Lesson 28: HEC-HMS Ralston Creek Setup

Introduction

After working through a tutorial, you have been introduced to the U.S. Army Corps of Engineers' Hydrologic Modeling System (HEC-HMS), a watershed-runoff and routing model. We will now use this model, with hydrologic methods learned in class, to simulate historical floods for Ralston Creek.

Today's Objective

Setup HEC-HMS for Ralston Creek

What to Do?

Go to the Computer Classroom (1245 SC).

Pair up with another person and log in to a computer.

Start the HEC-HMS Program (from the Start Menu).

Develop a model to simulate flows for Ralston Creek historical events. Since we do not have estimates for all the watershed characteristics (e.g., subbasin drainage area, weights for individual rain gages), first use "ballpark" estimates (as a placeholder) and list the variables and parameters that need to be estimated for prediction.

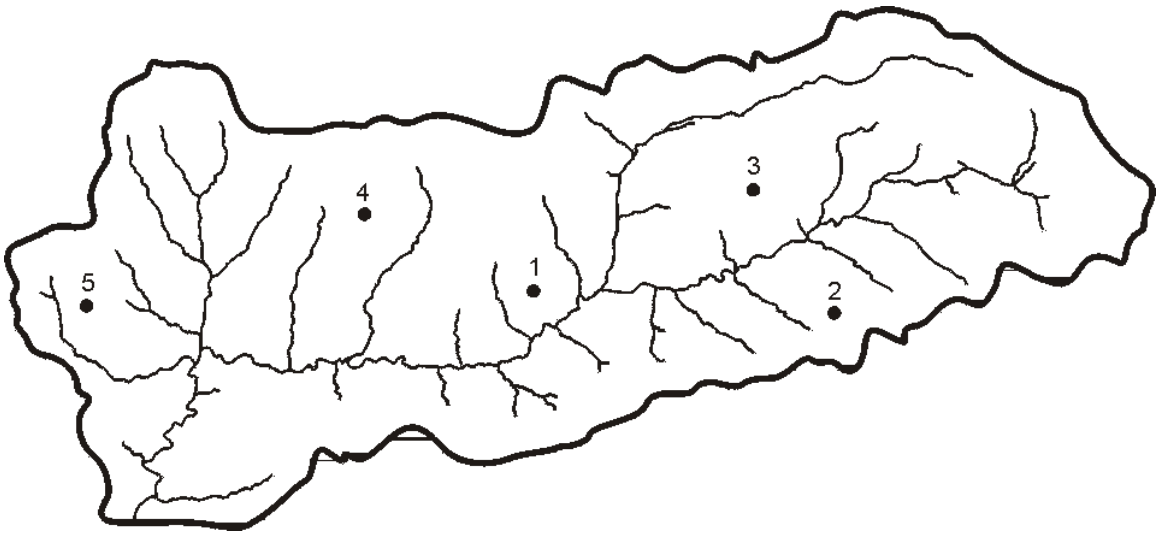
Resources

Ralston Creek Watershed Information:
http://www.engineering.uiowa.edu/~flood/web/ralston.html

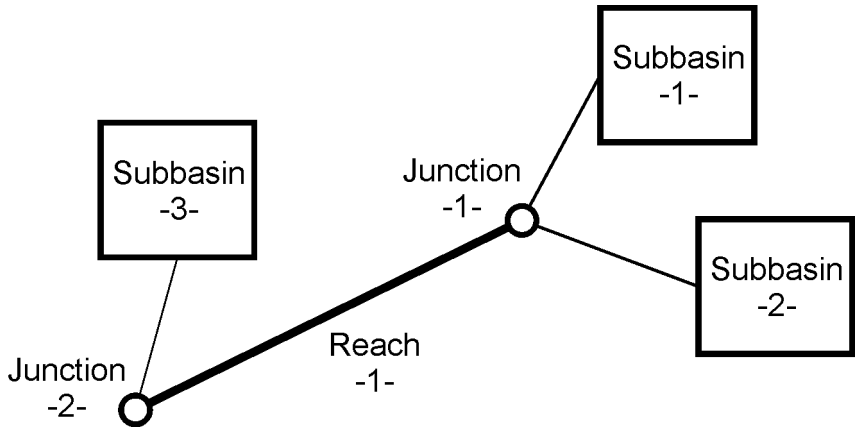
HEC-HMS Quick Start Guide:
http://www.hec.usace.army.mil/software/hec-hms/documentation.aspx

Lesson 28: HEC-HMS Ralston Creek Setup

Ralston Creek Watershed



Ralston Creek HEC-HMS Model



Ralston Creek Model Components

Subbasin

- Loss Method: SCS Curve Number
- Transform Method: SCS Unit Hydrograph
- Baseflow Method: Recession

Reach

- Routing Method: Muskingum