

Appendix 2_19C Streamflow statistics for site S25 estimated using a drainage-area-ratio method and historical streamflows (Olson. S.A., and Mack,T.J., 2011, Technique for estimation of streamflow statistics in mineral areas of interest in Afghanistan: U.S. Geological Survey Open-File Report 2011-1176)

[km², square kilometer; mm, millimeter; m, meter; m³/s, cubic meter per second; The streamgage, listed with Afghan identification number, is the historical site used for the ungaged site estimate.]

Basin Characteristics:

Drainage area:	1497.7 km ²	Basin percent above 3000 m:	4.57
Basin slope percent:	27.6	Mean October precipitation:	12.4 mm
Centroid elevation:	1583.5 m	Mean November precipitation:	37.9 mm
Basin percent irrigated:	5.93	Mean December precipitation:	57 mm
		Mean January precipitation:	66.7 mm

Drainage area ratio technique: (Olson and Mack, 2011)

Streamgage: Bangi River at Pul-i-Bangi

Drainage area, km²: 4482

Streamgage data:		Results	
		Ungaged site estimate:	area exponent
7Q10:	6.65 m ³ /s	1.91 m ³ /s	1.14
7Q2:	9.46 m ³ /s	3.06 m ³ /s	1.03
90% flow duration:	9.61 m ³ /s	2.45 m ³ /s	1.25
80% flow duration:	11.1 m ³ /s	3.05 m ³ /s	1.18
Mean annual discharge:	24.5 m ³ /s	7.86 m ³ /s	1.04
October mean monthly discharge:	13.2 m ³ /s	3.98 m ³ /s	1.10
November mean monthly discharge:	12.9 m ³ /s	3.94 m ³ /s	1.09
December mean monthly discharge:	12.8 m ³ /s	3.93 m ³ /s	1.08
January mean monthly discharge:	12.2 m ³ /s	3.80 m ³ /s	1.06
February mean monthly discharge:	11.7 m ³ /s	3.90 m ³ /s	1.00
March mean monthly discharge:	12.7 m ³ /s	4.64 m ³ /s	0.92
April mean monthly discharge:	21.2 m ³ /s	7.93 m ³ /s	0.90
May mean monthly discharge:	39.9 m ³ /s	12.63 m ³ /s	1.05
June mean monthly discharge:	72.1 m ³ /s	19.84 m ³ /s	1.18
July mean monthly discharge:	50.0 m ³ /s	15.28 m ³ /s	1.08
August mean monthly discharge:	21.5 m ³ /s	6.72 m ³ /s	1.06
September mean monthly discharge:	13.0 m ³ /s	3.93 m ³ /s	1.09
October minimum monthly discharge:	9.01 m ³ /s	2.42 m ³ /s	1.20
November minimum monthly discharge:	9.20 m ³ /s	2.49 m ³ /s	1.19
December minimum monthly discharge:	9.52 m ³ /s	2.60 m ³ /s	1.18
January minimum monthly discharge:	8.98 m ³ /s	2.37 m ³ /s	1.21
February minimum monthly discharge:	7.76 m ³ /s	2.15 m ³ /s	1.17
March minimum monthly discharge:	7.55 m ³ /s	2.41 m ³ /s	1.04
April minimum monthly discharge:	8.93 m ³ /s	2.88 m ³ /s	1.03
May minimum monthly discharge:	27.6 m ³ /s	7.64 m ³ /s	1.17
June minimum monthly discharge:	34.9 m ³ /s	8.43 m ³ /s	1.30
July minimum monthly discharge:	12.7 m ³ /s	3.23 m ³ /s	1.25
August minimum monthly discharge:	9.02 m ³ /s	2.20 m ³ /s	1.29
September minimum monthly discharge:	7.51 m ³ /s	1.88 m ³ /s	1.27