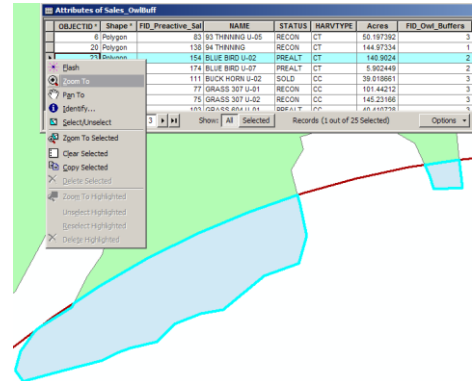


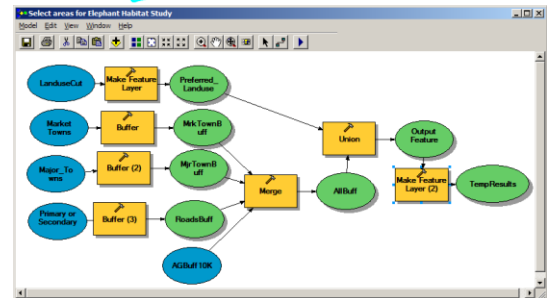
## Working with ArcGIS for Environmental Analysis

This one-week intensive course will focus on core GIS skills and introduce some advanced topics, all with an emphasis on conservation GIS. This class is appropriate for new GIS users and for experienced GIS users wanting more in-depth instruction. Juniper GIS courses are based on real projects, with an emphasis on the skills needed to successfully and efficiently complete your projects.

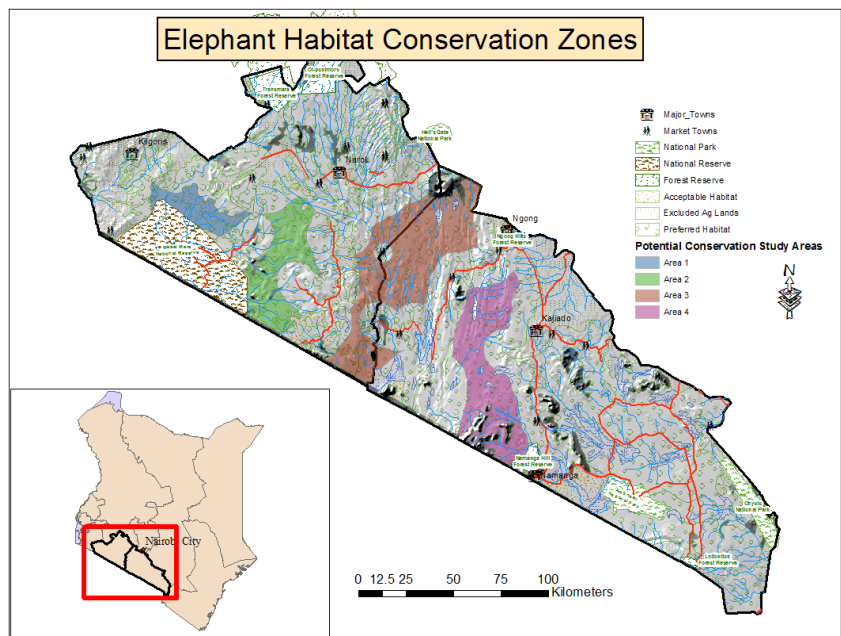
Core GIS skills include compiling and organizing data, understanding projections, using symbology and labels to properly display your data, working with table tools to maximize the database functionality of GIS, using Excel with ArcGIS, working with edit tools to create and clean the data, performing analysis, and creating finished maps. Students will get to practice and improve these skills while working through typical GIS projects.



Students will also be introduced to some advanced skills – working with Spatial Analyst, learning how to use raster GIS techniques for analysis, using ModelBuilder to create models and tools for analysis, and moving data to and from Google Earth.



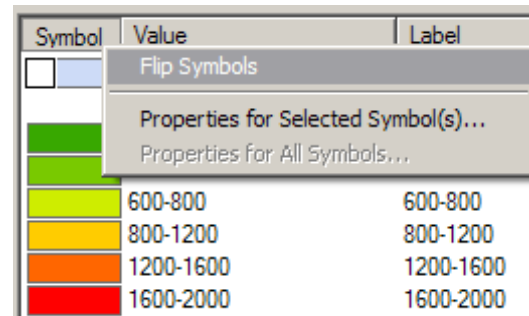
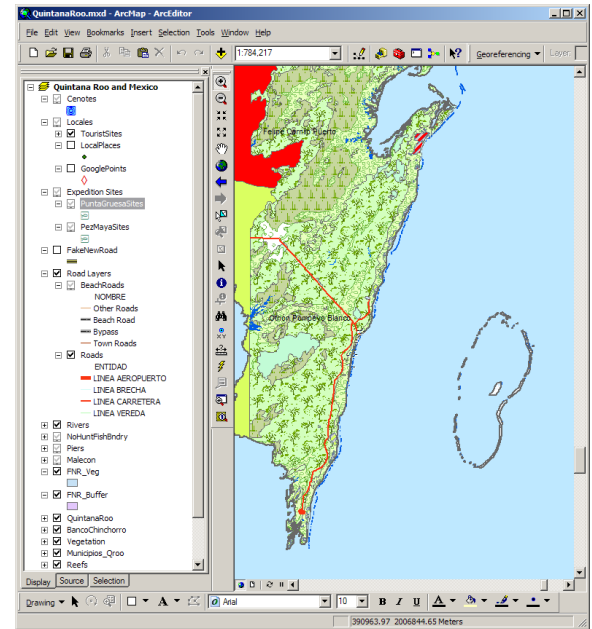
The course will work with several analysis projects to demonstrate how these skills can be applied. These projects will use conservation and natural resource data from the US, Kenya and some local data, depending on where the class is taught. Exercises will work with typical conservation scenarios, such as identifying areas for elephant habitat, displaying coral abundance levels on reefs, or finding sites for a solar greenhouse. If we have time, we will also see how to work with Google Earth and use GPS for some local data collection.



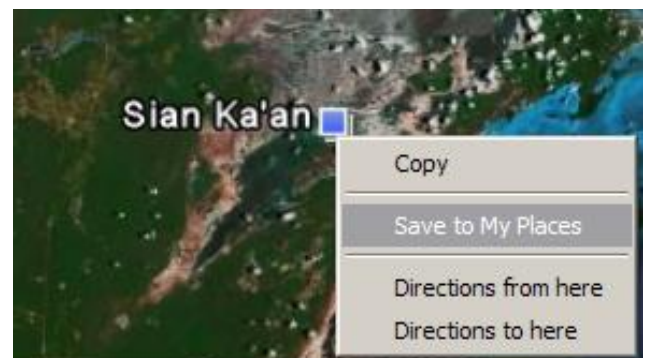


Topics include:

- Using ArcMap, ArcCatalog, ArcToolbox
- Working with layers, data frames, & maps
- Understanding data types used in ArcGIS
- Projecting data between coordinate systems
- Bringing field data in from GPS
- Selecting and querying features
- Creating & using layer symbology in ArcMap
- Labeling features & working with annotation
- Creating Layer Files
- Managing & editing tables
- Editing data & managing edit sessions
- Geoprocessing & Analysis tools
- Creating layouts in ArcMap
- Using ModelBuilder for Analysis & creating tools.
- Working with Spatial Analyst
- Understanding Raster GIS & Raster Analysis
- Working with Excel
- Creating XY Point Locations from tables
- Georeferencing images
- Working with Google Earth



OBJECTID *	LOCATION_	SITE_ID	LAT	LONG	Shape *
2	Bucaneros	BUC10	18.68731	-87.71051	Point
3	Bucaneros	BUC20	18.68681	-87.70937	Point
4	Dolphin Bay	DB05	18.72411	-87.69834	Point
5	Dolphin Bay	DB10	18.724	-87.69676	Point
6	Faro Viejo	FV05	18.74239	-87.67865	Point
7	Faro Viejo	FV10	18.74206	-87.67701	Point
8	Faro Viejo	FV20	18.74183	-87.6744	Point
9	Los Escalones	LE05	18.71992	-87.70112	Point
10	Los Escalones	LE10	18.71956	-87.69945	Point





## Working with ArcGIS for Environmental Analysis Part 1

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## DATA SOURCES FOR CLASS EXERCISES

Data used in Juniper GIS courses come from a variety of sources, and in some cases, has been modified for use in exercises. While Juniper GIS Services, Inc. has been granted permission by the data source agency to use selected data sets for these class exercises, Juniper GIS Services does not have permission from these agencies to re-distribute this data in any form.

Juniper GIS instructors highly recommend that the best learning experience for these exercises is to repeat them using data from your own organization.