RoaringForkCode

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```
USGS.pH.data <- read.csv("./Data/Raw/RoaringForkpHRaw.csv")

today <- Sys.Date()

USGS.pH.data$ActivityStartDate <- as.Date(USGS.pH.data$ActivityStartDate, format = "%Y-%m-%d")



USGS.pH.data.2000.2020 <- filter(USGS.pH.data, ActivityStartDate > "2000-01-01" )

#MonitoringLocationIdentifier == "USGS-09073300" ~ "Upper Roaring Fork",
      #MonitoringLocationIdentifier == "USGS-09073400" ~ "Upper Roaring Fork",
      #MonitoringLocationIdentifier == "USGS-391140106492001" ~ "Upper Roaring Fork",
      #MonitoringLocationIdentifier == "USGS-391220106573800" ~ "Upper Roaring Fork",
     #MonitoringLocationIdentifier == "USGS-391239106501900" ~ "Upper Roaring Fork",
     # MonitoringLocationIdentifier == "USGS-391345106550000" ~ "Upper Roaring Fork",
      #MonitoringLocationIdentifier == "USGS-391531106525200" ~ "Upper Roaring Fork",

USGS.pH.data.2000.2020.Streams <- USGS.pH.data.2000.2020 %>%
    mutate(Section = case_when(
      MonitoringLocationIdentifier == "USGS-391740106550701" ~ "Middle Roaring Fork",
      MonitoringLocationIdentifier == "USGS-392032107001900" ~ "Middle Roaring Fork",
      MonitoringLocationIdentifier == "USGS-392110107011300" ~ "Middle Roaring Fork",
      MonitoringLocationIdentifier == "USGS-392158107020000" ~ "Middle Roaring Fork",
      MonitoringLocationIdentifier == "USGS-09081000" ~ "Middle Roaring Fork",
      MonitoringLocationIdentifier == "USGS-392337107052200" ~ "Middle Roaring Fork",
      MonitoringLocationIdentifier == "USGS-392449107111400" ~ "Middle Roaring Fork",
      MonitoringLocationIdentifier == "USGS-392453107131100" ~ "Middle Roaring Fork",
      MonitoringLocationIdentifier == "USGS-09085000" ~ "Outlet Roaring Fork",
      MonitoringLocationIdentifier == "USGS-392844107170900" ~ "Outlet Roaring Fork",
      MonitoringLocationIdentifier == "USGS-09085000" ~ "Outlet Roaring Fork",
      MonitoringLocationIdentifier == "USGS-392847107171100" ~ "Outlet Roaring Fork",
      MonitoringLocationIdentifier == "USGS-392946107182100" ~ "Outlet Roaring Fork"
      ))%>%
  drop_na(Section)

#USGS.pH.data.2000.2020 <- filter(USGS.pH.data, ActivityStartDate > "2000-01-01" )


#USGS.SC.data.2000.2020 <- filter(USGS.SC.data, ActivityStartDate > "2000-01-01" )

#USGS.pH.data.2000.2020.USGS.391345106550000 <- filter(USGS.pH.data.2000.2020,
                                                      # ActivityStartDate > "2000-01-01")%>%
                                #filter(MonitoringLocationIdentifier == "USGS-09073400")
```

```
#write.csv(USGS.SC.data, file = "./Data/Processed/USGS_Site02085000_Flow_Processed.csv", row.names=FALS
```

```
#SC.plot <- ggplot(USGS.SC.data, aes(x = ActivityStartDate, y = ResultMeasureValue)) +
 # geom_line() +
  #geom_smooth() +
  #labs(y = expression("Specific Conductance("*mu*S * cm**-1*")"), x = "Date") +
    #ggtitle("Specific Conductance of Roaring Fork River")
#print(SC.plot)


#SC.plot.2000.2020 <- ggplot(USGS.SC.data.2000.2020, aes(x = ActivityStartDate, y = ResultMeasureValue)
  #geom_line() +
  #geom_smooth() +
  #labs(y = expression("Specific Conductance("*mu*S * cm**-1*")"), x = "Date") +
    #ggtitle("Specific Conductance of Roaring Fork River")
#print(SC.plot.2000.2020)

#SC.plot.2000.2020.HW <- ggplot(USGS.SC.data.2000.2020, aes(x = ActivityStartDate, y = ResultMeasureVal
 # geom_line() +
  #geom_smooth() +
  #labs(y = expression("Specific Conductance("*mu*S * cm**-1*")"), x = "Date") +
   # ggtitle("Specific Conductance of Roaring Fork River")
#print(SC.plot.2000.2020.HW)

#pH.plot <- ggplot(USGS.pH.data, aes(x = ActivityStartDate, y = ResultMeasureValue)) +
  #geom_line() +
  #geom_smooth() +
  #labs(y = "pH", x = "Date") +
    #ggtitle("pH of Roaring Fork River")
#print(pH.plot)

#pH.plot.2000.2020 <- ggplot(USGS.pH.data.2000.2020, aes(x = ActivityStartDate, y = ResultMeasureValue)
  #geom_line() +
  #geom_smooth() +
  #labs(y = "pH", x = "Date") +
    #ggtitle("pH of Roaring Fork River")
#print(pH.plot.2000.2020)
```

```
##when I tried this it said Insufficient values in manual scale. 45 needed but only 2 provided. because
  #scale_color_manual(values = c("steelblue4", "darkorange4")) +
```

R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
summary(cars)
```

```
##      speed           dist
```

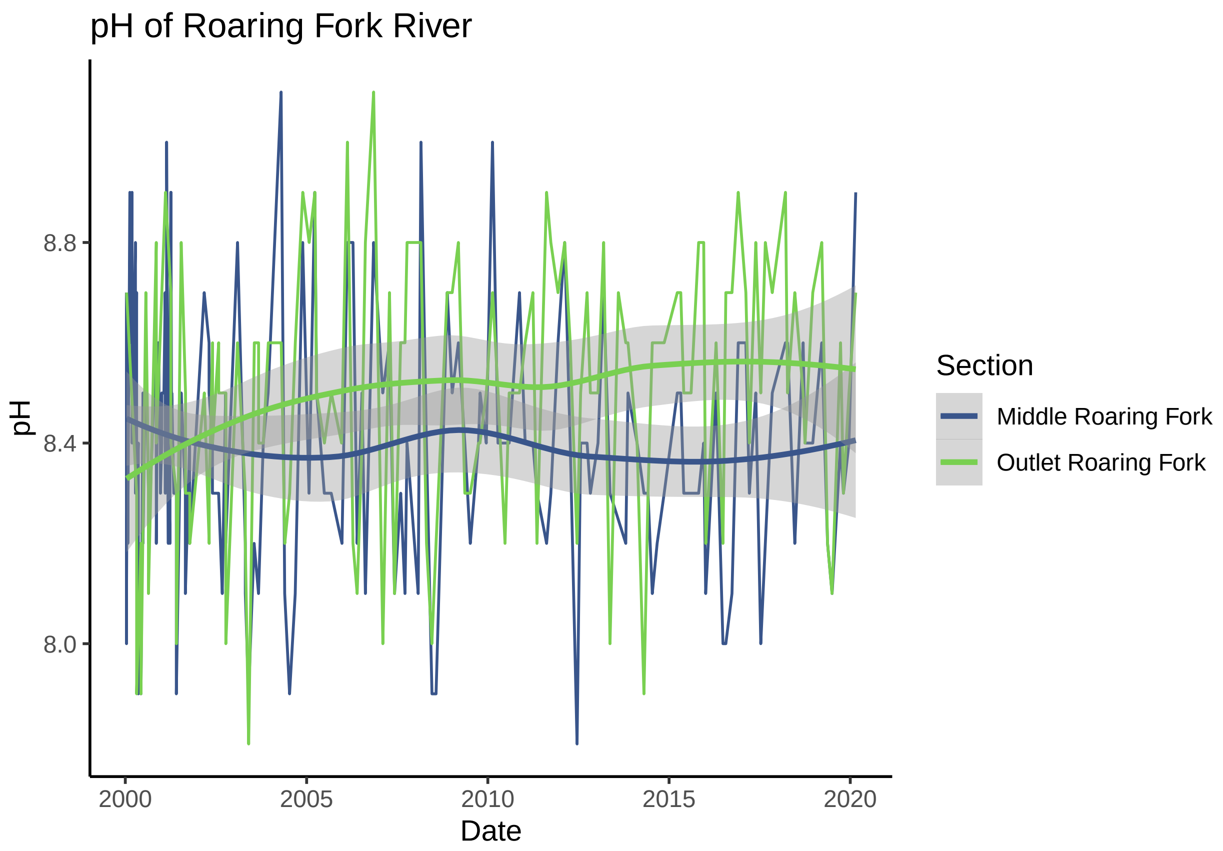
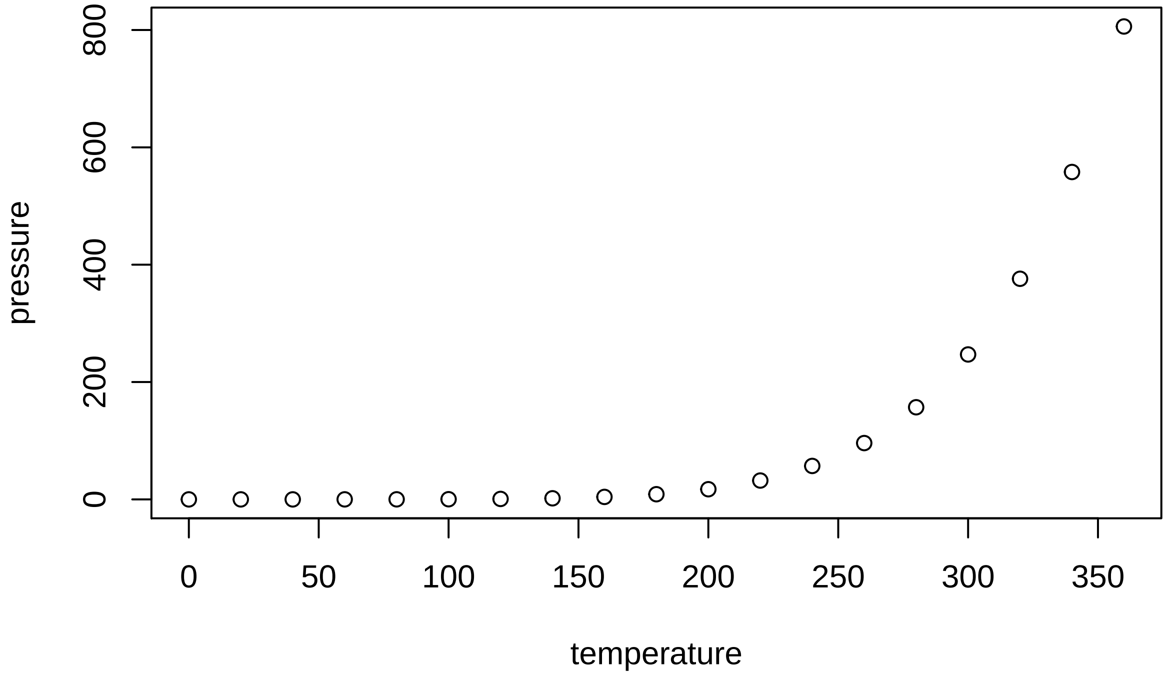


Figure 1: ph in the Roaring Fork

```
##  Min.   : 4.0   Min.   :  2.00
##  1st Qu.:12.0   1st Qu.: 26.00
##  Median :15.0   Median : 36.00
##  Mean   :15.4   Mean   : 42.98
##  3rd Qu.:19.0   3rd Qu.: 56.00
##  Max.   :25.0   Max.   :120.00
```

Including Plots

You can also embed plots, for example:



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.