

Drought

What it is, what we do, how to deal...

Speaker: Danielle Cochran

Society of Texas Environmental
Professionals Meeting
February 27, 2015

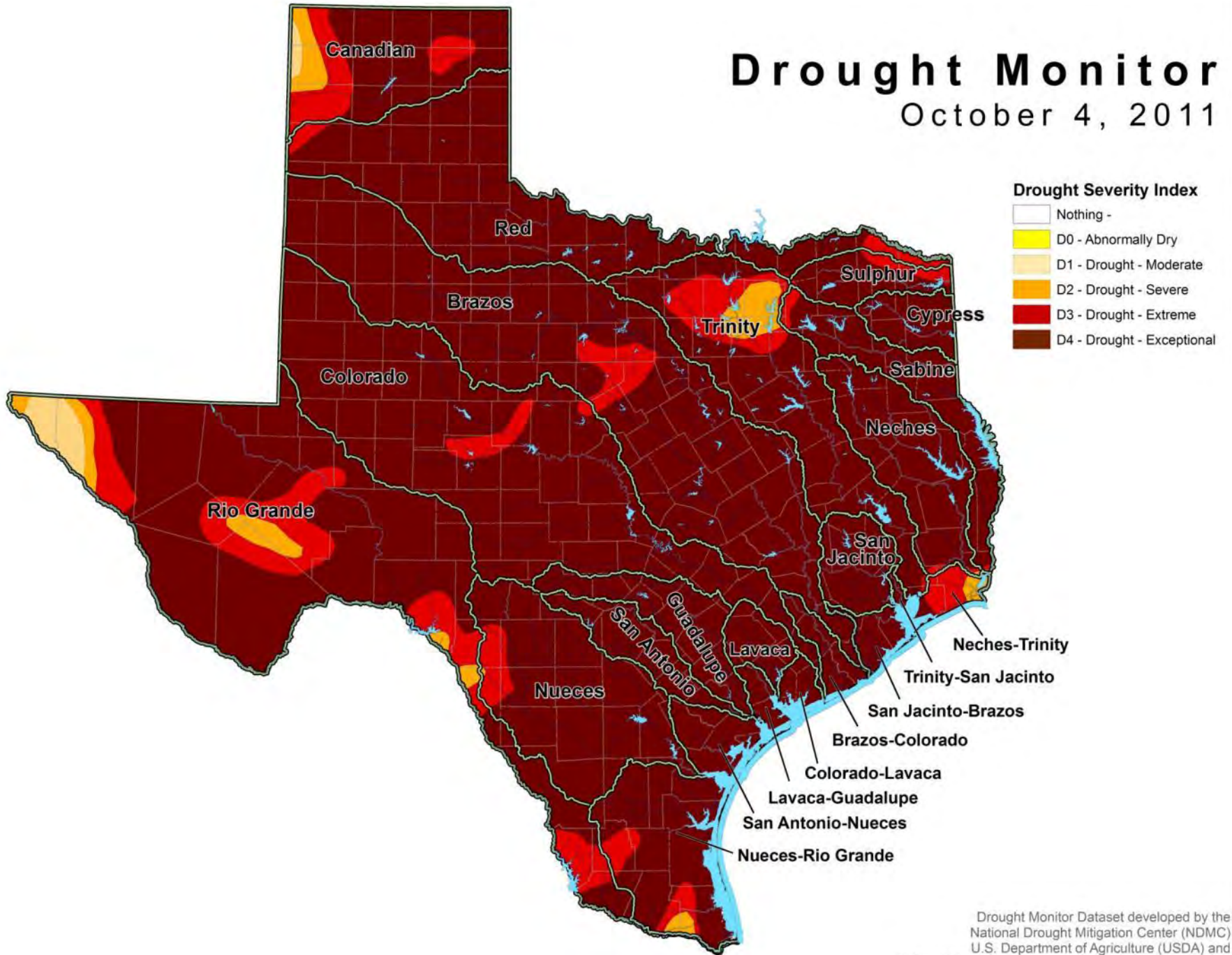


State Response to Drought 2011-2015

- Effects of Drought
- Emergency Drinking Water Task Force
- Important Contacts/Resources
- Source Assessment and Planning

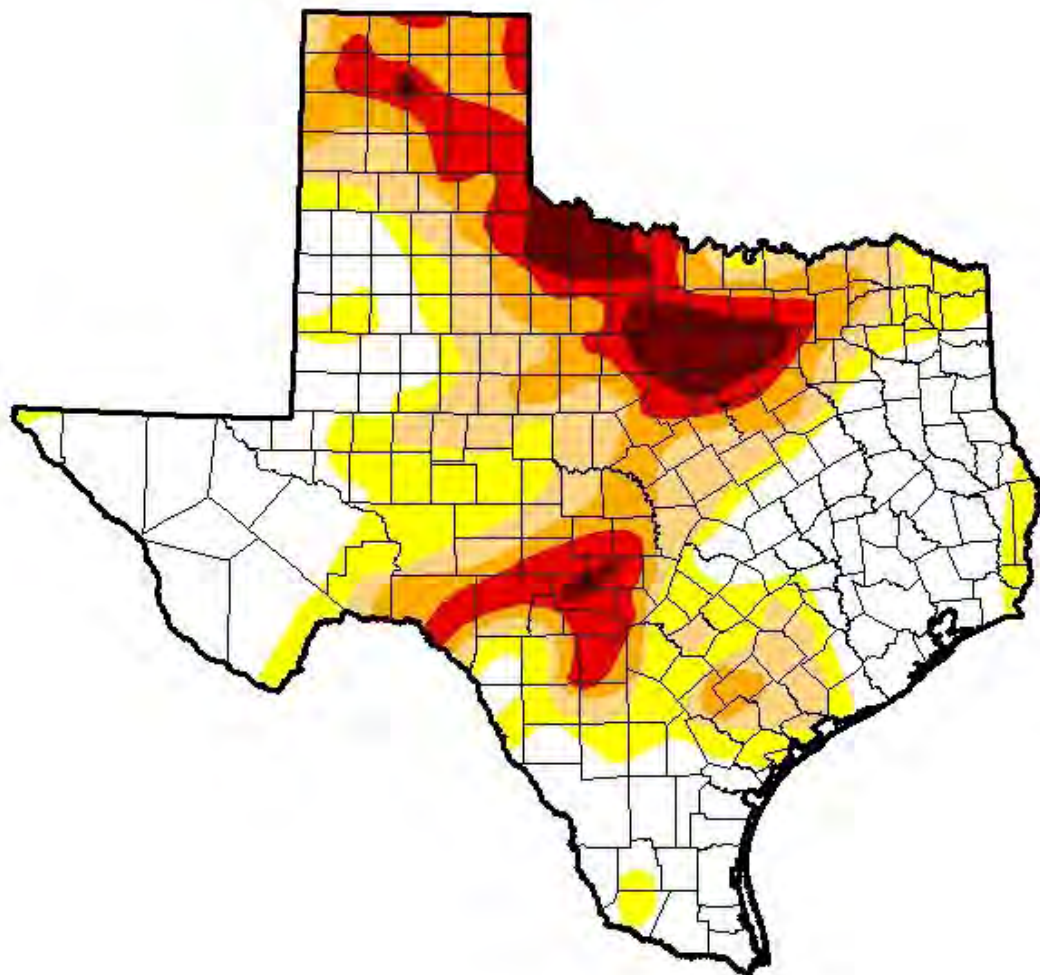
Drought Monitor

October 4, 2011



U.S. Drought Monitor Texas

February 24, 2015
(Released Thursday, Feb. 26, 2015)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	38.35	61.65	43.39	27.86	14.34	4.46
Last Week <i>2/17/2015</i>	39.21	60.79	43.39	27.81	13.92	4.46
3 Months Ago <i>11/25/2014</i>	34.11	65.89	42.56	22.05	9.50	2.57
Start of Calendar Year <i>12/02/2014</i>	34.37	65.63	44.68	25.73	11.70	3.17
Start of Water Year <i>9/30/2014</i>	28.92	71.08	48.95	29.54	11.26	2.69
One Year Ago <i>2/25/2014</i>	7.38	92.62	67.88	33.55	9.45	0.93

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

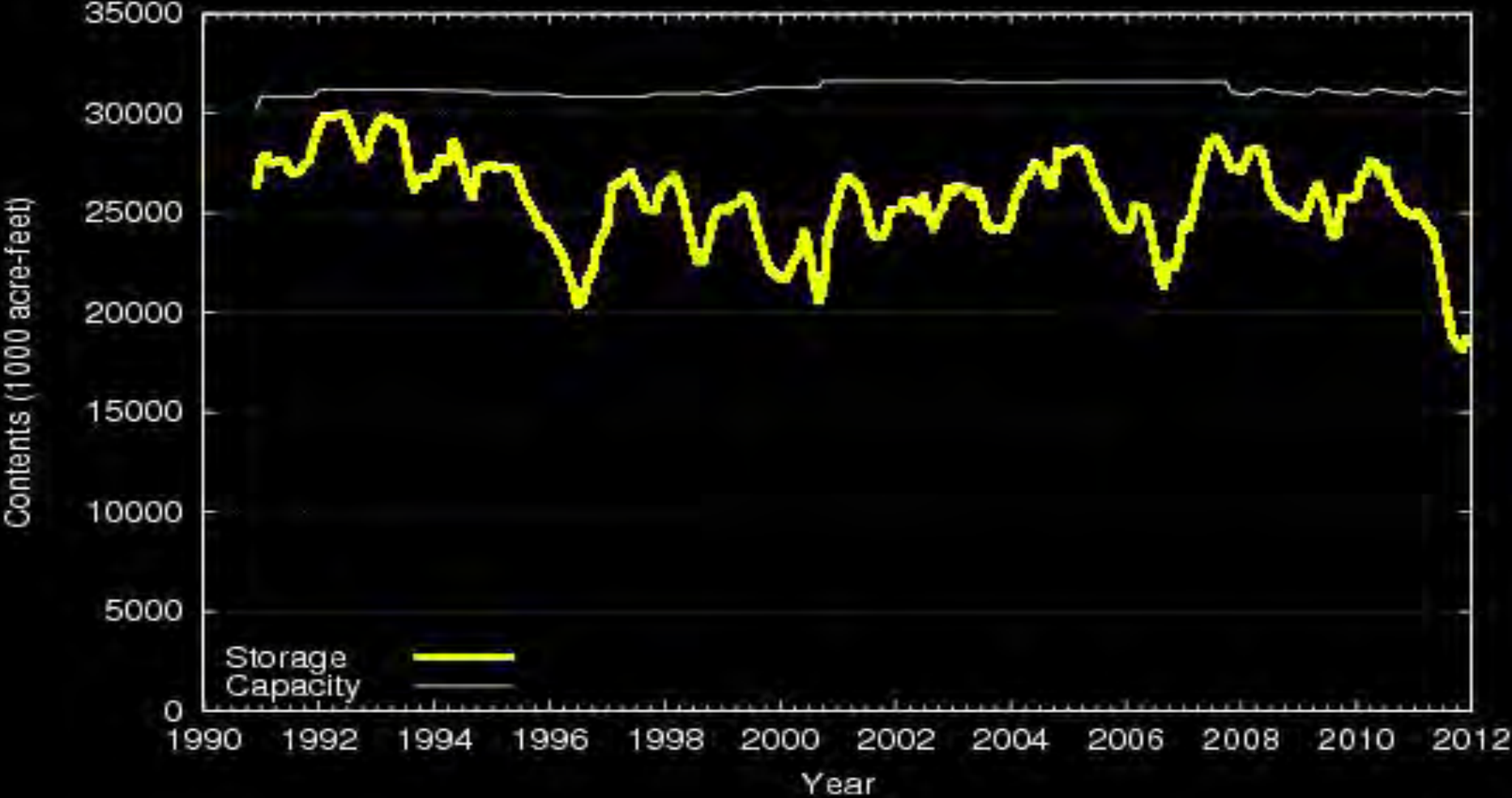
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Richard Heim
NCDC/NOAA



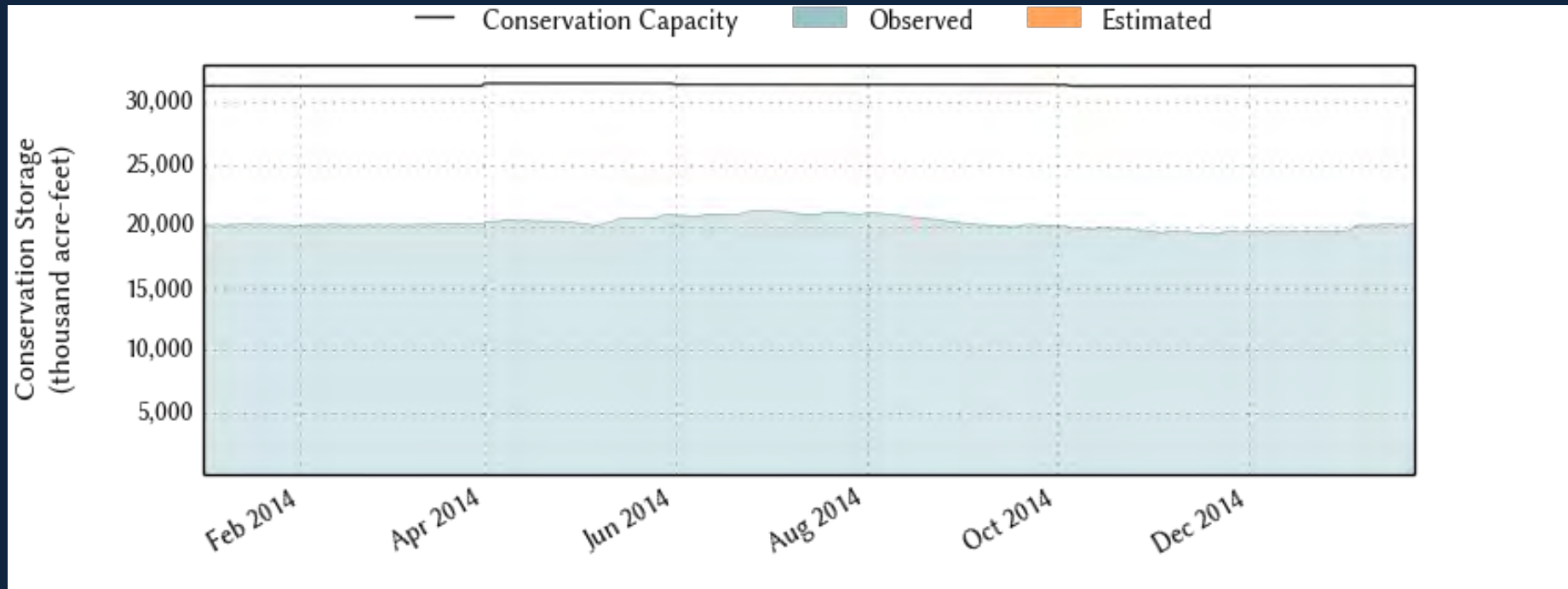
Storage Levels of Major Reservoirs

Storage near end of Dec, 2011: 18.742 Million acre-ft (61%)
Conservation Capacity: 30.972 Million acre-ft

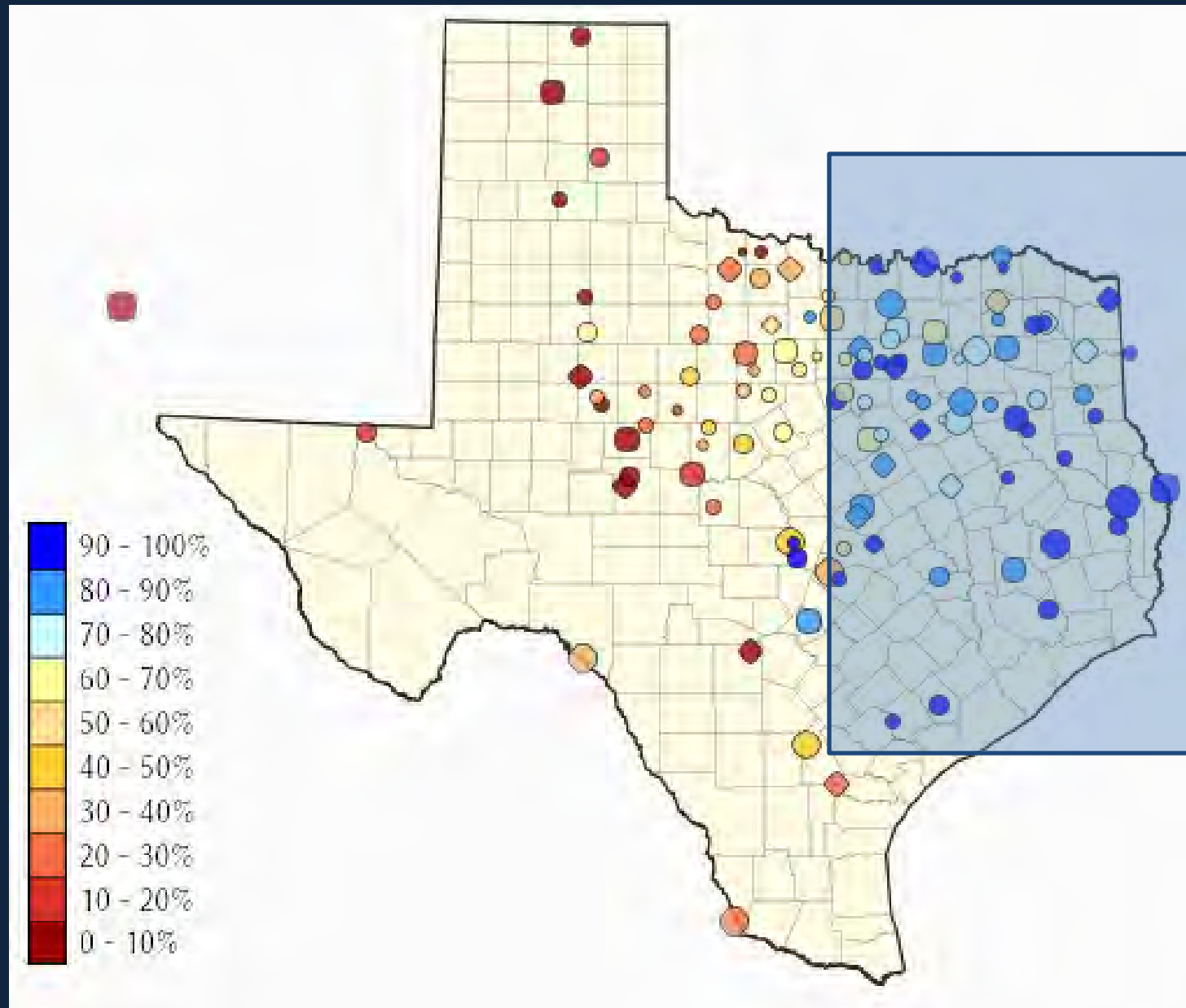


Storage Levels of Major Reservoirs

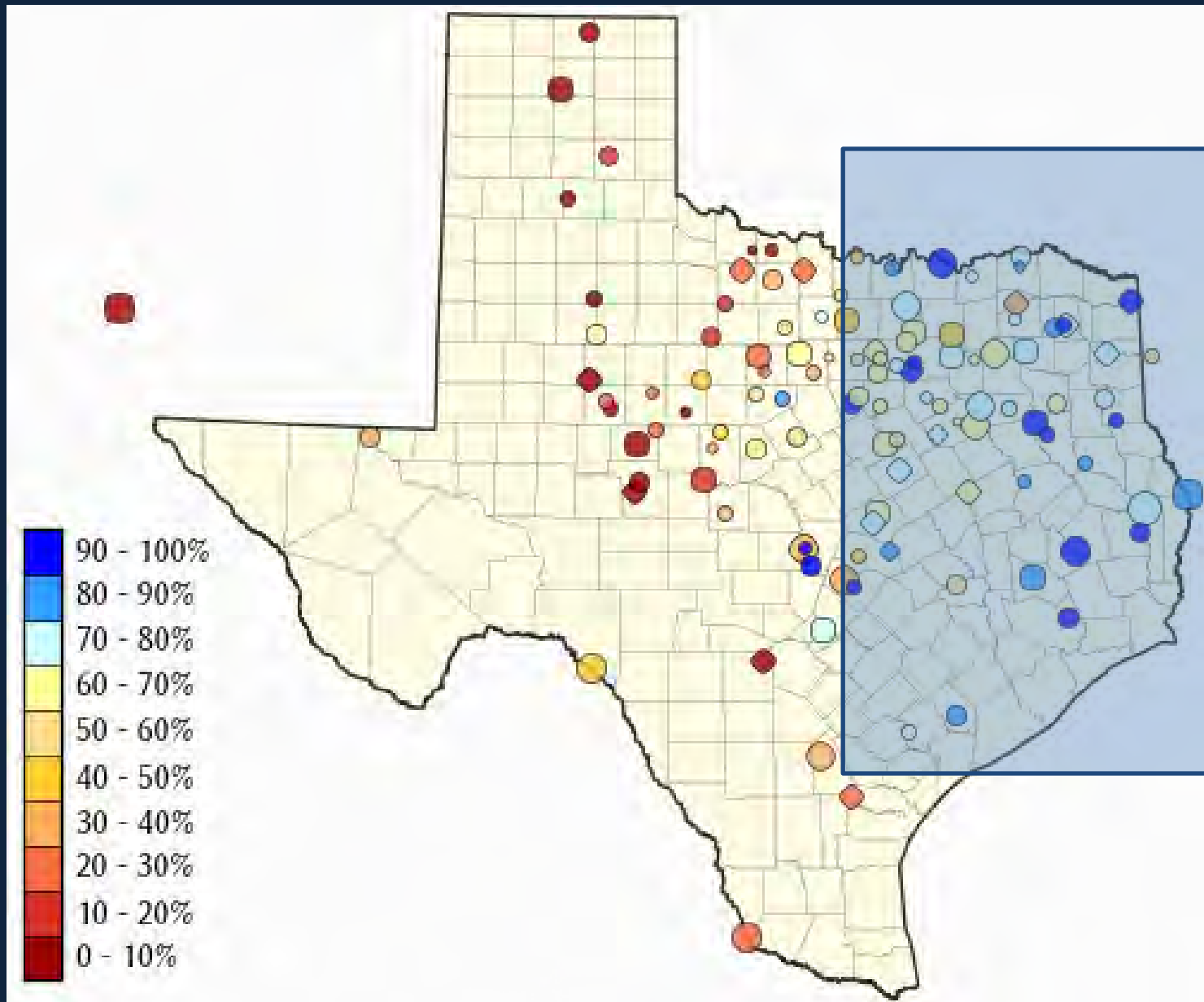
Reservoirs are 65% full



Reservoir Storage



Reservoir Storage



Effects of Drought

Surface Water

2009

- One priority call
- One suspension letter:
Lower Brazos (1980)
- 88 water rights
suspended

2011-2012

- 15 priority calls
- Six river basins
 - The Brazos (lower, upper, middle - 1960)
 - The Llano (1950)
 - The Colorado (1912)
 - The Neches (08/13/1913)
 - The San Saba (1900)
 - The Sabine (Little Sandy Creek)
- ~1,200 water rights suspended

Effects of Drought Water Systems

2009

- Voluntary watering schedule: 8
- Mandatory watering schedule: 23
- No outside water use: 2

As of Feb 20, 2015

- Voluntary watering schedule: 391
- Mandatory watering schedule: 776
- No outside water use: 73

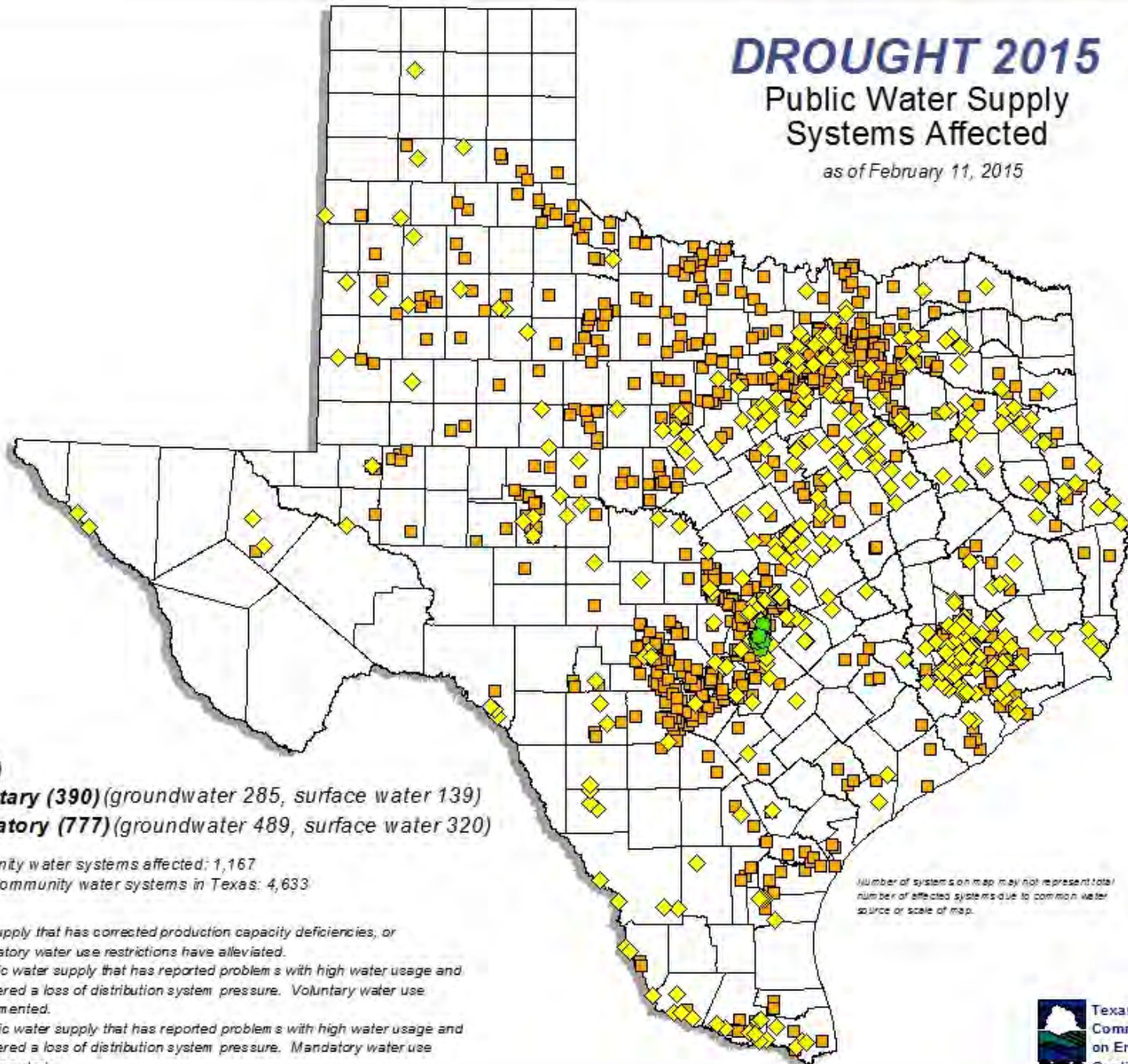
Effects of Drought Water Systems

- For 2011 a total of 36 water systems reported less than 180 days of water supply
- As of February 20, 2015, 56 water systems are reporting less than 180 days of water supply

DROUGHT 2015

Public Water Supply Systems Affected

as of February 11, 2015



● **RESOLVED (10)**

◆ **WATCH - Voluntary (390)** (groundwater 285, surface water 139)

■ **WATCH - Mandatory (777)** (groundwater 489, surface water 320)

Total number of Community water systems affected: 1,167

Total number of active Community water systems in Texas: 4,633

Resolved A public water supply that has corrected production capacity deficiencies, or drought conditions for mandatory water use restrictions have alleviated.

Watch - Voluntary A public water supply that has reported problems with high water usage and production, but has not suffered a loss of distribution system pressure. Voluntary water use restrictions have been implemented.

Watch - Mandatory A public water supply that has reported problems with high water usage and production, but has not suffered a loss of distribution system pressure. Mandatory water use restrictions have been implemented.

Number of systems on map may not represent total number of affected systems due to common water source or scale of map.

Emergency Drinking Water Task Force

- Outreach to public water systems
- Regulatory flexibility
- Web resources

Emergency Drinking Water Task Force

- Identified priority public water systems
- Weekly high priority PWS meetings
- State Drought Preparedness Plan
 - Annex A

Important Contacts/Resources

TCEQ Drought Information

www.tceq.texas.gov/response/drought

1.800.447.2827



- Cleanups, Remediation
- Emergency Response
- Licensing
- Permits, Registration
- Preventing Pollution
- Recycling
- Reporting
- Rules

You are here: Home / Emergency Response / Drought Response

>> Questions or Comments: ac@tceq.texas.gov

Texas Drought Information

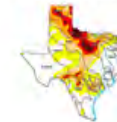
Large sections of the state are experiencing exceptional or extreme drought. These prolonged, dry conditions put a strain on water supplies for all uses. Here is information to help you make better decisions about water use, including surface and groundwater regulations, and emergency procedures.

- Maps
- Drought and Public Water Systems
 - Emergency Management for Public Water Systems
- Water Rights
 - Active Priority Calls
 - Priority Calls No Longer in Effect
- Wildfires
- E-mail and Text Alerts
- How the TCEQ Responds to Drought
- Other Resources
- Governor Rick Perry's Disaster Proclamation (January 18, 2015)
- Development of a Rule for Drought or Water-Shortage Conditions
- Commissioners' Summary of 2011 Drought Response
- Drought Overview Presentation (March 1, 2012)
- Rainfall Totals:
 - [Weather Channel](#)
 - [NOAA](#)

Get e-mail or text updates on your choice of topics

Maps

Drought Impact on Texas Surface Water
Posted January 29, 2015 **UPDATE!**



PWS Drought Contingency Plan Reporting Form

Public water systems should use the current stage of their drought contingency plan.

Emergency Planning Workshops for Public Utility Operators



News Releases

[More TCEQ news releases](#)

- Data
- Forms
- Maps
- Public Notices
- Publications
- Records
- Webcasts
- TCEQ Online Services
e-Pay, Permits
Licenses, Reporting
Filing, Comments

- About Us
- Contact Us

Source Assessment and Planning Overview

- Best Management Practices (BMPs) **to protect a water system's source**
- Alternative water sources
- Technical resources and contacts



Protecting Water Sources Best Management Practices

- Water-loss audits
 - Public participation
 - Water-wise project
 - TWDB resources
- Flush mains wisely



Protecting Water Sources Best Management Practices

- DCP diligence
 - Update it regularly
 - Implement when needed
- Pump maintenance
- Communicate with provider of purchase water
- Keep in touch with TCEQ





Site Navigation

- Cleanups, Remediation
- Emergency Response
- Licensing
- Permits, Registration
- Preventing Pollution
- Recycling
- Reporting
- Rules

You are here: Home / Drinking Water / Homeland Security Disaster and Recovery / Homeland Security for PWS / PWS Drought Contingency Plan Reporting Form

>> Questions or Comments ac@tceq.texas.gov

PWS Drought Contingency Plan Reporting Form

Public water systems should use this form to report the current stage of their drought contingency plan.

Please fill out this form to report the current stage of your drought contingency plan. Remember to submit updates through this form as conditions change. Information collected will be used to provide resources and assistance.

For questions regarding this form, contact the Drinking Water Drought Team at 512-239-4691.

Today's



- Data
- Forms
- Maps
- Public Notices
- Publications
- Records
- Webcasts

System Name

System Name

County

County

PWS Contact

This is the best person to contact for information about the water system for additional drought information. This may be different from person filling out the form. Please provide first and last name of the best contact person.

Planning for Alternative Sources



Water Supply Options

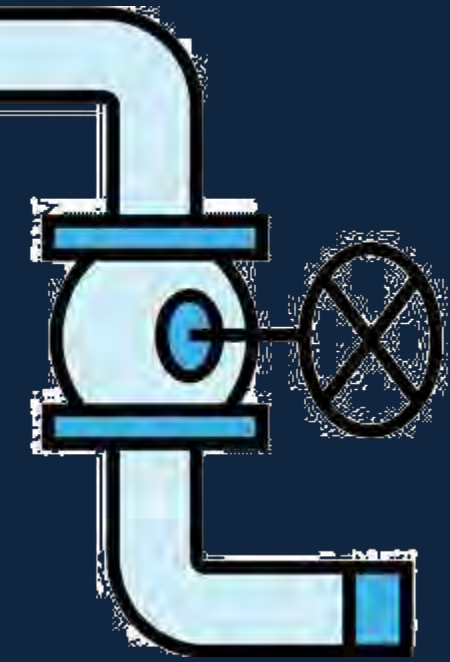
- Interconnections
- Emergency wells
- Hauling water
- Reclaimed water
- Desalination



Interconnections

TCEQ approval process:

- Contact regional office before beginning construction
- System will receive notice of approval to construct



Interconnections

TCEQ emergency interconnection approval process:

- Submit plans and specifications within 30 days of approval to construct
- A general fact sheet can be found on the TCEQ website



Steps for Constructing Emergency Wells

- First contact regional TCEQ office
- The regional office determines if the Emergency Well Authorization request is sent to the plan review team
- The plan review team sends out the approval letters and authorizes construction only



Emergency Wells

- Plans and specs process still applies
- Construction must begin and plans and specs must be received within 30 days of approval
- Texas Water Development Board Resources
 - Groundwater availability reports



Hauling Water

- Where will the water come from?
- Who will haul the water?
- Is the current system capable of treating raw water from an alternative source?
- Cost

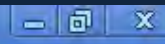


Hauling Water

Google Docs - Home

Pendleton Harbor GW conditic

www.tceq.texas.gov/assets/



www.tceq.texas.gov/assets/public/permitting/watersupply/pdw/drought/water_haulers.pdf



Licensed Water Haulers

County	Company Name	Address	City	Zip Code	Contact	Phone Number	PWS ID
Blanco	Immels Dairy Service	PO Box 775	Blanco	78606-0775	Immels, Troy T	830-833-5606	0160032
Ector	Collier Water Store	2601 West University Blvd.	Odessa	79764-7135	Collier, Steven	432-967-4139	0680206
El Paso	Lujan Trucking	10650 Socorro Road	El Paso	79927-7992	Lujan, Gilbert	915-859-8187	0710104
	Mountain View Water Hauler	4011 Kelton Court	El Paso	79938-9656	Kelton, William F	915-857-0215	0710127
	D & D Water Trucks	739 Grijalva Dr.	El Paso	79927-5056	Delgado, Ezequiel	915-858-3392	0710152
Erath	Milk Transport Services	PO Box 889	Cabool	65689-0889	Honeycutt, Bill	800-443-9040	0720040
Grayson	Mobile Hauling Water System	4520 Texoma Pkwy Ste J	Sherman	75090-1965	Tate, Robert J	903-893-2711	0910136
Hays	Agua Dulce Water Services	PO Box 1365	Dripping Springs	78620-1365	Miller, Rochelle M	512-858-5250	1050119
	Tank Town	2770 W Highway 290	Dripping Springs	78620-3408	Heinichen, Richard	512-894-0861	1050133
	Hamilton Pool H2O	PO Box 657	Dripping Springs	78620-0657	Ogden, Larry Stewart	512-535-5269	1050156
	Bee Cave Drilling and Water Delivery	185 Angel Fire Rd.	Dripping Springs	78620-2477	Blair, James	512-894-4221	1050161
	H2O2U Water Delivery	911 W Highway 290	Dripping Springs	78620-3851	Hughes, Britton	512-695-5204	1050164
	Dripping Springs Bulk Water Delivery	PO Box 796	Dripping Springs	78620-0796	Riddle, John	512-705-9874	1050167
	Aqua Texas Hauler Hayes	1106 Clayton Ln. Ste. 400W	Austin	78723-2476	Blackhurst, Steve	512-990-4400	1050171
Jasper	Buck Springs Bottled Water Company	4829 US Highway 96 N	Jasper	75951-6638	Shellhammer, Robert L	409-384-4701	1210061
Midland	Water Tech	PO Box 60542	Midland	79711-0542	Blakley, Francis Ann	432-563-6855	1650105
	Water Runners	5112 N County Road 1150	Midland	79705-9502	Sommer, James A	915-684-7044	1650113
Runnels	Ballinger Water Express	200 S 7th St.	Ballinger	76821-5623	Dahlberg, Jannette M	325-365-4500	2000006
	BYOB Water Stores	917 Strong Ave.	Ballinger	76821-5521	Schwertner, Linda	325-365-3281	2000007
Tom Green	The Water Barrell	PO Box 61874	San Angelo	76906-1874	Cowen, Wayne Edward	325-653-5033	2260033
	Water Wagon Water Hauling Service	3826 Sunset Dr.	San Angelo	76904-5956	Hasenbank, Jack	325-942-9139	2260091
	Concho Rural Water Water Hauling	9174 US Highway 87 N	San Angelo	76901-7402	Wiese, Benjamin F	325-658-2961	2260102
Travis	Chinatown Water Hauling	108 Industrial Blvd.	Cedar Park	78613-7076	Stone, Ian	512-528-1825	2270275
	Water Boy	PO Box 341839	Austin	78734-0031	Bauerle, Travis Dan	512-288-5522	2270372
Webb	Webb County Water Hauler	1110 Washington St.	Laredo	78040-4443	Sanchez, Fitzgerald G	956-523-4055	2400037
Wise	A & V Water Hauling	PO Box 1504	Decatur	76234-6147	Haynie, John G	940-627-3059	2490081

Using Reclaimed Water

- May be used as part of a conservation plan
 - Irrigation
 - Industrial uses
- 30 TAC Chapter 210 rules apply.
- Requires pilot study for a year, plans, specs, funding...



Desalination

- Treatment option for brackish groundwater
- Pilot Projects – Seawater
- Costs



Funding Resources

Texas Water Infrastructure Coordinating Committee (TWICC)

- Complete a Project Profile form
- Contact:

Stacy.Barna@twdb.texas.gov

512.463.7870

<http://www.twicc.org/>



Funding Resources

- Texas Water Development Board (TWDB)
 - Loans and Grants for water related infrastructure construction and improvement
- Contact Information:
 - Financial_Assistance@twdb.texas.gov
 - 512.463.7853

Funding Resources

- Texas Department of Agriculture (TDA)
 - Community Development Block Grants –
Disaster Relief Fund
- Contact:
 - Joe.Midura@TexasAgriculture.gov
 - 512.936.7880

Texas Department
of Agriculture

Todd Staples, Commissioner



Technical Resources

TCEQ EnviroMentor Program

- Available to small businesses and small local governments
- Volunteer professionals



Technical Resources

TCEQ Financial, Managerial, and
Technical Assistance Program (FMT)

Contact:

Stacy.Foster@tceq.texas.gov

512.239.3105



Technical Resources

Drought Contingency Planning

- Review and update plan every 5 years (or as needed)
- Notify TCEQ when stages are initiated
- Templates available

Contact: 512.239.4691



Technical Resources

–Water Rights

- Alternative Source of Surface Water
- Changing a permitted diversion point

–Contact:

wras@tceq.texas.gov

512.239.4691



Source Assessment and Planning Review

- Best Management Practices (BMPs)
- Alternative water sources
- Technical resources and contacts

Questions??

