and airborne imagery, hundreds of thousands of field measure vegetation plots, and improved analysis and production processes. Our mission will be to ensure that these products are well known in TNC and across the entire conservation community and are used appropriately whenever possible to improve the condition of our natural world.