

Development of the Wildland Fire Emissions Information System (WFEIS) started in 2008 with a grant from the NASA Earth Science Carbon Cycle Science Program to Michigan Tech Research Institute (MTRI; <http://mtri.org/>). MTRI teamed with specialists at the USDA Forest Service Pacific Northwest Research Center's Fire and Environmental Research Applications (FERA; <http://www.fs.fed.us/pnw/fera/>) team to develop a system that would provide information for mapping fire-derived carbon emissions from historic fires by adapting existing Forest Service fire information products and tools using NASA resources and expertise. Since this first development phase, the WFEIS team has been funded through a variety of other programs to continue development of the system and research-level outputs to address science questions. The project has also received funding from the NASA Earth Science Applied Sciences Program to advance the prototype system developed under the initial grant into an operational tool for resource managers and scientists.

Over the six years since its initial development, WFEIS has been supported through grants from:

- NASA Carbon Cycle Science Program (Grant # NNX08AK69G to MTRI and USFS),
- NASA Applications program (Grant #NNX09AP53G to A. Soja, National Institute of Aerospace),
- NASA Carbon Monitoring System (Grant #NNX12AM91G to MTRI and USFS), and
- NASA Applications program (Grant #NNX12AQ90G to MTRI and USFS),
- Joint Fire Science Program (JFSP project ID #12-1-07-2 to N. Larkin, USFS).

The Principal Investigator (PI) for most of the work conducted in WFEIS development and operation has been Dr. Nancy HF French of MTRI; the main co-investigators are Dr. Donald McKenzie of the USDA Forest Service and Dr. Tyler Erickson, formerly with MTRI and now with Google®. Throughout the project several additional co-investigators and collaborators have provided expertise and support. These include:

- Roger D. Ottmar, USDA Forest Service
- Eric S. Kasischke, University of Maryland
- Ernesto C. Alvarado, University of Washington
- William de Groot, Canadian Forest Service
- Amber J. Soja, National Institute of Aerospace
- Narasimhan K. Larkin, USDA Forest Service

The project team included the following research associates and technical experts who worked on various aspects of the project (both funded and contributed):

- Benjamin Koziol, MTRI: Co-development of WFEIS geospatial system and data models.
- Michael Billmire, MTRI: Integration of geospatial datasets into WFEIS; WFEIS system development support; development of Python-consume.
- Jessica McCarty: Integration of cropland and agricultural burning tools.
- D. Eric Keefauver, MTRI: WFEIS web site and emissions calculator development.
- Reid Sawtell, MTRI: Lead WFEIS programmer.
- K. Arthur Endsley, MTRI: WFEIS web site and emissions calculator development.
- Susan Prichard, Univ. of Washington: CONSUME development.
- Nicholas Molen: WFEIS programmer and development of system documentation.
- Mary Ellen Miller, MTRI: Development of fuel moisture estimation methods.
- Liza Jenkins, MTRI: WFEIS system testing and generation of WFEIS output.

- Amanda Grimm, MTRI: Uncertainty assessment.
- Maureen Kennedy, Univ. of Washington: CONSUME modeling and programming
- Anne Andreu, Univ. of Washington: US fuelbed development.
- Kjell Swedin, Univ. of Washington: CONSUME programming.
- Tatiana Loboda, Univ. of Maryland: Fire mapping
- Brian Thelen, MTRI: Uncertainty assessment.
- Diego Perez-Salicrup, Universidad Nacional Autonoma de Mexico: Mexico fuelbed development.
- Enrique Jardel-Pelaez, Universidad de Guadalajara: Mexico fuelbed development.
- Jose Maria Michel Fuentes, Universidad de Guadalajara and CONAFOR: Mexico fuelbed development.
- Jorge Morfin-Rios, Universidad Nacional Autonoma de Mexico: Mexico fuelbed development.
- Jef Cieslinski: MTRI intern for geospatial programming.
- Ron Kemker: MTRI intern for general support.
- Marlene Tyner: MTRI intern for general support.
- Christina Nolte: MTRI intern for general support.
- Peter Gamberg: MTRI intern for general support.
- Amy Howes: MTRI intern for uncertainty modeling.
- Kimberly Mobley: MTRI intern for general support.

Overview of the system, including paper references and presentations that review the science background, applications, and project results can be found on the WFEIS website outputs page: <http://wfeis.mtri.org/projout>.

Please cite the WFEIS system and output from the system using the following citation:

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