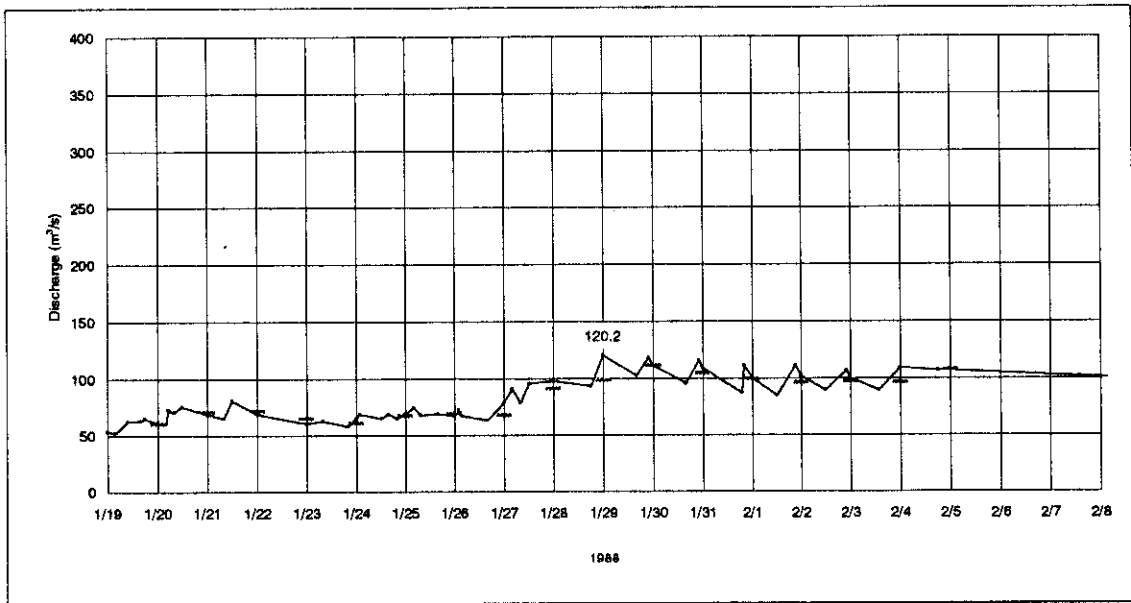
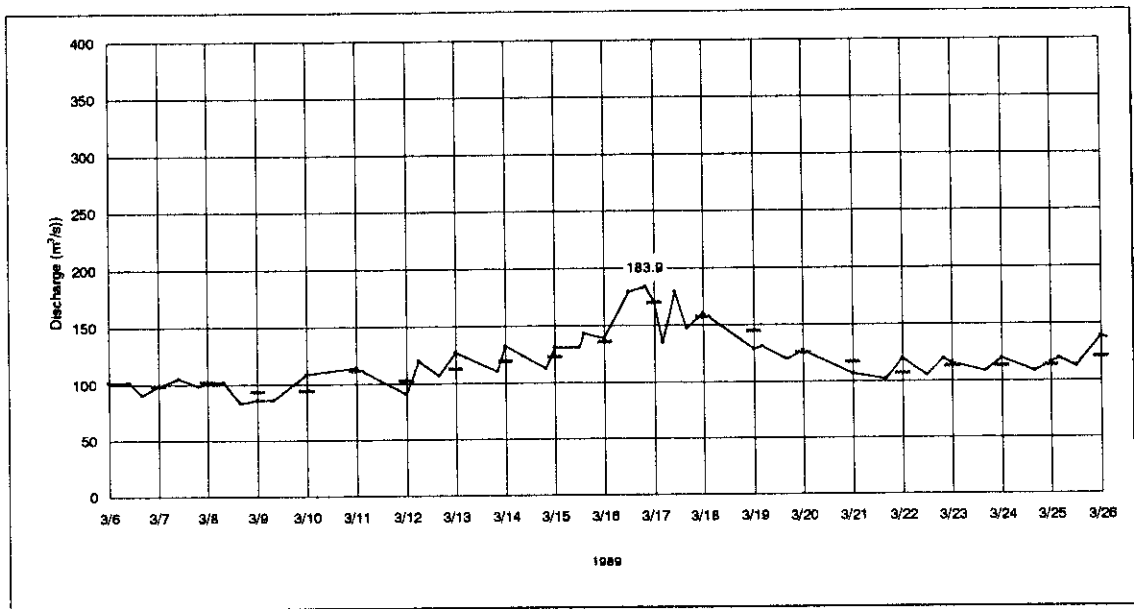


1.11 Discharge Hydrograph at Chavin Station



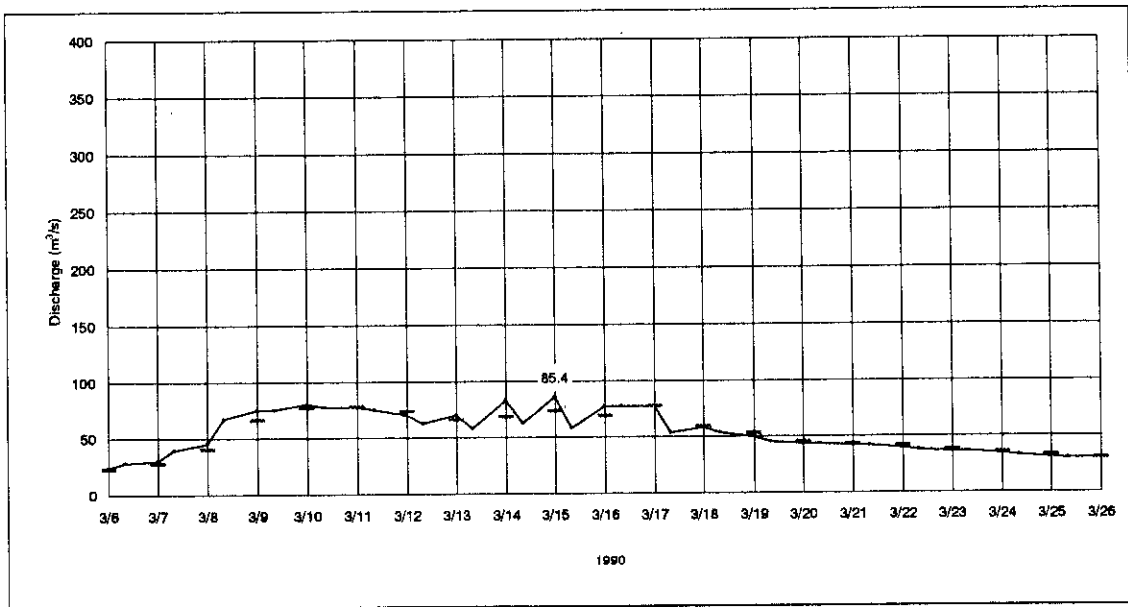
| Date/Time | Q | Daily Q |
|----------------|-------|---------|
| 88/01/19 00:00 | 53.5 | |
| 88/01/19 04:00 | 52.7 | |
| 88/01/19 10:00 | 62.3 | |
| 88/01/19 16:00 | 63.2 | |
| 88/01/19 18:00 | 65.0 | |
| 88/01/20 00:00 | 61.4 | 60.0 |
| 88/01/20 06:00 | 61.4 | |
| 88/01/20 09:00 | 60.5 | |
| 88/01/20 09:00 | 72.6 | |
| 88/01/20 08:00 | 70.7 | |
| 88/01/20 12:00 | 75.5 | |
| 88/01/21 00:00 | 68.8 | 70.1 |
| 88/01/21 00:00 | 68.8 | |
| 88/01/21 06:00 | 65.0 | |
| 88/01/21 12:00 | 80.5 | |
| 88/01/22 00:00 | 68.8 | 71.8 |
| 88/01/22 00:00 | 68.8 | |
| 88/01/23 00:00 | 60.5 | 64.6 |
| 88/01/23 00:00 | 60.5 | |
| 88/01/23 08:00 | 62.3 | |
| 88/01/23 20:00 | 57.8 | |
| 88/01/24 00:00 | 55.0 | 60.7 |
| 88/01/24 00:00 | 55.0 | |
| 88/01/24 02:00 | 58.8 | |
| 88/01/24 12:00 | 55.0 | |
| 88/01/24 18:00 | 58.8 | |
| 88/01/24 20:00 | 65.0 | |
| 88/01/25 00:00 | 68.8 | 66.9 |
| 88/01/25 00:00 | 68.8 | |
| 88/01/25 04:00 | 74.5 | |
| 88/01/25 08:00 | 67.8 | |
| 88/01/25 18:00 | 68.8 | |
| 88/01/26 00:00 | 66.9 | 69.2 |
| 88/01/26 00:00 | 66.9 | |
| 88/01/26 02:00 | 72.6 | |
| 88/01/26 04:00 | 66.9 | |
| 88/01/26 18:00 | 63.2 | |
| 88/01/27 00:00 | 78.5 | 67.8 |
| 88/01/27 00:00 | 78.5 | |
| 88/01/27 04:00 | 90.9 | |
| 88/01/27 08:00 | 78.5 | |
| 88/01/27 12:00 | 95.2 | |
| 88/01/28 00:00 | 97.3 | 90.8 |
| 88/01/28 00:00 | 97.3 | |
| 88/01/28 18:00 | 93.0 | |
| 88/01/29 00:00 | 120.2 | 98.0 |
| 88/01/29 00:00 | 120.2 | |
| 88/01/29 18:00 | 101.7 | |
| 88/01/29 22:00 | 117.8 | |
| 88/01/30 00:00 | 110.8 | 111.0 |
| 88/01/30 00:00 | 110.8 | |
| 88/01/30 18:00 | 95.2 | |
| 88/01/30 22:00 | 115.5 | |
| 88/01/31 00:00 | 108.5 | 104.5 |
| 88/01/31 00:00 | 108.5 | |
| 88/01/31 19:00 | 86.7 | |
| 88/01/31 20:00 | 110.8 | |
| 88/02/01 00:00 | 99.5 | 98.9 |
| 88/02/01 00:00 | 99.5 | |
| 88/02/01 12:00 | 84.8 | |
| 88/02/01 21:00 | 110.8 | |
| 88/02/02 00:00 | 101.7 | 96.0 |
| 88/02/02 00:00 | 101.7 | |

| Date/Time | Q | Daily Q |
|----------------|----------|----------|
| 88/02/02 12:00 | 88.75254 | |
| 88/02/02 22:00 | 106.2374 | |
| 88/02/03 00:00 | 99.52688 | 96.82039 |
| 88/02/03 00:00 | 99.52688 | |
| 88/02/03 14:00 | 88.75254 | |
| 88/02/04 00:00 | 108.5148 | 96.01219 |
| 88/02/04 00:00 | 108.5148 | |
| 88/02/04 18:00 | 106.2374 | |
| 88/02/05 00:00 | 108.2374 | 107.0914 |
| 88/02/13 00:00 | 99.86607 | |
| 88/02/13 18:00 | 96.24049 | |
| 88/02/14 00:00 | 88.75254 | 93.28909 |

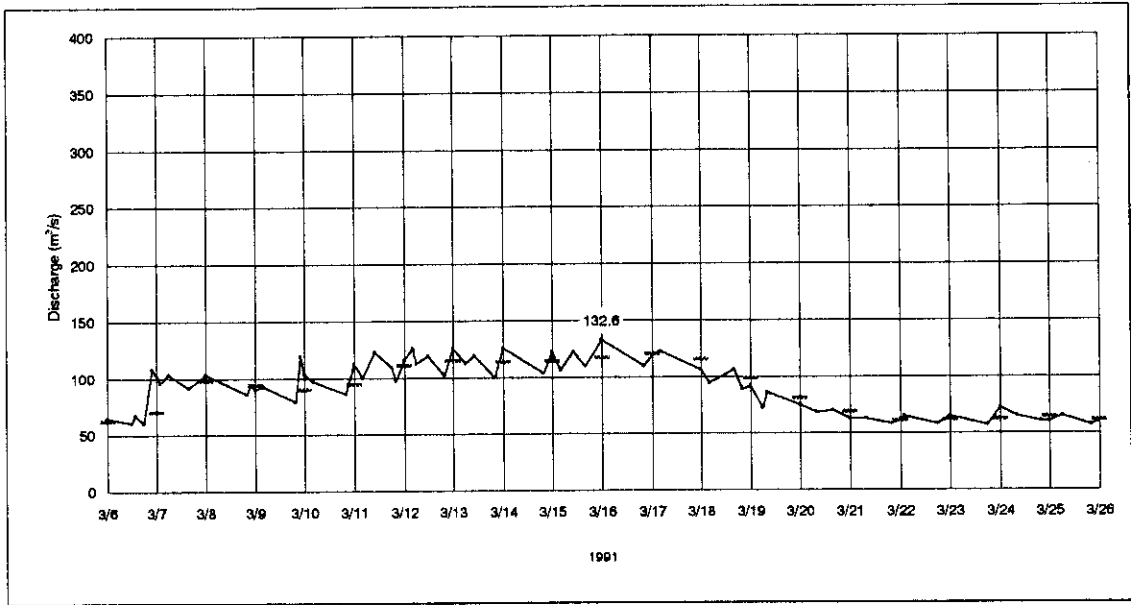


| Date/Time | Q | Daily Q |
|----------------|-------|---------|
| 89/03/06 00:00 | 101.6 | |
| 89/03/06 10:00 | 101.6 | |
| 89/03/06 16:00 | 90.4 | |
| 89/03/07 00:00 | 98.3 | 97.8 |
| 89/03/07 00:00 | 98.3 | |
| 89/03/07 10:00 | 104.9 | |
| 89/03/07 20:00 | 98.3 | |
| 89/03/08 00:00 | 101.6 | 101.3 |
| 89/03/08 00:00 | 101.6 | |
| 89/03/08 08:00 | 101.5 | |
| 89/03/08 16:00 | 82.9 | |
| 89/03/09 00:00 | 85.8 | 92.7 |
| 89/03/09 00:00 | 85.8 | |
| 89/03/09 08:00 | 85.8 | |
| 89/03/10 00:00 | 108.4 | 93.3 |
| 89/03/10 00:00 | 108.4 | |
| 89/03/11 00:00 | 113.7 | 111.0 |
| 89/03/11 00:00 | 113.7 | |
| 89/03/12 00:00 | 90.4 | 102.0 |
| 89/03/12 00:00 | 90.4 | |
| 89/03/12 06:00 | 112.2 | |
| 89/03/12 16:00 | 106.7 | |
| 89/03/13 00:00 | 126.7 | 112.1 |
| 89/03/13 00:00 | 126.7 | |
| 89/03/13 20:00 | 110.1 | |
| 89/03/14 00:00 | 132.6 | 118.9 |
| 89/03/14 00:00 | 132.6 | |
| 89/03/14 20:00 | 111.9 | |
| 89/03/15 00:00 | 130.6 | 122.1 |
| 89/03/15 00:00 | 130.6 | |
| 89/03/15 12:00 | 130.6 | |
| 89/03/15 14:00 | 142.8 | |
| 89/03/16 00:00 | 138.7 | 135.4 |
| 89/03/16 00:00 | 138.7 | |
| 89/03/16 12:00 | 179.0 | |
| 89/03/16 20:00 | 183.9 | |
| 89/03/17 00:00 | 169.5 | 169.4 |
| 89/03/17 00:00 | 169.5 | |
| 89/03/17 04:00 | 134.6 | |
| 89/03/17 10:00 | 179.0 | |
| 89/03/17 16:00 | 147.1 | |
| 89/03/18 00:00 | 160.2 | 156.5 |
| 89/03/18 00:00 | 160.2 | |
| 89/03/18 00:00 | 128.7 | 144.5 |
| 89/03/19 00:00 | 128.7 | |
| 89/03/19 04:00 | 130.6 | |
| 89/03/19 16:00 | 119.2 | |
| 89/03/20 00:00 | 126.7 | 125.0 |
| 89/03/20 00:00 | 126.7 | |
| 89/03/21 00:00 | 106.7 | 116.7 |
| 89/03/21 00:00 | 106.7 | |
| 89/03/21 18:00 | 101.6 | |
| 89/03/22 00:00 | 118.2 | 106.2 |
| 89/03/22 00:00 | 119.2 | |
| 89/03/22 12:00 | 104.9 | |
| 89/03/22 20:00 | 119.2 | |
| 89/03/23 00:00 | 115.5 | 112.9 |
| 89/03/23 00:00 | 115.5 | |
| 89/03/23 18:00 | 108.4 | |
| 89/03/24 00:00 | 119.2 | 112.6 |
| 89/03/24 00:00 | 119.2 | |
| 89/03/24 16:00 | 108.4 | |
| 89/03/25 00:00 | 115.5 | 113.2 |

| Date/Time | Q | Daily Q |
|----------------|----------|----------|
| 89/03/25 00:00 | 115.4985 | |
| 89/03/25 04:00 | 119.1668 | |
| 89/03/25 12:00 | 111.9063 | |
| 89/03/26 00:00 | 138.685 | 120.7154 |
| 89/03/26 00:00 | 138.685 | |
| 89/03/26 14:00 | 130.6393 | |
| 89/03/26 16:00 | 151.3662 | |
| 89/03/27 00:00 | 155.7598 | 141.4908 |

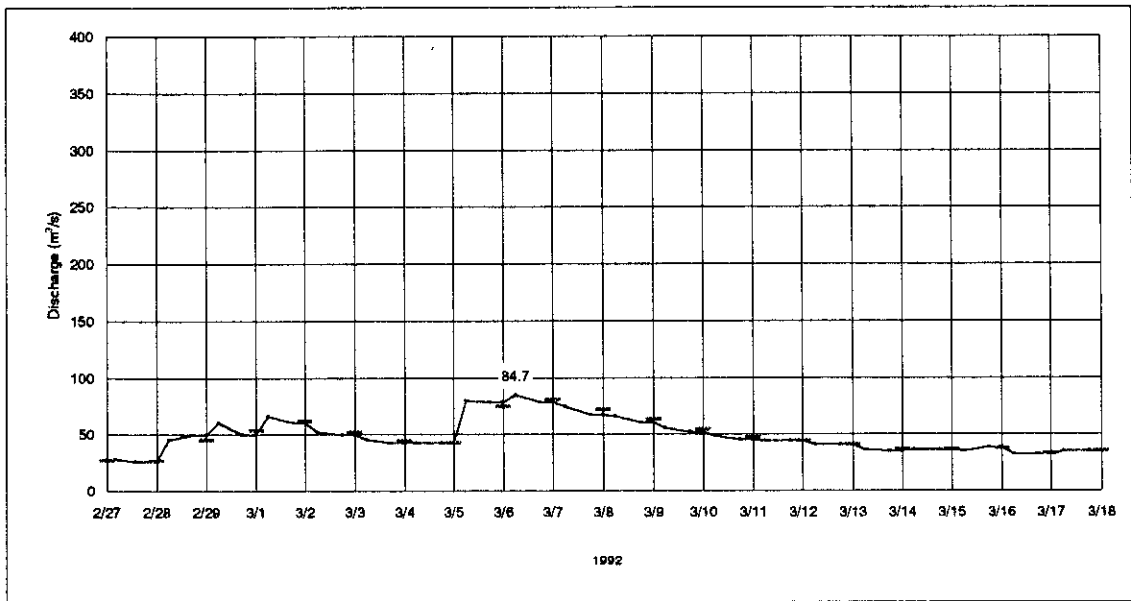


| 1990 | | | | | |
|----------------|------|---------|-----------|---|---------|
| Date/Time | Q | Daily Q | Date/Time | Q | Daily Q |
| 90/03/05 00:00 | 19.3 | | | | |
| 90/03/05 08:00 | 22.5 | | | | |
| 90/03/06 00:00 | 23.8 | 22.4 | | | |
| 90/03/06 08:00 | 23.8 | | | | |
| 90/03/06 16:00 | 28.1 | | | | |
| 90/03/07 00:00 | 29.6 | 27.9 | | | |
| 90/03/07 08:00 | 29.6 | | | | |
| 90/03/07 16:00 | 39.7 | | | | |
| 90/03/08 00:00 | 45.3 | 39.9 | | | |
| 90/03/08 08:00 | 45.3 | | | | |
| 90/03/08 16:00 | 67.2 | | | | |
| 90/03/09 00:00 | 74.7 | 66.0 | | | |
| 90/03/09 08:00 | 74.7 | | | | |
| 90/03/09 16:00 | 74.7 | | | | |
| 90/03/10 00:00 | 79.9 | 76.4 | | | |
| 90/03/10 08:00 | 79.9 | | | | |
| 90/03/10 16:00 | 77.3 | | | | |
| 90/03/11 00:00 | 77.3 | 77.7 | | | |
| 90/03/11 08:00 | 77.3 | | | | |
| 90/03/11 16:00 | 74.7 | | | | |
| 90/03/12 00:00 | 69.5 | 73.4 | | | |
| 90/03/12 08:00 | 69.5 | | | | |
| 90/03/12 16:00 | 62.4 | | | | |
| 90/03/13 00:00 | 69.6 | 66.0 | | | |
| 90/03/13 08:00 | 69.6 | | | | |
| 90/03/13 16:00 | 57.9 | | | | |
| 90/03/14 00:00 | 82.6 | 66.1 | | | |
| 90/03/14 08:00 | 82.6 | | | | |
| 90/03/14 16:00 | 62.4 | | | | |
| 90/03/15 00:00 | 65.4 | 73.5 | | | |
| 90/03/15 08:00 | 65.4 | | | | |
| 90/03/15 16:00 | 57.9 | | | | |
| 90/03/16 00:00 | 77.3 | 68.9 | | | |
| 90/03/16 08:00 | 77.3 | | | | |
| 90/03/16 16:00 | 77.3 | | | | |
| 90/03/17 00:00 | 77.3 | 77.3 | | | |
| 90/03/17 08:00 | 77.3 | | | | |
| 90/03/17 16:00 | 53.5 | | | | |
| 90/03/18 00:00 | 57.9 | 58.9 | | | |
| 90/03/18 08:00 | 57.9 | | | | |
| 90/03/18 16:00 | 53.5 | | | | |
| 90/03/19 00:00 | 49.3 | 52.6 | | | |
| 90/03/19 08:00 | 49.3 | | | | |
| 90/03/19 16:00 | 45.3 | | | | |
| 90/03/20 00:00 | 43.4 | 45.3 | | | |
| 90/03/20 08:00 | 43.4 | | | | |
| 90/03/20 16:00 | 43.4 | | | | |
| 90/03/21 00:00 | 41.5 | 42.8 | | | |
| 90/03/21 08:00 | 41.5 | | | | |
| 90/03/21 16:00 | 41.5 | | | | |
| 90/03/22 00:00 | 39.7 | 40.9 | | | |
| 90/03/22 08:00 | 39.7 | | | | |
| 90/03/22 16:00 | 37.9 | | | | |
| 90/03/23 00:00 | 36.1 | 37.6 | | | |
| 90/03/23 08:00 | 36.1 | | | | |
| 90/03/23 16:00 | 36.1 | | | | |
| 90/03/24 00:00 | 34.4 | 35.6 | | | |
| 90/03/24 08:00 | 34.4 | | | | |
| 90/03/24 16:00 | 32.8 | | | | |
| 90/03/25 00:00 | 31.2 | 32.5 | | | |
| 90/03/25 08:00 | 31.2 | | | | |
| 90/03/25 16:00 | 29.6 | | | | |
| 90/03/26 00:00 | 29.6 | 29.9 | | | |



| Date/Time | Q | Daily Q |
|----------------|-------|---------|
| 01/03/05 00:00 | 64.8 | |
| 01/03/05 18:00 | 59.0 | |
| 01/03/06 00:00 | 64.8 | 61.9 |
| 01/03/06 06:00 | 64.8 | |
| 01/03/06 12:00 | 60.1 | |
| 01/03/06 14:00 | 67.2 | |
| 01/03/06 18:00 | 60.1 | |
| 01/03/06 22:00 | 107.6 | |
| 01/03/07 00:00 | 102.9 | 69.9 |
| 01/03/07 06:00 | 102.9 | |
| 01/03/07 02:00 | 95.4 | |
| 01/03/07 08:00 | 102.9 | |
| 01/03/07 16:00 | 91.0 | |
| 01/03/08 00:00 | 102.9 | 97.5 |
| 01/03/08 06:00 | 102.9 | |
| 01/03/08 20:00 | 85.4 | |
| 01/03/08 22:00 | 93.9 | |
| 01/03/09 00:00 | 89.6 | 93.6 |
| 01/03/09 06:00 | 89.6 | |
| 01/03/09 04:00 | 92.5 | |
| 01/03/09 20:00 | 78.6 | |
| 01/03/09 22:00 | 118.9 | |
| 01/03/10 00:00 | 102.9 | 89.7 |
| 01/03/10 06:00 | 102.9 | |
| 01/03/10 04:00 | 96.9 | |
| 01/03/10 20:00 | 85.4 | |
| 01/03/11 00:00 | 112.3 | 93.9 |
| 01/03/11 06:00 | 112.3 | |
| 01/03/11 04:00 | 99.9 | |
| 01/03/11 10:00 | 122.3 | |
| 01/03/11 18:00 | 109.1 | |
| 01/03/11 20:00 | 96.9 | |
| 01/03/12 00:00 | 115.6 | 110.3 |
| 01/03/12 06:00 | 115.6 | |
| 01/03/12 04:00 | 125.7 | |
| 01/03/12 08:00 | 112.3 | |
| 01/03/12 12:00 | 118.9 | |
| 01/03/12 20:00 | 101.4 | |
| 01/03/13 00:00 | 125.7 | 114.6 |
| 01/03/13 06:00 | 125.7 | |
| 01/03/13 06:00 | 112.3 | |
| 01/03/13 10:00 | 118.9 | |
| 01/03/13 20:00 | 99.9 | |
| 01/03/14 00:00 | 125.7 | 113.4 |
| 01/03/14 06:00 | 125.7 | |
| 01/03/14 20:00 | 102.9 | |
| 01/03/15 00:00 | 122.3 | 114.0 |
| 01/03/15 06:00 | 122.3 | |
| 01/03/15 04:00 | 106.0 | |
| 01/03/15 10:00 | 122.3 | |
| 01/03/15 18:00 | 109.1 | |
| 01/03/16 00:00 | 132.6 | 116.8 |
| 01/03/16 06:00 | 132.6 | |
| 01/03/16 20:00 | 109.1 | |
| 01/03/17 00:00 | 118.9 | 119.7 |
| 01/03/17 06:00 | 118.9 | |
| 01/03/17 04:00 | 122.3 | |
| 01/03/18 00:00 | 106.0 | 115.2 |
| 01/03/18 06:00 | 106.0 | |
| 01/03/18 04:00 | 93.9 | |
| 01/03/18 16:00 | 106.0 | |
| 01/03/18 20:00 | 88.2 | |
| 01/03/19 00:00 | 91.0 | 97.6 |

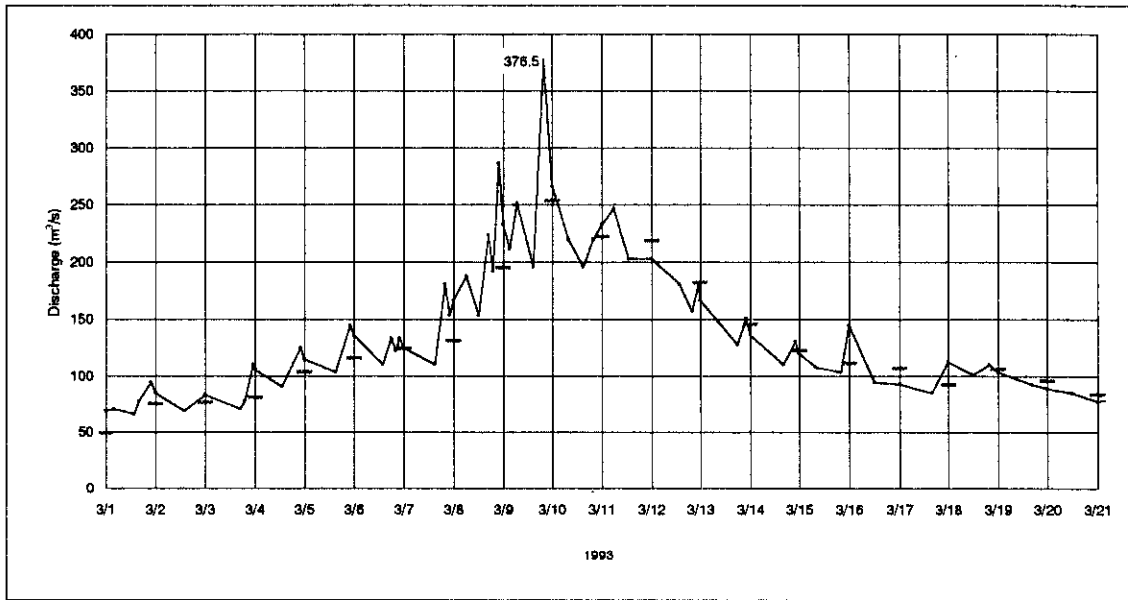
| Date/Time | Q | Daily Q |
|----------------|------|---------|
| 01/03/19 00:00 | 91.0 | |
| 01/03/19 06:00 | 72.1 | |
| 01/03/19 08:00 | 85.4 | |
| 01/03/20 00:00 | 74.7 | 80.3 |
| 01/03/20 06:00 | 74.7 | |
| 01/03/20 08:00 | 68.4 | |
| 01/03/20 16:00 | 69.6 | |
| 01/03/21 00:00 | 62.4 | 68.9 |
| 01/03/21 06:00 | 62.4 | |
| 01/03/21 08:00 | 62.4 | |
| 01/03/21 20:00 | 57.9 | |
| 01/03/22 00:00 | 61.3 | 60.8 |
| 01/03/22 06:00 | 61.3 | |
| 01/03/22 02:00 | 64.8 | |
| 01/03/22 18:00 | 57.9 | |
| 01/03/23 00:00 | 64.8 | 61.5 |
| 01/03/23 06:00 | 64.8 | |
| 01/03/23 18:00 | 56.8 | |
| 01/03/24 00:00 | 72.1 | 61.7 |
| 01/03/24 06:00 | 72.1 | |
| 01/03/24 08:00 | 64.8 | |
| 01/03/24 20:00 | 80.1 | |
| 01/03/25 00:00 | 60.1 | 64.1 |
| 01/03/25 06:00 | 60.1 | |
| 01/03/25 06:00 | 64.8 | |
| 01/03/25 20:00 | 56.8 | |
| 01/03/26 00:00 | 60.1 | 60.8 |



1992

| Date/Time | Q | Daily Q |
|----------------|------|---------|
| 02/02/27 00:00 | 28.0 | 26.9 |
| 02/02/27 04:00 | 28.0 | |
| 02/02/27 08:00 | 28.0 | |
| 02/02/27 12:00 | 25.9 | |
| 02/02/28 00:00 | 25.9 | 26.7 |
| 02/02/28 04:00 | 25.9 | |
| 02/02/28 08:00 | 44.0 | |
| 02/02/28 12:00 | 49.8 | |
| 02/02/28 16:00 | 49.8 | |
| 02/02/29 00:00 | 49.8 | 45.0 |
| 02/02/29 04:00 | 49.8 | |
| 02/02/29 08:00 | 60.4 | |
| 02/02/29 12:00 | 49.8 | |
| 02/03/01 00:00 | 49.8 | 53.8 |
| 02/03/01 04:00 | 49.8 | |
| 02/03/01 08:00 | 66.1 | |
| 02/03/01 12:00 | 60.4 | |
| 02/03/02 00:00 | 60.4 | 61.2 |
| 02/03/02 04:00 | 60.4 | |
| 02/03/02 08:00 | 51.8 | |
| 02/03/02 12:00 | 49.8 | |
| 02/03/03 00:00 | 49.8 | 51.0 |
| 02/03/03 04:00 | 49.8 | |
| 02/03/03 08:00 | 44.9 | |
| 02/03/03 12:00 | 42.1 | |
| 02/03/04 00:00 | 42.1 | 44.1 |
| 02/03/04 04:00 | 42.1 | |
| 02/03/04 08:00 | 42.1 | |
| 02/03/04 12:00 | 42.1 | |
| 02/03/05 00:00 | 42.1 | 42.1 |
| 02/03/05 04:00 | 42.1 | |
| 02/03/05 08:00 | 79.5 | |
| 02/03/05 12:00 | 78.2 | |
| 02/03/06 00:00 | 78.2 | 74.2 |
| 02/03/06 04:00 | 78.2 | |
| 02/03/06 08:00 | 84.7 | |
| 02/03/06 12:00 | 78.2 | |
| 02/03/07 00:00 | 78.2 | 80.7 |
| 02/03/07 04:00 | 78.2 | |
| 02/03/07 08:00 | 74.5 | |
| 02/03/07 12:00 | 67.2 | |
| 02/03/08 00:00 | 67.2 | 71.3 |
| 02/03/08 04:00 | 67.2 | |
| 02/03/08 08:00 | 66.1 | |
| 02/03/08 12:00 | 60.4 | |
| 02/03/09 00:00 | 60.4 | 63.4 |
| 02/03/09 04:00 | 60.4 | |
| 02/03/09 08:00 | 55.0 | |
| 02/03/09 12:00 | 51.8 | |
| 02/03/10 00:00 | 51.8 | 54.1 |
| 02/03/10 04:00 | 51.8 | |
| 02/03/10 08:00 | 47.8 | |
| 02/03/10 12:00 | 44.9 | |
| 02/03/11 00:00 | 44.9 | 46.9 |
| 02/03/11 04:00 | 44.9 | |
| 02/03/11 08:00 | 44.0 | |
| 02/03/11 12:00 | 44.0 | |
| 02/03/12 00:00 | 44.0 | 44.1 |
| 02/03/12 04:00 | 44.0 | |
| 02/03/12 08:00 | 40.3 | |
| 02/03/12 12:00 | 40.3 | |
| 02/03/13 00:00 | 40.3 | 40.8 |
| 02/03/13 04:00 | 40.3 | |
| 02/03/13 08:00 | 36.0 | |

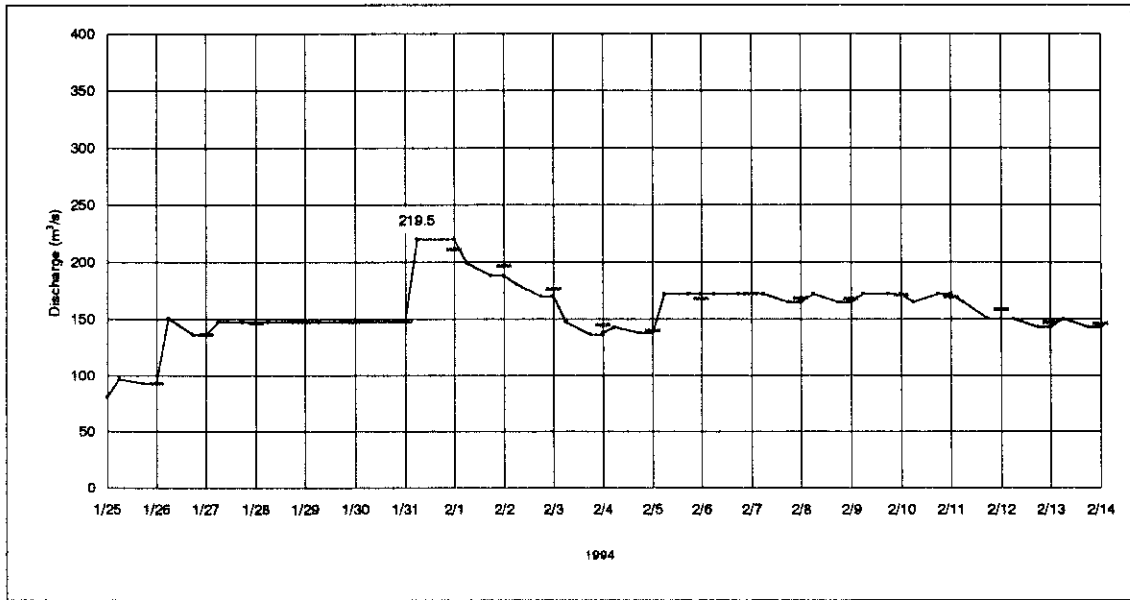
| Date/Time | Q | Daily Q |
|----------------|------|---------|
| 02/03/13 12:00 | 35.1 | |
| 02/03/14 00:00 | 35.1 | 36.1 |
| 02/03/14 04:00 | 35.1 | |
| 02/03/14 08:00 | 36.0 | |
| 02/03/14 12:00 | 36.0 | |
| 02/03/15 00:00 | 36.0 | 35.8 |
| 02/03/15 04:00 | 36.0 | |
| 02/03/15 08:00 | 35.1 | |
| 02/03/15 12:00 | 36.5 | |
| 02/03/16 00:00 | 36.5 | 36.9 |
| 02/03/16 04:00 | 36.5 | |
| 02/03/16 08:00 | 31.9 | |
| 02/03/16 12:00 | 31.9 | |
| 02/03/17 00:00 | 31.9 | 32.7 |
| 02/03/17 04:00 | 35.1 | |
| 02/03/17 08:00 | 35.1 | |
| 02/03/17 12:00 | 35.1 | |
| 02/03/18 00:00 | 35.1 | 34.7 |
| 02/03/18 04:00 | 35.1 | |
| 02/03/18 08:00 | 35.1 | |
| 02/03/18 12:00 | 35.1 | |
| 02/03/19 00:00 | 35.1 | 35.1 |



1993

| Date/Time | Q | Daily Q |
|----------------|-------|---------|
| 93/03/01 00:00 | 68.9 | 49.1 |
| 93/03/01 04:00 | 68.9 | |
| 93/03/01 08:00 | 70.5 | |
| 93/03/01 12:00 | 65.8 | |
| 93/03/01 16:00 | 77.2 | |
| 93/03/01 20:00 | 94.3 | |
| 93/03/02 00:00 | 84.5 | 74.9 |
| 93/03/02 04:00 | 84.5 | |
| 93/03/02 08:00 | 68.9 | |
| 93/03/02 12:00 | 82.6 | |
| 93/03/02 16:00 | 82.6 | 75.3 |
| 93/03/02 20:00 | 70.5 | |
| 93/03/03 00:00 | 77.2 | |
| 93/03/03 04:00 | 109.8 | |
| 93/03/03 08:00 | 105.2 | |
| 93/03/03 12:00 | 105.2 | 80.4 |
| 93/03/03 16:00 | 90.3 | |
| 93/03/03 20:00 | 124.7 | |
| 93/03/04 00:00 | 114.6 | |
| 93/03/04 04:00 | 114.6 | 103.2 |
| 93/03/04 08:00 | 102.9 | |
| 93/03/04 12:00 | 144.3 | |
| 93/03/04 16:00 | 135.6 | |
| 93/03/04 20:00 | 135.6 | 115.7 |
| 93/03/05 00:00 | 109.8 | |
| 93/03/05 04:00 | 132.8 | |
| 93/03/05 08:00 | 122.1 | |
| 93/03/05 12:00 | 132.8 | |
| 93/03/05 16:00 | 124.7 | |
| 93/03/05 20:00 | 124.7 | 123.8 |
| 93/03/06 00:00 | 109.8 | |
| 93/03/06 04:00 | 180.3 | |
| 93/03/06 08:00 | 153.5 | |
| 93/03/06 12:00 | 166.4 | |
| 93/03/06 16:00 | 166.4 | 130.8 |
| 93/03/06 20:00 | 187.7 | |
| 93/03/07 00:00 | 153.5 | |
| 93/03/07 04:00 | 223.8 | |
| 93/03/07 08:00 | 191.4 | |
| 93/03/07 12:00 | 266.4 | |
| 93/03/07 16:00 | 232.6 | |
| 93/03/07 20:00 | 232.6 | 195.0 |
| 93/03/08 00:00 | 211.1 | |
| 93/03/08 04:00 | 251.0 | |
| 93/03/08 08:00 | 195.2 | |
| 93/03/08 12:00 | 376.5 | |
| 93/03/08 16:00 | 265.7 | |
| 93/03/08 20:00 | 265.7 | 253.7 |
| 93/03/09 00:00 | 219.5 | |
| 93/03/09 04:00 | 195.2 | |
| 93/03/09 08:00 | 219.5 | |
| 93/03/09 12:00 | 232.6 | |
| 93/03/09 16:00 | 232.6 | 222.2 |
| 93/03/09 20:00 | 248.3 | |
| 93/03/10 00:00 | 203.1 | |
| 93/03/10 04:00 | 203.1 | 218.5 |
| 93/03/10 08:00 | 180.3 | |
| 93/03/10 12:00 | 156.6 | |
| 93/03/10 16:00 | 180.3 | |
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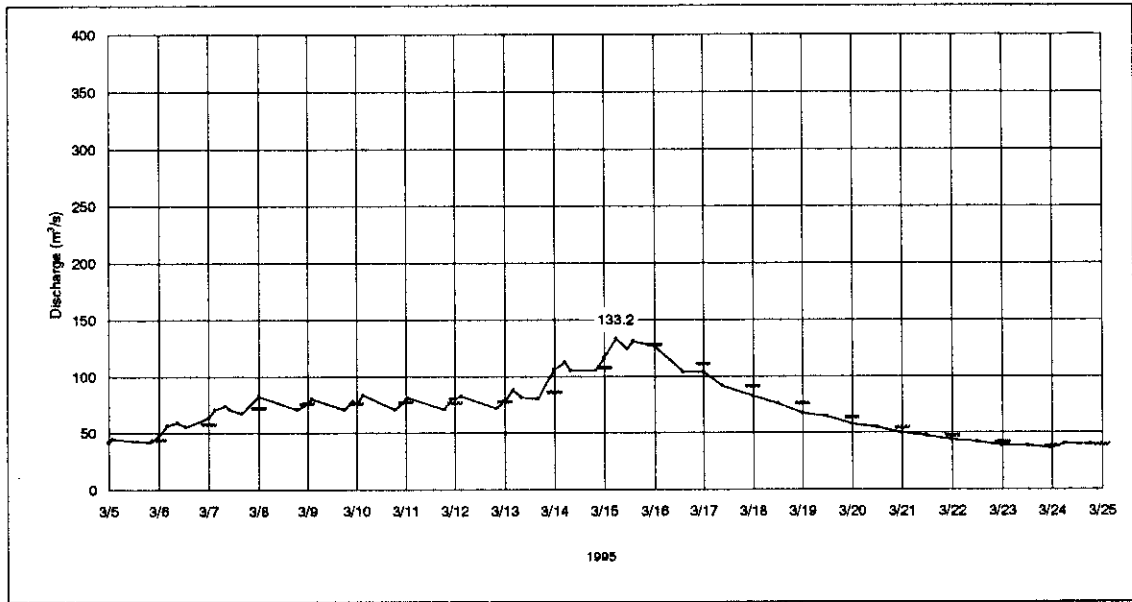
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|----------------|-------|---------|
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| 93/03/14 16:00 | 119.6 | |
| 93/03/14 20:00 | 119.6 | 122.2 |
| 93/03/15 00:00 | 107.5 | |
| 93/03/15 04:00 | 102.9 | |
| 93/03/15 08:00 | 144.3 | |
| 93/03/15 12:00 | 144.3 | 111.0 |
| 93/03/15 16:00 | 94.3 | |
| 93/03/15 20:00 | 92.3 | |
| 93/03/16 00:00 | 92.3 | 106.3 |
| 93/03/16 04:00 | 84.5 | |
| 93/03/16 08:00 | 112.2 | |
| 93/03/16 12:00 | 112.2 | 91.7 |
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| 93/03/16 20:00 | 109.8 | |
| 93/03/17 00:00 | 102.9 | 106.0 |
| 93/03/17 04:00 | 102.9 | |
| 93/03/17 08:00 | 92.3 | |
| 93/03/17 12:00 | 88.3 | |
| 93/03/17 16:00 | 88.3 | 96.2 |
| 93/03/17 20:00 | 84.5 | |
| 93/03/18 00:00 | 77.2 | |
| 93/03/18 04:00 | 77.2 | 83.6 |
| 93/03/18 08:00 | 80.8 | |
| 93/03/18 12:00 | 75.5 | |
| 93/03/18 16:00 | 79.0 | 78.4 |



1994

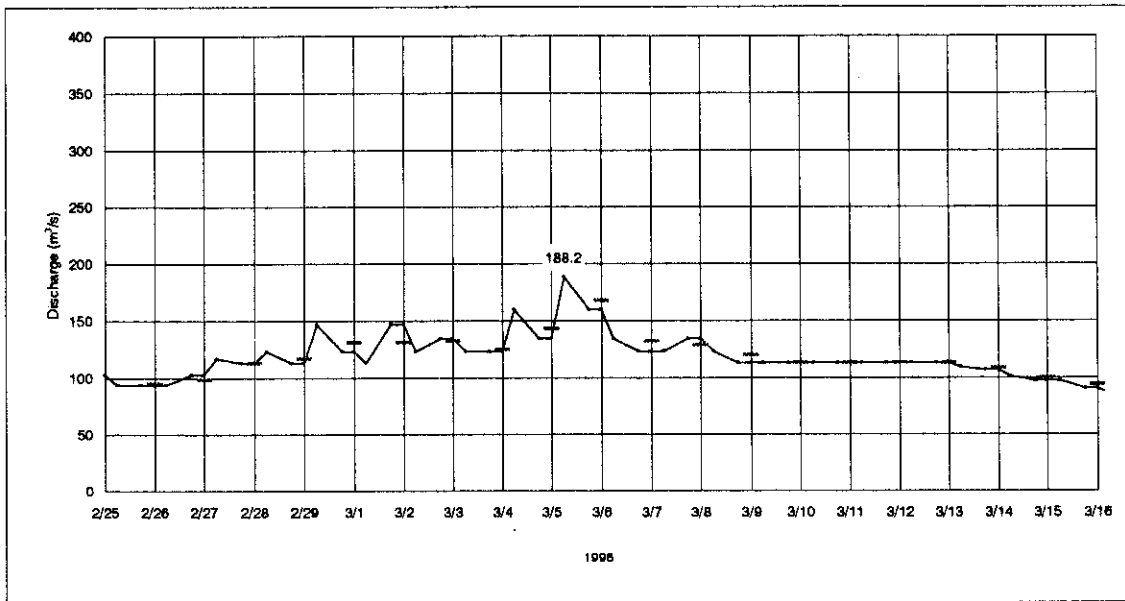
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| 94/01/25 18:00 | 92.3 | |
| 94/01/26 00:00 | 92.3 | 92.4 |
| 94/01/26 06:00 | 92.3 | |
| 94/01/26 18:00 | 150.4 | |
| 94/01/27 00:00 | 135.6 | 135.7 |
| 94/01/27 06:00 | 135.6 | |
| 94/01/27 18:00 | 135.6 | |
| 94/01/28 00:00 | 147.3 | 145.8 |
| 94/01/28 06:00 | 147.3 | |
| 94/01/28 18:00 | 147.3 | |
| 94/01/29 00:00 | 147.3 | 147.3 |
| 94/01/29 06:00 | 147.3 | |
| 94/01/29 18:00 | 147.3 | |
| 94/01/30 00:00 | 147.3 | 147.3 |
| 94/01/30 06:00 | 147.3 | |
| 94/01/30 18:00 | 147.3 | |
| 94/01/31 00:00 | 147.3 | 147.3 |
| 94/01/31 06:00 | 147.3 | |
| 94/01/31 18:00 | 219.5 | |
| 94/02/01 00:00 | 219.5 | 210.5 |
| 94/02/01 06:00 | 219.5 | |
| 94/02/01 18:00 | 187.7 | |
| 94/02/02 00:00 | 187.7 | 195.9 |
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| 94/02/02 18:00 | 180.3 | |
| 94/02/03 00:00 | 189.8 | 176.0 |
| 94/02/03 06:00 | 189.8 | |
| 94/02/03 18:00 | 147.3 | |
| 94/02/04 00:00 | 135.6 | 144.3 |
| 94/02/04 06:00 | 137.3 | |
| 94/02/04 18:00 | 142.8 | |
| 94/02/05 00:00 | 137.3 | 139.3 |
| 94/02/05 06:00 | 137.3 | |
| 94/02/05 18:00 | 171.7 | |
| 94/02/06 00:00 | 171.7 | 167.4 |
| 94/02/06 06:00 | 171.7 | |
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| 94/02/07 06:00 | 171.7 | |
| 94/02/07 18:00 | 164.3 | |
| 94/02/08 00:00 | 164.3 | 168.0 |
| 94/02/08 06:00 | 171.7 | |
| 94/02/08 18:00 | 164.3 | |
| 94/02/09 00:00 | 164.3 | 167.1 |
| 94/02/09 06:00 | 171.7 | |
| 94/02/09 18:00 | 171.7 | |

| Date/Time | Q | Daily Q |
|----------------|-------|---------|
| 94/02/10 00:00 | 171.7 | 170.8 |
| 94/02/10 06:00 | 171.7 | |
| 94/02/10 18:00 | 164.3 | |
| 94/02/11 00:00 | 171.7 | 168.9 |
| 94/02/11 06:00 | 171.7 | |
| 94/02/11 18:00 | 164.3 | |
| 94/02/12 00:00 | 149.8 | 158.0 |
| 94/02/12 06:00 | 149.8 | |
| 94/02/12 18:00 | 149.8 | |
| 94/02/13 00:00 | 142.8 | 146.3 |
| 94/02/13 06:00 | 142.8 | |
| 94/02/13 18:00 | 149.8 | |
| 94/02/14 00:00 | 142.8 | 145.4 |
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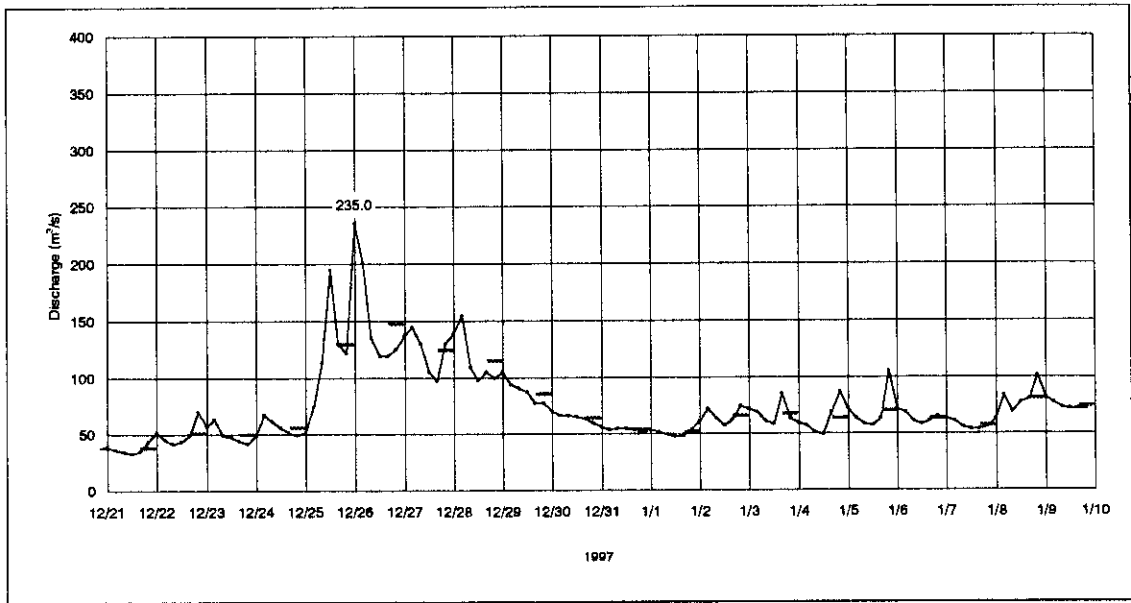
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| 95/03/05 20:00 | 41.7 | |
| 95/03/06 00:00 | 47.0 | 43.3 |
| 95/03/06 04:00 | 47.0 | |
| 95/03/06 04:00 | 56.3 | |
| 95/03/06 09:00 | 59.2 | |
| 95/03/06 13:00 | 55.3 | |
| 95/03/07 00:00 | 63.2 | 57.3 |
| 95/03/07 00:00 | 65.2 | |
| 95/03/07 03:00 | 70.4 | |
| 95/03/07 08:00 | 73.6 | |
| 95/03/07 10:00 | 70.4 | |
| 95/03/07 16:00 | 67.3 | |
| 95/03/08 00:00 | 82.4 | 71.5 |
| 95/03/08 00:00 | 82.4 | |
| 95/03/08 19:00 | 70.4 | |
| 95/03/09 00:00 | 75.7 | 75.7 |
| 95/03/09 00:00 | 75.7 | |
| 95/03/09 02:00 | 80.1 | |
| 95/03/09 18:00 | 70.4 | |
| 95/03/09 22:00 | 77.9 | |
| 95/03/10 00:00 | 75.7 | 75.4 |
| 95/03/10 00:00 | 75.7 | |
| 95/03/10 03:00 | 83.5 | |
| 95/03/10 19:00 | 70.4 | |
| 95/03/11 00:00 | 79.0 | 76.6 |
| 95/03/11 00:00 | 79.0 | |
| 95/03/11 01:00 | 81.2 | |
| 95/03/11 19:00 | 70.4 | |
| 95/03/11 22:00 | 80.1 | |
| 95/03/12 00:00 | 80.1 | 76.3 |
| 95/03/12 00:00 | 80.1 | |
| 95/03/12 03:00 | 82.4 | |
| 95/03/12 20:00 | 71.5 | |
| 95/03/13 00:00 | 77.9 | 77.1 |
| 95/03/13 00:00 | 77.9 | |
| 95/03/13 04:00 | 88.0 | |
| 95/03/13 08:00 | 81.2 | |
| 95/03/13 16:00 | 80.1 | |
| 95/03/14 00:00 | 105.9 | 85.8 |
| 95/03/14 00:00 | 105.9 | |
| 95/03/14 05:00 | 112.2 | |
| 95/03/14 08:00 | 104.7 | |
| 95/03/14 20:00 | 104.7 | |
| 95/03/15 00:00 | 116.0 | 107.0 |
| 95/03/15 00:00 | 116.0 | |
| 95/03/15 06:00 | 133.2 | |
| 95/03/15 11:00 | 123.8 | |
| 95/03/15 14:00 | 130.5 | |
| 95/03/15 00:00 | 126.5 | 127.3 |
| 95/03/16 00:00 | 126.5 | |
| 95/03/16 14:00 | 103.5 | |
| 95/03/17 00:00 | 103.5 | 110.2 |
| 95/03/17 00:00 | 103.5 | |
| 95/03/17 09:00 | 91.5 | |
| 95/03/18 00:00 | 82.4 | 90.9 |
| 95/03/18 00:00 | 82.4 | |
| 95/03/18 12:00 | 75.7 | |
| 95/03/19 00:00 | 67.3 | 75.3 |
| 95/03/19 00:00 | 67.3 | |
| 95/03/19 12:00 | 64.2 | |
| 95/03/20 00:00 | 57.3 | 63.2 |

| Date/Time | Q | Daily Q |
|----------------|------|---------|
| 95/03/20 00:00 | 57.3 | |
| 95/03/20 12:00 | 54.4 | |
| 95/03/21 00:00 | 49.7 | 55.9 |
| 95/03/21 00:00 | 49.7 | |
| 95/03/21 12:00 | 47.0 | |
| 95/03/22 00:00 | 43.5 | 46.8 |
| 95/03/22 00:00 | 43.5 | |
| 95/03/22 12:00 | 41.7 | |
| 95/03/23 00:00 | 38.4 | 41.3 |
| 95/03/23 00:00 | 38.4 | |
| 95/03/23 12:00 | 38.4 | |
| 95/03/24 00:00 | 35.9 | 37.8 |
| 95/03/24 00:00 | 35.9 | |
| 95/03/24 08:00 | 40.0 | |
| 95/03/24 18:00 | 39.2 | |
| 95/03/25 00:00 | 39.2 | 39.1 |
| 95/03/25 00:00 | 39.2 | |
| 95/03/25 06:00 | 40.9 | |
| 95/03/25 18:00 | 40.9 | |
| 95/03/26 00:00 | 40.9 | 40.7 |



| Date/Time | Q | Daily Q |
|----------------|-------|---------|
| 96/02/25 00:00 | 102.7 | |
| 96/02/25 06:00 | 93.5 | |
| 96/02/25 18:00 | 93.5 | 94.7 |
| 96/02/26 00:00 | 93.5 | |
| 96/02/26 06:00 | 93.5 | |
| 96/02/26 18:00 | 102.7 | 96.1 |
| 96/02/27 00:00 | 102.7 | |
| 96/02/27 06:00 | 116.6 | |
| 96/02/27 18:00 | 112.5 | 112.8 |
| 96/02/28 00:00 | 112.5 | |
| 96/02/28 06:00 | 123.0 | |
| 96/02/28 18:00 | 112.5 | 116.4 |
| 96/02/29 00:00 | 112.5 | |
| 96/02/29 06:00 | 146.5 | |
| 96/02/29 18:00 | 123.0 | 130.5 |
| 96/03/01 00:00 | 123.0 | |
| 96/03/01 06:00 | 112.5 | |
| 96/03/01 18:00 | 146.5 | 130.8 |
| 96/03/02 00:00 | 146.5 | |
| 96/03/02 06:00 | 123.0 | |
| 96/03/02 18:00 | 134.4 | 131.6 |
| 96/03/03 00:00 | 134.4 | |
| 96/03/03 06:00 | 123.0 | |
| 96/03/03 18:00 | 123.0 | 124.4 |
| 96/03/04 00:00 | 123.0 | |
| 96/03/04 06:00 | 159.5 | |
| 96/03/04 18:00 | 134.4 | 142.4 |
| 96/03/05 00:00 | 134.4 | |
| 96/03/05 06:00 | 134.4 | |
| 96/03/05 18:00 | 188.2 | 167.1 |
| 96/03/06 00:00 | 159.5 | |
| 96/03/06 06:00 | 159.5 | |
| 96/03/06 18:00 | 134.4 | 131.8 |
| 96/03/07 00:00 | 123.0 | |
| 96/03/07 06:00 | 123.0 | |
| 96/03/07 18:00 | 134.4 | 128.7 |
| 96/03/08 00:00 | 134.4 | |
| 96/03/08 06:00 | 134.4 | |
| 96/03/08 18:00 | 123.0 | 119.2 |
| 96/03/09 00:00 | 112.5 | |
| 96/03/09 06:00 | 112.5 | |
| 96/03/09 18:00 | 112.5 | 112.5 |
| 96/03/10 00:00 | 112.5 | |
| 96/03/10 06:00 | 112.5 | |
| 96/03/10 18:00 | 112.5 | 112.5 |
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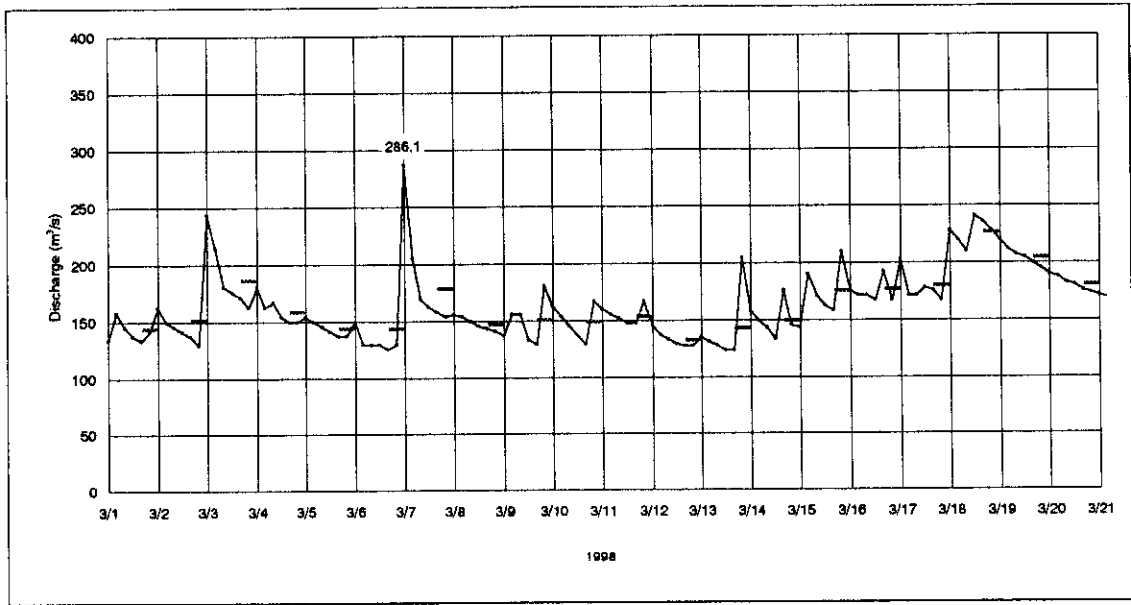
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|----------------|-------|---------|
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| 96/03/12 06:00 | 112.5 | |
| 96/03/12 18:00 | 112.5 | |
| 96/03/13 00:00 | 112.5 | 112.5 |
| 96/03/13 06:00 | 108.5 | |
| 96/03/13 18:00 | 106.5 | 108.0 |
| 96/03/14 00:00 | 106.5 | |
| 96/03/14 06:00 | 100.8 | |
| 96/03/14 18:00 | 97.1 | 99.7 |
| 96/03/15 00:00 | 97.1 | |
| 96/03/15 06:00 | 97.1 | |
| 96/03/15 18:00 | 90.1 | 93.6 |
| 96/03/16 00:00 | 90.1 | |
| 96/03/16 06:00 | 85.1 | |
| 96/03/16 18:00 | 80.3 | 83.3 |
| 96/03/17 00:00 | 80.3 | |



1997

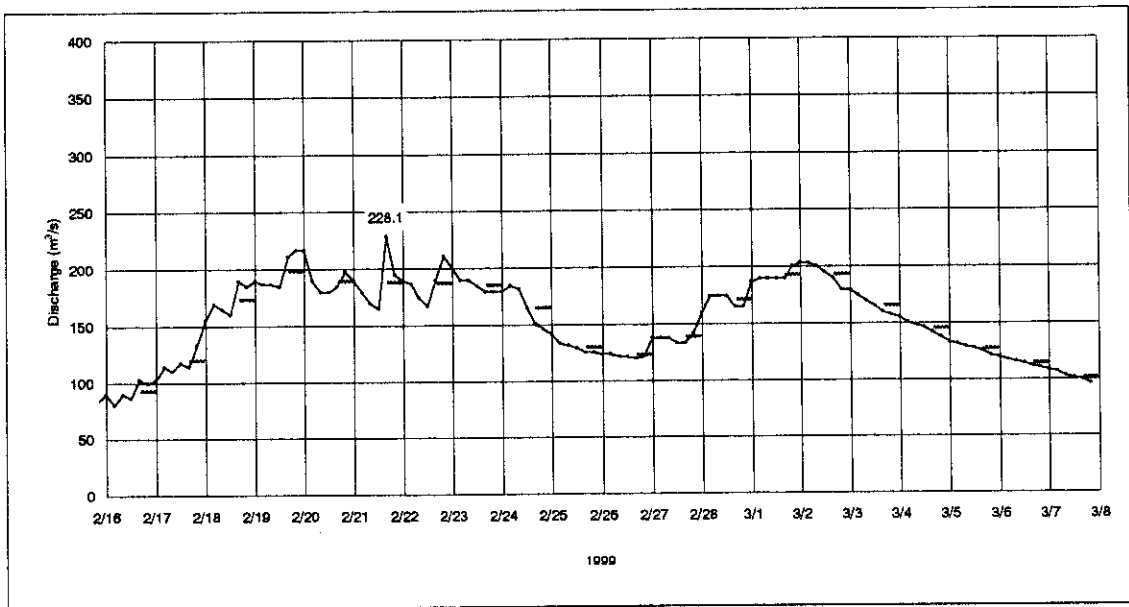
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| 97/12/20 12:00 | 29.9 | |
| 97/12/20 16:00 | 32.8 | |
| 97/12/20 20:00 | 37.7 | 32.7 |
| 97/12/21 00:00 | 36.6 | |
| 97/12/21 04:00 | 36.0 | |
| 97/12/21 08:00 | 34.4 | |
| 97/12/21 12:00 | 32.8 | |
| 97/12/21 16:00 | 34.4 | |
| 97/12/21 20:00 | 43.1 | 37.6 |
| 97/12/22 00:00 | 51.3 | |
| 97/12/22 04:00 | 45.1 | |
| 97/12/22 08:00 | 41.3 | |
| 97/12/22 12:00 | 43.1 | |
| 97/12/22 16:00 | 49.2 | 50.5 |
| 97/12/22 20:00 | 69.9 | |
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| 97/12/23 04:00 | 63.2 | |
| 97/12/23 08:00 | 46.2 | |
| 97/12/23 12:00 | 47.1 | |
| 97/12/23 16:00 | 44.1 | 49.6 |
| 97/12/23 20:00 | 41.3 | |
| 97/12/24 00:00 | 49.2 | |
| 97/12/24 04:00 | 67.2 | |
| 97/12/24 08:00 | 60.7 | |
| 97/12/24 12:00 | 59.8 | |
| 97/12/24 16:00 | 51.3 | 55.7 |
| 97/12/24 20:00 | 49.2 | |
| 97/12/25 00:00 | 51.3 | |
| 97/12/25 04:00 | 74.2 | |
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| 97/12/25 12:00 | 194.4 | |
| 97/12/25 16:00 | 129.7 | |
| 97/12/25 20:00 | 120.9 | 129.1 |
| 97/12/26 00:00 | 235.0 | |
| 97/12/26 04:00 | 200.7 | |
| 97/12/26 08:00 | 134.4 | |
| 97/12/26 12:00 | 118.7 | |
| 97/12/26 16:00 | 118.7 | |
| 97/12/26 20:00 | 125.2 | 147.3 |
| 97/12/27 00:00 | 136.7 | |
| 97/12/27 04:00 | 144.0 | |
| 97/12/27 08:00 | 129.7 | |
| 97/12/27 12:00 | 104.6 | |
| 97/12/27 16:00 | 97.1 | 123.8 |
| 97/12/27 20:00 | 129.7 | |
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| 97/12/28 16:00 | 104.6 | |
| 97/12/28 20:00 | 98.9 | 114.2 |
| 97/12/29 00:00 | 104.6 | |
| 97/12/29 04:00 | 95.5 | |
| 97/12/29 08:00 | 90.1 | |
| 97/12/29 12:00 | 86.7 | |
| 97/12/29 16:00 | 77.2 | 85.3 |
| 97/12/29 20:00 | 77.2 | |
| 97/12/30 00:00 | 69.9 | |
| 97/12/30 04:00 | 65.8 | |
| 97/12/30 08:00 | 65.8 | |

| Date/Time | Q | Daily Q |
|----------------|-------|---------|
| 97/12/30 12:00 | 64.5 | |
| 97/12/30 16:00 | 63.2 | |
| 97/12/30 20:00 | 59.4 | 63.6 |
| 97/12/31 00:00 | 55.8 | |
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| 97/12/31 08:00 | 54.7 | |
| 97/12/31 12:00 | 54.7 | |
| 97/12/31 16:00 | 53.5 | |
| 97/12/31 20:00 | 51.3 | 53.7 |
| 98/01/01 00:00 | 53.5 | |
| 98/01/01 04:00 | 51.3 | |
| 98/01/01 08:00 | 49.2 | |
| 98/01/01 12:00 | 47.1 | |
| 98/01/01 16:00 | 48.1 | |
| 98/01/01 20:00 | 53.5 | 51.0 |
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| 98/01/02 04:00 | 71.3 | |
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| 98/01/02 12:00 | 57.0 | |
| 98/01/02 16:00 | 61.9 | |
| 98/01/02 20:00 | 74.2 | 65.6 |
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| 98/01/07 20:00 | 55.8 | 57.1 |
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| 98/01/08 20:00 | 100.8 | 80.5 |
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| 98/01/09 08:00 | 72.8 | |
| 98/01/09 12:00 | 71.3 | |
| 98/01/09 16:00 | 71.3 | |
| 98/01/09 20:00 | 71.3 | 73.8 |



| Date/Time | Q | Daily Q |
|----------------|-------|---------|
| 98/03/01 00:00 | 132.9 | |
| 98/03/01 04:00 | 157.9 | |
| 98/03/01 08:00 | 146.2 | |
| 98/03/01 12:00 | 137.0 | |
| 98/03/01 16:00 | 132.9 | |
| 98/03/01 20:00 | 141.0 | 143.6 |
| 98/03/02 00:00 | 162.3 | |
| 98/03/02 04:00 | 149.4 | |
| 98/03/02 08:00 | 145.2 | |
| 98/03/02 12:00 | 141.0 | |
| 98/03/02 16:00 | 137.0 | |
| 98/03/02 20:00 | 129.0 | 150.7 |
| 98/03/03 00:00 | 243.5 | |
| 98/03/03 04:00 | 214.6 | |
| 98/03/03 08:00 | 180.4 | |
| 98/03/03 12:00 | 175.8 | |
| 98/03/03 16:00 | 171.2 | |
| 98/03/03 20:00 | 162.3 | 186.1 |
| 98/03/04 00:00 | 160.4 | |
| 98/03/04 04:00 | 162.3 | |
| 98/03/04 08:00 | 166.7 | |
| 98/03/04 12:00 | 153.6 | |
| 98/03/04 16:00 | 149.4 | |
| 98/03/04 20:00 | 149.4 | 158.1 |
| 98/03/05 00:00 | 153.6 | |
| 98/03/05 04:00 | 149.4 | |
| 98/03/05 08:00 | 145.2 | |
| 98/03/05 12:00 | 141.0 | |
| 98/03/05 16:00 | 137.0 | |
| 98/03/05 20:00 | 137.0 | 143.5 |
| 98/03/06 00:00 | 149.4 | |
| 98/03/06 04:00 | 129.0 | |
| 98/03/06 08:00 | 129.0 | |
| 98/03/06 12:00 | 129.0 | |
| 98/03/06 16:00 | 125.1 | |
| 98/03/06 20:00 | 129.0 | 143.1 |
| 98/03/07 00:00 | 286.1 | |
| 98/03/07 04:00 | 204.5 | |
| 98/03/07 08:00 | 169.0 | |
| 98/03/07 12:00 | 162.3 | |
| 98/03/07 16:00 | 157.9 | |
| 98/03/07 20:00 | 153.6 | 178.0 |
| 98/03/08 00:00 | 155.8 | |
| 98/03/08 04:00 | 153.6 | |
| 98/03/08 08:00 | 149.4 | |
| 98/03/08 12:00 | 145.2 | |
| 98/03/08 16:00 | 143.1 | |
| 98/03/08 20:00 | 141.0 | 146.4 |
| 98/03/09 00:00 | 137.0 | |
| 98/03/09 04:00 | 155.8 | |
| 98/03/09 08:00 | 155.8 | |
| 98/03/09 12:00 | 132.9 | |
| 98/03/09 16:00 | 129.0 | |
| 98/03/09 20:00 | 180.4 | 150.5 |
| 98/03/10 00:00 | 162.3 | |
| 98/03/10 04:00 | 153.6 | |
| 98/03/10 08:00 | 145.2 | |
| 98/03/10 12:00 | 137.0 | |
| 98/03/10 16:00 | 129.0 | |
| 98/03/10 20:00 | 166.7 | 148.8 |
| 98/03/11 00:00 | 160.1 | |
| 98/03/11 04:00 | 155.8 | |
| 98/03/11 08:00 | 151.5 | |

| Date/Time | Q | Daily Q |
|----------------|-------|---------|
| 98/03/11 12:00 | 147.2 | |
| 98/03/11 16:00 | 147.2 | |
| 98/03/11 20:00 | 166.7 | 153.5 |
| 98/03/12 00:00 | 146.2 | |
| 98/03/12 04:00 | 137.0 | |
| 98/03/12 08:00 | 132.9 | |
| 98/03/12 12:00 | 129.0 | |
| 98/03/12 16:00 | 127.0 | |
| 98/03/12 20:00 | 127.0 | 132.2 |
| 98/03/13 00:00 | 134.9 | |
| 98/03/13 04:00 | 131.0 | |
| 98/03/13 08:00 | 127.0 | |
| 98/03/13 12:00 | 123.2 | |
| 98/03/13 16:00 | 123.2 | |
| 98/03/13 20:00 | 204.5 | 142.8 |
| 98/03/14 00:00 | 157.9 | |
| 98/03/14 04:00 | 149.4 | |
| 98/03/14 08:00 | 143.1 | |
| 98/03/14 12:00 | 132.9 | |
| 98/03/14 16:00 | 175.8 | |
| 98/03/14 20:00 | 145.2 | 149.5 |
| 98/03/15 00:00 | 145.1 | |
| 98/03/15 04:00 | 189.9 | |
| 98/03/15 08:00 | 171.2 | |
| 98/03/15 12:00 | 162.3 | |
| 98/03/15 16:00 | 157.9 | |
| 98/03/15 20:00 | 209.5 | 175.1 |
| 98/03/16 00:00 | 175.8 | |
| 98/03/16 04:00 | 171.2 | |
| 98/03/16 08:00 | 171.2 | |
| 98/03/16 12:00 | 166.7 | |
| 98/03/16 16:00 | 192.3 | |
| 98/03/16 20:00 | 166.7 | 176.2 |
| 98/03/17 00:00 | 202.0 | |
| 98/03/17 04:00 | 171.2 | |
| 98/03/17 08:00 | 171.2 | |
| 98/03/17 12:00 | 178.1 | |
| 98/03/17 16:00 | 175.8 | |
| 98/03/17 20:00 | 166.7 | 179.7 |
| 98/03/18 00:00 | 227.5 | |
| 98/03/18 04:00 | 219.7 | |
| 98/03/18 08:00 | 209.5 | |
| 98/03/18 12:00 | 240.8 | |
| 98/03/18 16:00 | 235.4 | |
| 98/03/18 20:00 | 227.5 | 226.1 |
| 98/03/19 00:00 | 219.7 | |
| 98/03/19 04:00 | 212.0 | |
| 98/03/19 08:00 | 207.0 | |
| 98/03/19 12:00 | 204.5 | |
| 98/03/19 16:00 | 199.6 | |
| 98/03/19 20:00 | 194.7 | 203.8 |
| 98/03/20 00:00 | 189.9 | |
| 98/03/20 04:00 | 187.5 | |
| 98/03/20 08:00 | 182.8 | |
| 98/03/20 12:00 | 180.4 | |
| 98/03/20 16:00 | 175.8 | |
| 98/03/20 20:00 | 173.5 | 180.1 |
| 98/03/21 00:00 | 171.2 | |
| 98/03/21 04:00 | 169.0 | |
| 98/03/21 08:00 | 166.7 | |
| 98/03/21 12:00 | 164.5 | |
| 98/03/21 16:00 | 162.3 | |
| 98/03/21 20:00 | 160.1 | 164.5 |



| Date/Time | Q | Daily Q |
|----------------|-------|---------|
| 99/02/15 00:00 | 95.9 | |
| 99/02/15 04:00 | 90.9 | |
| 99/02/15 08:00 | 86.2 | |
| 99/02/15 12:00 | 83.1 | |
| 99/02/15 16:00 | 80.1 | |
| 99/02/15 20:00 | 83.1 | 86.0 |
| 99/02/16 00:00 | 89.3 | |
| 99/02/16 04:00 | 80.1 | |
| 99/02/16 08:00 | 89.3 | |
| 99/02/16 12:00 | 86.2 | |
| 99/02/16 16:00 | 102.7 | |
| 99/02/16 20:00 | 99.2 | 92.3 |
| 99/02/17 00:00 | 102.7 | |
| 99/02/17 04:00 | 113.5 | |
| 99/02/17 08:00 | 109.8 | |
| 99/02/17 12:00 | 117.3 | |
| 99/02/17 16:00 | 113.5 | |
| 99/02/17 20:00 | 133.2 | 119.4 |
| 99/02/18 00:00 | 155.0 | |
| 99/02/18 04:00 | 169.1 | |
| 99/02/18 08:00 | 164.3 | |
| 99/02/18 12:00 | 159.6 | |
| 99/02/18 16:00 | 189.2 | |
| 99/02/18 20:00 | 184.1 | 173.1 |
| 99/02/19 00:00 | 189.2 | |
| 99/02/19 04:00 | 185.6 | |
| 99/02/19 08:00 | 186.6 | |
| 99/02/19 12:00 | 184.1 | |
| 99/02/19 16:00 | 210.8 | |
| 99/02/19 20:00 | 216.5 | 197.9 |
| 99/02/20 00:00 | 216.5 | |
| 99/02/20 04:00 | 189.2 | |
| 99/02/20 08:00 | 179.0 | |
| 99/02/20 12:00 | 179.0 | |
| 99/02/20 16:00 | 184.1 | |
| 99/02/20 20:00 | 197.2 | 188.5 |
| 99/02/21 00:00 | 189.2 | |
| 99/02/21 04:00 | 179.0 | |
| 99/02/21 08:00 | 169.1 | |
| 99/02/21 12:00 | 164.3 | |
| 99/02/21 16:00 | 228.1 | |
| 99/02/21 20:00 | 194.5 | 187.4 |
| 99/02/22 00:00 | 189.2 | |
| 99/02/22 04:00 | 186.6 | |
| 99/02/22 08:00 | 174.0 | |
| 99/02/22 12:00 | 166.7 | |
| 99/02/22 16:00 | 189.2 | |
| 99/02/22 20:00 | 210.8 | 187.0 |
| 99/02/23 00:00 | 199.8 | |
| 99/02/23 04:00 | 189.2 | |
| 99/02/23 08:00 | 189.2 | |
| 99/02/23 12:00 | 184.1 | |
| 99/02/23 16:00 | 179.0 | |
| 99/02/23 20:00 | 179.0 | 185.0 |
| 99/02/24 00:00 | 179.0 | |
| 99/02/24 04:00 | 184.1 | |
| 99/02/24 08:00 | 181.5 | |
| 99/02/24 12:00 | 164.3 | |
| 99/02/24 16:00 | 150.5 | |
| 99/02/24 20:00 | 148.0 | 164.5 |
| 99/02/25 00:00 | 141.7 | |
| 99/02/25 04:00 | 133.2 | |
| 99/02/25 08:00 | 131.2 | |

| Date/Time | Q | Daily Q |
|----------------|-------|---------|
| 99/02/25 12:00 | 129.1 | |
| 99/02/25 16:00 | 125.1 | |
| 99/02/25 20:00 | 125.1 | 129.3 |
| 99/02/26 00:00 | 123.1 | |
| 99/02/26 04:00 | 123.1 | |
| 99/02/26 08:00 | 121.2 | |
| 99/02/26 12:00 | 121.2 | |
| 99/02/26 16:00 | 119.2 | |
| 99/02/26 20:00 | 121.2 | 122.7 |
| 99/02/27 00:00 | 137.4 | |
| 99/02/27 04:00 | 137.4 | |
| 99/02/27 08:00 | 137.4 | |
| 99/02/27 12:00 | 133.2 | |
| 99/02/27 16:00 | 133.2 | |
| 99/02/27 20:00 | 141.7 | 138.8 |
| 99/02/28 00:00 | 159.6 | |
| 99/02/28 04:00 | 174.0 | |
| 99/02/28 08:00 | 174.0 | |
| 99/02/28 12:00 | 174.0 | |
| 99/02/28 16:00 | 184.3 | |
| 99/02/28 20:00 | 184.3 | 170.6 |
| 99/03/01 00:00 | 185.6 | |
| 99/03/01 04:00 | 189.2 | |
| 99/03/01 08:00 | 189.2 | |
| 99/03/01 12:00 | 189.2 | |
| 99/03/01 16:00 | 189.2 | |
| 99/03/01 20:00 | 199.8 | 191.9 |
| 99/03/02 00:00 | 202.6 | |
| 99/03/02 04:00 | 202.6 | |
| 99/03/02 08:00 | 199.8 | |
| 99/03/02 12:00 | 194.5 | |
| 99/03/02 16:00 | 189.2 | |
| 99/03/02 20:00 | 179.0 | 192.6 |
| 99/03/03 00:00 | 179.0 | |
| 99/03/03 04:00 | 174.0 | |
| 99/03/03 08:00 | 169.1 | |
| 99/03/03 12:00 | 164.3 | |
| 99/03/03 16:00 | 159.6 | |
| 99/03/03 20:00 | 157.3 | 165.2 |
| 99/03/04 00:00 | 155.0 | |
| 99/03/04 04:00 | 150.5 | |
| 99/03/04 08:00 | 148.2 | |
| 99/03/04 12:00 | 146.0 | |
| 99/03/04 16:00 | 141.7 | |
| 99/03/04 20:00 | 137.4 | 144.7 |
| 99/03/05 00:00 | 133.2 | |
| 99/03/05 04:00 | 131.2 | |
| 99/03/05 08:00 | 129.1 | |
| 99/03/05 12:00 | 127.1 | |
| 99/03/05 16:00 | 125.1 | |
| 99/03/05 20:00 | 121.2 | 126.6 |
| 99/03/06 00:00 | 119.2 | |
| 99/03/06 04:00 | 117.3 | |
| 99/03/06 08:00 | 115.4 | |
| 99/03/06 12:00 | 113.5 | |
| 99/03/06 16:00 | 111.7 | |
| 99/03/06 20:00 | 109.8 | 113.6 |
| 99/03/07 00:00 | 108.0 | |
| 99/03/07 04:00 | 106.2 | |
| 99/03/07 08:00 | 102.7 | |
| 99/03/07 12:00 | 101.0 | |
| 99/03/07 16:00 | 99.2 | |
| 99/03/07 20:00 | 95.9 | 101.0 |

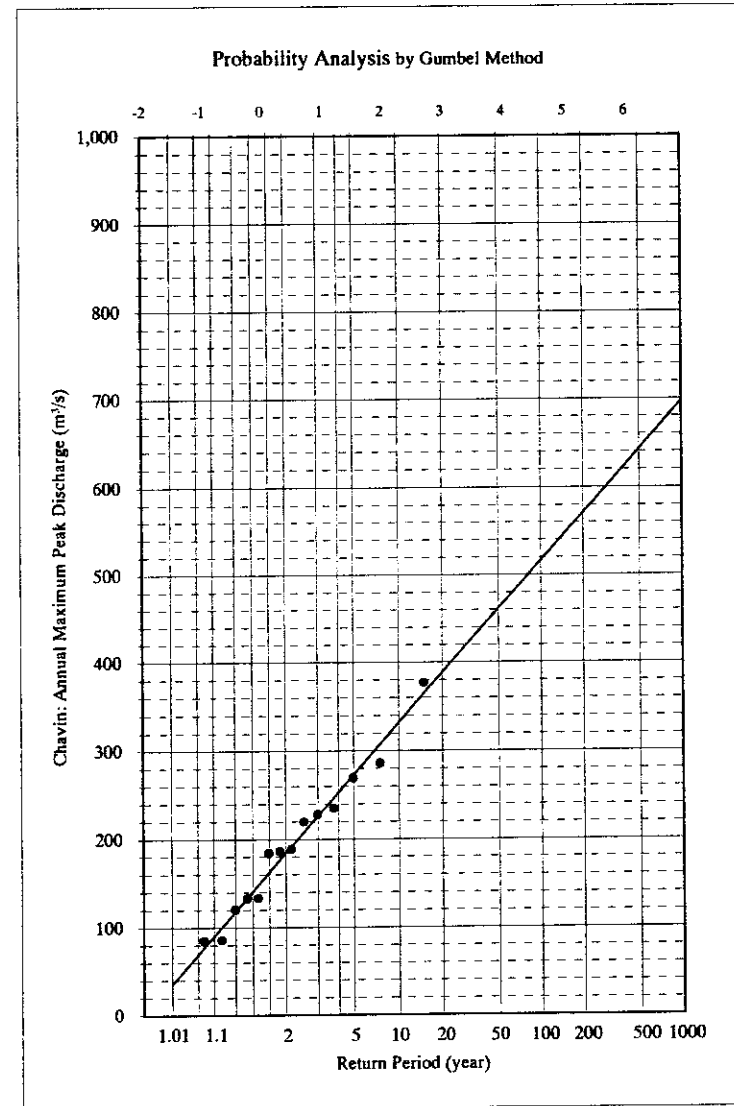
1.12 Probability Analysis Based on the Discharge Hydrograph at Chavin Station

N = 14
 $X_{\text{mean}} = 194.907143$
 $S_x = 79.1823345$
 $C_v = 0.40625671$
 $a = 0.01274878$
 $X_o = 154.899785$

| Observed data | | Observed data arranged in the order of magnitude | | | |
|---------------|-----------------------------------------------------------|--------------------------------------------------|------|-----------------------------------------------------------|----------------|
| Year | Chavin: Annual Maximum Peak Discharge (m ³ /s) | No. | Year | Chavin: Annual Maximum Peak Discharge (m ³ /s) | Plotting value |
| 1964 | | 1 | 1992 | 84.7 | -0.9962 |
| 1965 | | 2 | 1990 | 85.4 | -0.7006 |
| 1966 | | 3 | 1988 | 120.2 | -0.4759 |
| 1967 | | 4 | 1991 | 132.6 | -0.2790 |
| 1968 | | 5 | 1995 | 133.2 | -0.0940 |
| 1969 | | 6 | 1989 | 183.9 | 0.0874 |
| 1970 | | 7 | 1987 | 186.1 | 0.2716 |
| 1971 | | 8 | 1996 | 188.2 | 0.4642 |
| 1972 | | 9 | 1994 | 219.5 | 0.6717 |
| 1973 | | 10 | 1999 | 228.1 | 0.9027 |
| 1974 | | 11 | 1997 | 235.0 | 1.1707 |
| 1975 | | 12 | 1986 | 269.2 | 1.4999 |
| 1976 | | 13 | 1998 | 286.1 | 1.9442 |
| 1977 | | 14 | 1993 | 376.5 | 2.6738 |
| 1978 | | 15 | | | #N/A |
| 1979 | | 16 | | | #N/A |
| 1980 | | 17 | | | #N/A |
| 1981 | | 18 | | | #N/A |
| 1982 | | 19 | | | #N/A |
| 1983 | | 20 | | | #N/A |
| 1984 | | 21 | | | #N/A |
| 1985 | | 22 | | | #N/A |
| 1986 | 269.2 | 23 | | | #N/A |
| 1987 | 186.1 | 24 | | | #N/A |
| 1988 | 120.2 | 25 | | | #N/A |
| 1989 | 183.9 | 26 | | | #N/A |
| 1990 | 85.4 | 27 | | | #N/A |
| 1991 | 132.6 | 28 | | | #N/A |
| 1992 | 84.7 | 29 | | | #N/A |
| 1993 | 376.5 | 30 | | | #N/A |
| 1994 | 219.5 | 31 | | | #N/A |
| 1995 | 133.2 | 32 | | | #N/A |
| 1996 | 188.2 | 33 | | | #N/A |
| 1997 | 235.0 | 34 | | | #N/A |
| 1998 | 286.1 | 35 | | | #N/A |
| 1999 | 228.1 | 36 | | | #N/A |

| Calculation results | | |
|---------------------|-----------------------------------------------------------|----------------|
| Return period | Chavin: Annual Maximum Peak Discharge (m ³ /s) | Plotting value |
| 1.01 | 34.9 | -1.5293 |
| 2 | 183.6 | 0.3665 |
| 5 | 272.6 | 1.4999 |
| 10 | 331.4 | 2.2504 |
| 20 | 387.9 | 2.9702 |
| 50 | 461.0 | 3.9019 |
| 100 | 515.7 | 4.6001 |
| 200 | 570.3 | 5.2958 |
| 500 | 642.3 | 6.2136 |
| 1000 | 696.7 | 6.9073 |

Note)
Application limits depend on the sample size should be considered.

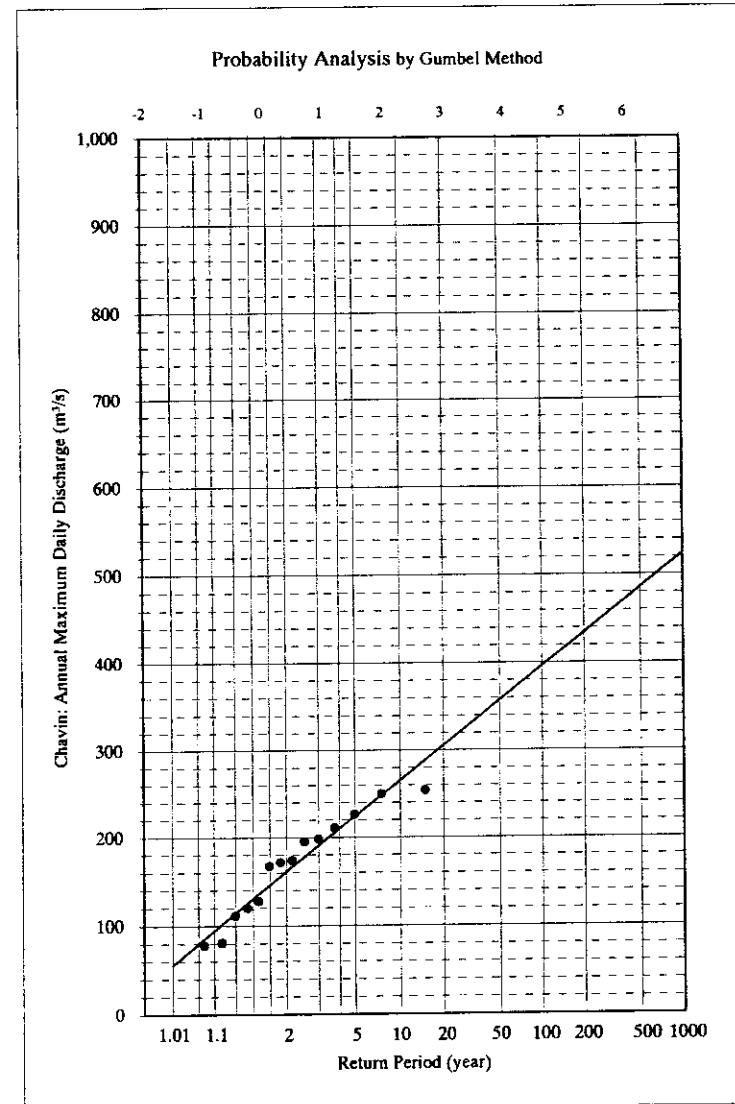


N = 14
 $X_{\text{mean}} = 168.664286$
 $S_x = 55.9894966$
 $C_v = 0.33195822$
 $a = 0.01802977$
 $X_o = 140.375251$

| Observed data | | Observed data arranged in the order of magnitude | | | |
|---------------|------------------------------------------------------------|--------------------------------------------------|------|------------------------------------------------------------|----------------|
| Year | Chavin: Annual Maximum Daily Discharge (m ³ /s) | No. | Year | Chavin: Annual Maximum Daily Discharge (m ³ /s) | Plotting value |
| 1964 | | 1 | 1990 | 77.7 | -0.9962 |
| 1965 | | 2 | 1992 | 80.7 | -0.7006 |
| 1966 | | 3 | 1988 | 111.0 | -0.4759 |
| 1967 | | 4 | 1991 | 119.7 | -0.2790 |
| 1968 | | 5 | 1995 | 127.3 | -0.0940 |
| 1969 | | 6 | 1996 | 167.1 | 0.0874 |
| 1970 | | 7 | 1987 | 171.5 | 0.2716 |
| 1971 | | 8 | 1989 | 173.6 | 0.4642 |
| 1972 | | 9 | 1997 | 194.6 | 0.6717 |
| 1973 | | 10 | 1999 | 197.9 | 0.9027 |
| 1974 | | 11 | 1994 | 210.5 | 1.1707 |
| 1975 | | 12 | 1998 | 226.1 | 1.4999 |
| 1976 | | 13 | 1986 | 249.9 | 1.9442 |
| 1977 | | 14 | 1993 | 253.7 | 2.6738 |
| 1978 | | 15 | | | #N/A |
| 1979 | | 16 | | | #N/A |
| 1980 | | 17 | | | #N/A |
| 1981 | | 18 | | | #N/A |
| 1982 | | 19 | | | #N/A |
| 1983 | | 20 | | | #N/A |
| 1984 | | 21 | | | #N/A |
| 1985 | | 22 | | | #N/A |
| 1986 | 249.9 | 23 | | | #N/A |
| 1987 | 171.5 | 24 | | | #N/A |
| 1988 | 111.0 | 25 | | | #N/A |
| 1989 | 173.6 | 26 | | | #N/A |
| 1990 | 77.7 | 27 | | | #N/A |
| 1991 | 119.7 | 28 | | | #N/A |
| 1992 | 80.7 | 29 | | | #N/A |
| 1993 | 253.7 | 30 | | | #N/A |
| 1994 | 210.5 | 31 | | | #N/A |
| 1995 | 127.3 | 32 | | | #N/A |
| 1996 | 167.1 | 33 | | | #N/A |
| 1997 | 194.6 | 34 | | | #N/A |
| 1998 | 226.1 | 35 | | | #N/A |
| 1999 | 197.9 | 36 | | | #N/A |

| Calculation results | | |
|---------------------|------------------------------------------------------------|----------------|
| Return period | Chavin: Annual Maximum Daily Discharge (m ³ /s) | Plotting value |
| 1.01 | 55.6 | -1.5293 |
| 2 | 160.7 | 0.3665 |
| 5 | 223.6 | 1.4999 |
| 10 | 265.2 | 2.2504 |
| 20 | 305.1 | 2.9702 |
| 50 | 356.8 | 3.9019 |
| 100 | 395.5 | 4.6001 |
| 200 | 434.1 | 5.2958 |
| 500 | 485.0 | 6.2136 |
| 1000 | 523.5 | 6.9073 |

Note)
Application limits depend on the sample size should be considered.



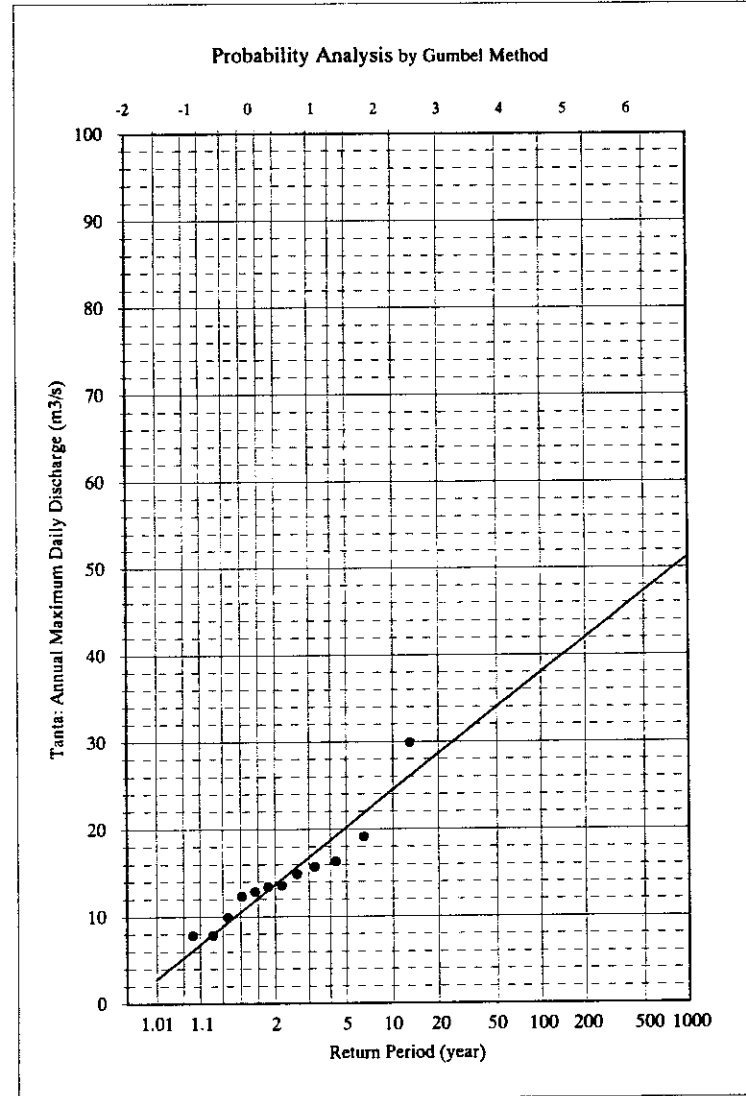
1.13 Probability Analysis of Discharge

N = 12
 $X_{mean} = 14.432556$
 $S_x = 5.6458638$
 $C_v = 0.3911895$
 $a = 0.1741575$
 $X_o = 11.541506$

| Observed data | | Observed data arranged in the order of magnitude | | | |
|---------------|----------------------------------------------|--------------------------------------------------|------|----------------------------------------------|----------------|
| Year | Tanta: Annual Maximum Daily Discharge (m3/s) | No. | Year | Tanta: Annual Maximum Daily Discharge (m3/s) | Plotting value |
| 1964 | | 1 | 1992 | 7.8 | -0.9419 |
| 1965 | | 2 | 1990 | 7.8 | -0.6269 |
| 1966 | | 3 | 1991 | 9.9 | -0.3828 |
| 1967 | | 4 | 1987 | 12.3 | -0.1644 |
| 1968 | | 5 | 1986 | 12.8 | 0.0455 |
| 1969 | | 6 | 1989 | 13.4 | 0.2572 |
| 1970 | | 7 | 1988 | 13.5 | 0.4796 |
| 1971 | | 8 | 1995 | 14.8 | 0.7226 |
| 1972 | | 9 | 1994 | 15.6 | 1.0004 |
| 1973 | | 10 | 1993 | 16.3 | 1.3380 |
| 1974 | | 11 | 1997 | 19.1 | 1.7894 |
| 1975 | | 12 | 1996 | 29.9 | 2.5252 |
| 1976 | | 13 | | | #N/A |
| 1977 | | 14 | | | #N/A |
| 1978 | | 15 | | | #N/A |
| 1979 | | 16 | | | #N/A |
| 1980 | | 17 | | | #N/A |
| 1981 | | 18 | | | #N/A |
| 1982 | | 19 | | | #N/A |
| 1983 | | 20 | | | #N/A |
| 1984 | | 21 | | | #N/A |
| 1985 | | 22 | | | #N/A |
| 1986 | 12.8 | 23 | | | #N/A |
| 1987 | 12.3 | 24 | | | #N/A |
| 1988 | 13.5 | 25 | | | #N/A |
| 1989 | 13.4 | 26 | | | #N/A |
| 1990 | 7.8 | 27 | | | #N/A |
| 1991 | 9.9 | 28 | | | #N/A |
| 1992 | 7.8 | 29 | | | #N/A |
| 1993 | 16.3 | 30 | | | #N/A |
| 1994 | 15.6 | 31 | | | #N/A |
| 1995 | 14.8 | 32 | | | #N/A |
| 1996 | 29.9 | 33 | | | #N/A |
| 1997 | 19.1 | 34 | | | #N/A |
| 1998 | | 35 | | | #N/A |

| Calculation results | | |
|---------------------|----------------------------------------------|----------------|
| Return period | Tanta: Annual Maximum Daily Discharge (m3/s) | Plotting value |
| 1.01 | 2.8 | -1.5293 |
| 2 | 13.6 | 0.3665 |
| 5 | 20.2 | 1.4999 |
| 10 | 24.5 | 2.2504 |
| 20 | 28.6 | 2.9702 |
| 50 | 33.9 | 3.9019 |
| 100 | 38.0 | 4.6001 |
| 200 | 41.9 | 5.2958 |
| 500 | 47.2 | 6.2136 |
| 1000 | 51.2 | 6.9073 |

Note)
Application limits depend on the sample size should be considered.

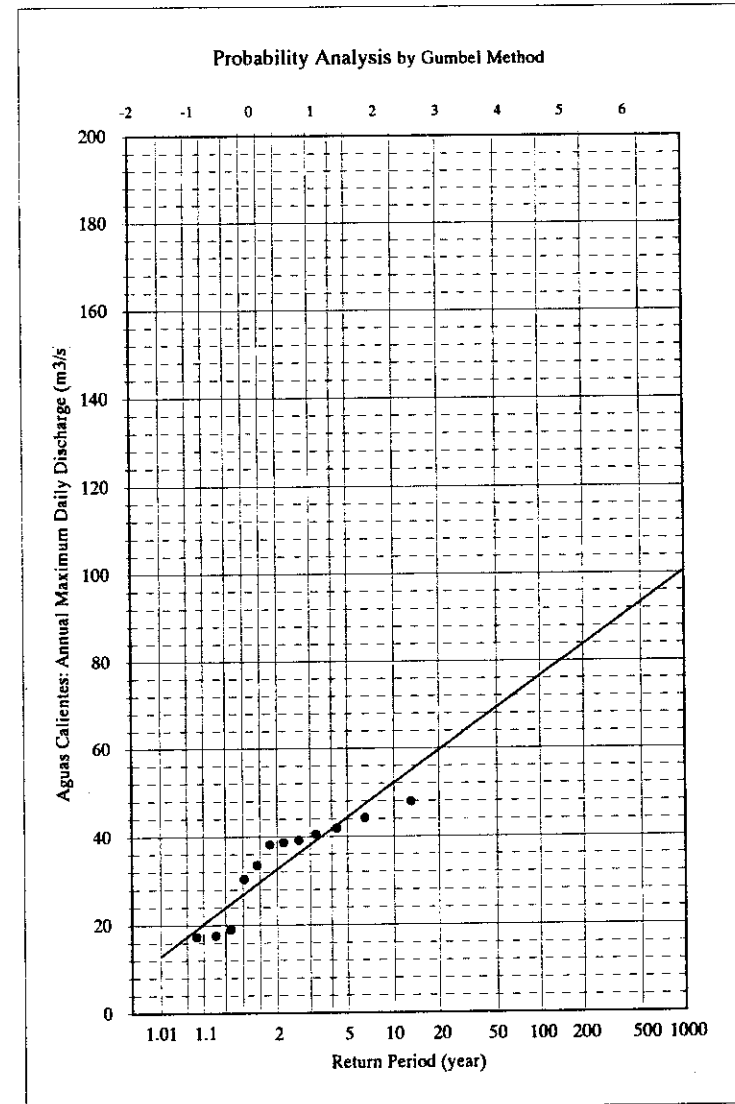


N = 12
 $X_{mean} = 33.9628795$
 $S_x = 10.1919135$
 $C_v = 0.30008979$
 $a = 0.09647548$
 $X_0 = 28.7439555$

| Observed data | | Observed data arranged in the order of magnitude | | | |
|---------------|--------------------------------------------------------|--------------------------------------------------|------|--------------------------------------------------------|----------------|
| Year | Aguas Calientes: Annual Maximum Daily Discharge (m3/s) | No. | Year | Aguas Calientes: Annual Maximum Daily Discharge (m3/s) | Plotting value |
| 1964 | | 1 | 1992 | 17.3 | -0.9419 |
| 1965 | | 2 | 1990 | 17.6 | -0.6269 |
| 1966 | | 3 | 1991 | 19.0 | -0.3828 |
| 1967 | | 4 | 1993 | 30.3 | -0.1644 |
| 1968 | | 5 | 1988 | 33.5 | 0.0455 |
| 1969 | | 6 | 1997 | 38.1 | 0.2572 |
| 1970 | | 7 | 1989 | 38.6 | 0.4796 |
| 1971 | | 8 | 1986 | 39.1 | 0.7226 |
| 1972 | | 9 | 1995 | 40.5 | 1.0004 |
| 1973 | | 10 | 1987 | 41.8 | 1.3380 |
| 1974 | | 11 | 1994 | 44.1 | 1.7894 |
| 1975 | | 12 | 1996 | 47.8 | 2.5252 |
| 1976 | | 13 | | | #N/A |
| 1977 | | 14 | | | #N/A |
| 1978 | | 15 | | | #N/A |
| 1979 | | 16 | | | #N/A |
| 1980 | | 17 | | | #N/A |
| 1981 | | 18 | | | #N/A |
| 1982 | | 19 | | | #N/A |
| 1983 | | 20 | | | #N/A |
| 1984 | | 21 | | | #N/A |
| 1985 | | 22 | | | #N/A |
| 1986 | 39.1 | 23 | | | #N/A |
| 1987 | 41.8 | 24 | | | #N/A |
| 1988 | 33.5 | 25 | | | #N/A |
| 1989 | 38.6 | 26 | | | #N/A |
| 1990 | 17.6 | 27 | | | #N/A |
| 1991 | 19.0 | 28 | | | #N/A |
| 1992 | 17.3 | 29 | | | #N/A |
| 1993 | 30.3 | 30 | | | #N/A |
| 1994 | 44.1 | 31 | | | #N/A |
| 1995 | 40.5 | 32 | | | #N/A |
| 1996 | 47.8 | 33 | | | #N/A |
| 1997 | 38.1 | 34 | | | #N/A |
| 1998 | | 35 | | | #N/A |

| Calculation results | | |
|---------------------|--------------------------------------------------------|----------------|
| Return period | Aguas Calientes: Annual Maximum Daily Discharge (m3/s) | Plotting value |
| 1.01 | 12.9 | -1.5293 |
| 2 | 32.5 | 0.3665 |
| 5 | 44.3 | 1.4999 |
| 10 | 52.1 | 2.2504 |
| 20 | 59.5 | 2.9702 |
| 50 | 69.2 | 3.9019 |
| 100 | 76.4 | 4.6001 |
| 200 | 83.6 | 5.2958 |
| 500 | 93.2 | 6.2136 |
| 1000 | 100.3 | 6.9073 |

Note)
Application limits depend on the sample size should be considered.

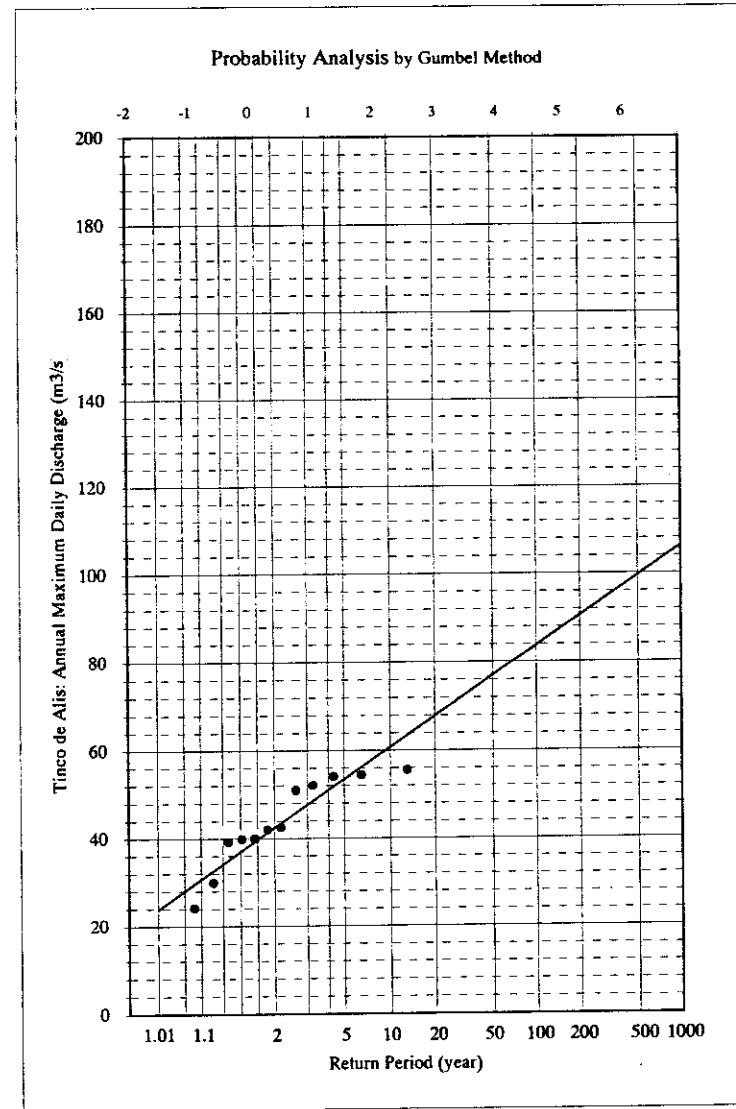


N = 12
 $X_{mean} = 43.654572$
 $S_x = 9.6060126$
 $C_v = 0.220046$
 $a = 0.1023598$
 $X_0 = 38.735667$

| Observed data | | Observed data arranged in the order of magnitude | | | |
|---------------|------------------------------------------------------|--------------------------------------------------|------|------------------------------------------------------|----------------|
| Year | Tinco de Alis: Annual Maximum Daily Discharge (m3/s) | No. | Year | Tinco de Alis: Annual Maximum Daily Discharge (m3/s) | Plotting value |
| 1964 | | 1 | 1992 | 24.2 | -0.9419 |
| 1965 | | 2 | 1990 | 29.9 | -0.6269 |
| 1966 | | 3 | 1996 | 39.1 | -0.3828 |
| 1967 | | 4 | 1988 | 39.7 | -0.1644 |
| 1968 | | 5 | 1995 | 39.9 | 0.0455 |
| 1969 | | 6 | 1991 | 42.0 | 0.2572 |
| 1970 | | 7 | 1993 | 42.4 | 0.4796 |
| 1971 | | 8 | 1987 | 50.8 | 0.7226 |
| 1972 | | 9 | 1994 | 52.0 | 1.0004 |
| 1973 | | 10 | 1989 | 54.0 | 1.3380 |
| 1974 | | 11 | 1997 | 54.4 | 1.7894 |
| 1975 | | 12 | 1986 | 55.5 | 2.5252 |
| 1976 | | 13 | | | #N/A |
| 1977 | | 14 | | | #N/A |
| 1978 | | 15 | | | #N/A |
| 1979 | | 16 | | | #N/A |
| 1980 | | 17 | | | #N/A |
| 1981 | | 18 | | | #N/A |
| 1982 | | 19 | | | #N/A |
| 1983 | | 20 | | | #N/A |
| 1984 | | 21 | | | #N/A |
| 1985 | | 22 | | | #N/A |
| 1986 | 55.5 | 23 | | | #N/A |
| 1987 | 50.8 | 24 | | | #N/A |
| 1988 | 39.7 | 25 | | | #N/A |
| 1989 | 54.0 | 26 | | | #N/A |
| 1990 | 29.9 | 27 | | | #N/A |
| 1991 | 42.0 | 28 | | | #N/A |
| 1992 | 24.2 | 29 | | | #N/A |
| 1993 | 42.4 | 30 | | | #N/A |
| 1994 | 52.0 | 31 | | | #N/A |
| 1995 | 39.9 | 32 | | | #N/A |
| 1996 | 39.1 | 33 | | | #N/A |
| 1997 | 54.4 | 34 | | | #N/A |
| 1998 | | 35 | | | #N/A |

| Calculation results | | |
|---------------------|------------------------------------------------------|----------------|
| Return period | Tinco de Alis: Annual Maximum Daily Discharge (m3/s) | Plotting value |
| 1.01 | 23.8 | -1.5293 |
| 2 | 42.3 | 0.3665 |
| 5 | 53.4 | 1.4999 |
| 10 | 60.7 | 2.2504 |
| 20 | 67.8 | 2.9702 |
| 50 | 76.9 | 3.9019 |
| 100 | 83.7 | 4.6001 |
| 200 | 90.5 | 5.2958 |
| 500 | 99.4 | 6.2136 |
| 1000 | 106.2 | 6.9073 |

Note)
 Application limits depend on the sample size should be considered.

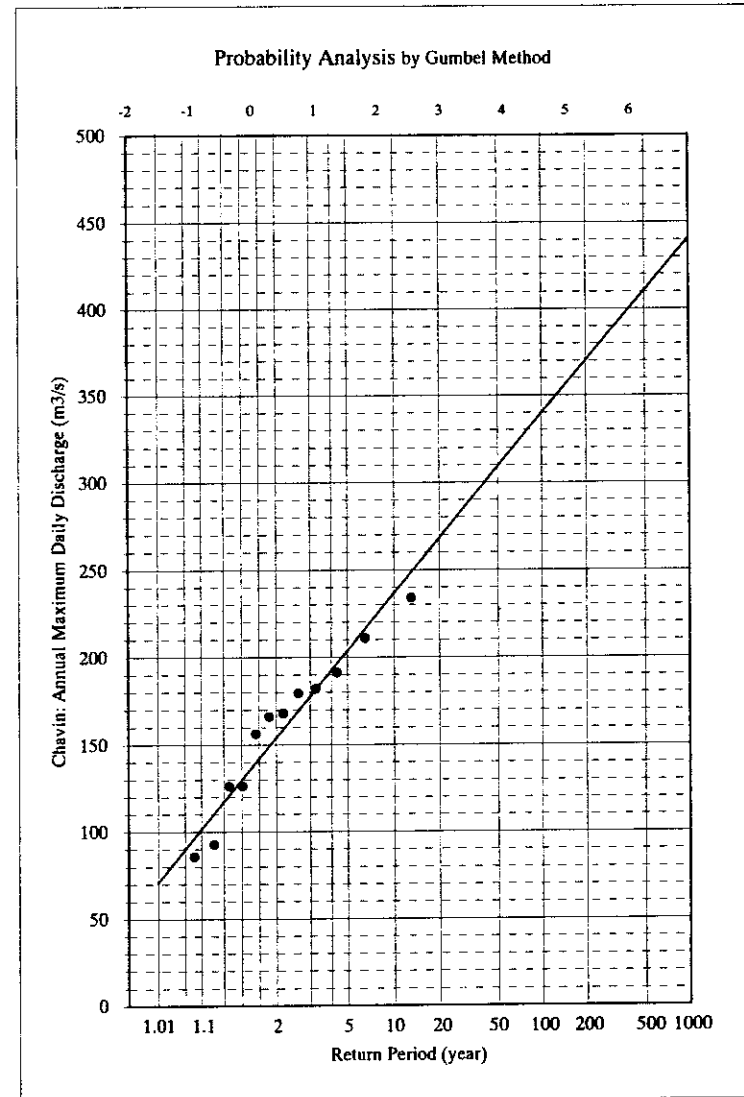


N = 12
 $X_{mean} = 159.80142$
 $S_x = 43.128362$
 $C_v = 0.2698872$
 $a = 0.0227987$
 $X_o = 137.71689$

| Observed data | | Observed data arranged in the order of magnitude | | | |
|---------------|-----------------------------------------------|--------------------------------------------------|------|-----------------------------------------------|----------------|
| Year | Chavin: Annual Maximum Daily Discharge (m3/s) | No. | Year | Chavin: Annual Maximum Daily Discharge (m3/s) | Plotting value |
| 1964 | | 1 | 1992 | 85.6 | -0.9419 |
| 1965 | | 2 | 1990 | 92.7 | -0.6269 |
| 1966 | | 3 | 1988 | 126.1 | -0.3828 |
| 1967 | | 4 | 1991 | 126.2 | -0.1644 |
| 1968 | | 5 | 1967 | 156.1 | 0.0455 |
| 1969 | | 6 | 1996 | 165.9 | 0.2572 |
| 1970 | | 7 | 1986 | 168.0 | 0.4796 |
| 1971 | | 8 | 1989 | 179.4 | 0.7226 |
| 1972 | | 9 | 1995 | 181.9 | 1.0004 |
| 1973 | | 10 | 1997 | 191.1 | 1.3380 |
| 1974 | | 11 | 1994 | 210.8 | 1.7894 |
| 1975 | | 12 | 1993 | 233.8 | 2.5252 |
| 1976 | | 13 | | | #N/A |
| 1977 | | 14 | | | #N/A |
| 1978 | | 15 | | | #N/A |
| 1979 | | 16 | | | #N/A |
| 1980 | | 17 | | | #N/A |
| 1981 | | 18 | | | #N/A |
| 1982 | | 19 | | | #N/A |
| 1983 | | 20 | | | #N/A |
| 1984 | | 21 | | | #N/A |
| 1985 | | 22 | | | #N/A |
| 1986 | 168.0 | 23 | | | #N/A |
| 1987 | 156.1 | 24 | | | #N/A |
| 1988 | 126.1 | 25 | | | #N/A |
| 1989 | 179.4 | 26 | | | #N/A |
| 1990 | 92.7 | 27 | | | #N/A |
| 1991 | 126.2 | 28 | | | #N/A |
| 1992 | 85.6 | 29 | | | #N/A |
| 1993 | 233.8 | 30 | | | #N/A |
| 1994 | 210.8 | 31 | | | #N/A |
| 1995 | 181.9 | 32 | | | #N/A |
| 1996 | 165.9 | 33 | | | #N/A |
| 1997 | 191.1 | 34 | | | #N/A |
| 1998 | | 35 | | | #N/A |

| Calculation results | | |
|---------------------|-----------------------------------------------|----------------|
| Return period | Chavin: Annual Maximum Daily Discharge (m3/s) | Plotting value |
| 1.01 | 70.6 | -1.5293 |
| 2 | 153.8 | 0.3665 |
| 5 | 203.5 | 1.4999 |
| 10 | 236.4 | 2.2504 |
| 20 | 268.0 | 2.9702 |
| 50 | 308.9 | 3.9019 |
| 100 | 339.5 | 4.6001 |
| 200 | 370.0 | 5.2958 |
| 500 | 410.3 | 6.2136 |
| 1000 | 440.7 | 6.9073 |

Note)
 Application limits depend on the sample size should be considered.

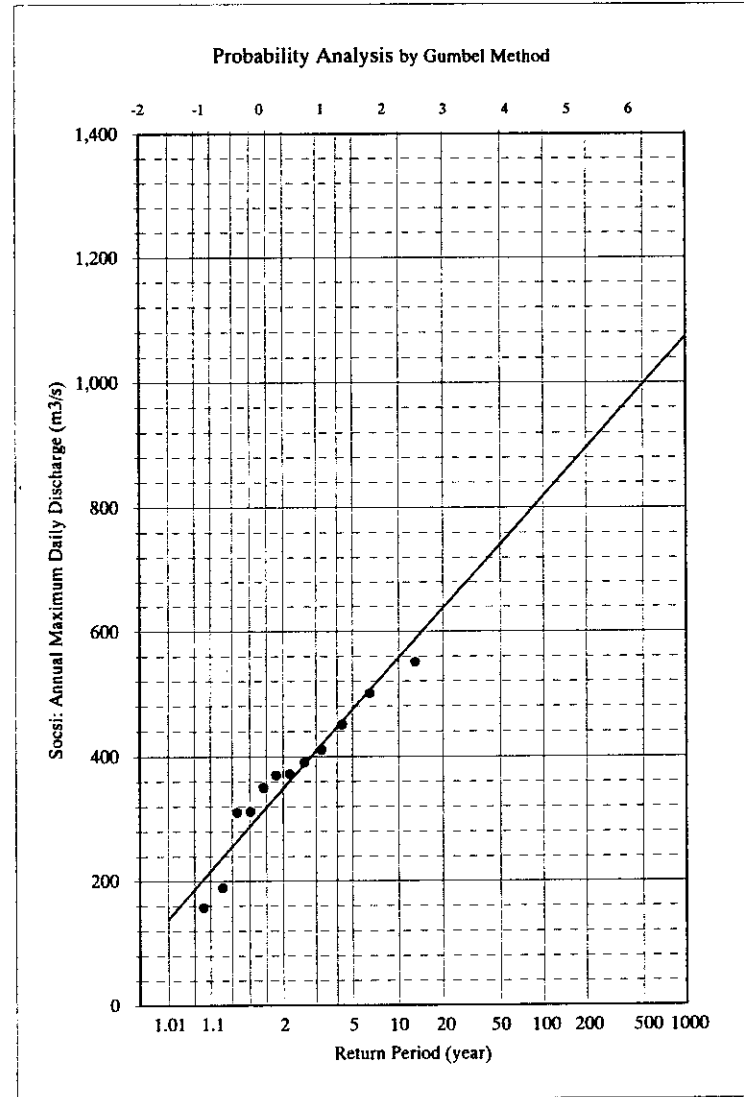


N = 12
 $X_{mean} = 363.33333$
 $S_x = 109.03542$
 $C_v = 0.3000975$
 $a = 0.0090179$
 $X_o = 307.50009$

| Observed data | | Observed data arranged in the order of magnitude | | | |
|---------------|----------------------------------------------|--------------------------------------------------|------|----------------------------------------------|----------------|
| Year | Socsi: Annual Maximum Daily Discharge (m3/s) | No. | Year | Socsi: Annual Maximum Daily Discharge (m3/s) | Plotting value |
| 1964 | | 1 | 1992 | 157.0 | -0.9419 |
| 1965 | | 2 | 1990 | 189.0 | -0.6269 |
| 1966 | | 3 | 1996 | 310.0 | -0.3828 |
| 1967 | | 4 | 1989 | 312.0 | -0.1644 |
| 1968 | | 5 | 1997 | 350.0 | 0.0455 |
| 1969 | | 6 | 1986 | 370.0 | 0.2572 |
| 1970 | | 7 | 1991 | 372.0 | 0.4796 |
| 1971 | | 8 | 1993 | 390.0 | 0.7226 |
| 1972 | | 9 | 1988 | 410.0 | 1.0004 |
| 1973 | | 10 | 1987 | 450.0 | 1.3380 |
| 1974 | | 11 | 1995 | 500.0 | 1.7894 |
| 1975 | | 12 | 1994 | 550.0 | 2.5252 |
| 1976 | | 13 | | | #N/A |
| 1977 | | 14 | | | #N/A |
| 1978 | | 15 | | | #N/A |
| 1979 | | 16 | | | #N/A |
| 1980 | | 17 | | | #N/A |
| 1981 | | 18 | | | #N/A |
| 1982 | | 19 | | | #N/A |
| 1983 | | 20 | | | #N/A |
| 1984 | | 21 | | | #N/A |
| 1985 | | 22 | | | #N/A |
| 1986 | 370.0 | 23 | | | #N/A |
| 1987 | 450.0 | 24 | | | #N/A |
| 1988 | 410.0 | 25 | | | #N/A |
| 1989 | 312.0 | 26 | | | #N/A |
| 1990 | 189.0 | 27 | | | #N/A |
| 1991 | 372.0 | 28 | | | #N/A |
| 1992 | 157.0 | 29 | | | #N/A |
| 1993 | 390.0 | 30 | | | #N/A |
| 1994 | 550.0 | 31 | | | #N/A |
| 1995 | 500.0 | 32 | | | #N/A |
| 1996 | 310.0 | 33 | | | #N/A |
| 1997 | 350.0 | 34 | | | #N/A |
| 1998 | | 35 | | | #N/A |

| Calculation results | | |
|---------------------|----------------------------------------------|----------------|
| Return period | Socsi: Annual Maximum Daily Discharge (m3/s) | Plotting value |
| 1.01 | 137.9 | -1.5293 |
| 2 | 348.1 | 0.3665 |
| 5 | 473.8 | 1.4999 |
| 10 | 557.0 | 2.2504 |
| 20 | 636.9 | 2.9702 |
| 50 | 740.2 | 3.9019 |
| 100 | 817.6 | 4.6001 |
| 200 | 894.8 | 5.2958 |
| 500 | 996.5 | 6.2136 |
| 1000 | 1073.5 | 6.9073 |

Note)
 Application limits depend on the sample size should be considered.

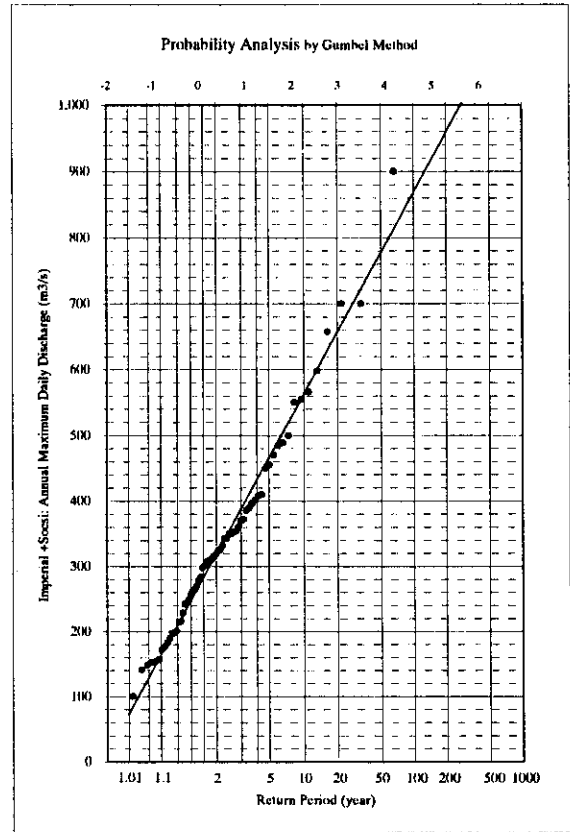


N = 66
 $X_{mean} = 343.052308$
 $S_x = 153.106229$
 $C_v = 0.44630287$
 $\mu = 0.00770934$
 $X_0 = 271.254734$

| Observed data | | | Observed data arranged in the order of magnitude | | |
|---------------|-----------------------------------------------------------------------|-----|--------------------------------------------------|-----------------------------------------------------------------------|----------------|
| Year | Imperial + Social: Annual Maximum Daily Discharge (m ³ /s) | No. | Year | Imperial + Social: Annual Maximum Daily Discharge (m ³ /s) | Plotting value |
| 1926 | 455.0 | 1 | 1980 | 100.1 | -1.4326 |
| 1927 | 125.7 | 2 | 1940 | 141.3 | -1.2518 |
| 1928 | 198.0 | 3 | 1931 | 148.6 | -1.1285 |
| 1929 | 342.8 | 4 | 1964 | 153.1 | -1.0308 |
| 1930 | 263.8 | 5 | 1968 | 154.0 | -0.9479 |
| 1931 | 148.6 | 6 | 1992 | 157.0 | -0.8746 |
| 1932 | | 7 | 1982 | 172.0 | -0.8081 |
| 1933 | 176.0 | 8 | 1933 | 176.0 | -0.7468 |
| 1934 | 306.0 | 9 | 1979 | 182.8 | -0.6894 |
| 1935 | 386.0 | 10 | 1990 | 189.0 | -0.6350 |
| 1936 | 265.0 | 11 | 1926 | 198.0 | -0.5832 |
| 1937 | 263.8 | 12 | 1928 | 198.0 | -0.5334 |
| 1938 | 401.4 | 13 | 1966 | 201.0 | -0.4853 |
| 1939 | 308.5 | 14 | 1965 | 214.7 | -0.4386 |
| 1940 | 141.3 | 15 | 1978 | 216.0 | -0.3931 |
| 1941 | 301.1 | 16 | 1957 | 228.3 | -0.3486 |
| 1942 | 319.2 | 17 | 1963 | 242.4 | -0.3049 |
| 1943 | 324.1 | 18 | 1950 | 244.7 | -0.2618 |
| 1944 | 396.6 | 19 | 1977 | 249.0 | -0.2193 |
| 1945 | 350.0 | 20 | 1981 | 257.1 | -0.1772 |
| 1946 | 354.0 | 21 | 1930 | 263.8 | -0.1355 |
| 1947 | 353.0 | 22 | 1936 | 265.0 | -0.0940 |
| 1948 | 279.0 | 23 | 1958 | 270.4 | -0.0527 |
| 1949 | 198.0 | 24 | 1948 | 279.0 | -0.0115 |
| 1950 | 244.7 | 25 | 1937 | 283.8 | 0.0287 |
| 1951 | 485.0 | 26 | 1975 | 298.0 | 0.0709 |
| 1952 | 360.0 | 27 | 1941 | 301.1 | 0.1123 |
| 1953 | 565.0 | 28 | 1934 | 306.0 | 0.1538 |
| 1954 | 657.0 | 29 | 1939 | 308.5 | 0.1956 |
| 1955 | 700.0 | 30 | 1996 | 310.0 | 0.2377 |
| 1956 | 470.0 | 31 | 1988 | 312.0 | 0.2802 |
| 1957 | 228.3 | 32 | 1968 | 316.0 | 0.3231 |
| 1958 | 270.4 | 33 | 1942 | 319.2 | 0.3665 |
| 1959 | 700.0 | 34 | 1943 | 324.1 | 0.4105 |
| 1960 | 488.8 | 35 | 1974 | 326.0 | 0.4552 |
| 1961 | 597.6 | 36 | 1976 | 332.0 | 0.5007 |
| 1962 | 566.2 | 37 | 1929 | 342.8 | 0.5489 |
| 1963 | 242.4 | 38 | 1967 | 343.0 | 0.5941 |
| 1964 | 153.1 | 39 | 1945 | 350.0 | 0.6423 |
| 1965 | 214.7 | 40 | 1945 | 350.0 | 0.6916 |
| 1966 | 201.0 | 41 | 1947 | 353.0 | 0.7422 |
| 1967 | 343.0 | 42 | 1948 | 354.0 | 0.7941 |
| 1968 | 154.0 | 43 | 1952 | 360.0 | 0.8476 |
| 1969 | 316.0 | 44 | 1986 | 370.0 | 0.9027 |
| 1970 | 408.0 | 45 | 1991 | 372.0 | 0.9597 |
| 1971 | | 46 | 1935 | 386.0 | 1.0188 |
| 1972 | 900.0 | 47 | 1993 | 390.0 | 1.0803 |
| 1973 | | 48 | 1944 | 396.6 | 1.1443 |
| 1974 | 326.0 | 49 | 1938 | 401.4 | 1.2112 |
| 1975 | 298.0 | 50 | 1970 | 408.0 | 1.2815 |
| 1976 | 332.0 | 51 | 1988 | 410.0 | 1.3555 |
| 1977 | 249.0 | 52 | 1987 | 450.0 | 1.4338 |
| 1978 | 216.0 | 53 | 1926 | 455.0 | 1.5170 |
| 1979 | 182.8 | 54 | 1956 | 470.0 | 1.6061 |
| 1980 | 100.1 | 55 | 1951 | 485.0 | 1.7020 |
| 1981 | 257.1 | 56 | 1960 | 488.8 | 1.8060 |
| 1982 | 172.0 | 57 | 1995 | 500.0 | 1.9200 |
| 1983 | | 58 | 1994 | 550.0 | 2.0463 |
| 1984 | | 59 | 1953 | 555.0 | 2.1882 |
| 1985 | | 60 | 1962 | 566.2 | 2.3506 |
| 1986 | 370.0 | 61 | 1961 | 597.6 | 2.5411 |
| 1987 | 450.0 | 62 | 1954 | 657.0 | 2.7723 |
| 1988 | 410.0 | 63 | 1955 | 700.0 | 3.0679 |
| 1989 | 312.0 | 64 | 1955 | 700.0 | 3.4812 |
| 1990 | 189.0 | 65 | 1972 | 900.0 | 4.1820 |
| 1991 | 372.0 | 66 | | | #N/A |
| 1992 | 157.0 | 67 | | | #N/A |
| 1993 | 390.0 | 68 | | | #N/A |
| 1994 | 550.0 | 69 | | | #N/A |
| 1995 | 500.0 | 70 | | | #N/A |
| 1996 | 310.0 | 71 | | | #N/A |
| 1997 | 350.0 | 72 | | | #N/A |
| 1998 | | 73 | | | #N/A |

| Calculation results | | |
|---------------------|-----------------------------------------------------------------------|----------------|
| Return period | Imperial + Social: Annual Maximum Daily Discharge (m ³ /s) | Plotting value |
| 1.01 | 72.9 | -1.5293 |
| 2 | 318.8 | 0.3665 |
| 5 | 466.8 | 1.4999 |
| 10 | 563.2 | 2.2504 |
| 20 | 656.5 | 2.9702 |
| 50 | 777.4 | 3.9019 |
| 100 | 868.0 | 4.6001 |
| 200 | 958.2 | 5.2968 |
| 500 | 1077.2 | 6.2136 |
| 1000 | 1167.2 | 6.8073 |

Note)
Application limits depend on the sample size should be considered.

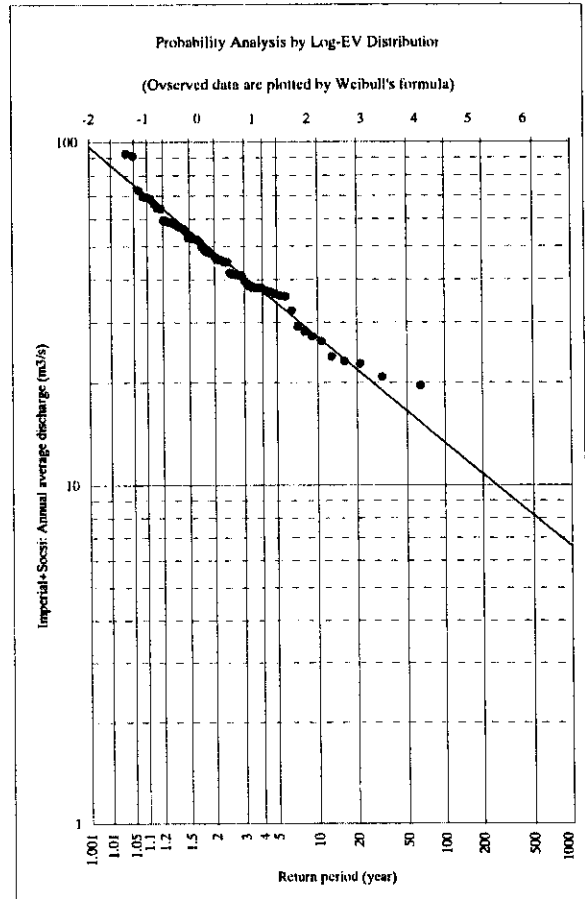


1.14 Probability Analysis of Discharge in Low Water Period

Mean = 48.57
S = 17.91

| Observed data | | Observed data arranged in the order of magnitude | | | |
|---------------|---------|--------------------------------------------------------------|---------|--------------------------------------------------------------|---------------|
| No. | Year | Imperial+So csi: Annual average discharge (m3/s) | Year | Imperial+So csi: Annual average discharge (m3/s) | Return period |
| 1 | 1925/26 | - | 1971/72 | 123.8 | 1.00 |
| 2 | 1926/27 | 35.8 | 1954/55 | 92.5 | 1.00 |
| 3 | 1927/28 | - | 1993/94 | 91.0 | 1.00 |
| 4 | 1928/29 | 45.9 | 1960/61 | 72.7 | 1.07 |
| 5 | 1929/30 | 46.9 | 1953/54 | 69.5 | 1.11 |
| 6 | 1930/31 | 26.4 | 1950/51 | 69.3 | 1.11 |
| 7 | 1931/32 | - | 1945/46 | 68.6 | 1.12 |
| 8 | 1932/33 | 41.0 | 1966/67 | 66.3 | 1.16 |
| 9 | 1933/34 | 59.1 | 1943/44 | 64.5 | 1.20 |
| 10 | 1934/35 | 59.3 | 1995/96 | 64.2 | 1.20 |
| 11 | 1935/36 | 56.0 | 1934/35 | 59.3 | 1.34 |
| 12 | 1936/37 | 45.1 | 1933/34 | 59.1 | 1.35 |
| 13 | 1937/38 | 51.6 | 1951/52 | 58.7 | 1.37 |
| 14 | 1938/39 | 47.8 | 1961/62 | 58.6 | 1.37 |
| 15 | 1939/40 | 32.5 | 1992/93 | 58.1 | 1.39 |
| 16 | 1940/41 | 37.0 | 1975/76 | 57.7 | 1.40 |
| 17 | 1941/42 | 45.6 | 1942/43 | 57.0 | 1.43 |
| 18 | 1942/43 | 57.0 | 1952/53 | 56.5 | 1.45 |
| 19 | 1943/44 | 64.5 | 1935/36 | 56.0 | 1.48 |
| 20 | 1944/45 | 44.9 | 1980/81 | 54.9 | 1.53 |
| 21 | 1945/46 | 68.6 | 1980/81 | 52.8 | 1.65 |
| 22 | 1946/47 | 62.3 | 1955/56 | 52.6 | 1.66 |
| 23 | 1947/48 | 48.8 | 1973/74 | 52.6 | 1.66 |
| 24 | 1948/49 | 41.3 | 1963/64 | 52.3 | 1.68 |
| 25 | 1949/50 | 38.4 | 1946/47 | 52.3 | 1.68 |
| 26 | 1950/51 | 69.3 | 1937/38 | 51.6 | 1.73 |
| 27 | 1951/52 | 58.7 | 1962/63 | 49.8 | 1.86 |
| 28 | 1952/53 | 56.5 | 1947/48 | 48.8 | 1.95 |
| 29 | 1953/54 | 69.5 | 1994/95 | 48.1 | 2.02 |
| 30 | 1954/55 | 62.5 | 1938/39 | 47.8 | 2.04 |
| 31 | 1955/56 | 62.6 | 1982/83 | 47.8 | 2.05 |
| 32 | 1956/57 | 41.2 | 1929/30 | 46.9 | 2.13 |
| 33 | 1957/58 | 27.3 | 1928/29 | 45.9 | 2.25 |
| 34 | 1958/59 | 37.7 | 1941/42 | 45.6 | 2.28 |
| 35 | 1959/60 | 37.9 | 1988/89 | 45.5 | 2.29 |
| 36 | 1960/61 | 72.7 | 1936/37 | 45.1 | 2.35 |
| 37 | 1961/62 | 58.6 | 1944/45 | 44.9 | 2.37 |
| 38 | 1962/63 | 49.8 | 1978/79 | 41.9 | 2.84 |
| 39 | 1963/64 | 52.3 | 1986/87 | 41.4 | 2.93 |
| 40 | 1964/65 | 38.2 | 1948/49 | 41.3 | 2.93 |
| 41 | 1965/66 | 19.6 | 1956/57 | 41.2 | 2.96 |
| 42 | 1966/67 | 66.3 | 1932/33 | 41.0 | 2.99 |
| 43 | 1967/68 | 23.8 | 1974/75 | 39.5 | 3.31 |
| 44 | 1968/69 | 28.1 | 1964/65 | 38.2 | 3.63 |
| 45 | 1969/70 | - | 1959/60 | 37.9 | 3.71 |
| 46 | 1970/71 | - | 1976/77 | 37.9 | 3.72 |
| 47 | 1971/72 | 123.8 | 1981/82 | 37.9 | 3.73 |
| 48 | 1972/73 | - | 1958/59 | 37.7 | 3.78 |
| 49 | 1973/74 | 52.6 | 1940/41 | 37.0 | 3.97 |
| 50 | 1974/75 | 39.5 | 1977/78 | 36.9 | 3.99 |
| 51 | 1975/76 | 57.7 | 1949/50 | 36.4 | 4.17 |
| 52 | 1976/77 | 37.9 | 1996/97 | 35.9 | 4.33 |
| 53 | 1977/78 | 36.9 | 1926/27 | 35.8 | 4.39 |
| 54 | 1978/79 | 41.9 | 1939/40 | 32.5 | 5.82 |
| 55 | 1979/80 | 23.1 | 1987/88 | 29.1 | 8.12 |
| 56 | 1980/81 | 52.8 | 1968/69 | 28.1 | 9.00 |
| 57 | 1981/82 | 37.9 | 1957/58 | 27.3 | 9.89 |
| 58 | 1982/83 | 47.8 | 1930/31 | 26.4 | 10.98 |
| 59 | 1983/84 | - | 1967/68 | 23.8 | 15.24 |
| 60 | 1984/85 | - | 1979/80 | 23.1 | 16.80 |
| 61 | 1985/86 | - | 1989/90 | 22.7 | 17.69 |
| 62 | 1986/87 | 41.4 | 1991/92 | 20.8 | 23.53 |
| 63 | 1987/88 | 29.1 | 1965/66 | 19.6 | 28.40 |
| 64 | 1988/89 | 45.5 | | | |
| 65 | 1989/90 | 22.7 | | | |
| 66 | 1990/91 | 54.9 | | | |
| 67 | 1991/92 | 20.8 | | | |
| 68 | 1992/93 | 58.1 | | | |
| 69 | 1993/94 | 91.0 | | | |
| 70 | 1994/95 | 48.1 | | | |
| 71 | 1995/96 | 64.2 | | | |
| 72 | 1996/97 | 35.9 | | | |
| 73 | 1997/98 | - | | | |
| 74 | 1998/99 | - | | | |
| 75 | | | | | |

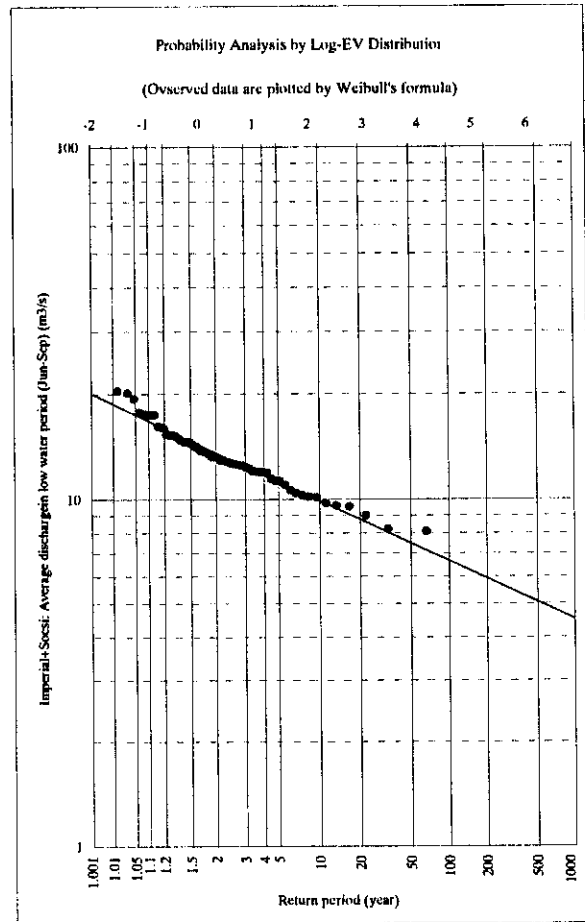
| Calculation results | |
|---------------------|--------------------------------------------------------------|
| Return period | Imperial+So csi: Annual average discharge (m3/s) |
| 1000 | 6.60 |
| 500 | 6.16 |
| 250 | 10.07 |
| 200 | 10.78 |
| 100 | 13.32 |
| 50 | 16.47 |
| 30 | 19.27 |
| 25 | 20.39 |
| 20 | 21.88 |
| 15 | 23.92 |
| 10 | 27.21 |
| 5 | 34.18 |
| 4 | 36.92 |
| 3 | 40.98 |
| 2 | 48.24 |
| 1.500 | 55.49 |
| 1.333 | 59.55 |
| 1.250 | 62.32 |
| 1.111 | 69.49 |
| 1.071 | 73.00 |
| 1.053 | 75.27 |
| 1.042 | 76.93 |
| 1.034 | 78.23 |
| 1.020 | 81.63 |
| 1.010 | 85.78 |
| 1.005 | 89.52 |
| 1.004 | 90.65 |
| 1.002 | 93.97 |
| 1.001 | 97.04 |



Mean = 13.44
S = 2.66

| Observed data N=66 | | | Observed data arranged in the order of magnitude | | |
|--------------------|------|-------------------------------------------------------------------------|--------------------------------------------------|-------------------------------------------------------------------------|---------------|
| No. | Year | Imperial+So csi: Average discharge in low water period (Jun-Sep) (m3/s) | Year | Imperial+So csi: Average discharge in low water period (Jun-Sep) (m3/s) | Return period |
| 1 | 1926 | 12.0 | 1966 | 20.4 | 1.00 |
| 2 | 1927 | - | 1994 | 20.1 | 1.00 |
| 3 | 1928 | 13.6 | 1967 | 19.4 | 1.00 |
| 4 | 1929 | 13.2 | 1991 | 17.7 | 1.04 |
| 5 | 1930 | 14.6 | 1934 | 17.5 | 1.05 |
| 6 | 1931 | 12.8 | 1935 | 17.5 | 1.05 |
| 7 | 1932 | 13.4 | 1974 | 17.4 | 1.05 |
| 8 | 1933 | 14.2 | 1976 | 17.4 | 1.05 |
| 9 | 1934 | 17.5 | 1946 | 16.2 | 1.17 |
| 10 | 1935 | 17.5 | 1948 | 16.1 | 1.18 |
| 11 | 1936 | 12.0 | 1963 | 16.0 | 1.20 |
| 12 | 1937 | 13.0 | 1954 | 15.3 | 1.32 |
| 13 | 1938 | 12.3 | 1944 | 15.3 | 1.34 |
| 14 | 1939 | 12.8 | 1955 | 15.2 | 1.35 |
| 15 | 1940 | 12.1 | 1977 | 15.2 | 1.35 |
| 16 | 1941 | 10.3 | 1978 | 15.1 | 1.37 |
| 17 | 1942 | 13.9 | 1975 | 14.9 | 1.44 |
| 18 | 1943 | 13.2 | 1951 | 14.8 | 1.48 |
| 19 | 1944 | 15.3 | 1930 | 14.6 | 1.52 |
| 20 | 1945 | 11.3 | 1973 | 14.6 | 1.53 |
| 21 | 1946 | 16.2 | 1981 | 14.5 | 1.55 |
| 22 | 1947 | 14.4 | 1971 | 14.5 | 1.55 |
| 23 | 1948 | 16.1 | 1947 | 14.4 | 1.63 |
| 24 | 1949 | 12.6 | 1933 | 14.2 | 1.69 |
| 25 | 1950 | 11.3 | 1964 | 14.1 | 1.72 |
| 26 | 1951 | 14.8 | 1942 | 13.9 | 1.82 |
| 27 | 1952 | 13.8 | 1952 | 13.8 | 1.91 |
| 28 | 1953 | 13.7 | 1956 | 13.8 | 1.91 |
| 29 | 1954 | 15.3 | 1953 | 13.7 | 1.97 |
| 30 | 1956 | 15.2 | 1928 | 13.6 | 2.03 |
| 31 | 1956 | 13.8 | 1932 | 13.4 | 2.13 |
| 32 | 1957 | 9.7 | 1929 | 13.2 | 2.27 |
| 33 | 1958 | 9.0 | 1943 | 13.2 | 2.27 |
| 34 | 1959 | 10.2 | 1993 | 13.2 | 2.28 |
| 35 | 1960 | 8.2 | 1937 | 13.0 | 2.45 |
| 36 | 1961 | 12.8 | 1979 | 12.9 | 2.50 |
| 37 | 1962 | 12.5 | 1988 | 12.9 | 2.51 |
| 38 | 1963 | 16.0 | 1939 | 12.8 | 2.58 |
| 39 | 1964 | 14.1 | 1931 | 12.8 | 2.63 |
| 40 | 1965 | 11.9 | 1982 | 12.7 | 2.74 |
| 41 | 1966 | 9.5 | 1961 | 12.6 | 2.78 |
| 42 | 1967 | 19.4 | 1949 | 12.6 | 2.83 |
| 43 | 1968 | 10.4 | 1989 | 12.5 | 2.87 |
| 44 | 1969 | 11.0 | 1962 | 12.5 | 2.94 |
| 45 | 1970 | - | 1996 | 12.4 | 3.08 |
| 46 | 1971 | 14.5 | 1938 | 12.3 | 3.21 |
| 47 | 1972 | - | 1940 | 12.1 | 3.48 |
| 48 | 1973 | 14.6 | 1936 | 12.0 | 3.52 |
| 49 | 1974 | 17.4 | 1926 | 12.0 | 3.55 |
| 50 | 1975 | 14.9 | 1980 | 12.0 | 3.55 |
| 51 | 1976 | 17.4 | 1965 | 11.9 | 3.65 |
| 52 | 1977 | 15.2 | 1995 | 11.4 | 4.52 |
| 53 | 1978 | 15.1 | 1945 | 11.3 | 4.84 |
| 54 | 1979 | 12.9 | 1950 | 11.3 | 4.90 |
| 55 | 1980 | 12.0 | 1969 | 11.0 | 5.57 |
| 56 | 1981 | 14.5 | 1990 | 10.6 | 6.76 |
| 57 | 1982 | 12.7 | 1968 | 10.4 | 7.48 |
| 58 | 1983 | - | 1941 | 10.3 | 8.10 |
| 59 | 1984 | - | 1959 | 10.2 | 8.56 |
| 60 | 1985 | - | 1997 | 10.1 | 8.82 |
| 61 | 1986 | 20.4 | 1957 | 9.7 | 11.03 |
| 62 | 1987 | 9.6 | 1987 | 9.6 | 11.97 |
| 63 | 1988 | 12.9 | 1966 | 9.5 | 12.40 |
| 64 | 1989 | 12.5 | 1958 | 9.0 | 17.43 |
| 65 | 1990 | 10.6 | 1960 | 8.2 | 29.41 |
| 66 | 1991 | 17.7 | 1992 | 8.1 | 32.00 |
| 67 | 1992 | 8.1 | - | - | - |
| 68 | 1993 | 13.2 | - | - | - |
| 69 | 1994 | 20.1 | - | - | - |
| 70 | 1995 | 11.4 | - | - | - |
| 71 | 1996 | 12.4 | - | - | - |
| 72 | 1997 | 10.1 | - | - | - |
| 73 | 1998 | - | - | - | - |
| 74 | 1999 | - | - | - | - |
| 75 | | | | | |

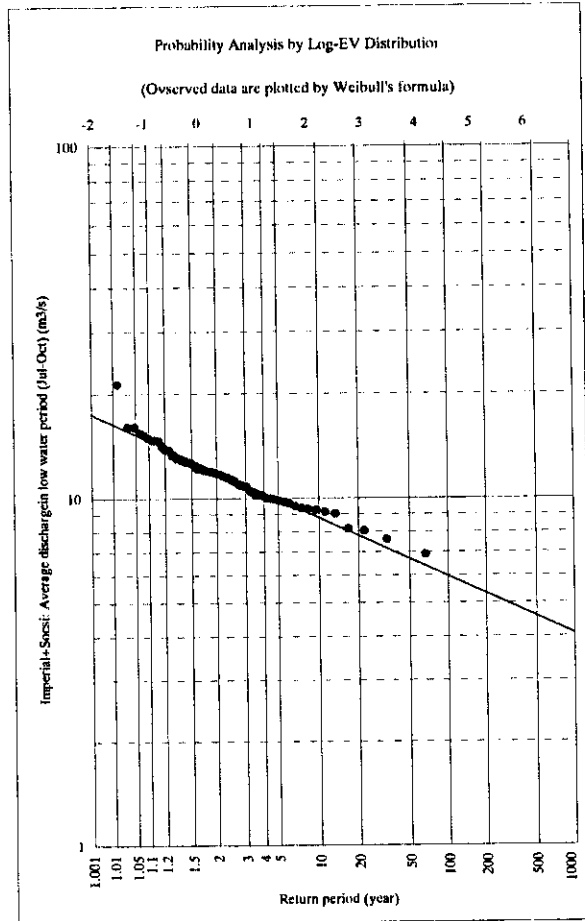
| Calculation results | |
|---------------------|-------------------------------------------------------------------------|
| Return period | Imperial+So csi: Average discharge in low water period (Jun-Sep) (m3/s) |
| 1000 | 4.51 |
| 500 | 5.07 |
| 250 | 5.70 |
| 200 | 5.92 |
| 100 | 6.66 |
| 50 | 7.49 |
| 30 | 8.17 |
| 25 | 8.43 |
| 20 | 8.76 |
| 15 | 9.21 |
| 10 | 9.90 |
| 5 | 11.23 |
| 4 | 11.72 |
| 3 | 12.42 |
| 2 | 13.60 |
| 1.500 | 14.70 |
| 1.333 | 15.28 |
| 1.250 | 15.67 |
| 1.111 | 16.65 |
| 1.071 | 17.11 |
| 1.053 | 17.41 |
| 1.042 | 17.62 |
| 1.034 | 17.78 |
| 1.020 | 18.21 |
| 1.010 | 18.72 |
| 1.005 | 19.17 |
| 1.004 | 19.30 |
| 1.002 | 19.69 |
| 1.001 | 20.04 |



Mean = 11.83
S = 2.35

| Observed data | | | Observed data arranged in the order of magnitude | | |
|---------------|------|-----------------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------|------------------|
| No. | Year | Imperial+So csi: Average discharge in low water period (Jul- Oct) (m3/s) | Year | Imperial+So csi: Average discharge in low water period (Jul- Oct) (m3/s) | Return period |
| 1 | 1926 | 11.3 | 1967 | 21.3 | 1.00 |
| 2 | 1927 | - | 1948 | 16.1 | 1.02 |
| 3 | 1928 | 13.0 | 1986 | 16.1 | 1.02 |
| 4 | 1929 | 12.5 | 1994 | 15.4 | 1.04 |
| 5 | 1930 | 13.0 | 1974 | 15.3 | 1.05 |
| 6 | 1931 | 12.2 | 1934 | 14.9 | 1.08 |
| 7 | 1932 | 11.4 | 1935 | 14.8 | 1.09 |
| 8 | 1933 | 12.7 | 1980 | 14.7 | 1.10 |
| 9 | 1934 | 14.9 | 1976 | 14.7 | 1.10 |
| 10 | 1935 | 14.8 | 1977 | 14.2 | 1.17 |
| 11 | 1936 | 12.0 | 1971 | 13.9 | 1.22 |
| 12 | 1937 | 10.5 | 1978 | 13.8 | 1.24 |
| 13 | 1938 | 11.2 | 1946 | 13.8 | 1.24 |
| 14 | 1939 | 10.9 | 1982 | 13.3 | 1.37 |
| 15 | 1940 | 10.9 | 1955 | 13.3 | 1.37 |
| 16 | 1941 | 9.8 | 1928 | 13.0 | 1.46 |
| 17 | 1942 | 11.9 | 1930 | 13.0 | 1.47 |
| 18 | 1943 | 11.8 | 1952 | 12.9 | 1.51 |
| 19 | 1944 | 12.7 | 1981 | 12.8 | 1.55 |
| 20 | 1945 | 8.5 | 1944 | 12.7 | 1.59 |
| 21 | 1946 | 13.8 | 1954 | 12.7 | 1.59 |
| 22 | 1947 | 11.8 | 1933 | 12.7 | 1.60 |
| 23 | 1948 | 16.1 | 1929 | 12.5 | 1.68 |
| 24 | 1949 | 10.2 | 1969 | 12.3 | 1.79 |
| 25 | 1950 | 9.7 | 1931 | 12.2 | 1.87 |
| 26 | 1951 | 12.0 | 1953 | 12.2 | 1.87 |
| 27 | 1952 | 12.9 | 1963 | 12.2 | 1.88 |
| 28 | 1953 | 12.2 | 1973 | 12.1 | 1.94 |
| 29 | 1954 | 12.7 | 1936 | 12.0 | 1.98 |
| 30 | 1955 | 13.3 | 1951 | 12.0 | 2.00 |
| 31 | 1956 | 9.9 | 1991 | 11.9 | 2.02 |
| 32 | 1957 | 8.1 | 1942 | 11.9 | 2.05 |
| 33 | 1958 | 8.2 | 1988 | 11.8 | 2.09 |
| 34 | 1959 | 9.3 | 1975 | 11.8 | 2.15 |
| 35 | 1960 | 7.8 | 1943 | 11.8 | 2.17 |
| 36 | 1961 | 8.1 | 1947 | 11.6 | 2.27 |
| 37 | 1962 | 11.0 | 1989 | 11.6 | 2.34 |
| 38 | 1963 | 12.2 | 1979 | 11.4 | 2.44 |
| 39 | 1964 | 10.2 | 1932 | 11.4 | 2.49 |
| 40 | 1965 | 10.8 | 1926 | 11.3 | 2.65 |
| 41 | 1966 | 9.4 | 1938 | 11.2 | 2.67 |
| 42 | 1967 | 21.3 | 1962 | 11.0 | 2.95 |
| 43 | 1968 | 8.8 | 1939 | 10.9 | 3.08 |
| 44 | 1969 | 12.3 | 1940 | 10.9 | 3.12 |
| 45 | 1970 | - | 1965 | 10.8 | 3.19 |
| 46 | 1971 | 13.9 | 1937 | 10.5 | 3.68 |
| 47 | 1972 | - | 1996 | 10.4 | 3.93 |
| 48 | 1973 | 12.1 | 1993 | 10.2 | 4.27 |
| 49 | 1974 | 15.3 | 1964 | 10.2 | 4.29 |
| 50 | 1975 | 11.8 | 1949 | 10.2 | 4.40 |
| 51 | 1976 | 14.7 | 1990 | 10.0 | 4.77 |
| 52 | 1977 | 14.2 | 1995 | 10.0 | 4.87 |
| 53 | 1978 | 13.8 | 1956 | 9.9 | 5.03 |
| 54 | 1979 | 11.4 | 1968 | 9.8 | 5.31 |
| 55 | 1980 | 14.7 | 1941 | 9.8 | 5.54 |
| 56 | 1981 | 12.8 | 1950 | 9.7 | 5.87 |
| 57 | 1982 | 13.3 | 1945 | 9.5 | 6.40 |
| 58 | 1983 | - | 1966 | 9.4 | 7.00 |
| 59 | 1984 | - | 1959 | 9.3 | 7.10 |
| 60 | 1985 | - | 1987 | 9.3 | 7.37 |
| 61 | 1986 | 16.1 | 1961 | 9.1 | 8.03 |
| 62 | 1987 | 9.3 | 1997 | 9.0 | 8.61 |
| 63 | 1988 | 11.8 | 1958 | 8.2 | 15.17 |
| 64 | 1989 | 11.6 | 1957 | 8.1 | 16.61 |
| 65 | 1990 | 10.0 | 1960 | 7.6 | 23.35 |
| 66 | 1991 | 11.9 | 1992 | 6.9 | 42.09 |
| 67 | 1992 | 6.9 | | | |
| 68 | 1993 | 10.2 | | | |
| 69 | 1994 | 15.4 | | | |
| 70 | 1995 | 10.0 | | | |
| 71 | 1996 | 10.4 | | | |
| 72 | 1997 | 9.0 | | | |
| 73 | 1998 | - | | | |
| 74 | 1999 | - | | | |
| 75 | | | | | |

| Calculation results | |
|---------------------|-----------------------------------------------------------------------------------------|
| Return period | Imperial+So csi: Average discharge in low water period (Jul- Oct) (m3/s) |
| 1000 | 4.08 |
| 500 | 4.58 |
| 250 | 5.13 |
| 200 | 5.32 |
| 100 | 5.97 |
| 50 | 6.69 |
| 30 | 7.29 |
| 25 | 7.51 |
| 20 | 7.80 |
| 15 | 8.19 |
| 10 | 8.78 |
| 5 | 9.94 |
| 4 | 10.36 |
| 3 | 10.96 |
| 2 | 11.97 |
| 1.500 | 12.91 |
| 1.333 | 13.42 |
| 1.250 | 13.75 |
| 1.111 | 14.59 |
| 1.071 | 14.98 |
| 1.053 | 15.23 |
| 1.042 | 15.41 |
| 1.034 | 15.55 |
| 1.020 | 15.92 |
| 1.010 | 16.35 |
| 1.005 | 16.73 |
| 1.004 | 16.84 |
| 1.002 | 17.17 |
| 1.001 | 17.48 |



Mean = 11.73
S = 2.23

| Observed data N=66 | | | Observed data arranged in the order of magnitude | | |
|--------------------|------|-----------------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------|------------------|
| No. | Year | Imperial+So csi: Average discharge in low water period (Jul- Sep) (m3/s) | Year | Imperial+So csi: Average discharge in low water period (Jul- Sep) (m3/s) | Return period |
| 1 | 1926 | 11.0 | 1986 | 17.3 | 1.00 |
| 2 | 1927 | - | 1967 | 17.2 | 1.00 |
| 3 | 1928 | 12.4 | 1994 | 16.8 | 1.00 |
| 4 | 1929 | 12.1 | 1974 | 15.9 | 1.02 |
| 5 | 1930 | 12.9 | 1934 | 15.3 | 1.04 |
| 6 | 1931 | 12.0 | 1976 | 15.0 | 1.06 |
| 7 | 1932 | 11.6 | 1935 | 15.0 | 1.06 |
| 8 | 1933 | 13.1 | 1971 | 14.8 | 1.07 |
| 9 | 1934 | 15.3 | 1977 | 14.4 | 1.12 |
| 10 | 1935 | 15.0 | 1978 | 13.8 | 1.21 |
| 11 | 1936 | 10.4 | 1946 | 13.7 | 1.23 |
| 12 | 1937 | 10.7 | 1944 | 13.4 | 1.29 |
| 13 | 1938 | 11.8 | 1952 | 13.4 | 1.29 |
| 14 | 1939 | 11.4 | 1933 | 13.1 | 1.40 |
| 15 | 1940 | 10.9 | 1981 | 13.0 | 1.42 |
| 16 | 1941 | 9.2 | 1955 | 13.0 | 1.43 |
| 17 | 1942 | 12.5 | 1991 | 12.9 | 1.45 |
| 18 | 1943 | 11.5 | 1930 | 12.9 | 1.47 |
| 19 | 1944 | 13.4 | 1954 | 12.7 | 1.53 |
| 20 | 1945 | 10.0 | 1951 | 12.7 | 1.55 |
| 21 | 1946 | 13.7 | 1948 | 12.5 | 1.61 |
| 22 | 1947 | 11.6 | 1942 | 12.5 | 1.63 |
| 23 | 1948 | 12.5 | 1953 | 12.5 | 1.65 |
| 24 | 1949 | 10.5 | 1983 | 12.5 | 1.65 |
| 25 | 1950 | 9.9 | 1928 | 12.4 | 1.66 |
| 26 | 1951 | 12.7 | 1929 | 12.1 | 1.83 |
| 27 | 1952 | 13.4 | 1988 | 12.0 | 1.88 |
| 28 | 1953 | 12.5 | 1931 | 12.0 | 1.89 |
| 29 | 1954 | 12.7 | 1973 | 11.9 | 2.01 |
| 30 | 1955 | 13.0 | 1938 | 11.8 | 2.05 |
| 31 | 1956 | 10.4 | 1975 | 11.8 | 2.07 |
| 32 | 1957 | 8.2 | 1979 | 11.8 | 2.09 |
| 33 | 1958 | 8.0 | 1962 | 11.7 | 2.10 |
| 34 | 1959 | 8.9 | 1932 | 11.6 | 2.19 |
| 35 | 1960 | 7.2 | 1947 | 11.6 | 2.21 |
| 36 | 1961 | 9.6 | 1943 | 11.5 | 2.27 |
| 37 | 1962 | 11.7 | 1980 | 11.5 | 2.34 |
| 38 | 1963 | 12.5 | 1939 | 11.4 | 2.36 |
| 39 | 1964 | 10.8 | 1989 | 11.4 | 2.38 |
| 40 | 1965 | 10.8 | 1926 | 11.0 | 2.84 |
| 41 | 1966 | 9.0 | 1940 | 10.9 | 2.97 |
| 42 | 1967 | 17.2 | 1965 | 10.8 | 3.06 |
| 43 | 1968 | 9.6 | 1964 | 10.8 | 3.16 |
| 44 | 1969 | 10.0 | 1937 | 10.7 | 3.21 |
| 45 | 1970 | - | 1996 | 10.7 | 3.25 |
| 46 | 1971 | 14.8 | 1949 | 10.5 | 3.54 |
| 47 | 1972 | - | 1982 | 10.5 | 3.68 |
| 48 | 1973 | 11.9 | 1936 | 10.4 | 3.72 |
| 49 | 1974 | 15.9 | 1956 | 10.4 | 3.72 |
| 50 | 1975 | 11.8 | 1993 | 10.4 | 3.83 |
| 51 | 1976 | 15.0 | 1945 | 10.0 | 4.66 |
| 52 | 1977 | 14.4 | 1969 | 10.0 | 4.72 |
| 53 | 1978 | 13.8 | 1950 | 9.9 | 4.83 |
| 54 | 1979 | 11.8 | 1995 | 9.9 | 4.99 |
| 55 | 1980 | 11.5 | 1961 | 9.6 | 5.72 |
| 56 | 1981 | 13.0 | 1988 | 9.6 | 5.95 |
| 57 | 1982 | 10.5 | 1987 | 9.5 | 6.02 |
| 58 | 1983 | - | 1941 | 9.2 | 7.57 |
| 59 | 1984 | - | 1990 | 9.2 | 7.56 |
| 60 | 1985 | - | 1997 | 9.1 | 7.83 |
| 61 | 1986 | 17.3 | 1966 | 9.0 | 8.24 |
| 62 | 1987 | 9.5 | 1959 | 8.9 | 9.17 |
| 63 | 1988 | 12.0 | 1957 | 8.2 | 14.50 |
| 64 | 1989 | 11.4 | 1958 | 8.0 | 16.38 |
| 65 | 1990 | 9.2 | 1960 | 7.2 | 31.60 |
| 66 | 1991 | 12.9 | 1992 | 6.7 | 47.69 |
| 67 | 1992 | 6.7 | | | |
| 68 | 1993 | 10.4 | | | |
| 69 | 1994 | 16.8 | | | |
| 70 | 1995 | 9.9 | | | |
| 71 | 1996 | 10.7 | | | |
| 72 | 1997 | 9.1 | | | |
| 73 | 1998 | - | | | |
| 74 | 1999 | - | | | |
| 75 | | | | | |

| Calculation results | |
|---------------------|-----------------------------------------------------------------------------------------|
| Return period | Imperial+So csi: Average discharge in low water period (Jul- Sep) (m3/s) |
| 1000 | 4.09 |
| 500 | 4.58 |
| 250 | 5.13 |
| 200 | 5.32 |
| 100 | 5.96 |
| 50 | 6.67 |
| 30 | 7.26 |
| 25 | 7.49 |
| 20 | 7.77 |
| 15 | 8.15 |
| 10 | 8.74 |
| 5 | 9.87 |
| 4 | 10.29 |
| 3 | 10.88 |
| 2 | 11.87 |
| 1.500 | 12.80 |
| 1.333 | 13.29 |
| 1.250 | 13.62 |
| 1.111 | 14.44 |
| 1.071 | 14.82 |
| 1.053 | 15.07 |
| 1.042 | 15.25 |
| 1.034 | 15.38 |
| 1.020 | 15.74 |
| 1.010 | 16.16 |
| 1.005 | 16.54 |
| 1.004 | 16.65 |
| 1.002 | 16.97 |
| 1.001 | 17.27 |

