

Increased Flood Potential of Streams Draining the High Park Fire

with ratios of predicted post/pre fire peak flows for the 1-hour, 25-year rain event (1.8 inches, 46 mm)

Example: for Rist Canyon at point RC-4, the peak flow ratio = post fire peak flow / pre fire peak flow = 1710 cfs / 550 cfs = 3.1

Steven E. Yochum, PhD, PE
Hydrologist, NRCS Colorado State Office

Methods:
 * post and pre fire flows predicted using the NRCS Curve Number (CN) methodology, using a 1-hour rainfall event over entire stream catchments
 * CN development accounted for hydrologic soil group, vegetation type and soil burn severity
 * catchment lag time computation accounted for soil burn severity
 * rainfall prediction extracted from NOAA Atlas 2, Volume 3
 * area-reduction factor applied to rainfall depth, which varied from 0.95 (Skin Gulch) to 0.78 (Buckhorn Creek)
 * stream flow routing performed using Muskingum-Cunge methodology

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 Appreciation is expressed to Brandon Stone and Colorado State University for the revised (7/20) BARC soil burn severity interpretation, John Norman for GIS analysis assistance, and Kari Sever and Sam Streeter for field data collection.

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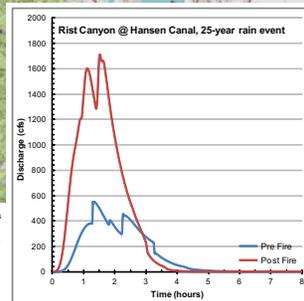
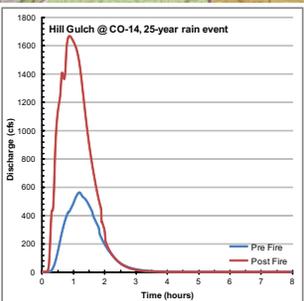
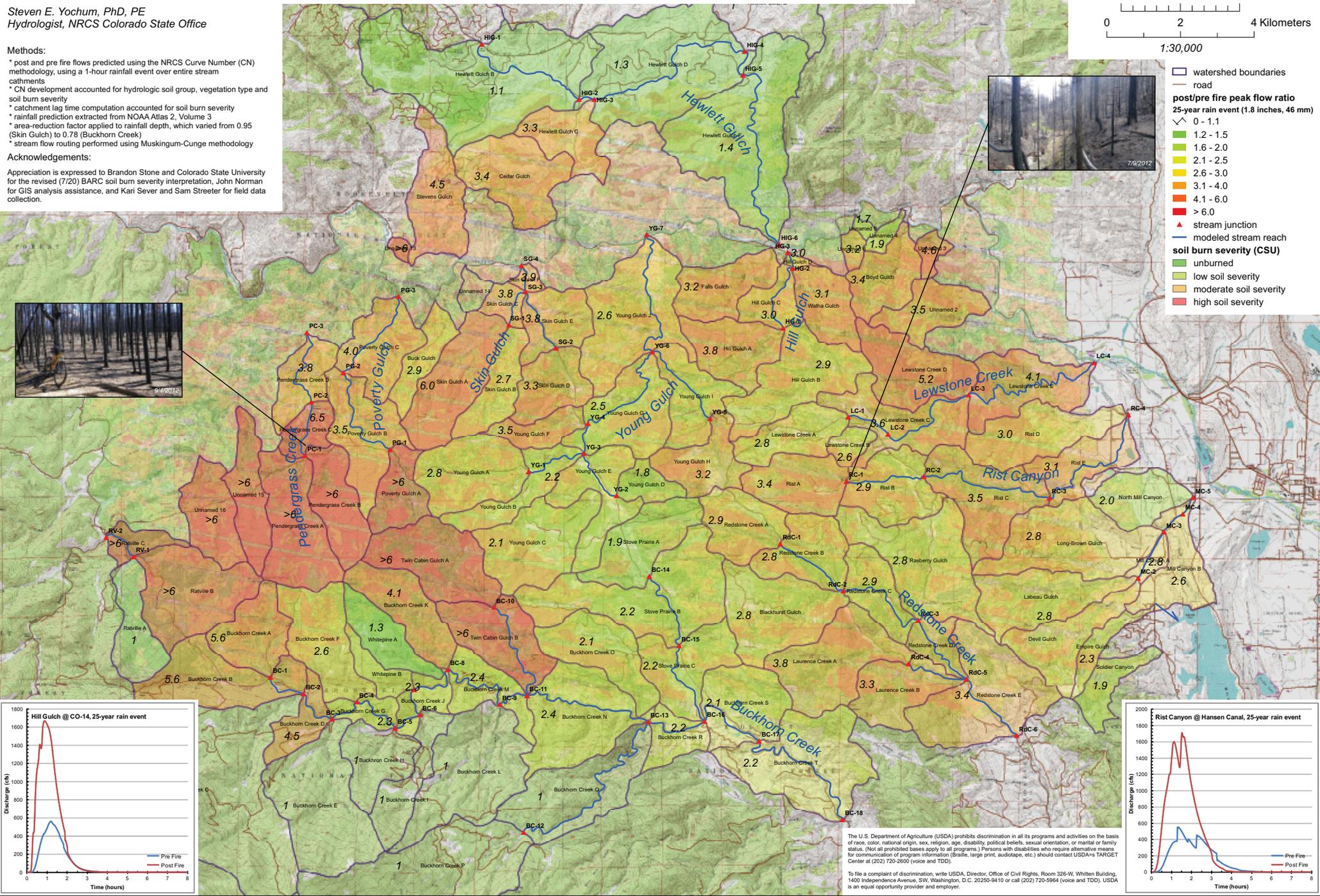


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