# project1

## 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 (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:

```
#create the interactive map
#load packages
library(dplyr)
```

```
##
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
##
##     filter, lag
```

```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```
library(ggplot2)
library(rjson)
library(jsonlite)
```

```
##
## Attaching package: 'jsonlite'
```

```
## The following objects are masked from 'package:rjson':
##
##     fromJSON, toJSON
```

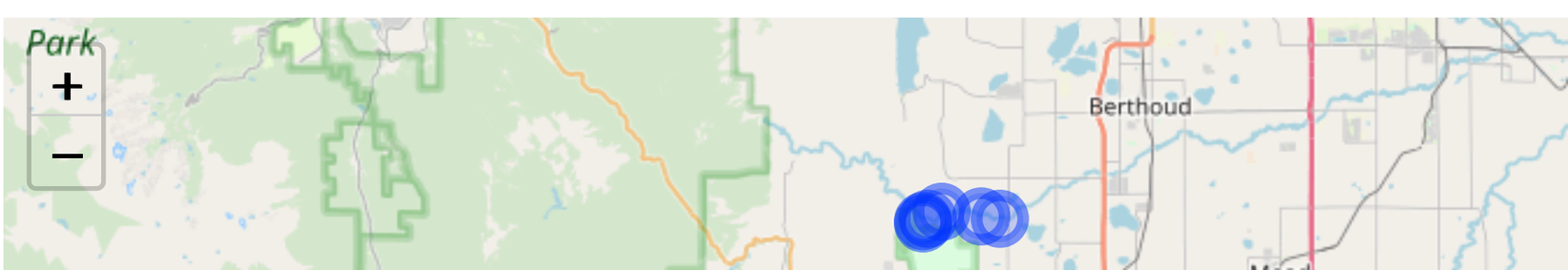
```
library(leaflet)
library(RCurl)
```

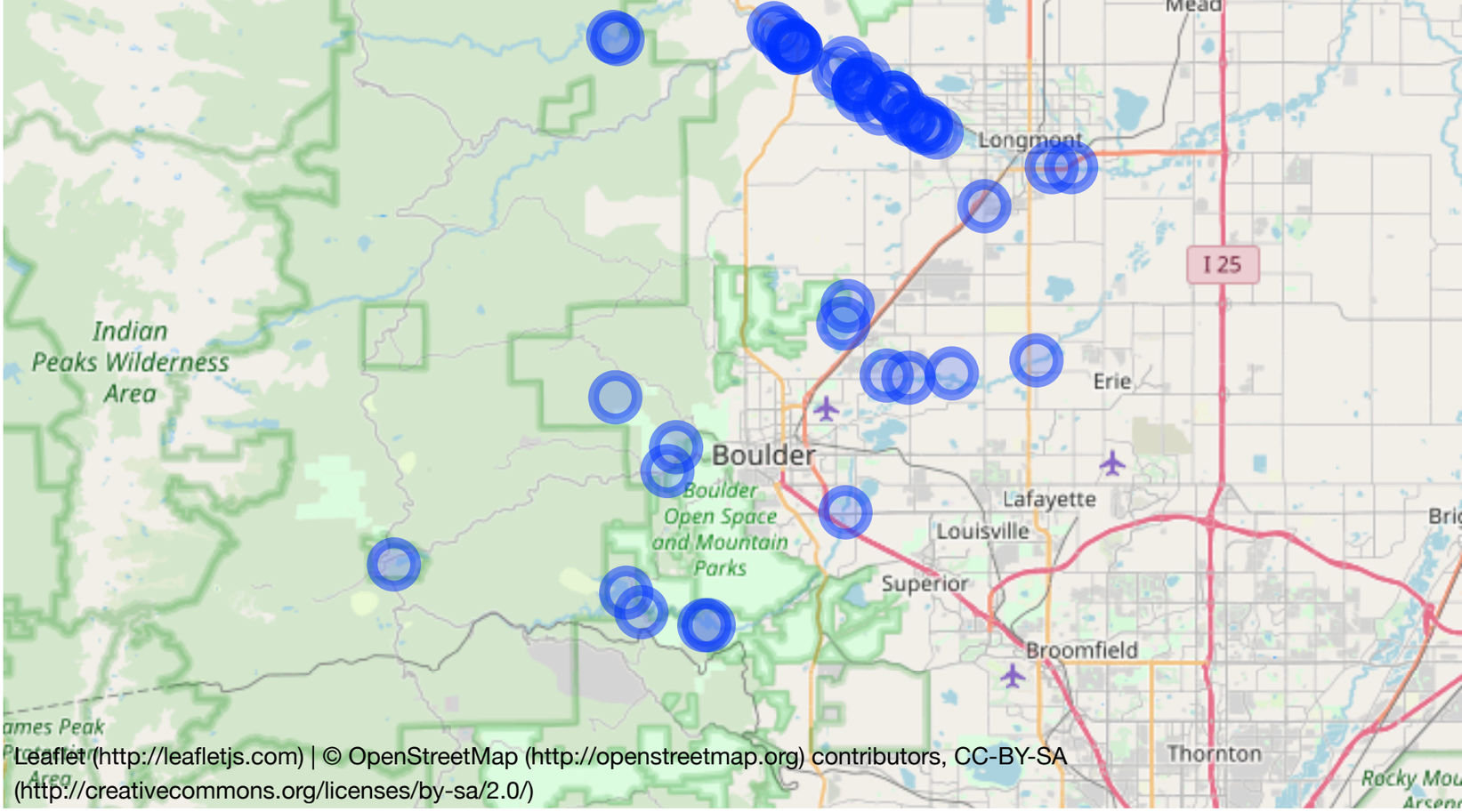
```
## Loading required package: bitops
```

```
# Request and get the data from the colorado.gov SODA API
#get and clean the data
base_url <- "https://data.colorado.gov/resource/j5pc-4t32.json?"
full_url <- paste0(base_url, "station_status=Active",
            "&county=BOULDER")
water_data <- getURL(URLencode(full_url))

# you can then pipe this
water_data_df <- fromJSON(water_data) %>%
  flatten(recursive = TRUE) # remove the nested data frame

# turn columns to numeric and remove NA values
water_data_df <- water_data_df %>%
  mutate_at(vars(amount, location.latitude, location.longitude), funs(as.numeric)
) %>%
  filter(!is.na(location.latitude))
```

```
## Warning: funs() is soft deprecated as of dplyr 0.8.0
## Please use a list of either functions or lambdas:
##
##   # Simple named list:
##   list(mean = mean, median = median)
##
##   # Auto named with `tibble::lst()`:
##   tibble::lst(mean, median)
##
##   # Using lambdas
##   list(~ mean(., trim = .2), ~ median(., na.rm = TRUE))
## This warning is displayed once per session.
```

```
#create leaflet map

water_locations_map <- leaflet(water_data_df)
water_locations_map <- addTiles(water_locations_map)
water_locations_map <- addCircleMarkers(water_locations_map, lng = ~location.long
itude,
                        lat = ~location.latitude)
water_locations_map
```

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