Project: County Easements

Date	Hours	Synopsis	Deliverables
12/20/2019	4	Created simplified version of the Mains shapefile with just folio number. Joined two data tables (County Easements Acquired and All County Intersections), cleaned up data table, filled in some missing data (e.g. Owner and Location fields) using original parcel data. Some duplicates likely exist in the database. Tallies based on Shapefile: • 4901 parcels fall within 10 ft of either a force main or gravity main • 2380 parcels intersect a gravity or force main • 579 parcels with easements, leases, or deeds in the fall within 10 feet of a main • 482 parcels directly intersect mains and have an easement, are leased, or have a deed • 97 parcels with easements do not intersect with a main, but are within 10 ft of a main, suggesting that going by intersection alone may not be a sufficient search criteria	County_Parcels_Mains_Ease.shp: *Shapefile with consisting of only parcels within 10 ft of gravity or force mains, with fields added to indicate distance to mains (GravDist, ForceDist, 0 = intersect, 5 = 5 feet or less from main, 10 = 10 feet or less from main, 999 = more than 10 ft from main)*

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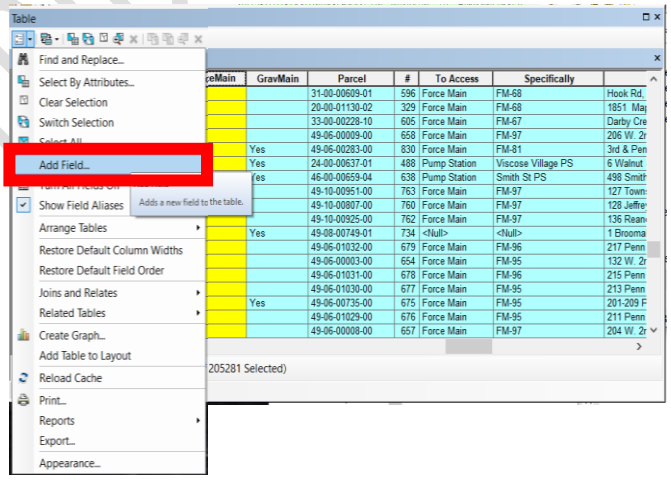
Date	Hours	Synopsis	Deliverables
12/13/2019	4	Prepared shapefile and data table, merged based on Folio#/Parcel#, wrote up SOP. 4901 Parcels selected with the method outlined below. Should be able to adapt to adding any fields as long as we can attach them to the folio number. May pick up duplicate records but not sure if that matters.	County_Parcels_Mains.shp: *Shapefile with consisting of only parcels within 10 ft of gravity or force mains, as well as fields added including "ForceMain" and "GravMain" to designate parcels in close proximity to mains* Easements.csv: *Simplified easement table* SOP_ParcelEasements.docx: *Document detailing method for developing shapefile including table join.*

1. **Prepare Shapefile**
   1.1. Make copy of file [redacted]



   [redacted]\Countyra_DM\Edits\County_Parcels.shp)
   1.2. Bring file into Mxd
   1.3. Add fields
      1.3.1. Open attribute table
      1.3.2. Select "Add Field" from drop menu in top left corner
      1.3.3. Add 4 fields
         1.3.3.1. "ForceMain", Text, Length 5
         1.3.3.2. "GravMain", Text, Length 5
         1.3.3.3. "EaseStatus", Text, Length 10
2. **Select parcels along Force Main lines**
   2.1. Add Force Main mxd
      2.1.1. C:\[redacted]County_DM\Shp_export\Force_Main_exp1.shp

2.2. Select "Select By Location" from "Selection"

2.2.1. Select features from: County_Parcels

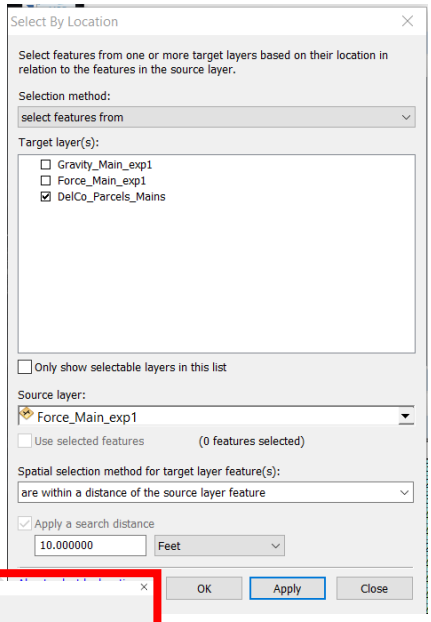
2.2.2. Source layer: Force_Main_exp1.shp

2.2.3. Spatial selection method for target layer feature(s):

2.2.3.1. Are within a distance of the source layer feature

2.2.4. Search distance: 10 ft

2.3. 591 parcels are found within 10 ft of the Force Main

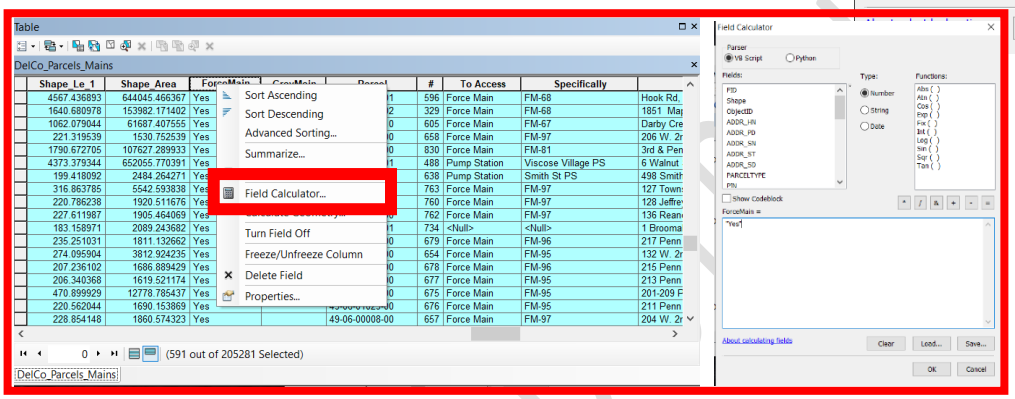


3. **Populate ForceMain Field with "Yes" for all parcels selected within 10 ft of Force Main lines**

3.1. Open attribute table of County_Parcels

3.2. Right-click on ForceMain field header, select "Field Calculator" function

3.3. Type "Yes" , click ok



4. **Find parcels along Gravity Main lines**

4.1. Add Gravity Main mxd

4.1.1. [redacted]\County_DM\Shp_export\Gravity_Main_exp1.shp

4.2. Select "Select By Location" from "Selection" [INSERT PIC HERE]

4.2.1. Select features from: County_Parcels

4.2.2. Source layer: Gravity_Main_exp1.shp

4.2.3. Spatial selection method for target layer feature(s):

4.2.3.1. Are within a distance of the source layer feature

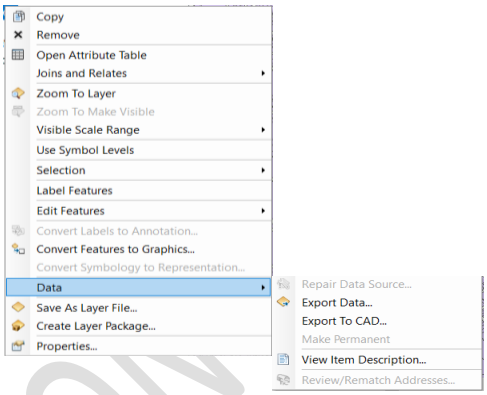
4.2.4. Search distance: 10 ft

5. **Populate GravMain Field with "Yes" for all parcels selected within 10 ft of Gravity Main lines**

5.1. Open attribute table of County_Parcels

5.2. Right-click on GravMain field header, select "Field Calculator" function

5.3. Type “Yes” , click ok



6. Create Mains Only shapefile

6.1. Open County_Parcels attribute

6.2. Select by attribute: "ForceMain" = 'Yes' OR "GravMain" = 'Yes'

6.3. Results in 4901 parcels

6.4. Right click on County_Parcels in the Table of Contents, Data -> Export Data

6.5. Export to: C:\Users\bonas\OneDrive\Desktop \Countyra_DM\Edits\County_Parcels_Mains.shp

7. Prepare Easement Table

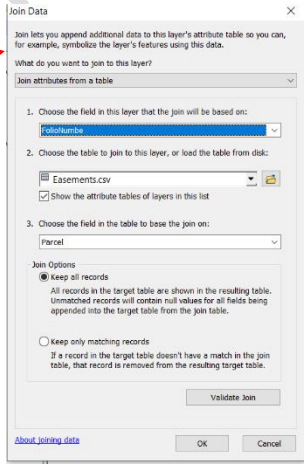
7.1. Open original Force Main Easements.xlsx

7.2. Copy fields into empty excel document

7.2.1. Parcel # To Access Specifically Adress Status Documentation

7.3. Save excel file as comma delineated csv (.csv)

7.3.1. [redacted]\County_DM\Easements.csv



8. Join Easement Table to shapefile

8.1. Bring CSV into mxd

8.2. Right click on County_Parcels_Mains, select “Joins and Relates” -> “Join”

8.2.1. Choose the field in this layer that the join will be based on: “FolioNumbe”

8.2.2. Choose the table to join to this layer, or load the table form disk: Easements.csv

8.2.3. Choose the field in the table to base the join on: “Parcel”

8.2.4. Keep all records

9. Populate Easement Fields

9.1. Open County_Parcels_Mains attribute table

9.1.1. Easement Status Field (EaseStatus)

9.1.1.1. Select by attributes: "Easements.csv.Status" = 'Easement Acquired'

9.1.1.1.1. Right click “EaseStatus” field, select field calculator: “Acquired”

9.1.1.2. Select by attributes: "Easements.csv.Status" = 'Easement Still Needed'

9.1.1.2.1. Right click “EaseStatus” field, select field calculator: “Needed”

9.1.1.3. Select by attributes: "Easements.csv.Status" = 'Deed Aquired' OR "Easements.csv.Status" = 'Deed Aquired '

9.1.1.3.1. Right click “EaseStatus” field, select field calculator: “Deed Aqd.”

9.1.1.4. Select by attributes: "Easements.csv.Status" = ‘Lease Aquired’

9.1.1.4.1. Right click “EaseStatus” field, select field calculator: “Lease Aqd.”

9.1.1.5. Select by attributes: 'Parcel # Needs Confirmation'

9.1.1.5.1. Right click “EaseStatus” field, select field calculator: “Parcel #?”