

Term Project Proposal

Purpose

Lake Travis has experienced an ongoing drought for many years, the severity of which fluctuates with time. The last time the lake was considered full, with a water level of at least 681.1 msl, was a two month period in the middle of 2010. This lake is used for flood control, water supply, electrical power generation as well as recreation. Therefore, Lake Travis is a vital source of water to the surrounding communities.

Objective

Because the vitality of the surrounding area is so closely tied to Lake Travis, I want to map the drought within the Lake Travis Watershed over several years to show the severity over time.

I am also interested in performing a drought severity-duration-frequency analysis for the watershed to assess the expectations of the lake water levels.

Data

"Completed Surveys & Data." Completed Surveys & Data. Texas Water Development Board. Web. 23 Sept. 2015. <<http://www.twdb.texas.gov/surfacewater/surveys/completed/list/index.asp#travis>>.

- GIS data for Lake Travis: shapefiles, contour map, table of elevation, area and capacity

"Data Catalog." Data Catalog. Texas Natural Resources Information Center. Web. 23 Sept. 2015. <<http://tnris.org/data-catalog/>>.

- Data for Texas: elevation, floodplain, hydrography,

GIS Data Archive. (n.d.). Retrieved September 24, 2015, from <http://droughtmonitor.unl.edu/MapsAndData/GISData.aspx>

- Drought level data on a national level

"GIS/Map Downloads." Austintexas.gov. City of Austin. Web. 22 Sept. 2015. <ftp://ftp.ci.austin.tx.us/GIS-Data/Regional/coa_gis.html>.

- GIS Data and Maps: creek lines, lakes and ponds, major lakes, manmade hydrography 2013, and watersheds

"Lake Travis Is 77.8% Full as of 2015-09-22." Water Data For Texas. Texas Water Development Board. Web. 23 Sept. 2015. <<http://www.waterdatafortexas.org/reservoirs/individual/travis>>.

- GIS data for Lake Travis elevation, area, and capacity; provided by the Texas Water Development Board.

Lake Travis Water Level. (n.d.). Retrieved September 24, 2015, from <http://www.golakettravis.com/waterlevel/>

- Historical data for lake level

"National Weather Service National Headquarters." Weather.gov. National Weather Service. Web. 23 Sept. 2015. <http://www.srh.noaa.gov/ridge2/RFC_Precip/>.

- Precipitation Data