ReSHAPE
Reshaping Wildfire & Fuels Reduction Information

Facts at a Glance

INTRODUCTION

The SWERI have heard from policymakers, land management agencies, and the research community that there is a need to **compile and display existing information** on fuel treatment projects and wildfires at the national level, to **coordinate and facilitate the use of these data** for assessing, planning, and monitoring fuel treatment interactions with wildfires across boundaries, and to **analyze and report** on fuel treatment effects.

As a result, SWERI was identified in the **2021 Bipartisan Infrastucture Law (BIL)**, to undertake a national wildfire and treatment effectiveness mapping and assessment project. The resulting effort is the **ReSHAPE Project**.

Scan the QR code to learn more about the 2021 Bipartisan Infrastructure Law (Section 40803, Wildfire Risk Reduction).

SWERI Southwest Ecological Restoration Institutes

Colorado State University | New Mexico Highlands University | Northern Arizona University

OUR PURPOSE

THE SITUATION
We do not fully understand the effects of fuel treatments on wildfire. There is a lot of data and multiple decision support tools and systems. The data is not easily accessible or applicable and the systems of record are not easily comparable.

THE NEED
Develop a tool that is accessible, open-source, and comprehensible, which integrates data, makes it relatable, and facilitates both analysis of fuel treatment effects and use of the data in decision-making.

ACTIONS TO MEET THE NEED
- Compile and display data from existing systems of record
- Develop an accessible, open-source platform
- Evaluate and assess data needs, gaps, and applicability
- Conduct social science, treatment effects, and data science research to inform tool use in decision-making
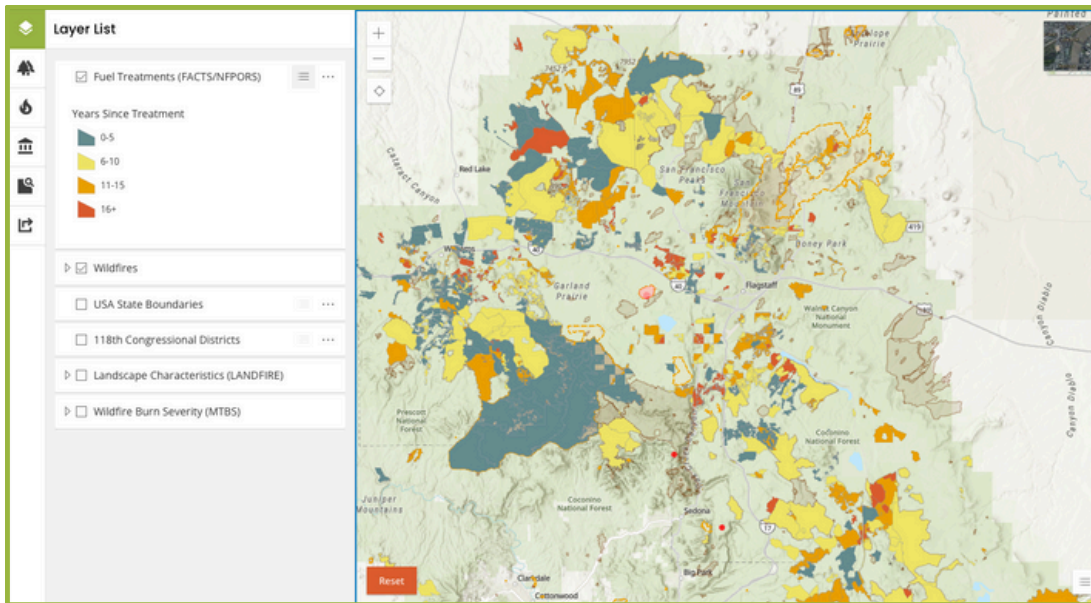- Create a community of practice to facilitate tool use

OUR COLLABORATORS

Through the resulting ReSHAPE Program, the SWERI are working closely with an advisory team at the **Department of Interior Office of Wildland Fire**, **Forest Service Fire and Aviation Management** and **Research and Development**, **National Association of State Foresters**, and are forging new partnerships to ensure that ReSHAPE incorporates, supports, and enhances and adds capacity to facilitate the use and application of fuel treatment and wildfire data.

OUR AUDIENCE

The SWERI recognize that for ReSHAPE to be impactful it needs to meet end user needs. Working with advisors and partners, SWERI continues to define ReSHAPE audiences and segment them into user groups. Different users have unique objectives, data needs, and ways of engaging.

CONGRESSIONAL POLICYMAKERS & STAFFERS

FEDERAL LAND MANAGERS

RESEARCHERS

STATE LAND MANAGERS

TRIBAL PARTNERS

LOCAL AND REGIONAL DECISION-MAKERS

TWIG: TREATMENT WILDFIRE INTERAGENCY GEODATABASE

Layer List

☑ Fuel Treatments (FACTS/NFPORS)

Years Since Treatment
- 0-5
- 6-10
- 11-15
- 16+

▷ ☑ Wildfires
☐ USA State Boundaries
☐ 118th Congressional Districts
▷ ☐ Landscape Characteristics (LANDFIRE)
▷ ☐ Wildfire Burn Severity (MTBS)

Reset

ReSHAPE has developed 1) a **geodatabase** that compiles existing fuel treatment and wildfire data from US Department of Agriculture Forest Service and Department of Interior systems of record from all 50 states and 9 territories, and 2) a **web-based map viewer and portal** that allows easy access to compiled data. This geodatabase and associated viewer are referred to as the ReSHAPE **Treatment & Wildfire Interagency Geodatabase (TWIG)**.

SCAN ME

TWIG MAP VIEWER VISION:
- User friendly web map
- Accessible and open data
- Intuitive and simple reporting and analysis tools
- No login or registration required to access information
- View, export summary reports based on political or geographic boundaries, including user-drawn areas
- View treatment type, completion date, and funding source

COORDINATION & FACILITATION

One of the unique attributes of ReSHAPE is its emphasis on coordination and facilitation of TWIG. The SWERI have a long history of developing and translating best available information to facilitate forest restoration and ReSHAPE is no different. TWIG is designed to be **iteratively refined**, **improved**, and **supplemented** with additional data and applications so that it is useful to end users and meets their needs. This approach allows SWERI to effectively supplement and integrate into other existing efforts and avoid duplication with ongoing work.

RESEARCH PROGRAMS

SWERI development of TWIG advances and is iteratively refined by **research programs in three areas:** 1) **biophysical effects** research evaluating how existing fuels treatments impacted wildfire where they did interact; 2) **data science** analysis clarifying what data is included in the federal systems of record, advancing a process for comparing like data and informing users of differences in terminology and data measurements; and 3) the **CONNECT** social science research program, advancing understanding and practice of collaborative, collective decision-making and action-taking utilizing geospatial data and decision-support products in the arena of wildfire management.