Eflows stream classification discussion 9/10/18

Water Year Typing

* For all 223 reference gages, Alice will use TNC tool and redownload streamflow data, calculate MAF, break up into percentiles, and then we’ll compare this with the same analysis for the eflows/ucd modeled data
* Use gages with 15+ years of data – Belle has subset of 90 something that had full record
* Alice can talk to Julie about downloading the data
* Two columns: what year it is, what bin it’s in (water year type)
* For binning >=, for lowest bin 0 – 24.999%, not inclusive, next bin = 25%
* Mean monthly flow, take percentiles for entire record, then go back and classify each year as water year type
* Compare this to the observed typology from Belle

Stream Classification

* Nick ran code using set of rules Sarah and Alyssa generated
* If trib is ¼ of drainage area of mainstem or less, doesn’t have to follow rule set
* Get underlying geospatial layers that contributed to stream classification from Belle

Uncertainty Analysis

* Based on geospatial attributes of the reference gages
* Matrix with all reference gages and 5 key geospatial attributes and their values, have distributions of attributes across set of 92 reference gages, apply spread measure, put a buffer around spread (ie. 1 std) around attributes to call it the acceptable rage, bin it further, if you’re 1 you’re okay, if you’re 2 you’re okay, and if you’re 3 you’re uncertain
  + Flagging – binning the network
  + 5 bins for each segment bc 5 characteristics