

Category: Governance

Indicator: Water Quality Management Programs

Methodology

Water Quality Management Programs is an indicator of the degree to which water quality problems have been formally addressed through the development of Watershed Protection Plans (WPPs) or Total Maximum Daily Load (TMDL) projects. This indicator maps the presence and location of TMDLs and WPPs across the state and in each basin and measures the percentage of land area in each river basin that is encompassed by WPPs.

We developed Watershed Protection Plans by including the Texas Commission on Environmental Quality's GIS layer of all Watershed Protection Plans (WPPs) in Texas and by calculating the percent of each river basin's land area that is covered by a WPP. The map of WPP locations and a map of river basins showing the percent of land covered by a WPP are included in the Explorer web viewer.

We developed Total Maximum Daily Loads by creating maps of all stream segments and water bodies (reservoirs and bay/estuaries) that have one or more established Total Maximum Daily Load (TMDL) project. Maps of stream segments and reservoirs/estuaries covered by TMDLs are included in the Explorer web viewer as TMDL project scale indicator maps.

Data Sources

Texas Commission on Environmental Quality. Watershed Protection Plan shapefile provided to TNC December 2013.

<https://www.tceq.texas.gov/waterquality/tmdl/hydromaps.html>

Texas Commission on Environmental Quality. Excel document of TMDL listings provided to TNC December 2013.

Texas Commission on Environmental Quality. 2010 Stream Segments shapefile.

https://www.tceq.texas.gov/assets/public/gis/metadata/stream_segments.pdf

Texas Commission on Environmental Quality. 2010 Reservoirs & Estuaries Segments shapefile.

https://www.tceq.texas.gov/assets/public/gis/metadata/segments_res_est.pdf

Texas Water Development Board. Major River Basins shapefile.

<http://www.twdb.texas.gov/mapping/gisdata.asp>