

Intermittent Stream Flow Regime Recommendations

Nueces BBEST Instream Flow
Subcommittee

June 24, 2011

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Overbank Flows	Qp: 15,100 cfs with Average Frequency 1 per 5 years Regressed Volume is 142,503 to 184,470 (163,486) Regressed Duration is 14 to 58 (28)													
	Qp: 8,410 cfs with Average Frequency 1 per 2 years Regressed Volume is 74,367 to 116,184 (95,275) Regressed Duration is 12 to 49 (24)													
High Flow Pulses	Qp: 4,460 cfs with Average Frequency 1 per year Regressed Volume is 31,120 to 72,895 (52,007) Regressed Duration is 10 to 41 (20)													
	Qp: 278 cfs with Average Frequency 1 per season Regressed Volume is #N/A to 21,144 (4,389) Regressed Duration is 5 to 23 (11)						Qp: 873 cfs with Average Frequency 1 per season Regressed Volume is #N/A to 30,518 (9,610)		Qp: 103 cfs with Average Frequency 1 per season Regressed Volume is #N/A to 22,894 (#N/A)		Qp: 644 cfs with Average Frequency 1 per season Regressed Volume is #N/A to 28,576 (7,740)			
	Qp: 40 cfs with Average Frequency 2 per season Regressed Volume is #N/A to 17,049 (292) Regressed Duration is 3 to 13 (6)						Qp: 56 cfs with Average Frequency 2 per season Regressed Volume is #N/A to 19,594 (#N/A)				Qp: 34 cfs with Average Frequency 2 per season Regressed Volume is #N/A to 20,414 (#N/A)			
	Base Flows (cfs)			27 (31.8%)			16 (45.2%)			22 (32.6%)			31 (41.4%)	
			1.2 (45.3%)			1.4 (57.0%)			1.2 (42.0%)			4 (53.1%)		
			0.3 (53.6%)			0.3 (61.2%)			0.3 (45.1%)			0.4 (60.0%)		
Subsistence Flows (cfs)			0 (100.0%)			0 (100.0%)			0 (100.0%)			0 (100.0%)		
Nov			Dec			Jan			Feb			Mar		
Apr			May			Jun			Jul			Aug		
Winter			Spring			Summer			Fall					

Flow Levels	High (75th %ile)
	Medium (50th %ile)
	Low (25th %ile)
	Subsistence

Notes:

1. Period of Record used : 1/1/1927 to 12/31/2009.

Intermittent with <10% days with no flow

Hydrographic separation:

- lower 75% of flows designated as base and subsistence flows
- Upper 25% of flows designated as pulse flows

Apply HEFR

Round any values < 1.0 cfs to 1 cfs

Sabinal River, Hondo Creek, Nueces at Uvalde,
Frio at Calliham, Sabinal River BEO

Edwards Plateau Streams with >10% days with no flow

Subsistence: Maintain perennial pools. Describe the frequency and maximum duration of no flow periods. State that no-flow periods should not be extended in frequency or duration.

Base: One base flow that includes all values from the pulse flow down to 0.1 cfs.

Pulse: Values between the overbank flow and base value

Overbank: NWS Advanced Hydrologic Prediction Service overbank flow at historical frequency

West Nueces at Brackettville, Sabinal near Sabinal

Desert Streams with >10% days with no flow

Subsistence: Maintain perennial pools. Describe the frequency and maximum duration of no flow periods. State that no-flow periods should not be extended in frequency or duration.

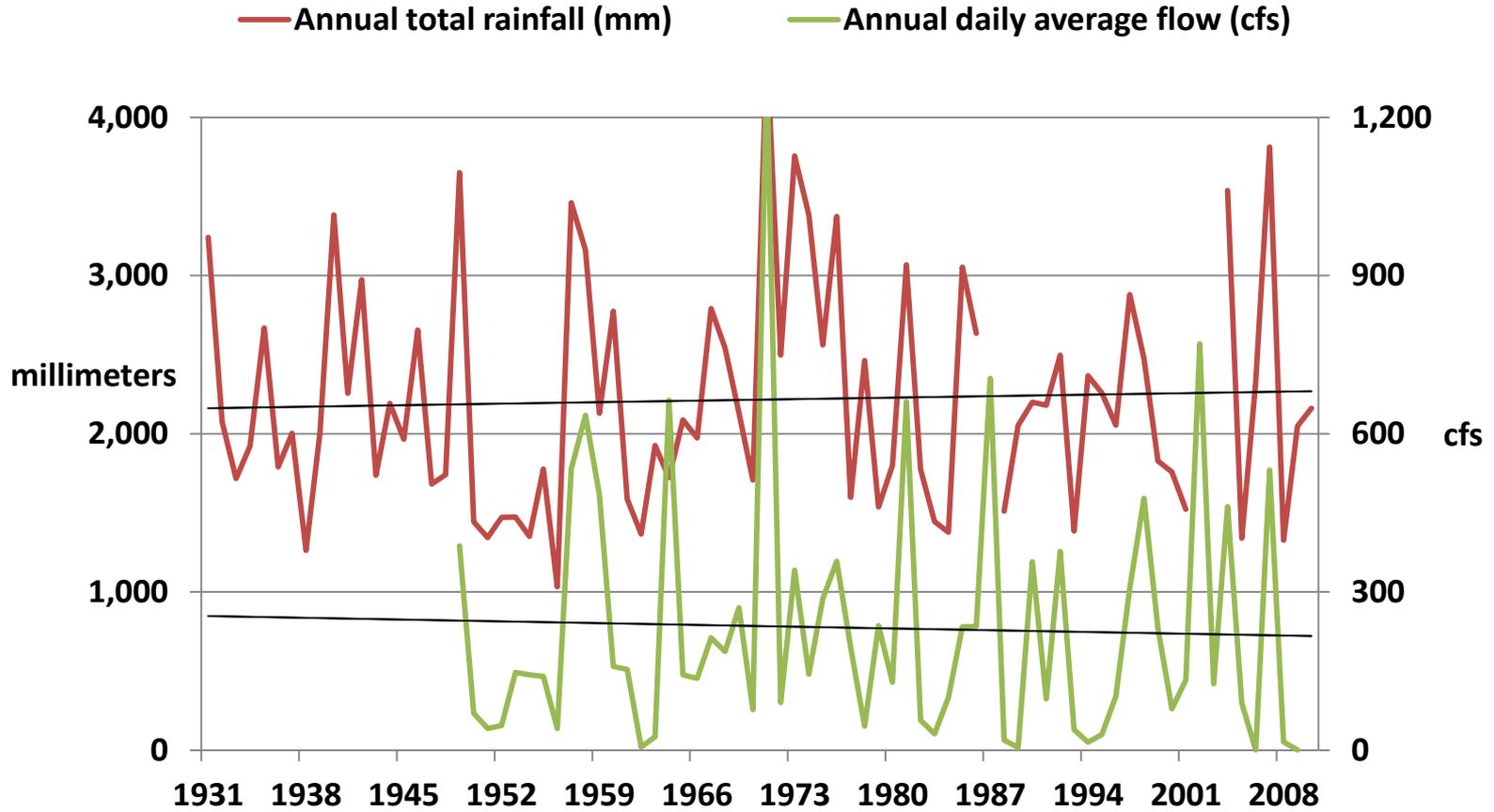
Base: One base flow that includes all values from the pulse flow down to 0.1 cfs.

Pulse: Values between the overbank flow and base value

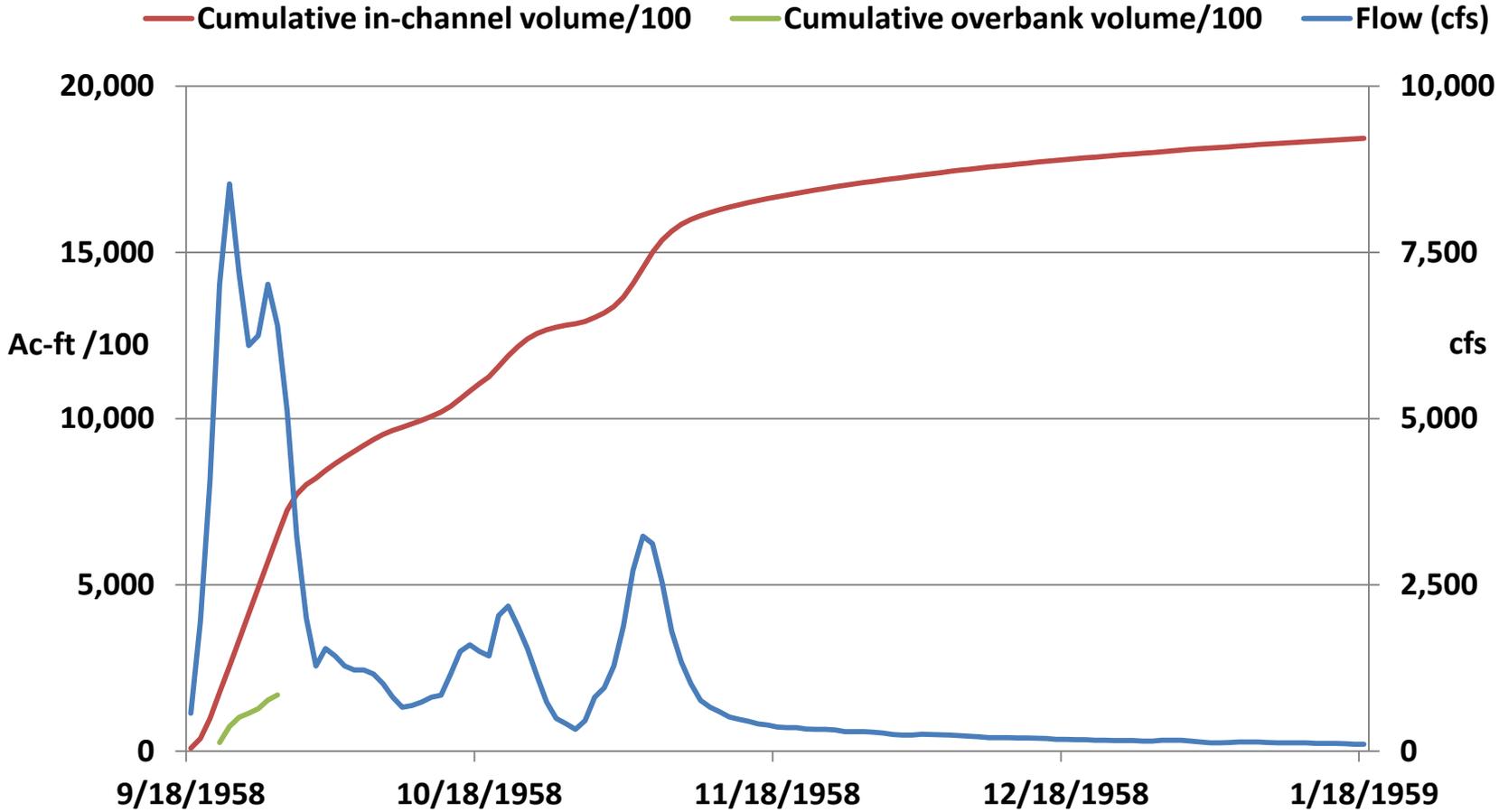
Overbank: NWS Advanced Hydrologic Prediction Service overbank flow at historical frequency

Nueces at Cotulla, Nueces at Tilden, San Miguel Creek, Frio at Derby

Nueces River Annual Daily Average Flow at Cotulla and Annual Total Rainfall at Cotulla



Nueces River at Cotulla



Nueces River at Cotulla

