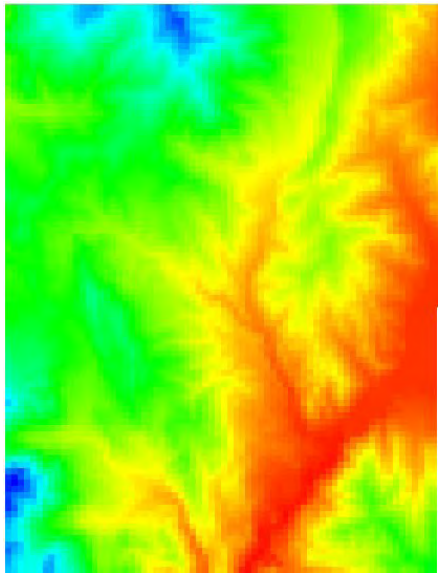
Developing a Basic GSSHA Model

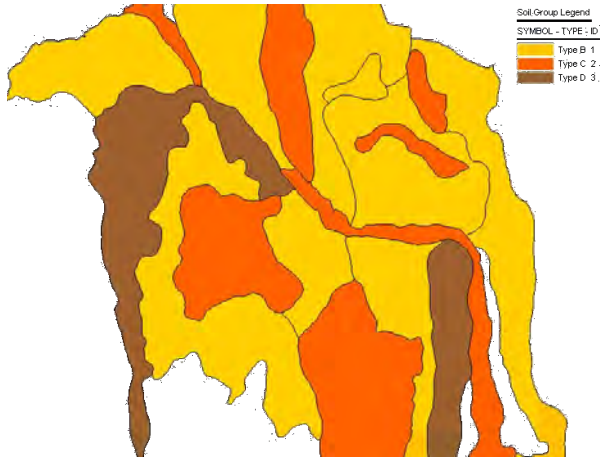
Workflow

- Obtain Your Data
  - DEM, Land Use, Soils, Mapping Table, Precipitation
- Delineate the watershed
- Generate a GSSHA grid
- Job Control
  - Time step
  - Determine processes to simulate
  - Output Control
- Generate Index Map and Mapping Table for roughness
  - Uniform to begin with
- Define roughness in Mapping Table parameters
- Define rainfall
- Save and run
- Visualize results to determine and fix surface runoff problems

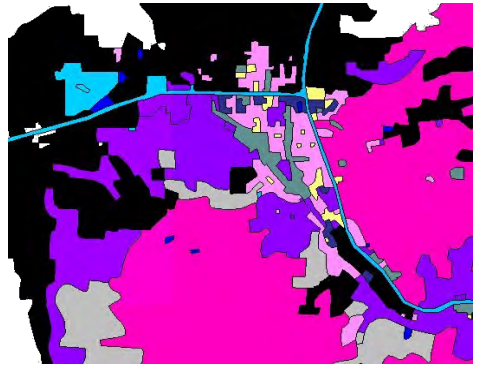
Obtain Your Data



DEM

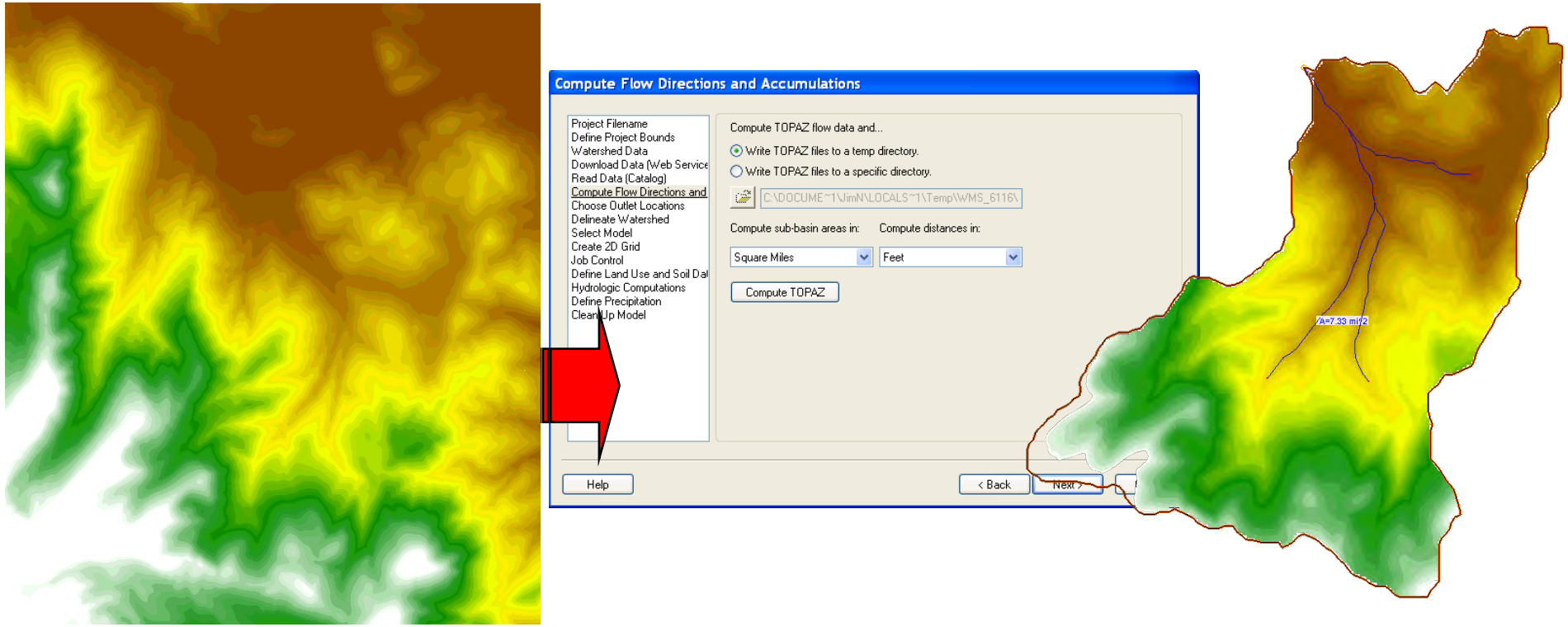


Soils



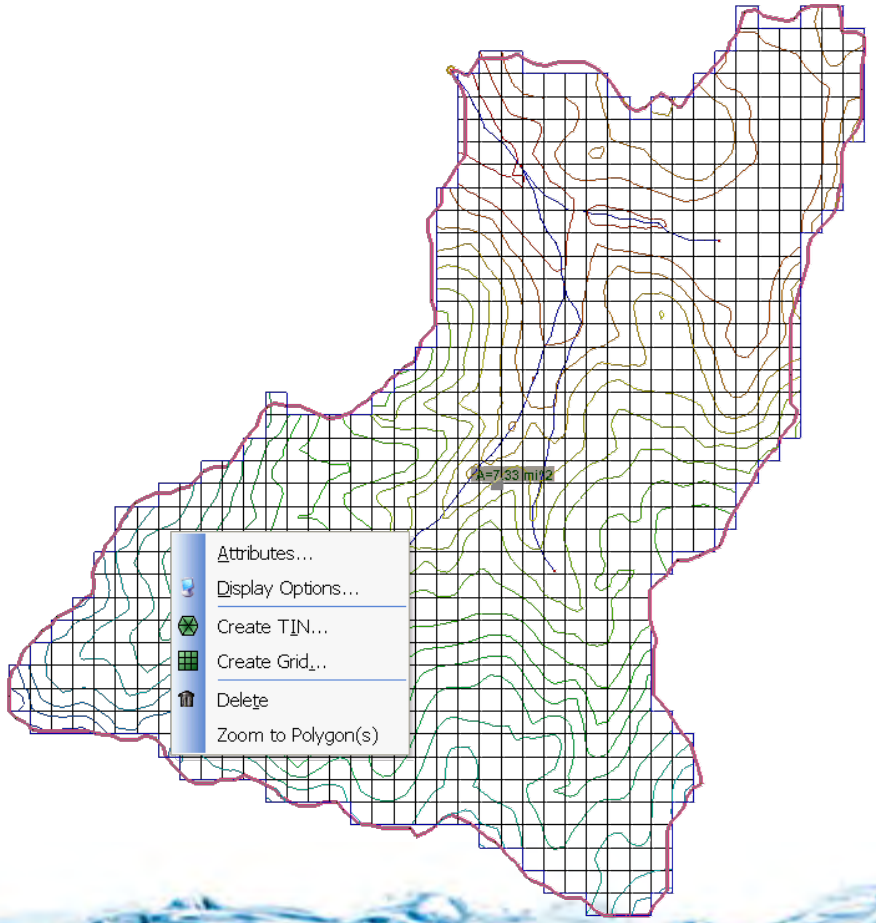
Land Use

Delineate the Watershed

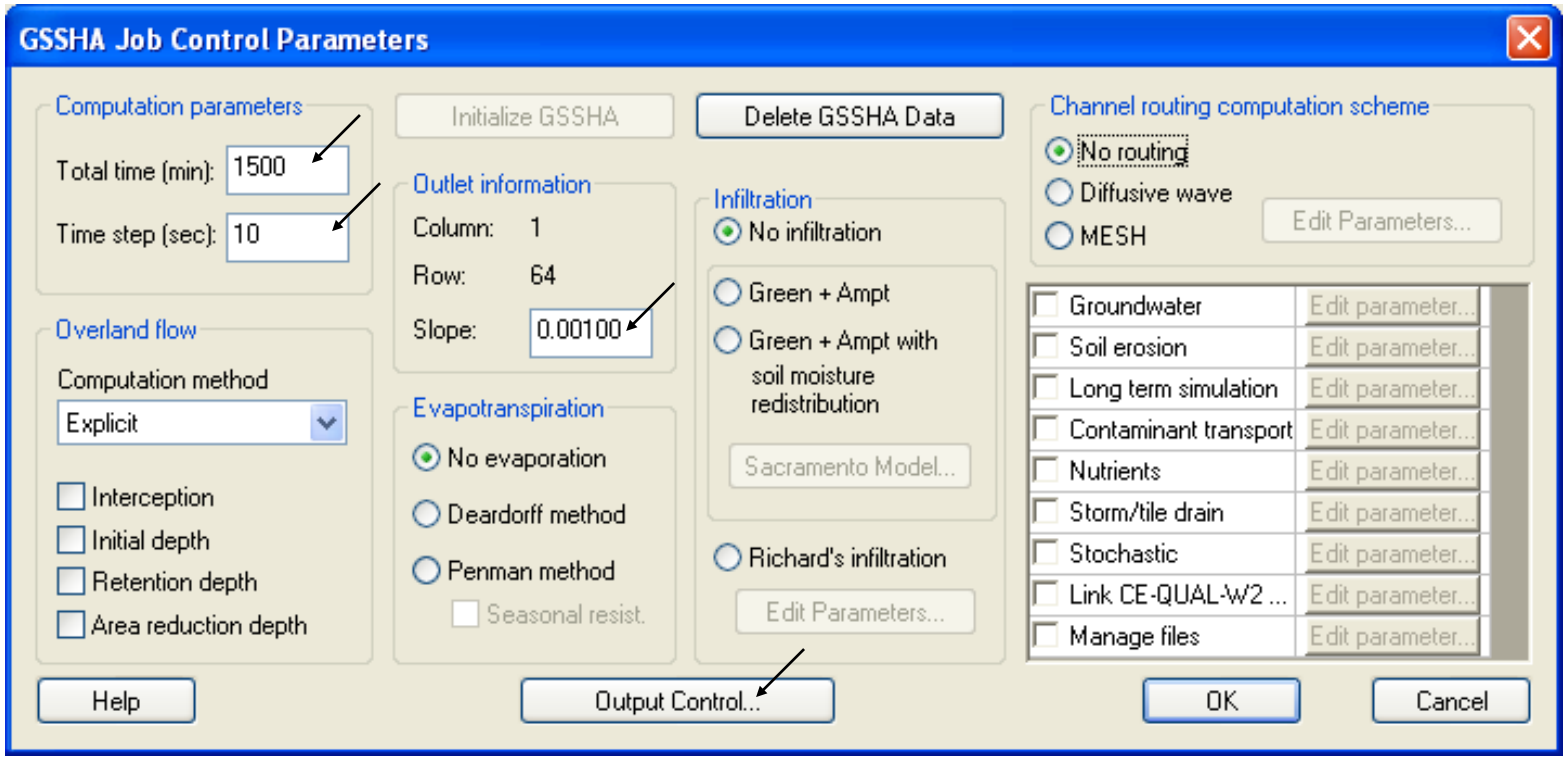


Generate GSSHA Grid

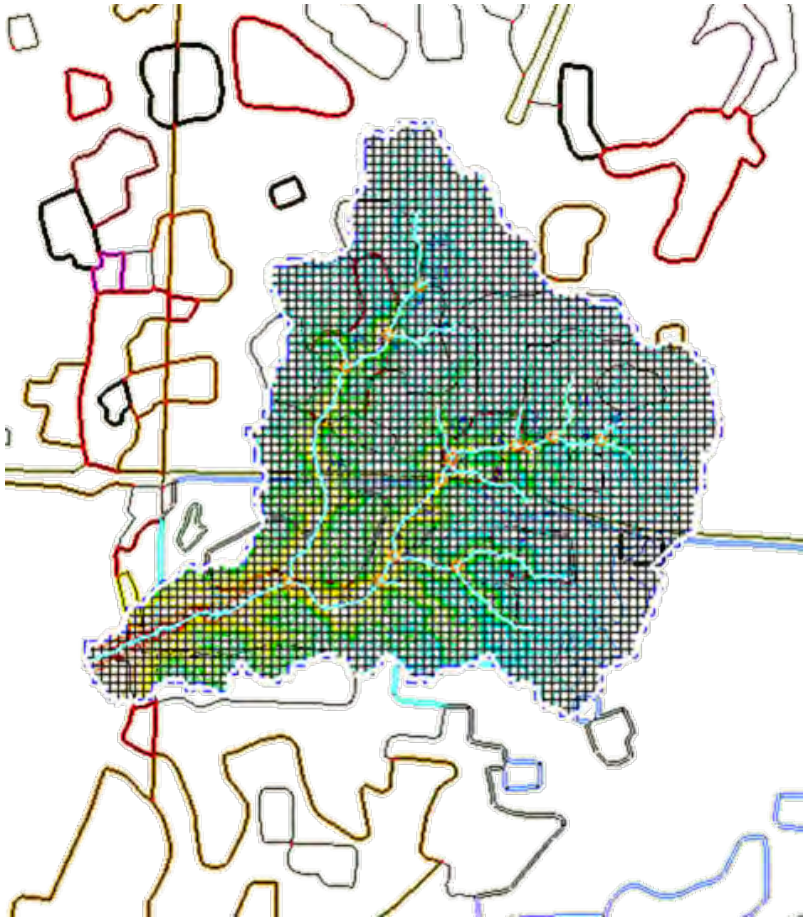
- Use the watershed basin polygon to create the grid

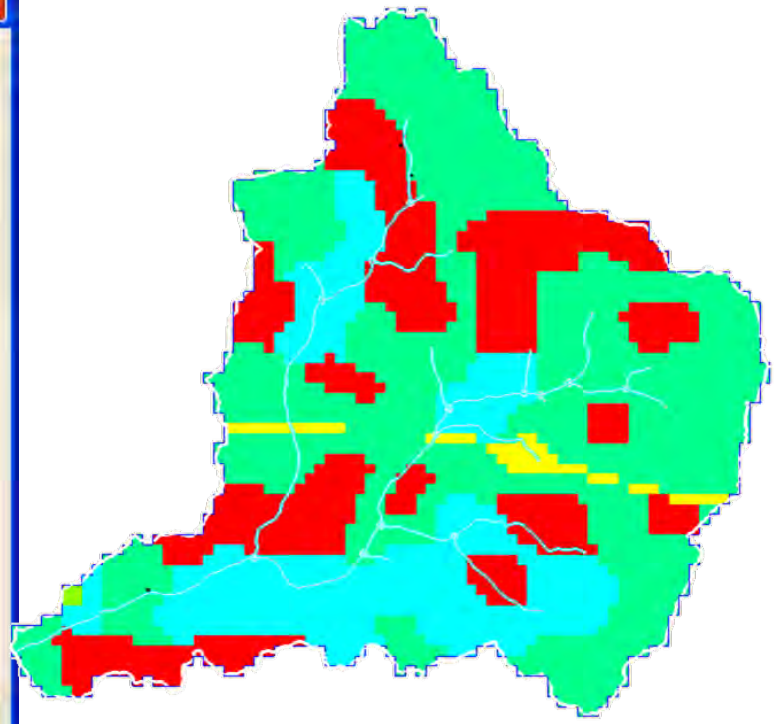


Job Control Setup

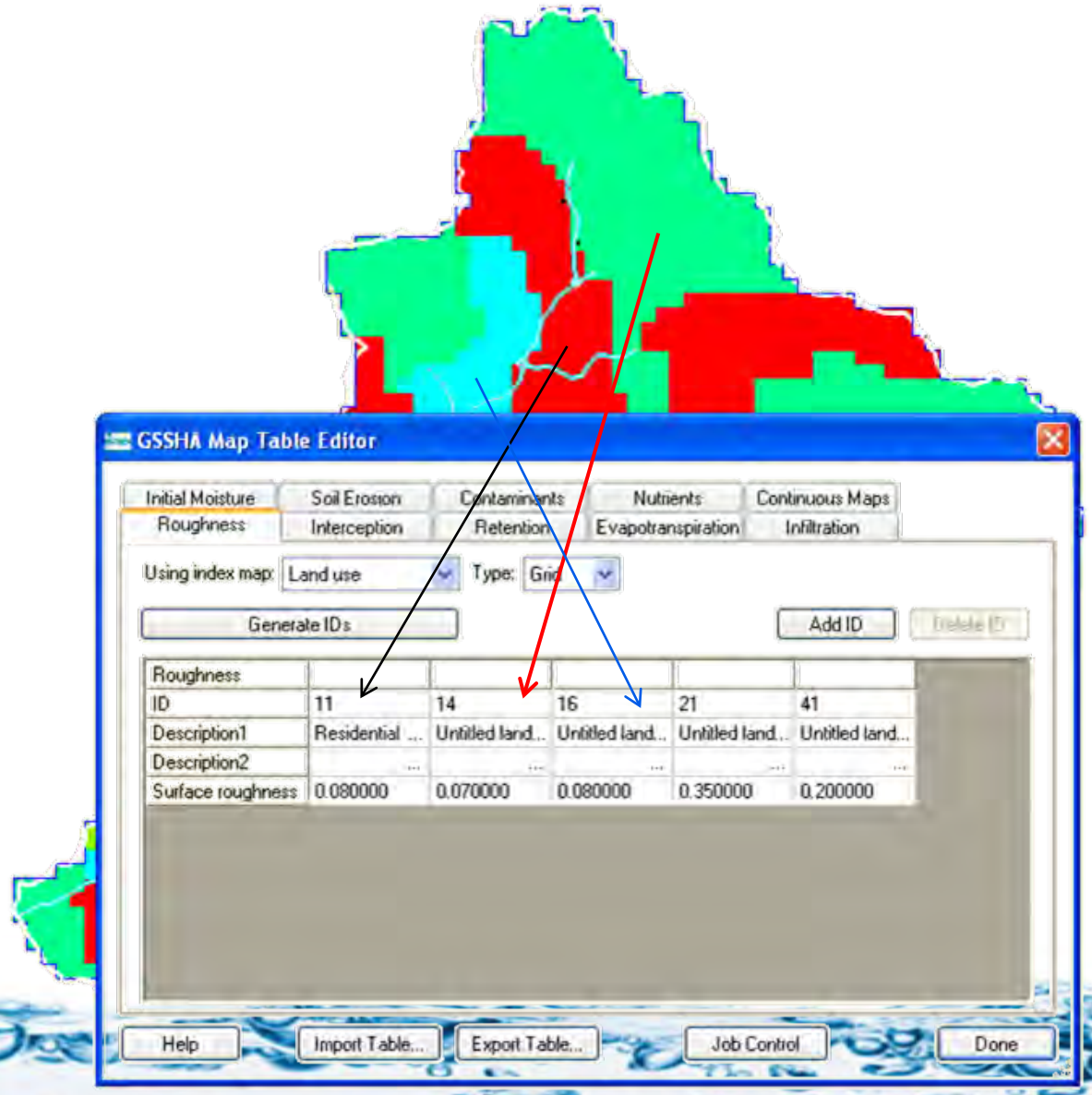


Create an Index Map for Roughness

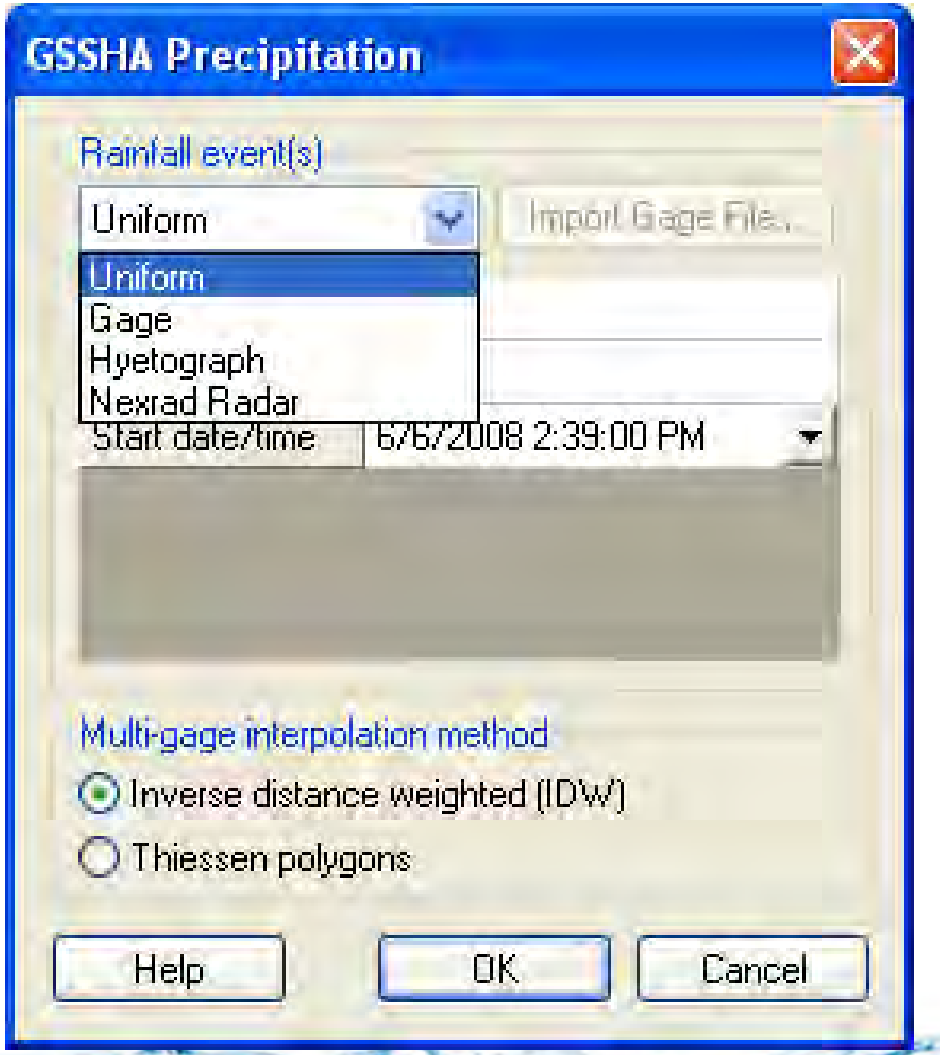




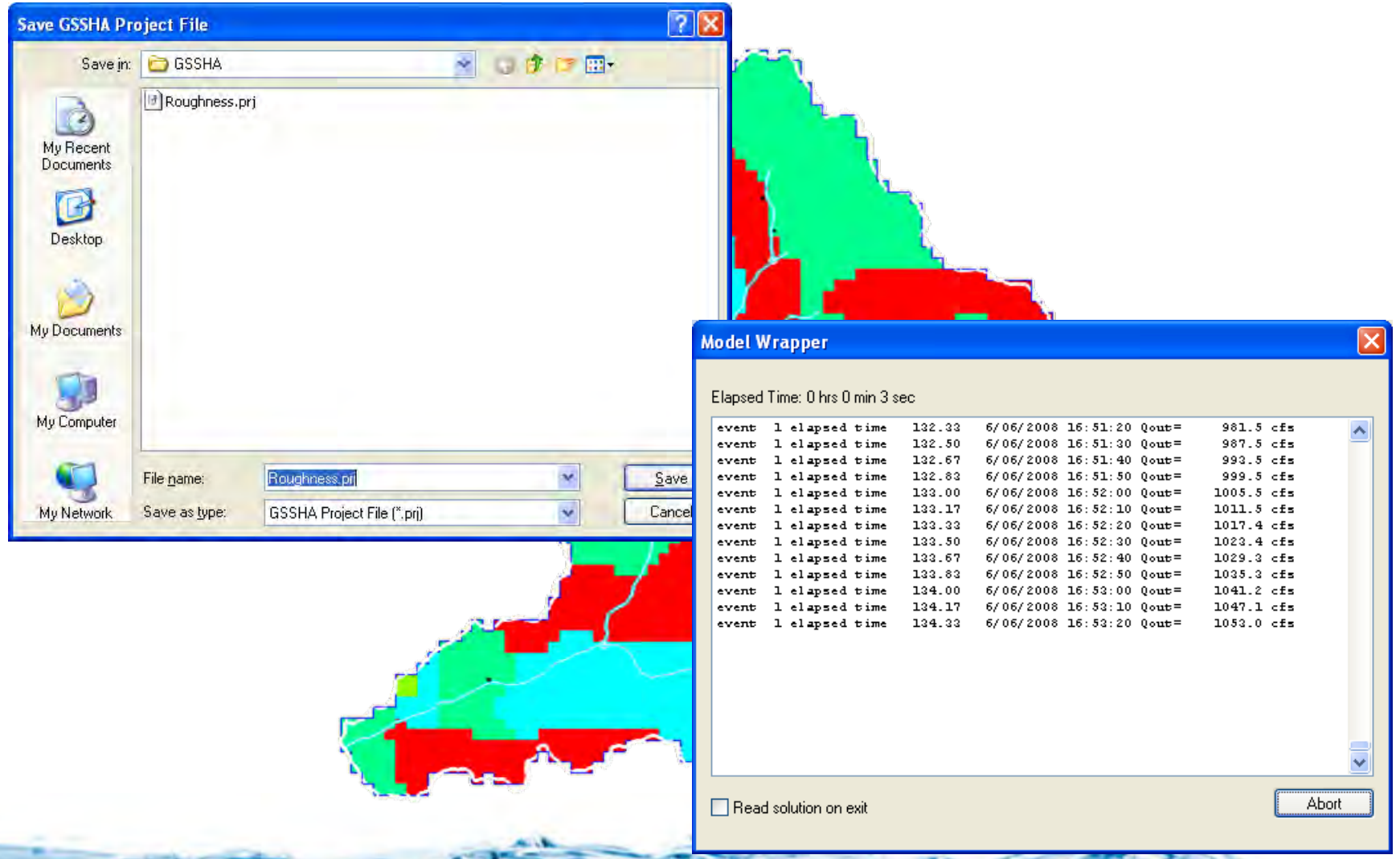
Define Roughness in Mapping Table



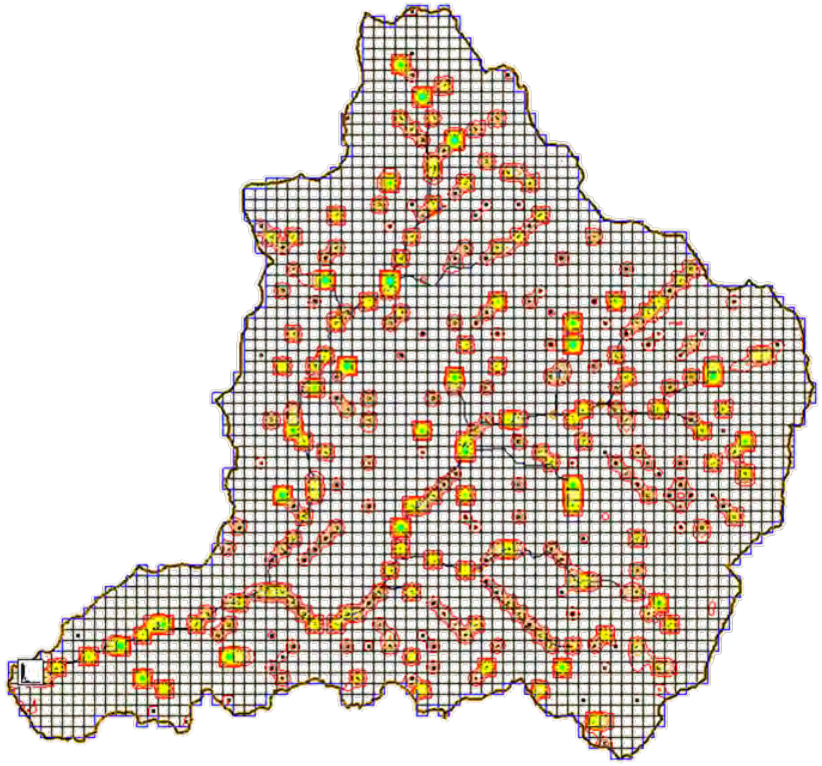
Define Rainfall



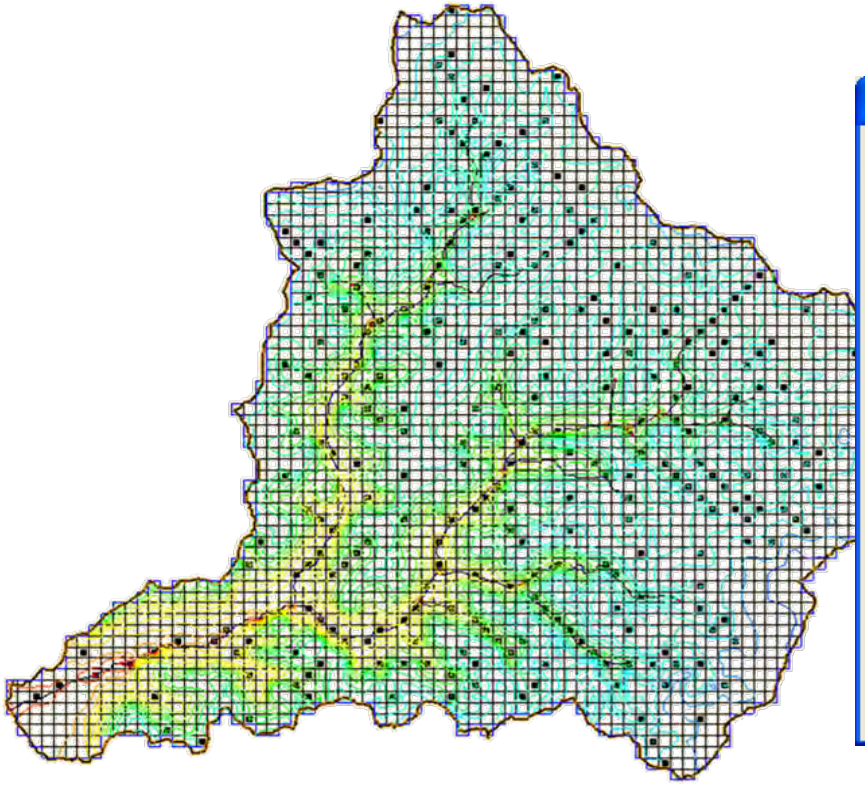
Save and Run

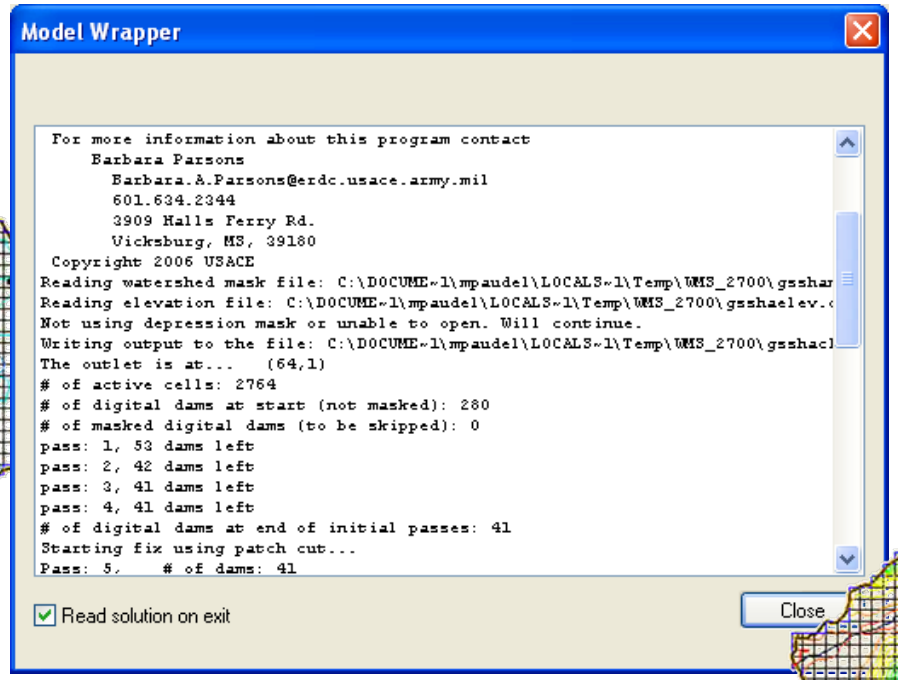

Save GSSHA Project File
Save in:
GSSHA
Roughness.prj
My Recent Documents
Desktop
My Documents
My Computer
My Network
File name:
Roughness.prj
Save as type:
GSSHA Project File (*.prj)
Save
Cancel
Model Wrapper
Elapsed Time: 0 hrs 0 min 3 sec
event 1 elapsed time 132.33 6/06/2008 16:51:20 Qout= 981.5 cfs
event 1 elapsed time 132.50 6/06/2008 16:51:30 Qout= 987.5 cfs
event 1 elapsed time 132.67 6/06/2008 16:51:40 Qout= 993.5 cfs
event 1 elapsed time 132.83 6/06/2008 16:51:50 Qout= 999.5 cfs
event 1 elapsed time 133.00 6/06/2008 16:52:00 Qout= 1005.5 cfs
event 1 elapsed time 133.17 6/06/2008 16:52:10 Qout= 1011.5 cfs
event 1 elapsed time 133.33 6/06/2008 16:52:20 Qout= 1017.4 cfs
event 1 elapsed time 133.50 6/06/2008 16:52:30 Qout= 1023.4 cfs
event 1 elapsed time 133.67 6/06/2008 16:52:40 Qout= 1029.3 cfs
event 1 elapsed time 133.83 6/06/2008 16:52:50 Qout= 1035.3 cfs
event 1 elapsed time 134.00 6/06/2008 16:53:00 Qout= 1041.2 cfs
event 1 elapsed time 134.17 6/06/2008 16:53:10 Qout= 1047.1 cfs
event 1 elapsed time 134.33 6/06/2008 16:53:20 Qout= 1053.0 cfs
Read solution on exit
Abort

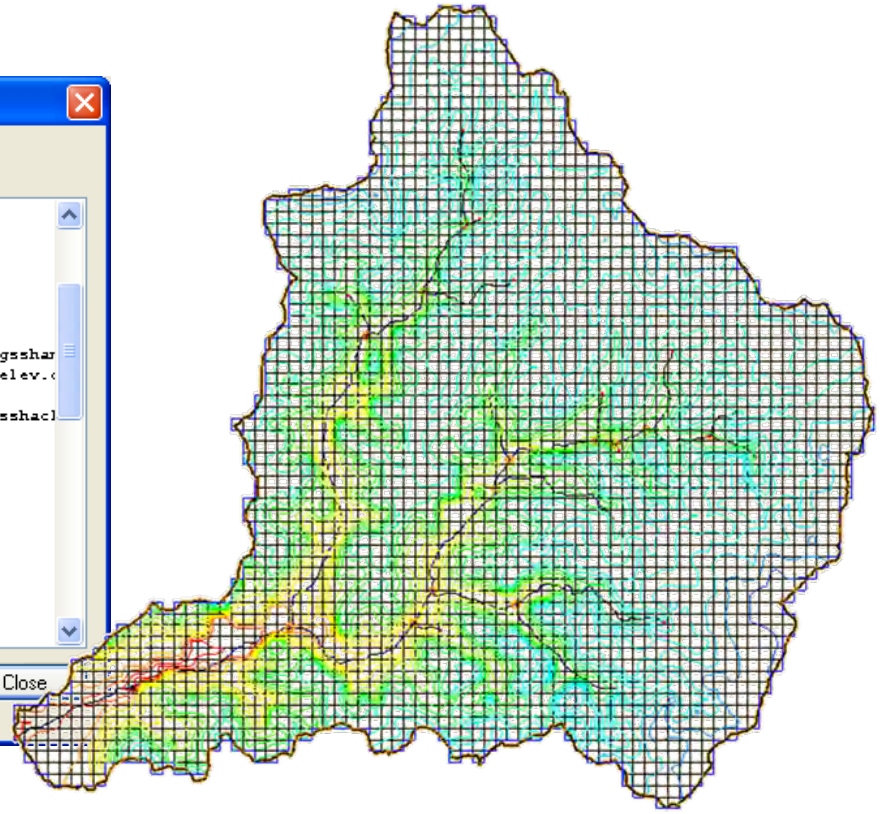
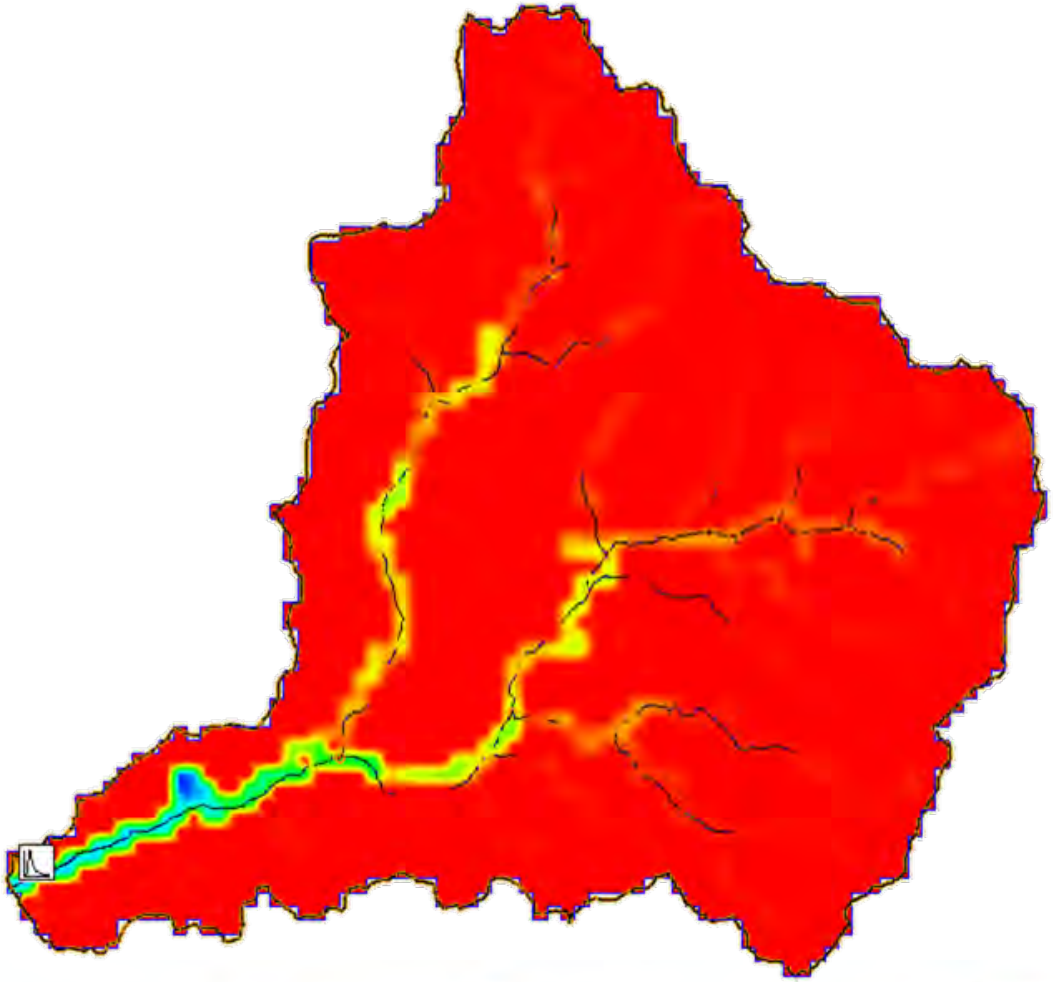
Visualize Results to Determine Surface Runoff Problems



Fixing Digital Dams







Fix Surface Runoff Problems