## LUC\_Checker User Manual

## Step-1:

#### Upload the shapes folder:

Shapes folder is available in **SwatModel/Watershed/ folder**. Compress this folder into zip format. The name of the zip file and shapes folder should be same. The tool looks for subs1 shape file and its corresponding files inside shapes folder.

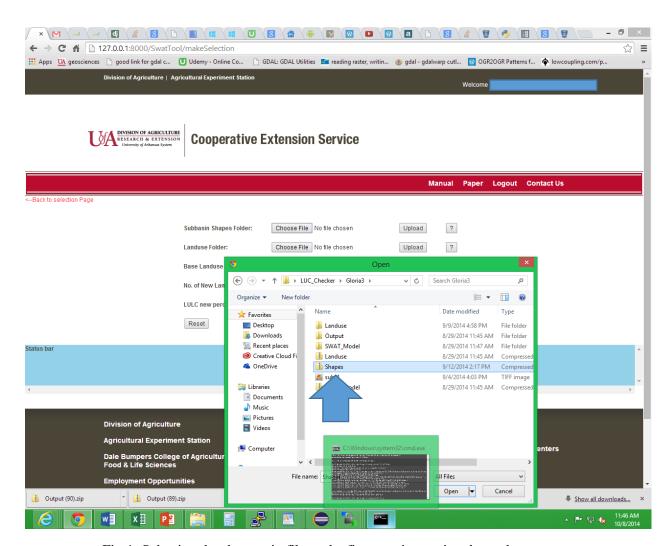


Fig-1: Selecting the shapes zip file as the first step in running the tool

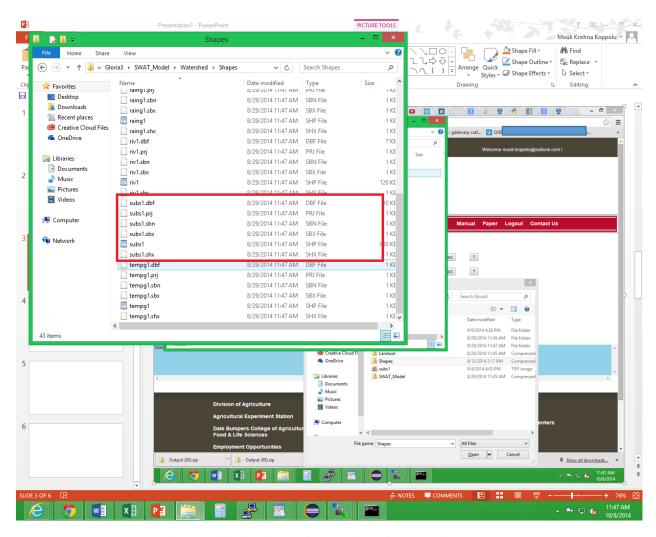


Fig-2: Subbasin Shapes files required for the tool

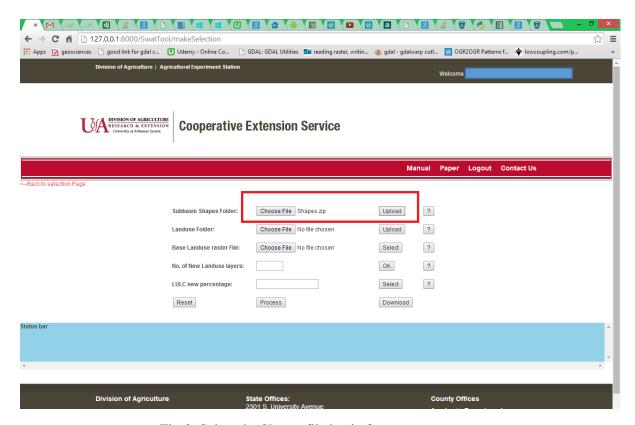


Fig-3: Select the Shapes file in zip format

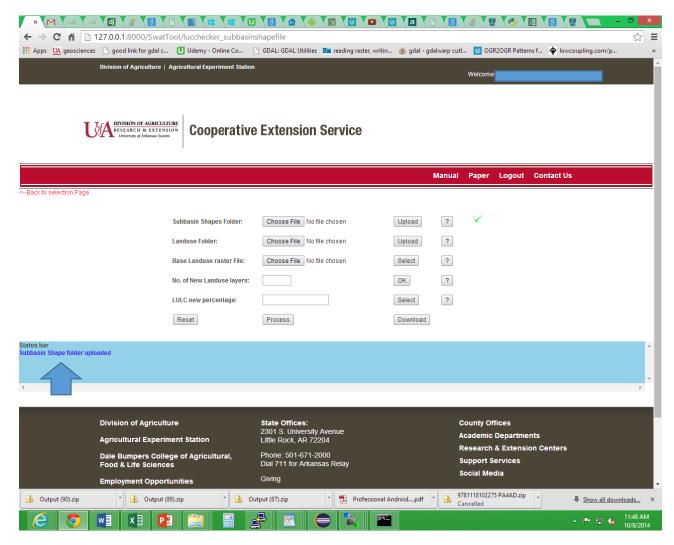


Fig-4: Subbasin file uploaded

## Step-2:

## **Upload Landuse folder:**

Compress the landuse folder that contains all the land use files and upload.

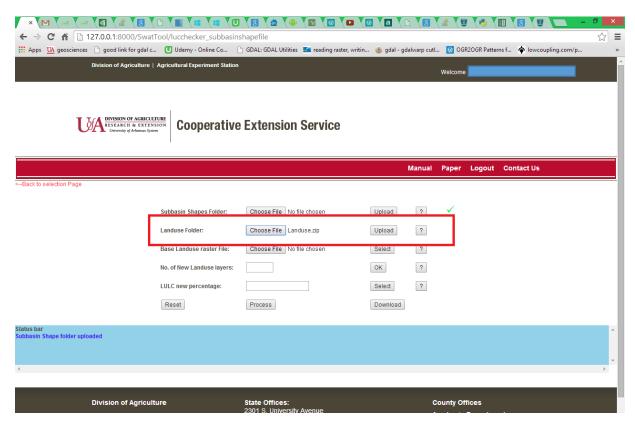


Fig-5: Selecting landuse.zip file

# Step-3:

### Selecting the base land use layer:

Select the base land use file. User can select either the first year and the latest layer as the base. The tool only requires the name of the file. Generally a user can select the auxillary files with the land use files names inside landuse folder. The selected landuse layer should be available in grid format inside the landuse folder uploaded in step-2. If it cannot find the layer, then the tool returns an error as shown in the fig-7

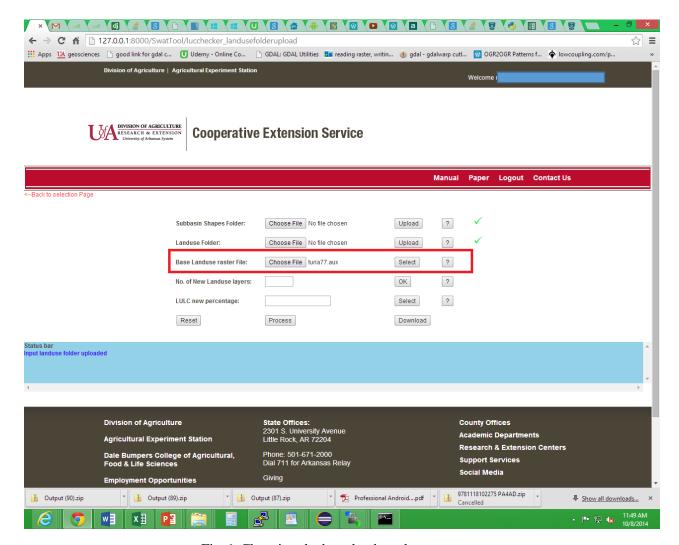


Fig-6: Choosing the base land use layer

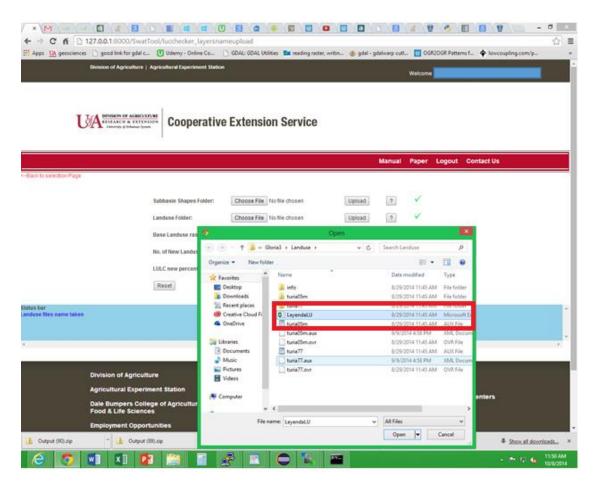


Fig-7 Choosing a file name that is not available in landuse folder

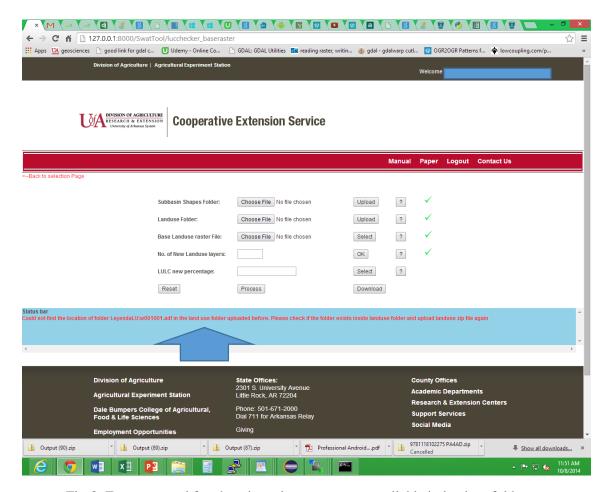


Fig-8: Error returned for choosing a layer name not available in landuse folder

## Step-4:

## **Select the count of remaining layers:**

Select the number of other landuse layers other than the base layer. If 3 layers are available in the model and one layer is selected as base layer. Then user should input 2.

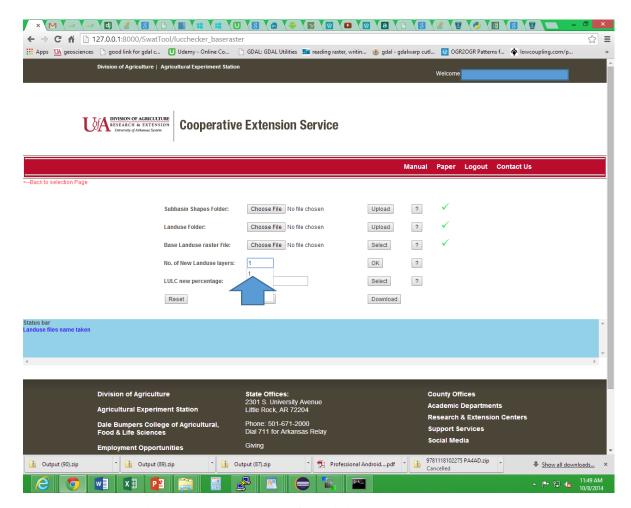


Fig-9 Selecting the count of remaining landuse layers

#### Step-5:

## **Selecting the remaining land use files:**

On selecting the count, a hidden select option appears depending the count provided in previous step. Select the remaining land use files. The tool again looks for the availability of the grid format of the land uses in landuse folder. If they are not available, it returns an error.

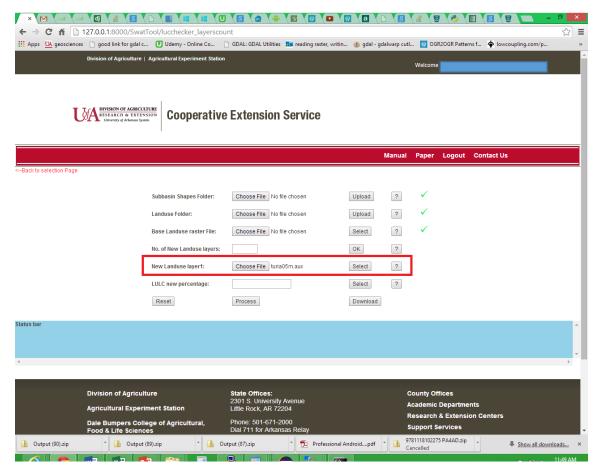


Fig-10: Choosing remaining landuse files

## Step-6:

## Providing the percentage value of new land use in the updated model:

Provide the percentage value of the new landuse that is not updated in the swat model.

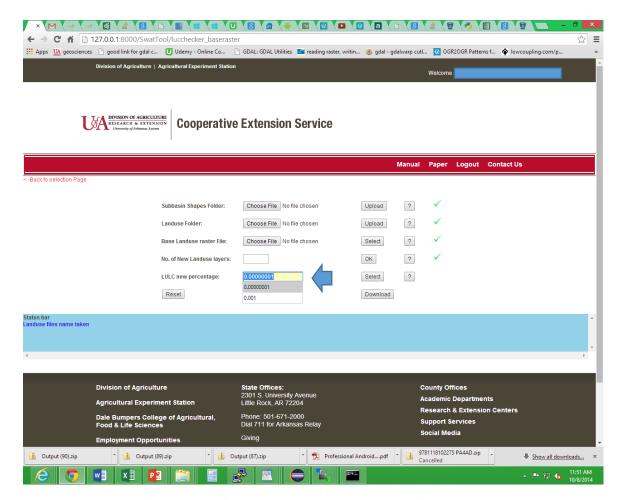


Fig-11: Providing the new LULC percentage value

## **Step-7:**

#### **Process:**

After uploading all the required files, the tool is ready to process the file. User needs to click the process button to start the process. The program runs on the server and creates the two files which includes a new base raster in GeoTiff format. Process button is activated only after all required files are uploaded or selected.

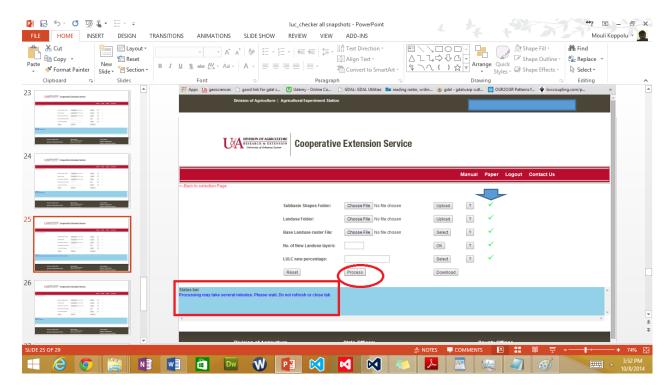


Fig-12: Processing the files after clicking the process button

## Step-8

## **Download:**

After processing is done, the download button becomes active for the user to download the processed output in the form of zip file.

