TxDOT Project 0-7095-01 Flood Assessment System for TxDOT (FAST)

Flood Transportation Geodatabase

The flood transportation geodatabase is a set of GIS datasets that describe streams, roads, bridges, culverts and their spatial interconnection. This consists of:

1. Road and stream lines
2. Road pavement extent and elevation
3. Stream channel geometry and rating curves
4. Bridge spatial extent and vertical cross-section
5. Culvert flow lines, cross-section geometry and material type

For streamlines, the National Water Center has developed a standard dataset in .gpkg format for 2-digit water resources units, which is accessible at: https://www.lynker-spatial.com/data?path=hydrofabric%2Fv20.1%2Fgpkg%2F

For road lines the standard is the latest version of the TxDOT Roadway Inventory accessible at: https://gis-txdot.opendata.arcgis.com/

For road elevation, the Road Elevation Model for the Austin District is accessible at: https://www.caee.utexas.edu/prof/maidment/RoadElevationModel.htm

The present stream geometry and rating curve dataset that we are using is at: https://web.corral.tacc.utexas.edu/nfiedata/pin2flood/texas/full_HAND_by_HUC6/

The bridge spatial extent and vertical cross-section data are derived using the routine Tx-Bridge https://github.com/andycarter-pe/tx-bridge