**Table S1. Summary of dataset attributes and sources used in this study.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Dataset | Description | Format (Standard) | Resolution | Period | Version Date | Source |
| MTBS Burned area boundaries | Fire attributes | Spatial Vector (FGDC) | - | 1984-2018  (Annual) | 2020 | https://www  .mtbs.gov/di rect- download |
| GAGES II | Stream discharge (ft3/sec), water temperature (**°**C) | Time Series (WaterML) | - | 1979-2018 (Daily) | 2020 | https://doi.or g/10.5066/F 7P55KJN |
| GAGES II Geospatial Attributes | Watershed Boundaries | Spatial Vector (FGDC) | - | 2011 | 2017 | https://doi.or g/10.5066/F 7P55KJN |
| GRIDMET | Potential and Actual Evapo-transpiration | Spatial raster (FGDC) | 4x4 km | 1979-2018 (Monthly) | 2019 | https://climatologylab.org/datasets.html |
| NHDPlus V2 | Elevation (units), Slope (units), Area (units) | Spatial Raster (FGDC) | 30x30 m | - | 2012 | https://www  .epa.gov/wat erdata/get- nhdplus- national- hydrograph  y-dataset- plus-data |
| PRISM | Precipitation (mm), air temperature (C) | Spatial raster (FGDC) | 4x4 km | 1979-2018 (Daily) | 2020 | http://www. prism.orego nstate.edu |