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Texas Commission on Environmental Quality Chapter 298 - Environmental Flow Standards for Surface Water

SUBCHAPTER F: NUECES RIVER AND CORPUS CHRISTI AND BAFFIN BAYS §§298.400, 298.405, 298.410, 298.415, 298.425,298.430, 298.435, 298.440 Effective March 6, 2014

§298.400. Applicability and Purpose.

This subchapter contains the environmental flow standards for the Nueces River, its associated tributaries, the Nueces-Rio Grande Coastal Basin, and Corpus Christi and Baffin Bays. This subchapter does not affect an appropriation of or an authorization to store, take, or divert water under a permit or amendment to a water right issued before September 1, 2007. 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 Nueces River, its associated tributaries, the Nueces-Rio Grande Coastal Basin, and Corpus Christi and Baffin Bays.

Adopted February 12, 2014

Effective March 6, 2014

§298.405. Definitions.

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

(1) Fall--for the measurement points listed in \$298.430(c)(3) - (5), (9), and (12) - (19) of this title (relating to Environmental Flow Standards), the period of time September through October, inclusive and for all other measurement points, the period of time October through November, inclusive.

(2) Inflow regime--a freshwater inflow pattern, at the most downstream point on the Nueces River where the river enters the Nueces Bay and Delta, that includes quantities and frequencies that vary throughout the year.

(3) Modeled permitting frequency--the frequencies at which specific volumes of freshwater inflows occur in the commission's water availability models for the Nueces river basin at the time the first water right application subject to this subchapter is processed.

(4) Nueces Bay--a secondary bay of Corpus Christi Bay.

(5) Nueces Delta-- a complex array of channels, pools, marshes, and tidal

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flats in the upper end of Nueces Bay that lies generally to the north of the Nueces River and includes area receiving inflows from the Rincon Bayou and overflow channels from the river.

(6) Spring--the period of time April through June, inclusive.

(7) Sound ecological environment--maintains, to some reasonable level, the physical, chemical, and biological attributes and processes of the natural system.

(8) Summer-- for the measurement points listed in \$298.430(c)(3) - (5), (9), and (12) - (19) of this title (relating to Environmental Flow Standards), the period of time July through August, inclusive and for all other measurement points, the period of time July through September, inclusive.

(9) Target frequency--the frequency at which specific target volumes of freshwater inflows occur, and which are used for the sole purpose of providing additional freshwater inflows to Nueces Bay and Nueces Delta through voluntary strategies.

(10) Target Volume--volumes of freshwater inflows specified in §298.430(a)(3) of this title (relating to Environmental Flow Standards which are used for water rights permitting and to establish targets for the purpose of providing additional freshwater inflows to Nueces Bay and Delta through voluntary strategies.

(11) Winter--for the measurement points listed in \$298.430(c)(3) - (5), (9), and (12) - (19) of this title (relating to Environmental Flow Standards), the period of time November through March, inclusive and for all other measurement points, the period of time December through March, inclusive.

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§298.410. Findings.

(a) The Nueces River and its associated tributaries, tributaries in the Nueces Rio Grande Coastal Basin, and Corpus Christi and Baffin Bays are substantially sound ecological environments.

(b) For the Nueces River and its associated tributaries, and tributaries in the Nueces-Rio Grande Coastal Basin, 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 subsistence or 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.

(c) For Nueces Bay and Nueces Delta, the commission finds that the freshwater inflow standards in this subchapter are appropriate environmental flow standards that are adequate to support a sound ecological environment to the maximum extent reasonable considering other public interests and other relevant factors. The existing ecological condition of Nueces Bay and Nueces Delta may be improved, but will not be diminished, by the freshwater inflow standards in this subchapter.

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Effective March 6, 2014

§298.415. Set-Asides and Standards Priority Date.

The priority date for the environmental flow standards and set-asides established by this subchapter is October 28, 2011. 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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§298.425. Schedule of Flow Quantities.

(a) Schedule of flow quantities. The environmental flow standards proposed in this subchapter constitute a schedule of flow quantities made up of subsistence flow, base flow, and high flow pulses. Environmental flow standards are established for 19 measurement points in §298.430 of this title (relating to Environmental Flow Standards) and this section.

(b) Subsistence flow. The applicable subsistence flow standard varies depending on the seasons as described in §298.405 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 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 §298.405 of this title. For a water right holder, to which an environmental flow standard applies, at a measurement point that applies to a water right, the water right holder is subject to a 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 trigger 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.

(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) Two or three 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 §298.430 of this title, if the flows 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 except during times that streamflow at the applicable measurement point exceeds the applicable high flow pulse trigger level and until either the applicable volume amount has passed the measurement point or the applicable duration time has passed since the high flow pulse trigger level occurred. A water right holder can divert water in excess of an applicable pulse flow trigger level of an applicable larger pulse.

(2) If the applicable high flow pulse flow 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 are applicable under both subsistence and base flow conditions.

(5) If a pulse flow requirement for a medium or large seasonal pulse or an annual pulse is satisfied for a particular season or year, one of each of the applicable smaller pulse requirements is also considered to be satisfied.

(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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Effective March 6, 2014

§298.430. Environmental Flow Standards.

(a) A water right application in the Nueces River Basin, which increases the amount of water authorized to be stored, taken, or diverted as described in §298.10 of this title (relating to Applicability), shall not cause or contribute to an impairment of the inflow regimes as described in the figure in this subsection. Impairment of the inflow regime shall be evaluated as part of the water availability determination for a new water right or amendment that is subject to this subchapter. For purposes of this subsection, impairment would occur if the application, when considered in combination with any authorizations subject to this subchapter, which were issued prior to this application, would impair the modeled permitting frequency of any inflow regime by more than the values set out in paragraph (3)(A) - (C) of this subsection.

(1) Impairment to the modeled permitting frequency shall be calculated individually for each inflow regime level in the figure located in paragraph (3) of this subsection for which a specific frequency is identified, at the point in the water availability model which represents inflows to Nueces Bay and Nueces Delta.

(2) Impairment is calculated by subtraction of the values set out in paragraph (3)(A) - (C) of this subsection.

(3) Bay and Estuary Freshwater Inflow Standards for Nueces Bay and Nueces Delta.

Figure: 30 TAC §298.430(a)(3)

Inflow Regime	Target Volume November - February (Target Frequency)	Target Volume March - June (Target Frequency)	Target Volume July - October (Target Frequency)	Target Volume Annual Inflow Target (Target Frequency)
Level 1	125,000 af	250,000 af	375,000 af	750,000 af (16%)
Level 2	22,000 af	88,000 af	56,000 af	166,000 af
	(23%)	(30%)	(40%)	(47%)
Level 3	5,000 af	10,000 af	15,000 af	30,000 af
	(69%)	(88%)	(74%)	(95%)

Bay and Estuary Freshwater Inflow Standards for Nueces Bay and Delta

af = acre-feet

(A) The modeled permitting frequencies for the target volumes for Level 1, as described in the figure located in paragraph (3) of this subsection, and calculated as a percentage of total months or years, as applicable, shall not be decreased by more than 50%.

(B) The modeled permitting frequencies for the target volumes for Level 2, as described in the figure located in paragraph (3) of this subsection, and calculated as a percentage of total months or years, as applicable, shall not be decreased by more than 25%.

(C) The modeled permitting frequencies for the target volumes for Level 3, as described in the figure located in paragraph (3) of this subsection, and calculated as a percentage of total months or years, as applicable, shall not be decreased by more than 10%.

(D) Each season and year is independent of the preceding and subsequent seasons and years with respect to the calculation of the Target Volume, as described in the figure located in paragraph (3) of this subsection.

(b) To the extent that strategies are implemented through a water rights permit or amendment to help meet the freshwater inflow standards for Nueces Bay and Delta, a water right application in the Nueces River Basin, which increases the amount of water authorized to be stored, taken or diverted as described in §298.10 of this title, shall not reduce the modeled permitting frequency for any inflow regime level, listed in the figure located in subsection (a) (3) of this section, below the level that would occur with the permitted strategy or strategies in place.

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

(1) Nueces River at Laguna, Texas, generally described as United States Geological Survey (USGS) gage 08190000, and more particularly described as Latitude 29 degrees, 25 minutes, 42 seconds; Longitude 99 degrees, 59 minutes, 49 seconds.

Figure: 30 TAC §298.430(c)(1)

United States Geological Survey Gage 08190000, Nueces River at Laguna

	Winter	Spring	Summer	Fall
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Subsistence Flow	14 cfs	18 cfs	16 cfs	14 cfs
Base Flow	65 cfs	65 cfs	48 cfs	65 cfs
Small Seasonal Pulse (2 per season)	N/A	Trigger: 99 cfs Volume: 1,560 af Duration: 9 days	N/A	N/A
Large Seasonal Pulse (1 per season)	N/A	Trigger: 390 cfs Volume: 6,070 af Duration: 17 days	Trigger: 170 cfs Volume: 3,100 af Duration: 14 days	N/A
Annual	Trigger: 590 cfs			
Pulse (2 per	Volume: 11,300 af			
year)		Duration	: 26 days	

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

(2) West Nueces River near Bracketville, Texas, generally described as USGS gage 08190500, and more particularly described as Latitude 29 degrees, 28 minutes, 51.9 seconds; Longitude 100 degrees, 14 minutes, 21 seconds.

Figure: 30 TAC §298.430(c)(2)

United States Geological Survey Gage 08190500, West Nueces River near Bracketville

	Winter	Spring	Summer	Fall
Subsistence Flow	1 cfs	1 cfs	1 cfs	1 cfs
Base Flow	1 cfs	1 cfs	1 cfs	1 cfs
Large Seasonal		Trigger: 5 cfs	Trigger: 5 cfs	
Pulse (1 per season)	N/A	Volume: 76 af	Volume: 84 af	N/A
		Duration: 10 days	Duration: 13 days	
Annual Pulse (2 per	Trigger: 25 cfs			
year)	Volume: 360 af			
-		Durati	on: 16 days	

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

(3) Nueces River below Uvalde, Texas, generally described as USGS gage 08192000, and more particularly described as Latitude 29 degrees, 7 minutes, 25 seconds; Longitude 99 degrees, 53 minutes, 40 seconds.

Figure: 30 TAC §298.430(c)(3)

United States Geological Survey Gage 08192000, Nueces River below Uvalde

	Winter	Spring	Summer	Fall
Subsistence Flow	1 cfs	1 cfs	1 cfs	1 cfs
Base Flow	21 cfs	21 cfs	17 cfs	19 cfs
Large Seasonal Pulse (1 per season)	N/A	Trigger: 110 cfs Volume: 1,280 af Duration: 11 days	N/A	Trigger: 50 cfs Volume: 690 af Duration: 11 days
Annual Pulse (2 per year)	Trigger: 510 cfs Volume: 8,240 af Duration: 26 days			

cfs = cubic feet per secondaf = acre-feetN/A = not applicable

(4) Nueces River at Cotulla, Texas, generally described as USGS gage 08194000, and more particularly described as Latitude 28 degrees, 25 minutes, 34 seconds; Longitude 99 degrees, 14 minutes, 23 seconds.

Figure: 30 TAC §298.430(c)(4)

United States Geological Survey Gage 08194000, Nueces River at Cotulla

	Winter	Spring	Summer	Fall
Subsistence Flow	1 cfs	1 cfs	1 cfs	1 cfs
Base Flow	6 cfs	10 cfs	7 cfs	15 cfs
Small Seasonal Pulse (2 per season)	N/A	Trigger: 190 cfs Volume: 2,370 af Duration: 17 days	N/A	Trigger: 35 cfs Volume: 360 af Duration: 14 days
Large Seasonal Pulse (1 per season)	Trigger: 96 cfs Volume: 1,570 af Duration: 20 days	N/A	Trigger: 100 cfs Volume: 1,030 af Duration: 16 days	N/A

cfs = cubic feet per second

af = acre-feet

N/A = not applicable

(5) Nueces River near Tilden, Texas generally described as USGS gage 08194500, and more particularly described as Latitude 28 degrees, 18 minutes, 31 seconds; Longitude 98 degrees, 33 minutes, 25 seconds.

Figure: 30 TAC §298.430(c)(5)

	Winter	Spring	Summer	Fall
Subsistence Flow	1 cfs	1 cfs	1 cfs	1 cfs
Base Flow	1 cfs	3 cfs	1 cfs	12 cfs
Small Seasonal Pulse (3 per season)	N/A	Trigger: 89 cfs Volume: 930 af Duration: 14 days	N/A	Trigger: 29 cfs Volume: 250 af Duration: 10 days
Medium Seasonal Pulse (2 Per season)	Trigger: 87 cfs Volume: 1,260 af Duration: 18 days	Trigger: 280 cfs Volume: 3,360 af Duration: 18 days	Trigger: 11 cfs Volume: 96 af Duration: 10 days	Trigger: 220 cfs Volume: 2,390 af Duration: 16 days
Large Seasonal Pulse (1 per season)	Trigger: 300 cfs Volume: 4,610 af Duration: 22 days	Trigger: 880 cfs Volume: 12,200 af Duration: 22 days	Trigger: 320 cfs Volume: 4,390 af Duration: 21 days	Trigger: 840 cfs Volume: 10,900 af Duration: 23 days

United States Geological Survey Gage 08194500, Nueces River near Tilden

cfs = cubic feet per second

af = acre-feet

N/A = not applicable

(6) Frio River at Concan, Texas, generally described as USGS gage 08195000, and more particularly described as Latitude 29 degrees, 29 minutes, 18 seconds; Longitude 99 degrees, 42 minutes, 16 seconds.

Figure: 30 TAC §298.430(c)(6)

United States Geological Survey Gage 08195000, Frio River at Concan

	Winter	Spring	Summer	Fall
Subsistence Flow	11 cfs	10 cfs	10 cfs	10 cfs
Base Flow	61 cfs	61 cfs	47 cfs	55 cfs
Small		Trigger: 120 cfs		
Seasonal	N/A	Volume: 1,320 af	N/A	N/A
Pulse (2 per		Duration: 8 days		

season)					
Large Seasonal Pulse (1 per season)	Trigger: 89 cfs Volume: 2,100 af Duration: 12 days	Trigger: 300 cfs Volume: 3,550 af Duration: 12 days	Trigger: 240 cfs Volume: 2,990 af Duration: 13 days	Trigger: 79 cfs Volume: 900 af Duration: 5 days	
Annual Pulse (2 per	Trigger: 540 cfs Volume: 0.430 of				
year)	Volume: 9,430 ar Duration: 24 days				

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

(7) Dry Frio River near Reagan Wells, Texas, generally described as USGS gage 08196000, and more particularly described as Latitude 29 degrees, 30 minutes, 16 seconds; Longitude 99 degrees, 46 minutes, 52 seconds.

Figure: 30 TAC §298.430(c)(7)

United States Geological Survey Gage 08196000, Dry Frio River near Reagan Wells

	Winter	Spring	Summer	Fall
Subsistence Flow	1 cfs	1 cfs	1 cfs	1 cfs
Base Flow	12 cfs	9 cfs	8 cfs	12 cfs
Small Seasonal Pulse (2 per season)	N/A	Trigger: 30 cfs Volume: 370 af Duration: 9 days	N/A	N/A
Large Seasonal Pulse (1 per season)	Trigger: 32 cfs Volume: 650 af Duration: 13 days	Trigger: 120 cfs Volume: 1,470 af Duration: 16 days	Trigger: 81 cfs Volume: 1,100 af Duration: 15 days	Trigger: 35 cfs Volume: 620 af Duration: 13 days
Annual	Trigger: 210 cfs			
Pulse (2 per	Volume: 3,500 af			
year)		Duration	: 26 days	

cfs = cubic feet per second

af = acre-feet

N/A = not applicable

(8) Sabinal River near Sabinal, Texas, generally described as USGS gage 08198000, and more particularly described as Latitude 29 degrees, 29 minutes, 27 seconds; Longitude 99 degrees, 29 minutes, 33 seconds.

Figure: 30 TAC §298.430(c)(8)

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	Winter	Spring	Summer	Fall
Subsistence Flow	1 cfs	1 cfs	1 cfs	1 cfs
Base Flow	21 cfs	21 cfs	13 cfs	21 cfs
Small Seasonal Pulse (2 per season)	N/A	Trigger: 64 cfs Volume: 750 af Duration: 10 days	N/A	N/A
Large Seasonal Pulse (1 per season)	Trigger: 62 cfs Volume: 1,530 af Duration: 17 days	Trigger: 180 cfs Volume: 2,210 af Duration: 15 days	Trigger: 100 cfs Volume: 1,180 af Duration: 12 days	Trigger: 53 cfs Volume: 840 af Duration: 12 days
Annual Pulse (2 per year)	Trigger: 330 cfs Volume: 5,420 af Duration: 24 days			

United States Geological Survey Gage 08198000, Sabinal River near Sabinal

cfs = cubic feet per second af = acre-feet

N/A = not applicable

(9) Sabinal River at Sabinal, Texas, generally described as USGS gage 08198500, and more particularly described as Latitude 29 degrees, 18 minutes, 51.5 seconds; Longitude 99 degrees, 28 minutes, 49.7 seconds.

Figure: 30 TAC §298.430(c)(9)

United States Geological Survey Gage 08198500, Sabinal River at Sabinal

	Winter	Spring	Summer	Fall	
Subsistence Flow	1 cfs	1 cfs	1 cfs	1 cfs	
Base Flow	2 cfs	1 cfs	1 cfs	2 cfs	
Large Seasonal Pulse (1 Per season)	Trigger: 21cfs Volume: 310 af Duration: 11 days	Trigger: 56 cfs Volume: 430 af Duration: 9 days	N/A	Trigger: 20 cfs Volume: 150 af Duration: 6 days	
Annual Pulse (2 per year)	Trigger: 230 cfs Volume: 2,680 af Duration: 17 days				
Annual Pulse (1 per year)	Trigger: 1,070 cfs Volume: 6,690 af Duration: 29 days				

cfs = cubic feet per second

af = acre-feet

N/A = not applicable

(10) Hondo Creek near Tarpley, Texas, generally described as USGS gage 08200000, and more particularly described as Latitude 29 degrees, 34 minutes, 12.11 seconds; Longitude 99 degrees, 14 minutes, 51.68 seconds.

Figure: 30 TAC §298.430(c)(10)

United States Geological Survey Gage 08200000, Hondo Creek near Tarpley

	Winter	Spring	Summer	Fall	
Subsistence Flow	1 cfs	1 cfs	1 cfs	1 cfs	
Base Flow	6 cfs	5 cfs	9 cfs	8 cfs	
Small Seasonal Pulse (2 per season)	Trigger: 16 cfs Volume: 200 af Duration: 8 days	Trigger: 91 cfs Volume: 950 af Duration: 12 days	Trigger: 24 cfs Volume: 220 af Duration: 7 days	N/A	
Large Seasonal Pulse (1 Per season)	Trigger: 61 cfs Volume: 1,020 af Duration: 15 days	Trigger: 290 cfs Volume: 3,360 af Duration: 18 days	Trigger: 90 cfs Volume: 890 af Duration: 12 days	Trigger: 50 cfs Volume: 580 af Duration: 11 days	
Annual	Trigger: 330 cfs				
Pulse (2 per	Volume: 4,530 af				
year)		Duration	1: 22 days		

cfs = cubic feet per second

af = acre-feet

N/A = not applicable

(11) Seco Creek at Miller Ranch near Utopia, Texas, generally described as USGS gage 08201500, and more particularly described as Latitude 29 degrees, 34 minutes, 23 seconds; Longitude 99 degrees, 24 minutes, 10 seconds.

Figure: 30 TAC §298.430(c)(11)

United States Geological Survey Gage 08201500, Seco Creek at Miller Ranch near Utopia

	Winter	Spring	Summer	Fall
Subsistence Flow	1 cfs	1 cfs	1 cfs	1 cfs
Base Flow	4 cfs	3 cfs	3 cfs	4 cfs

Small Seasonal Pulse (2 per season)	N/A	Trigger: 33 cfs Volume: 360 af Duration: 12 days	N/A	N/A
Large Seasonal Pulse (1 Per season)	Trigger: 21 cfs Volume: 290 af Duration: 12 days	Trigger: 91 cfs Volume: 1,140 af Duration: 17 days	Trigger: 38 cfs Volume: 360 af Duration: 11 days	Trigger: 23 cfs Volume: 270 af Duration: 11 days
Annual		Trigger:	: 120 cfs	
Pulse (2 per		Volume:	: 1,710 af	
year)		Duration	n: 21 days	

cfs = cubic feet per second

af = acre-feet

N/A = not applicable

(12) Frio River near Derby, Texas, generally described as USGS gage 08205500, and more particularly described as Latitude 28 degrees, 44 minutes, 11 seconds; Longitude 99 degrees, 08 minutes, 40 seconds.

Figure: 30 TAC §298.430(c)(12)

United States Geological Survey Gage 08205500, Frio River near Derby

	Winter	Spring	Summer	Fall	
Subsistence Flow	1 cfs	1 cfs	1 cfs	1 cfs	
Base Flow	17 cfs	11 cfs	7 cfs	12 cfs	
Small Seasonal Pulse (2 per season)	N/A	Trigger: 210 cfs Volume: 1,810 af Duration: 14 days	N/A	N/A	
Large Seasonal Pulse (1 Per season)	Trigger: 87 cfs Volume: 1,450 af Duration: 20 days	Trigger: 900 cfs Volume: 7,940 af Duration: 17 days	Trigger: 58 cfs Volume: 510 af Duration: 13 days	Trigger: 350 cfs Volume: 4,340 af Duration: 24 days	
Annual	Trigger: 1,670 cfs				
Pulse (2 per	Volume: 18,800 af				
year)		Duration	: 25 days		

cfs = cubic feet per second

af = acre-feet

N/A = not applicable

(13) Frio River at Tilden, Texas, generally described as USGS gage 08206600, and more particularly described as Latitude 28 degrees, 28 minutes, 02 seconds; Longitude 98 degrees, 32 minutes, 50 seconds.

Figure: 30 TAC §298.430(c)(13)

United States Geological Survey Gage 08206600, Frio River at Tilden

	Winter	Spring	Summer	Fall
Subsistence Flow	1 cfs	1 cfs	1 cfs	1 cfs
Base Flow	12 cfs	7 cfs	2 cfs	3 cfs
Small Seasonal Pulse (2 per season)	Trigger: 86 cfs Volume: 1,070 af Duration: 13 days	Trigger: 460 cfs Volume: 4,470 af Duration: 14 days	Trigger: 36 cfs Volume: 280 af Duration: 9 days	Trigger: 120 cfs Volume: 1,080 af Duration: 12 days
Large Seasonal Pulse (1 per season)	Trigger: 390 cfs Volume: 5,320 af Duration: 20 days	N/A	Trigger: 270 cfs Volume: 2,440 af Duration: 14 days	Trigger: 960 cfs Volume: 10,400 af Duration: 20 days

cfs = cubic feet per secondaf = acre-feetN/A = not applicable

(14) San Miguel Creek near Tilden, Texas, generally described as USGS gage 08206700, and more particularly described as Latitude 28 degrees, 35 minutes, 14 seconds; Longitude 98 degrees, 32 minutes, 44 seconds.

Figure: 30 TAC §298.430(c)(14)

United States Geological Survey Gage 08206700, San Miguel Creek near Tilden

	Winter	Spring	Summer	Fall
Subsistence Flow	1 cfs	1 cfs	1 cfs	1 cfs
Base Flow	2 cfs	2 cfs	1 cfs	2 cfs
Small Seasonal Pulse (2 per season)	Trigger: 45 cfs Volume: 470 af Duration: 16 days	Trigger: 220 cfs Volume: 1,560 af Duration: 14 days	Trigger: 16 cfs Volume: 110 af Duration: 10 days	Trigger: 44 cfs Volume: 310 af Duration: 12 days
Large Seasonal Pulse (1 per season)	Trigger: 160 cfs Volume: 1,580 af Duration: 19 days	Trigger: 690 cfs Volume: 4,940 af Duration: 16 days	Trigger: 160 cfs Volume: 1,040 af Duration: 13 days	Trigger: 300 cfs Volume: 2,010 af Duration: 15 days
Annual Pulse (2 per	Trigger: 990 cfs Volume: 7,310 af			
year)		Duration	: 18 days	

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

(15) Atascosa River at Whitsett, Texas, generally described as USGS gage 08208000, and more particularly described as Latitude 28 degrees, 37 minutes, 19 seconds; Longitude 98 degrees, 16 minutes, 52 seconds.

Figure: 30 TAC §298.430(c)(15)

United States Geological Survey Gage 08208000, Atascosa River at Whitsett

	Winter	Spring	Summer	Fall
Subsistence Flow	1 cfs	1 cfs	1 cfs	1 cfs
Base Flow	9 cfs	5 cfs	4 cfs	4 cfs
Small Seasonal Pulse (2 per season)	Trigger: 230 cfs Volume: 1,960 af Duration: 14 days	Trigger: 600 cfs Volume: 4,280 af Duration: 13 days	Trigger: 37 cfs Volume: 280 af Duration: 7 days	Trigger: 100 cfs Volume: 720 af Duration: 9 days
Large Seasonal Pulse (1 per season)	Trigger: 730 cfs Volume: 5,720 af Duration: 18 days	Trigger: 1,770 cfs Volume: 12,500 af Duration: 16 days	Trigger: 250 cfs Volume: 1,960 af Duration: 12 days	Trigger: 620 cfs Volume: 4,320 af Duration: 14 days
Annual Pulse (2 per year)	Trigger: 1,990 cfs Volume: 14,800 af Duration: 19 days			

cfs = cubic feet per second

af = acre-feet

N/A = not applicable

(16) Nueces River near Three Rivers, Texas, generally described as USGS gage 08210000, and more particularly described as Latitude 28 degrees, 25 minutes, 38 seconds; Longitude 98 degrees, 10 minutes, 40 seconds.

Figure: 30 TAC §298.430(c)(16)

United States Geological Survey Gage 08210000, Nueces River near Three Rivers

	Winter	Spring	Summer	Fall
Subsistence Flow	1 cfs	1 cfs	1 cfs	1 cfs
Base Flow	37 cfs	37 cfs	30 cfs	37 cfs

Small Seasonal Pulse (2 per season)	Trigger: 720 cfs Volume: 8,460 af Duration: 13 days	Trigger: 1,660 cfs Volume: 22,200 af Duration: 16 days	Trigger: 280 cfs Volume: 2,520 af Duration: 9 days	Trigger: 710 cfs Volume: 7,920 af Duration: 13 days
Large Seasonal Pulse (1 per season)	Trigger: 2,050 cfs Volume: 26,800 af Duration: 18 days	Trigger: 4,090 cfs Volume: 64,600 af Duration: 22 days	Trigger: 1,100 cfs Volume: 13,600 af Duration: 15 days	Trigger: 2,420 cfs Volume: 34,200 af Duration: 19 days

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

(17) Nueces River near Mathis, Texas, generally described as USGS gage 08211000, and more particularly described as Latitude 28 degrees, 02 minutes, 17 seconds; Longitude 97 degrees, 51 minutes, 36 seconds.

Figure: 30 TAC §298.430(c)(17)

United States Geological Survey Gage 08211000, Nueces River near Mathis

	Winter	Spring	Summer	Fall
Subsistence Flow	37 cfs	37 cfs	37 cfs	37 cfs
Base Flow	96 cfs	120 cfs	140 cfs	110 cfs
Small Seasonal Pulse (2 per season)	Trigger: 590 cfs Volume: 6,270 af Duration: 9 days	Trigger: 420 cfs Volume: 5,090 af Duration: 9 days	N/A	Trigger: 240 cfs Volume: 2,670 af Duration: 7 days
Large Seasonal Pulse (1 per season)	Trigger: 1,120 cfs Volume: 14,200 af Duration: 12 days	Trigger: 2,540 cfs Volume: 49,400 af Duration: 19 days	Trigger: 370 cfs Volume: 4,970 af Duration: 10 days	Trigger: 1,550 cfs Volume: 24,700 af Duration: 15 days

cfs = cubic feet per second

af = acre-feet

N/A = not applicable

(18) Oso Creek at Corpus Christi, Texas, generally described as USGS gage 08211520, and more particularly described as Latitude 28 degrees, 42 minutes, 40 seconds; Longitude 97 degrees, 30 minutes, 06 seconds.

Figure: 30 TAC §298.430(c)(18)

United States Geological Survey Gage 08211520, Oso Creek at Corpus Christi

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	Winter	Spring	Summer	Fall
Subsistence Flow	1 cfs	1 cfs	1 cfs	1 cfs
Base Flow	2 cfs	2 cfs	2 cfs	2 cfs
Small Seasonal Pulse (2 per season)	Trigger: 59 cfs Volume: 450 af Duration: 13 days	Trigger: 48 cfs Volume: 330 af Duration: 9 days	N/A	Trigger: 64 cfs Volume: 450 af Duration: 11 days
Large Seasonal Pulse (1 Per season)	N/A	N/A	Trigger: 21 cfs Volume: 160 af Duration: 8 days	N/A

cfs = cubic feet per second af = acre-feet

N/A = not applicable

(19) San Fernando Creek at Alice, Texas, generally described as USGS gage 08211900, and more particularly described as Latitude 27 degrees, 46 minutes, 20 seconds; Longitude 98 degrees, 02 minutes, 00 seconds.

Figure: 30 TAC §298.430(c)(19)

United States Geological Survey Gage 08211900, San Fernando Creek at Alice

	Winter	Spring	Summer	Fall
Subsistence Flow	1 cfs	1 cfs	1 cfs	1 cfs
Base Flow	2 cfs	2 cfs	1 cfs	1 cfs
Small Seasonal Pulse (2 per season)	N/A	Trigger: 14 cfs Volume: 100 af Duration: 7 days	N/A	N/A
Large Seasonal Pulse (1 Per season)	Trigger: 14 cfs Volume: 170 af Duration: 12 days	Trigger: 65 cfs Volume: 470 af Duration: 11 days	Trigger: 17 cfs Volume: 140 af Duration: 9 days	Trigger: 28 cfs Volume: 240 af Duration: 10 days
Annual Pulse (2 per year)	Trigger: 170 cfs Volume: 1,490 af Duration: 17 days			

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

Adopted February 12, 2014

Effective March 6, 2014

§298.435. Water Right Permit Conditions.

(a) For water right permits with an authorization to store or divert water in the Nueces River Basin and the Nueces-Rio Grande Coastal Basin, 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 Nueces River Basin and the Nueces-Rio Grande 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 §298.430(c) 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.

Adopted February 12, 2014

Effective March 6, 2014

§298.440 Schedule for Revision of Standards.

The environmental flow standards or environmental flow set-asides adopted in this subchapter for the Nueces River Basin and the Nueces-Rio Grande Coastal Basin, their associated tributaries, Corpus Christi and Baffin Bays 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 Nueces River and Corpus Christi and Baffin Bay Area Stakeholder Committee submits a work plan approved by the 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 Nueces River Basin and the Nueces-Rio Grande Coastal Basin, their associated tributaries, Corpus Christi and Baffin Bays.

Adopted February 12, 2014

Effective March 6, 2014