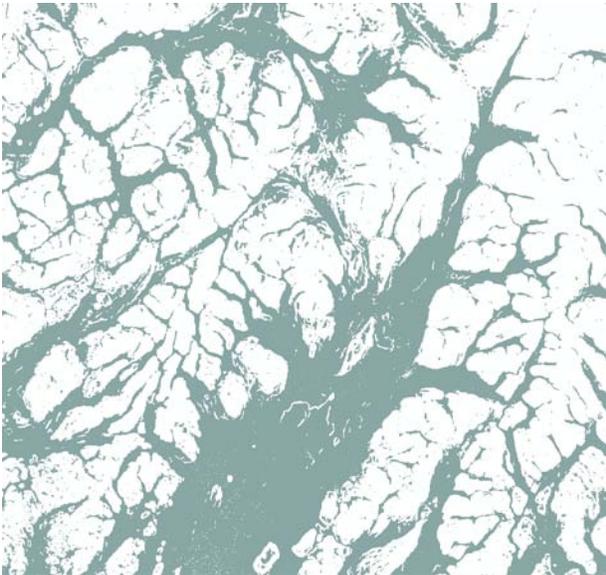


A sample of methods to create raster subsets

The problem:

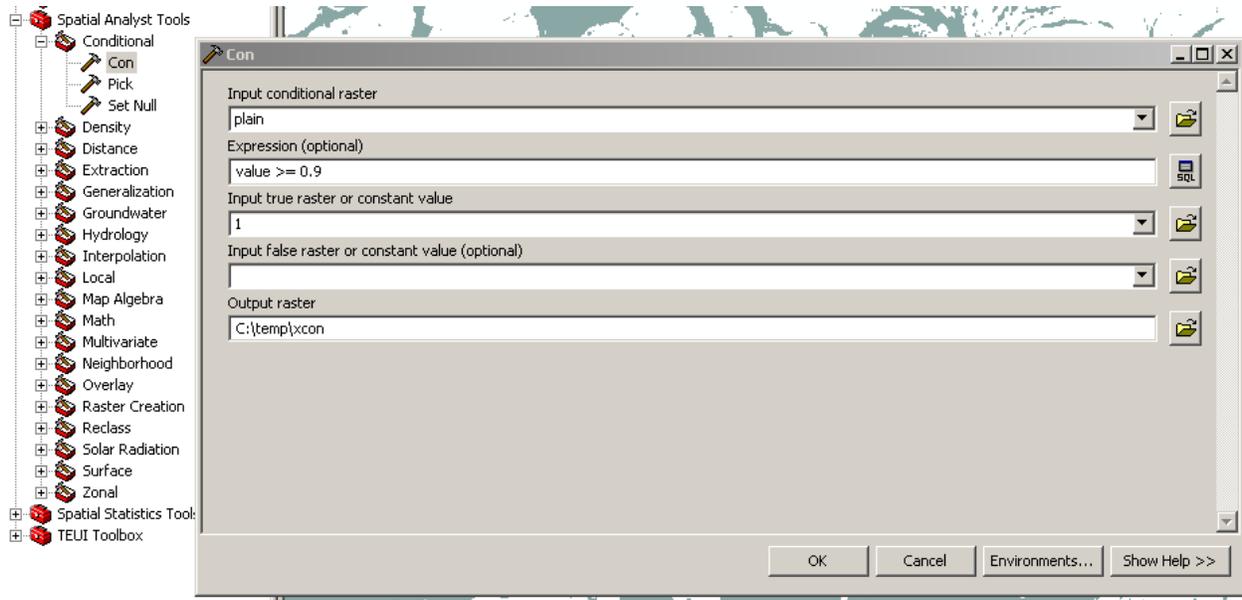
You have the following DEM and wish to exclude the valleys



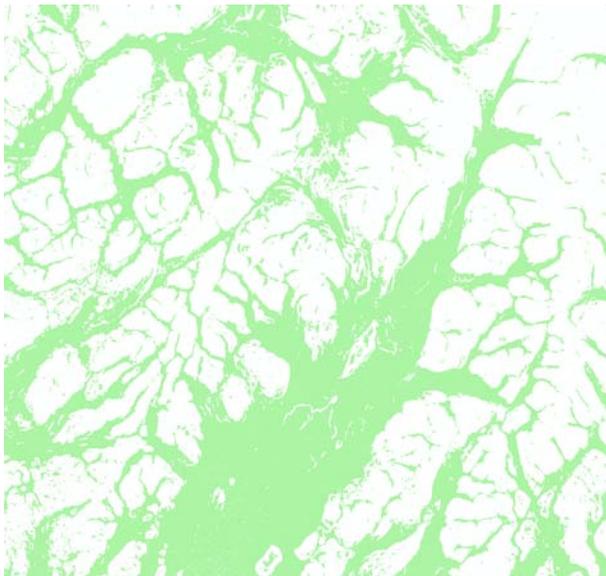
You have a layer depicting “valleys”, with values ranging from 0 to 1, with increasing values being more like a “valley”. You decide values from 0.9 to 1 represent valleys, as depicted above.

Method 1 - Extract by Mask

Open the **Con** tool under **Conditional** Toolbox



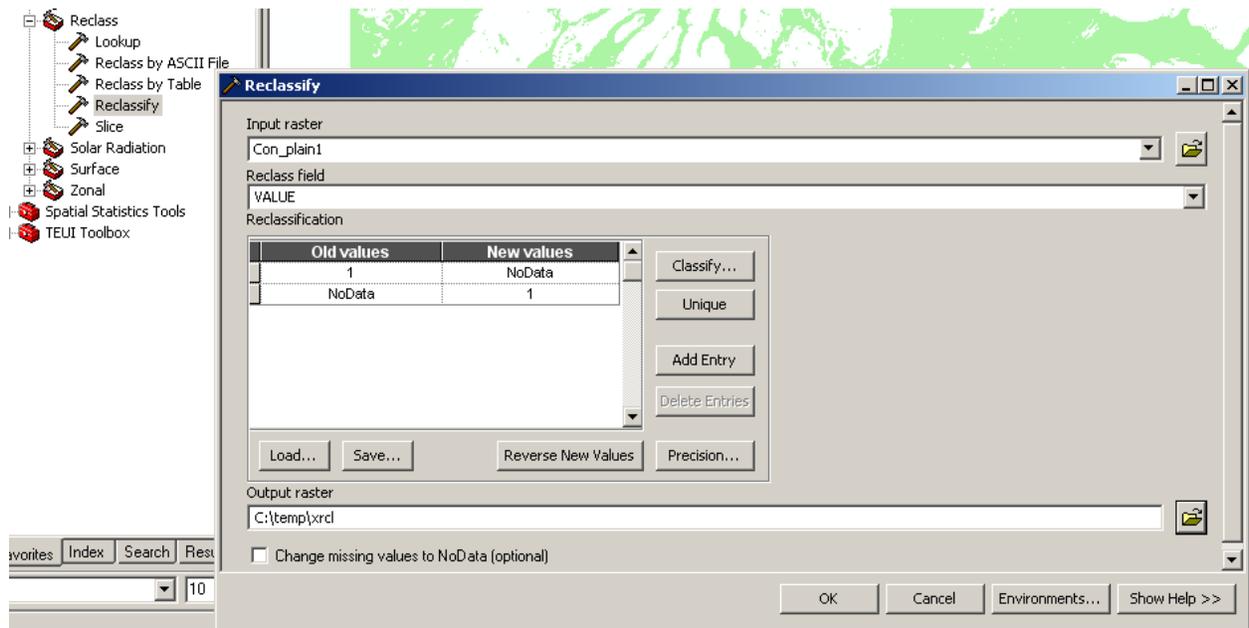
The condition will be values greater than or equal to 0.9. When that condition is met, a value of 1 will be assigned to the new raster "xcon". Everything else in "xcon" will receive NoData.



else = NoData

Results of the Con statement, Green = 1, everything

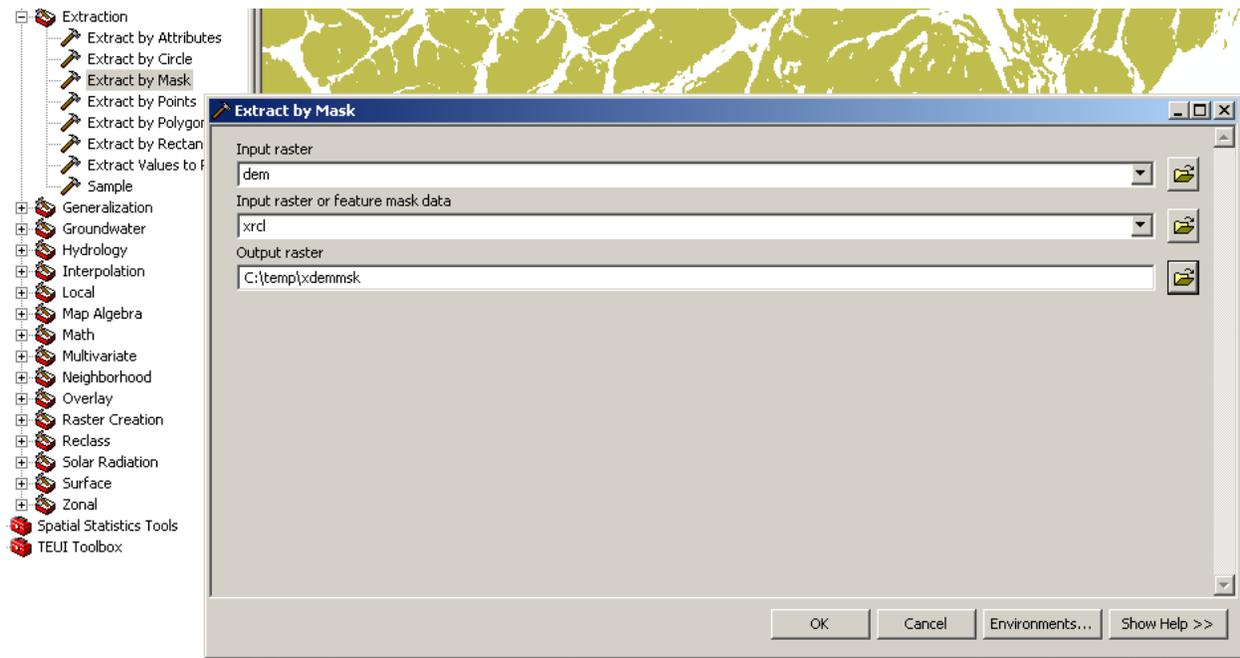
You want the “NoData” areas, so use Reclass to convert NoData to 1



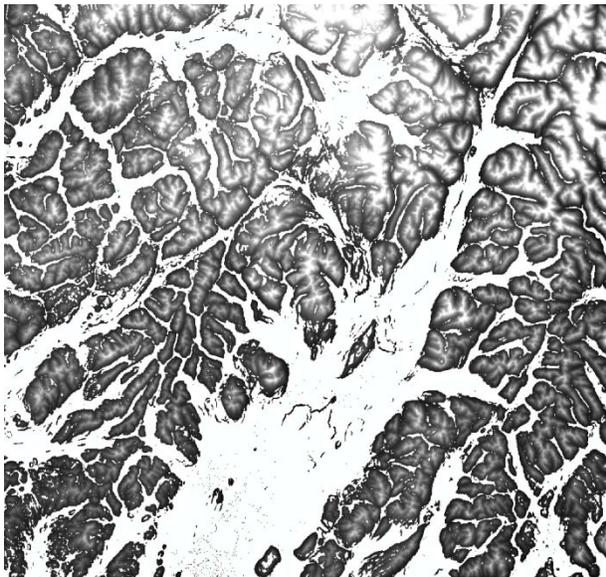
Giving you what you want



Use **Extract by Mask** to get DEM of “non-valley” areas



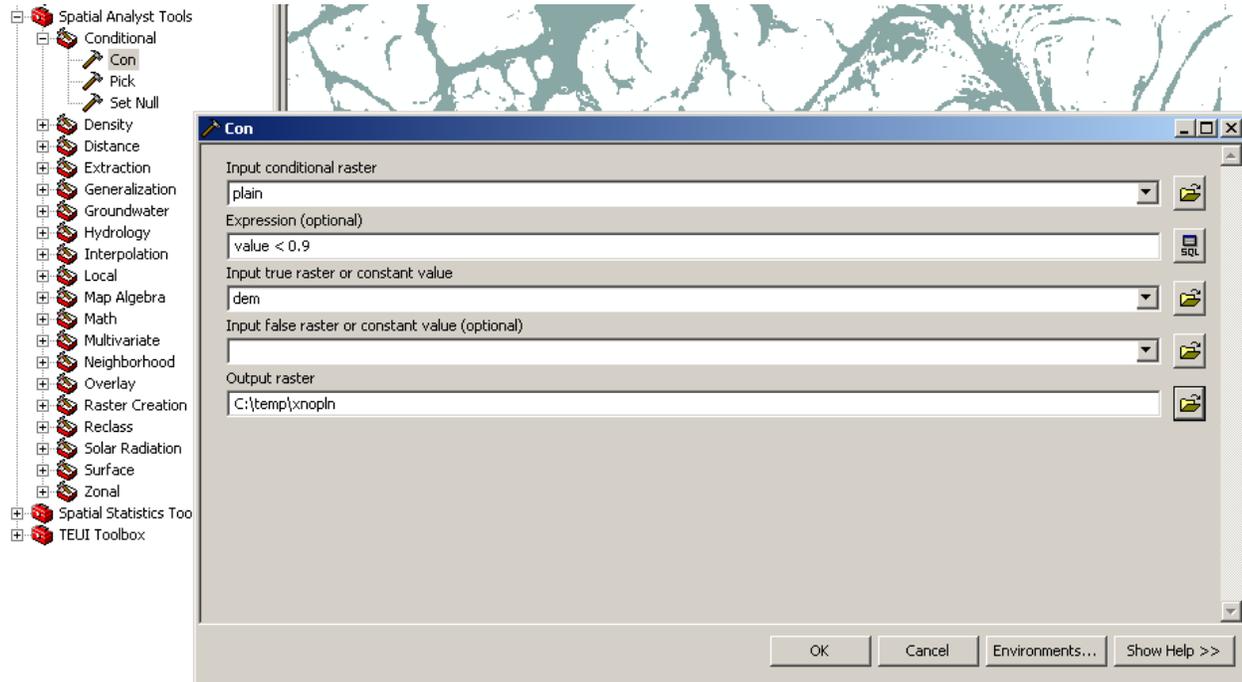
DEM without “valleys”



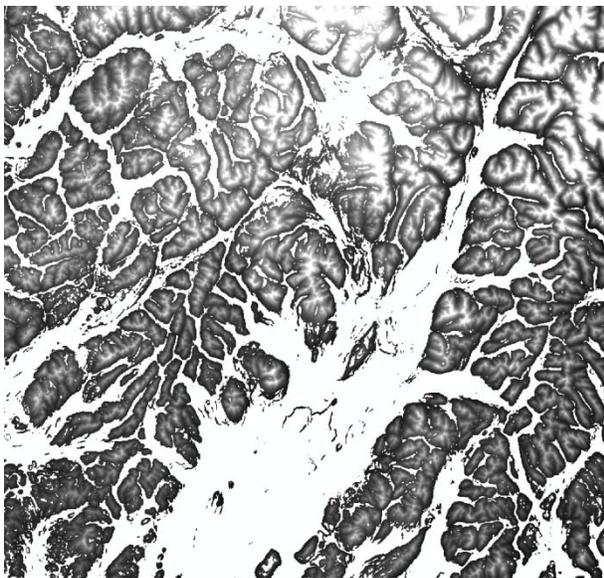
Isn't there a more direct way?

Method 2 – Con statement

If Values greater than 0.9 are “valleys”, we could select everything less than 0.9, set the true raster to **dem**, and get what we want in one step. Open the **Con** tool in the **Conditional Toolbox**, and change the expression to **Values < 0.9** and the **true raster** to the DEM.



DEM without “valleys” in one step

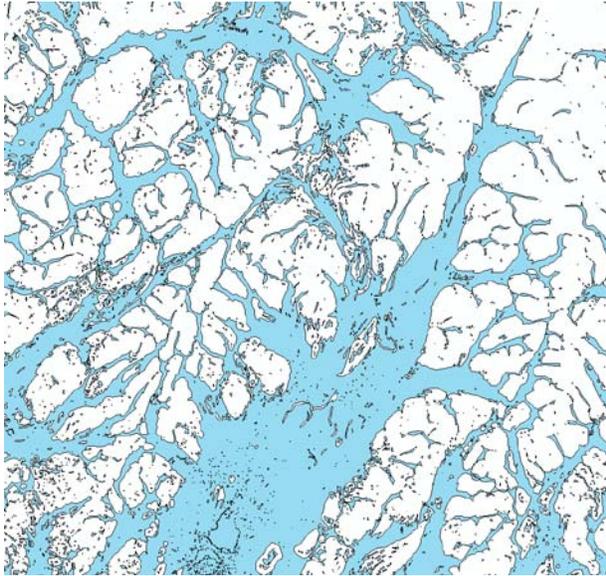


You could change the expression to **value >= 0.9** to get DEM of “valley” only

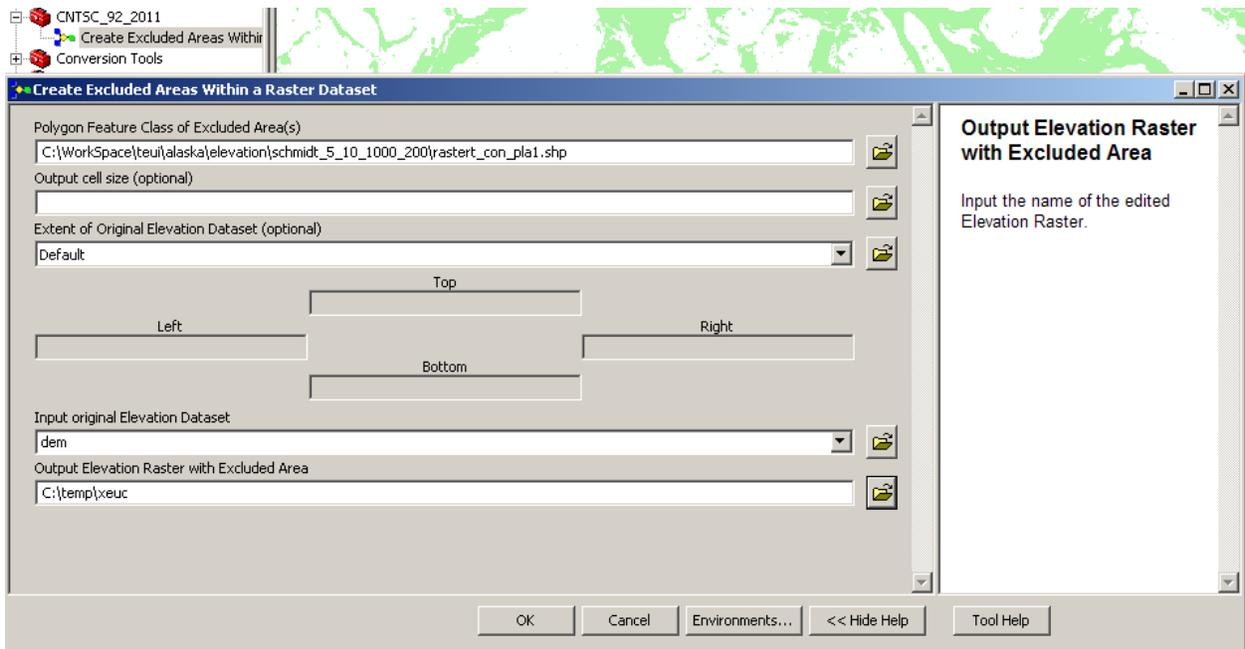
Method 3 – Exclude areas with CNTSC tool, which uses Set Null and Euclidean Distance

http://www.nrcs.usda.gov/wps/PA_NRCSCConsumption/download?cid=stelprdb1258045&ext=tbx

You have a polygon file with “valleys” identified, which you want to exclude



Input the polygon file, input DEM, and output file in GUI



Results are elevations without "valleys"

