

Appendix 2\_5C Streamflow statistics for site S28 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)

[km<sup>2</sup>, square kilometer; mm, millimeter; m, meter; m<sup>3</sup>/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:	4331.1 km <sup>2</sup>	Basin percent above 3000 m:	28.5
Basin slope percent:	34.9	Mean October precipitation:	11.7 mm
Centroid elevation:	2726.9 m	Mean November precipitation:	19.1 mm
Basin percent irrigated:	2.84	Mean December precipitation:	25.7 mm
		Mean January precipitation:	33 mm

Streamgage: Punjab River at Waras (341400066550000) 4-13.R00-4A

Drainage area, km<sup>2</sup>: 1699

#### Results

Streamgage data:		Ungaged site estimate:	area exponent
7Q10:	0.86 m <sup>3</sup> /s	2.49 m <sup>3</sup> /s	1.14
7Q2:	1.6 m <sup>3</sup> /s	4.19 m <sup>3</sup> /s	1.03
90% flow duration:	1.69 m <sup>3</sup> /s	5.42 m <sup>3</sup> /s	1.25
80% flow duration:	2.24 m <sup>3</sup> /s	6.75 m <sup>3</sup> /s	1.18
Mean annual discharge:	8.54 m <sup>3</sup> /s	22.53 m <sup>3</sup> /s	1.04
October mean monthly discharge:	3.26 m <sup>3</sup> /s	9.10 m <sup>3</sup> /s	1.10
November mean monthly discharge:	3.21 m <sup>3</sup> /s	8.86 m <sup>3</sup> /s	1.09
December mean monthly discharge:	2.97 m <sup>3</sup> /s	8.14 m <sup>3</sup> /s	1.08
January mean monthly discharge:	3.38 m <sup>3</sup> /s	9.14 m <sup>3</sup> /s	1.06
February mean monthly discharge:	4.17 m <sup>3</sup> /s	10.64 m <sup>3</sup> /s	1.00
March mean monthly discharge:	5.76 m <sup>3</sup> /s	13.61 m <sup>3</sup> /s	0.92
April mean monthly discharge:	30.3 m <sup>3</sup> /s	70.22 m <sup>3</sup> /s	0.90
May mean monthly discharge:	33.9 m <sup>3</sup> /s	90.44 m <sup>3</sup> /s	1.05
June mean monthly discharge:	7.47 m <sup>3</sup> /s	22.47 m <sup>3</sup> /s	1.18
July mean monthly discharge:	2.73 m <sup>3</sup> /s	7.51 m <sup>3</sup> /s	1.08
August mean monthly discharge:	2.54 m <sup>3</sup> /s	6.84 m <sup>3</sup> /s	1.06
September mean monthly discharge:	2.88 m <sup>3</sup> /s	8.00 m <sup>3</sup> /s	1.09
October minimum monthly discharge:	1.65 m <sup>3</sup> /s	5.07 m <sup>3</sup> /s	1.20
November minimum monthly discharge:	1.85 m <sup>3</sup> /s	5.64 m <sup>3</sup> /s	1.19
December minimum monthly discharge:	1.56 m <sup>3</sup> /s	4.73 m <sup>3</sup> /s	1.18
January minimum monthly discharge:	1.33 m <sup>3</sup> /s	4.14 m <sup>3</sup> /s	1.21
February minimum monthly discharge:	1.78 m <sup>3</sup> /s	5.32 m <sup>3</sup> /s	1.17
March minimum monthly discharge:	3.24 m <sup>3</sup> /s	8.59 m <sup>3</sup> /s	1.04
April minimum monthly discharge:	7.73 m <sup>3</sup> /s	20.32 m <sup>3</sup> /s	1.03
May minimum monthly discharge:	3.45 m <sup>3</sup> /s	10.33 m <sup>3</sup> /s	1.17
June minimum monthly discharge:	1 m <sup>3</sup> /s	3.36 m <sup>3</sup> /s	1.30
July minimum monthly discharge:	0.75 m <sup>3</sup> /s	2.41 m <sup>3</sup> /s	1.25
August minimum monthly discharge:	1.06 m <sup>3</sup> /s	3.53 m <sup>3</sup> /s	1.29
September minimum monthly discharge:	1.44 m <sup>3</sup> /s	4.71 m <sup>3</sup> /s	1.27