Work with Precipitation Data in R - 2013 Colorado Floods

{% include toc title="In This Lesson" icon="file-text" %}

Several factors contributed to extreme flooding that occurred in Boulder, Colorado in 2013. In this lesson we will check our a report that provides some information about the event.

Learning Objectives

After completing this tutorial, you will be able to:

• List some of the components of a project that make it more easily re-usable (reproducible) to you when working with other people

What you need

You will need a computer with internet access to complete this activity.

A data report

Your colleague put together the very informative data report below. The topic of the report is the 2013 Colorado floods. Examine the report. Then answer the questions below.

- 1. What sources of data were used to create the plots?
- 2. How were the data processed?
- 3. How did your colleague generate this report? When was it last updated?
- 4. Who contributed to this report?
- 5. You'd like to make some changes to the report can you do that easily? If you wanted to make changes, what process and tools would you use to make those changes?
- 6. What units are the precipitation data in?
- 7. Create a list of the things that would make editing this report easier.

My Report - 2013 Colorado Flood Data

Precipitation Data

A lot of rain impacted Colorado. See below.

Fall 2013 Precipitation

Let's check out the data for a few months.

Daily Precipitation – Boulder Station 2003–2013

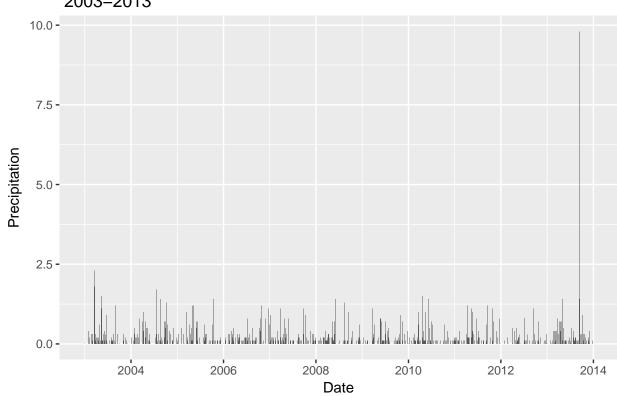


Figure 1: plot 1

Daily Total Precipitation Aug – Oct 2013 for Boulder Creek

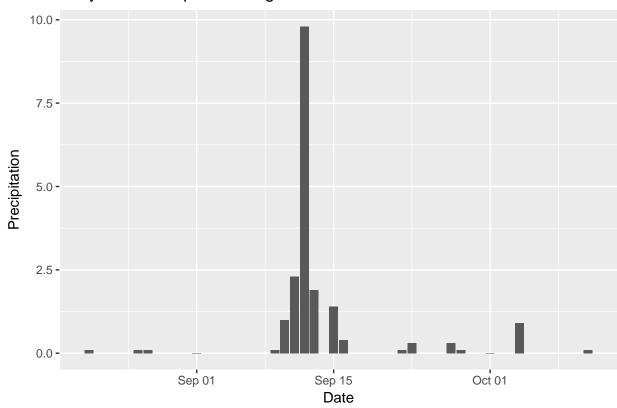


Figure 2: plot 2 precip

Total Monthly Precipitation Boulder, CO Station

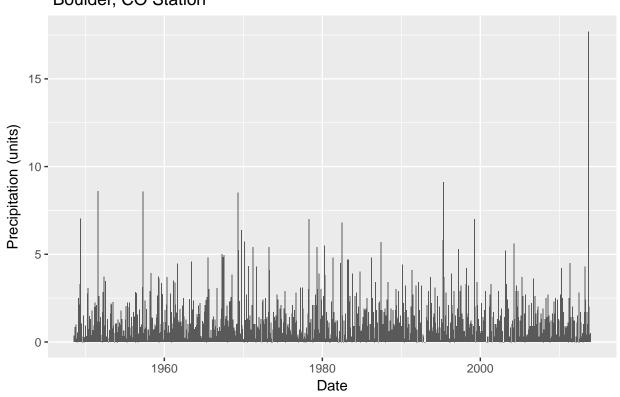


Figure 3: plot 3 discharge