

Category: Water Quantity

Indicator: Water Use by Sector: Historic, Current, Future

Methodology

Water Use by Sector is an indicator that summarizes surface water and groundwater use across Texas over time. This indicator is quantified by summarizing the Texas Water Development Board's (TWDB) water use estimates and water demand projections at the scales of river basins, aquifers and counties. We summarize the full period of available estimated use data (1990-2015) and projected demand for 2020-2060. Details of the water use survey and TWDB's approaches for estimating water use based on the survey results are described at:

<http://www.twdb.texas.gov/waterplanning/waterusesurvey/faq.asp>. Methods for estimating projected water demand are available at:

<https://www.twdb.texas.gov/waterplanning/data/projections/methodology/index.asp>. We made no modifications to the TWDB water use data, but only map the data to allow the viewer to easily view information for their area and observe patterns in water use across Texas and over time.

Overall water use and use by each sector is presented as 7 separate sub-indicators: Water Use by All Sectors, Municipal Water Use, Manufacturing Water Use, Mining Water Use, Steam-electric Power Water Use, Irrigation Water Use and Livestock Water Use. For each of these water use sectors we summarize surface water use in river basins, groundwater pumping in aquifers and total water use, surface water use, groundwater pumping and projected water demand at the scale of counties.

The data are mapped at each scale and the user can select the average estimated water use from 1990-2015 or select to view the data for any individual year in that range. Comparisons across water use sectors are available as stacked bar graphs of all seven sub-indicators. These graphs are interactively viewed by clicking in the maps.

Data Sources

Texas Water Development Board. Water Use Summary Estimates. County Data Report, Population estimates. Provided to TNC May 15, 2014, June 30, 2015 and April 4, 2017.

<http://www.twdb.texas.gov/waterplanning/waterusesurvey/estimates/index.asp>

Texas Water Development Board. Water Use Summary Estimates. Major River Basin Summary, 1999 and Earlier. Accessed June 25, 2014 and June 30, 2015.

<http://www.twdb.texas.gov/waterplanning/waterusesurvey/estimates/index.asp>

Texas Water Development Board. Water Use Summary Estimates. Major River Basin Summary, 2000 and Later. Accessed June 25, 2014, June 30, 2015 and April 4, 2017.

<http://www.twdb.texas.gov/waterplanning/waterusesurvey/estimates/index.asp>

Texas Water Explorer

Methodology

Texas Water Development Board. Historical groundwater pumping estimates, county and aquifer scales. Provided to TNC June 2, 2014, June 30, 2015 and April 4, 2017.

<http://www.twdb.texas.gov/waterplanning/waterusesurvey/historical-pumpage.asp>