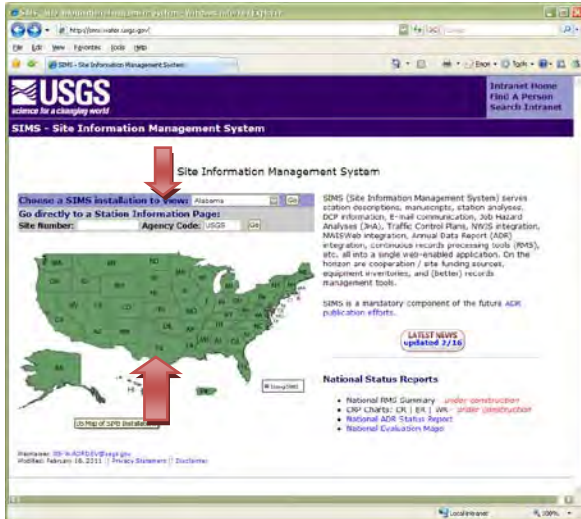


SIMS/Google Earth How To Guide

Open up web browser and go to SIMS website -> <http://sims.water.usgs.gov>

And choose a state, you can either choose a state from the “Choose a SIMS installation to view:” drop down menu or click on one of the states on the map.



After you've selected a state, you should view a page similar to this



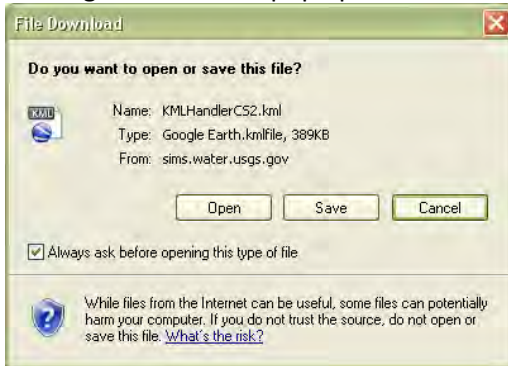
To download the kml for sites

by office, click on the Office link under the Mapping Toolbox section
(http://sims.water.usgs.gov/KMLHandlerCS2.ashx?office_id=47)

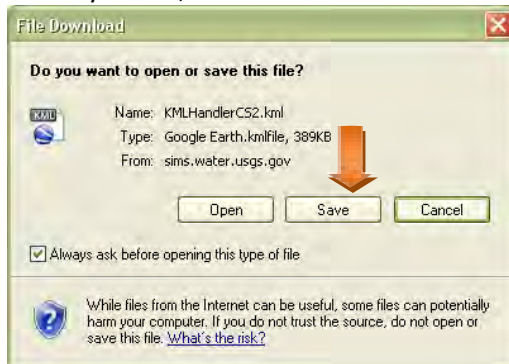
OR

by water science center, click on the WSC link under the Mapping Toolbox section
(http://sims.water.usgs.gov/KMLHandlerCS2.ashx?district_cd=48)

A dialogue box should pop open

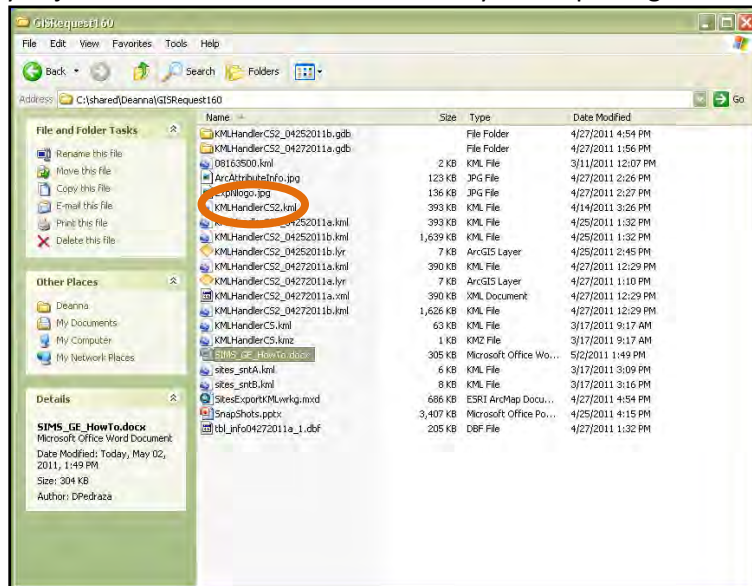


To Save the kml file on your PC, click on Save

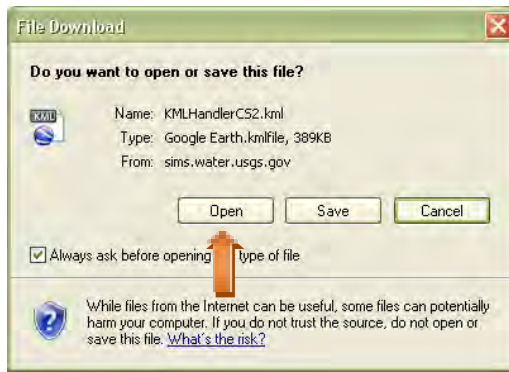


Save the kml file to a desired location on your pc

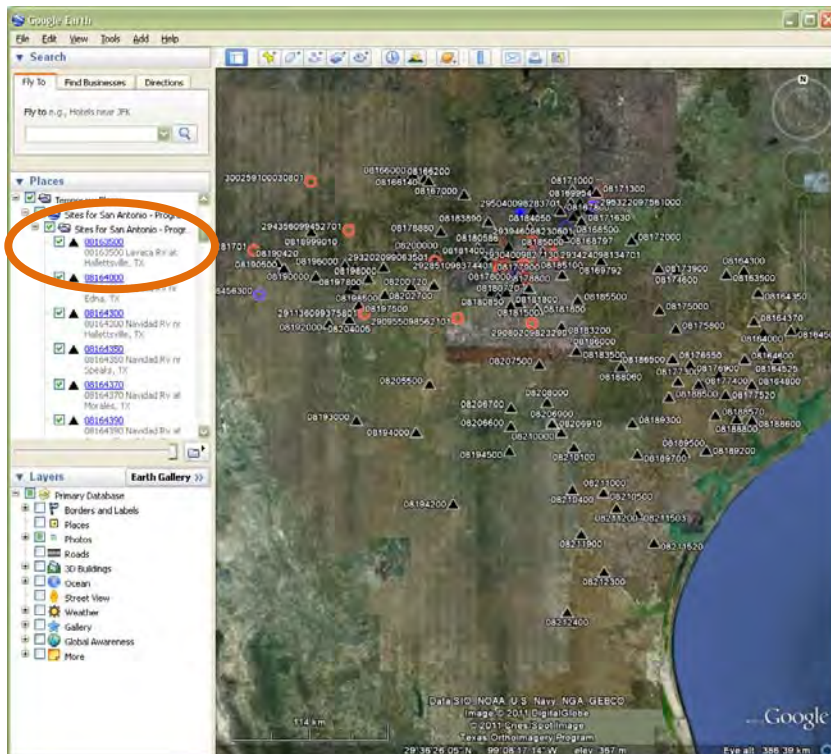
To open the kml you saved, open up windows explorer, go to the directory you saved the file at, and double click on the kml file you just saved. This should automatically start up Google Earth.



If you do not want to save the kml file to your PC and would rather open the file as a temporary file:
Click Open



This should automatically open Google Earth and the sites should show up under “Temporary Places” in the table of contents.



In Google Earth

Helpful layers to have turned on in the table of contents under Layers section are:



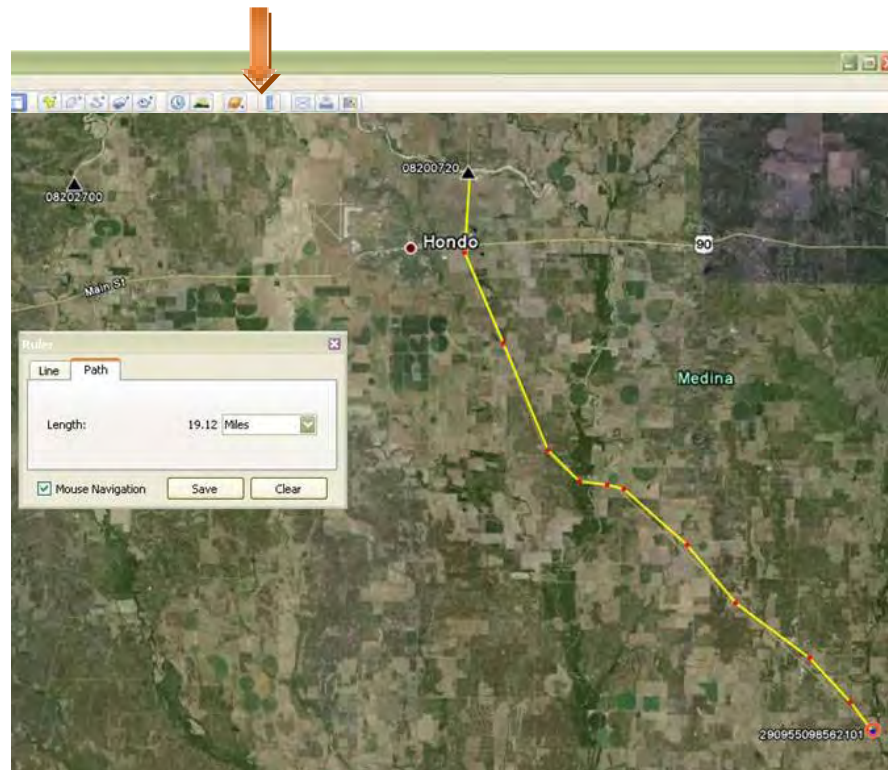
-2nd Level Admin Regions (Counties)

-Populated Places

-Roads

Useful Tool(s):

Ruler tool allows the user to estimate distance between a set of locations by outlining the path.



Panning the mouse cursor over a location, gives you latitude, longitude, and elevation on the bottom Status Bar.



Click on a site icon to open the attribute pop up with **site information**.

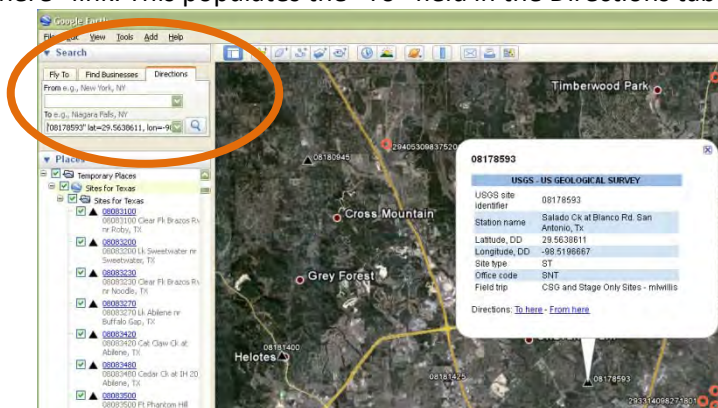


To and From Directions for a site can be created in Google Earth.


- Zoom to the site icon
- Click on the site icon to bring up the attribute pop up window
- At the bottom of the pop up, you'll see "Directions: To here - From here" links



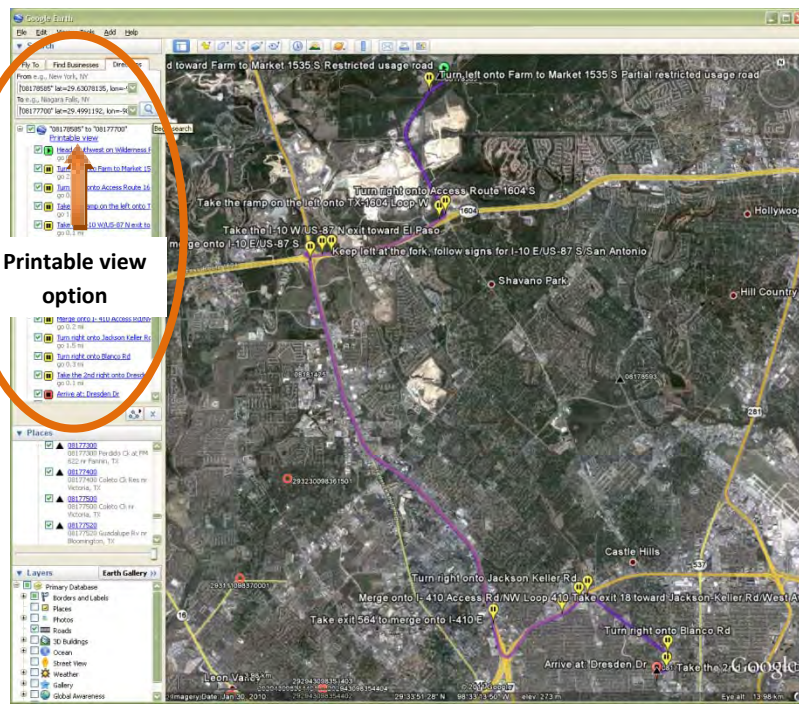
- Click on "To here" link. This populates the "To" field in the Directions tab under Search



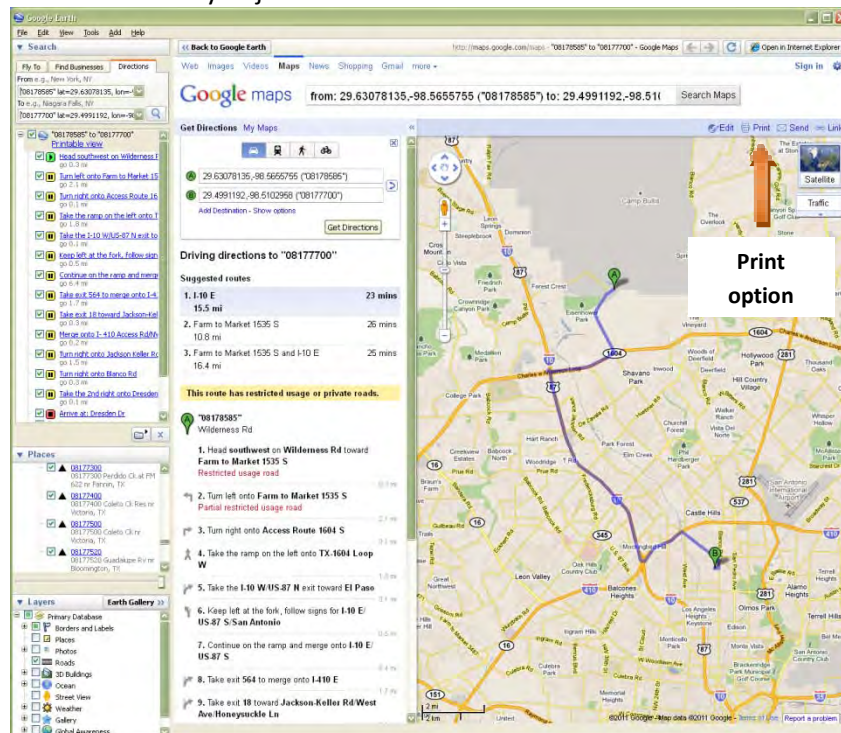
- Zoom to your "From" location
- If its another site already plotted, click on the icon so the attribute pop up opens.
- Click on the "From here" link
- The "From" field in the Directions tab is now populated.
- In the Directions tab, you can see that both the To and From fields have been populated. Click on the

magnifying glass button  to initiate the search for directions.

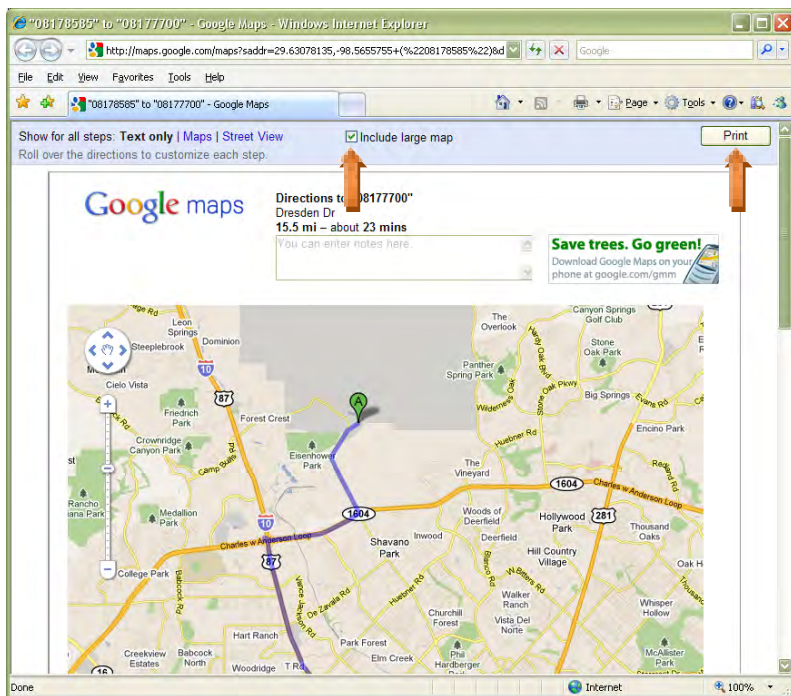
- Google Earth zooms out to show the To and From locations that were selected and creates a path outlining the route and an outline of step by step directions is populated underneath the Directions tab.



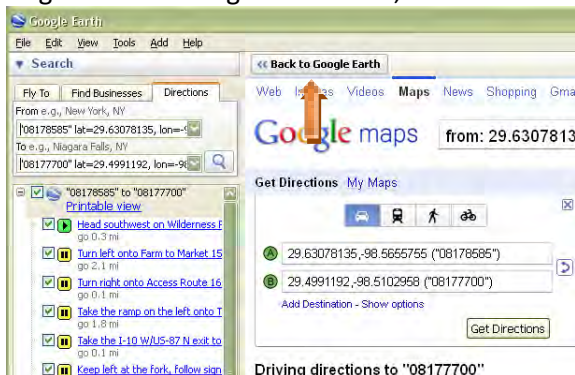
To print the directions with the map, click on “Printable view.” This opens up a window with Google Maps and displays the route and directions you just created.



-To print the map and directions, click on the Print option, another window opens. Make sure that there is a check mark by the option “Include large map” so that the map is printed with the directions. Click the Print button within this window. Both your map and the directions should now be printed.



To get back to Google Earth view, click on the “Back to Google Earth” button.

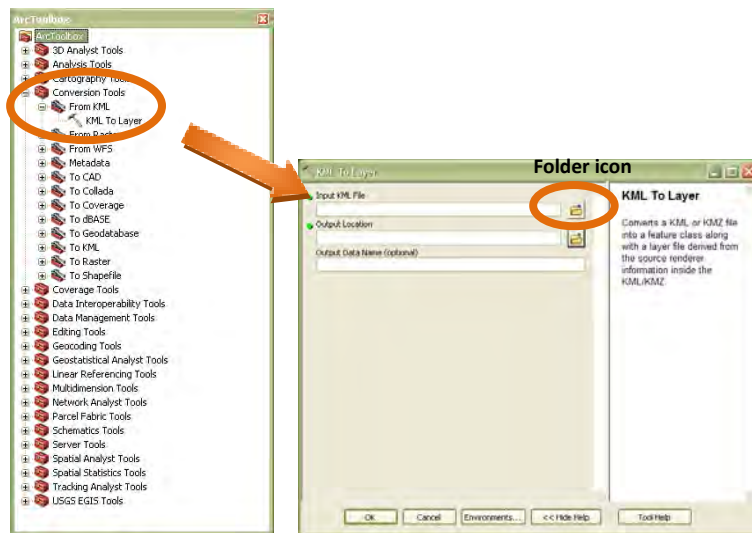


In ArcMap

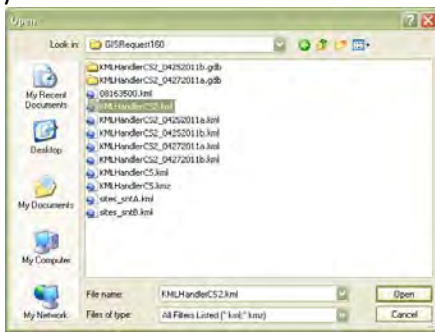
Now that you have downloaded and saved the kml, you have the ability to use the data in ArcMap by applying a simple file conversion.

Open up a new ArcMap session (.mxd).

Open up ArcToolBox and navigate to: Conversion Tools → From KML→KML to Layer
Double click on KML to Layer. The KML to Layer dialogue box should open up.



To the right of Input KML file, click on the folder icon. A window opens, allowing you to navigate to the directory where you saved the KML file. Select the desired KML file and click on Open.



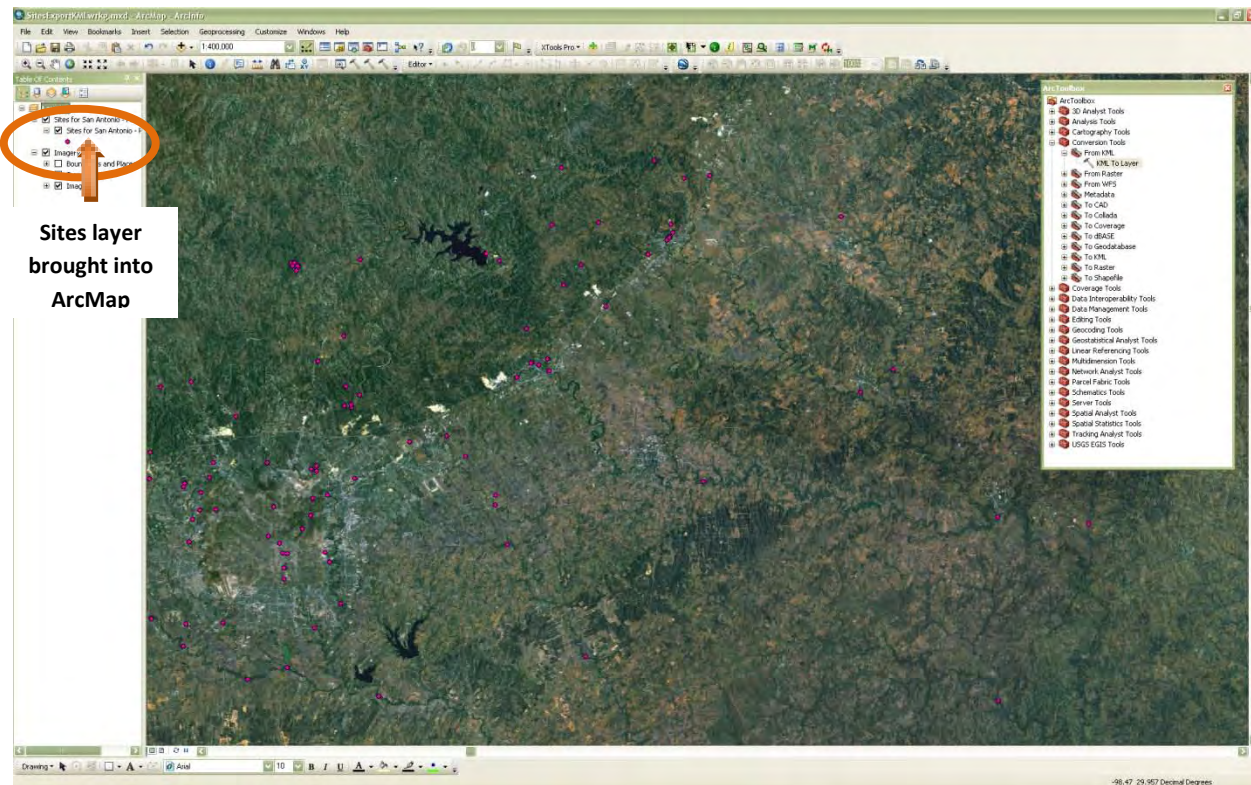
Next, select your Output Location. Click on the folder icon to where you are saving the KML converted file.

The Output Data Name (optional) automatically gets filled in. You can change the name of the Output file if you'd like.

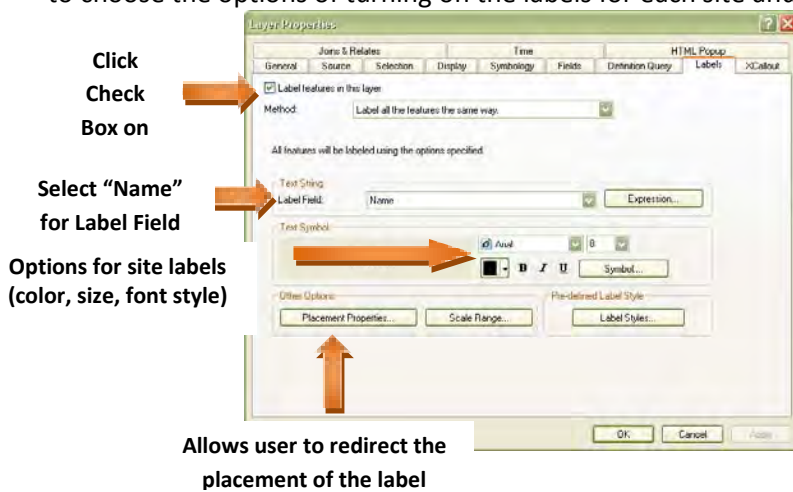


Once you have populated all required fields, click on OK to start the conversion process.

After a few seconds, a new “Sites” Grouping should be added to the Table of Contents in your ArcMap session.

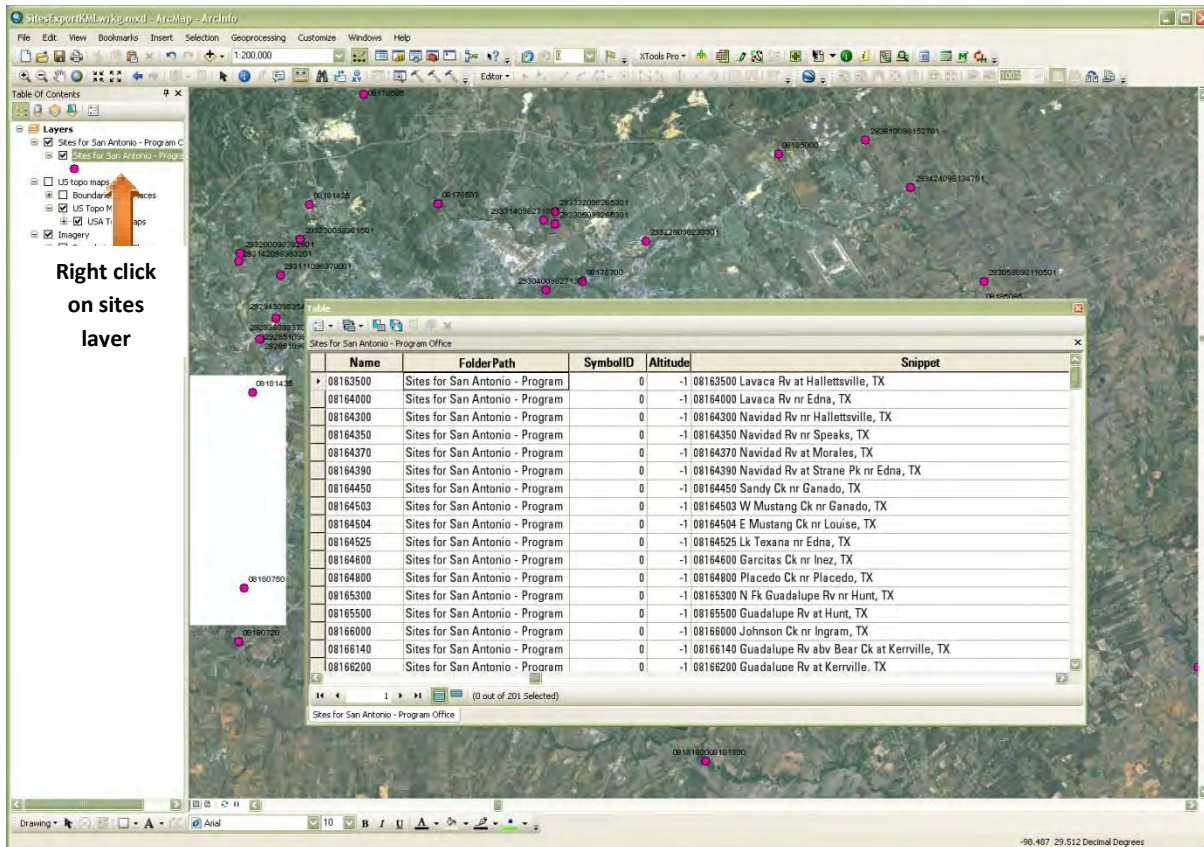


To display the site labels, double click on the Sites layer and click on the Labels tab. This opens a dialogue box for which to choose the options of turning on the labels for each site and how you would like the labels displayed in ArcMap.

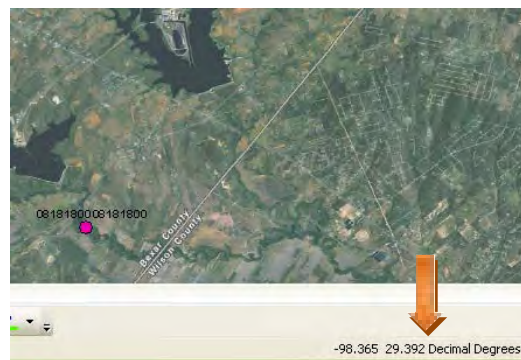


When you are done choosing the options , hit the “OK” button.

To view the **site's attribute table**, right click on the Sites layer in the table of contents on the left hand side and select “Open Attribute Table” option

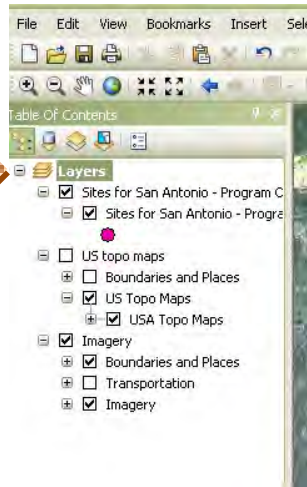


To find out the **Latitude/Longitude coordinates** of a particular location on the fly that is not plotted in the Sites layer, place the cursor over the location and look at the bottom bar of the ArcMap window. You'll see the coordinates adjust as you move the cursor around.

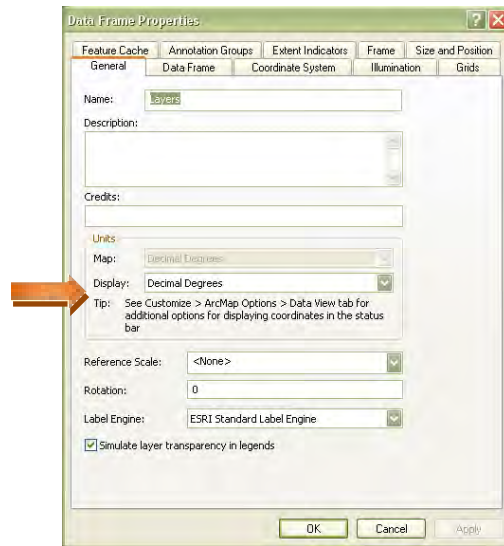


If you need the coordinates to display units other than Decimal Degrees, right click on “Layers” in the Table of Contents on the left hand side. Select “Properties.” In the dialogue box that opens, click on the “General” tab. Under “Units” in the “Display” field, click on the drop down arrow and select the desired units you wish to have displayed in ArcMap.

Right
click
where it
says
“Layers”

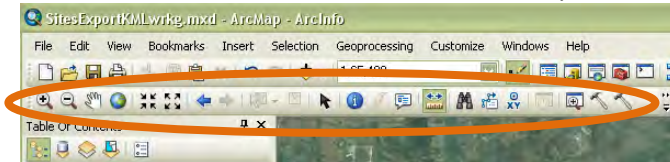


Drop down
box from
which to
choose the
units
displayed for
the
coordinates




Useful Tool(s):


To turn on the “Tools” toolbar, click on “Customize” on the top menu bar. From there click on “Toolbars” → “Tools.”



Commonly used tools:

Zoom In 

Zoom Out 


Pan 

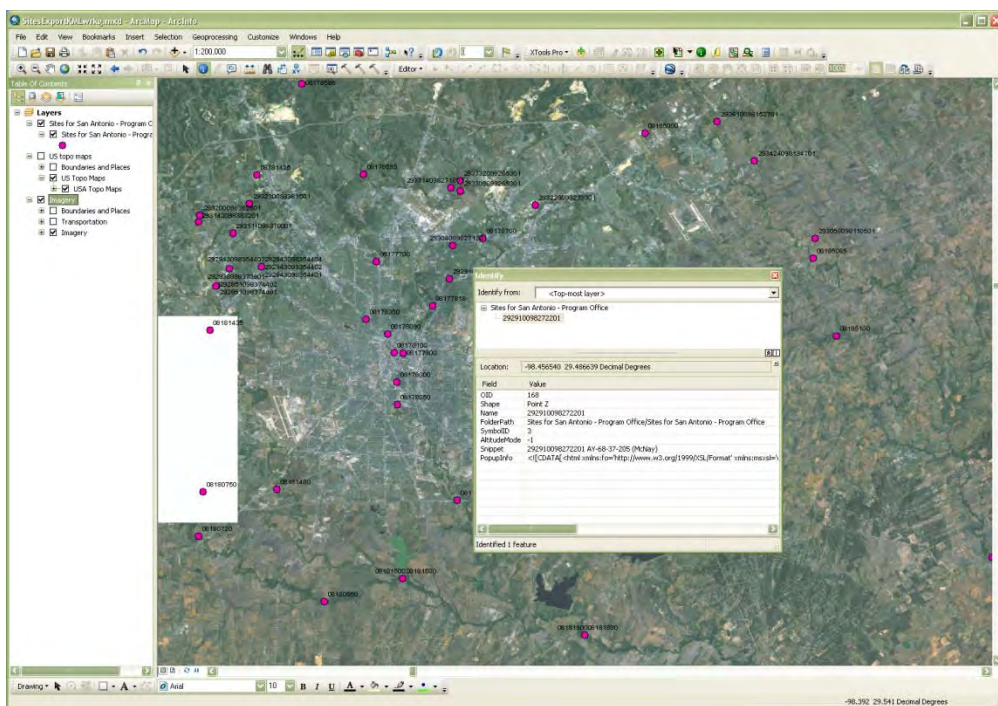
Identify 


Measure 

Route 

Search 

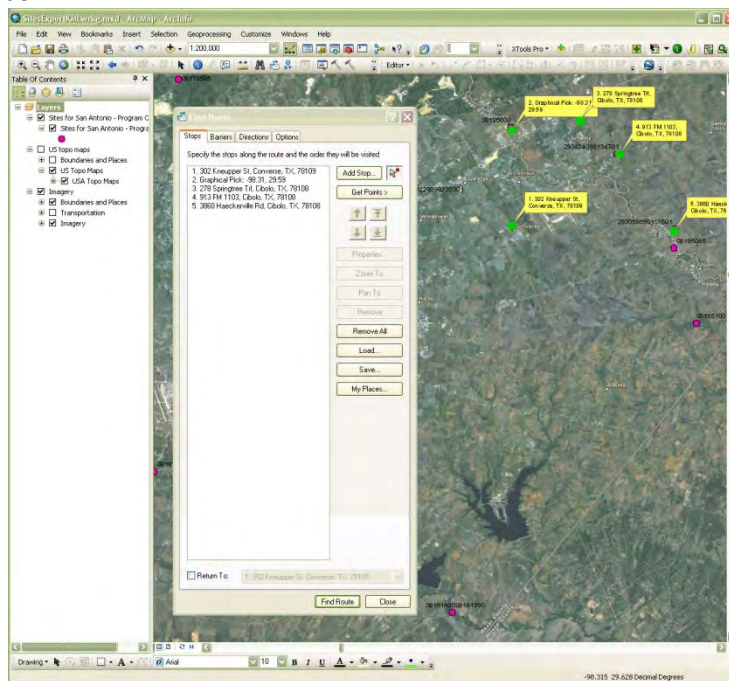
The “Identify” tool identifies a specific feature’s attributes. Click on the “Identify” tool button  to initiate. Now click on an individual site. A dialogue box should open up with that particular sites’ attribute information available.



The “Route” tool determines To and From directions for a chosen destination. Click on the “Route” tool  button to initiate the process and open the “Find Route” dialogue box.

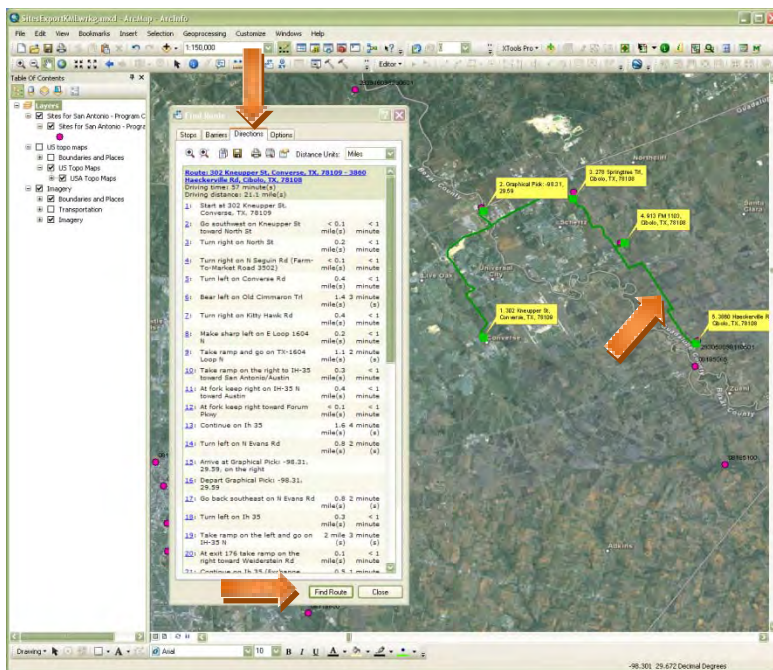



Click on the arrow button, then go to the map and interactively choose your To and From points along your chosen route.

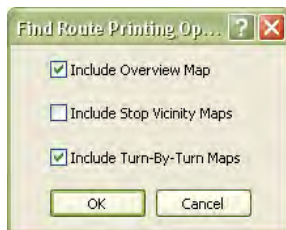



As you click and choose your points along your chosen route, graphics will populate your map. You’ll also see the Stops populating within the “Find Route” dialogue box.

When you are done selecting all stops along your route, click on the “Directions” tab in the “Find Route” dialogue box. Click on the “Find Route” button near the bottom of this window. A detailed set of directions populate the “Find Route” dialogue and the route is outlined within your map view.



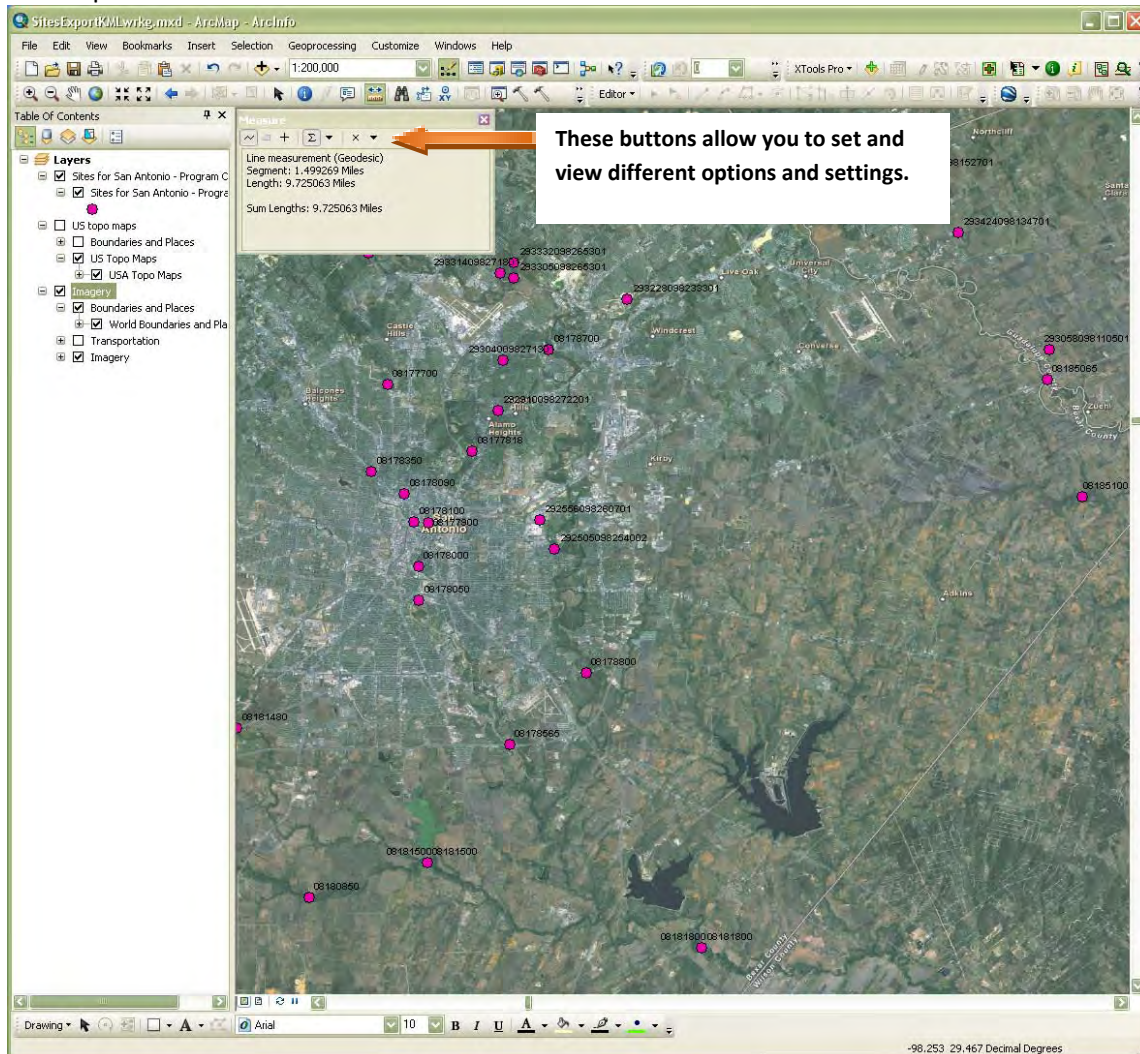
To print the directions, click on the “Print Options”  button. To have only a map of the route and a set of directions underneath, check the boxes for “Include Overview Map” and “Include Turn-By-Turn Maps.” Click “OK” when done.



Click on the Print button  when you’re done choosing your options.



The “Measure” tool calculates distance between locations or along a path. Click on the “Measure” tool button to initiate. A new window pops open and the cursor changes in appearance and you can begin to trace along your desired path.



Helpful layers to have turned on in the table of contents under Layers section are:

Imagery: File→ArcGIS Online...

Type in “Imagery” in the search box and select “Maps and Data”



Select the Web Map or Map Service of your choice, click on Add and wait for it to load automatically in your ArcMap session.

US topo maps: File → ArcGIS Online...

Type in “US Topo maps”

Select the Web Map or Map Service of your choice, click on Add and wait for it to load in ArcMap.