

The impact of headwater wildfire burns on the export of materials to the coast

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The CZU Lightning Complex Fire, which started on 8/16/20, burned nearly 350 sq. km of central California's small (<1000 sq. km) coastal watersheds. These small coastal watersheds act as direct land-to-sea conduits for export of materials to the nearshore environment and are present along many coastlines worldwide. While common, the hydrologic and material export behavior of these coastal watersheds is often poorly understood, due in large part to the paucity of direct observations. To better understand how fire alters material sourcing, composition, and concentrations across dynamic flow regimes, we conducted a baseline analysis of near-term wildfire impacts on coastal stream water exports of metals, nutrients, and particulates in five watersheds affected by varying degrees of wildfire. Here we present preliminary results from this work.

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