Upstream Impoundments Layer

# Meeting Notes

* Need something to get at network structure
* Contain distance, size, and contribution to temperature
* Some exponential decay function of the impact of impoundments on temperature at a site as they get further away

Where:

* Alternate definite for w:
* Mechanistic scaling? Add something for branchiness?

# Deliverables (to Dan)

* Dataframe of site, impoundment ID, w, d, i
* Cut off at 25 km upstream

# ArcGIS Notes

* The *Locate Features Along Routes* tool is used to compute the fraction along the flowline where the waterbody layer intersects.
* Inputs:
  + Input Features: Waterbodies Layer
  + Input Route Features: NHD Flowline
  + Route Identifier Field: COMID
  + Event Type: LINE
  + From-Measure Field: FMEAS
  + To-Measure Field: TMEAS

The result is a table with FMEAS and TMEAS columns linked to a FEATUREID column. The FMEAS is the percentage along the reach where the line first intersects (entering) the polygon and TMEAS is the percentage along the reach where the line intersects the polygon for the second time (leaving). The values are measured from the downstream end to the upstream end.