

HW2 Notebook

October 17, 2020

```
[5]: import geopandas as gpd
```

```
[6]: stormwater = gpd.read_file('../data/Data HW2/Stormwater.csv')
```

```
[7]: type(stormwater)
```

```
[7]: geopandas.geodataframe.GeoDataFrame
```

```
[8]: stormwater.head(5)
```

```
[8]:  ID  Applicant_Proponent  Projects \
0  1  City of Salinas  Stormwater retention facilities from the Salin...
1  2  City of Salinas  City of Salinas SWRP-Integrated Industrial Was...
2  3  MRWPCA  MRWPCA and City of Salinas Storm Water Collect...
3  4  City of Salinas  City of Salinas SWRP-Integrated Industrial Was...
4  5  City of Santa Maria  Main Street Subwatershed Improvement Project
```

```
GW_recharge_amount_AFY DirectUse_AFY Basis_For_Amounts \
0 4000 0
1 1750 750
2 1400 0
3 1400 0
4 300 0
```

```
UrbanOrNonUrbanORBoth_SWsource_check Construction_end_targetyrNB \
0 urban 2020
1 urban 2020
2 urban 2020
3 urban 2020
4 urban 2020
```

```
DWR_IRWM_Region_Name DWR_HydrologicRegion_Name Program1 \
0 Greater Monterey County Central Coast 0
1 Greater Monterey County Central Coast SWRCB-Prop1
2 Greater Monterey County Central Coast SWRCB-Prop1
3 Greater Monterey County Central Coast SWRCB-Prop1
4 Santa Barbara County Central Coast SWRCB-Prop1
```

	SWRP_or_Equiv_SWRP	DWR_Contact_Comments \
0	0	Susan Robinson & Consultant-Kennedy Jenks, Sac...
1	0	Susan Robinson & Consultant-Kennedy Jenks, Sac...
2	0	Susan Robinson & Consultant-Kennedy Jenks, Sac...
3	0	Susan Robinson & Consultant-Kennedy Jenks, Sac...
4	0	0

	DWR_TargetNotes	geometry
0	Consultant-Kennedy Jenks, Sachi Itagaki	None
1	Consultant-Kennedy Jenks, Sachi Itagaki	None
2	Consultant-Kennedy Jenks, Sachi Itagaki	None
3	Consultant-Kennedy Jenks, Sachi Itagaki	None
4	0	None

```
[9]: stormwater.shape
```

```
[9]: (180, 15)
```

```
[10]: stormwater.info
```

```
[10]: <bound method DataFrame.info of
Applicant_Proponent \
0      1      City of Salinas
1      2      City of Salinas
2      3      MRWPCA
3      4      City of Salinas
4      5      City of Santa Maria
..    ...
175  176  Fresno Metropolitan Flood Control District
176  177      COUNTY OF TULARE
177
178
179
```

	Projects	GW_recharge_amount_AFY \
0	Stormwater retention facilities from the Salin...	4000
1	City of Salinas SWRP-Integrated Industrial Was...	1750
2	MRWPCA and City of Salinas Storm Water Collect...	1400
3	City of Salinas SWRP-Integrated Industrial Was...	1400
4	Main Street Subwatershed Improvement Project	300
..
175	Fancher Creek Flood Control Improvement Project	740
176	Cottonwood Creek Storm Water Retention Project	333
177		
178		
179		

	DirectUse_AFY	Basis_For_Amounts	UrbanOrNonUrbanORBoth_SWsource_check \
0	0		urban
1	750		urban
2	0		urban
3	0		urban
4	0		urban
..
175	0		non-urban
176	0		non-urban
177			
178			
179			

	Construction_end_targetyrNB	DWR_IRWM_Region_Name \
0	2020	Greater Monterey County
1	2020	Greater Monterey County
2	2020	Greater Monterey County
3	2020	Greater Monterey County
4	2020	Santa Barbara County
..
175	2035	Kings Basin Water Authority
176	2035	Kings Basin Water Authority
177		
178		
179		

	DWR_HydrologicRegion_Name	Program1	SWRP_or_Equiv_SWRP \
0	Central Coast	0	0
1	Central Coast	SWRCB-Prop1	0
2	Central Coast	SWRCB-Prop1	0
3	Central Coast	SWRCB-Prop1	0
4	Central Coast	SWRCB-Prop1	0
..
175	Tulare Lake	DWR-IRWM	0
176	Tulare Lake	SWRCB-Prop1	0
177			
178			
179			

	DWR_Contact_Comments \
0	Susan Robinson & Consultant-Kennedy Jenks, Sac...
1	Susan Robinson & Consultant-Kennedy Jenks, Sac...
2	Susan Robinson & Consultant-Kennedy Jenks, Sac...
3	Susan Robinson & Consultant-Kennedy Jenks, Sac...
4	0
..	...

```

175
176
177
178
179

```

	DWR_TargetNotes	geometry
0	Consultant-Kennedy Jenks, Sachi Itagaki	None
1	Consultant-Kennedy Jenks, Sachi Itagaki	None
2	Consultant-Kennedy Jenks, Sachi Itagaki	None
3	Consultant-Kennedy Jenks, Sachi Itagaki	None
4	0	None
..
175	0	None
176	0	None
177		None
178		None
179		None

```
[180 rows x 15 columns]>
```

```
[11]: stormwater.columns.to_list()
```

```
[11]: ['ID',
      'Applicant_Proponent',
      'Projects',
      'GW_recharge_amount_AFY',
      'DirectUse_AFY',
      'Basis_For_Amounts',
      'UrbanOrNonUrbanORBoth_SWsource_check',
      'Construction_end_targetyrNB',
      'DWR_IRWM_Region_Name',
      'DWR_HydrologicRegion_Name',
      'Program1',
      'SWRP_or_Equiv_SWRP',
      'DWR_Contact_Comments',
      'DWR_TargetNotes',
      'geometry']
```

```
[16]: stormwater['Projects']
```

```
[16]: 0    Stormwater retention facilities from the Salin...
      1    City of Salinas SWRP-Integrated Industrial Was...
      2    MRWPCA and City of Salinas Storm Water Collect...
      3    City of Salinas SWRP-Integrated Industrial Was...
      4    Main Street Subwatershed Improvement Project
```

...

```
175      Fancher Creek Flood Control Improvement Project
176      Cottonwood Creek Storm Water Retention Project
177
178
179
Name: Projects, Length: 180, dtype: object
```

```
[11]: stormwater['SWRP_or_Equiv_SWRP']
```

```
[11]: 0      0
      1      0
      2      0
      3      0
      4      0
      ..
      175    0
      176    0
      177
      178
      179
Name: SWRP_or_Equiv_SWRP, Length: 180, dtype: object
```

```
[ ]:
```