Kern County Parcels-CDFA table join on APN Field

The purpose of this Rmarkdown document is to join CDFA tabular data to the Kern County Parcel shapefile. Two previous Rmarkdown documents prepared APNs for the join

Notes:

- This Rmarkdown document uses a function in the "3_KernCountyParcel_CDFA_join.R" file to join CDFA and Kern County Parcel data on their respective APN columns. See notes in that R script for more details about that function

Output:

- Shapefile of with CDFA data joined to Kern County Parcel shapefile attribute table by APN

---

1. Load packages, function, and data

```r
library(tidyverse) # For general data wrangling and operations on dataframes
```

```
## -- Attaching packages --------------------------------------- tidyverse 1.2.1 --
```

```
## v ggplot2 3.2.1      v purrr   0.3.2
## v tibble  2.1.3      v dplyr   0.8.3
## v tidyr   1.0.0      v stringr 1.4.0
## v readr   1.3.1      v forcats 0.4.0
```

```
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```r
library(rgdal) # GDAL for R.
```

```
## Loading required package: sp
```

```
## rgdal: version: 1.4-4, (SVN revision 833)
##  Geospatial Data Abstraction Library extensions to R successfully loaded
##  Loaded GDAL runtime: GDAL 2.4.2, released 2019/06/28
##  Path to GDAL shared files: /Library/Frameworks/R.framework/Versions/3.6/Resources/library/rgdal/gdal
##  GDAL binary built with GEOS: FALSE
##  Loaded PROJ.4 runtime: Rel. 5.2.0, September 15th, 2018, [PJ_VERSION: 520]
##  Path to PROJ.4 shared files: /Library/Frameworks/R.framework/Versions/3.6/Resources/library/rgdal/pr
##  Linking to sp version: 1.3-1
```

```r
library(sf) # For simple features operations in R. Allows the attribute table of a shapefile to be conv
```

```
## Linking to GEOS 3.7.2, GDAL 2.4.2, PROJ 5.2.0
```

```r
# Bring in function stored in the '3_KernCountyParcel_CDFA_join.R' script. If editing that
# function, check the box that says 'source on save' to upload that latest version of the
# function in this Rmarkdown document
source("../R/2_KernCountyParcel_CDFA_join.R")

# Read in Kern County Parcel data
KernCoParcels <- readOGR("../R_input/spatial/Kern_ALL_shp/Kern_Parcels_2017_Final.shp")
```

```
## OGR data source with driver: ESRI Shapefile
## Source: "/Users/clairepowers/Desktop/Organics_Final/Working/R_files/R_input/spatial/Kern_ALL_shp/Kern
```

```
## with 405613 features
## It has 8 fields
## Integer64 fields read as strings:  FID SHAPE_SQFT
```

```r
# Transform Kern County Parcel data into the correct CRS for project. CA Teale Albers 2011
kern_parcel_shp <- spTransform(KernCoParcels, CRS("+proj=aea +lat_1=34 +lat_2=40.5 +lat_0=0 +lon_0=-120
```

2. Apply function that joins CDFA data to Kern County Parcel data on the APN field to years of interest: 2013 - 2017.

```r
# Specify years for function to be applied to
yrs = 2013:2017

# For more notes about this function see the .R file
for(i in yrs){

  KernCoParcel_CDFA_join(year = i, # Year index
                         kern_parcel_shp = kern_parcel_shp) # Shapefile to be used


  }
```

```
## Parsed with column specification:
## cols(
##   company = col_character(),
##   APN_index = col_character(),
##   original_apn = col_character(),
##   edited_APN = col_character(),
##   CDFA = col_double()
## )

## Warning in writeOGR(final, dsn = paste0("../R_output/spatial/
## CDFA_parcels/", : Field names abbreviated for ESRI Shapefile driver

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## cols(
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```

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