FEPS
(Fire Emission Production Simulator)

Version 2.0

FERA   US   **W** UNIVERSITY of WASHINGTON

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Name of Software Tool: Fire Emissions Production Simulator

Current Version Description/Date: 2.0/January 2012

Application Purpose (General): The Fire Emission Production Simulator (FEPS) predicts hourly fuel consumption, pollutant emissions, and heat release from prescribed burns and wildland fires and can be used for most forest, shrub, and grassland types in North America. Total burn consumption values are distributed over the life of the burn to generate hourly emission and release information. FEPS uses hourly data on fire size and local weather conditions to calculate emissions and heat release parameters on an hourly time step. FEPS version 2.0 has retired many features offered in FEPS v 1.0 (e.g., managing fire events and calculating fuel consumption) to function within the Fire and Fuels Application (FFA) and IFT-DSS.

Application Purpose (Fuel Treatment): FEPS is used in IFTDSS to help identify heat and emissions release rates from a prescribed fire for use by smoke dispersion models. Smoke dispersion models identify potential air quality impacts and whether smoke management techniques may need to be implemented before and during this fuels treatment activity. It can be run for a single point location only.

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User/Application Documentation Availability:

FEPS 1.0 User's Manual (http://www.fs.fed.us/pnw/fera/feps/FEPS_users_guide.pdf)

Training Availability: The Fire and Environmental Applications Team hosts workshops on the FERA products. Upcoming workshops are listed on the FERA website (http://www.fs.fed.us/pnw/fera) and are also advertised in FERA's monthly newsletter (http://lists.oregonstate.edu/mailman/listinfo/pnw_fire_research_news).