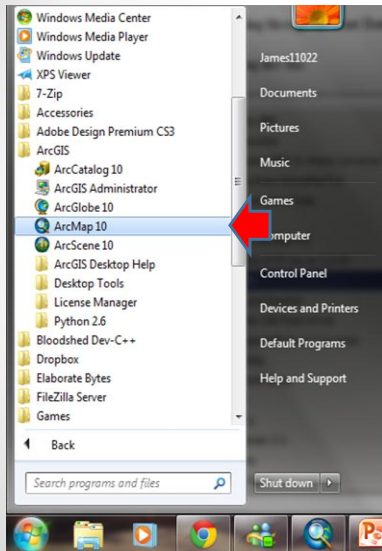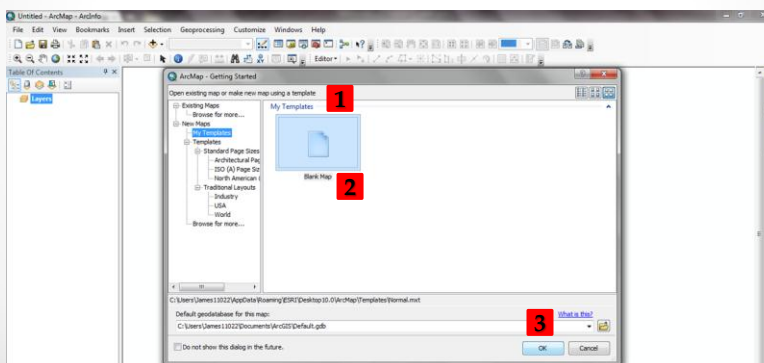# Opening ArcMap

- **Start ArcMap:**
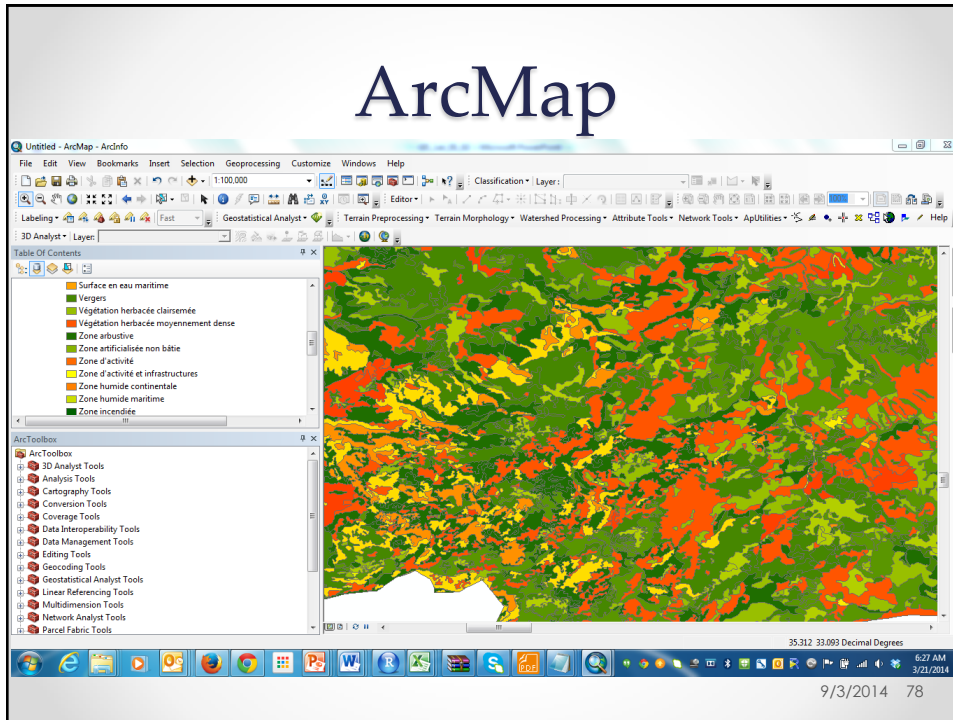 - The location of the ArcMap shortcut may vary from system to system

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Opening ArcMap

- When the "Getting Started" window pops up, click on New Maps under the "Open existing map or make new map using a template" (1)
- Under My Templates, select "**Blank Map**" (2)
- Click **OK** at the bottom of the window to open a blank map in ArcMap (3)

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ArcMap

- ArcMap is your virtual drafting table
- It contains:
  - A **canvas** where GIS data layers are drawn
  - A **Table of Contents** (TOC) which helps keep track of the data in the canvas
- It is the interface which you will spend most of your time in
  - Conduct interactive analysis
  - Visualization
  - Create maps
- The canvas can be viewed in **2 states**:
  - **Data view**: where most of the analysis is done
  - **Layout view**: to create a presentation map
- There are several toolbars available in ArcMap
- There are also several menus available in ArcMap
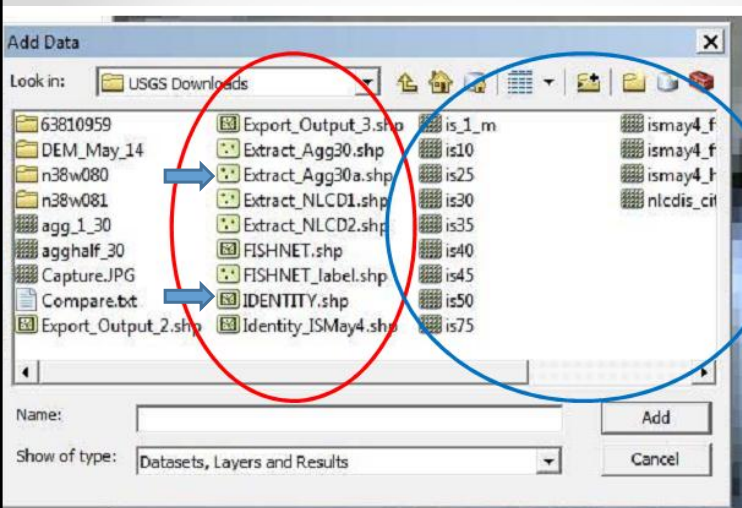
ArcMap: Map View
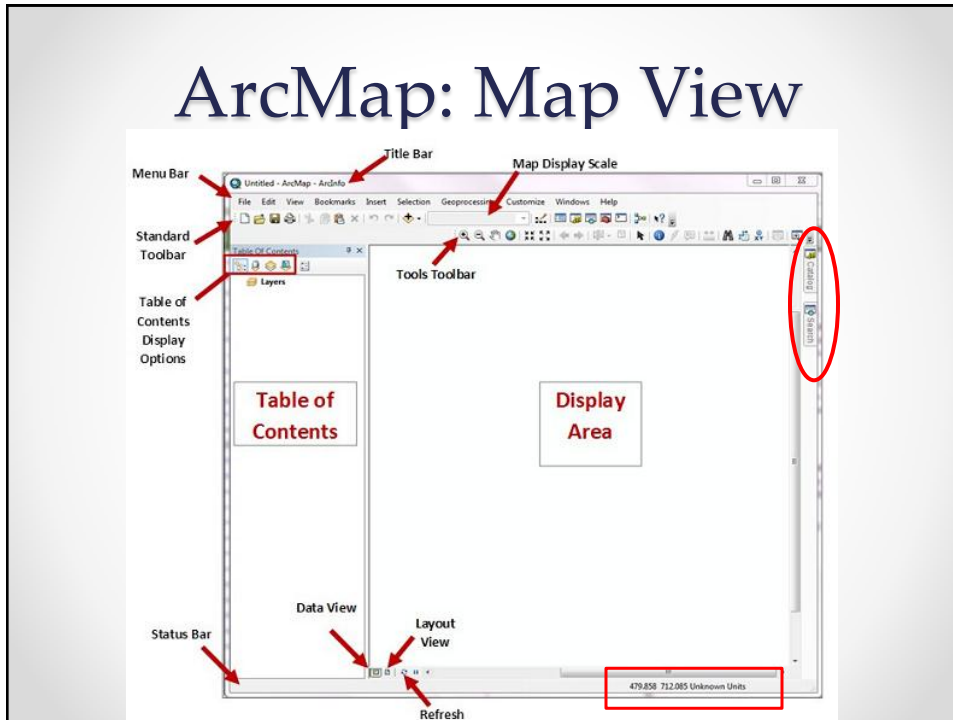
Adding Data to a Map Document

- On the tool bar, click on the plus sign (add data) and navigate to your drive and the folder containing your recently downloaded data files
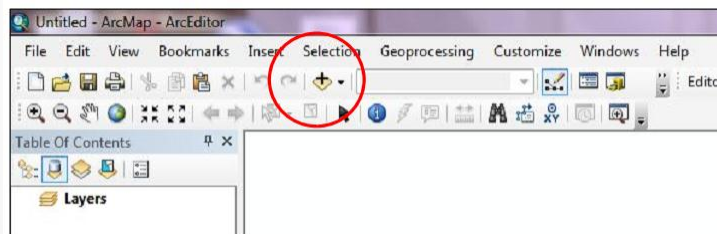
- Click on the files that you wish to add to the map
- If you want to add more than one file, you can hold down the control button and click on as many files as you want
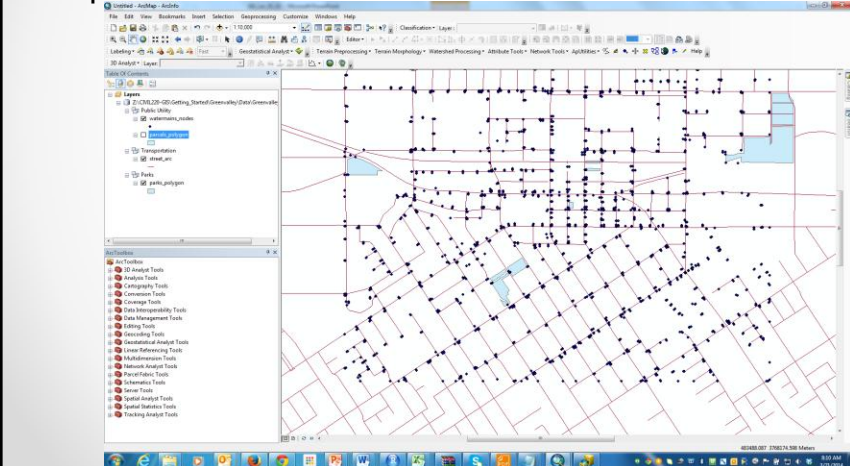
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- Vector files have icons next to the name which show if the file is a point, line or polygon file (red oval)
- Raster files show a grid next to their name (blue circle)

Adding Data to a Map Document

- Add the roads, watermain nodes, and the parks layers to your map

Adding Data to a Map Document

- Add the roads, watermain nodes, and the parks layers to your map
- Is there an order that the files were added in?
- Now add the **Parcels** to the map
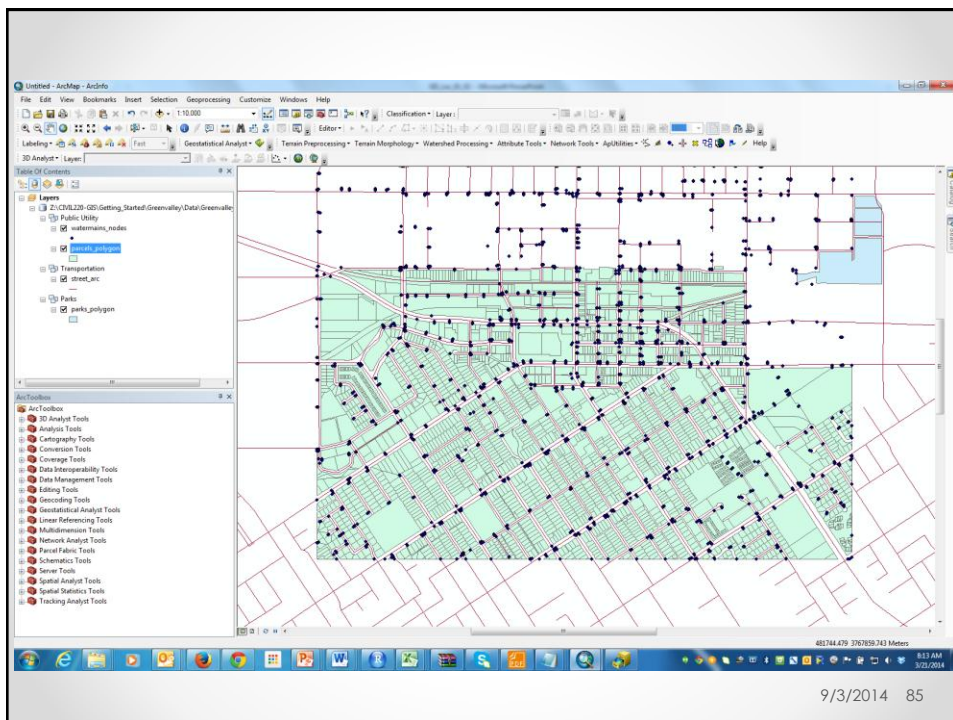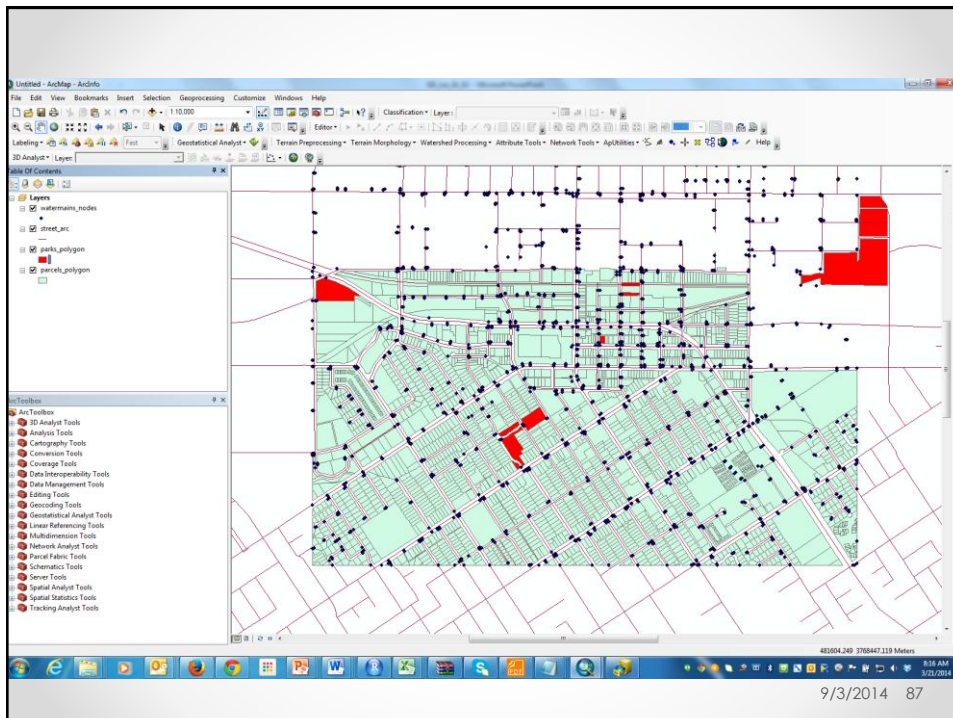
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Adding Data to a Map Document

- Add the roads, watermain nodes, and the parks layers to your map
- Is there an order that the files were added in?
- Now add the **Parcels** to the map
- What happened?
- How can I make the parks within the city center visible again?
- Move the Parks above the Parcels in the TC

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Navigation Buttons

Using the **non-continuous zoom tools**, you can click on your map to zoom in or out at a fixed amount or to draw a box around the area that you want to see in more or less detail. The new map will be drawn so that the area you drew the box around is in the middle of the map display.

The **fixed zoom in/fixed zoom out** tools give you the least control but also may keep you from zooming in or out too much and losing your map. Each time you click, you will zoom in or out a fixed amount.

The **pan tool** works like the continuous zoom tool when you right click on it. Think of the pan tool as a sticky hand you set down on a piece of paper. You use it to move your map up, down, left or right without changing the extent (the degree to which you are zoomed in or out).

You can also pan by using the scroll bars on the right and bottom of your map. However, these are not the best way to navigate since they are really designed for scrolling in word document or image.

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Navigation Buttons

The **full extent button** will zoom in or out so that all of your active (checked) map layers can be viewed. This is very helpful when you zoom in or out too much and can't see your map layers. You can also zoom in to a single layer by right clicking on the layer in the table of contents and choosing "zoom to layer."

The **previous extent button** allow you to return to the extent you had before zooming in or out. The next extent button allows you to jump forward an extent (after you have used the previous extent button). This is a sort of "undo" button in regard to navigation.

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ArcMap: Getting Information

- Click the **Identify Features** button and click the shape/cell you want to know more about

- The Identify Results window appears. You can inspect the attributes of the feature from this window
- If the tool finds several features where you clicked
  - o It lists each feature on the left side of the window
  - o You can click the features in this list to view their attributes on the rightside of the window

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# ArcMap: Getting Information

Where is this data coming from?

ArcMap: Finding a Feature

- The **Find** button lets you search a map for features that match your search criteria
  1. Click the **Find** button
  2. Find dialog box appears
  3. Let us search for the University park
  4. Type University in the **Find field**
  5. You can search for features from a particular layer or from all layers on the map
  6. Here let us choose parks_polygon
  7. Click **Find**
  8. Lower box shows all matches
  9. Select from the list
  10. It will highlight it on the map
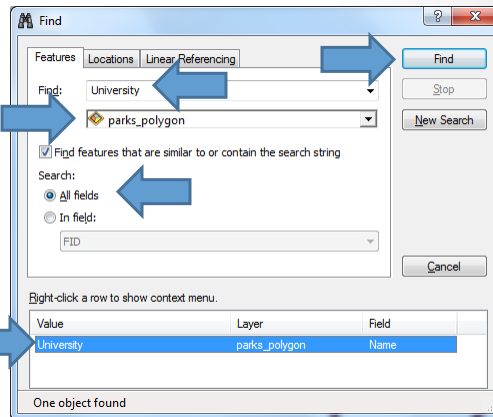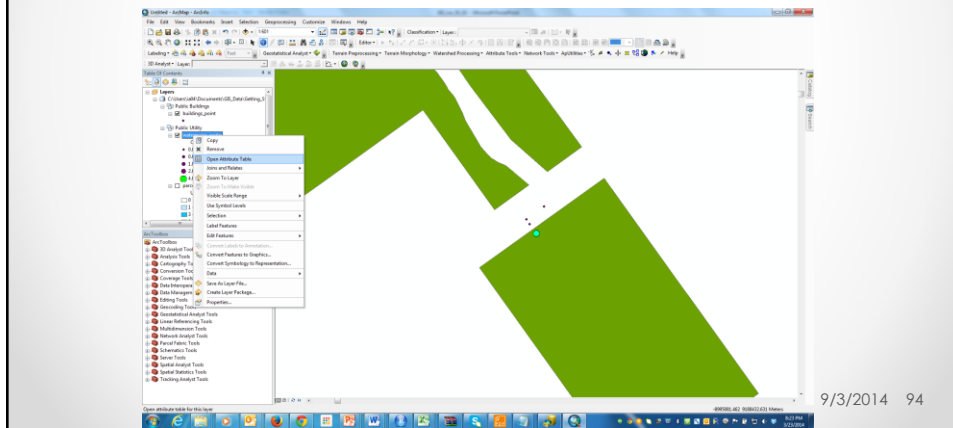
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ArcMap: Finding a Feature

- Right-click on the University park and choose:
  o **"Zoom To"**: to go to the site
  o **"Flash to"**: just show you where without changing your map
  o **"Pan to"**: to center the map on it
- Try them all

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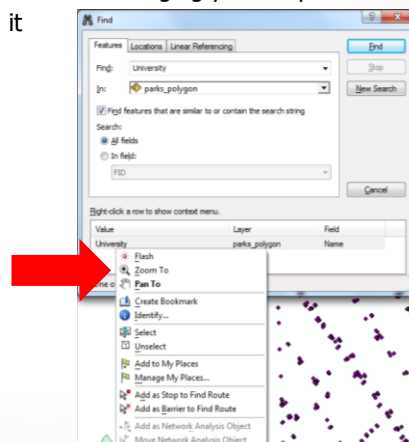
Selecting a Feature from Attribute Table

- We can view the entire attribute table for a feature class
- Do a single right click on the watermains_nodes shapefile in the Table of Contents to bring up a menu
- Select the Open Attribute Table option to open the table

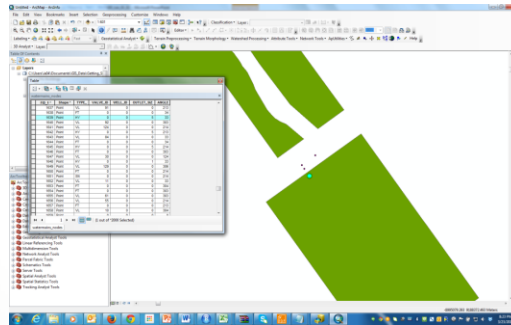9/3/2014   94

Selecting a Feature from Attribute Table

- You should see a table with one record for each water node
- Columns show several different attributes
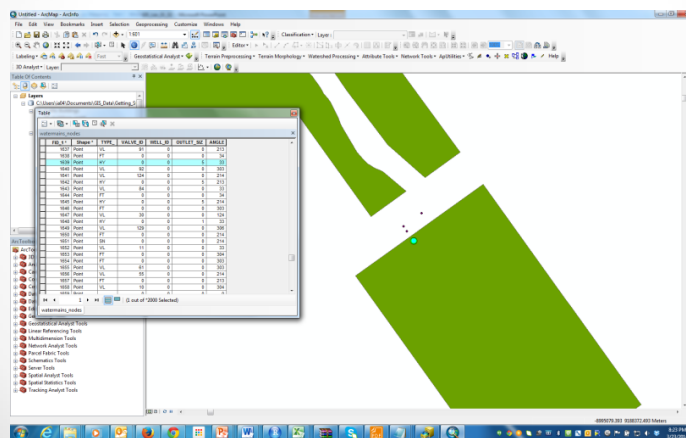
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Selecting a Feature from Attribute Table

- Select the water node with **FID_1 = 1639**
- Click on the small, grey box next to that row to choose it

- This will highlight the record in the table and highlight the point in the Data View

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Selecting a Feature from Attribute Table

- You can select multiple features from the table by holding down the control (**Ctrl**) key

- What is the name of the park serviced by that water main?   9/3/2014   97

Selecting a Feature from Attribute Table