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| --- | --- | --- |
| Dataset name | Reduced set of features | Average feature importance |
| WHONDRS | Surface Water Temperature (degree C) | 0.83 |
| Dissolved oxygen (mg/L) | 0.68 |
| Downstream water column height (cm) | 0.66 |
| Upstream water column height (cm) | 0.6 |
| Surface water pH | 0.52 |
| StreamStats | Latitude | 0.89 |
| Drainage area | 0.6 |
| Minimum basement elevation | 0.6 |
| Precipitation | 0.57 |
| Forest coverage | 0.52 |
| HydroSheds | Actual ET | 1.0 |
| Air temperature | 0.72 |
| River area | 0.7 |
| Natural discharge | 0.68 |
| River volume | 0.65 |
| Inundation extent | 0.57 |
| Potential ET | 0.55 |
| EPAWaters-Catchment | Mean annual stream temperature within the catchment | 0.89 |
| Mean summer stream temperature within the catchment | 0.83 |
| Mean imperviousness of anthropogenic surfaces within catchment | 0.81 |
| Percent forest cover loss within the catchment | 0.71 |
| Percent Nonagriculture nonnative introduced or managed vegetation landcover type reclassed from LANDFIRE Existing Vegetation Type (EVT), within catchment | 0.71 |
| Land use | 0.61 |
| 30 year mean maximum temperature within the catchment | 0.59 |
| Percent of open water land cover within the catchment | 0.54 |
| 30 year mean normal temperature within the catchment | 0.53 |
| Precipitation gradient | 0.53 |
| EPAWaters-Watersheds | Density of TRI (Toxic Release Inventory) sites within watershed (sites/square km) | 0.87 |
|  | Density of permitted NPDES (National Pollutant Discharge Elimination System) sites within watershed (sites/square km) | 0.84 |
|  | Percent of mean imperviousness of anthropogenic surfaces within watershed | 0.79 |
|  | Percent of forest cover loss within watershed | 0.75 |
|  | Percent of watershed area classified as developed, medium-intensity land use | 0.71 |
|  | Percent of watershed area classified as developed, low-intensity land use | 0.68 |
|  | Percent of watershed area classified as developed, high-intensity land use | 0.6 |
|  | Percent of watershed area classified as developed, open space land use | 0.6 |
|  | Density of Superfund sites within watershed (sites/square km) | 0.52 |
|  | Mean temperature (°C) within the watershed | 0.5 |