Data sources

Type	Variable	Source	Spatial res.	Temp. res.	Download link
Runoff	Surface runoff	NASA NLDAS2 VIC	1/8°	1h	ftp://hydro1.sci.gsfc.nasa.gov/data/s4pa/NLDAS/NLDAS_VIC0125_H.002/
	Subsurface runoff	NASA NLDAS2 VIC	1/8°	1h	ftp://hydro1.sci.gsfc.nasa.gov/data/s4pa/NLDAS/NLDAS_VIC0125_H.002/
	Surface and subsurface only (grad files)	NASA NLDAS2 VIC	1/8°	1h	http://hydro.iis.u-tokyo.ac.jp/~yamadai/tmp/SWOT-MIP/grads.tar.gz
	Surface and subsurface only (geotiff files)	NASA NLDAS2 VIC	1/8°	1h	http://hydro.iis.u-tokyo.ac.jp/~yamadai/tmp/SWOT-MIP/gtiff.tar.gz
Topography	Gridded DEM	HydroSHEDS	15 arcsec	-	http://hydrosheds.cr.usgs.gov/datadownload.php?reqdata=15demg
	Gridded Flow Accumulation	HydroSHEDS	15 arcsec	-	http://hydrosheds.cr.usgs.gov/datadownload.php?reqdata=15accg
	Gridded Flow Direction	HydroSHEDS	15 arcsec	-	http://hydrosheds.cr.usgs.gov/datadownload.php?reqdata=15dirg
	Gridded DEM (changed format)	Computed	15 arcsec	-	http://hydro.iis.u-tokyo.ac.jp/~yamadai/tmp/SWOT-MIP/mi1.condem.tif
	Gridded DEM (adjusted for no negative ele	Computed	15 arcsec	-	http://hydro.iis.u-tokyo.ac.jp/~yamadai/tmp/SWOT-MIP/mi1.elevtn.tif
Hydrography	Vector River Network	HydroSHEDS	15 arcsec	-	http://hydrosheds.cr.usgs.gov/datadownload.php?reqdata=15rivs
	Vector River Basin	HydroSHEDS	15 arcsec	-	http://hydrosheds.cr.usgs.gov/datadownload.php?reqdata=15bass
Hydrographic geometry	River reach length	Computed	15 arcsec (HydroSHEDS river network)	-	??? (to be computed after projection to North America Albers Equal Area Conic)
	Catchment area	Computed	15 arcsec (HydroSHEDS river network)	-	??? (to be computed from river reach centroid lon/lat, the number of upstream cells, and a spherical Earth of radius a-f/3 for WGS84 spheroid)
	Bankful Discharge	Computed	15 arcsec (HydroSHEDS river network)		http://doi.org/10.5281/zenodo.61758
	Bankful Width	Computed	15 arcsec (HydroSHEDS river network)	-	http://doi.org/10.5281/zenodo.61758
	Bankful Height	Computed	15 arcsec (HydroSHEDS river network)	-	http://doi.org/10.5281/zenodo.61758
	Floodplain width	???	???	-	???
River hydraulics	Manning's n	Constant	15 arcsec (HydroSHEDS river network)	-	0.03
	Muskingum k	Computed	15 arcsec (HydroSHEDS river network)	-	??? (to be computed from river length, bankful width, bankful height using TBD equation)
	Muskingum x	Constant	15 arcsec (HydroSHEDS river network)	-	0.3
Land hydraulics	Manning's n	Constant	15 arcsec (HydroSHEDS river network)	-	0.1
Observations	River discharge	USGS NWIS DV	Irregularly spaced points	24h	http://waterdata.usgs.gov/nwis/dv & http://rapid-hub.org/docs/SWOT_ST_WG_Example_Outputs.csv & http://rapid-hub.org/docs/SWOT_ST_WG_O
Model outputs	River discharge	All of us	Irregularly spaced points	24h	See example given above

Simulation

Domain	Start time	End time	Output temp res.	Variable
Mississippi	1/1/00	12/31/09	hourly to daily	Q (m^3/s)

Last update	12/6/16

Analysis

Locations	Start time (CST)	End time (CST)	Resolution
14 gauges of Dav	1/1/00	12/31/09	daily