Stream temperature is an important environmental indicator as ecological problems arise when streams get too warm. Wildfires can impact stream temperatures in several ways, such as directly heating waters or destroying vegetation that provides cooling shade. Climate change is projected to cause increased wildfire activity, and it is important to understand how this will affect water quality. Using streamflow data from USGS, wildfire data from the National Interagency Fire Center, and climate data from PRISM, we develop a regression model for seasonal stream temperature for several locations in Colorado. We examine the relationship between wildfire activity and stream temperature in Colorado.