

## GeoProcessing Exercise

Question: The Historic Applegate-Lassen Trail crosses the Black Rock Desert High Rock Canyon Emigrant Trails NCA. If the trail has a one mile corridor on both sides of the trail how many acres of the corridor are in the NCA? Also how many acres of the NCA part of the corridor are BLM, and how many acres are Private.

To answer this question you will need to buffer the trail, Clip the new trail buffer, Intersect Owner with the Clipped trail Buffer, and update area and acres in the final shape file's table.

1. Create a view. Set the working directory to D:\arcview\_class. Set the view properties to meters and miles.
2. Add the themes: (owner as polygon, nhtrils\_1 as arcs, nca\_blackrock as polygon) to the view. From D:\arcview\_class\winnemucca  
Note: The nhtrils\_1 coverage has only one theme in it of arcs so it does not have a little file folder at its left.
3. Make shure that the GeoProcessing extension is turned on. <File> <Extensions>
4. Select the Applegate-Lassen Trail from the other trails with the Query Builder button.
5. Do a 1 mile buffer on the theme nhtrails\_1. <Theme> <Create Buffers>. In the last window click on "in a new theme" and name the theme "Trail\_buff.shp". Note: You are giving the new theme a file name here. To change the theme name displayed you will also need to change it in the "Theme Properties" from the menu after it is created.
6. Clip "Trail\_buff.shp" with the theme "nca\_blackrock". <View> <GeoProcessing Wizard> <Clip one theme based on another>. The input theme should be "Buffer 1 of nhtrils" and the overlay theme should be "nca\_blackrock". Specify the output theme to be "Trail\_buff\_clip.shp".  
Note: The input theme should be the theme you created in step 5.
7. Intersect "owner" with "Trail\_buff\_clip.shp". <View> <GeoProcessing Wizard> <Intersect two themes>. The input theme should be "owner" and the overlay theme should be "Trails\_buff\_clip.shp". Specify the output theme to be "trail\_own.shp".  
Note: The overlay theme should be the theme you created in step 6.
8. Open the attribute table for "trail\_own.shp" (The theme created in step 7) and start editing. Use the "Open Theme Table" button and start editing with <Table> <Start Editing>.
9. Add the area and acres fields to the table and update there values. If you need help here use the hand out for this that you should already have.
10. Stop editing the table. <Table> <Stop Editing>

11. Summarize the table by the field "Own\_name" and "Acres". Select the field "Own\_name" in the table and click on the summarize button (The side ways M). Summarize by should be

"Acres" <Sum>. Then <Add> <OK>. The resulting table will have the acres of the trail buffer by ownership. For the total you will need to add all the acres together or do another summarize. You could also create the area and acres fields in the "Trail\_buff\_clip.shp" themes table.