

**SUBCHAPTER G: BRAZOS RIVER AND ITS ASSOCIATED BAY AND
ESTUARY SYSTEM**

**§§298.450, 298.455, 298.460, 298.465, 298.470, 298.475,
298.480, 298.485, 298.490
Effective March 6, 2014**

§298.450. Applicability and Purpose.

This subchapter contains the environmental flow standards for the Brazos River and its associated bay and estuary system. The provisions of this subchapter will prevail over any provisions of Subchapter A of this chapter (relating to General Provisions) that are inconsistent with this subchapter relating to environmental flow standards and regulation in the Brazos River Basin and the Brazos-Colorado Coastal Basin.

Adopted February 12, 2014

Effective March 6, 2014

§298.455. Definitions.

The following words or phrases have the following meanings in this subchapter unless the context clearly indicates otherwise:

- (1) Average condition--for all measurement points, the hydrologic condition that would occur approximately 50% of the time.
- (2) Climatic division--a geographic area defined by the National Weather Service.
- (3) Dry condition--for all measurement points, the hydrologic condition that would occur approximately 25% of the time and that is intended to represent the driest periods.
- (4) Lower Basin--the geographic area of the Brazos River Basin which includes all watersheds below Lake Whitney Dam, and the San Bernard River and coastal watersheds, and which is defined for the purpose of calculating hydrologic conditions as described in §298.470 of this section (relating to Calculation of Hydrologic Conditions).
- (5) Middle Basin--the geographic area of the Brazos River Basin which includes all watersheds draining into the Brazos River and its tributaries downstream of Possum Kingdom Dam and upstream of Lake Whitney Dam, and which is defined for the purpose of calculating hydrologic conditions as described in §298.470 of this section (relating to Calculation of Hydrologic Conditions).

(6) PHDI--the Palmer Hydrological Drought Index, based on a scale from -6.0 to 6.0, and representing the severity of moisture conditions from extremely dry to extremely wet.

(7) PHDI Index--a regional PHDI, calculated for the Lower Basin, Middle Basin, and Upper Basin, based on ranked values for a period of record from 1895 through 2010, and which is defined for the purpose of calculating hydrologic conditions as described in §298.470 of this title (relating to Calculation of Hydrologic Conditions).

(8) Spring--the period of time March through June, inclusive.

(9) Sound ecological environment--characterized by fish, macroinvertebrate, and riparian vegetation species assemblages that remain relatively intact compared to historical records.

(10) Summer--the period of time July through October, inclusive.

(11) Upper Basin--the geographic area of the Brazos River Basin which includes all watersheds upstream of and draining into Possum Kingdom Lake, and which is defined for the purpose of calculating hydrologic conditions as described in §298.470 of this title (relating to Calculation of Hydrologic Conditions).

(12) Wet condition--for all measurement points, the hydrologic condition that would occur approximately 25% of the time and that is intended to represent the wettest conditions.

(13) Winter--for all measurement points, the period of time November through February, inclusive.

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§298.460. Findings.

(a) The Brazos River and its associated tributaries and bay and estuary system and the San Bernard River and its associated tributaries are healthy and sound ecological environments.

(b) The commission finds that these sound ecological environments can best be maintained by a set of flow standards that implement a schedule of flow quantities that contain subsistence flow, base flow, and high flow pulses at defined measurement points. Minimum flow levels for these components will vary by season and by year since the amount of precipitation and, therefore, whether a system is in dry, average, or wet base flow conditions, will vary from year to year and within a year from season to season, and

the number of pulses protected will also vary with the amount of precipitation and hydrologic conditions.

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§298.465. Set-Asides and Standards Priority Date.

The priority date for the environmental flow standards and set-asides established by this subchapter is March 1, 2012. The priority date for the environmental flow standards will be used in the water availability determination for a new appropriation or for an amendment to an existing water right that increases the amount of water authorized to be stored, taken, or diverted, and has no other purpose.

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§298.470. Calculation of Hydrologic Conditions.

(a) For new water right authorizations which increase the amount of water authorized to be stored, taken, or diverted as described in §298.10 of this title (relating to Applicability), the determination of the hydrologic condition for a particular season shall be determined once per season. The Palmer Hydrologic Drought Index (PHDI) value present on the last day of the month of the preceding season, as reported by the National Weather Service, and calculated for the geographic area as described in subsection (b) of this section, will determine the hydrologic condition for the following season. For each measurement point specified in this section, the PHDI Index will determine the hydrologic condition, as described in subsection (c) of this section.

(b) The percentage of each climatic division within each geographic area, as defined in §298.455 of this title (relating to Definitions), are:

Figure: 30 TAC §298.470(b)

Percentage of Climatic Division Within Each Geographic Area

CLIMATIC DIVISION	PERCENTAGE LOCATED IN UPPER BASIN	PERCENTAGE LOCATED IN MIDDLE BASIN	PERCENTAGE LOCATED IN LOWER BASIN
High Plains	2.7%	N/A	N/A
Low Rolling Plains	64.7%	N/A	N/A

North Central	32.6%	100%	61.9%
East Texas	N/A	N/A	14.7%
Trans Pecos	N/A	N/A	N/A
Edwards Plateau	N/A	N/A	5.7%
South Central	N/A	N/A	13.2%
Upper Coast	N/A	N/A	4.5%

N/A = not applicable

(c) For all measurement points, based on the geographic area in which the measurement point is located, as defined in §298.455 of this title, the PHDI Index and the corresponding hydrologic conditions are:

Figure: 30 TAC §298.470(c)

PHDI Index for Calculating Hydrologic Conditions for all Measurement Points on the Brazos River and its associated tributaries and the San Bernard River and its associated tributaries

GEOGRAPHIC AREA	DRY	AVERAGE	WET
UPPPER BASIN	less than -1.78	-1.78 - 2.18	greater than 2.18
MIDDLE BASIN	less than -1.95	-1.95 - 2.39	greater than 2.39
LOWER BASIN	less than -1.73	-1.73 - 2.13	greater than 2.13

(d) The PHDI Index for the hydrologic conditions, as set out in subsection (b) of this section govern the operations of permits subject to this subchapter during the initial period, not longer than ten years, until the environmental flow standards in this subchapter are reevaluated. The PHDI Index was calculated to achieve compliance with the percentages of time for dry, average, and wet conditions of 25%, 50%, and 25%, respectively. The PHDI Index set out in subsection (c) of this section will be recalculated, no less frequently than once every ten years, in order to achieve, to the greatest extent possible, compliance with the percentages of time for dry, average, and wet conditions of

25%, 50%, and 25%, respectively.

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§298.475. Schedule of Flow Quantities.

(a) Schedule of flow quantities. The environmental flow standards adopted by this subchapter constitute a schedule of flow quantities made up of subsistence flow, base flow, and high flow pulses. Environmental flow standards are established at 20 separate measurement locations in §298.480 of this title (relating to Environmental Flow Standards).

(b) Subsistence flow. The applicable subsistence flow standard varies depending on the seasons as described in §298.455 of this title (relating to Definitions). For a water right holder to which an environmental flow standard applies, at a measurement point that applies to the water right, the water right holder may not store or divert water unless the flow at the measurement point is above the applicable subsistence flow standard for that point. If the flow at the applicable measurement point is above the subsistence flow standard but below the applicable dry condition base flow standard, then the water right holder must allow the applicable subsistence flow, plus 50% of the difference between measured streamflow and the applicable subsistence flow, to pass its measurement point and any remaining flow may be diverted or stored, according to its permit, subject to senior and superior water rights, as long as the flow at the measurement point does not fall below the applicable subsistence flow standard.

(c) Base flow. The applicable base flow level varies depending on the seasons as described in §298.455 of this title and the hydrologic condition described in §298.470 of this title (relating to Calculation of Hydrologic Conditions). For a water right holder to which an environmental flow standard applies, at a measurement point that applies to the water right, the water right holder is subject to the base flow standard for the hydrologic condition prevailing at that time. For all measurement points, the water right will be subject to one of the following: a dry, an average, or a wet base flow standard. For a water right holder to which an environmental flow standard applies, at a measurement point that applies to the water right, when the flow at the applicable measurement point is above the applicable base flow standard, but below any applicable high flow pulse levels, the water right holder may store or divert water according to its permit, subject to senior and superior water rights, as long as the flow at the applicable measurement point does not fall below the applicable base flow standard for that hydrologic condition except during dry conditions as described in subsection (b) of this section.

(d) High flow pulses. High flow pulses are relatively short-duration, high flows within the watercourse that occur during or immediately following a storm event.

(1) For all measurement points, one, two, three, or four pulses per season are to be passed (i.e., no storage or diversion by an applicable water right holder), if applicable, and as described in §298.480 of this title, if streamflows are above the applicable subsistence or base flow standard, and if the applicable high flow pulse trigger level is met at the applicable measurement point. The water right holder shall not divert or store water until either the applicable volume amount has passed the applicable measurement point or the duration time has passed since the high flow pulse trigger level occurred except during times that streamflow at the applicable measurement point exceeds the applicable high flow pulse trigger level. A water right holder can divert water in excess of an applicable pulse flow trigger requirement as long as its diversions do not prevent the occurrence of the pulse flow trigger level of an applicable larger pulse.

(2) If the applicable high flow pulse trigger level does not occur in a season, then the water right holder need not stop storing or diverting water to produce a high flow pulse. The water right holder is not required to release water lawfully stored to produce a high flow pulse.

(3) Each season is independent of the preceding and subsequent seasons with respect to high flow pulse frequency.

(4) High flow pulses at the applicable measurement point are dependent on the hydrologic conditions set out in §298.470 of this title.

(5) For measurement points in the Brazos River Basin described in §298.480(7) - (8) of this title, if a pulse flow requirement for the large seasonal pulse is satisfied for a particular season, one of the smaller pulse requirements is also considered to be satisfied for that season.

(e) Stored water. A water right owner that has stored water in accordance with the terms and conditions of its water right, including any applicable environmental flow requirement in effect at the time the water was stored, may divert, release, or use this water, even if the applicable environmental flow requirement is not met at the time of the subsequent diversion, release, or use of that stored water.

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§298.480. Environmental Flow Standards.

The following environmental flow standards are established for the following described measurement points:

(1) Double Mountain Fork Brazos River near Aspermont, Texas, generally described as United States Geological Survey (USGS) gage 08080500, and more

specifically described as Latitude 33 degrees, 00 minutes, 29 seconds; Longitude 100 degrees, 10 minutes, 49 seconds.

Figure: 30 TAC §298.480(1)

United States Geological Survey Gage 08080500, Double Mountain Fork
 Brazos River near Aspermont

Season	Subsistence	Hydrologic Condition	Base	Dry Condition Seasonal Pulse	Average Condition Seasonal Pulse	Wet Condition Seasonal Pulse
Winter	1 cfs	Dry	1 cfs	N/A	N/A	N/A
		Average	4 cfs			
		Wet	15 cfs			
Spring	1 cfs	Dry	1 cfs	1 per season Trigger: 280 cfs Volume: 1,270 af Duration: 10 days	2 per season Trigger: 280 cfs Volume: 1,270 af Duration: 10 days	1 per season Trigger: 570 cfs Volume: 2,600 af Duration: 12 days
		Average	3 cfs			
		Wet	8 cfs			
Summer	1 cfs	Dry	1 cfs	1 per season Trigger: 230 cfs Volume: 990 af Duration: 9 days	2 per season Trigger: 230 cfs Volume: 990 af Duration: 9 days	1 per season Trigger: 480 cfs Volume: 2,160 af Duration: 12 days
		Average	2 cfs			
		Wet	7 cfs			

cfs = cubic feet per second

af = acre-feet

N/A = not applicable

(2) Salt Fork Brazos River near Aspermont, Texas, generally described as USGS gage 08082000, and more specifically described as Latitude 33 degrees, 20 minutes, 2 seconds; Longitude 100 degrees, 14 minutes, 16 seconds.

Figure: 30 TAC §298.480(2)

United States Geological Survey Gage 08082000, Salt Fork Brazos River
 near Aspermont

Season	Subsistence	Hydrologic Condition	Base	Dry Condition Seasonal Pulse	Average Condition Seasonal Pulse	Wet Condition Seasonal Pulse
Winter	1 cfs	Dry	1 cfs	N/A	N/A	N/A
		Average	4 cfs			
		Wet	9 cfs			
Spring	1 cfs	Dry	1 cfs	1 per season Trigger: 160 cfs Volume: 720 af Duration: 10 days	2 per season Trigger: 160 cfs Volume: 720 af Duration: 10 days	1 per season Trigger: 300 cfs Volume: 1,350 af Duration: 11 days
		Average	2 cfs			
		Wet	5 cfs			
Summer	1 cfs	Dry	1 cfs	1 per season Trigger: 140 cfs Volume: 560 af Duration: 8 days	2 per season Trigger: 140 cfs Volume: 560 af Duration: 8 days	1 per season Trigger: 260 cfs Volume: 1,090 af Duration: 10 days
		Average	1 cfs			
		Wet	3 cfs			

cfs = cubic feet per second

af = acre-feet

N/A = not applicable

(3) Brazos River at Seymour, Texas, generally described as USGS gage 08082500, and more specifically described as Latitude 33 degrees, 34 minutes, 51 seconds; Longitude 99 degrees, 16 minutes, 02 seconds.

Figure: 30 TAC §298.480(3)

United States Geological Survey Gage 08082500, Brazos River at Seymour

Season	Subsistence	Hydrologic Condition	Base	Dry Condition Seasonal Pulse	Average Condition Seasonal Pulse	Wet Condition Seasonal Pulse
Winter	1 cfs	Dry	10 cfs	N/A	N/A	N/A
		Average	25 cfs			
		Wet	46 cfs			

Spring	1 cfs	Dry	7 cfs	1 per season Trigger: 560 cfs Volume: 2,960 af Duration: 10 days	2 per season Trigger: 560 cfs Volume: 2,960 af Duration: 10 days	1 per season Trigger: 1,040 cfs Volume: 5,870 af Duration: 12 days
		Average	19 cfs			
		Wet	35 cfs			
Summer	1 cfs	Dry	4 cfs	1 per season Trigger: 370 cfs Volume: 1,870 af Duration: 8 days	2 per season Trigger: 370 cfs Volume: 1,870 af Duration: 8 days	1 per season Trigger: 800 cfs Volume: 4,290 af Duration: 11 days
		Average	13 cfs			
		Wet	32 cfs			

cfs = cubic feet per second

af = acre-feet

N/A = not applicable

(4) Clear Fork Brazos River at Nugent, Texas, generally described as USGS gage 08084000, and more specifically described as Latitude 32 degrees, 41 minutes, 24 seconds; Longitude 99 degrees, 40 minutes, 09 seconds.

Figure: 30 TAC §298.480(4)

United States Geological Survey Gage 08084000, Clear Fork Brazos River at Nugent

Season	Subsistence	Hydrologic Condition	Base	Dry Condition Seasonal Pulse	Average Condition Seasonal Pulse	Wet Condition Seasonal Pulse
Winter	1 cfs	Dry	5 cfs	N/A	N/A	1 per season Trigger: 26 cfs Volume:160 af Duration: 9 days
		Average	8 cfs			
		Wet	13 cfs			
Spring	1 cfs	Dry	3 cfs	1 per season Trigger: 180 cfs Volume: 860 af Duration: 9 days	2 per season Trigger: 180 cfs Volume: 860 af Duration: 9 days	1 per season Trigger: 590 cfs Volume: 2,800 af Duration: 12 days
		Average	6 cfs			
		Wet	12 cfs			
Summer	1 cfs	Dry	1 cfs	1 per season Trigger:	2 per season Trigger:	1 per season Trigger:

		Average	4 cfs	100 cfs Volume: 460 af	100 cfs Volume: 460 af	390 cfs Volume: 1,890 af
		Wet	9 cfs	Duration: 8 days	Duration: 8 days	Duration: 12 days

cfs = cubic feet per second
 af = acre-feet
 N/A = not applicable

(5) Clear Fork Brazos River at Lueders, Texas, generally described as USGS gage 08084200, and more specifically described as Latitude 32 degrees, 47 minutes, 33.9 seconds; Longitude 99 degrees, 36 minutes, 43.30 seconds.

Figure: 30 TAC §298.480(5)

United States Geological Survey Gage 08084200, Clear Fork Brazos River at Lueders

Season	Subsistence	Hydrologic Condition	Base	Dry Condition Seasonal Pulse	Average Condition Seasonal Pulse	Wet Condition Seasonal Pulse
Winter	1 cfs	Dry	7 cfs	N/A	N/A	1 per season Trigger: 26 cfs Volume:158 af Duration: 9 days
		Average	10 cfs			
		Wet	16 cfs			
Spring	1 cfs	Dry	4 cfs	1 per season Trigger: 18 cfs Volume: 74 af Duration: 2 days	2 per season Trigger: 37 cfs Volume: 148 af Duration: 2 days	1 per season Trigger: 355 cfs Volume: 2,054 af Duration: 9 days
		Average	7 cfs			
		Wet	15 cfs			
Summer	1 cfs	Dry	1 cfs	1 per season Trigger: 18 cfs Volume: 74 af Duration: 2 days	2 per season Trigger: 37 cfs Volume: 148 af Duration: 2 days	1 per season Trigger: 170 cfs Volume: 779 af Duration: 5 Days
		Average	5 cfs			
		Wet	11 cfs			

cfs = cubic feet per second
 af = acre-feet
 N/A = not applicable

(6) Brazos River near South Bend, Texas, generally described as USGS gage 08088000, and more specifically described as Latitude 33 degrees, 01 minutes, 27 seconds; Longitude 98 degrees, 38 minutes, 37 seconds.

Figure: 30 TAC §298.480(6)

United States Geological Survey Gage 08088000, Brazos River near South Bend

Season	Subsistence	Hydrologic Condition	Base	Dry Condition Seasonal Pulse	Average Condition Seasonal Pulse	Wet Condition Seasonal Pulse
Winter	1 cfs	Dry	36 cfs	N/A	N/A	N/A
		Average	73 cfs			
		Wet	120 cfs			
Spring	1 cfs	Dry	29 cfs	1 per season Trigger: 1,260 cfs Volume: 7,280 af Duration: 10 days	2 per season Trigger: 1,260 cfs Volume: 7,280 af Duration: 10 days	1 per season Trigger: 2,480 cfs Volume: 15,700 af Duration: 13 days
		Average	60 cfs			
		Wet	100 cfs			
Summer	1 cfs	Dry	16 cfs	1 per season Trigger: 580 cfs Volume: 3,140 af Duration: 8 days	2 per season Trigger: 580 cfs Volume: 3,140 af Duration: 8 days	1 per season Trigger: 1,180 cfs Volume: 7,050 af Duration: 11 days
		Average	46 cfs			
		Wet	95 cfs			

cfs = cubic feet per second

af = acre-feet

N/A = not applicable

(7) Brazos River near Palo Pinto, Texas, generally described as USGS gage 08089000, and more specifically described as Latitude 32 degrees, 51 minutes, 45 seconds; Longitude 98 degrees, 18 minutes, 08 seconds.

Figure: 30 TAC §298.480(7)

United States Geological Survey Gage 08089000, Brazos River near Palo Pinto

Season	Subsistence	Hydrologic Condition	Base	Dry Condition Seasonal Pulse	Average Condition Seasonal Pulse	Wet Condition Seasonal Pulse
Winter	17 cfs	Dry	40 cfs	2 per season Trigger: 850 cfs Volume: 3,690 af Duration: 5 days	4 per season Trigger: 850 cfs Volume: 3,690 af Duration: 5 days	4 per season Trigger: 850 cfs Volume: 3,690 af Duration: 5 days
		Average	61 cfs			
		Wet	100 cfs			
Spring	17 cfs	Dry	39 cfs	2 per season Trigger: 1,400 cfs Volume: 6,600 af Duration: 6 days	4 per season Trigger: 1,400 cfs Volume: 6,600 af Duration: 6 days	4 per season Trigger: 1,400 cfs Volume: 6,600 af Duration: 6 days
		Average	75 cfs			
		Wet	120 cfs			
Summer	17 cfs	Dry	40 cfs	2 per season Trigger: 1,230 cfs Volume: 5,920 af Duration: 6 days	4 per season Trigger: 1,230 cfs Volume: 5,920 af Duration: 6 days	4 per season Trigger: 1,230 cfs Volume: 5,920 af Duration: 6 days
		Average	72 cfs			

		Wet	120 cfs		2,260 cfs Volume: 13,000 af Duration: 9 days	2,260 cfs Volume: 13,000 af Duration: 9 days
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cfs = cubic feet per second
 af = acre-feet
 N/A = not applicable

(8) Brazos River near Glen Rose, Texas, generally described as USGS gage 080891000, and more specifically described as Latitude 32 degrees, 15 minutes, 32 seconds; Longitude 97 degrees, 42 minutes, 08 seconds.

Figure: 30 TAC §298.480(8)

United States Geological Survey Gage 080891000, Brazos River near Glen Rose

Season	Subsistence	Hydrologic Condition	Base	Dry Condition Seasonal Pulse	Average Condition Seasonal Pulse	Wet Condition Seasonal Pulse
Winter	16 cfs	Dry	42 cfs	2 per season Trigger: 930 cfs Volume: 5,400 af Duration: 8 days	4 per season Trigger: 930 cfs Volume: 5,400 af Duration: 8 days	4 per season Trigger: 930 cfs Volume: 5,400 af Duration: 8 days
		Average	77 cfs			
		Wet	160 cfs			
Spring	16 cfs	Dry	47 cfs	2 per season Trigger: 2,350 cfs Volume: 14,300 af Duration: 10 days	4 per season Trigger: 2,350 cfs Volume: 14,300 af Duration: 10 days	4 per season Trigger: 2,350 cfs Volume: 14,300 af Duration: 10 days
		Average	92 cfs			

		Wet	170 cfs		6,480 cfs Volume: 46,700 af Duration: 14 days	6,480 cfs Volume: 46,700 af Duration: 14 days
Summer	16 cfs	Dry	37 cfs	2 per season Trigger: 1,320 cfs Volume: 7,830 af Duration: 8 days	4 per season Trigger: 1,320 cfs Volume: 7,830 af Duration: 8 days	4 per season Trigger: 1,320 cfs Volume: 7,830 af Duration: 8 days
		Average	70 cfs		2 per season Trigger: 1,320 cfs Volume: 7,830 af Duration: 8 days	3 per season Trigger: 3,090 cfs Volume: 21,200 af Duration: 12 days
		Wet	160 cfs		2 per season Trigger: 3,090 cfs Volume: 21,200 af Duration: 12 days	3 per season Trigger: 3,090 cfs Volume: 21,200 af Duration: 12 days

cfs = cubic feet per second
 af = acre-feet
 N/A = not applicable

(9) North Bosque River near Clifton, Texas, generally described as USGS gage 08095000, and more specifically described as Latitude 31 degrees, 47 minutes, 09 seconds; Longitude 97 degrees, 34 minutes, 04 seconds.

Figure: 30 TAC §298.480(9)

United States Geological Survey Gage 08095000, North Bosque River near Clifton

Season	Subsistence	Hydrologic Condition	Base	Dry Condition Seasonal Pulse	Average Condition Seasonal Pulse	Wet Condition Seasonal Pulse
Winter	1 cfs	Dry	5 cfs	N/A	N/A	2 per season Trigger: 120 cfs Volume: 750 af Duration: 10 days
		Average	12 cfs			
		Wet	25 cfs			

Spring	1 cfs	Dry	7 cfs	1 per season Trigger: 710 cfs Volume: 3,490 af Duration: 12 days	3 per season Trigger: 710 cfs Volume: 3,490 af Duration: 12 days	3 per season Trigger: 710 cfs Volume: 3,490 af Duration: 12 days
		Average	16 cfs			
		Wet	33 cfs			
Summer	1 cfs	Dry	3 cfs	N/A	N/A	2 per season Trigger: 130 cfs Volume: 500 af Duration: 6 days
		Average	8 cfs			
		Wet	17 cfs			

cfs = cubic feet per second
 af = acre-feet
 N/A = not applicable

(10) Brazos River at Waco, Texas, generally described as USGS gage 08096500, and more specifically described as Latitude 31 degrees, 32 minutes, 09 seconds; Longitude 97 degrees, 04 minutes, 23 seconds.

Figure: 30 TAC §298.480(10)

United States Geological Survey Gage 08096500, Brazos River at Waco

Season	Subsistence	Hydrologic Condition	Base	Dry Condition Seasonal Pulse	Average Condition Seasonal Pulse	Wet Condition Seasonal Pulse
Winter	56 cfs	Dry	120 cfs	1 per season Trigger: 2,320 cfs Volume: 12,400 af Duration: 7 days	3 per season Trigger: 2,320 cfs Volume: 12,400 af Duration: 7 days	2 per season Trigger: 4,180 cfs Volume: 25,700 af Duration: 9 days
		Average	210 cfs			
		Wet	480 cfs			
Spring	56 cfs	Dry	150 cfs	1 per season Trigger: 5,330 cfs Volume: 32,700 af Duration: 10 days	3 per season Trigger: 5,330 cfs Volume: 32,700 af Duration: 10 days	2 per season Trigger: 13,600 cfs Volume: 102,000 af Duration: 14 days
		Average	270 cfs			
		Wet	690 cfs			
Summer	56 cfs	Dry	140 cfs	1 per season Trigger: 1,980 cfs Volume: 1,980 cfs	3 per season Trigger: 1,980 cfs Volume: 1,980 cfs	2 per season Trigger: 4,160 cfs Volume: 4,160 cfs
		Average	250 cfs			

		Wet	590 cfs	10,500 af Duration: 7 days	10,500 af Duration: 7 days	26,400 af Duration: 10 days
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cfs = cubic feet per second
 af = acre-feet
 N/A = not applicable

(11) Leon River at Gatesville, Texas, generally described as USGS gage 08100500, and more specifically described as Latitude 31 degrees, 26 minutes, 05 seconds; Longitude 97 degrees, 45 minutes, 30 seconds.

Figure: 30 TAC §298.480(11)

United States Geological Survey Gage 08100500, Leon River at Gatesville

Season	Subsistence	Hydrologic Condition	Base	Dry Condition Seasonal Pulse	Average Condition Seasonal Pulse	Wet Condition Seasonal Pulse
Winter	1 cfs	Dry	9 cfs	N/A	N/A	2 per season Trigger: 100 cfs Volume: 540 af Duration: 6 days
		Average	20 cfs			
		Wet	52 cfs			
Spring	1 cfs	Dry	10 cfs	1 per season Trigger: 340 cfs Volume: 1,910 af Duration: 10 days	3 per season Trigger: 340 cfs Volume: 1,910 af Duration: 10 days	2 per season Trigger: 630 cfs Volume: 4,050 af Duration: 13 days
		Average	24 cfs			
		Wet	54 cfs			
Summer	1 cfs	Dry	4 cfs	1 per season Trigger: 58 cfs Volume: 220 af Duration: 4 days	3 per season Trigger: 58 cfs Volume: 220 af Duration: 4 days	2 per season Trigger: 140 cfs Volume: 600 af Duration: 6 days
		Average	12 cfs			
		Wet	27 cfs			

cfs = cubic feet per second
 af = acre-feet
 N/A = not applicable

(12) Lampasas River near Kempner, Texas, generally described as USGS

gage 08103800, and more specifically described as Latitude 31 degrees, 04 minutes, 45 seconds; Longitude 98 degrees, 00 minutes, 59 seconds.

Figure: 30 TAC §298.480(12)

United States Geological Survey Gage 08103800, Lampasas River near Kempner

Season	Subsistence	Hydrologic Condition	Base	Dry Condition Seasonal Pulse	Average Condition Seasonal Pulse	Wet Condition Seasonal Pulse
Winter	10 cfs	Dry	18 cfs	1 per season Trigger: 78 cfs Volume: 430 af Duration: 8 days	3 per season Trigger: 78 cfs Volume: 430 af Duration: 8 days	2 per season Trigger: 190 cfs Volume: 1,150 af Duration: 11 days
		Average	27 cfs			
		Wet	39 cfs			
Spring	10 cfs	Dry	21 cfs	1 per season Trigger: 780 cfs Volume: 4,020 af Duration: 13 days	3 per season Trigger: 780 cfs Volume: 4,020 af Duration: 13 days	2 per season Trigger: 1,310 cfs Volume: 6,860 af Duration: 16 days
		Average	29 cfs			
		Wet	43 cfs			
Summer	10 cfs	Dry	16 cfs	1 per season Trigger: 77 cfs Volume: 270 af Duration: 4 days	3 per season Trigger: 77 cfs Volume: 270 af Duration: 4 days	2 per season Trigger: 190 cfs Volume: 680 af Duration: 6 days
		Average	23 cfs			
		Wet	32 cfs			

cfs = cubic feet per second

af = acre-feet

N/A = not applicable

(13) Little River near Little River, Texas, generally described as USGS gage 08104500, and more specifically described as Latitude 30 degrees, 57 minutes, 59 seconds; Longitude 97 degrees, 20 minutes, 45 seconds.

Figure: 30 TAC §298.480(13)

United States Geological Survey Gage 08104500, Little River near Little River

Season	Subsistence	Hydrologic Condition	Base	Dry Condition Seasonal Pulse	Average Condition Seasonal Pulse	Wet Condition Seasonal Pulse
Winter	55 cfs	Dry	82 cfs	1 per season Trigger: 520 cfs Volume: 2,350 af Duration: 5 days	3 per season Trigger: 520 cfs Volume: 2,350 af Duration: 5 days	2 per season Trigger: 1,600 cfs Volume: 11,800 af Duration: 11 days
		Average	110 cfs			
		Wet	190 cfs			
Spring	55 cfs	Dry	95 cfs	1 per season Trigger: 1,420 cfs Volume: 9,760 af Duration: 10 days	3 per season Trigger: 1,420 cfs Volume: 9,760 af Duration: 10 days	2 per season Trigger: 3,290 cfs Volume: 32,200 af Duration: 17 days
		Average	150 cfs			
		Wet	340 cfs			
Summer	55 cfs	Dry	84 cfs	1 per season Trigger: 430 cfs Volume: 1,560 af Duration: 4 days	3 per season Trigger: 430 cfs Volume: 1,560 af Duration: 4 days	2 per season Trigger: 1,060 cfs Volume: 5,890 af Duration: 8 days
		Average	120 cfs			
		Wet	200 cfs			

cfs = cubic feet per second

af = acre-feet

N/A = not applicable

(14) Little River near Cameron, Texas, generally described as USGS gage 08106500, and more specifically described as Latitude 30 degrees, 50 minutes, 06 seconds; Longitude 96 degrees, 56 minutes, 47 seconds.

Figure: 30 TAC §298.480(14)

United States Geological Survey Gage 08106500, Little River near Cameron

Season	Subsistence	Hydrologic Condition	Base	Dry Condition Seasonal Pulse	Average Condition Seasonal Pulse	Wet Condition Seasonal Pulse
Winter	32 cfs	Dry	110 cfs	1 per season Trigger:	3 per season Trigger:	2 per season Trigger:

		Average	190 cfs	1,080 cfs Volume: 6,680 af	1,080 cfs Volume: 6,680 af	2,140 cfs Volume: 14,900 af
		Wet	460 cfs	Duration: 8 days	Duration: 8 days	Duration: 10 days
Spring	32 cfs	Dry	140 cfs	1 per season Trigger: 3,200 cfs	3 per season Trigger: 3,200 cfs	2 per season Trigger: 4,790 cfs
		Average	310 cfs	Volume: 23,900 af	Volume: 23,900 af	Volume: 38,400 af
		Wet	760 cfs	Duration: 12 days	Duration: 12 days	Duration: 14 days
Summer	32 cfs	Dry	97 cfs	1 per season Trigger: 560 cfs	3 per season Trigger: 560 cfs	2 per season Trigger: 990 cfs
		Average	160 cfs	Volume: 2,860 af	Volume: 2,860 af	Volume: 5,550 af
		Wet	330 cfs	Duration: 6 days	Duration: 6 days	Duration: 8 days

cfs = cubic feet per second
 af = acre-feet
 N/A = not applicable

(15) Brazos River at SH 21 near Bryan, Texas, generally described as USGS gage 08108700, and more specifically described as Latitude 30 degrees, 37 minutes, 36 seconds; Longitude 96 degrees, 32 minutes, 38 seconds.

Figure: 30 TAC §298.480(15)

United States Geological Survey Gage 08108700, Brazos River at SH 21 near Bryan

Season	Subsistence	Hydrologic Condition	Base	Dry Condition Seasonal Pulse	Average Condition Seasonal Pulse	Wet Condition Seasonal Pulse
Winter	300 cfs	Dry	540 cfs	1 per season Trigger: 3,230 cfs	3 per season Trigger: 3,320 cfs	2 per season Trigger: 5,570 cfs
		Average	860 cfs	Volume: 21,100 af	Volume: 21,100 af	Volume: 41,900 af
		Wet	1,760 cfs	Duration: 7 days	Duration: 7 days	Duration: 10 days
Spring	300 cfs	Dry	710 cfs	1 per season Trigger: 6,050 cfs	3 per season Trigger: 6,050 cfs	2 per season Trigger: 10,400 cfs
		Average	1,260 cfs	Volume:	Volume:	Volume:

		Wet	2,460 cfs	49,000 af Duration: 11 days	49,000 af Duration: 11 days	97,000 af Duration: 14 days
Summer	300 cfs	Dry	630 cfs	1 per season Trigger: 2,060 cfs Volume: 12,700 af Duration: 7 days	3 per season Trigger: 2,060 cfs Volume: 12,700 af Duration: 7 days	2 per season Trigger: 2,990 cfs Volume: 20,100 af Duration: 8 days
		Average	920 cfs			
		Wet	1,470 cfs			

cfs = cubic feet per second
 af = acre-feet
 N/A = not applicable

(16) Navasota River near Easterly, Texas, generally described as USGS gage 08110500, and more specifically described as Latitude 31 degrees, 10 minutes, 12 seconds; Longitude 96 degrees, 17 minutes, 51 seconds.

Figure: 30 TAC §298.480(16)

United States Geological Survey Gage 08110500, Navasota River near Easterly

Season	Subsistence	Hydrologic Condition	Base	Dry Condition Seasonal Pulse	Average Condition Seasonal Pulse	Wet Condition Seasonal Pulse
Winter	1 cfs	Dry	9 cfs	1 per season Trigger: 260 cfs Volume: 1,610 af Duration: 9 days	3 per season Trigger: 260 cfs Volume: 1,610 af Duration: 9 days	2 per season Trigger: 800 cfs Volume: 5,440 af Duration: 12 days
		Average	14 cfs			
		Wet	23 cfs			
Spring	1 cfs	Dry	10 cfs	1 per season Trigger: 720 cfs Volume: 4,590 af Duration: 11 days	3 per season Trigger: 720 cfs Volume: 4,590 af Duration: 11 days	2 per season Trigger: 1,340 cfs Volume: 8,990 af Duration: 13 days
		Average	19 cfs			
		Wet	29 cfs			
Summer	1 cfs	Dry	3 cfs	N/A	N/A	2 per season Trigger: 49 cfs Volume: 220 af Duration: 5 days
		Average	8 cfs			
		Wet	16 cfs			

cfs = cubic feet per second
 af = acre-feet
 N/A = not applicable

(17) Brazos River near Hempstead, Texas, generally described as USGS gage 08111500, and more specifically described as Latitude 30 degrees, 07 minutes, 44 seconds; Longitude 96 degrees, 11 minutes, 15 seconds.

Figure: 30 TAC §298.480(17)

United States Geological Survey Gage 08111500, Brazos River near Hempstead

Season	Subsistence	Hydrologic Condition	Base	Dry Condition Seasonal Pulse	Average Condition Seasonal Pulse	Wet Condition Seasonal Pulse
Winter	510 cfs	Dry	920 cfs	1 per season Trigger: 5,720 cfs Volume: 49,800 af Duration: 10 days	3 per season Trigger: 5,720 cfs Volume: 49,800 af Duration: 10 days	2 per season Trigger: 11,200 cfs Volume: 125,000 af Duration: 15 days
		Average	1,440 cfs			
		Wet	2,890 cfs			
Spring	510 cfs	Dry	1,130 cfs	1 per season Trigger: 8,530 cfs Volume: 85,000 af Duration: 13 days	3 per season Trigger: 8,530 cfs Volume: 85,000 af Duration: 13 days	2 per season Trigger: 16,800 cfs Volume: 219,000 af Duration: 19 days
		Average	1,900 cfs			
		Wet	3,440 cfs			
Summer	510 cfs	Dry	950 cfs	1 per season Trigger: 2,620 cfs Volume: 17,000 af Duration: 7 days	3 per season Trigger: 2,620 cfs Volume: 17,000 af Duration: 7 days	2 per season Trigger: 5,090 cfs Volume: 40,900 af Duration: 9 days
		Average	1,330 cfs			
		Wet	2,050 cfs			

cfs = cubic feet per second
 af = acre-feet
 N/A = not applicable

(18) Brazos River at Richmond, Texas, generally described as USGS gage 08114000, and more specifically described as Latitude 29 degrees, 34 minutes, 56 seconds; Longitude 95 degrees, 45 minutes, 27 seconds.

Figure: 30 TAC §298.480(18)

United States Geological Survey Gage 08114000, Brazos River at
 Richmond

Season	Subsistence	Hydrologic Condition	Base	Dry Condition Seasonal Pulse	Average Condition Seasonal Pulse	Wet Condition Seasonal Pulse
Winter	550 cfs	Dry	990 cfs	1 per season Trigger: 6,410 cfs Volume: 60,600 af Duration: 11 days	3 per season Trigger: 6,410 cfs Volume: 60,600 af Duration: 11 days	2 per season Trigger: 12,400 cfs Volume: 150,000 af Duration: 16 days
		Average	1,650 cfs			
		Wet	3,310 cfs			
Spring	550 cfs	Dry	1,190 cfs	1 per season Trigger: 8,930 cfs Volume: 94,000 af Duration: 13 days	3 per season Trigger: 8,930 cfs Volume: 94,000 af Duration: 13 days	2 per season Trigger: 16,300 cfs Volume: 215,000 af Duration: 19 days
		Average	2,140 cfs			
		Wet	3,980 cfs			
Summer	550 cfs	Dry	930 cfs	1 per season Trigger: 2,460 cfs Volume: 16,400 af Duration: 6 days	3 per season Trigger: 2,460 cfs Volume: 16,400 af Duration: 6 days	2 per season Trigger: 5,430 cfs Volume: 46,300 af Duration: 10 days
		Average	1,330 cfs			
		Wet	2,190 cfs			

cfs = cubic feet per second

af = acre-feet

N/A = not applicable

(19) Brazos River near Rosharon, Texas, generally described as USGS gage 08116650, and more specifically described as Latitude 29 degrees, 20 minutes, 58 seconds; Longitude 95 degrees, 34 minutes, 56 seconds.

Figure: 30 TAC §298.480(19)

United States Geological Survey Gage 08116650, Brazos River near
 Rosharon

Season	Subsistence	Hydrologic Condition	Base	Dry Condition Seasonal Pulse	Average Condition Seasonal Pulse	Wet Condition Seasonal Pulse
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Winter	430 cfs	Dry	1,140 cfs	1 per season Trigger: 9,090 cfs Volume: 94,700 af Duration: 12 days	3 per season Trigger: 9,090 cfs Volume: 94,700 af Duration: 12 days	2 per season Trigger: 13,600 cfs Volume: 168,000 af Duration: 16 days
		Average	2,090 cfs			
		Wet	4,700 cfs			
Spring	430 cfs	Dry	1,250 cfs	1 per season Trigger: 6,580 cfs Volume: 58,500 af Duration: 10 days	3 per season Trigger: 6,580 cfs Volume: 58,500 af Duration: 10 days	2 per season Trigger: 14,200 cfs Volume: 184,000 af Duration: 18 days
		Average	2,570 cfs			
		Wet	4,740 cfs			
Summer	430 cfs	Dry	930 cfs	1 per season Trigger: 2,490 cfs Volume: 14,900 af Duration: 6 days	3 per season Trigger: 2,490 cfs Volume: 14,900 af Duration: 6 days	2 per season Trigger: 4,980 cfs Volume: 39,100 af Duration: 9 days
		Average	1,420 cfs			
		Wet	2,630 cfs			

cfs = cubic feet per second

af = acre-feet

N/A = not applicable

(20) San Bernard River near Boling, Texas, generally described as USGS gage 08117500, and more specifically described as Latitude 29 degrees, 18 minutes, 48 seconds; Longitude 95 degrees, 53 minutes, 37 seconds.

Figure: 30 TAC §298.480(20)

United States Geological Survey Gage 08117500, San Bernard River near Boling

Season	Subsistence	Hydrologic Condition	Base	Dry Condition Seasonal Pulse	Average Condition Seasonal Pulse	Wet Condition Seasonal Pulse
Winter	11 cfs	Dry	23 cfs	1 per season Trigger: 510 cfs Volume: 3,710 af Duration: 8 days	3 per season Trigger: 510 cfs Volume: 3,710 af Duration: 8 days	2 per season Trigger: 1,060 cfs Volume: 9,370 af Duration: 12 days
		Average	43 cfs			
		Wet	73 cfs			
Spring	11 cfs	Dry	32 cfs	1 per season Trigger: 350 cfs Volume:	3 per season Trigger: 350 cfs Volume:	2 per season Trigger: 680 cfs Volume:
		Average	53 cfs			

		Wet	85 cfs	2,360 af Duration: 7 days	2,360 af Duration: 7 days	5,300 af Duration: 10 days
Summer	11 cfs	Dry	64 cfs	1 per season Trigger: 300 cfs Volume: 2,480 af Duration: 9 days	3 per season Trigger: 300 cfs Volume: 2,480 af Duration: 9 days	2 per season Trigger: 470 cfs Volume: 4,050 af Duration: 10 days
		Average	98 cfs			
		Wet	140 cfs			

cfs = cubic feet per second
 af = acre-feet
 N/A = not applicable

Adopted February 12, 2014

Effective March 6, 2014

§298.485. Water Right Permit Conditions.

(a) For water right permits with an authorization to store or divert water from the Brazos River and its associated tributaries, and from the Brazos-Colorado Coastal Basin, and to which the environmental flow standards apply, that are issued after the effective date of this subchapter, the water right permit or amendment shall contain flow restriction special conditions that are adequate to protect the environmental flow standards of this subchapter.

(b) For water right permits with an authorization to divert water in the Brazos River Basin and the Brazos-Colorado Coastal Basin at a rate less than 20% of the pulse trigger level requirements of an applicable high flow pulse at a measurement point, as described in §298.480 of this title (relating to Environmental Flow Standards), and to which the environmental flow standards apply, that are issued after the effective date of this subchapter, the water right permit or amendment shall contain flow restriction special conditions that are adequate to protect the environmental flow standards of this subchapter; however, no special conditions are necessary to preserve or pass that applicable high flow pulse.

(c) For water right permit applications that request only to increase authorized storage by up to 15%, in the Palo Pinto Creek watershed, and to which the environmental flow standards apply, that are issued after the effective date of this subchapter, the water right permit or amendment shall contain flow restriction special conditions that are adequate to protect the environmental flow standards of this subchapter; however, no special conditions are necessary to preserve or pass any otherwise applicable high flow pulses.

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§298.490. Schedule for Revision of Standards.

The environmental flow standards or environmental flow set-asides adopted in this subchapter for the Brazos River and its associated tributaries and its associated bay and estuary system and the Brazos-Colorado Coastal Basin may be revised by the commission through the rulemaking process. The final revised rules shall be effective no sooner than ten years from the effective date of this rule, unless the Brazos River and Associated Bay and Estuary System Stakeholder Committee submits a work plan approved by the Environmental Flows Advisory Group under Texas Water Code, §11.02362(p), that provides for a periodic review to occur more frequently. The rulemaking process shall include participation by a balanced representation of stakeholders having interests in the Brazos River and its associated tributaries and its associated bay and estuary system and the Brazos-Colorado Coastal Basin.

Adopted February 12, 2014

Effective March 6, 2014