GEOG 3231/5231 Intro GIS

Vector Analysis Review

***Selection of campgrounds in Idaho***

For this vector analysis project, you are looking for campgrounds in a selected region of Idaho that are located within sage grouse management zones, close to streams, and far away from major roads.

**Data Source:** Idaho Geospatial Office

**Specific selection criteria:**

* Campgrounds that are accessible **year-round** AND that **have 10 sites or more**
* Located within **core** sage grouse management zones
* Within **2 miles** of a stream
* And at least **5 miles** away from major roads

**Data prep & analysis:**

To complete this exercise, you will need to:

1. Determine the most appropriate projection, set data frame & geoprocessing environments
   1. Data frame properties > Coordinate systems tab
   2. Geoprocessing environments > Workspace > Coordinate system
2. Clip layers as appropriate to study area extent
3. Save a copy of the Excel table, edit for ArcMap compatibility, join to the applicable shapefile
   1. Tip: open both tables in ArcMap to identify the matching fields
   2. Export new layer to make the join permanent & ensure correct query results
4. Query campgrounds to select & export those with year-round access AND >= 10 sites
5. Query sage grouse mgmt. layer to select & export core habitat polygons
6. Create the requisite buffers from the criteria listed above for roads and streams
   1. Tip: Remember 🡪 Dissolve Type = All
7. Intersect and erase the appropriate layers to make the final selection of campsites
   1. Intersect layers =
   2. Erase layers =

*You should find a total of* ***8 campgrounds*** *that meet the selection criteria*

**Vector map deliverable:**

* Main map showing the selected campgrounds within the study area, set up as follows:
  + Add Imagery from the ArcGIS Online basemap resources (Add Data options)
  + Include roads, streams, and core grouse management zones
  + Set up symbology & transparencies so all layers are clearly visible
  + Set data frame clipping to “hide” the imagery outside the studyarea layer
* Include a **textbox** that identifies the **total** **number of campgrounds** that your analysis selected
* Create an inset reference map that uses an extent indicator to show the region of analysis within Idaho, displayed in the appropriate projection for the state
  + Export Idaho from the us\_states layer (Tip: DO NOT keep the GCS projection!)
* Be sure to include a legend and all other appropriate cartographic elements