|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variable** | **Source** | **Sub Variables** | **Unit** | **Geoprocessing** |
| Precipitation | PRISM |  | mm | Basin average |
| Temperature | PRISM |  | C | Basin average |
| Reference Evapotranspiration | MODIS |  | mm | Basin average |
| Elevation | DEM |  | m | Basin average |
| Area | DEM |  | km^2 | Basin average |
| Slope | DEM |  | degrees | Basin average |
| Aspect | DEM | Flat | % | Percent areal coverage |
|  | North | % | Percent areal coverage |
|  | South | % | Percent areal coverage |
| Land Cover | NLCD | Open Water | % | Percent areal coverage |
|  | Developed - Open Space | % | Percent areal coverage |
|  | Developed - High Intensity | % | Percent areal coverage |
|  | Developed - Medium Intensity | % | Percent areal coverage |
|  | Developed - Low Intensity | % | Percent areal coverage |
|  | Barren Land | % | Percent areal coverage |
|  | Deciduous Forest | % | Percent areal coverage |
|  | Evergreen Forest | % | Percent areal coverage |
|  | Mixed Forest | % | Percent areal coverage |
|  | Shrub | % | Percent areal coverage |
|  | Herbaceous | % | Percent areal coverage |
|  | Hay Pasture | % | Percent areal coverage |
|  | Cultivated Crops | % | Percent areal coverage |
|  | Woody Wetlands | % | Percent areal coverage |
|  | Emergent Herbaceous Wetlands | % | Percent areal coverage |
| Hydrologic Soil Group | SSURGO | Group A | % | Percent areal coverage |
|  | Group B | % | Percent areal coverage |
|  | Group C | % | Percent areal coverage |
|  | Group D | % | Percent areal coverage |
|  | Group A/D | % | Percent areal coverage |
|  | Group B/D | % | Percent areal coverage |
|  | Group C/D | % | Percent areal coverage |
|  |  |  |  |  |
| Underlying Geology | USGS | Igneous Intrusive | % | Percent areal coverage |
|  | Sedimentary Clastic | % | Percent areal coverage |
|  | Metamorphic & Sedimentary Undifferentiated | % | Percent areal coverage |
|  | Igneous & Sedimentary Undifferentiated | % | Percent areal coverage |
|  | Metamorphic Schist | % | Percent areal coverage |
|  | Sedimentary Undifferentiated | % | Percent areal coverage |
|  | Igneous Volcanic | % | Percent areal coverage |
|  | Metamorphic Undifferentiated | % | Percent areal coverage |
|  | Unconsolidated Undifferentiated | % | Percent areal coverage |
|  | Igneous Undifferentiated | % | Percent areal coverage |
|  | Metamorphic Gneiss | % | Percent areal coverage |
|  | Metamorphic Volcanic | % | Percent areal coverage |
|  | Metamorphic Sedimentary Clastic | % | Percent areal coverage |
| Karst | USGS |  | % | Percent areal coverage |

***Supplemental Table 1:*** *Full set of basin-characteristic predictor variables used in development of the XGBoost model.*