

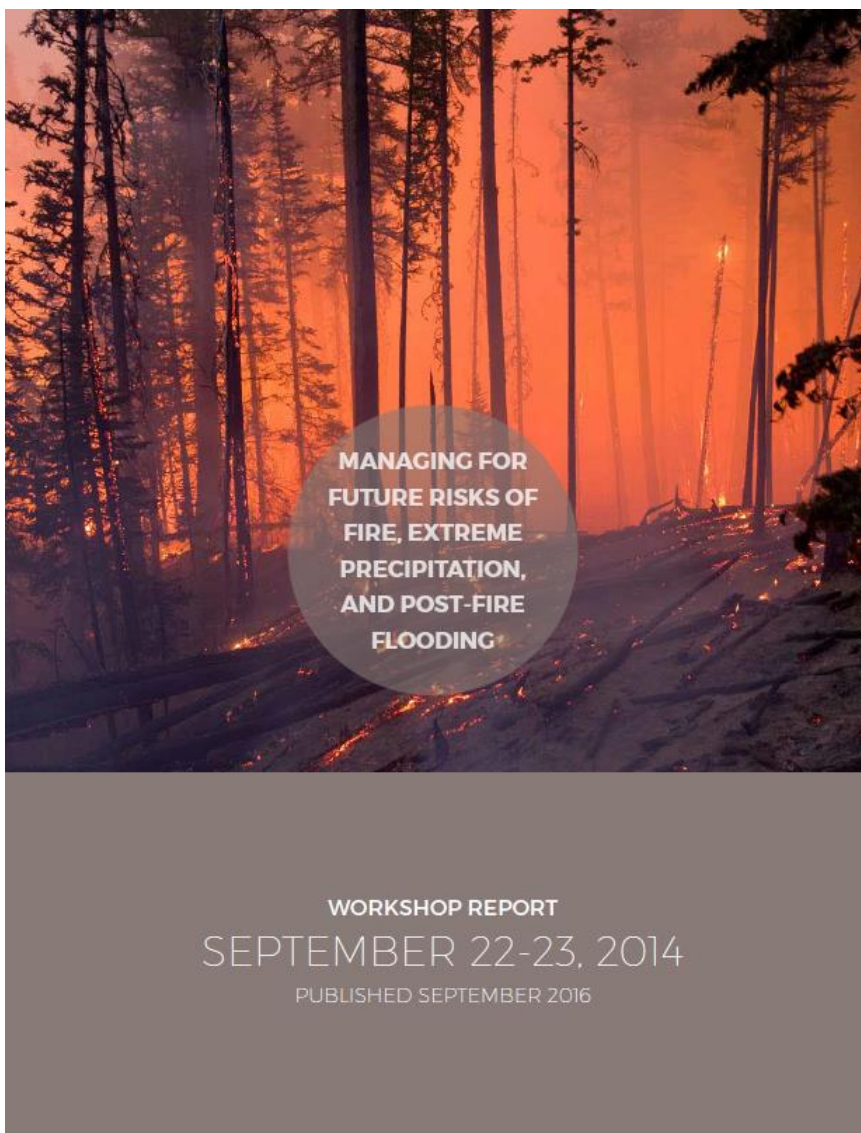
After Fire: Toolkit for the Southwest

Katelyn Driscoll¹ and Megan Friggens¹

¹US Forest Service, Rocky Mountain Research Station, Albuquerque, NM
Partners: The Nature Conservancy, USFS Region 3, USDA SW Climate Hub, University of Arizona

History of Project

- Post-fire environment can be major management challenge
- 2014-15 workshops to understand science and management needs and information gaps with respect to wildfire, post-fire floods, and extreme precipitation
- Participants envisioned web-based resource or toolkit for assessing and managing flood impacts associated with wildfire



Garfin, G., S. LeRoy, D. Martin, M. Hammersley, A. Youberg, and R. Quay. 2016. Managing for Future Risks of Fire, Extreme Precipitation, and Post-fire Flooding. Report to the U.S. Bureau of Reclamation, from the project Enhancing Water Supply Reliability. Tucson, AZ: Institute of the Environment, 33 p.

Objectives

- Provide guidance for assessing and preventing potential damage due to post-fire flooding and related events
- Create online portal that houses information on tools, science, funding, and other resources
- Create content that addresses all private, NGO, and government land managers
- Include a library of scientific articles
- Synthesize state of knowledge



Home Page

- Links to post-fire concerns, management and science of post-fire flood and erosion
- Information on what site provides
- Links to groups, documents, and emergency response to aid in planning for a wildfire

Background

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| ▶ What are post-fire risks in Southwestern landscapes? |
| ▶ What are examples of post-fire erosion events? |
| ▶ What are examples of post-fire flood events? |
| ▶ How do post-fire flood events affect water quality? |
| ▶ How does post-fire flooding affect insects, fish, and wildlife? |
| ▶ How does post-fire flooding affect infrastructure? |
| ▶ What does research say? |
| ▶ How do we reduce flood risks associated with wildfire? |
| ▶ Are there success stories? |
| ▶ Where can I get more information? |

Background

What are post-fire risks in Southwestern landscapes?

The greatest risk of damage due to post-fire flood or erosion events typically follows large and high severity fires. However, the presence of high severity burn sites does not necessarily predict damage from post-fire flood events. Local conditions within watersheds and the nature of precipitation events are important predictors of potential risk. Post-fire assessment teams are instrumental in determining whether infrastructure or resources are at risk of damage due to post-fire events. Where risk is high, fire has removed vegetation cover and created soils that repel water. As a result, more water runs off burned areas generating flash floods, erosion, and destructive debris flows. These events can overwhelm road and dam infrastructure and impact water quality and wildlife habitat. The Southwest is especially vulnerable to post-fire flooding and erosion because fire season is closely followed by a monsoon season, characterized by intense rainfall events. For this reason, rapid response is required to get emergency and flood control measures in place before intense summer thunderstorms occur.

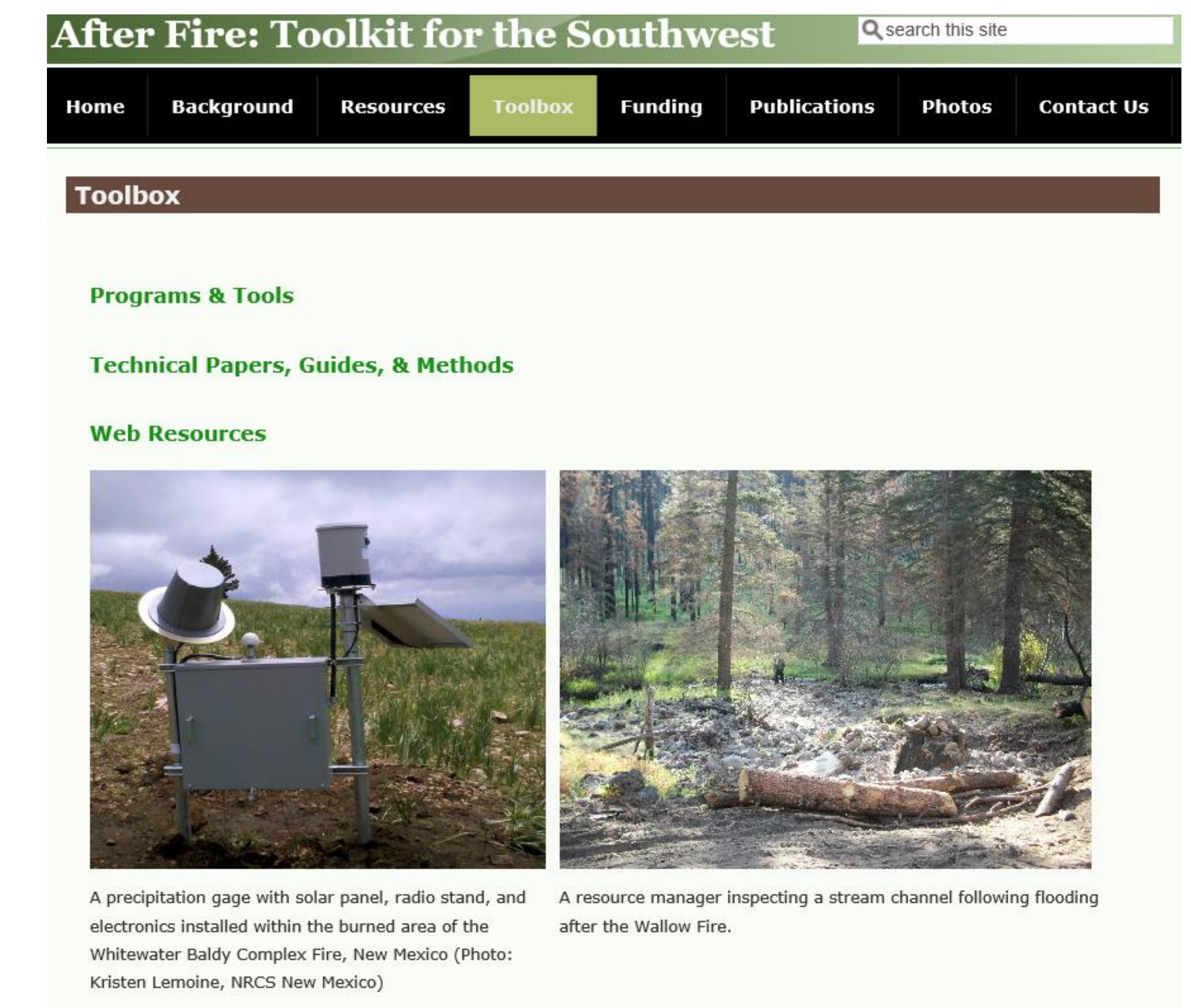
Funding

- Provides information on state and federal programs that provide funding to communities and private landowners to respond to post-fire threats
- Some programs require partnerships with conservation districts or local governments.
- Site provides links to conservation district sites and maps for all states in the southwest.

Resources

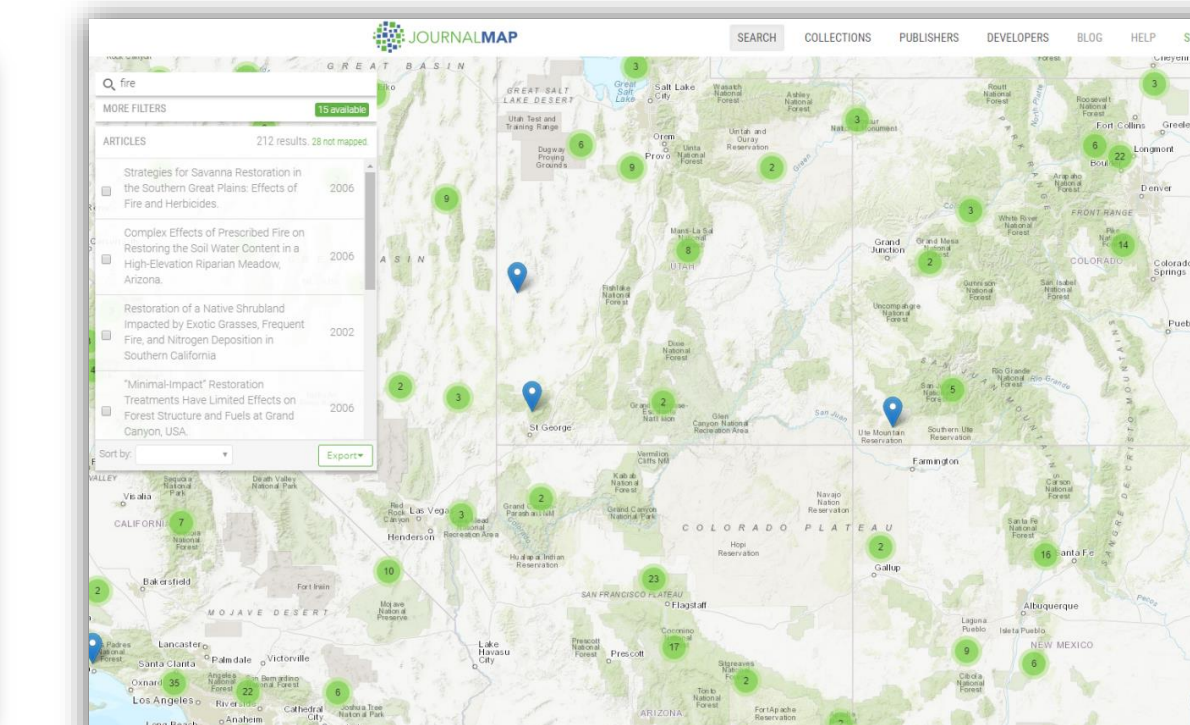
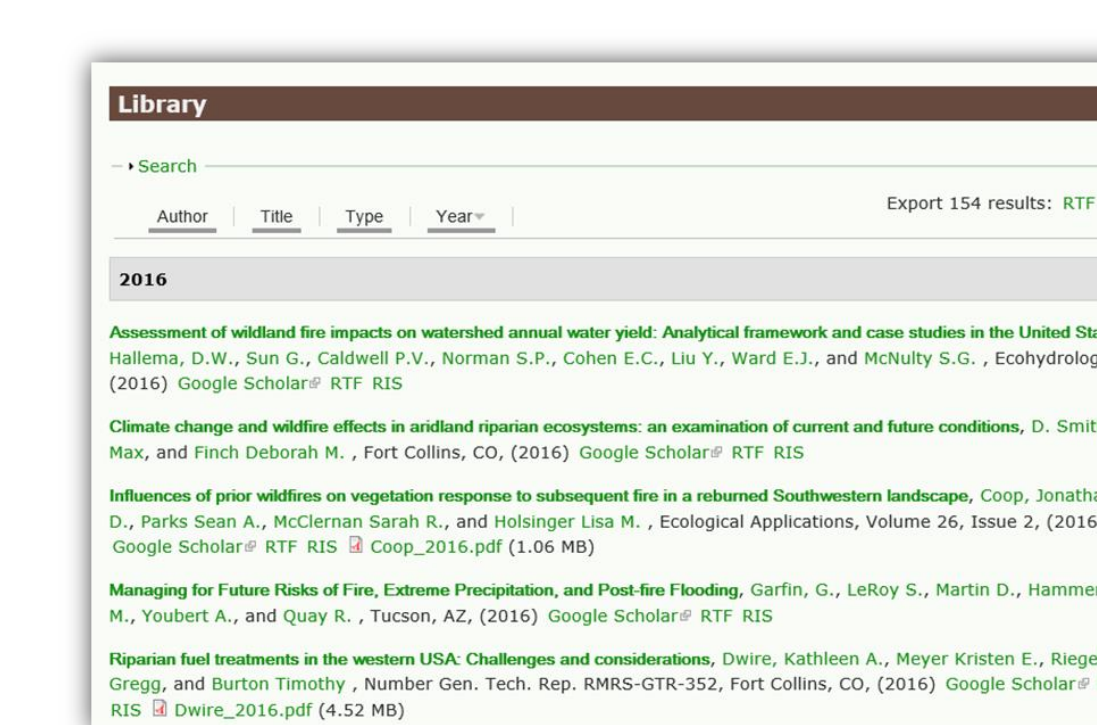
- Information organized by resources for managers, communities and landowners, and training and examples
- Managers-How to measure risk, information needed to measure risk, strategies for management
- For Communities & Landowners-Soil and Water Conservation Districts in the SW, Fire Learning Networks, how to find a watershed group in your area
- Training & Examples-presentations, webinars, and slideshows available online

Toolbox



Publications

- Over 150 articles
- Users able to search by keyword, author, title, and year



<http://postfiresw.info>