Standard Text for all HB30 Files

Credits

Texas Water Development Board (www.twdb.state.tx.us), Water Science and Conservation, Innovative Water Technologies, Brackish Resources Aquifer Characterization System Program

Use limitations (under resources, constraints)

This dataset was prepared to meet the requirements set in 2015 by the 84th Texas Legislature's House Bill 30, directing the Texas Water Development Board (TWDB) to conduct studies to identify and designate brackish groundwater production zones in four aquifers and to report the designations to the legislature by December 1, 2016. The data provided in these files is accurate as of the date of the file. The Texas Water Development Board provides this information as a public service in accordance with its statutory responsibility. Users of this data are responsible for checking the accuracy, completeness, currency, or suitability of the information for any particular purpose. The Texas Water Development Board disclaims any liability for any claims or damages that may result from the use of this data.

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HB30_BGPZ_20161020.shp

Summary

The horizontal extent of House Bill 30 brackish groundwater production zones (BGPZ) designated by the Texas Water Development Board (TWDB). Files were created for brackish groundwater production zones designated on October 20, 2016 and will be updated if those designations change.

Description

These polygons represent the horizontal extent of House Bill 30 brackish groundwater production zones (BGPZ) in the Carrizo-Wilcox, Gulf Coast, and Rustler aquifers.

The data used to prepare this dataset is also available in TWDB contracted reports, the Brackish Resources Aquifer Characterization System (BRACS) MS Access Database, BRACS data dictionary, and raw data files (digital geophysical well logs and water well information).

The file was prepared to meet a specific purpose as described in House Bill 30. This legislation, the contracted reports, presentations, and stakeholder comments related to the implementation of House Bill 30 can be downloaded at: http://www.twdb.texas.gov/innovativewater/bracs/HB30.asp

The BRACS database can be downloaded from the TWDB website:
http://www.twdb.texas.gov/innovativewater/bracs/database.asp

Fields

FIELD FID ►
* ALIAS FID
* DATA TYPE OID
* WIDTH 4
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Internal feature number.
* DESCRIPTION SOURCE
  Esri
* DESCRIPTION OF VALUES
  Sequential unique whole numbers that are automatically generated.

FIELD Shape ►
* ALIAS Shape
* DATA TYPE Geometry
* WIDTH 0
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Feature geometry.
* DESCRIPTION SOURCE
  Esri
* DESCRIPTION OF VALUES
  Coordinates defining the features.

FIELD AQ_NAME ►
* ALIAS AQ_NAME
* DATA TYPE String
* WIDTH 30
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION

The aquifer name used by the TWDB Groundwater Resources Division to label the nine (9) major and twenty-one (21) minor aquifers in Texas.

DESCRIPTION SOURCE

TWDB

FIELD GEO_UNIT ►

* ALIAS GEO_UNIT
* DATA TYPE String
* WIDTH 254
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Names/labels used to identify geologic formations and/or lithologic units that may subdivide an aquifer

DESCRIPTION SOURCE

TWDB

FIELD DESIG_DATE ►

* ALIAS DESIG_DATE
* DATA TYPE Date
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Date that the zone was designated

DESCRIPTION SOURCE

TWDB

FIELD BGPZ ►

* ALIAS BGPZ
* DATA TYPE String
* WIDTH 10
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

This is a code used as a unique identifier for the Brackish Groundwater Production Zones designated to fulfill one of the requirements of House Bill 30. The code consists of an abbreviation for the aquifer followed by a number.

DESCRIPTION SOURCE

TWDB

HB30_BGPZ_grid_depth_values_Rus1.shp

Summary

Polygons structured as grid cells to model HB30 brackish groundwater production zone Rus1. Each polygon has top, bottom, and thickness values from the HB30 Rustler Aquifer project (Lupton and other, 2016). Files were created for brackish groundwater production zones designated on October 20, 2016 and will be updated if those designations change.

Description

This shapefile has polygon grid cells from ModelGrid_w_Surface_Data_20160727.shp whose centroid is within the brackish groundwater production zone Rus1 polygon from HB30_BGPZ_20161020.shp. Attributes for each grid cell polygon include, but are not limited to, values from the TWDB Rustler Aquifer GAM (Ewing and others, 2012) and HB30 Rustler Aquifer project (Lupton and others, 2016). Please see TWDB contract #1600011949 Identification of Potential Brackish Groundwater Production Areas – Rustler Aquifer for more information (Lupton and others, 2016).

The file was prepared to meet a specific purpose as described in 84th Texas Legislature House Bill 30 (HB30). This legislation, the contracted reports, presentations, and stakeholder comments related to the implementation of HB30 can be downloaded at: http://www.twdb.texas.gov/innovativewater/bracs/HB30.asp

The BRACS database can be downloaded from the TWDB website: http://www.twdb.texas.gov/innovativewater/bracs/database.asp

Ewing, J.E., V.A. Kelley, T.L Jones, T. Yan, A. Singh, D.W. Powers, R.M. Holt, and Sharp, J.M., 2012, Groundwater Availability Model Report for the Rustler Aquifer, Report to Texas Water Development Board, INTERA, 434 p. http://www.twdb.texas.gov/groundwater/models/gam/rslr/rslr.asp

Lupton, D.M., Kelley, V.A., Powers, D.W., and Torres-Verdin, C., 2016, Identification of Potential Brackish Groundwater Production Areas – Rustler Aquifer: INTERA, Inc., contract report to Texas Water Development Board, 358 p.

Fields

FIELD FID ►
* ALIAS FID
* DATA TYPE OID
* WIDTH 4
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Internal feature number.

* DESCRIPTION SOURCE
  Esri

* DESCRIPTION OF VALUES
  Sequential unique whole numbers that are automatically generated.

Hide Field FID ▲

FIELD Shape ►
* ALIAS Shape
* DATA TYPE Geometry
* WIDTH 0
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Feature geometry.

* DESCRIPTION SOURCE

Esri

* DESCRIPTION OF VALUES
  Coordinates defining the features.

Hide Field Shape ▲

FIELD CELL_ID ►
* ALIAS CELL_ID
* DATA TYPE Integer
* WIDTH 9
* PRECISION 9
* SCALE 0
FIELD DESCRIPTION
  INTERA-created unique cell identifier created by: 1,000,000 + (row * 1,000) + column

Hide Field CELL_ID ▲

FIELD RU_wbu_TE ►
* ALIAS RU_wbu_TE
* DATA TYPE Single
* WIDTH 13
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION
  Top of the Rustler Aquifer water bearing units (wbu) based on the INTERA-interpreted elevation of top of Magenta (feet)

Hide Field Bott3_Mag ▲

FIELD RU_wbu_BE ►
* ALIAS RU_wbu_BE
* DATA TYPE Single
* WIDTH 13
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION
  Bottom of the Rustler Aquifer water bearing units (wbu) based on INTERA-interpreted elevation of top of Lower Los Medanos (feet)

Hide Field Bott12_LLM ▲

FIELD BGPZ ►
* ALIAS BGPZ
* DATA TYPE String
* WIDTH 10
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION
  TWDB designated HB30 brackish groundwater production zone name, which is an abbreviation of the formation name and a number

Hide Field BGPZ ▲

FIELD GSE ►
* ALIAS GSE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
FIELD DESCRIPTION

Ground surface elevation, in feet. Values are from the original ground surface elevation raster from the original 2012 Rustler GAM, which were based on the 30 m DEM and clipped to the study area

Hide Field Elevation ▲

FIELD RU_TD_wbu ►
* ALIAS RU_TD_wbu
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION

The depth, in feet, from ground surface to the top of the water bearing unit in the Rustler Aquifer based on stratigraphic picks and zones from Lupton and others (2016). This is the top of the Magenta Dolomite for grid cells in stratigraphic zone "2 - normal" and the Culebra Dolomite for grid cells in stratigraphic zone "3 – eroded".

Hide Field RU_TD_wbu ▲

FIELD RU_BD_wbu ►
* ALIAS RU_BD_wbu
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION

The depth, in feet, from ground surface to the bottom of the water bearing unit in the Rustler Aquifer based on stratigraphic picks and zones from Lupton and others (2016). This is the bottom of the Los Medanos Limestone for stratigraphic zones 2 and 3.

Hide Field RU_BD_wbu ▲

FIELD RU_TK_wbu ►
* ALIAS RU_TK_wbu
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION

Sum thickness (TK), in feet, of the water bearing units (wbu) in the Rustler Aquifer (RU) based on stratigraphic picks and zones from Lupton and others (2016). This is the thickness of the Magenta Dolomite, Culebra Dolomite, and Los Medanos Limestone for grid cells in stratigraphic zone "2 - normal" and the thickness of the Culebra Dolomite and Los Medanos Limestone for grid cells in stratigraphic zone "3 – eroded".

HB30_BGPZ_grid_depth_values_Rus2.shp

Summary

Polygons structured as grid cells to model HB30 brackish groundwater production zone Rus2. Each polygon has top, bottom, and thickness values from the HB30 Rustler Aquifer project (Lupton and other, 2016). Files were created for brackish groundwater production zones designated on October 20, 2016 and will be updated if those designations change.

Description

This shapefile has polygon grid cells from ModelGrid_w_Surface_Data_20160727.shp whose centroid is within the brackish groundwater production zone Rus2 polygon from HB30_BGPZ_20161020.shp. Attributes for each grid cell polygon include, but are not limited to, values from the TWDB Rustler Aquifer GAM (Ewing and others, 2012) and HB30 Rustler Aquifer project (Lupton and others, 2016). Please see TWDB contract #1600011949 Identification of Potential Brackish Groundwater Production Areas – Rustler Aquifer for more information (Lupton and others, 2016).

The file was prepared to meet a specific purpose as described in 84th Texas Legislature House Bill 30 (HB30). This legislation, the contracted reports, presentations, and stakeholder comments related to the implementation of HB30 can be downloaded at: http://www.twdb.texas.gov/innovativewater/bracs/HB30.asp

The BRACS database can be downloaded from the TWDB website: http://www.twdb.texas.gov/innovativewater/bracs/database.asp

Ewing, J.E., V.A. Kelley, T.L Jones, T. Yan, A. Singh, D.W. Powers, R.M. Holt, and Sharp, J.M., 2012, Groundwater Availability Model Report for the Rustler Aquifer, Report to Texas Water Development Board, INTERA, 434 p. http://www.twdb.texas.gov/groundwater/models/gam/rslr/rslr.asp

Lupton, D.M., Kelley, V.A., Powers, D.W., and Torres-Verdin, C., 2016, Identification of Potential Brackish Groundwater Production Areas – Rustler Aquifer: INTERA, Inc., contract report to Texas Water Development Board, 358 p.

Fields

FIELD FID ►
* ALIAS FID
* DATA TYPE OID
* WIDTH 4
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Internal feature number.
* DESCRIPTION SOURCE
  Esri
* DESCRIPTION OF VALUES
  Sequential unique whole numbers that are automatically generated.

Hide Field FID ▲

FIELD Shape ►
* ALIAS Shape
* DATA TYPE Geometry
* WIDTH 0
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Feature geometry.
* DESCRIPTION SOURCE
  Esri
* DESCRIPTION OF VALUES
  Coordinates defining the features.

Hide Field Shape ▲

FIELD Cell_ID ►
* ALIAS Cell_ID
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
FIELD DESCRIPTION
INTERA-created unique cell identifier created by: 1,000,000 + (row * 1,000) + column
DESCRIPTION SOURCE
INTERA
Hide Field Cell_ID ▲

FIELD GSE ►
* ALIAS GSE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
FIELD DESCRIPTION
Ground surface elevation, in feet. Values are from the original ground surface elevation raster from the original 2012 Rustler GAM, which were based on the 30 m DEM and clipped to the study area
DESCRIPTION SOURCE
INTERA
Hide Field GSE ▲

FIELD BGPZ ►
* ALIAS BGPZ
* DATA TYPE String
* WIDTH 10
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION
TWDB designated HB30 brackish groundwater production zone name, which is an abbreviation of the formation name and a number
DESCRIPTION SOURCE
BGPZ
Hide Field BGPZ ▲

FIELD RU_TE ►
* ALIAS RU_TE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
FIELD DESCRIPTION
Top of the Rustler Aquifer based on the INTERA-interpreted elevation of the top of the Rustler Formation (feet)
Hide Field RU_TE ▲

FIELD RU_BE ►
* ALIAS RU_BE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION

Bottom of the Rustler Aquifer based on the INTERA-interpreted elevation of the top of the Salado Formation (feet)

Hide Field RU_BE ▲

FIELD RU_TD ►

* ALIAS RU_TD
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION

The depth, in feet, from ground surface to the top of the Rustler Aquifer based on stratigraphic picks for the top of the Rustler FOrmation from Lupton and others (2016).

Hide Field RU_TD ▲

FIELD RU_BD ►

* ALIAS RU_BD
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION

The depth, in feet, from ground surface to the bottom of the Rustler Aquifer based on stratigraphic picks for the top of the Salado Formation from Lupton and others (2016).

Hide Field RU_BD ▲

FIELD RU_TK ►

* ALIAS RU_TK
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION

Thickness (TK) of the Rustler Aquifer in feet. [RU_TK='RUS_SAL']

Hide Field RU_TK ▲

HB30_BGPZ_grid_depth_values_Rus3.shp

Summary

Polygons structured as grid cells to model HB30 brackish groundwater production zone Rus1. Each polygon has top, bottom, and thickness values from the HB30 Rustler Aquifer project (Lupton and other, 2016). Files were created for brackish groundwater production zones designated on October 20, 2016 and will be updated if those designations change.

Description

This shapefile has polygon grid cells from ModelGrid_w_Surface_Data_20160727.shp whose centroid is within the brackish groundwater production zone Rus3 polygon from HB30_BGPZ_20161020.shp. Attributes for each grid cell polygon include, but are not limited to, values from the TWDB Rustler Aquifer GAM (Ewing and others, 2012) and HB30 Rustler Aquifer project (Lupton and others, 2016). Please see TWDB contract #1600011949 Identification of Potential Brackish Groundwater Production Areas – Rustler Aquifer for more information (Lupton and others, 2016).

The file was prepared to meet a specific purpose as described in 84th Texas Legislature House Bill 30 (HB30). This legislation, the contracted reports, presentations, and stakeholder comments related to the implementation of HB30 can be downloaded at: http://www.twdb.texas.gov/innovativewater/bracs/HB30.asp

The BRACS database can be downloaded from the TWDB website: http://www.twdb.texas.gov/innovativewater/bracs/database.asp

Ewing, J.E., V.A. Kelley, T.L Jones, T. Yan, A. Singh, D.W. Powers, R.M. Holt, and Sharp, J.M., 2012, Groundwater Availability Model Report for the Rustler Aquifer, Report to Texas Water Development Board, INTERA, 434 p. http://www.twdb.texas.gov/groundwater/models/gam/rslr/rslr.asp

Lupton, D.M., Kelley, V.A., Powers, D.W., and Torres-Verdin, C., 2016, Identification of Potential Brackish Groundwater Production Areas – Rustler Aquifer: INTERA, Inc., contract report to Texas Water Development Board, 358 p.

Fields

FIELD FID ►
* ALIAS FID
* DATA TYPE OID
* WIDTH 4
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Internal feature number.
* DESCRIPTION SOURCE
  Esri
* DESCRIPTION OF VALUES
  Sequential unique whole numbers that are automatically generated.

Hide Field FID ▲

FIELD Shape ►
* ALIAS Shape
* DATA TYPE Geometry
* WIDTH 0
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Feature geometry.
* DESCRIPTION SOURCE
  Esri
* DESCRIPTION OF VALUES
  Coordinates defining the features.

Hide Field Shape ▲

FIELD Cell_ID ►
* ALIAS Cell_ID
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
FIELD DESCRIPTION
INTERA-created unique cell identifier created by: 1,000,000 + (row * 1,000) + column
DESCRIPTION SOURCE
INTERA

Hide Field Cell_ID ▲

FIELD GSE ►
* ALIAS GSE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
FIELD DESCRIPTION
Ground surface elevation, in feet. Values are from the original ground surface elevation raster from the original 2012 Rustler GAM, which were based on the 30 m DEM and clipped to the study area
DESCRIPTION SOURCE
INTERA
Hide Field GSE ▲

FIELD BGPZ ►
* ALIAS BGPZ
* DATA TYPE String
* WIDTH 10
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION
TWDB designated HB30 brackish groundwater production zone name, which is an abbreviation of the formation name and a number
DESCRIPTION SOURCE
BGPZ
Hide Field BGPZ ▲

FIELD RU_wbu_TE ►
* ALIAS RU_wbu_TE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
FIELD DESCRIPTION
Top of the Rustler Aquifer water bearing units (wbu) based on the INTERA-interpreted elevation of top of Magenta (feet)
DESCRIPTION SOURCE
INTERA
Hide Field RU_wbu_TE ▲

FIELD RU_wbu_BE ►
* ALIAS RU_wbu_BE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
FIELD DESCRIPTION

Bottom of the Rustler Aquifer water bearing units (wbu) based on INTERA-interpreted elevation of top of Lower Los Medanos (feet)

DESCRIPTION SOURCE

INTERA

Hide Field RU_wbu_BE ▲

FIELD RU_wbu_TD ►

* ALIAS RU_wbu_TD
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION

The depth, in feet, from ground surface to the top of the water bearing unit in the Rustler Aquifer based on stratigraphic picks and zones from Lupton and others (2016). This is the top of the Magenta Dolomite for grid cells in stratigraphic zone "2 - normal" and the Culebra Dolomite for grid cells in stratigraphic zone "3 – eroded".

DESCRIPTION SOURCE

TWDB

Hide Field RU_wbu_TD ▲

FIELD RU_wbu_BD ►

* ALIAS RU_wbu_BD
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION

The depth, in feet, from ground surface to the bottom of the water bearing unit in the Rustler Aquifer based on stratigraphic picks and zones from Lupton and others (2016). This is the bottom of the Los Medanos Limestone for stratigraphic zones 2 and 3.

DESCRIPTION SOURCE

TWDB

Hide Field RU_wbu_BD ▲

FIELD RU_wbu_TK ►

* ALIAS RU_wbu_TK
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION

Sum thickness (TK), in feet, of the water bearing units (wbu) in the Rustler Aquifer (RU) based on stratigraphic picks and zones from Lupton and others (2016). This is the thickness of the Magenta Dolomite, Culebra Dolomite, and Los Medanos Limestone for grid cells in stratigraphic zone "2 - normal" and the thickness of the Culebra Dolomite and Los Medanos Limestone for grid cells in stratigraphic zone "3 – eroded".

DESCRIPTION SOURCE

TWDB

Hide Field RU_wbu_TK ▲

HB30_BGPZ_grid_depth_values_GCUL1.shp

Summary

Polygons structured as grid cells to model HB30 brackish groundwater production zone GCUL1. Each polygon has top, bottom, and thickness values from the HB30 Gulf Coast project (Young and other, 2016). Files were created for brackish groundwater production zones designated on October 20, 2016 and will be updated if those designations change.

Description

This shapefile has polygon grid cells exported from glfchalf_ctygma_hdsfix.shp (Young and others, 2016) whose centroid is within the brackish groundwater production zone GCUL1 polygon from HB30_BGPZ_20161020.shp. Attributes for each grid cell polygon include a unique identifier, ground surface elevation, zone top, zone bottom, and zone thickness. Values are from the Northern Gulf Coast GAM (Kasmarek, 2013), Central Gulf Coast GAM (Chowdhury and others, 2004), and GMA 16 Alternative Model (Hutchison and others, 2011). Please see TWDB contract #1600011947 Identification of Potential Brackish Groundwater Production Areas - Gulf Coast Aquifer System (Young and others, 2016).

The file was prepared to meet a specific purpose as described in 84th Texas Legislature House Bill 30 (HB30). This legislation, the contracted reports, presentations, and stakeholder comments related to the implementation of HB30 can be downloaded at: http://www.twdb.texas.gov/innovativewater/bracs/HB30.asp

The BRACS database can be downloaded from the TWDB website: http://www.twdb.texas.gov/innovativewater/bracs/database.asp

Chowdhury, A. Wade, S., Mace, R.E., and Ridgeway, C., 2004, Groundwater Availability of the Central Gulf Coast Aquifer System: Numerical Simulations through 1999: Texas Water Development Board, unpublished report. http://www.twdb.texas.gov/groundwater/models/gam/glfc_c/glfc_c.asp

Hutchison, W.R., Hill, M.E, Anaya, R., Hassan, M., Oliver, W., Jigmond, M., Wade, S., and Aschenbach, E., 2011, Groundwater Management Area 16 groundwater flow model, unnumbered report: Texas Water Development Board. http://www.twdb.texas.gov/groundwater/models/alt/gma16/gma16.asp

Kasmarek, M.C., 2013, Hydrogeology and simulation of groundwater flow and land-surface subsidence in the northern part of the Gulf Coast Aquifer System, Texas, 1891-2009: U.S. Geological Survey Scientific investigations Report 2012-5154, 55 p. http://www.twdb.texas.gov/groundwater/models/gam/glfc_n/glfc_n.asp

Young, S.C., Jigmond, M., Deeds, N., Blainey, J., Ewing, T.E., and Banerj, D., 2016, Identification of Potential Brackish Groundwater Production Areas – Gulf Coast Aquifer: INTERA, Inc., contract report to Texas Water Development Board, 664 p.

Fields

DETAILS FOR OBJECT HB30_BGPZ_grid_depth_values_GCUL1 ►
* TYPE Feature Class
* ROW COUNT 575

FIELD FID ►
* ALIAS FID
* DATA TYPE OID
* WIDTH 4
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Internal feature number.
* DESCRIPTION SOURCE
  Esri
* DESCRIPTION OF VALUES
  Sequential unique whole numbers that are automatically generated.

Hide Field FID ▲

FIELD Shape ►
* ALIAS Shape
* DATA TYPE Geometry
* WIDTH 0
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Feature geometry.
* DESCRIPTION SOURCE
  Esri
* DESCRIPTION OF VALUES
  Coordinates defining the features.

Hide Field Shape ▲

FIELD nodenumber ►
* ALIAS nodenumber
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION
  Node number, consecutive numbers starting at 1.

DESCRIPTION SOURCE
  USGS

Hide Field nodenumber ▲

FIELD GSE ►
* ALIAS GSE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION
  Ground surface elevation provided by Young and others, 2016 (feet relative to mean sea level)

DESCRIPTION SOURCE
  INTERA

Hide Field GSE ▲

FIELD BGPZ ►
* ALIAS BGPZ
* DATA TYPE String
* WIDTH 10
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
  84th Texas Legislature House Bill 30 (HB30) brackish groundwater production zone name

DESCRIPTION SOURCE
  TWDB

Hide Field BGPZ ▲

FIELD UL_TE ►
* ALIAS UL_TE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION
  Elevation of the top of brackish groundwater production zone GCUL1 based on stratigraphy provided by Young and others, 2016 (feet relative to mean sea level) ['UL_TE'='lg']

DESCRIPTION SOURCE
  INTERA

Hide Field UL_TE ▲

FIELD UL_BE ►
* ALIAS UL_BE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION
Elevation of the top of brackish groundwater production zone GCUL1 as provided by Young and others, 2016 (feet relative to mean sea level) [‘UL_BE’=’ul’]

DESCRIPTION SOURCE
INTERA

Hide Field UL_BE ▲

FIELD UL_TD ►
* ALIAS UL_TD
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION
Depth from the provided ground surface elevation to the top of brackish groundwater production zone GCUL1 in feet, [UL_TD=‘gse’-‘UL_TE’]

DESCRIPTION SOURCE
TWDB

Hide Field UL_TD ▲

FIELD UL_BD ►
* ALIAS UL_BD
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION
Depth from the provided ground surface elevation to the bottom of brackish groundwater production zone GCUL1 in feet, [UL_BD=‘gse’-‘UL_TE’]

DESCRIPTION SOURCE
TWDB

Hide Field UL_BD ▲

FIELD UL_TK ►
* ALIAS UL_TK
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION
Estimated thickness of brackish groundwater production zone GCUL1 in feet, [‘UL_TK”=‘th_ul’]

DESCRIPTION SOURCE
INTERA

Hide Field UL_TK ▲

HB30_BGPZ_grid_depth_values_GCLL1.shp

Summary

Polygons structured as grid cells to model HB30 brackish groundwater production zone GCLL1. Each polygon has top, bottom, and thickness values from the HB30 Gulf Coast project (Young and other, 2016). Files were created for brackish groundwater production zones designated on October 20, 2016 and will be updated if those designations change.

Description

This shapefile has polygon grid cells exported from glfchalf_ctygma_hdsfix.shp (Young and others, 2016) whose centroid is within the brackish groundwater production zone GCLL1 polygon from HB30_BGPZ_20161020.shp. Attributes for each grid cell polygon include a unique identifier, ground surface elevation, zone top, zone bottom, and zone thickness. Values are from the Northern Gulf Coast GAM (Kasmarek, 2013), Central Gulf Coast GAM (Chowdhury and others, 2004), and GMA 16 Alternative Model (Hutchison and others, 2011). Please see TWDB contract #1600011947 Identification of Potential Brackish Groundwater Production Areas - Gulf Coast Aquifer System (Young and others, 2016).

The file was prepared to meet a specific purpose as described in 84th Texas Legislature House Bill 30 (HB30). This legislation, the contracted reports, presentations, and stakeholder comments related to the implementation of HB30 can be downloaded at: http://www.twdb.texas.gov/innovativewater/bracs/HB30.asp

The BRACS database can be downloaded from the TWDB website: http://www.twdb.texas.gov/innovativewater/bracs/database.asp

Chowdhury, A. Wade, S., Mace, R.E., and Ridgeway, C., 2004, Groundwater Availability of the Central Gulf Coast Aquifer System: Numerical Simulations through 1999: Texas Water Development Board, unpublished report. http://www.twdb.texas.gov/groundwater/models/gam/glfc_c/glfc_c.asp

Hutchison, W.R., Hill, M.E, Anaya, R., Hassan, M., Oliver, W., Jigmond, M., Wade, S., and Aschenbach, E., 2011, Groundwater Management Area 16 groundwater flow model, unnumbered report: Texas Water Development Board. http://www.twdb.texas.gov/groundwater/models/alt/gma16/gma16.asp

Kasmarek, M.C., 2013, Hydrogeology and simulation of groundwater flow and land-surface subsidence in the northern part of the Gulf Coast Aquifer System, Texas, 1891-2009: U.S. Geological Survey Scientific investigations Report 2012-5154, 55 p. http://www.twdb.texas.gov/groundwater/models/gam/glfc_n/glfc_n.asp

Young, S.C., Jigmond, M., Deeds, N., Blainey, J., Ewing, T.E., and Banerj, D., 2016, Identification of Potential Brackish Groundwater Production Areas – Gulf Coast Aquifer: INTERA, Inc., contract report to Texas Water Development Board, 664 p.

Fields

DETAILS FOR OBJECT HB30_BGPZ_grid_depth_values_GCUL1 ►
* TYPE Feature Class
* ROW COUNT 575

FIELD FID ►
* ALIAS FID
* DATA TYPE OID
* WIDTH 4
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Internal feature number.
* DESCRIPTION SOURCE
  Esri
* DESCRIPTION OF VALUES
  Sequential unique whole numbers that are automatically generated.

Hide Field FID ▲

FIELD Shape ►
* ALIAS Shape
* DATA TYPE Geometry
* WIDTH 0
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Feature geometry.
* DESCRIPTION SOURCE
  Esri
* DESCRIPTION OF VALUES
  Coordinates defining the features.

Hide Field Shape ▲

FIELD nodenumber ►
* ALIAS nodenumber
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION
  Node number, consecutive numbers starting at 1.

DESCRIPTION SOURCE
  USGS

Hide Field nodenumber ▲

FIELD GSE ►
* ALIAS GSE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION
  Ground surface elevation provided by Young and others, 2016 (feet relative to mean sea level)

DESCRIPTION SOURCE
  INTERA

Hide Field GSE ▲

FIELD BGPZ ►
* ALIAS BGPZ
* DATA TYPE String
* WIDTH 10
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
  84th Texas Legislature House Bill 30 (HB30) brackish groundwater production zone name

DESCRIPTION SOURCE
  TWDB

Hide Field BGPZ ▲

FIELD LL_TE ►
* ALIAS LL_TE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION
  Elevation of the top of brackish groundwater production zone GCLL1 based on stratigraphy provided by Young and others, 2016 (feet relative to mean sea level) ['LL_TE'='ml']

DESCRIPTION SOURCE
  INTERA

Hide Field UL_TE ▲

FIELD LL_BE ►
* ALIAS LL_BE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
FIELD DESCRIPTION
Elevation of the top of brackish groundwater production zone GCLL1 as provided by Young and others, 2016 (feet relative to mean sea level) [‘LL_BE’=’ll’]
DESCRIPTION SOURCE
INTERA
Hide Field UL_BE ▲

FIELD LL_TD ►
* ALIAS LL_TD
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
FIELD DESCRIPTION
Depth from the provided ground surface elevation to the top of brackish groundwater production zone GCLL1 in feet, [LL_TD=‘gse’-‘LL_TE’]
DESCRIPTION SOURCE
TWDB
Hide Field UL_TD ▲

FIELD LL_BD ►
* ALIAS LL_BD
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
FIELD DESCRIPTION
Depth from the provided ground surface elevation to the bottom of brackish groundwater production zone GCLL1 in feet, [UL_BD=‘gse’-‘LL_TE’]
DESCRIPTION SOURCE
TWDB
Hide Field UL_BD ▲

FIELD LL_TK ►
* ALIAS LL_TK
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
FIELD DESCRIPTION
Estimated thickness of brackish groundwater production zone GCLL1 in feet, [‘LL_TK”=‘th_ll’]
DESCRIPTION SOURCE
INTERA

Hide Field UL_TK ▲

HB30_BGPZ_grid_depth_values_GCLL2.shp

Summary

Polygons structured as grid cells to model HB30 brackish groundwater production zone GCLL2. Each polygon has top, bottom, and thickness values from the HB30 Gulf Coast project (Young and other, 2016). Files were created for brackish groundwater production zones designated on October 20, 2016 and will be updated if those designations change.

Description

This shapefile has polygon grid cells exported from glfchalf_ctygma_hdsfix.shp (Young and others, 2016) whose centroid is within the brackish groundwater production zone GCLL2 polygon from HB30_BGPZ_20161020.shp. Attributes for each grid cell polygon include a unique identifier, ground surface elevation, zone top, zone bottom, and zone thickness. Values are from the Northern Gulf Coast GAM (Kasmarek, 2013), Central Gulf Coast GAM (Chowdhury and others, 2004), and GMA 16 Alternative Model (Hutchison and others, 2011). Please see TWDB contract #1600011947 Identification of Potential Brackish Groundwater Production Areas - Gulf Coast Aquifer System (Young and others, 2016).

The file was prepared to meet a specific purpose as described in 84th Texas Legislature House Bill 30 (HB30). This legislation, the contracted reports, presentations, and stakeholder comments related to the implementation of HB30 can be downloaded at: http://www.twdb.texas.gov/innovativewater/bracs/HB30.asp

The BRACS database can be downloaded from the TWDB website: http://www.twdb.texas.gov/innovativewater/bracs/database.asp

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Hutchison, W.R., Hill, M.E, Anaya, R., Hassan, M., Oliver, W., Jigmond, M., Wade, S., and Aschenbach, E., 2011, Groundwater Management Area 16 groundwater flow model, unnumbered report: Texas Water Development Board. http://www.twdb.texas.gov/groundwater/models/alt/gma16/gma16.asp

Kasmarek, M.C., 2013, Hydrogeology and simulation of groundwater flow and land-surface subsidence in the northern part of the Gulf Coast Aquifer System, Texas, 1891-2009: U.S. Geological Survey Scientific investigations Report 2012-5154, 55 p. http://www.twdb.texas.gov/groundwater/models/gam/glfc_n/glfc_n.asp

Young, S.C., Jigmond, M., Deeds, N., Blainey, J., Ewing, T.E., and Banerj, D., 2016, Identification of Potential Brackish Groundwater Production Areas – Gulf Coast Aquifer: INTERA, Inc., contract report to Texas Water Development Board, 664 p.

Fields

DETAILS FOR OBJECT HB30_BGPZ_grid_depth_values_GCUL1 ►
* TYPE Feature Class
* ROW COUNT 575

FIELD FID ►
* ALIAS FID
* DATA TYPE OID
* WIDTH 4
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Internal feature number.
* DESCRIPTION SOURCE
  Esri
* DESCRIPTION OF VALUES
  Sequential unique whole numbers that are automatically generated.

Hide Field FID ▲

FIELD Shape ►
* ALIAS Shape
* DATA TYPE Geometry
* WIDTH 0
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Feature geometry.
* DESCRIPTION SOURCE
  Esri
* DESCRIPTION OF VALUES
  Coordinates defining the features.

Hide Field Shape ▲

FIELD nodenumber ►
* ALIAS nodenumber
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION
  Node number, consecutive numbers starting at 1.

DESCRIPTION SOURCE
  USGS

Hide Field nodenumber ▲

FIELD GSE ►
* ALIAS GSE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION
  Ground surface elevation provided by Young and others, 2016 (feet relative to mean sea level)

DESCRIPTION SOURCE
  INTERA

Hide Field GSE ▲

FIELD BGPZ ►
* ALIAS BGPZ
* DATA TYPE String
* WIDTH 10
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
  84th Texas Legislature House Bill 30 (HB30) brackish groundwater production zone name

DESCRIPTION SOURCE
  TWDB

Hide Field BGPZ ▲

FIELD LL_TE ►
* ALIAS LL_TE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION
  Elevation of the top of brackish groundwater production zone GCLL2 based on stratigraphy provided by Young and others, 2016 (feet relative to mean sea level) ['LL_TE'='ml']

DESCRIPTION SOURCE
  INTERA

Hide Field UL_TE ▲

FIELD LL_BE ►
* ALIAS LL_BE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
FIELD DESCRIPTION
Elevation of the top of brackish groundwater production zone GCLL2 as provided by Young and others, 2016 (feet relative to mean sea level) [‘LL_BE’=’ll’]
DESCRIPTION SOURCE
INTERA
Hide Field UL_BE ▲

FIELD LL_TD ►
* ALIAS LL_TD
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
FIELD DESCRIPTION
Depth from the provided ground surface elevation to the top of brackish groundwater production zone GCLL2 in feet, [LL_TD=‘gse’-‘LL_TE’]
DESCRIPTION SOURCE
TWDB
Hide Field UL_TD ▲

FIELD LL_BD ►
* ALIAS LL_BD
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
FIELD DESCRIPTION
Depth from the provided ground surface elevation to the bottom of brackish groundwater production zone GCLL2 in feet, [LL_BD=‘gse’-‘LL_BE’]
DESCRIPTION SOURCE
TWDB
Hide Field UL_BD ▲

FIELD LL_TK ►
* ALIAS LL_TK
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
FIELD DESCRIPTION
Estimated thickness of brackish groundwater production zone GCLL2 in feet, [‘LL_TK”=‘th_ll’]
DESCRIPTION SOURCE
INTERA

Hide Field UL_TK ▲

HB30_BGPZ_grid_depth_values_GCML2.shp

Summary

Polygons structured as grid cells to model HB30 brackish groundwater production zone GCML2. Each polygon has top, bottom, and thickness values from the HB30 Gulf Coast project (Young and other, 2016). Files were created for brackish groundwater production zones designated on October 20, 2016 and will be updated if those designations change.

Description

This shapefile has polygon grid cells exported from glfchalf_ctygma_hdsfix.shp (Young and others, 2016) whose centroid is within the brackish groundwater production zone GCML2 polygon from HB30_BGPZ_20161020.shp. Attributes for each grid cell polygon include a unique identifier, ground surface elevation, zone top, zone bottom, and zone thickness. Values are from the Northern Gulf Coast GAM (Kasmarek, 2013), Central Gulf Coast GAM (Chowdhury and others, 2004), and GMA 16 Alternative Model (Hutchison and others, 2011). Please see TWDB contract #1600011947 Identification of Potential Brackish Groundwater Production Areas - Gulf Coast Aquifer System (Young and others, 2016).

The file was prepared to meet a specific purpose as described in 84th Texas Legislature House Bill 30 (HB30). This legislation, the contracted reports, presentations, and stakeholder comments related to the implementation of HB30 can be downloaded at: http://www.twdb.texas.gov/innovativewater/bracs/HB30.asp

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Hutchison, W.R., Hill, M.E, Anaya, R., Hassan, M., Oliver, W., Jigmond, M., Wade, S., and Aschenbach, E., 2011, Groundwater Management Area 16 groundwater flow model, unnumbered report: Texas Water Development Board. http://www.twdb.texas.gov/groundwater/models/alt/gma16/gma16.asp

Kasmarek, M.C., 2013, Hydrogeology and simulation of groundwater flow and land-surface subsidence in the northern part of the Gulf Coast Aquifer System, Texas, 1891-2009: U.S. Geological Survey Scientific investigations Report 2012-5154, 55 p. http://www.twdb.texas.gov/groundwater/models/gam/glfc_n/glfc_n.asp

Young, S.C., Jigmond, M., Deeds, N., Blainey, J., Ewing, T.E., and Banerj, D., 2016, Identification of Potential Brackish Groundwater Production Areas – Gulf Coast Aquifer: INTERA, Inc., contract report to Texas Water Development Board, 664 p.

Fields

DETAILS FOR OBJECT HB30_BGPZ_grid_depth_values_GCML2 ►
* TYPE Feature Class
* ROW COUNT 575

FIELD FID ►
* ALIAS FID
* DATA TYPE OID
* WIDTH 4
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Internal feature number.
* DESCRIPTION SOURCE
  Esri
* DESCRIPTION OF VALUES
  Sequential unique whole numbers that are automatically generated.

Hide Field FID ▲

FIELD Shape ►
* ALIAS Shape
* DATA TYPE Geometry
* WIDTH 0
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Feature geometry.
* DESCRIPTION SOURCE
  Esri
* DESCRIPTION OF VALUES
  Coordinates defining the features.

Hide Field Shape ▲

FIELD nodenumber ►
* ALIAS nodenumber
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION
  Node number, consecutive numbers starting at 1.

DESCRIPTION SOURCE
  USGS

Hide Field nodenumber ▲

FIELD GSE ►
* ALIAS GSE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION
  Ground surface elevation provided by Young and others, 2016 (feet relative to mean sea level)

DESCRIPTION SOURCE
  INTERA

Hide Field GSE ▲

FIELD BGPZ ►
* ALIAS BGPZ
* DATA TYPE String
* WIDTH 10
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
  84th Texas Legislature House Bill 30 (HB30) brackish groundwater production zone name

DESCRIPTION SOURCE
  TWDB

Hide Field BGPZ ▲

FIELD ML_TE ►
* ALIAS ML_TE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION
  Elevation of the top of brackish groundwater production zone GCML2 based on stratigraphy provided by Young and others, 2016 (feet relative to mean sea level) [‘ML_TE’=’ul’]

DESCRIPTION SOURCE
  INTERA

Hide Field UL_TE ▲

FIELD ML_BE ►
* ALIAS ML_BE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION
Elevation of the top of brackish groundwater production zone GCML2 as provided by Young and others, 2016 (feet relative to mean sea level) [‘ML_BE’=’ml’]

DESCRIPTION SOURCE
INTERA

Hide Field UL_BE ▲

FIELD ML_TD ►
* ALIAS ML_TD
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION
Depth from the provided ground surface elevation to the top of brackish groundwater production zone GCML2 in feet, [ML_TD=‘gse’-‘ML_TE’]

DESCRIPTION SOURCE
TWDB

Hide Field UL_TD ▲

FIELD ML_BD ►
* ALIAS ML_BD
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION
Depth from the provided ground surface elevation to the bottom of brackish groundwater production zone GCML2 in feet, [ML_BD=‘gse’-‘ML_TE’]

DESCRIPTION SOURCE
TWDB

Hide Field UL_BD ▲

FIELD ML_TK ►
* ALIAS ML_TK
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5

FIELD DESCRIPTION
Estimated thickness of brackish groundwater production zone GCML2 in feet, [‘ML_TK”=‘th_ml’]

DESCRIPTION SOURCE
INTERA

Hide Field UL_TK ▲

HB30_BGPZ_grid_depth_values_CzWx1.shp

Summary

Polygons structured as grid cells to model HB30 brackish groundwater production zone CzWx1. Each polygon has top, bottom, and thickness values from the HB30 Carrizo-Wilcox project (Hamlin and other, 2016). Files were created for brackish groundwater production zones designated on October 20, 2016 and will be updated if those designations change.

Description

This shapefile has polygon grid cells attributed with values from Hamlin and other (2016) report rasters lw_t_d_idw.tif and lw_b_d_idw.tif and the TWDB Groundwater Availability Modeling 30m DEM for Texas (texas30m.img). These three rasters were projected to the TWDB GAM projection, resampled to the 500ft project snap grid, and then the values for each grid cell were added to this shapefile. Please see TWDB Innovative Water Technologies website for more details.
http://www.twdb.texas.gov/innovativewater/index.asp

The file was prepared to meet a specific purpose as described in 84th Texas Legislature House Bill 30 (HB30). This legislation, the contracted reports, presentations, and stakeholder comments related to the implementation of HB30 can be downloaded at:
http://www.twdb.texas.gov/innovativewater/bracs/HB30.asp

The BRACS database can be downloaded from the TWDB website: http://www.twdb.texas.gov/innovativewater/bracs/database.asp

Hamlin, S., Scanlon, B.R., Reedy, R., Young, S.C., and Jigmond, M., 2016, Fresh, brackish, and saline groundwater resources in the Carrizo-Wilcox Aquifer in groundwater management area 13 – Location, quantification, producibility, and impacts: University of Texas at Austin, Bureau of Economic Geology, draft contract report to the Texas Water Development Board, 238 pages.

Fields

DETAILS FOR OBJECT HB30_BGPZ_grid_depth_values_CzWx1 ►
* TYPE Feature Class
* ROW COUNT 99909

FIELD FID ►
* ALIAS FID
* DATA TYPE OID
* WIDTH 4
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Internal feature number.
* DESCRIPTION SOURCE
  Esri
* DESCRIPTION OF VALUES
  Sequential unique whole numbers that are automatically generated.

FIELD Shape ►
* ALIAS Shape
* DATA TYPE Geometry
* WIDTH 0
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Feature geometry.
* DESCRIPTION SOURCE
  Esri
* DESCRIPTION OF VALUES
  Coordinates defining the features.

FIELD GSE ►
* ALIAS GSE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
* FIELD DESCRIPTION
  Ground surface elevation values relative to mean sea level, in feet. Since 2009 the BRACS team has used a statewide DEM (texas30m.img) from the USGS seamless 1 arc-second National Elevation Dataset (NED) 2004. For this shapefile, elevations were resampled from texas30m.img to the larger 500-foot H.B. 30 Carrizo-Wilcox project snap grid using the ESRI Resample tool cubic resampling technique. For more information on the DEM go to https://tnris.org/data-catalog/entry/national-elevation-dataset-ned-2004/
* DESCRIPTION SOURCE
  TWDB
* DESCRIPTION OF VALUES
  Ground surface elevation in U.S. feet relative to mean sea level.

FIELD BGPZ ►
* ALIAS BGPZ
* DATA TYPE String
* WIDTH 10
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  84th Texas Legislature House Bill 30 (HB30) brackish groundwater production zone name
* DESCRIPTION SOURCE
  TWDB

FIELD LW_TE ►
* ALIAS LW_TE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
* FIELD DESCRIPTION
  Elevation of the top of brackish groundwater production zone CzWx1. Values are in feet relative to mean sea level and were calculated based on the ground surface elevation minus the depth to the top of the Lower Wilcox formation provided by Hamlin and others, (2016). ['LW_TE'='GSE'-'LW_TD']
* DESCRIPTION SOURCE
  TWDB
* DESCRIPTION OF VALUES
  Elevation in U.S. feet relative to mean sea level.

FIELD LW_BE ►
* ALIAS LW_BE
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
* FIELD DESCRIPTION
  Elevation of the bottom of brackish groundwater production zone CzWx1. Values are in feet relative to mean sea level and were calculated based on the ground surface elevation minus the depth to the bottom of the Lower Wilcox formation provided by Hamlin and others, (2016). ['LW_BE'='GSE'-'LW_BD']
* DESCRIPTION SOURCE
  TWDB
* DESCRIPTION OF VALUES
  Elevation in U.S. feet relative to mean sea level.

FIELD LW_TD ►
* ALIAS LW_TD

* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
* FIELD DESCRIPTION
  Depth to the top of brackish groundwater production zone CzWx1 from the ground surface, in feet. Values are based on stratigraphic picks and interpolation of the top of the Lower Wilcox Formation provided by Hamlin and others, (2016).
* DESCRIPTION SOURCE
  Texas Bureau of Economic Geology (BEG)
* DESCRIPTION OF VALUES
  Depth in U.S. feet below the ground surface.

FIELD LW_BD ►
* ALIAS LW_BD
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
* FIELD DESCRIPTION
  Depth to the bottom of brackish groundwater production zone CzWx1 from the ground surface, in feet. Values are based on stratigraphic picks and interpolation of the bottom of the Lower Wilcox Formation provided by Hamlin and others, (2016).
* DESCRIPTION SOURCE
  Texas Bureau of Economic Geology (BEG)
* DESCRIPTION OF VALUES
  Depth in U.S. feet below the ground surface.

FIELD LW_TK ►
* ALIAS LW_TK
* DATA TYPE Double
* WIDTH 19
* PRECISION 18
* SCALE 5
* FIELD DESCRIPTION
  Estimated thickness of brackish groundwater production zone CzWx1, in feet. [‘LW_TK”=‘LW_BD’-‘LW_TD’]
* DESCRIPTION SOURCE
  TWDB
* DESCRIPTION OF VALUES
  U.S. feet