**SUPPLEMENTARY MATERIALS: APPLICATION OF SHANNON ENTROPY IN ASSESSING CHANGES IN PRECIPITATION CONDITIONS AND TEMPERATURE BASED ON LONG-TERM SEQUENCES USING THE BOOTSTRAP METHOD**

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Table 1 summarizes the results of calculations for monthly rainfall extremes. The following information is listed sequentially: row number, GRDC code, WMO region code , river name, country code, catchment area, then for the Shannon entropy of the left tail: significance of MKT, trend, year of trend change, significance of the Pettitt test, significance of the new MKT trend, new trend for the sub-series since the change, then for the right tail: significance of MKT, trend, year of trend change, significance of the PCPT test, significance of the new MKT trend, new trend for the sub-series since the change.

Table 2 summarizes the results of calculations for the extremes of monthly average temperatures. The following information is listed sequentially: row number, GRDC code, WMO region code , river name, country code, catchment area, then for the Shannon entropy of the left tail: significance of MKT, trend, year of trend change, significance of the Pettitt test, significance of the new MKT trend, new trend for the sub-series since the change, then for the right tail: significance of MKT, trend, year of trend change, significance of the PCPT test, significance of the new MKT trend, new trend for the sub-series since the change.

Table 3 contains information on the variation of Shannon entropy with rainfall and temperature. The following information is included sequentially: row number, GRDC code, WMO region code , river name, station name, country code, country name, catchment area, Shannon entropy variability in terms of Euclidean norm for: precipitation, temperature, and precipitation and temperature, respectively.

Figures 1-6 show the catchments of WMO regions in which significant trends in Shannon entropy for extreme values of monthly precipitation were recognized at the 5% significance level. The placed points characterizing the catchments have, respectively, the coordinates of the trends of Shannon entropy values for minimum precipitation values and the trends of Shannon entropy values for maximum monthly precipitation totals. The distance from the beginning of the coordinate system characterizes the catchments in which the entropy dynamics is highest in the precipitation area. The numerical values are included in Table 1

Figures 7-12 show the catchments of the WMO regions in which significant Shannon entropy trends were recognized at the 5% significance level for the extreme values of monthly mean temperatures. The placed points characterizing the catchments have, respectively, the coordinates of the trends of Shannon entropy values for minimum temperature values and the trends of Shannon entropy values for maximum temperature values. The distance from the beginning of the coordinate system characterizes the catchments with the highest entropy dynamics in the temperature area. The numerical values are listed in Table 2.

Figures 13-16 show spatially the catchments and years in which there were changes in the Shannon entropy trend for the minimum and maximum values of monthly average temperatures and monthly precipitation at the 5% significance level.

Figures 17-22 show the catchments of the WMO regions in which the highest dynamics of Shannon entropy trends for minimum and maximum precipitation values were recognized at the 5% significance level: KHATANGA : RUSSIAN FEDER, MACARTHUR RIVER : AUSTRALIA, QUOICH RIVER : CANADA, ANYUY : RUSSIAN FEDER. For minimum and maximum temperature values: LOA : CHILE, LEMPA: EL SALVADOR, GODAVARI : INDIA, SVARTA : ICELAND. The greatest dynamics in the area of variability of precipitation and temperature were shown in the catchments: KHATANGA: RUSSIAN FEDER, MACARTHUR RIVER: AUSTRALIA, QUOICH RIVER: CANADA, ANYUY: RUSSIAN FEDER. In these catchments, extreme weather anomalies can be expected in the area of temperature and precipitation

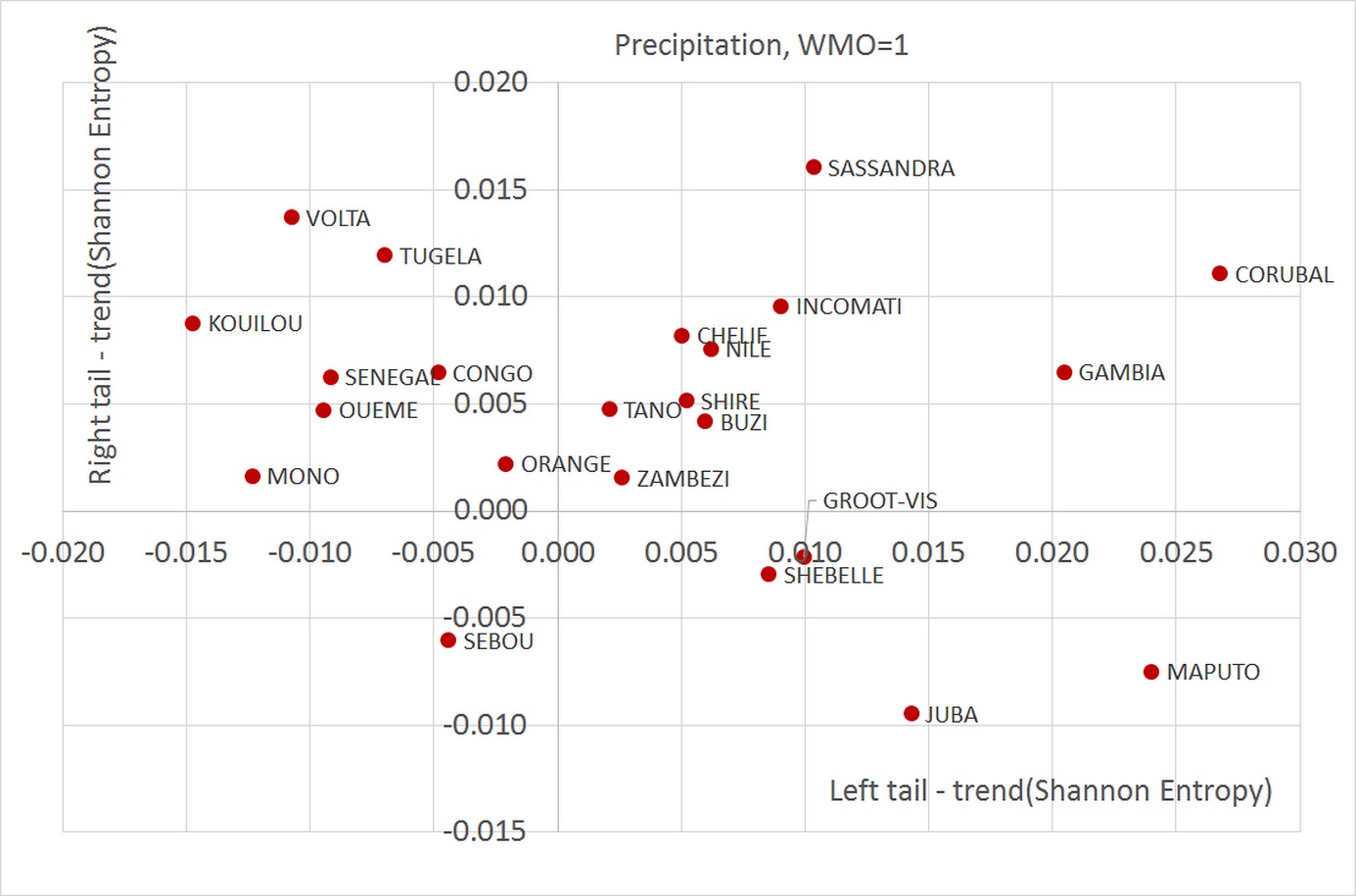


Figure 1. Catchments of the region for which WMO\_REG=1, in which significant trends in Shannon entropy for extreme values of monthly precipitation were recognized at the 5% significance level.

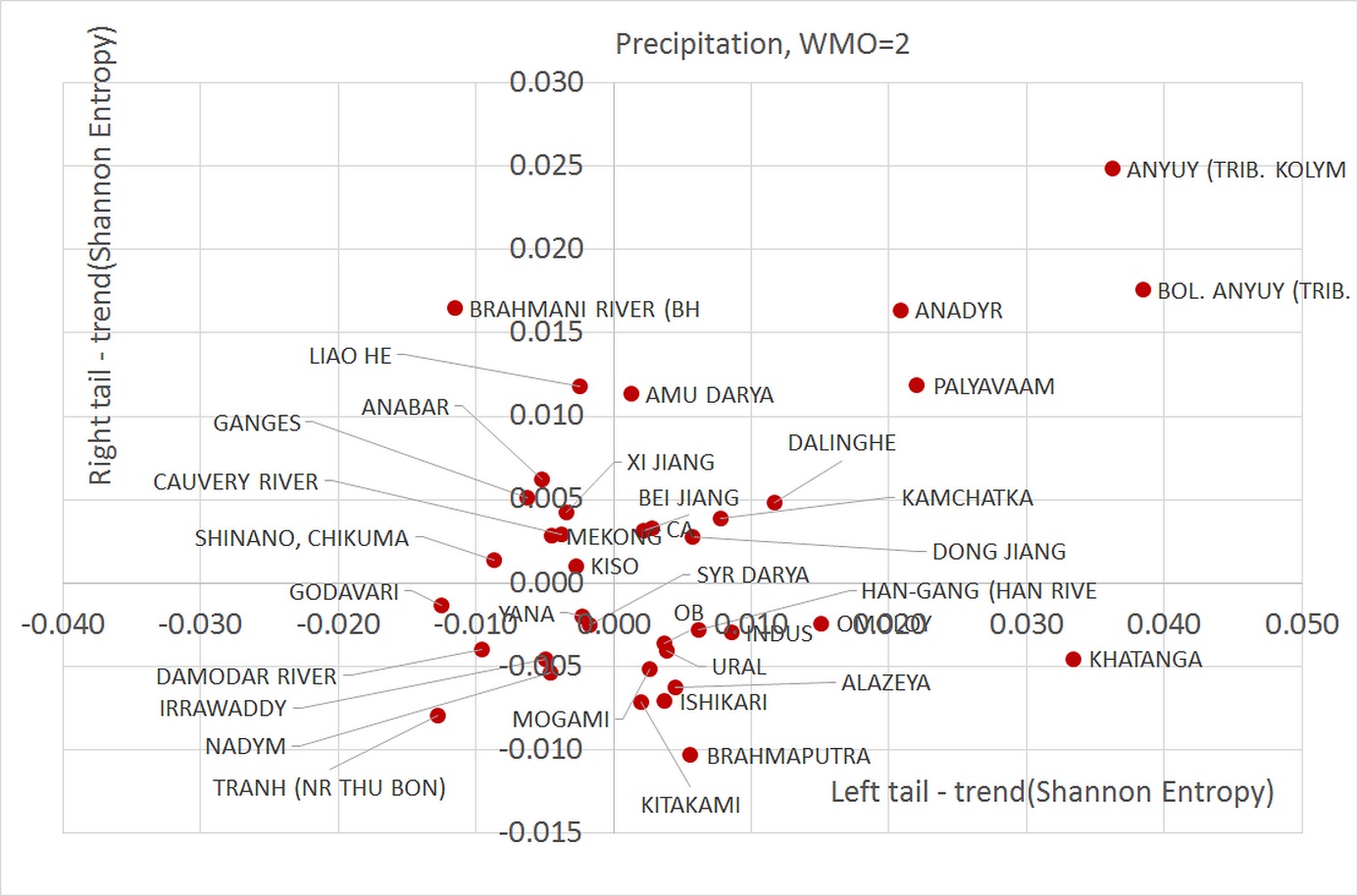


Figure 2. Catchments of the region for which WMO\_REG=2, in which significant trends in Shannon entropy for extreme values of monthly precipitation were recognized at the 5% significance level.

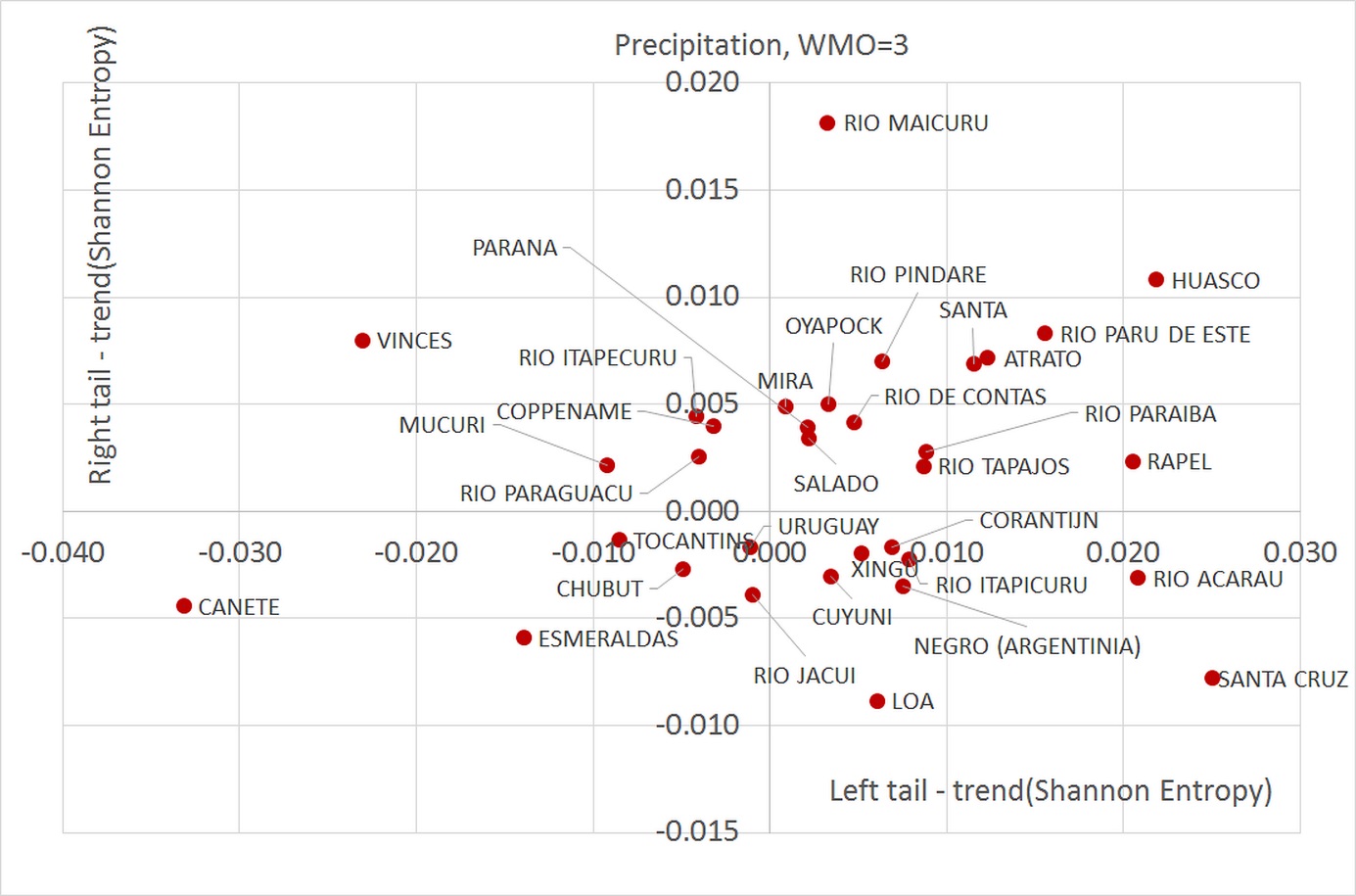


Figure 3. Catchments of the region for which WMO\_REG=3, in which significant trends in Shannon entropy for extreme values of monthly precipitation were recognized at the 5% significance level.

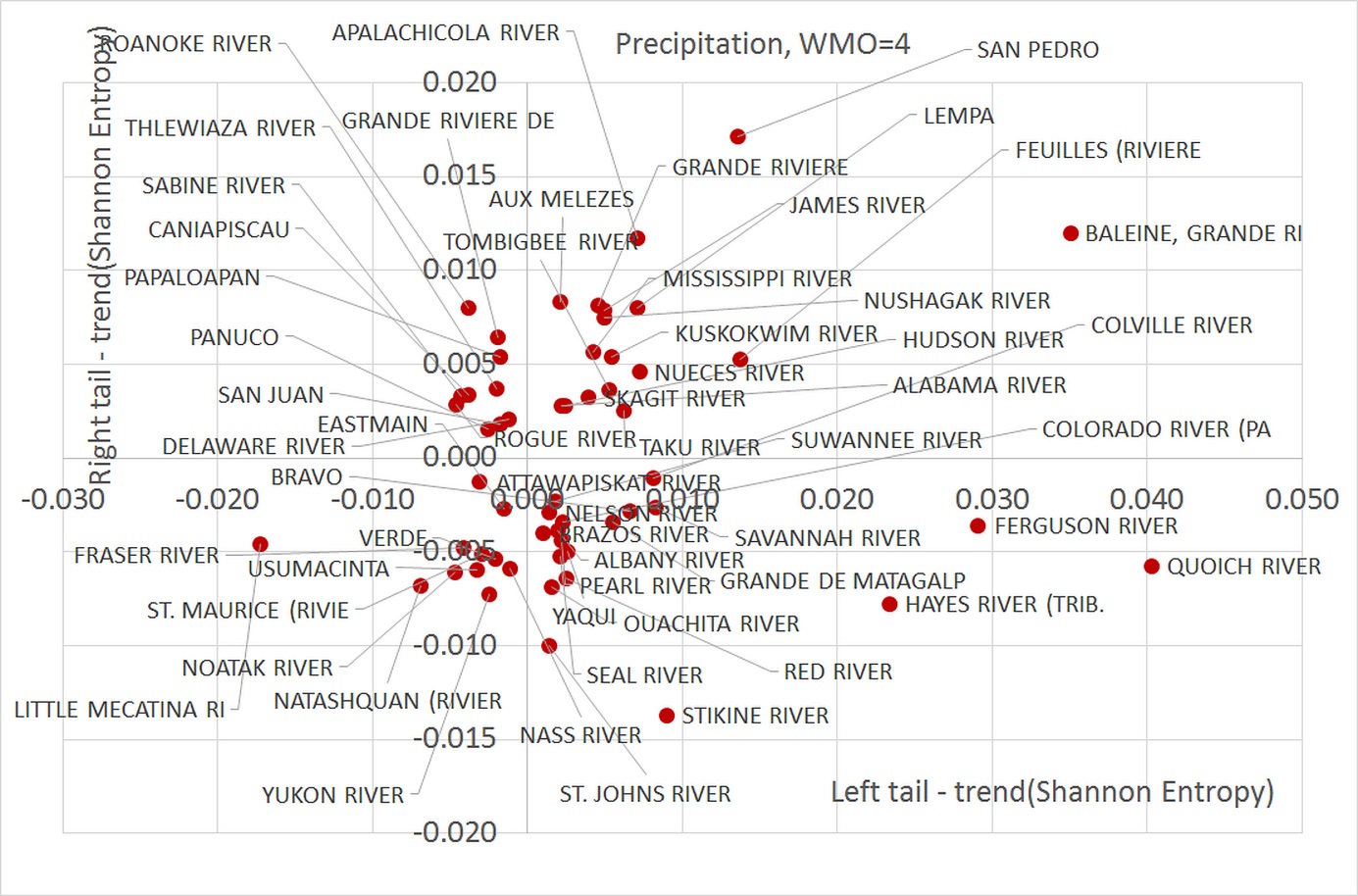


Figure 4. Catchments of the region for which WMO\_REG=4, in which significant trends in Shannon entropy for extreme values of monthly precipitation were recognized at the 5% significance level.

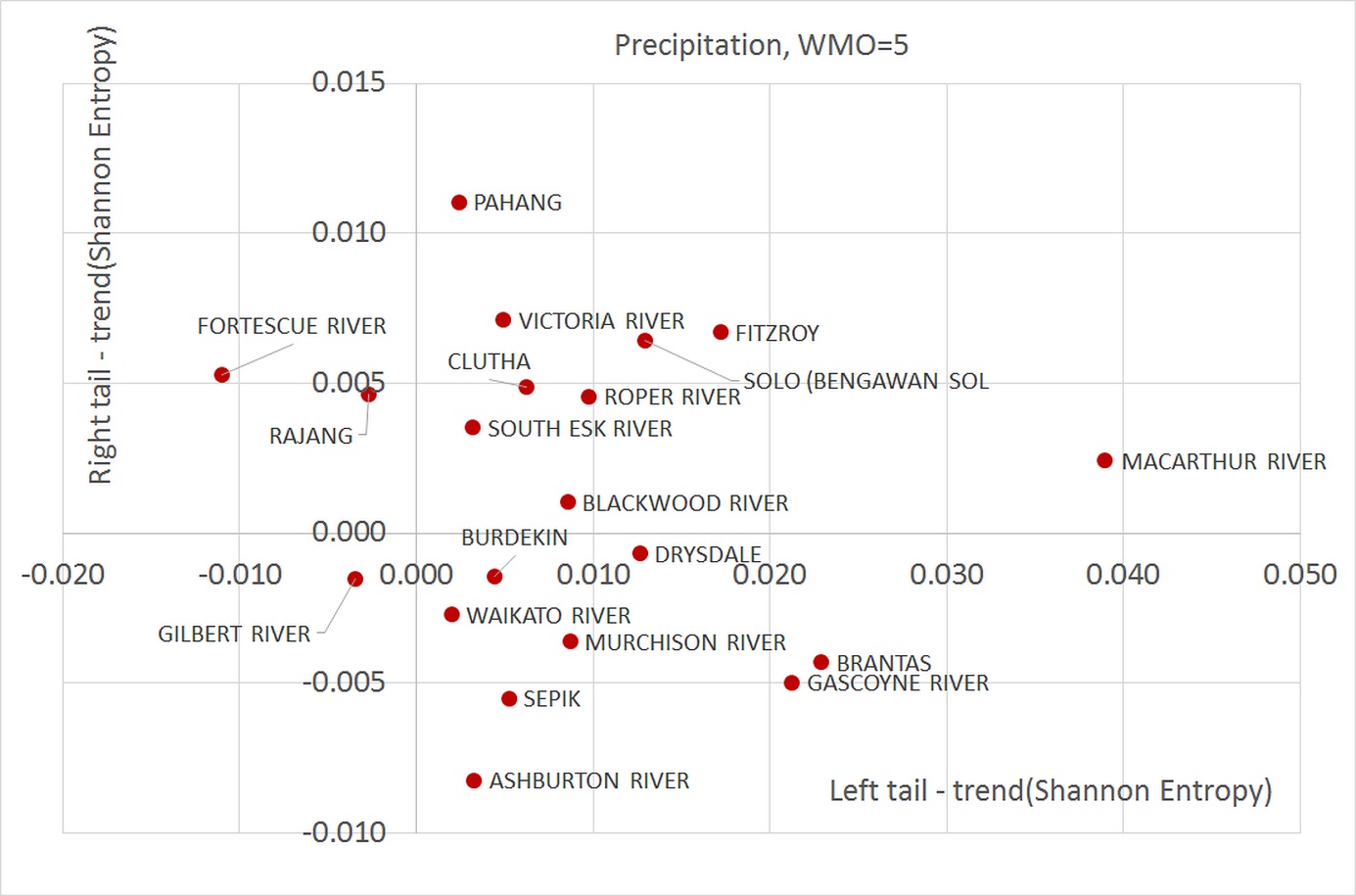


Figure 5. Catchments of the region for which WMO\_REG=5, in which significant trends in Shannon entropy for extreme values of monthly precipitation were recognized at the 5% significance level.

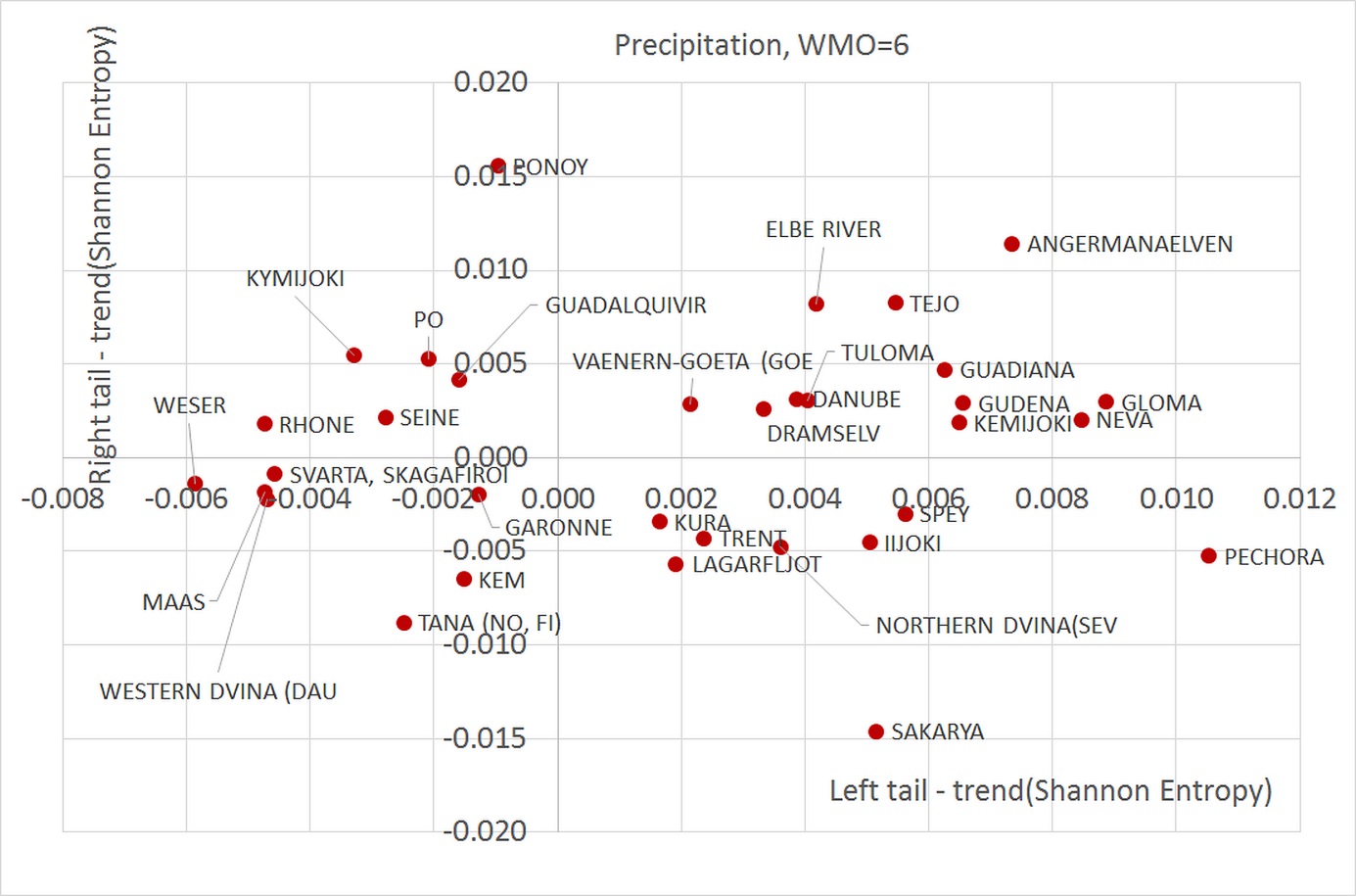


Figure 6. Catchments of the region for which WMO\_REG=6, in which significant trends in Shannon entropy for extreme values of monthly precipitation were recognized at the 5% significance level.

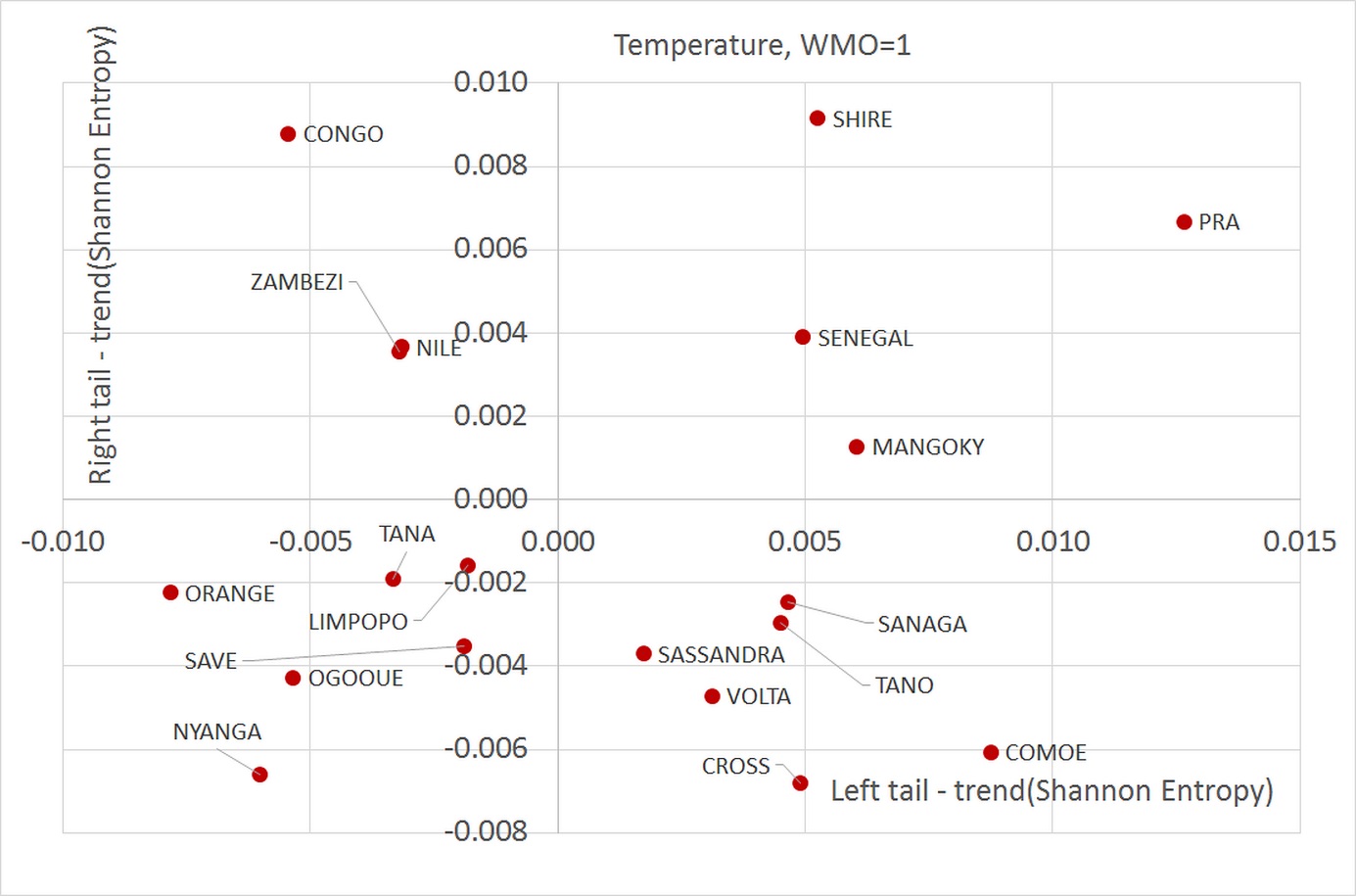


Figure 7. Catchment areas of the region for which WMO\_REG=1, in which significant Shannon entropy trends for extreme monthly average temperatures were recognized at the 5% significance level.

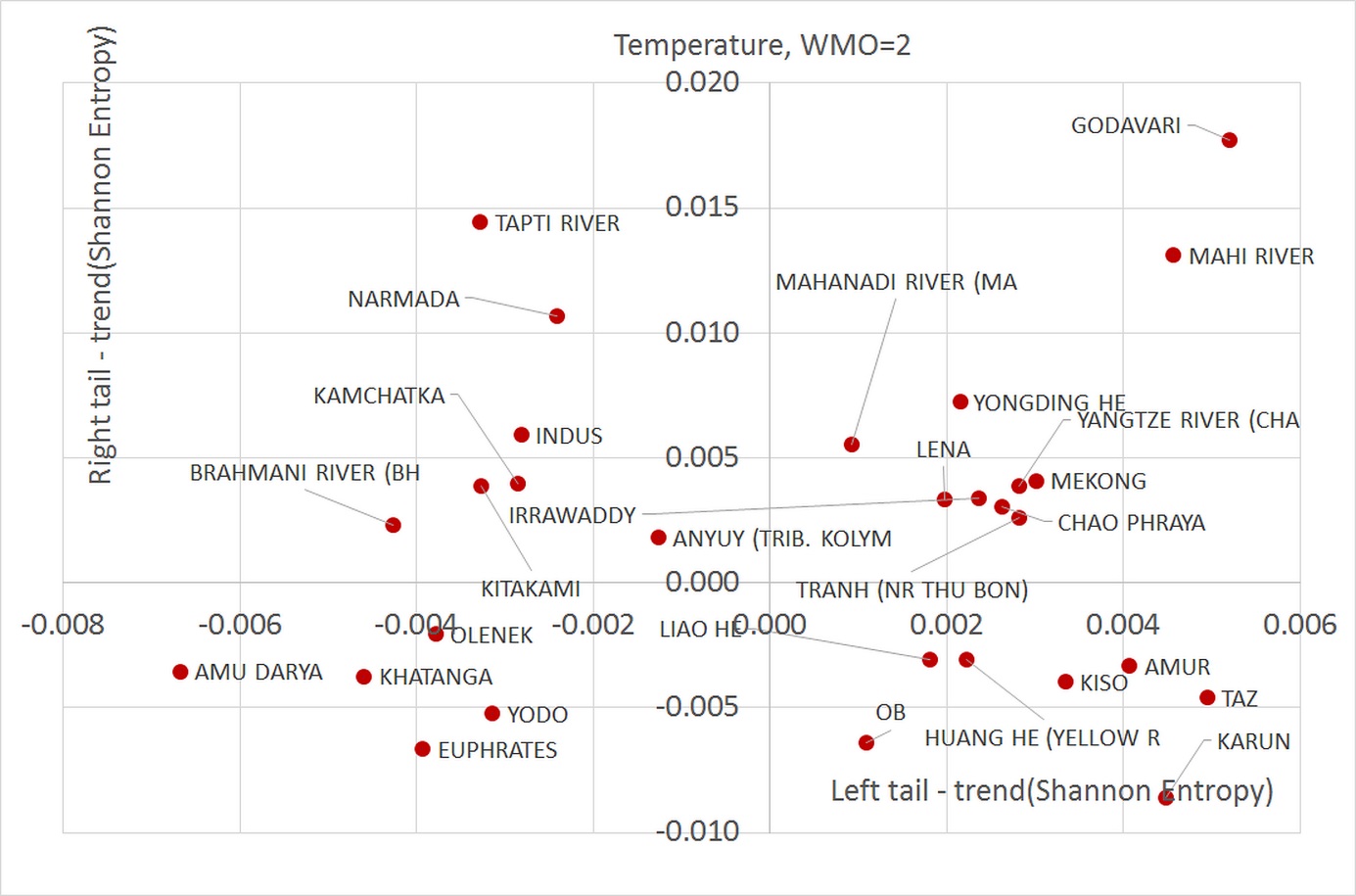


Figure 8. Catchment areas of the region for which WMO\_REG=2, in which significant Shannon entropy trends for extreme monthly average temperatures were recognized at the 5% significance level.

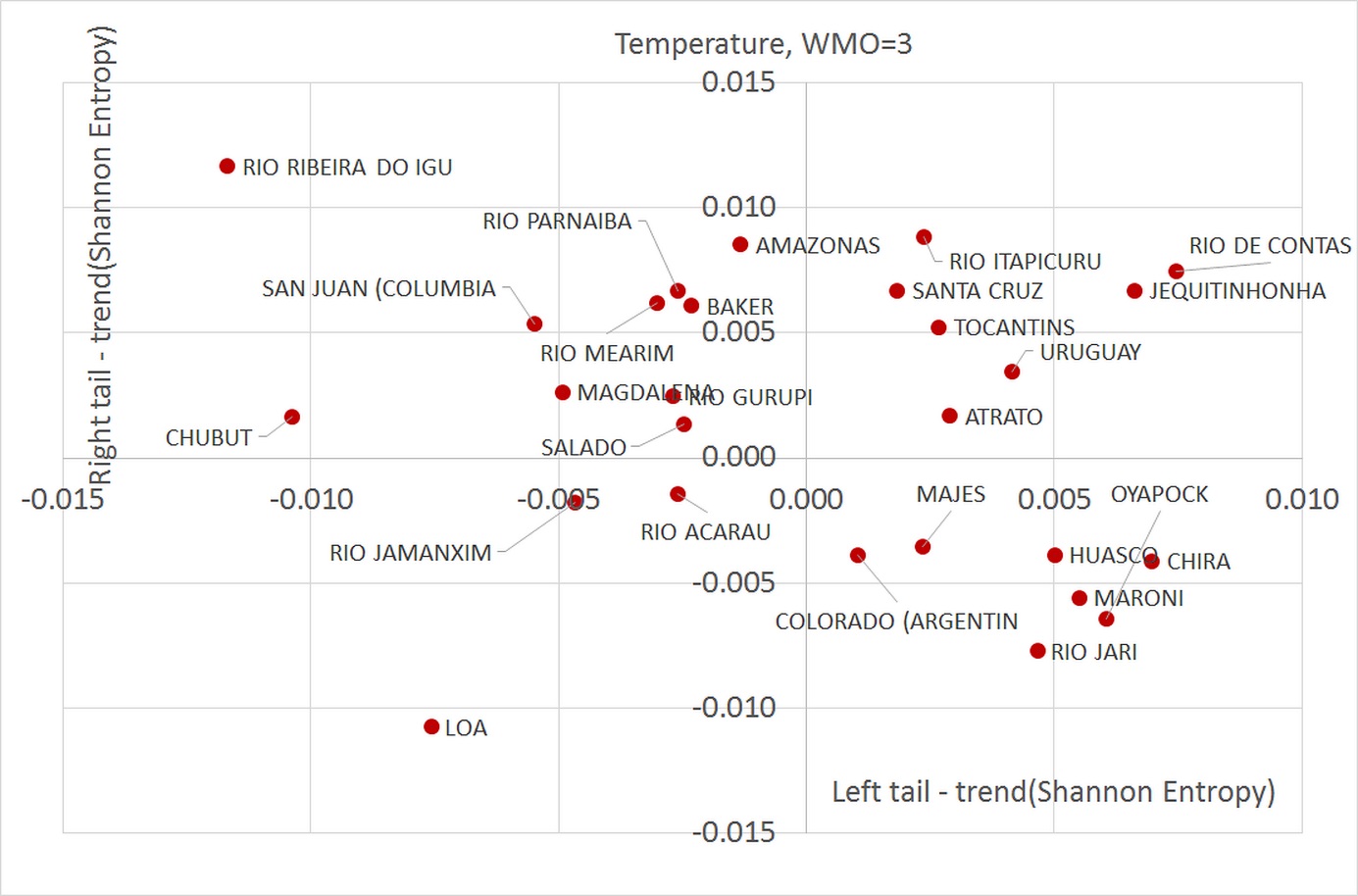


Figure 9. Catchment areas of the region for which WMO\_REG=3, in which significant Shannon entropy trends for extreme monthly average temperatures were recognized at the 5% significance level.

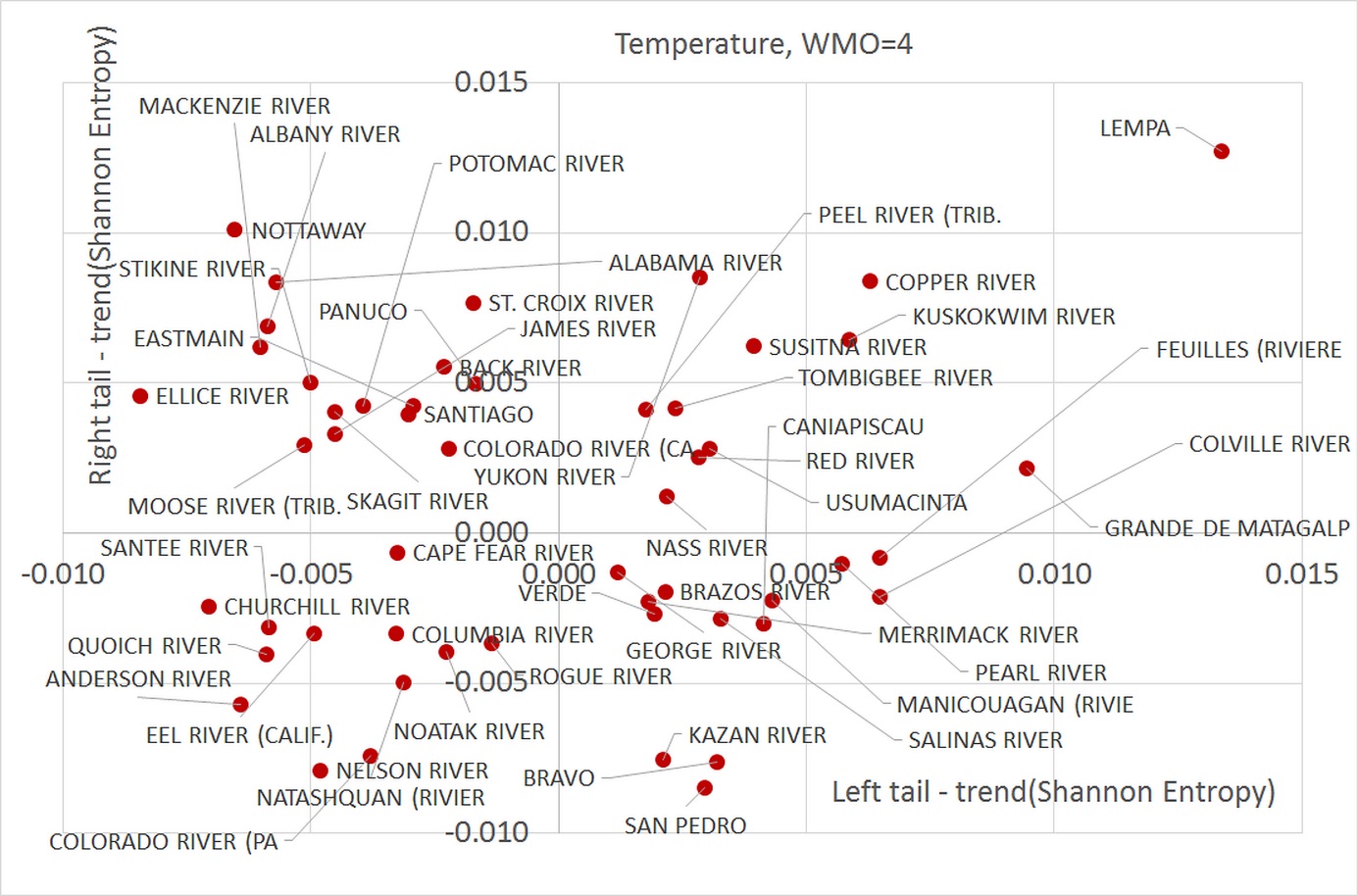


Figure 10. Catchment areas of the region for which WMO\_REG=4, in which significant Shannon entropy trends for extreme monthly average temperatures were recognized at the 5% significance level.

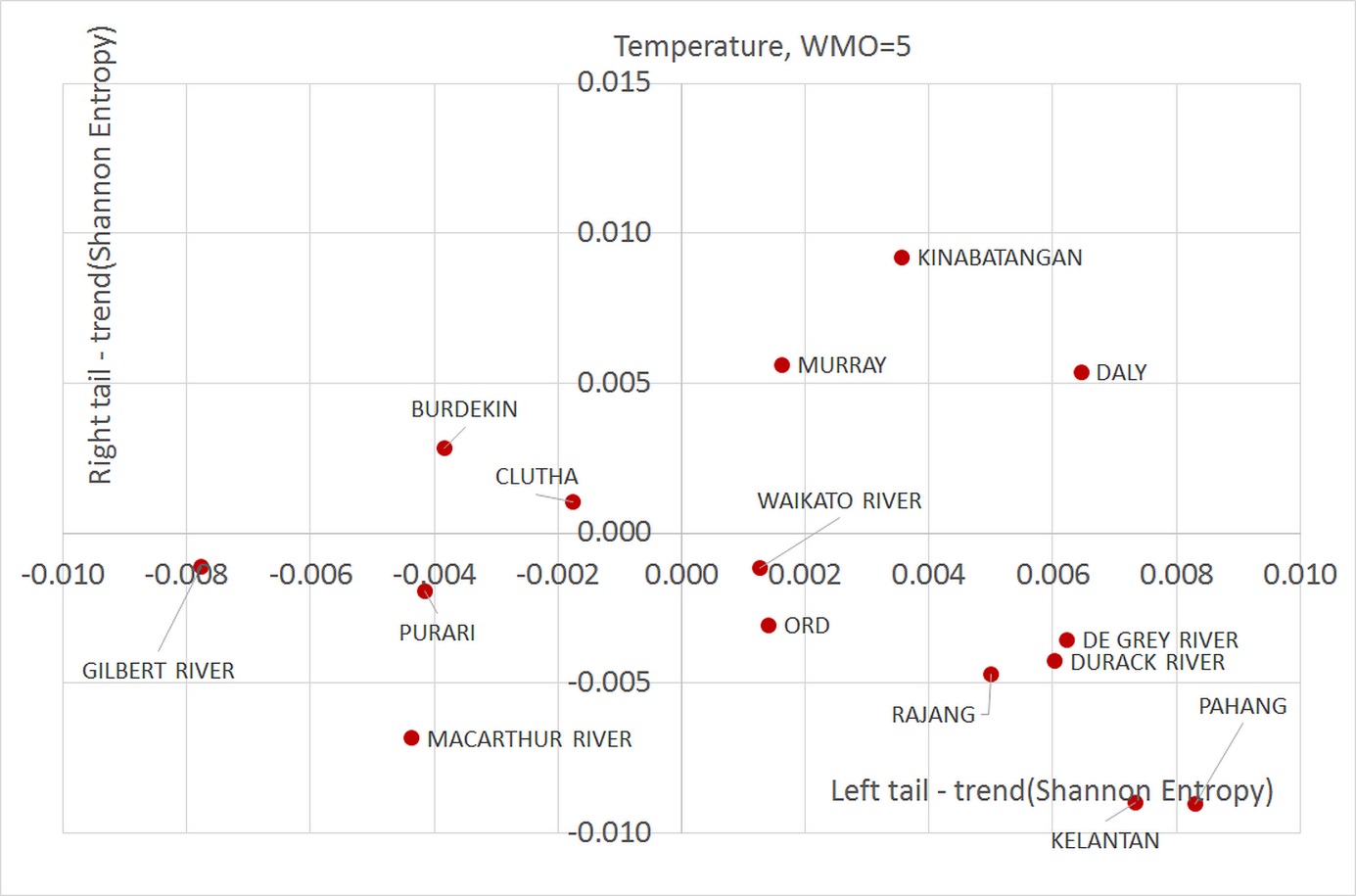


Figure 11. Catchment areas of the region for which WMO\_REG=5, in which significant Shannon entropy trends for extreme monthly average temperatures were recognized at the 5% significance level.

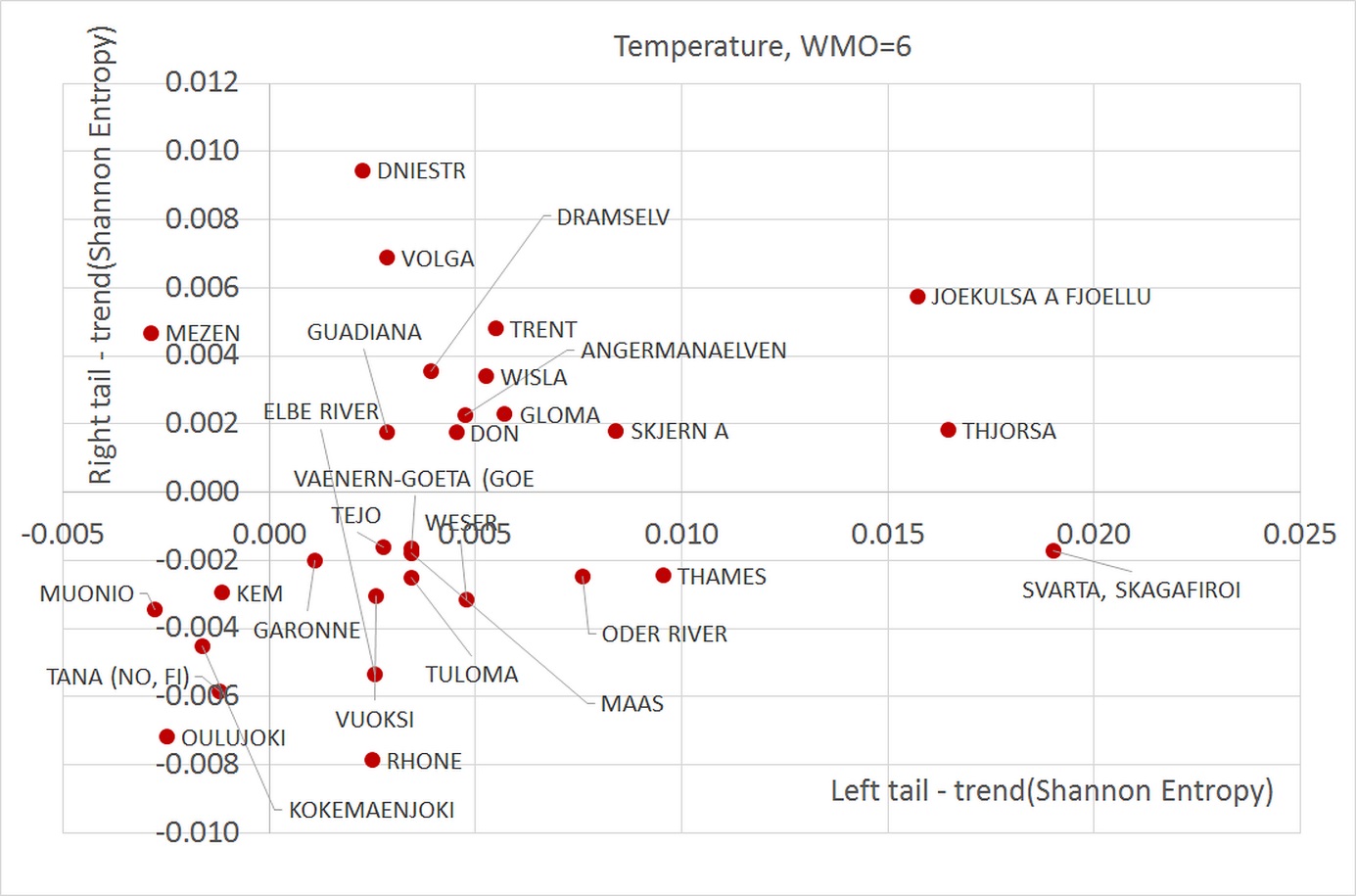


Figure 12. Catchment areas of the region for which WMO\_REG=6, in which significant Shannon entropy trends for extreme monthly average temperatures were recognized at the 5% significance level.

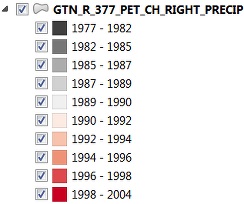
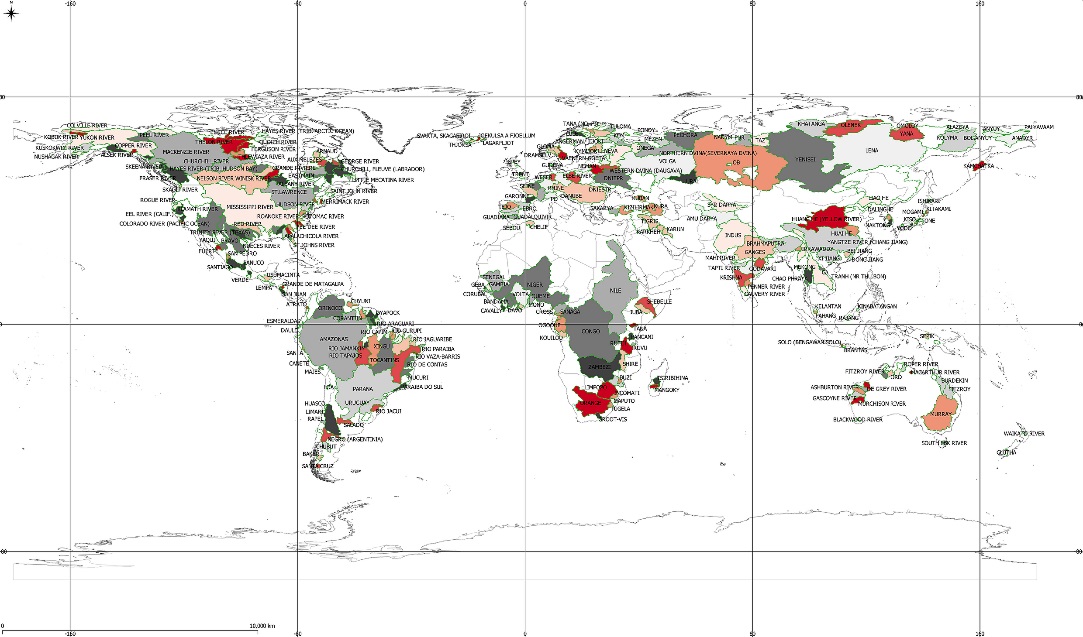


Figure 13. Shannon entropy trends for monthly precipitation maximum values - year of trend change.

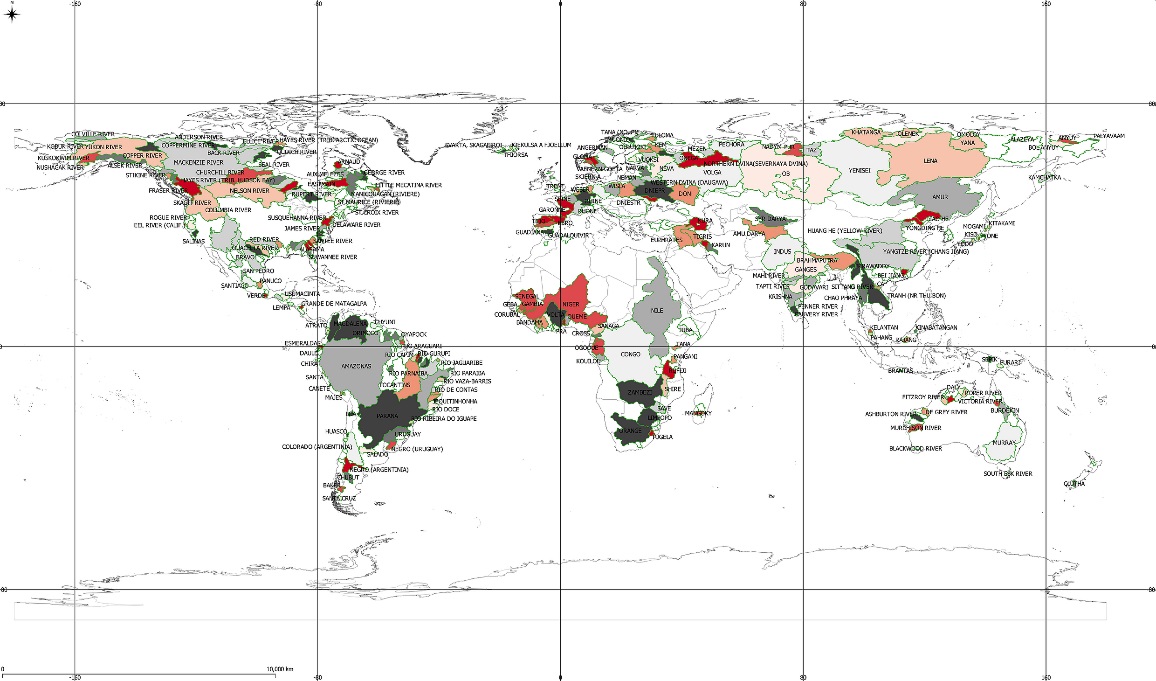


Figure 14. Shannon entropy trends for maximum values of monthly average temperatures - year of trend change.

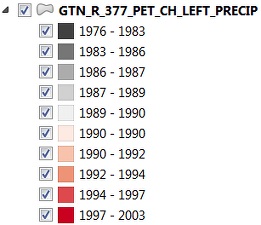
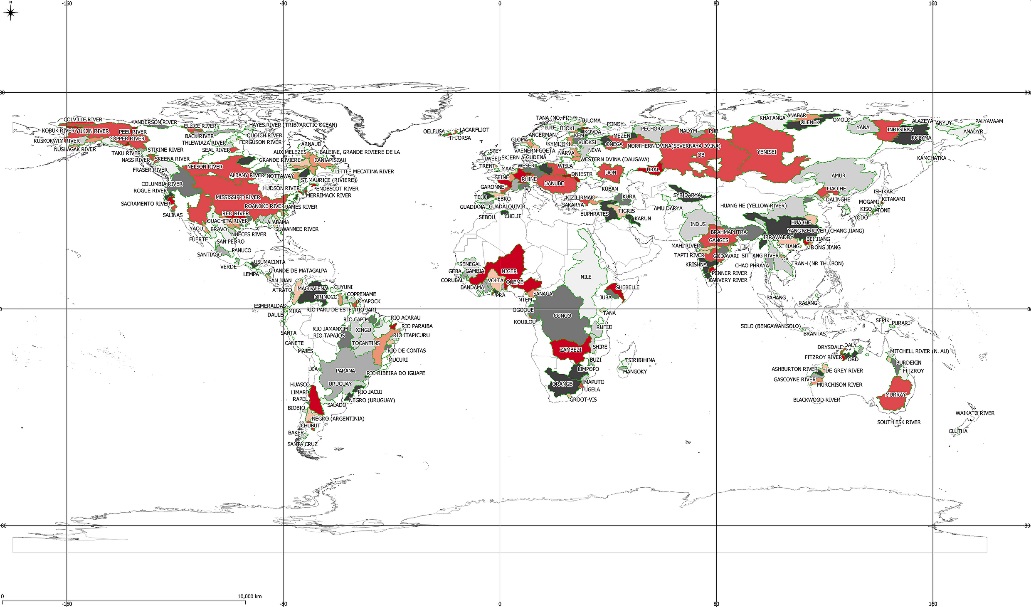


Figure . Shannon entropy trends for minimum values of monthly precipitation totals - year of trend change.

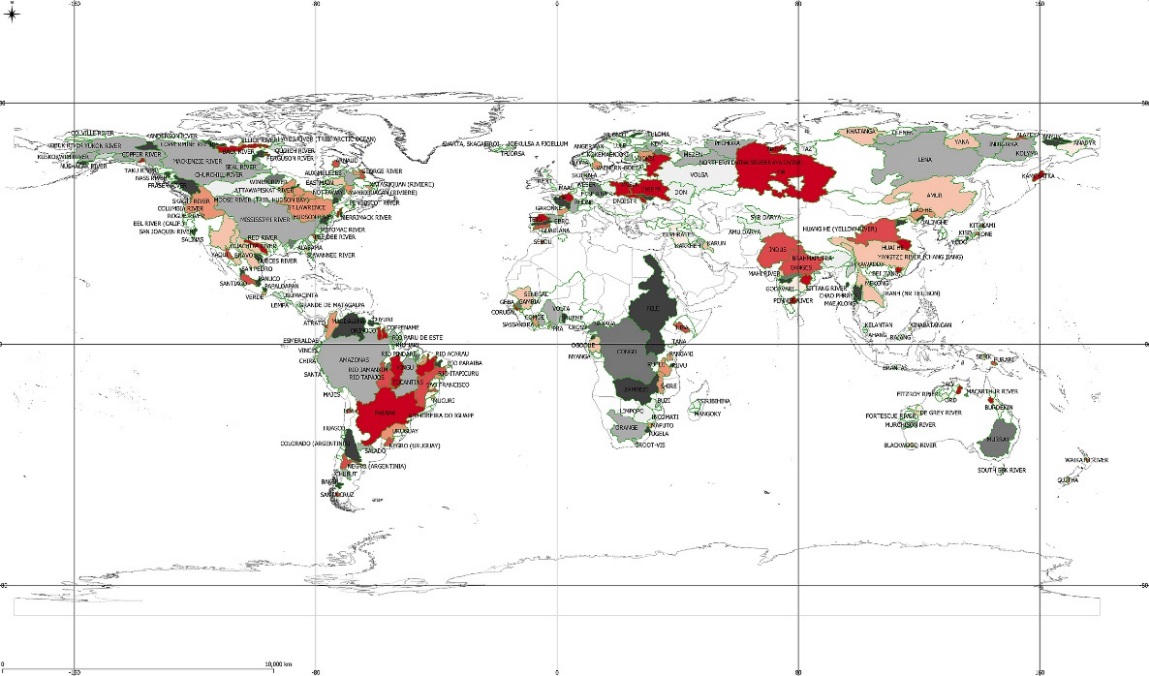


Figure . Shannon entropy trends for minimum values of monthly average temperatures - year of trend change.

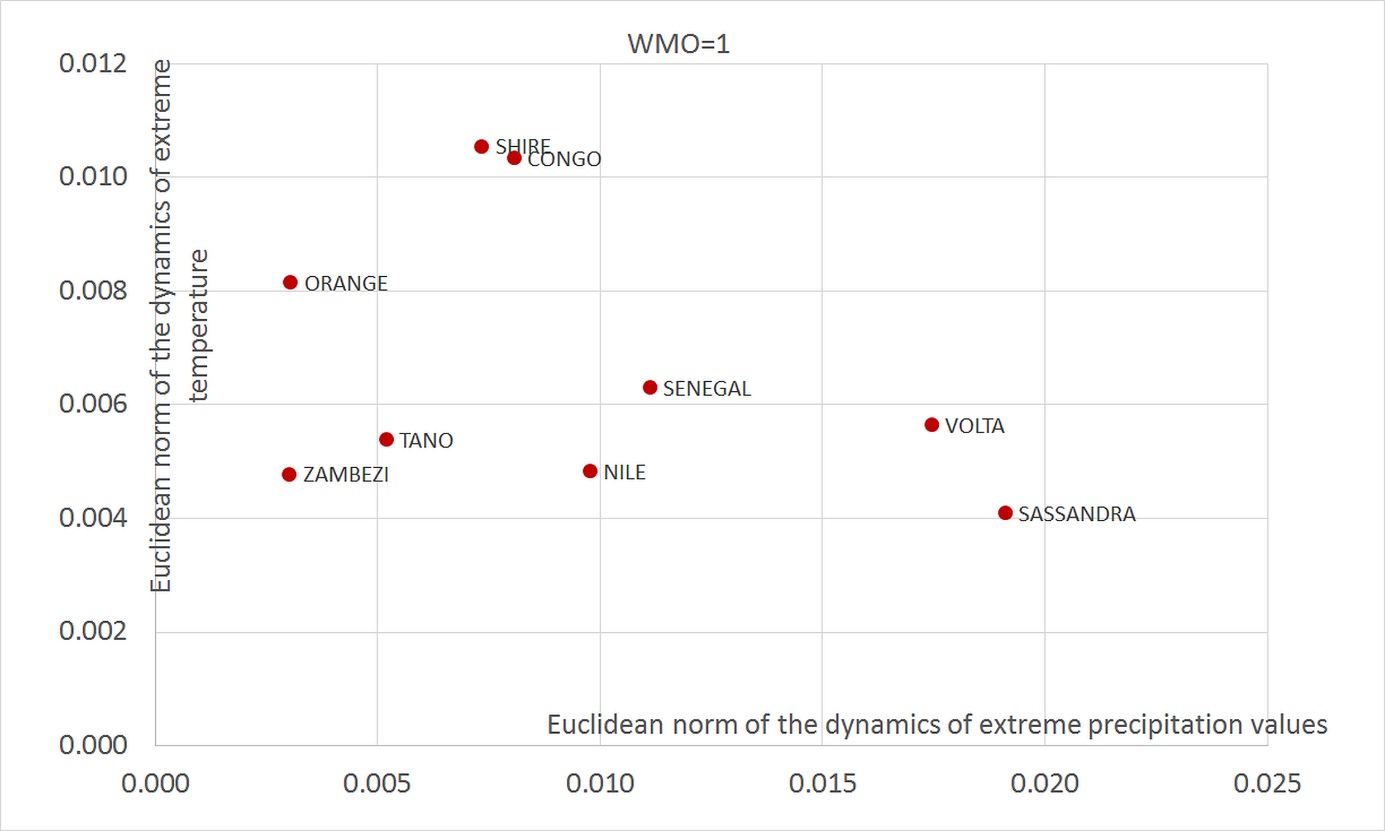


Figure . The catchments of the region for which WMO\_REG=1, in which the greatest dynamics of Shannon entropy trends for minimum and maximum values of precipitation and temperature were recognized at the 5% significance level.

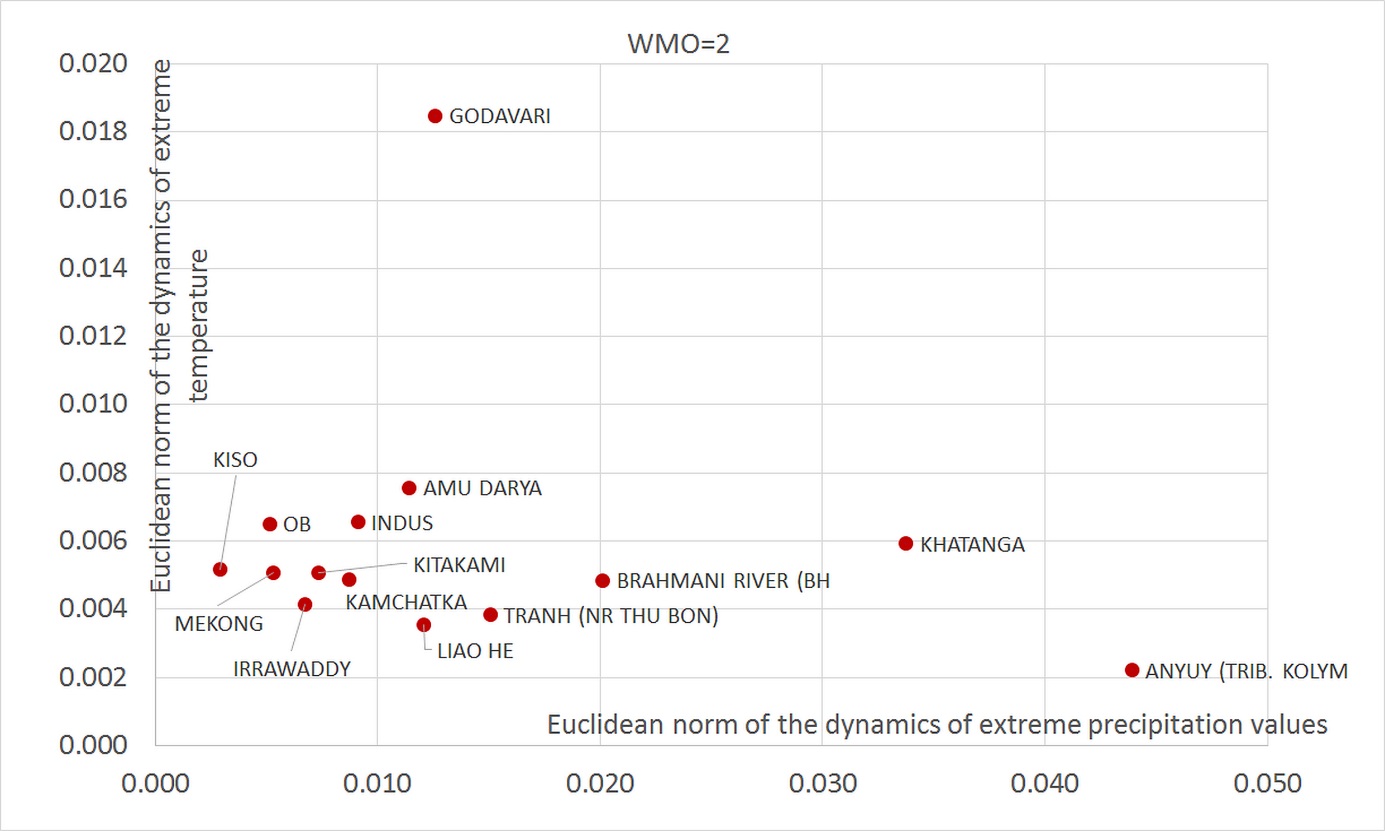


Figure . The catchments of the region for which WMO\_REG=2, in which the greatest dynamics of Shannon entropy trends for minimum and maximum values of precipitation and temperature were recognized at the 5% significance level.

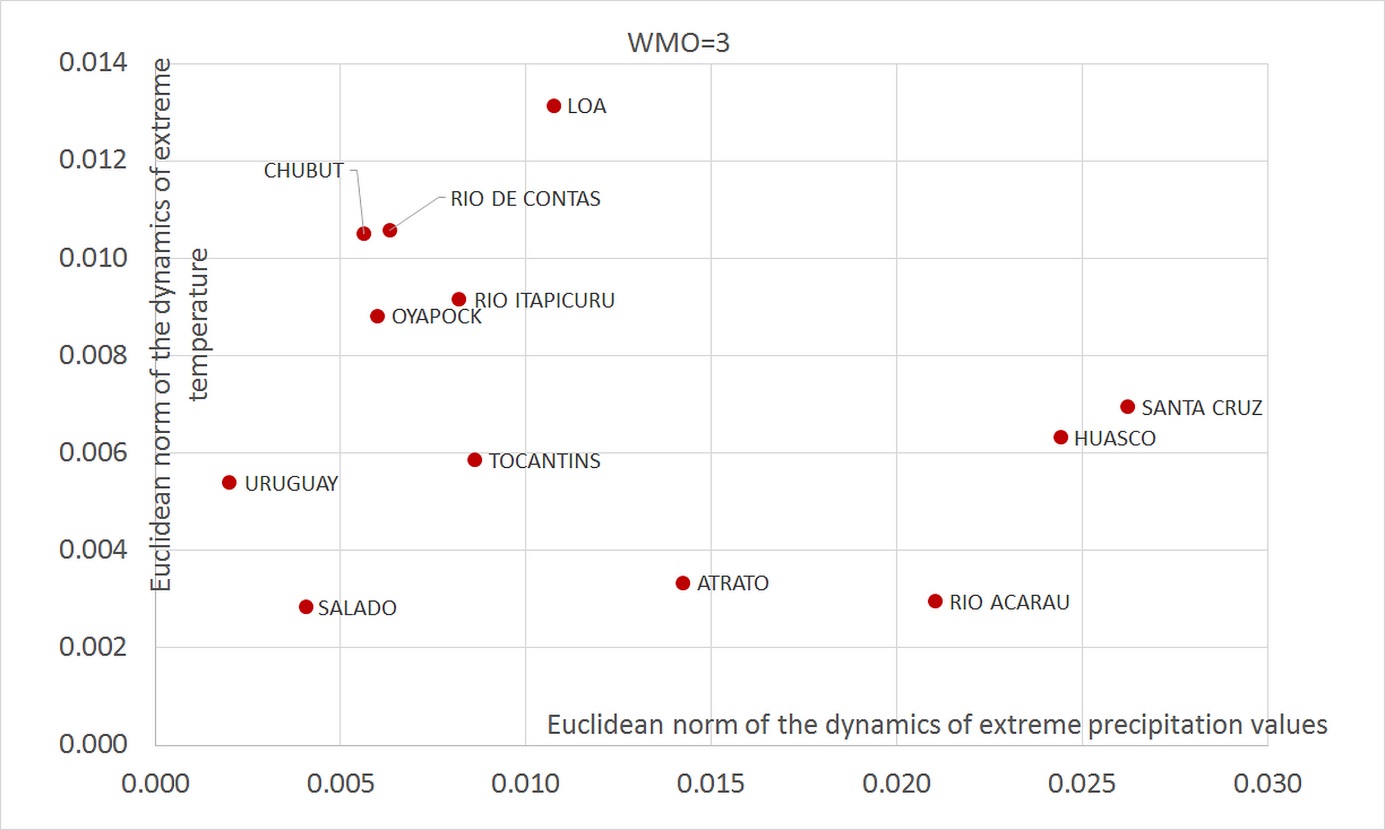


Figure . The catchment areas of the region for which WMO\_REG=3, in which the greatest dynamics of Shannon entropy trends for minimum and maximum values of precipitation and temperature were recognized at the 5% significance level.

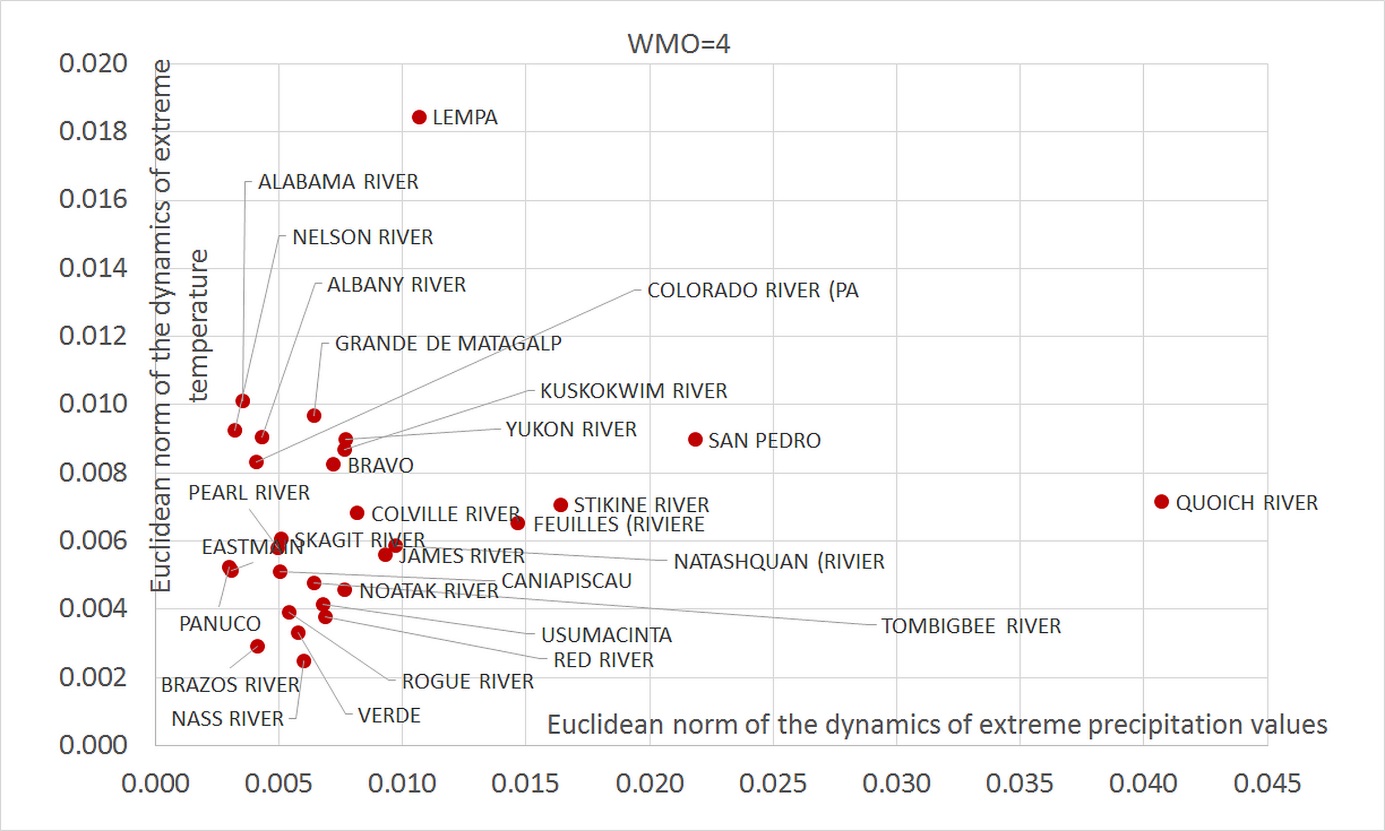


Figure . The catchments of the region for which WMO\_REG=4, in which the greatest dynamics of Shannon entropy trends for minimum and maximum values of precipitation and temperature were recognized at the 5% significance level.

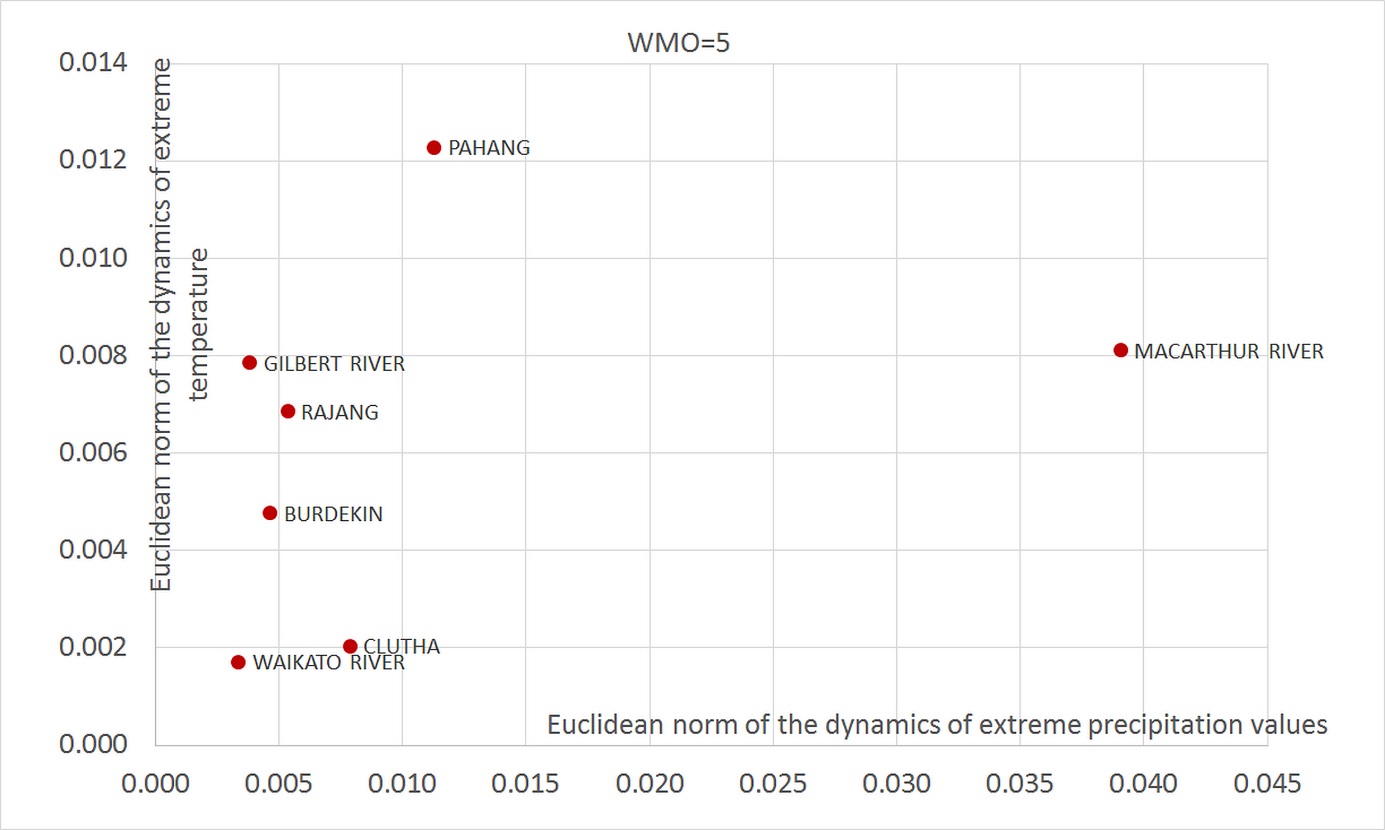


Figure . The catchment areas of the region for which WMO\_REG=5, in which the greatest dynamics of Shannon entropy trends for minimum and maximum values of precipitation and temperature were recognized at the 5% significance level.

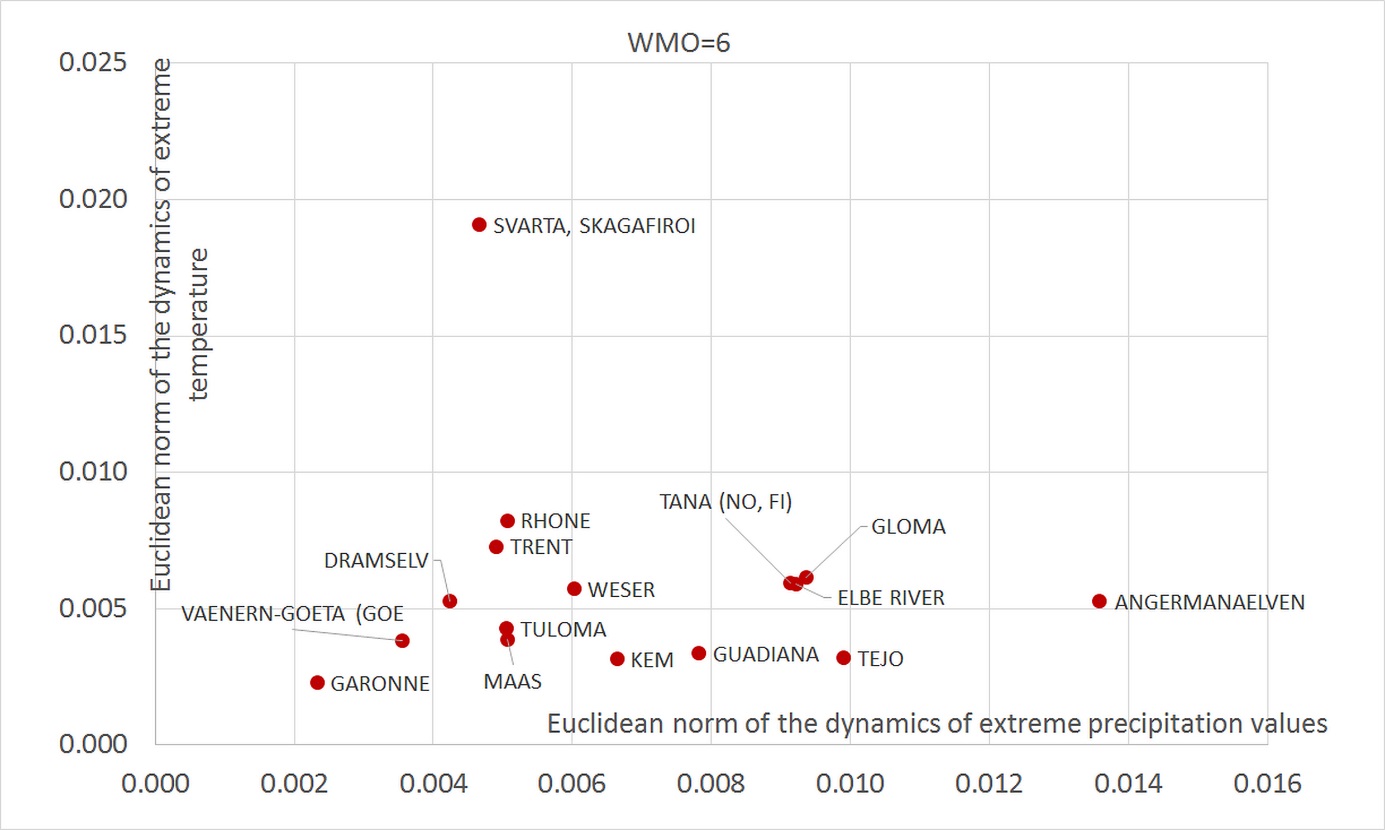


Figure . The catchments of the region for which WMO\_REG=6, in which the greatest dynamics of Shannon entropy trends for minimum and maximum values of precipitation and temperature were recognized at the 5% significance level.

Table 1. Shannon entropy trend characteristics calculated from monthly rainfall totals in the analyzed catchments.

| Lp | GRDC\_NO | WMO\_REG | RIVER | CNT\_CO | AREA | left\_p\_val | left\_sen | left\_chan\_PT | left\_p\_val\_PT | left\_p\_val\_n | left\_sen\_n | right\_p\_val | right\_sen | right\_chan\_PT | right\_p\_val\_PT | right\_p\_val\_n | right\_sen\_n |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | WMO region | Name of river | Country Code | Area catchment  [km2] | Significance TKM of Shannon entropy of min values | Slope of Shannon entropy, min values  [bit/year] | Year of change of slope of Shannon entropy min values | Significance Pettitt test, min values | Significance TKM of Shannon entropy of min values - subseries | Slope of Shannon entropy, min values -subseries  [bit/year] | Significance TKM of Shannon entropy of max values | Slope of Shannon entropy, max values  [bit/year] | Year of change of slope of Shannon entropy max values | Significance Pettitt test, max values | Significance MKT of Shannon entropy of max values - subseries | Slope of Shannon entropy, max values -subseries  [bit/year] |
| 1 | 1104150 | 1 | CHELIF | DZ | 43750 | 3.81E-02 | 5.03E-03 | 1976 | 4.45E-02 | 6.68E-07 | 7.11E-03 | 1.67E-06 | 8.22E-03 | 1993 | 1.02E-05 | 4.51E-06 | 1.06E-02 |
| 2 | 1147010 | 1 | CONGO | CD | 3475000 | 5.68E-09 | -4.82E-03 | 1984 | 1.27E-04 | 1.56E-02 | -1.71E-03 | 4.95E-08 | 6.46E-03 | 1985 | 5.56E-06 | 7.78E-02 | 3.54E-03 |
| 3 | 1159100 | 1 | ORANGE | ZA | 850530 | 2.31E-02 | -2.09E-03 | 1981 | 7.78E-04 | 2.95E-02 | 2.49E-03 | 1.65E-03 | 2.21E-03 | 1999 | 8.63E-03 | 6.41E-02 | 6.10E-03 |
| 4 | 1160580 | 1 | GROOT-VIS | ZA | 29745 | 9.86E-07 | 9.95E-03 | 1992 | 1.18E-06 | 2.92E-03 | -8.53E-03 | 2.02E-03 | -2.15E-03 | 1980 | 4.54E-03 | 8.12E-01 | 7.61E-05 |
| 5 | 1160880 | 1 | TUGELA | ZA | 28920 | 6.98E-04 | -6.98E-03 | 1997 | 1.32E-03 | 1.02E-03 | -1.21E-02 | 1.18E-09 | 1.19E-02 | 1995 | 5.19E-06 | 2.18E-03 | 4.90E-03 |
| 9 | 1309700 | 1 | SEBOU | MA | 17250 | 1.46E-05 | -4.41E-03 | 1990 | 1.32E-03 | 3.40E-03 | -6.50E-03 | 1.28E-11 | -6.04E-03 | 1990 | 1.10E-06 | 8.61E-03 | -4.06E-03 |
| 14 | 1362100 | 1 | NILE | EG | 2900000 | 4.20E-11 | 6.18E-03 | 1990 | 8.82E-07 | 4.43E-05 | 4.20E-03 | 2.91E-08 | 7.57E-03 | 1987 | 2.59E-06 | 9.60E-01 | -3.17E-17 |
| 19 | 1427500 | 1 | SASSANDRA | CI | 62000 | 8.72E-07 | 1.03E-02 | 1989 | 1.27E-06 | 1.89E-03 | 3.32E-03 | 6.20E-12 | 1.61E-02 | 1990 | 8.82E-07 | 9.91E-04 | 5.02E-03 |
| 22 | 1445100 | 1 | KOUILOU | CG | 55010 | 2.11E-04 | -1.47E-02 | 1984 | 1.09E-05 | 2.60E-01 | -3.86E-03 | 1.71E-05 | 8.77E-03 | 1994 | 2.78E-06 | 6.29E-04 | 1.38E-02 |
| 24 | 1530100 | 1 | TANO | GH | 15800 | 1.85E-03 | 2.07E-03 | 1998 | 1.92E-04 | 4.28E-01 | 9.34E-04 | 4.93E-08 | 4.77E-03 | 1985 | 8.93E-06 | 3.86E-03 | 2.66E-03 |
| 25 | 1531700 | 1 | VOLTA | GH | 394100 | 1.16E-13 | -1.08E-02 | 1992 | 1.57E-06 | 7.83E-04 | -9.42E-03 | 9.19E-11 | 1.37E-02 | 1990 | 8.82E-07 | 6.62E-06 | 8.41E-03 |
| 28 | 1732100 | 1 | MONO | BJ | 21575 | 1.22E-07 | -1.23E-02 | 1987 | 4.52E-05 | 6.73E-01 | -1.82E-03 | 1.92E-03 | 1.65E-03 | 1987 | 1.28E-02 | 2.06E-01 | 1.99E-03 |
| 29 | 1733600 | 1 | OUEME | BJ | 46990 | 2.45E-02 | -9.47E-03 | 2003 | 1.52E-02 | 1.74E-01 | -1.18E-02 | 2.54E-08 | 4.73E-03 | 1987 | 5.95E-06 | 3.98E-03 | 3.86E-03 |
| 31 | 1812100 | 1 | SENEGAL | SN | 268000 | 2.55E-08 | -9.17E-03 | 1989 | 9.49E-07 | 1.08E-01 | -4.71E-03 | 1.69E-10 | 6.27E-03 | 1987 | 1.02E-05 | 1.31E-04 | 4.90E-03 |
| 32 | 1813200 | 1 | GAMBIA | SN | 42000 | 1.79E-07 | 2.05E-02 | 1987 | 1.69E-06 | 1.12E-01 | 2.85E-03 | 7.51E-10 | 6.51E-03 | 1991 | 1.95E-06 | 8.46E-01 | -2.77E-04 |
| 34 | 1815020 | 1 | CORUBAL | SN | 23840 | 6.04E-08 | 2.68E-02 | 1987 | 1.69E-06 | 8.62E-01 | -3.60E-04 | 4.91E-11 | 1.11E-02 | 1987 | 1.09E-05 | 1.76E-04 | 1.85E-02 |
| 36 | 1878100 | 1 | SHEBELLE | SO | 278000 | 3.72E-06 | 8.50E-03 | 2000 | 5.32E-04 | 1.61E-01 | 4.31E-03 | 3.31E-03 | -2.94E-03 | 1997 | 3.09E-05 | 8.60E-03 | -7.55E-03 |
| 37 | 1880100 | 1 | JUBA | SO | 179520 | 6.16E-06 | 1.43E-02 | 1986 | 2.78E-06 | 5.13E-01 | -5.81E-04 | 5.71E-12 | -9.46E-03 | 1994 | 4.22E-06 | 4.53E-04 | -4.23E-03 |
| 38 | 1891500 | 1 | ZAMBEZI | MZ | 940000 | 2.68E-02 | 2.58E-03 | 1998 | 2.16E-04 | 3.19E-04 | 1.37E-02 | 2.45E-02 | 1.56E-03 | 1980 | 2.12E-02 | 7.60E-01 | -3.25E-04 |
| 39 | 1894200 | 1 | BUZI | MZ | 26314 | 1.49E-08 | 5.96E-03 | 1987 | 1.95E-06 | 4.19E-02 | 4.84E-03 | 9.40E-08 | 4.18E-03 | 1996 | 1.97E-05 | 1.28E-03 | 8.40E-03 |
| 42 | 1897500 | 1 | INCOMATI | MZ | 37600 | 2.53E-14 | 9.02E-03 | 1988 | 1.82E-06 | 6.62E-05 | 5.72E-03 | 2.02E-07 | 9.57E-03 | 1995 | 2.40E-05 | 2.74E-02 | -1.10E-02 |
| 43 | 1899100 | 1 | MAPUTO | MZ | 28500 | 6.77E-12 | 2.40E-02 | 1987 | 1.69E-06 | 7.95E-03 | 6.39E-03 | 2.09E-13 | -7.48E-03 | 1990 | 8.82E-07 | 1.92E-08 | -1.18E-02 |
| 44 | 1992900 | 1 | SHIRE | MW | 149500 | 4.18E-10 | 5.20E-03 | 1988 | 1.47E-06 | 1.38E-03 | 5.51E-03 | 6.53E-10 | 5.16E-03 | 1993 | 1.69E-06 | 9.40E-01 | -1.48E-16 |
| 46 | 2178400 | 2 | DALINGHE | CN | 17687 | 2.13E-12 | 1.17E-02 | 1993 | 2.55E-05 | 1.52E-04 | 1.50E-02 | 1.10E-05 | 4.85E-03 | 1991 | 9.49E-07 | 5.58E-01 | 5.72E-04 |
| 48 | 2179100 | 2 | LIAO HE | CN | 120764 | 1.41E-03 | -2.44E-03 | 1995 | 5.95E-06 | 6.20E-01 | -1.48E-03 | 1.82E-08 | 1.18E-02 | 1991 | 9.49E-07 | 1.63E-01 | 2.61E-03 |
| 52 | 2186800 | 2 | XI JIANG | CN | 329705 | 2.46E-05 | -3.40E-03 | 1991 | 1.42E-05 | 8.97E-01 | 1.96E-04 | 2.01E-07 | 4.22E-03 | 1988 | 1.57E-06 | 5.26E-01 | -6.51E-04 |
| 53 | 2186901 | 2 | BEI JIANG | CN | 38363 | 8.16E-03 | 2.14E-03 | 1998 | 2.72E-04 | 1.42E-01 | 3.03E-03 | 1.11E-08 | 3.12E-03 | 1993 | 1.73E-05 | 1.60E-01 | 2.00E-03 |
| 54 | 2186950 | 2 | DONG JIANG | CN | 25325 | 1.05E-04 | 5.70E-03 | 1993 | 3.58E-03 | 1.50E-01 | 3.07E-03 | 5.82E-06 | 2.80E-03 | 1989 | 1.36E-06 | 8.43E-01 | 4.71E-04 |
| 56 | 2260500 | 2 | IRRAWADDY | MM | 117900 | 7.08E-05 | -4.97E-03 | 1983 | 4.24E-05 | 7.52E-01 | -4.51E-04 | 8.02E-09 | -4.53E-03 | 1991 | 7.30E-06 | 2.77E-04 | -1.71E-02 |
| 58 | 2335950 | 2 | INDUS | PK | 832418 | 1.91E-14 | 8.62E-03 | 1989 | 2.25E-06 | 5.41E-05 | 3.90E-03 | 2.50E-08 | -2.96E-03 | 1991 | 1.02E-05 | 4.23E-05 | -5.26E-03 |
| 59 | 2371300 | 2 | TRANH (NR THU BON) | VN | -999 | 2.10E-12 | -1.28E-02 | 1989 | 9.49E-07 | 9.97E-05 | -3.19E-02 | 8.62E-05 | -7.95E-03 | 1994 | 1.09E-05 | 1.78E-04 | -1.99E-02 |
| 60 | 2372102 | 2 | CA | VN | -999 | 9.50E-05 | 2.83E-03 | 1994 | 1.54E-03 | 3.43E-01 | 1.81E-03 | 3.29E-05 | 3.27E-03 | 1984 | 1.27E-04 | 9.67E-01 | 0.00E+00 |
| 63 | 2569005 | 2 | MEKONG | KH | 635000 | 6.04E-10 | -4.48E-03 | 1988 | 1.18E-06 | 3.74E-05 | -5.37E-03 | 8.99E-06 | 2.85E-03 | 1991 | 9.63E-04 | 1.27E-01 | 9.14E-04 |
| 64 | 2587100 | 2 | ISHIKARI | JP | 12697 | 2.27E-07 | 3.71E-03 | 1986 | 1.02E-05 | 3.14E-01 | 8.96E-04 | 1.25E-03 | -7.08E-03 | 1984 | 9.45E-05 | 5.32E-01 | 5.29E-04 |
| 66 | 2588301 | 2 | KISO | JP | 4683.8 | 3.33E-06 | -2.71E-03 | 1993 | 3.43E-06 | 4.71E-01 | -1.03E-03 | 3.39E-02 | 1.05E-03 | 1995 | 7.21E-03 | 9.64E-01 | -4.44E-16 |
| 69 | 2588700 | 2 | KITAKAMI | JP | 7869.4 | 1.10E-03 | 1.96E-03 | 1999 | 1.25E-03 | 3.73E-01 | 5.54E-03 | 1.52E-03 | -7.10E-03 | 1998 | 6.55E-05 | 1.03E-02 | -4.33E-03 |
| 71 | 2589500 | 2 | SHINANO, CHIKUMA | JP | 9719 | 7.36E-03 | -8.70E-03 | 1987 | 1.69E-06 | 2.66E-04 | 5.40E-03 | 5.14E-03 | 1.40E-03 | 1978 | 2.59E-02 | 5.66E-01 | 1.49E-04 |
| 72 | 2589700 | 2 | MOGAMI | JP | 6270.9 | 1.24E-03 | 2.61E-03 | 1989 | 5.79E-05 | 2.83E-01 | -1.01E-03 | 5.51E-06 | -5.12E-03 | 1998 | 6.55E-05 | 8.71E-03 | -5.61E-03 |
| 75 | 2651100 | 2 | BRAHMAPUTRA | BD | 636130 | 4.86E-08 | 5.52E-03 | 1985 | 2.25E-05 | 8.90E-02 | 2.00E-03 | 2.31E-12 | -1.03E-02 | 1988 | 1.18E-06 | 2.19E-03 | -4.70E-03 |
| 76 | 2677100 | 2 | HAN-GANG (HAN RIVE | KR | 25046 | 7.33E-11 | 6.18E-03 | 1989 | 9.49E-07 | 1.67E-01 | 1.82E-03 | 2.18E-03 | -2.79E-03 | 1995 | 1.17E-05 | 3.43E-02 | -5.57E-03 |
| 78 | 2846800 | 2 | GANGES | IN | 835000 | 6.85E-08 | -6.25E-03 | 1997 | 1.44E-04 | 1.12E-05 | -1.35E-02 | 1.27E-09 | 5.15E-03 | 1993 | 2.55E-05 | 2.53E-02 | 6.88E-03 |
| 82 | 2854050 | 2 | DAMODAR RIVER | IN | 19220 | 1.60E-04 | -9.58E-03 | 1995 | 2.81E-03 | 9.64E-01 | -4.47E-04 | 2.90E-04 | -3.97E-03 | 1990 | 1.20E-04 | 6.29E-01 | 1.96E-03 |
| 83 | 2854080 | 2 | BRAHMANI RIVER (BH | IN | -999 | 5.30E-10 | -1.15E-02 | 1991 | 9.49E-07 | 2.30E-01 | -2.66E-03 | 5.64E-08 | 1.65E-02 | 1990 | 8.82E-07 | 3.52E-05 | 1.67E-02 |
| 86 | 2854800 | 2 | CAUVERY RIVER | IN | 74004 | 5.16E-04 | -3.79E-03 | 1982 | 7.41E-05 | 3.48E-01 | 7.42E-04 | 8.58E-05 | 2.92E-03 | 1991 | 6.82E-06 | 7.21E-01 | 3.33E-04 |
| 88 | 2856900 | 2 | GODAVARI | IN | 299320 | 1.15E-07 | -1.25E-02 | 1997 | 1.07E-03 | 4.25E-06 | -3.23E-02 | 1.22E-02 | -1.36E-03 | 1990 | 9.03E-03 | 4.62E-02 | 3.31E-03 |
| 89 | 2901202 | 2 | ANADYR | RU | 156000 | 1.92E-15 | 2.08E-02 | 1990 | 8.82E-07 | 2.28E-04 | 7.81E-03 | 3.17E-04 | 1.64E-02 | 1990 | 8.82E-07 | 3.98E-02 | 6.65E-03 |
| 90 | 2902850 | 2 | KAMCHATKA | RU | 51600 | 7.10E-13 | 7.78E-03 | 1990 | 1.25E-05 | 1.19E-05 | 5.98E-03 | 5.53E-05 | 3.88E-03 | 2001 | 5.23E-03 | 7.36E-02 | 3.82E-03 |
| 94 | 2912600 | 2 | OB | RU | 2949998 | 6.46E-09 | 3.69E-03 | 1997 | 2.90E-05 | 1.95E-05 | 1.12E-02 | 9.12E-09 | -3.60E-03 | 1995 | 2.40E-05 | 9.64E-01 | 1.88E-04 |
| 95 | 2916201 | 2 | SYR DARYA | KZ | -999 | 1.46E-06 | -1.70E-03 | 1980 | 1.01E-03 | 1.42E-02 | -1.09E-03 | 6.40E-05 | -2.52E-03 | 1992 | 4.84E-06 | 3.10E-01 | 2.85E-03 |
| 96 | 2917100 | 2 | AMU DARYA | UZ | 450000 | 3.81E-02 | 1.24E-03 | 1990 | 2.12E-02 | 6.08E-01 | 6.12E-04 | 8.41E-15 | 1.13E-02 | 1990 | 8.82E-07 | 5.09E-04 | 4.36E-03 |
| 97 | 2919200 | 2 | URAL | KZ | 190000 | 4.50E-04 | 3.82E-03 | 1998 | 1.07E-04 | 1.21E-04 | 1.77E-02 | 7.44E-05 | -4.02E-03 | 1982 | 2.16E-04 | 9.25E-01 | -2.36E-04 |
| 100 | 2998110 | 2 | YANA | RU | 224000 | 2.91E-07 | -2.23E-03 | 1988 | 6.62E-04 | 1.06E-03 | -4.37E-03 | 4.06E-05 | -1.98E-03 | 1998 | 9.13E-04 | 3.28E-01 | -2.15E-03 |
| 101 | 2998150 | 2 | OMOLOY | RU | 10800 | 4.84E-15 | 1.51E-02 | 1990 | 8.82E-07 | 1.54E-06 | 7.00E-03 | 3.71E-03 | -2.42E-03 | 1994 | 2.42E-04 | 7.11E-01 | -8.91E-04 |
| 103 | 2998450 | 2 | ALAZEYA | RU | 29000 | 2.19E-11 | 4.44E-03 | 1989 | 9.49E-07 | 3.24E-04 | 3.10E-03 | 3.73E-09 | -6.23E-03 | 1989 | 1.27E-06 | 1.95E-01 | -2.40E-03 |
| 105 | 2998702 | 2 | ANYUY (TRIB. KOLYM | RU | 30000 | 2.76E-14 | 3.62E-02 | 1990 | 8.82E-07 | 1.02E-02 | 8.42E-03 | 1.97E-09 | 2.49E-02 | 1990 | 8.82E-07 | 3.52E-05 | 1.34E-02 |
| 106 | 2998720 | 2 | BOL. ANYUY (TRIB. | RU | 49600 | 9.94E-16 | 3.85E-02 | 1990 | 8.82E-07 | 3.26E-04 | 1.14E-02 | 1.32E-06 | 1.76E-02 | 1990 | 8.82E-07 | 2.63E-01 | -3.56E-03 |
| 107 | 2998800 | 2 | PALYAVAAM | RU | 6810 | 8.15E-16 | 2.20E-02 | 1989 | 9.49E-07 | 4.31E-05 | 8.44E-03 | 1.86E-03 | 1.19E-02 | 1990 | 8.82E-07 | 4.50E-01 | 1.36E-03 |
| 108 | 2999150 | 2 | ANABAR | RU | 78800 | 7.81E-05 | -5.25E-03 | 1993 | 2.25E-06 | 7.12E-03 | -9.71E-03 | 1.04E-02 | 6.19E-03 | 1998 | 6.55E-05 | 9.95E-02 | 5.59E-03 |
| 109 | 2999200 | 2 | NADYM | RU | 48000 | 1.62E-05 | -4.54E-03 | 1987 | 4.81E-05 | 1.80E-01 | 1.88E-03 | 2.09E-09 | -5.36E-03 | 1990 | 8.82E-07 | 5.45E-01 | -6.54E-04 |
| 112 | 2999850 | 2 | KHATANGA | RU | 275000 | 1.00E-10 | 3.34E-02 | 1990 | 8.82E-07 | 7.40E-01 | -1.56E-03 | 9.31E-07 | -4.53E-03 | 1989 | 5.62E-04 | 2.04E-01 | -2.04E-03 |
| 114 | 3102500 | 3 | ATRATO | CO | 9432 | 6.20E-14 | 1.23E-02 | 1986 | 3.67E-06 | 1.72E-05 | 6.94E-03 | 2.44E-07 | 7.16E-03 | 1997 | 2.88E-04 | 3.92E-05 | 1.65E-02 |
| 117 | 3178100 | 3 | LOA | CL | -999 | 3.78E-06 | 6.10E-03 | 1985 | 3.22E-04 | 4.15E-01 | 0.00E+00 | 1.12E-14 | -8.85E-03 | 1990 | 8.82E-07 | 1.26E-07 | -9.09E-03 |
| 119 | 3178900 | 3 | HUASCO | CL | 7187 | 4.35E-15 | 2.19E-02 | 1990 | 8.82E-07 | 5.82E-05 | 1.01E-02 | 3.73E-06 | 1.08E-02 | 1989 | 9.49E-07 | 2.98E-02 | -2.92E-03 |
| 120 | 3179250 | 3 | RAPEL | CL | 13186 | 3.53E-06 | 2.05E-02 | 1985 | 2.25E-05 | 4.15E-01 | -1.55E-03 | 1.62E-05 | 2.35E-03 | 1986 | 4.27E-04 | 1.29E-01 | 1.29E-03 |
| 124 | 3258200 | 3 | SALADO | AR | 29000 | 4.52E-05 | 2.20E-03 | 1990 | 6.82E-06 | 1.94E-01 | 1.11E-03 | 7.79E-08 | 3.41E-03 | 1997 | 7.88E-05 | 6.20E-03 | 3.63E-03 |
| 125 | 3265601 | 3 | PARANA | AR | 2346000 | 2.09E-04 | 2.13E-03 | 1987 | 4.52E-05 | 1.01E-01 | -1.45E-03 | 4.40E-06 | 3.96E-03 | 1989 | 1.09E-05 | 4.52E-02 | 4.28E-03 |
| 127 | 3275990 | 3 | NEGRO (ARGENTINIA) | AR | 95000 | 2.65E-11 | 7.57E-03 | 1992 | 1.18E-06 | 1.90E-02 | 3.27E-03 | 1.49E-02 | -3.51E-03 | 1998 | 1.28E-02 | 4.14E-03 | -7.29E-03 |
| 128 | 3276200 | 3 | CHUBUT | AR | 16400 | 7.25E-04 | -4.93E-03 | 1997 | 2.55E-05 | 6.22E-01 | 5.49E-04 | 2.23E-02 | -2.68E-03 | 1989 | 1.32E-03 | 3.42E-02 | 2.16E-03 |
| 129 | 3276800 | 3 | SANTA CRUZ | AR | 15550 | 1.80E-17 | 2.51E-02 | 1990 | 8.82E-07 | 1.35E-08 | 1.77E-02 | 1.35E-09 | -7.80E-03 | 1997 | 2.55E-05 | 1.95E-05 | -2.17E-02 |
| 130 | 3308400 | 3 | CUYUNI | GY | 53400 | 1.67E-08 | 3.44E-03 | 1990 | 3.43E-06 | 2.89E-04 | 3.84E-03 | 1.11E-02 | -3.01E-03 | 1996 | 5.12E-05 | 4.88E-01 | -2.42E-03 |
| 132 | 3410500 | 3 | CORANTIJN | SR | 51600 | 9.81E-13 | 6.94E-03 | 1989 | 1.27E-06 | 8.24E-06 | 7.55E-03 | 1.29E-03 | -1.68E-03 | 1996 | 2.88E-04 | 1.49E-02 | -3.90E-03 |
| 133 | 3411300 | 3 | COPPENAME | SR | 12300 | 6.11E-04 | -3.21E-03 | 1983 | 3.74E-05 | 4.06E-01 | 8.04E-04 | 3.47E-04 | 4.00E-03 | 1989 | 1.61E-04 | 9.07E-02 | -6.31E-03 |
| 135 | 3469050 | 3 | URUGUAY | UY | 244000 | 2.16E-02 | -1.08E-03 | 1989 | 8.25E-03 | 1.34E-01 | -1.42E-03 | 8.42E-03 | -1.67E-03 | 1989 | 9.63E-04 | 2.13E-01 | -1.89E-03 |
| 137 | 3514800 | 3 | OYAPOCK | GF | 25120 | 1.02E-03 | 3.31E-03 | 1998 | 1.28E-02 | 3.19E-04 | 1.09E-02 | 4.97E-03 | 4.99E-03 | 1979 | 1.62E-03 | 7.83E-01 | -2.26E-04 |
| 139 | 3629150 | 3 | RIO TAPAJOS | BR | 358657 | 1.22E-08 | 8.68E-03 | 1986 | 5.12E-05 | 9.73E-02 | 3.71E-03 | 6.94E-04 | 2.11E-03 | 1998 | 3.41E-04 | 7.92E-04 | 8.38E-03 |
| 141 | 3630050 | 3 | XINGU | BR | 446570 | 2.49E-10 | 5.16E-03 | 1989 | 3.94E-06 | 9.48E-03 | 3.04E-03 | 1.13E-04 | -1.97E-03 | 1995 | 2.29E-04 | 5.24E-02 | -4.59E-03 |
| 142 | 3630300 | 3 | RIO MAICURU | BR | 17072 | 2.10E-09 | 3.28E-03 | 1988 | 1.13E-04 | 1.95E-04 | 3.81E-03 | 3.33E-05 | 1.81E-02 | 1984 | 2.10E-05 | 4.65E-01 | -6.94E-04 |
| 145 | 3631210 | 3 | RIO PARU DE ESTE | BR | 30945 | 9.25E-12 | 1.56E-02 | 1990 | 8.82E-07 | 4.14E-01 | 2.48E-03 | 1.17E-06 | 8.30E-03 | 1984 | 5.79E-05 | 5.04E-01 | 6.58E-04 |
| 146 | 3649950 | 3 | TOCANTINS | BR | 742300 | 3.80E-04 | -8.52E-03 | 1989 | 9.49E-07 | 2.59E-01 | 1.54E-03 | 3.17E-04 | -1.35E-03 | 1983 | 6.99E-04 | 7.22E-01 | -2.25E-04 |
| 149 | 3650285 | 3 | RIO PINDARE | BR | 34300 | 9.55E-10 | 6.36E-03 | 1985 | 1.02E-05 | 6.27E-03 | 3.08E-03 | 1.39E-02 | 7.04E-03 | 1996 | 1.09E-05 | 9.60E-01 | 0.00E+00 |
| 151 | 3650359 | 3 | RIO ITAPECURU | BR | 50800 | 4.81E-03 | -4.16E-03 | 1989 | 8.66E-04 | 4.63E-01 | -2.39E-03 | 1.18E-09 | 4.47E-03 | 1992 | 2.78E-06 | 2.74E-02 | 5.63E-03 |
| 153 | 3650525 | 3 | RIO ACARAU | BR | 11160 | 2.11E-06 | 2.08E-02 | 1990 | 8.82E-07 | 1.10E-04 | -1.40E-02 | 2.33E-05 | -3.09E-03 | 1989 | 2.04E-04 | 5.72E-01 | -1.04E-03 |
| 155 | 3650885 | 3 | RIO PARAIBA | BR | 19244 | 2.76E-13 | 8.87E-03 | 1989 | 9.49E-07 | 1.96E-04 | 7.63E-03 | 1.31E-05 | 2.77E-03 | 1986 | 6.82E-06 | 6.24E-01 | -4.16E-04 |
| 157 | 3652039 | 3 | RIO ITAPICURU | BR | 35150 | 1.77E-11 | 7.88E-03 | 1989 | 1.47E-06 | 1.14E-01 | 1.38E-03 | 9.60E-04 | -2.26E-03 | 1990 | 9.55E-06 | 7.86E-01 | 4.99E-04 |
| 159 | 3652135 | 3 | RIO PARAGUACU | BR | 53866 | 2.36E-06 | -3.99E-03 | 1991 | 1.52E-05 | 1.36E-02 | -4.27E-03 | 2.01E-03 | 2.55E-03 | 1984 | 4.52E-05 | 2.03E-01 | -2.10E-03 |
| 160 | 3652220 | 3 | RIO DE CONTAS | BR | 42245 | 2.63E-06 | 4.76E-03 | 1984 | 3.09E-05 | 3.81E-01 | 1.01E-03 | 4.93E-08 | 4.18E-03 | 1984 | 1.09E-05 | 1.06E-03 | 2.94E-03 |
| 163 | 3652500 | 3 | MUCURI | BR | 14174 | 5.55E-03 | -9.20E-03 | 1991 | 9.49E-07 | 2.06E-01 | 4.03E-03 | 4.45E-03 | 2.16E-03 | 1984 | 3.82E-04 | 4.65E-01 | 5.67E-04 |
| 167 | 3653400 | 3 | RIO JACUI | BR | 71454 | 5.53E-03 | -1.01E-03 | 1980 | 1.12E-02 | 9.19E-01 | -6.83E-17 | 1.60E-04 | -3.88E-03 | 1997 | 2.55E-05 | 2.17E-03 | -5.03E-03 |
| 168 | 3843100 | 3 | MIRA | EC | 4960 | 3.57E-03 | 9.30E-04 | 1990 | 2.49E-02 | 9.07E-02 | 1.34E-03 | 2.64E-04 | 4.91E-03 | 1987 | 1.69E-06 | 9.60E-01 | 0.00E+00 |
| 169 | 3844100 | 3 | ESMERALDAS | EC | 18800 | 6.22E-12 | -1.39E-02 | 1991 | 6.82E-06 | 5.17E-04 | -9.87E-03 | 1.41E-06 | -5.89E-03 | 1988 | 1.36E-06 | 3.16E-01 | -1.09E-03 |
| 170 | 3844400 | 3 | DAULE | EC | 8690 | 2.11E-14 | -4.00E-02 | 1988 | 1.18E-06 | 5.26E-09 | -7.41E-02 | 9.25E-09 | 4.37E-03 | 1988 | 1.25E-05 | 5.07E-02 | 2.78E-03 |
| 171 | 3844450 | 3 | VINCES | EC | 4400 | 2.52E-12 | -2.31E-02 | 1990 | 8.82E-07 | 5.15E-04 | -1.36E-02 | 2.68E-13 | 7.99E-03 | 1989 | 2.25E-06 | 1.22E-04 | 5.49E-03 |
| 173 | 3948300 | 3 | SANTA | PE | -999 | 5.28E-05 | 1.15E-02 | 1986 | 2.40E-05 | 2.65E-02 | -4.91E-03 | 1.09E-04 | 6.90E-03 | 1995 | 5.19E-06 | 8.68E-05 | 7.92E-03 |
| 174 | 3948800 | 3 | CANETE | PE | 4900 | 9.00E-16 | -3.32E-02 | 1990 | 8.82E-07 | 1.16E-06 | -1.71E-02 | 5.24E-10 | -4.41E-03 | 1991 | 1.27E-06 | 1.32E-03 | -3.27E-03 |
| 176 | 4101500 | 4 | COLVILLE RIVER | US | 53535.3 | 1.26E-12 | 8.09E-03 | 1996 | 1.97E-05 | 3.23E-05 | 1.65E-02 | 4.05E-04 | -1.07E-03 | 1992 | 3.94E-03 | 7.85E-02 | -1.68E-03 |
| 177 | 4101800 | 4 | NOATAK RIVER | US | 31080 | 8.44E-06 | -4.71E-03 | 1995 | 5.19E-06 | 5.24E-02 | 6.42E-03 | 6.48E-07 | -6.07E-03 | 1994 | 2.78E-06 | 2.64E-03 | -3.59E-03 |
| 179 | 4102100 | 4 | KUSKOKWIM RIVER | US | 80549 | 1.69E-10 | 5.44E-03 | 1988 | 1.47E-06 | 1.38E-03 | 4.33E-03 | 5.63E-09 | 5.36E-03 | 1988 | 1.33E-05 | 7.67E-02 | 1.74E-03 |
| 181 | 4102740 | 4 | NUSHAGAK RIVER | US | 25511.5 | 3.09E-11 | 4.93E-03 | 1993 | 3.94E-06 | 1.09E-04 | 4.84E-03 | 1.29E-08 | 7.45E-03 | 1992 | 1.57E-06 | 3.27E-02 | 1.37E-03 |
| 183 | 4103200 | 4 | YUKON RIVER | US | 831390 | 1.10E-03 | -2.50E-03 | 1997 | 8.89E-05 | 2.11E-02 | -5.19E-03 | 5.62E-09 | -7.29E-03 | 1991 | 9.49E-07 | 2.56E-01 | -3.50E-03 |
| 185 | 4126700 | 4 | OUACHITA RIVER | US | 39621.8 | 1.39E-03 | 1.56E-03 | 1984 | 6.99E-04 | 4.90E-01 | -1.25E-04 | 1.72E-13 | -6.85E-03 | 1990 | 8.82E-07 | 4.97E-05 | -8.31E-03 |
| 186 | 4126800 | 4 | RED RIVER | US | 174825 | 2.62E-04 | 2.52E-03 | 1998 | 1.23E-02 | 3.19E-03 | 5.26E-03 | 1.63E-11 | -6.39E-03 | 1993 | 2.59E-06 | 5.49E-06 | -1.23E-02 |
| 187 | 4127800 | 4 | MISSISSIPPI RIVER | US | 2964255 | 1.76E-06 | 4.25E-03 | 1995 | 2.88E-04 | 1.26E-05 | 9.80E-03 | 9.40E-10 | 5.65E-03 | 1991 | 1.10E-06 | 2.50E-02 | 5.48E-03 |
| 188 | 4145081 | 4 | SKAGIT RIVER | US | 7088.8 | 6.01E-08 | 3.95E-03 | 1988 | 5.56E-06 | 2.47E-02 | 4.71E-03 | 7.25E-04 | 3.21E-03 | 1993 | 5.95E-06 | 2.88E-01 | 2.41E-03 |
| 189 | 4145900 | 4 | ROGUE RIVER | US | 10202 | 2.11E-05 | -4.63E-03 | 1988 | 1.36E-06 | 1.87E-01 | 1.61E-03 | 2.20E-04 | 2.82E-03 | 1986 | 4.81E-05 | 2.33E-01 | -1.23E-03 |
| 199 | 4147500 | 4 | HUDSON RIVER | US | 20953 | 2.45E-03 | 2.45E-03 | 1998 | 1.20E-04 | 1.79E-01 | 5.63E-03 | 2.96E-03 | 2.76E-03 | 1998 | 1.92E-04 | 7.32E-05 | 1.42E-02 |
| 200 | 4147600 | 4 | DELAWARE RIVER | US | 17560.2 | 3.86E-03 | -1.21E-03 | 1979 | 7.54E-03 | 6.50E-01 | -2.79E-04 | 3.31E-03 | 2.03E-03 | 1984 | 2.49E-02 | 8.18E-01 | -3.31E-04 |
| 203 | 4148050 | 4 | JAMES RIVER | US | 17503.2 | 9.45E-10 | 4.94E-03 | 1993 | 7.81E-06 | 1.29E-04 | 7.42E-03 | 3.89E-14 | 7.87E-03 | 1992 | 1.27E-06 | 4.12E-05 | 9.80E-03 |
| 204 | 4148090 | 4 | ROANOKE RIVER | US | 21714.6 | 5.48E-08 | -3.83E-03 | 1986 | 2.42E-04 | 6.43E-04 | -5.88E-03 | 1.65E-12 | 8.01E-03 | 1994 | 3.67E-06 | 1.51E-02 | 5.23E-03 |
| 208 | 4148650 | 4 | SAVANNAH RIVER | US | 25511.5 | 2.98E-14 | 8.27E-03 | 1991 | 9.49E-07 | 1.12E-06 | 8.87E-03 | 1.24E-05 | -2.66E-03 | 1995 | 1.19E-03 | 6.52E-01 | -4.96E-04 |
| 210 | 4148851 | 4 | ST. JOHNS RIVER | US | 22921.5 | 1.43E-02 | 1.43E-03 | 2004 | 5.15E-02 | 1.33E-01 | 1.43E-02 | 6.18E-12 | -1.00E-02 | 1994 | 5.56E-06 | 2.17E-06 | -1.98E-02 |
| 211 | 4149120 | 4 | PEARL RIVER | US | 17024.1 | 1.62E-05 | 2.22E-03 | 1987 | 2.59E-06 | 6.02E-01 | -5.08E-04 | 7.20E-06 | -4.41E-03 | 1994 | 2.10E-05 | 1.73E-06 | -1.40E-02 |
| 212 | 4149400 | 4 | ALABAMA RIVER | US | 56894.5 | 1.72E-03 | 2.16E-03 | 1989 | 1.00E-04 | 4.30E-01 | -1.46E-03 | 1.48E-02 | 2.79E-03 | 1980 | 1.79E-03 | 1.39E-01 | -1.56E-03 |
| 213 | 4149413 | 4 | TOMBIGBEE RIVER | US | 47700 | 8.85E-10 | 5.30E-03 | 1988 | 2.41E-06 | 3.42E-01 | 1.32E-03 | 2.17E-02 | 3.64E-03 | 1985 | 5.95E-06 | 2.29E-04 | -4.48E-03 |
| 214 | 4149632 | 4 | APALACHICOLA RIVER | US | 49728 | 1.94E-09 | 7.06E-03 | 1989 | 2.59E-06 | 2.15E-04 | 1.02E-02 | 2.97E-09 | 1.17E-02 | 1988 | 1.82E-06 | 1.98E-02 | 2.93E-03 |
| 215 | 4149781 | 4 | SUWANNEE RIVER | US | 24320.1 | 7.10E-03 | 1.76E-03 | 1992 | 6.97E-05 | 8.61E-01 | -3.99E-04 | 2.54E-03 | -2.30E-03 | 1985 | 3.15E-02 | 6.75E-01 | -6.37E-04 |
| 216 | 4150283 | 4 | NUECES RIVER | US | 43822.8 | 4.00E-07 | 7.24E-03 | 1989 | 9.49E-07 | 4.99E-01 | -1.82E-03 | 1.57E-06 | 4.60E-03 | 1990 | 8.82E-07 | 5.70E-02 | 2.73E-03 |
| 219 | 4150500 | 4 | BRAZOS RIVER | US | 116827.1 | 2.30E-02 | 1.01E-03 | 1994 | 1.34E-02 | 9.91E-02 | 1.52E-03 | 8.73E-03 | -4.03E-03 | 1985 | 2.57E-04 | 8.54E-02 | 2.35E-03 |
| 221 | 4150700 | 4 | SABINE RIVER | US | 24162.1 | 5.11E-07 | -4.33E-03 | 1987 | 2.25E-06 | 2.86E-01 | 9.16E-04 | 2.59E-07 | 3.28E-03 | 1985 | 7.88E-05 | 3.88E-03 | 2.85E-03 |
| 222 | 4152050 | 4 | COLORADO RIVER (PA | US | 618715 | 4.13E-06 | 2.25E-03 | 1997 | 7.88E-05 | 2.48E-01 | 3.63E-03 | 2.53E-04 | -3.39E-03 | 1985 | 2.25E-05 | 2.74E-02 | 2.11E-03 |
| 224 | 4202601 | 4 | TAKU RIVER | CA | 17700 | 4.28E-08 | 6.23E-03 | 1987 | 2.25E-06 | 8.81E-01 | 2.78E-16 | 6.63E-03 | 2.49E-03 | 1977 | 3.97E-02 | 7.00E-01 | 3.44E-04 |
| 225 | 4204900 | 4 | STIKINE RIVER | US | 51592.8 | 4.28E-14 | 8.99E-03 | 1990 | 1.57E-06 | 2.82E-04 | 4.83E-03 | 2.12E-06 | -1.37E-02 | 1987 | 3.58E-03 | 2.06E-01 | -7.63E-03 |
| 226 | 4206100 | 4 | NASS RIVER | CA | 19200 | 5.70E-03 | -1.16E-03 | 1995 | 9.44E-03 | 1.04E-01 | -4.99E-03 | 3.10E-11 | -5.89E-03 | 1992 | 2.09E-06 | 1.04E-05 | -8.58E-03 |
| 228 | 4207900 | 4 | FRASER RIVER | CA | 217000 | 3.52E-08 | -4.14E-03 | 1990 | 8.82E-07 | 9.04E-01 | 1.04E-16 | 8.69E-07 | -4.80E-03 | 1982 | 6.55E-05 | 5.10E-02 | -2.99E-03 |
| 235 | 4209850 | 4 | HAYES RIVER (TRIB. | CA | 18100 | 1.46E-14 | 2.34E-02 | 1989 | 1.10E-06 | 7.81E-04 | 5.70E-03 | 3.62E-10 | -7.76E-03 | 1990 | 8.82E-07 | 7.15E-03 | -5.86E-03 |
| 236 | 4213711 | 4 | NELSON RIVER | CA | 1060000 | 1.44E-02 | 1.43E-03 | 1995 | 3.09E-05 | 7.18E-01 | 3.25E-04 | 3.15E-05 | -2.90E-03 | 1993 | 1.35E-04 | 3.47E-03 | -8.89E-03 |
| 238 | 4214035 | 4 | AUX MELEZES | CA | 42700 | 1.20E-04 | 2.11E-03 | 1994 | 9.63E-04 | 6.42E-03 | 2.73E-03 | 2.49E-06 | 8.34E-03 | 1997 | 9.63E-04 | 6.88E-04 | 1.02E-02 |
| 239 | 4214040 | 4 | CANIAPISCAU | CA | 86800 | 1.90E-05 | -3.81E-03 | 1994 | 6.37E-06 | 9.33E-03 | -2.06E-03 | 4.14E-02 | 3.35E-03 | 1979 | 1.62E-03 | 2.49E-01 | -9.10E-04 |
| 241 | 4214070 | 4 | THLEWIAZA RIVER | CA | 27000 | 2.30E-04 | -1.97E-03 | 1988 | 4.51E-04 | 3.68E-01 | -1.09E-03 | 4.28E-08 | 3.71E-03 | 1995 | 3.74E-05 | 3.12E-04 | 9.25E-03 |
| 242 | 4214075 | 4 | FERGUSON RIVER | CA | 12400 | 1.93E-11 | 2.91E-02 | 1991 | 9.49E-07 | 8.97E-01 | -7.75E-05 | 7.47E-09 | -3.60E-03 | 1992 | 3.20E-06 | 4.98E-02 | -1.96E-03 |
| 243 | 4214080 | 4 | ATTAWAPISKAT RIVER | CA | 36000 | 1.15E-03 | -3.08E-03 | 1985 | 1.33E-05 | 1.94E-02 | 3.09E-03 | 3.39E-02 | -1.27E-03 | 1981 | 1.17E-02 | 3.92E-01 | 8.39E-04 |
| 245 | 4214100 | 4 | QUOICH RIVER | CA | 30100 | 4.19E-16 | 4.03E-02 | 1990 | 8.82E-07 | 3.98E-05 | 1.56E-02 | 1.83E-10 | -5.75E-03 | 1990 | 1.47E-06 | 3.37E-03 | -7.59E-03 |
| 246 | 4214105 | 4 | SEAL RIVER | CA | 48100 | 6.84E-03 | 2.12E-03 | 1996 | 2.81E-03 | 1.50E-03 | 5.03E-03 | 2.96E-03 | -5.24E-03 | 2000 | 5.32E-04 | 5.33E-01 | -4.75E-03 |
| 250 | 4214520 | 4 | ALBANY RIVER | CA | 118000 | 6.06E-05 | 1.94E-03 | 1984 | 1.62E-03 | 1.04E-01 | 1.57E-03 | 2.92E-06 | -3.85E-03 | 1982 | 1.27E-04 | 2.36E-01 | -1.05E-03 |
| 254 | 4214700 | 4 | EASTMAIN | CA | 44300 | 1.64E-02 | -1.52E-03 | 1994 | 3.75E-03 | 7.42E-03 | -3.77E-03 | 6.39E-03 | -2.70E-03 | 1984 | 3.03E-02 | 6.77E-01 | 7.54E-04 |
| 255 | 4214770 | 4 | GRANDE RIVIERE | CA | 96300 | 1.47E-07 | 4.54E-03 | 1992 | 1.82E-06 | 1.82E-03 | 7.51E-03 | 3.97E-09 | 8.14E-03 | 1986 | 1.20E-04 | 4.19E-02 | 2.87E-03 |
| 256 | 4214800 | 4 | GRANDE RIVIERE DE | CA | 42200 | 3.20E-02 | -1.91E-03 | 1984 | 3.09E-03 | 3.37E-01 | 1.55E-03 | 5.54E-05 | 6.42E-03 | 1993 | 2.25E-06 | 4.30E-05 | 1.28E-02 |
| 257 | 4214900 | 4 | BALEINE, GRANDE RI | CA | 29800 | 1.42E-15 | 3.51E-02 | 1990 | 8.82E-07 | 1.55E-04 | 1.37E-02 | 3.52E-05 | 1.20E-02 | 1998 | 5.32E-04 | 7.92E-04 | 1.79E-02 |
| 259 | 4214940 | 4 | FEUILLES (RIVIERE | CA | 41700 | 1.46E-10 | 1.37E-02 | 1990 | 8.82E-07 | 1.39E-01 | 1.03E-02 | 3.47E-04 | 5.28E-03 | 1993 | 1.69E-06 | 1.85E-01 | 3.52E-03 |
| 263 | 4243300 | 4 | ST. MAURICE (RIVIE | CA | 42000 | 2.63E-10 | -2.93E-03 | 1988 | 2.72E-05 | 9.58E-04 | -3.08E-03 | 6.10E-05 | -5.12E-03 | 1983 | 2.55E-05 | 6.35E-01 | 5.00E-04 |
| 267 | 4244635 | 4 | NATASHQUAN (RIVIER | CA | 15600 | 3.98E-08 | -6.90E-03 | 1991 | 1.47E-06 | 3.12E-03 | -1.02E-02 | 1.62E-13 | -6.82E-03 | 1987 | 2.25E-06 | 1.56E-05 | -6.44E-03 |
| 268 | 4244660 | 4 | LITTLE MECATINA RI | CA | 19100 | 1.71E-10 | -1.72E-02 | 1989 | 9.49E-07 | 1.14E-01 | -4.68E-03 | 8.02E-09 | -4.59E-03 | 1992 | 2.41E-06 | 1.42E-01 | -2.66E-03 |
| 269 | 4351900 | 4 | BRAVO | MX | 450902 | 7.27E-12 | 6.64E-03 | 1990 | 8.82E-07 | 1.10E-04 | 9.29E-03 | 2.38E-07 | -2.81E-03 | 1985 | 3.30E-05 | 5.02E-03 | -2.18E-03 |
| 270 | 4353300 | 4 | YAQUI | MX | 57908 | 1.31E-02 | 2.57E-03 | 1993 | 1.52E-05 | 9.70E-01 | -1.39E-04 | 1.96E-10 | -4.95E-03 | 1990 | 9.49E-07 | 1.49E-03 | -2.85E-03 |
| 272 | 4356080 | 4 | SAN PEDRO | MX | 25800 | 9.94E-16 | 1.36E-02 | 1988 | 1.18E-06 | 7.14E-08 | 9.47E-03 | 2.45E-02 | 1.71E-02 | 1995 | 5.19E-06 | 6.49E-02 | -7.55E-03 |
| 275 | 4356700 | 4 | VERDE | MX | 17617 | 7.75E-05 | -2.04E-03 | 1988 | 2.08E-03 | 3.55E-01 | -1.16E-03 | 1.33E-06 | -5.39E-03 | 1991 | 9.49E-07 | 2.79E-05 | -8.28E-03 |
| 276 | 4358300 | 4 | PANUCO | MX | 58115 | 4.76E-07 | -2.59E-03 | 1990 | 1.36E-06 | 8.55E-03 | -2.25E-03 | 2.04E-02 | 1.51E-03 | 1981 | 2.08E-03 | 1.34E-01 | -1.08E-03 |
| 277 | 4359220 | 4 | PAPALOAPAN | MX | 21419 | 4.44E-04 | -1.77E-03 | 1987 | 1.70E-03 | 8.04E-01 | -1.04E-16 | 5.27E-05 | 5.42E-03 | 1981 | 1.81E-04 | 8.58E-01 | 2.24E-04 |
| 279 | 4362600 | 4 | USUMACINTA | MX | 50743 | 2.44E-05 | -3.23E-03 | 1982 | 3.05E-04 | 5.35E-01 | -4.88E-04 | 3.66E-06 | -5.95E-03 | 1994 | 2.78E-06 | 4.63E-04 | -6.14E-03 |
| 280 | 4664800 | 4 | LEMPA | SV | 18176 | 1.36E-09 | 7.06E-03 | 1990 | 5.56E-06 | 1.94E-01 | 1.93E-03 | 1.57E-10 | 8.03E-03 | 1988 | 1.18E-06 | 8.59E-04 | 5.07E-03 |
| 281 | 4772300 | 4 | GRANDE DE MATAGALP | NI | 14646 | 8.59E-07 | 5.48E-03 | 1985 | 5.19E-06 | 5.80E-01 | 2.22E-04 | 2.26E-03 | -3.39E-03 | 1999 | 1.52E-02 | 2.88E-05 | -1.32E-02 |
| 282 | 4773800 | 4 | SAN JUAN | NI | 28600 | 5.52E-03 | -1.74E-03 | 1991 | 4.51E-04 | 1.36E-02 | 5.93E-03 | 7.87E-03 | 1.77E-03 | 1978 | 1.34E-02 | 5.98E-01 | 4.17E-04 |
| 283 | 5101201 | 5 | BURDEKIN | AU | 129760 | 1.58E-06 | 4.43E-03 | 1986 | 3.61E-04 | 1.41E-01 | 2.29E-03 | 6.17E-03 | -1.44E-03 | 1988 | 5.32E-04 | 1.39E-01 | 1.61E-03 |
| 284 | 5101301 | 5 | FITZROY | AU | 135757 | 3.53E-06 | 1.72E-02 | 1990 | 8.82E-07 | 1.65E-01 | 1.64E-03 | 6.56E-10 | 6.69E-03 | 1989 | 9.49E-07 | 2.13E-06 | 5.14E-03 |
| 285 | 5109170 | 5 | GILBERT RIVER | AU | 11800 | 7.58E-04 | -3.47E-03 | 1992 | 5.12E-05 | 1.27E-03 | -6.02E-03 | 8.75E-03 | -1.54E-03 | 1997 | 7.62E-02 | 7.43E-01 | -1.42E-03 |
| 287 | 5141100 | 5 | BRANTAS | ID | 8650 | 6.54E-13 | 2.29E-02 | 1988 | 1.18E-06 | 7.13E-06 | 9.82E-03 | 1.62E-05 | -4.31E-03 | 1990 | 1.09E-05 | 3.04E-01 | 3.12E-03 |
| 288 | 5141200 | 5 | SOLO (BENGAWAN SOL | ID | 12804 | 3.03E-14 | 1.29E-02 | 1988 | 1.18E-06 | 6.09E-08 | 9.23E-03 | 6.48E-07 | 6.44E-03 | 1997 | 2.55E-05 | 5.17E-03 | 7.63E-03 |
| 290 | 5224500 | 5 | PAHANG | MY | 19000 | 1.86E-03 | 2.42E-03 | 1983 | 3.30E-05 | 1.18E-01 | -1.06E-03 | 7.12E-03 | 1.10E-02 | 1996 | 1.09E-05 | 1.01E-02 | 5.14E-03 |
| 291 | 5230300 | 5 | RAJANG | MY | 34053 | 1.28E-08 | -2.68E-03 | 1986 | 2.25E-05 | 3.15E-02 | -2.35E-03 | 3.32E-11 | 4.64E-03 | 1990 | 8.82E-07 | 1.57E-02 | 2.10E-03 |
| 294 | 5550500 | 5 | SEPIK | PG | 40922 | 1.91E-11 | 5.27E-03 | 1992 | 1.18E-06 | 2.21E-05 | 6.40E-03 | 1.26E-10 | -5.50E-03 | 1993 | 1.69E-06 | 1.30E-01 | -3.02E-03 |
| 296 | 5606100 | 5 | BLACKWOOD RIVER | AU | 20500 | 1.01E-03 | 8.57E-03 | 1991 | 9.49E-07 | 3.76E-02 | -2.61E-03 | 5.96E-03 | 1.04E-03 | 1990 | 1.03E-02 | 9.76E-01 | 1.97E-17 |
| 297 | 5607100 | 5 | MURCHISON RIVER | AU | 82300 | 2.50E-06 | 8.71E-03 | 1994 | 4.81E-05 | 1.81E-05 | 2.80E-02 | 7.66E-05 | -3.61E-03 | 2000 | 5.94E-04 | 1.27E-02 | -8.16E-03 |
| 298 | 5607200 | 5 | GASCOYNE RIVER | AU | 73400 | 5.59E-08 | 2.12E-02 | 1987 | 1.69E-06 | 4.56E-01 | 8.49E-04 | 1.46E-05 | -4.99E-03 | 1988 | 1.27E-04 | 2.31E-02 | -1.04E-02 |
| 299 | 5607400 | 5 | ASHBURTON RIVER | AU | 70200 | 3.46E-04 | 3.28E-03 | 1982 | 6.55E-05 | 4.42E-01 | -5.06E-04 | 5.27E-05 | -8.24E-03 | 1995 | 5.19E-06 | 3.00E-01 | -5.11E-03 |
| 300 | 5607450 | 5 | FORTESCUE RIVER | AU | 48900 | 8.12E-14 | -1.10E-02 | 1991 | 9.49E-07 | 1.32E-03 | -5.82E-03 | 2.58E-09 | 5.28E-03 | 1987 | 3.43E-06 | 5.84E-03 | 3.10E-03 |
| 305 | 5608500 | 5 | DRYSDALE | AU | 14000 | 3.59E-02 | 1.26E-02 | 1997 | 3.75E-03 | 4.25E-06 | 4.96E-02 | 3.10E-02 | -6.85E-04 | 2002 | 1.61E-01 | 1.75E-01 | -6.17E-03 |
| 306 | 5708110 | 5 | VICTORIA RIVER | AU | 44900 | 4.81E-03 | 4.90E-03 | 1980 | 1.54E-03 | 7.21E-01 | -8.87E-04 | 9.21E-09 | 7.11E-03 | 1991 | 9.49E-07 | 7.36E-04 | 8.85E-03 |
| 308 | 5709100 | 5 | ROPER RIVER | AU | 47400 | 2.11E-09 | 9.72E-03 | 1987 | 1.95E-06 | 1.37E-01 | 1.93E-03 | 1.69E-10 | 4.56E-03 | 1989 | 2.25E-06 | 2.76E-03 | 3.67E-03 |
| 309 | 5709110 | 5 | MACARTHUR RIVER | AU | 10400 | 2.73E-16 | 3.90E-02 | 1990 | 8.82E-07 | 6.61E-09 | 3.22E-02 | 1.52E-03 | 2.42E-03 | 2000 | 1.98E-03 | 6.28E-03 | 1.41E-02 |
| 310 | 5803180 | 5 | SOUTH ESK RIVER | AU | 3278 | 5.74E-07 | 3.19E-03 | 1989 | 1.69E-06 | 8.53E-02 | 1.87E-03 | 2.65E-04 | 3.51E-03 | 1982 | 3.41E-04 | 9.70E-01 | 8.01E-06 |
| 311 | 5865300 | 5 | WAIKATO RIVER | NZ | 11395 | 2.04E-02 | 1.98E-03 | 1988 | 6.16E-05 | 1.30E-02 | -4.24E-03 | 1.38E-07 | -2.72E-03 | 1987 | 2.98E-06 | 1.30E-01 | -1.03E-03 |
| 312 | 5868100 | 5 | CLUTHA | NZ | 20306 | 8.44E-11 | 6.20E-03 | 1987 | 7.81E-06 | 2.61E-04 | 5.60E-03 | 1.58E-09 | 4.87E-03 | 1992 | 1.20E-04 | 1.57E-02 | 4.08E-03 |
| 314 | 6113050 | 6 | TEJO | PT | 67490 | 2.65E-06 | 5.46E-03 | 1990 | 8.82E-07 | 8.49E-02 | 2.29E-03 | 9.88E-09 | 8.27E-03 | 1989 | 3.94E-06 | 4.46E-01 | 2.00E-03 |
| 315 | 6116200 | 6 | GUADIANA | PT | 60883 | 1.83E-08 | 6.25E-03 | 1987 | 2.25E-06 | 1.38E-03 | 5.44E-03 | 4.34E-08 | 4.71E-03 | 1988 | 2.41E-06 | 9.79E-01 | -1.33E-04 |
| 316 | 6122100 | 6 | SEINE | FR | 65000 | 7.77E-05 | -2.77E-03 | 1994 | 3.20E-06 | 9.67E-01 | 0.00E+00 | 1.82E-04 | 2.16E-03 | 1983 | 6.97E-05 | 4.17E-01 | -6.37E-04 |
| 318 | 6125100 | 6 | GARONNE | FR | 52000 | 9.67E-03 | -1.27E-03 | 1995 | 2.67E-03 | 5.28E-01 | -7.32E-04 | 2.23E-02 | -1.96E-03 | 1981 | 1.98E-03 | 3.17E-01 | 1.21E-03 |
| 319 | 6139100 | 6 | RHONE | FR | 95590 | 6.83E-06 | -4.74E-03 | 1987 | 1.69E-06 | 1.37E-01 | -1.86E-03 | 1.02E-03 | 1.79E-03 | 1987 | 1.54E-03 | 9.80E-01 | -2.58E-05 |
| 320 | 6217100 | 6 | GUADALQUIVIR | ES | 46995 | 4.90E-02 | -1.60E-03 | 1990 | 3.54E-02 | 4.31E-02 | 6.81E-03 | 2.02E-11 | 4.15E-03 | 1987 | 1.69E-06 | 8.70E-04 | 3.09E-03 |
| 322 | 6229500 | 6 | VAENERN-GOETA (GOE | SE | 46886 | 2.08E-03 | 2.14E-03 | 1992 | 5.79E-05 | 7.94E-02 | 2.45E-03 | 2.52E-04 | 2.85E-03 | 2001 | 4.33E-03 | 1.28E-03 | 1.39E-02 |
| 323 | 6233650 | 6 | ANGERMANAELVEN | SE | 30638 | 4.20E-10 | 7.35E-03 | 1990 | 3.94E-06 | 3.98E-05 | 4.95E-03 | 2.96E-06 | 1.14E-02 | 1991 | 9.49E-07 | 1.49E-02 | 4.82E-03 |
| 328 | 6337200 | 6 | WESER | DE | 37720 | 9.98E-06 | -5.86E-03 | 1986 | 4.52E-06 | 1.34E-01 | 2.42E-03 | 3.80E-02 | -1.36E-03 | 1998 | 4.33E-03 | 8.07E-01 | -4.52E-04 |
| 329 | 6340110 | 6 | ELBE RIVER | DE | 131950 | 6.52E-09 | 4.19E-03 | 1986 | 4.22E-06 | 3.23E-01 | 7.55E-04 | 2.29E-12 | 8.21E-03 | 1990 | 1.18E-06 | 2.65E-05 | 8.70E-03 |
| 330 | 6348800 | 6 | PO | IT | 70091 | 3.66E-05 | -2.09E-03 | 1984 | 2.16E-04 | 1.62E-01 | -1.06E-03 | 3.77E-12 | 5.25E-03 | 1990 | 8.82E-07 | 7.85E-03 | 2.81E-03 |
| 333 | 6401601 | 6 | SVARTA, SKAGAFIROI | IS | 393 | 2.70E-08 | -4.57E-03 | 1989 | 1.10E-06 | 2.36E-01 | -1.03E-03 | 4.38E-02 | -8.75E-04 | 1980 | 4.61E-02 | 7.99E-01 | -2.22E-04 |
| 335 | 6401800 | 6 | LAGARFLJOT | IS | 2782 | 8.60E-04 | 1.92E-03 | 1980 | 8.63E-03 | 6.22E-01 | 3.78E-04 | 2.65E-06 | -5.68E-03 | 1998 | 1.79E-03 | 1.98E-04 | -4.88E-02 |
| 336 | 6421100 | 6 | MAAS | NL | 29000 | 2.61E-08 | -4.73E-03 | 1991 | 5.56E-06 | 2.77E-04 | -7.94E-03 | 8.96E-06 | -1.83E-03 | 1986 | 2.88E-04 | 2.72E-01 | -9.46E-04 |
| 339 | 6604650 | 6 | SPEY | GB | 2861 | 2.48E-14 | 5.63E-03 | 1990 | 2.59E-06 | 2.03E-07 | 7.94E-03 | 6.37E-04 | -2.98E-03 | 1993 | 1.42E-05 | 9.40E-01 | 9.87E-17 |
| 341 | 6605600 | 6 | TRENT | GB | 7486 | 4.84E-04 | 2.36E-03 | 1994 | 9.45E-05 | 1.81E-05 | 7.16E-03 | 4.31E-05 | -4.29E-03 | 1982 | 1.20E-04 | 8.66E-01 | 3.46E-04 |
| 343 | 6688150 | 6 | SAKARYA | TR | 55322 | 2.97E-03 | 5.15E-03 | 1996 | 6.55E-05 | 5.32E-04 | 1.67E-02 | 2.12E-15 | -1.46E-02 | 1987 | 1.69E-06 | 5.57E-08 | -2.48E-02 |
| 345 | 6730500 | 6 | TANA (NO, FI) | NO | 14165 | 1.93E-03 | -2.49E-03 | 1990 | 8.93E-06 | 7.86E-01 | -5.69E-04 | 5.09E-07 | -8.80E-03 | 1992 | 1.18E-06 | 1.80E-04 | -1.33E-02 |
| 346 | 6731310 | 6 | DRAMSELV | NO | 16020 | 1.39E-04 | 3.32E-03 | 1990 | 6.82E-06 | 7.97E-02 | 2.46E-03 | 3.00E-05 | 2.63E-03 | 1993 | 1.33E-05 | 1.08E-03 | 3.36E-03 |
| 347 | 6731400 | 6 | GLOMA | NO | 40243 | 8.80E-07 | 8.87E-03 | 1993 | 1.69E-06 | 1.87E-05 | 2.13E-02 | 4.91E-04 | 2.98E-03 | 1993 | 1.69E-06 | 4.24E-01 | 6.01E-04 |
| 348 | 6742900 | 6 | DANUBE | RO | 807000 | 5.16E-06 | 3.87E-03 | 1995 | 1.09E-05 | 2.60E-06 | 1.07E-02 | 4.38E-06 | 3.13E-03 | 1994 | 3.94E-06 | 2.31E-01 | 1.42E-03 |
| 351 | 6854600 | 6 | IIJOKI | FI | 14191 | 7.67E-06 | 5.06E-03 | 1994 | 2.25E-05 | 9.10E-05 | 6.91E-03 | 1.36E-10 | -4.53E-03 | 1991 | 2.98E-06 | 2.85E-05 | -5.74E-03 |
| 352 | 6854700 | 6 | KEMIJOKI | FI | 50686 | 4.96E-13 | 6.49E-03 | 1988 | 2.09E-06 | 1.43E-04 | 5.73E-03 | 1.22E-02 | 1.87E-03 | 1994 | 3.05E-04 | 7.11E-01 | 7.67E-04 |
| 353 | 6855200 | 6 | KYMIJOKI | FI | 36275 | 9.34E-03 | -3.30E-03 | 1994 | 3.82E-04 | 2.16E-01 | 5.63E-03 | 8.28E-13 | 5.49E-03 | 1994 | 1.25E-05 | 2.86E-04 | 5.99E-03 |
| 356 | 6934250 | 6 | GUDENA | DK | 1290 | 4.78E-15 | 6.56E-03 | 1989 | 9.49E-07 | 1.09E-07 | 5.48E-03 | 6.08E-10 | 2.92E-03 | 1992 | 1.02E-05 | 2.70E-04 | 3.67E-03 |
| 358 | 6970250 | 6 | NORTHERN DVINA(SEV | RU | 348000 | 6.73E-05 | 3.60E-03 | 1997 | 3.22E-04 | 2.17E-03 | 9.96E-03 | 4.25E-09 | -4.76E-03 | 1987 | 5.95E-06 | 1.21E-02 | -3.41E-03 |
| 360 | 6970700 | 6 | PECHORA | RU | 312000 | 5.94E-13 | 1.05E-02 | 1988 | 1.47E-06 | 2.97E-05 | 8.38E-03 | 5.26E-09 | -5.23E-03 | 1983 | 2.55E-05 | 2.30E-02 | -1.57E-03 |
| 361 | 6971130 | 6 | TULOMA | RU | 17500 | 1.95E-09 | 4.05E-03 | 1992 | 1.35E-04 | 2.66E-05 | 5.59E-03 | 2.06E-08 | 3.03E-03 | 1986 | 7.88E-05 | 5.03E-03 | 2.40E-03 |
| 362 | 6971450 | 6 | PONOY | RU | 15200 | 5.52E-03 | -9.61E-04 | 1989 | 6.89E-03 | 5.92E-01 | -2.85E-04 | 3.24E-09 | 1.56E-02 | 1989 | 9.49E-07 | 2.44E-07 | 9.98E-03 |
| 366 | 6972430 | 6 | NEVA | RU | 281000 | 1.91E-12 | 8.47E-03 | 1988 | 1.36E-06 | 1.48E-06 | 9.80E-03 | 3.15E-04 | 2.02E-03 | 1991 | 1.97E-05 | 7.40E-02 | 2.53E-03 |
| 367 | 6972800 | 6 | KEM | RU | 27900 | 5.52E-03 | -1.51E-03 | 1979 | 4.99E-03 | 6.49E-01 | 1.74E-04 | 2.30E-14 | -6.47E-03 | 1988 | 3.43E-06 | 9.12E-06 | -6.97E-03 |
| 369 | 6973300 | 6 | WESTERN DVINA (DAU | LV | 64500 | 3.64E-11 | -4.70E-03 | 1993 | 1.95E-06 | 2.36E-04 | -5.03E-03 | 2.35E-03 | -2.24E-03 | 1998 | 1.19E-03 | 4.36E-05 | -1.55E-02 |
| 377 | 6990700 | 6 | KURA | AZ | 178000 | 1.26E-02 | 1.64E-03 | 1985 | 3.41E-02 | 6.91E-01 | -8.19E-04 | 7.54E-06 | -3.42E-03 | 1996 | 1.09E-05 | 3.77E-02 | -4.90E-03 |

Table 2. Shannon entropy trend characteristics calculated from monthly average temperatures in the analyzed catchments

| Lp | GRDC\_NO | WMO\_REG | RIVER | CNT\_CO | AREA | left\_p\_val | left\_sen | left\_chan\_PT | left\_p\_val\_PT | left\_p\_val\_n | left\_sen\_n | right\_p\_val | right\_sen | right\_chan\_PT | right\_p\_val\_PT | right\_p\_val\_n | right\_sen\_n |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | WMO region | Name of river | Country Code | Area catchment  [km2] | Significance TKM of Shannon entropy of min values | Slope of Shannon entropy, min values  [bit/year] | Year of change of slope of Shannon entropy min values | Significance Pettitt test, min values | Significance TKM of Shannon entropy of min values - subseries | Slope of Shannon entropy, min values -subseries  [bit/year] | Significance TKM of Shannon entropy of max values | Slope of Shannon entropy, max values  [bit/year] | Year of change of slope of Shannon entropy max values | Significance Pettitt test, max values | Significance MKT of Shannon entropy of max values - subseries | Slope of Shannon entropy, max values -subseries  [bit/year] |
| 2 | 1147010 | 1 | CONGO | CD | 3475000 | 3.63E-04 | -5.44E-03 | 1984 | 1.09E-05 | 7.29E-02 | 2.37E-03 | 2.79E-09 | 8.79E-03 | 1990 | 1.02E-06 | 9.04E-01 | 2.95E-05 |
| 3 | 1159100 | 1 | ORANGE | ZA | 850530 | 9.33E-10 | -7.84E-03 | 1986 | 1.42E-05 | 7.61E-05 | -1.11E-02 | 9.34E-03 | -2.23E-03 | 1977 | 3.28E-02 | 7.78E-01 | -4.67E-04 |
| 10 | 1336500 | 1 | CROSS | CM | 6810 | 1.35E-02 | 4.89E-03 | 1983 | 2.55E-05 | 1.49E-01 | -2.07E-03 | 2.10E-09 | -6.81E-03 | 1995 | 7.81E-06 | 7.31E-05 | -1.11E-02 |
| 11 | 1338050 | 1 | SANAGA | CM | 131520 | 1.53E-03 | 4.64E-03 | 1984 | 1.09E-05 | 6.32E-01 | -4.75E-04 | 1.03E-04 | -2.45E-03 | 1992 | 1.73E-05 | 3.01E-02 | -4.18E-03 |
| 14 | 1362100 | 1 | NILE | EG | 2900000 | 2.96E-06 | -3.16E-03 | 1983 | 9.63E-04 | 1.08E-02 | -2.84E-03 | 2.85E-03 | 3.66E-03 | 1987 | 2.41E-06 | 3.29E-02 | -4.30E-03 |
| 15 | 1389090 | 1 | MANGOKY | MG | 53225 | 1.05E-13 | 6.04E-03 | 1989 | 2.98E-06 | 2.63E-05 | 3.54E-03 | 1.06E-02 | 1.27E-03 | 1998 | 1.25E-03 | 2.24E-03 | 6.30E-03 |
| 19 | 1427500 | 1 | SASSANDRA | CI | 62000 | 9.34E-03 | 1.73E-03 | 1995 | 1.58E-02 | 3.91E-01 | -2.77E-03 | 3.76E-07 | -3.71E-03 | 1996 | 1.61E-04 | 6.92E-01 | -1.76E-03 |
| 21 | 1428500 | 1 | COMOE | CI | 69900 | 2.97E-09 | 8.75E-03 | 1990 | 8.82E-07 | 5.70E-05 | 1.22E-02 | 3.79E-08 | -6.06E-03 | 1991 | 1.27E-06 | 1.79E-02 | -7.38E-03 |
| 23 | 1526300 | 1 | PRA | GH | 22714 | 3.11E-08 | 1.26E-02 | 1987 | 1.69E-06 | 1.76E-05 | 9.84E-03 | 1.65E-12 | 6.67E-03 | 1991 | 1.10E-06 | 1.66E-04 | 5.29E-03 |
| 24 | 1530100 | 1 | TANO | GH | 15800 | 8.61E-04 | 4.50E-03 | 1995 | 1.73E-05 | 8.95E-03 | 1.11E-02 | 2.38E-02 | -2.96E-03 | 1990 | 1.02E-05 | 3.80E-01 | 1.25E-03 |
| 25 | 1531700 | 1 | VOLTA | GH | 394100 | 9.50E-06 | 3.12E-03 | 1987 | 3.20E-06 | 3.46E-01 | 1.57E-03 | 1.38E-07 | -4.71E-03 | 1983 | 2.55E-05 | 1.35E-02 | -2.69E-03 |
| 26 | 1643100 | 1 | OGOOUE | GA | 205000 | 7.53E-08 | -5.35E-03 | 1993 | 3.94E-06 | 9.45E-05 | -1.25E-02 | 7.41E-05 | -4.27E-03 | 1998 | 6.55E-05 | 5.82E-01 | -1.55E-03 |
| 27 | 1644100 | 1 | NYANGA | GA | 20000 | 1.75E-04 | -6.02E-03 | 1985 | 1.13E-04 | 1.46E-01 | 2.88E-03 | 1.11E-06 | -6.60E-03 | 1991 | 1.10E-06 | 3.20E-02 | -8.30E-03 |
| 30 | 1789300 | 1 | TANA | KE | 42220 | 2.15E-07 | -3.32E-03 | 1991 | 5.95E-06 | 3.30E-01 | 1.06E-03 | 4.50E-02 | -1.91E-03 | 1996 | 3.09E-05 | 4.57E-01 | -3.11E-03 |
| 31 | 1812100 | 1 | SENEGAL | SN | 268000 | 2.92E-09 | 4.95E-03 | 1992 | 1.95E-06 | 1.47E-04 | 1.28E-02 | 2.23E-06 | 3.90E-03 | 1998 | 1.52E-04 | 6.20E-04 | 6.68E-03 |
| 38 | 1891500 | 1 | ZAMBEZI | MZ | 940000 | 5.16E-06 | -3.20E-03 | 1983 | 4.81E-05 | 5.01E-01 | -9.26E-04 | 1.35E-03 | 3.56E-03 | 1980 | 6.62E-04 | 5.63E-01 | 1.22E-03 |
| 40 | 1895500 | 1 | SAVE | MZ | 100885 | 2.09E-03 | -1.89E-03 | 1990 | 1.71E-04 | 2.15E-01 | 2.27E-03 | 1.67E-05 | -3.51E-03 | 1989 | 6.82E-06 | 5.71E-01 | -4.07E-04 |
| 41 | 1896500 | 1 | LIMPOPO | MZ | 342000 | 5.96E-03 | -1.82E-03 | 1989 | 5.19E-06 | 9.10E-01 | 5.29E-04 | 5.94E-03 | -1.59E-03 | 1983 | 1.81E-04 | 1.18E-01 | 1.23E-03 |
| 44 | 1992900 | 1 | SHIRE | MW | 149500 | 3.09E-08 | 5.25E-03 | 1995 | 3.99E-05 | 2.78E-01 | 2.30E-03 | 3.38E-10 | 9.15E-03 | 1993 | 1.69E-06 | 1.28E-03 | 7.58E-03 |
| 45 | 2178300 | 2 | YONGDING HE | CN | 42500 | 8.95E-04 | 2.15E-03 | 1983 | 3.58E-03 | 5.40E-01 | 2.33E-04 | 1.19E-11 | 7.24E-03 | 1987 | 4.52E-06 | 1.06E-03 | 4.55E-03 |
| 48 | 2179100 | 2 | LIAO HE | CN | 120764 | 1.24E-03 | 1.81E-03 | 1995 | 1.07E-03 | 1.31E-02 | 2.75E-03 | 3.86E-03 | -3.07E-03 | 2000 | 7.37E-04 | 1.85E-03 | -1.31E-02 |
| 49 | 2180800 | 2 | HUANG HE (YELLOW R | CN | 730036 | 1.52E-04 | 2.22E-03 | 1997 | 4.51E-04 | 8.92E-02 | 6.12E-03 | 9.34E-07 | -3.06E-03 | 1989 | 5.95E-06 | 8.22E-01 | -2.58E-04 |
| 50 | 2181900 | 2 | YANGTZE RIVER (CHA | CN | 1705383 | 1.30E-09 | 2.82E-03 | 1993 | 1.42E-05 | 1.02E-02 | 2.51E-03 | 1.14E-07 | 3.86E-03 | 1989 | 1.95E-06 | 1.67E-01 | 1.79E-03 |
| 56 | 2260500 | 2 | IRRAWADDY | MM | 117900 | 8.53E-05 | 2.36E-03 | 1988 | 1.07E-03 | 1.78E-01 | 1.89E-03 | 1.09E-04 | 3.39E-03 | 1979 | 4.33E-03 | 1.94E-01 | 1.22E-03 |
| 58 | 2335950 | 2 | INDUS | PK | 832418 | 8.72E-03 | -2.81E-03 | 1997 | 1.71E-04 | 1.89E-04 | -1.17E-02 | 6.07E-10 | 5.93E-03 | 1990 | 1.36E-06 | 2.77E-01 | 1.61E-03 |
| 59 | 2371300 | 2 | TRANH (NR THU BON) | VN | -999 | 1.98E-06 | 2.82E-03 | 1988 | 1.02E-05 | 2.45E-01 | -7.87E-04 | 1.60E-04 | 2.61E-03 | 1991 | 3.58E-03 | 5.77E-03 | 5.00E-03 |
| 62 | 2423500 | 2 | KARUN | IR | 60769 | 4.76E-10 | 4.49E-03 | 1992 | 1.57E-06 | 1.55E-03 | 3.82E-03 | 1.66E-07 | -8.58E-03 | 1984 | 2.55E-05 | 3.37E-01 | -8.39E-04 |
| 63 | 2569005 | 2 | MEKONG | KH | 635000 | 3.76E-07 | 3.01E-03 | 1992 | 1.57E-06 | 6.29E-03 | 2.08E-03 | 1.26E-04 | 4.09E-03 | 1983 | 2.55E-05 | 4.17E-01 | -5.33E-04 |
| 65 | 2588200 | 2 | YODO | JP | 7281 | 3.96E-04 | -3.14E-03 | 1981 | 6.99E-04 | 7.89E-01 | 1.43E-04 | 2.54E-03 | -5.23E-03 | 1992 | 1.57E-06 | 6.35E-02 | 6.58E-03 |
| 66 | 2588301 | 2 | KISO | JP | 4683.8 | 8.58E-05 | 3.35E-03 | 1987 | 1.52E-05 | 4.41E-01 | -1.15E-03 | 6.85E-06 | -3.96E-03 | 1993 | 9.55E-06 | 4.49E-01 | 6.13E-04 |
| 69 | 2588700 | 2 | KITAKAMI | JP | 7869.4 | 1.05E-05 | -3.27E-03 | 1996 | 1.09E-05 | 9.21E-01 | 1.04E-03 | 1.41E-06 | 3.88E-03 | 1993 | 2.59E-06 | 8.14E-02 | 3.45E-03 |
| 73 | 2595400 | 2 | EUPHRATES | IQ | 274100 | 9.35E-08 | -3.94E-03 | 1991 | 8.93E-06 | 4.55E-01 | -8.46E-04 | 9.09E-09 | -6.65E-03 | 1996 | 1.09E-05 | 3.22E-01 | -5.76E-03 |
| 79 | 2853150 | 2 | MAHI RIVER | IN | 33670 | 4.32E-08 | 4.56E-03 | 1992 | 3.20E-06 | 2.93E-01 | 1.30E-03 | 4.05E-15 | 1.31E-02 | 1990 | 8.82E-07 | 6.47E-08 | 1.57E-02 |
| 80 | 2853200 | 2 | NARMADA | IN | 89345 | 1.10E-03 | -2.41E-03 | 1984 | 5.12E-05 | 3.52E-02 | 1.86E-03 | 5.30E-08 | 1.07E-02 | 1987 | 1.69E-06 | 1.07E-01 | 9.12E-03 |
| 81 | 2853300 | 2 | TAPTI RIVER | IN | 61575 | 2.35E-03 | -3.28E-03 | 1982 | 7.41E-05 | 1.83E-01 | 1.14E-03 | 3.07E-11 | 1.44E-02 | 1988 | 1.18E-06 | 6.55E-05 | 7.91E-03 |
| 83 | 2854080 | 2 | BRAHMANI RIVER (BH | IN | -999 | 7.41E-05 | -4.27E-03 | 1990 | 1.02E-06 | 2.27E-01 | 2.66E-03 | 8.20E-04 | 2.31E-03 | 1991 | 4.52E-06 | 4.16E-01 | -1.56E-03 |
| 87 | 2855800 | 2 | MAHANADI RIVER (MA | IN | 132090 | 2.16E-03 | 9.27E-04 | 2001 | 9.86E-03 | 1.78E-01 | 2.39E-03 | 8.76E-10 | 5.55E-03 | 1987 | 2.59E-06 | 7.91E-03 | 3.12E-03 |
| 88 | 2856900 | 2 | GODAVARI | IN | 299320 | 4.58E-08 | 5.19E-03 | 1991 | 9.49E-07 | 1.82E-01 | 1.84E-03 | 5.33E-15 | 1.77E-02 | 1991 | 9.49E-07 | 2.91E-07 | 1.38E-02 |
| 90 | 2902850 | 2 | KAMCHATKA | RU | 51600 | 3.44E-03 | -2.85E-03 | 2001 | 3.58E-03 | 2.36E-03 | -1.18E-02 | 8.60E-05 | 3.96E-03 | 1989 | 2.98E-06 | 4.46E-01 | 1.09E-03 |
| 91 | 2903420 | 2 | LENA | RU | 2430000 | 2.35E-03 | 1.97E-03 | 1985 | 3.51E-05 | 9.82E-01 | 0.00E+00 | 4.90E-06 | 3.36E-03 | 1993 | 2.90E-05 | 1.06E-04 | 5.71E-03 |
| 92 | 2906900 | 2 | AMUR | RU | 1730000 | 3.81E-02 | 4.07E-03 | 1992 | 1.18E-06 | 2.31E-03 | -5.03E-03 | 5.19E-06 | -3.34E-03 | 1987 | 2.98E-06 | 9.41E-01 | 3.73E-04 |
| 94 | 2912600 | 2 | OB | RU | 2949998 | 2.96E-03 | 1.09E-03 | 1998 | 1.12E-02 | 9.65E-04 | 3.69E-03 | 1.58E-08 | -6.41E-03 | 1991 | 9.49E-07 | 5.37E-01 | -1.87E-03 |
| 96 | 2917100 | 2 | AMU DARYA | UZ | 450000 | 9.79E-09 | -6.68E-03 | 1990 | 1.02E-06 | 9.87E-07 | -1.11E-02 | 9.38E-10 | -3.55E-03 | 1996 | 5.12E-05 | 2.08E-05 | -1.02E-02 |
| 98 | 2964128 | 2 | CHAO PHRAYA | TH | -999 | 2.65E-03 | 2.63E-03 | 1981 | 2.57E-04 | 5.68E-01 | -7.28E-04 | 7.77E-05 | 3.03E-03 | 1985 | 1.52E-05 | 1.52E-01 | -1.64E-03 |
| 105 | 2998702 | 2 | ANYUY (TRIB. KOLYM | RU | 30000 | 1.80E-02 | -1.26E-03 | 1982 | 6.58E-03 | 4.42E-01 | 6.80E-04 | 1.22E-02 | 1.82E-03 | 1997 | 2.42E-04 | 9.95E-02 | 3.07E-03 |
| 110 | 2999250 | 2 | TAZ | RU | 100000 | 6.39E-13 | 4.94E-03 | 1990 | 8.82E-07 | 5.82E-05 | 4.69E-03 | 4.26E-12 | -4.59E-03 | 1988 | 1.57E-06 | 5.02E-03 | -1.37E-03 |
| 112 | 2999850 | 2 | KHATANGA | RU | 275000 | 3.85E-10 | -4.59E-03 | 1992 | 1.09E-05 | 1.17E-04 | -6.16E-03 | 4.92E-09 | -3.74E-03 | 1992 | 1.36E-06 | 1.17E-02 | -3.02E-03 |
| 113 | 2999910 | 2 | OLENEK | RU | 198000 | 2.35E-06 | -3.78E-03 | 1986 | 4.51E-04 | 7.95E-02 | -2.67E-03 | 3.98E-03 | -2.06E-03 | 1991 | 1.13E-03 | 6.25E-01 | 2.44E-03 |
| 114 | 3102500 | 3 | ATRATO | CO | 9432 | 2.10E-02 | 2.88E-03 | 1998 | 3.41E-04 | 4.14E-03 | 1.05E-02 | 6.08E-05 | 1.69E-03 | 1993 | 1.33E-05 | 9.40E-01 | 1.37E-16 |
| 115 | 3103300 | 3 | MAGDALENA | CO | 257438 | 1.09E-11 | -4.93E-03 | 1994 | 1.85E-05 | 1.05E-05 | -7.58E-03 | 3.17E-05 | 2.63E-03 | 1982 | 1.13E-03 | 1.02E-01 | 1.55E-03 |
| 116 | 3141500 | 3 | SAN JUAN (COLUMBIA | CO | -999 | 3.58E-03 | -5.49E-03 | 1986 | 1.79E-03 | 5.85E-02 | 4.47E-03 | 1.11E-06 | 5.37E-03 | 1992 | 2.10E-05 | 2.69E-05 | 8.84E-03 |
| 117 | 3178100 | 3 | LOA | CL | -999 | 2.43E-07 | -7.57E-03 | 1997 | 2.55E-05 | 1.02E-03 | -8.55E-03 | 4.81E-03 | -1.07E-02 | 1983 | 2.55E-05 | 9.10E-03 | 2.63E-03 |
| 119 | 3178900 | 3 | HUASCO | CL | 7187 | 9.88E-09 | 5.01E-03 | 1986 | 6.37E-06 | 1.72E-02 | 2.43E-03 | 2.04E-02 | -3.86E-03 | 1983 | 2.55E-05 | 4.80E-02 | 1.47E-03 |
| 122 | 3181500 | 3 | BAKER | CL | 23736 | 3.20E-02 | -2.31E-03 | 1983 | 4.81E-05 | 3.67E-03 | 2.48E-03 | 5.75E-03 | 6.08E-03 | 1997 | 2.69E-02 | 2.90E-04 | 1.16E-02 |
| 124 | 3258200 | 3 | SALADO | AR | 29000 | 7.88E-03 | -2.49E-03 | 1986 | 2.95E-03 | 4.97E-02 | 3.48E-03 | 1.58E-02 | 1.37E-03 | 1991 | 2.95E-03 | 6.34E-02 | -2.87E-03 |
| 126 | 3275750 | 3 | COLORADO (ARGENTIN | AR | 223000 | 2.23E-02 | 1.04E-03 | 1983 | 5.23E-03 | 5.93E-01 | -5.70E-04 | 4.36E-06 | -3.87E-03 | 1990 | 8.82E-07 | 2.15E-01 | -1.11E-03 |
| 128 | 3276200 | 3 | CHUBUT | AR | 16400 | 2.58E-07 | -1.04E-02 | 1987 | 6.37E-06 | 1.72E-01 | -1.12E-03 | 5.93E-03 | 1.64E-03 | 1984 | 9.63E-04 | 4.91E-01 | -7.10E-04 |
| 129 | 3276800 | 3 | SANTA CRUZ | AR | 15550 | 1.80E-02 | 1.83E-03 | 1996 | 2.08E-03 | 4.57E-01 | 1.40E-03 | 1.58E-08 | 6.70E-03 | 1991 | 8.35E-06 | 4.04E-06 | 7.59E-03 |
| 134 | 3412800 | 3 | MARONI | SR | 63700 | 1.59E-03 | 5.50E-03 | 1985 | 5.62E-04 | 7.77E-02 | -4.14E-03 | 6.75E-05 | -5.58E-03 | 1984 | 1.09E-05 | 9.83E-01 | 0.00E+00 |
| 135 | 3469050 | 3 | URUGUAY | UY | 244000 | 2.07E-08 | 4.15E-03 | 1995 | 8.93E-06 | 8.68E-02 | 2.48E-03 | 1.68E-05 | 3.44E-03 | 1985 | 1.39E-03 | 3.10E-01 | 9.11E-04 |
| 137 | 3514800 | 3 | OYAPOCK | GF | 25120 | 3.13E-10 | 6.06E-03 | 1990 | 8.82E-07 | 7.85E-03 | 2.96E-03 | 1.15E-03 | -6.41E-03 | 1987 | 3.25E-03 | 3.50E-02 | -3.48E-03 |
| 138 | 3629000 | 3 | AMAZONAS | BR | 4640300 | 2.09E-04 | -1.33E-03 | 1987 | 1.62E-03 | 2.97E-01 | -8.17E-04 | 6.04E-10 | 8.54E-03 | 1987 | 1.69E-06 | 2.64E-04 | 5.99E-03 |
| 140 | 3629204 | 3 | RIO JAMANXIM | BR | 40400 | 1.77E-06 | -4.67E-03 | 1984 | 2.25E-05 | 4.40E-01 | -8.19E-04 | 4.00E-03 | -1.79E-03 | 1985 | 1.79E-03 | 6.12E-01 | -7.67E-04 |
| 144 | 3631100 | 3 | RIO JARI | BR | 51343 | 6.17E-03 | 4.66E-03 | 1985 | 6.82E-06 | 6.69E-03 | -7.09E-03 | 1.17E-10 | -7.72E-03 | 1989 | 9.49E-07 | 2.80E-03 | -5.49E-03 |
| 146 | 3649950 | 3 | TOCANTINS | BR | 742300 | 1.72E-03 | 2.67E-03 | 1987 | 1.88E-03 | 6.20E-01 | -1.01E-03 | 2.31E-04 | 5.22E-03 | 1994 | 1.25E-05 | 2.62E-07 | 1.22E-02 |
| 148 | 3650202 | 3 | RIO GURUPI | BR | 31850 | 1.38E-07 | -2.70E-03 | 1990 | 1.10E-06 | 4.68E-01 | -6.99E-04 | 1.52E-03 | 2.47E-03 | 2001 | 6.29E-03 | 1.67E-03 | 1.05E-02 |
| 150 | 3650335 | 3 | RIO MEARIM | BR | 25500 | 1.26E-04 | -3.02E-03 | 1992 | 1.09E-05 | 6.75E-01 | -1.72E-03 | 1.47E-10 | 6.18E-03 | 1984 | 1.85E-05 | 3.93E-04 | 4.84E-03 |
| 152 | 3650481 | 3 | RIO PARNAIBA | BR | 322823 | 7.59E-04 | -2.60E-03 | 1998 | 6.55E-05 | 9.95E-02 | 5.84E-03 | 2.31E-12 | 6.69E-03 | 1988 | 1.36E-06 | 2.38E-05 | 8.36E-03 |
| 153 | 3650525 | 3 | RIO ACARAU | BR | 11160 | 1.14E-02 | -2.59E-03 | 1998 | 2.29E-04 | 1.42E-01 | -8.51E-03 | 7.59E-03 | -1.42E-03 | 1995 | 4.54E-03 | 3.04E-02 | -2.86E-03 |
| 157 | 3652039 | 3 | RIO ITAPICURU | BR | 35150 | 7.37E-05 | 2.36E-03 | 1994 | 8.21E-04 | 3.42E-01 | 1.83E-03 | 1.96E-09 | 8.85E-03 | 1993 | 1.95E-06 | 3.10E-07 | 1.67E-02 |
| 160 | 3652220 | 3 | RIO DE CONTAS | BR | 42245 | 5.30E-08 | 7.46E-03 | 1993 | 1.73E-05 | 3.13E-03 | 6.87E-03 | 6.82E-08 | 7.49E-03 | 1988 | 1.18E-06 | 3.83E-01 | -1.68E-03 |
| 162 | 3652455 | 3 | JEQUITINHONHA | BR | 67769 | 4.92E-06 | 6.62E-03 | 1991 | 1.44E-04 | 6.35E-06 | 1.09E-02 | 3.13E-06 | 6.69E-03 | 1994 | 2.90E-05 | 7.52E-07 | 1.60E-02 |
| 166 | 3653120 | 3 | RIO RIBEIRA DO IGU | BR | 12450 | 6.60E-10 | -1.17E-02 | 1990 | 8.82E-07 | 7.40E-01 | 1.04E-03 | 2.13E-13 | 1.17E-02 | 1992 | 1.18E-06 | 1.66E-05 | 1.20E-02 |
| 172 | 3947100 | 3 | CHIRA | PE | -999 | 1.71E-08 | 6.97E-03 | 1992 | 2.09E-06 | 3.87E-06 | 9.96E-03 | 1.91E-11 | -4.12E-03 | 1991 | 5.19E-06 | 8.65E-05 | -6.31E-03 |
| 175 | 3948900 | 3 | MAJES | PE | -999 | 1.67E-06 | 2.34E-03 | 1993 | 3.51E-05 | 4.89E-02 | 2.48E-03 | 1.52E-04 | -3.56E-03 | 1994 | 1.42E-05 | 2.61E-05 | -1.09E-02 |
| 176 | 4101500 | 4 | COLVILLE RIVER | US | 53535.3 | 4.34E-08 | 6.49E-03 | 1990 | 8.82E-07 | 2.06E-05 | 5.50E-03 | 1.38E-05 | -2.13E-03 | 1986 | 1.52E-04 | 6.16E-02 | -2.04E-03 |
| 177 | 4101800 | 4 | NOATAK RIVER | US | 31080 | 2.90E-04 | -2.27E-03 | 1991 | 2.95E-03 | 1.49E-02 | -3.58E-03 | 1.12E-05 | -3.97E-03 | 1989 | 2.59E-06 | 2.08E-02 | -3.19E-03 |
| 179 | 4102100 | 4 | KUSKOKWIM RIVER | US | 80549 | 3.26E-13 | 5.86E-03 | 1987 | 1.69E-06 | 4.73E-07 | 4.94E-03 | 4.14E-02 | 6.43E-03 | 1998 | 6.55E-05 | 1.12E-01 | 4.18E-03 |
| 180 | 4102710 | 4 | COPPER RIVER | US | 62678 | 8.78E-07 | 6.29E-03 | 1986 | 2.78E-06 | 5.44E-01 | -1.46E-03 | 4.63E-02 | 8.39E-03 | 1985 | 5.19E-06 | 1.05E-02 | -4.71E-03 |
| 182 | 4102800 | 4 | SUSITNA RIVER | US | 50246 | 3.09E-07 | 3.94E-03 | 1988 | 1.57E-06 | 6.76E-02 | 1.97E-03 | 2.64E-04 | 6.23E-03 | 1985 | 5.19E-06 | 5.22E-01 | -1.07E-03 |
| 183 | 4103200 | 4 | YUKON RIVER | US | 831390 | 1.46E-03 | 2.85E-03 | 1987 | 1.69E-06 | 4.62E-03 | -2.65E-03 | 1.38E-06 | 8.52E-03 | 1992 | 4.22E-06 | 3.54E-03 | -1.02E-02 |
| 184 | 4115201 | 4 | COLUMBIA RIVER | US | 665371 | 8.23E-07 | -3.28E-03 | 1995 | 8.35E-06 | 1.61E-03 | -7.57E-03 | 5.33E-03 | -3.36E-03 | 1993 | 1.69E-06 | 6.49E-01 | -1.10E-03 |
| 186 | 4126800 | 4 | RED RIVER | US | 174825 | 6.63E-03 | 2.82E-03 | 1991 | 3.43E-06 | 2.31E-02 | -4.32E-03 | 1.45E-06 | 2.53E-03 | 1988 | 1.71E-04 | 8.27E-03 | 3.02E-03 |
| 188 | 4145081 | 4 | SKAGIT RIVER | US | 7088.8 | 8.17E-07 | -4.52E-03 | 1997 | 2.55E-05 | 1.89E-04 | -1.14E-02 | 5.44E-06 | 4.03E-03 | 1997 | 6.97E-05 | 8.09E-05 | 1.48E-02 |
| 189 | 4145900 | 4 | ROGUE RIVER | US | 10202 | 4.62E-03 | -1.36E-03 | 1993 | 2.16E-04 | 5.19E-01 | -1.04E-03 | 1.67E-06 | -3.65E-03 | 1988 | 1.18E-06 | 2.24E-01 | 3.01E-03 |
| 191 | 4146180 | 4 | EEL RIVER (CALIF.) | US | 8062.7 | 9.52E-06 | -4.93E-03 | 1986 | 8.89E-05 | 6.24E-01 | 8.31E-04 | 2.36E-07 | -3.35E-03 | 1994 | 1.02E-05 | 1.37E-01 | -2.26E-03 |
| 194 | 4146400 | 4 | SALINAS RIVER | US | 10764 | 8.75E-07 | 3.28E-03 | 1991 | 2.90E-05 | 7.95E-01 | 7.04E-04 | 2.36E-06 | -2.87E-03 | 1990 | 1.27E-04 | 8.09E-01 | -3.86E-04 |
| 196 | 4147060 | 4 | ST. CROIX RIVER | US | 3558.7 | 7.31E-03 | -1.72E-03 | 1984 | 1.25E-03 | 7.93E-02 | 1.26E-03 | 3.55E-07 | 7.67E-03 | 1990 | 8.82E-07 | 1.56E-01 | 1.94E-03 |
| 197 | 4147380 | 4 | MERRIMACK RIVER | US | 12004.7 | 7.30E-03 | 1.82E-03 | 1981 | 2.19E-03 | 2.04E-01 | -6.21E-04 | 8.95E-05 | -2.27E-03 | 1987 | 1.01E-03 | 3.94E-03 | -2.09E-03 |
| 202 | 4147900 | 4 | POTOMAC RIVER | US | 29940.4 | 4.94E-06 | -3.95E-03 | 1986 | 1.52E-04 | 4.41E-01 | -1.33E-03 | 6.44E-09 | 4.22E-03 | 1987 | 1.82E-06 | 3.66E-03 | 3.32E-03 |
| 203 | 4148050 | 4 | JAMES RIVER | US | 17503.2 | 6.10E-05 | -4.52E-03 | 1990 | 8.82E-07 | 9.04E-01 | 1.18E-16 | 4.50E-02 | 3.29E-03 | 1980 | 1.80E-02 | 2.34E-01 | -1.37E-03 |
| 205 | 4148232 | 4 | CAPE FEAR RIVER | US | 13610.5 | 1.45E-05 | -3.26E-03 | 1987 | 4.52E-05 | 3.71E-01 | 8.14E-04 | 4.89E-02 | -6.33E-04 | 1979 | 7.89E-03 | 3.72E-01 | 3.55E-04 |
| 207 | 4148550 | 4 | SANTEE RIVER | US | 38073 | 2.78E-07 | -5.86E-03 | 1990 | 1.02E-06 | 2.75E-02 | 2.34E-03 | 8.03E-06 | -3.12E-03 | 1996 | 5.94E-04 | 2.08E-05 | -1.06E-02 |
| 211 | 4149120 | 4 | PEARL RIVER | US | 17024.1 | 5.01E-13 | 5.72E-03 | 1990 | 1.82E-06 | 2.28E-04 | 4.23E-03 | 1.29E-03 | -1.04E-03 | 1993 | 3.05E-04 | 9.70E-01 | 0.00E+00 |
| 212 | 4149400 | 4 | ALABAMA RIVER | US | 56894.5 | 1.35E-10 | -5.71E-03 | 1990 | 9.49E-07 | 8.87E-06 | -8.53E-03 | 4.89E-09 | 8.34E-03 | 1986 | 3.20E-06 | 1.83E-01 | 1.92E-03 |
| 213 | 4149413 | 4 | TOMBIGBEE RIVER | US | 47700 | 1.51E-04 | 2.36E-03 | 1984 | 2.40E-05 | 6.16E-01 | -8.88E-16 | 5.95E-08 | 4.15E-03 | 1985 | 5.94E-04 | 2.06E-02 | 2.41E-03 |
| 218 | 4150450 | 4 | COLORADO RIVER (CA | US | 108788 | 4.38E-06 | -2.23E-03 | 1993 | 2.90E-05 | 1.03E-01 | -2.23E-03 | 7.21E-05 | 2.81E-03 | 1982 | 1.98E-03 | 6.25E-01 | 3.17E-04 |
| 219 | 4150500 | 4 | BRAZOS RIVER | US | 116827.1 | 1.25E-02 | 2.15E-03 | 2000 | 2.80E-02 | 5.07E-03 | 1.92E-02 | 9.95E-05 | -1.95E-03 | 1992 | 5.79E-05 | 1.29E-02 | -2.35E-03 |
| 222 | 4152050 | 4 | COLORADO RIVER (PA | US | 618715 | 1.00E-05 | -3.81E-03 | 1992 | 3.09E-03 | 4.01E-01 | -2.63E-03 | 1.69E-09 | -7.41E-03 | 1988 | 1.36E-06 | 1.28E-05 | -9.71E-03 |
| 225 | 4204900 | 4 | STIKINE RIVER | US | 51592.8 | 4.38E-06 | -5.00E-03 | 1989 | 9.49E-07 | 2.38E-02 | -2.94E-03 | 4.23E-11 | 5.00E-03 | 1987 | 2.98E-06 | 1.13E-02 | 1.98E-03 |
| 226 | 4206100 | 4 | NASS RIVER | CA | 19200 | 1.04E-04 | 2.17E-03 | 1983 | 5.12E-05 | 6.78E-01 | 2.19E-04 | 1.48E-02 | 1.21E-03 | 1994 | 9.63E-04 | 3.62E-01 | 1.03E-03 |
| 229 | 4208025 | 4 | MACKENZIE RIVER | CA | 1660000 | 2.43E-07 | -6.02E-03 | 1987 | 1.69E-06 | 1.72E-02 | -2.09E-03 | 7.64E-10 | 6.21E-03 | 1988 | 1.18E-06 | 3.24E-02 | 2.80E-03 |
| 230 | 4208040 | 4 | PEEL RIVER (TRIB. | CA | 70600 | 3.59E-02 | 1.76E-03 | 1981 | 3.61E-04 | 3.52E-02 | -2.52E-03 | 1.04E-06 | 4.10E-03 | 1982 | 6.55E-05 | 1.65E-01 | 1.30E-03 |
| 231 | 4209150 | 4 | ANDERSON RIVER | CA | 56300 | 6.76E-11 | -6.43E-03 | 1989 | 2.98E-06 | 5.94E-07 | -6.78E-03 | 4.27E-09 | -5.72E-03 | 1989 | 1.10E-06 | 6.67E-02 | -4.40E-03 |
| 233 | 4209600 | 4 | ELLICE RIVER | CA | 16900 | 1.19E-11 | -8.44E-03 | 1994 | 7.81E-06 | 9.12E-02 | -2.18E-03 | 1.34E-13 | 4.58E-03 | 1986 | 6.37E-06 | 1.01E-06 | 3.58E-03 |
| 234 | 4209800 | 4 | BACK RIVER | CA | 98200 | 2.20E-06 | -2.32E-03 | 1998 | 6.62E-04 | 2.69E-03 | -5.27E-03 | 2.46E-12 | 5.53E-03 | 1988 | 1.18E-06 | 4.86E-04 | 3.37E-03 |
| 236 | 4213711 | 4 | NELSON RIVER | CA | 1060000 | 3.75E-12 | -4.81E-03 | 1990 | 8.82E-07 | 2.80E-06 | -6.64E-03 | 1.36E-09 | -7.90E-03 | 1992 | 1.18E-06 | 8.63E-02 | -4.00E-03 |
| 239 | 4214040 | 4 | CANIAPISCAU | CA | 86800 | 4.66E-06 | 4.14E-03 | 1985 | 1.25E-05 | 7.74E-01 | -4.99E-04 | 1.11E-05 | -3.01E-03 | 1985 | 5.32E-04 | 2.06E-02 | -4.59E-03 |
| 244 | 4214090 | 4 | KAZAN RIVER | CA | 72300 | 1.65E-03 | 2.11E-03 | 1980 | 1.54E-03 | 8.52E-01 | 1.29E-04 | 9.69E-03 | -7.56E-03 | 1983 | 2.55E-05 | 1.80E-03 | 6.23E-03 |
| 245 | 4214100 | 4 | QUOICH RIVER | CA | 30100 | 9.84E-09 | -5.90E-03 | 1988 | 1.57E-06 | 1.07E-01 | -2.00E-03 | 1.49E-02 | -4.05E-03 | 1983 | 2.90E-05 | 3.23E-03 | 5.74E-03 |
| 247 | 4214270 | 4 | CHURCHILL RIVER | CA | 287000 | 1.48E-08 | -7.06E-03 | 1987 | 1.69E-06 | 3.71E-02 | -3.33E-03 | 5.14E-04 | -2.44E-03 | 1998 | 2.42E-04 | 2.98E-01 | -3.02E-03 |
| 250 | 4214520 | 4 | ALBANY RIVER | CA | 118000 | 1.87E-06 | -5.87E-03 | 1994 | 2.78E-06 | 3.45E-03 | -4.19E-03 | 2.14E-10 | 6.89E-03 | 1989 | 9.49E-07 | 1.91E-03 | 3.32E-03 |
| 251 | 4214551 | 4 | MOOSE RIVER (TRIB. | CA | 60100 | 1.39E-04 | -5.13E-03 | 1994 | 4.84E-06 | 6.45E-05 | -1.13E-02 | 2.22E-05 | 2.92E-03 | 1983 | 2.57E-04 | 8.43E-01 | 9.83E-05 |
| 252 | 4214650 | 4 | NOTTAWAY | CA | 57500 | 9.50E-06 | -6.54E-03 | 1991 | 1.36E-06 | 8.71E-01 | 1.36E-03 | 1.76E-13 | 1.01E-02 | 1991 | 9.49E-07 | 3.94E-06 | 7.72E-03 |
| 254 | 4214700 | 4 | EASTMAIN | CA | 44300 | 2.21E-06 | -2.95E-03 | 1988 | 1.82E-06 | 6.39E-02 | 1.18E-03 | 7.79E-08 | 4.22E-03 | 1991 | 6.97E-05 | 1.73E-01 | 2.37E-03 |
| 259 | 4214940 | 4 | FEUILLES (RIVIERE | CA | 41700 | 2.73E-12 | 6.47E-03 | 1989 | 1.47E-06 | 2.74E-04 | 6.04E-03 | 7.05E-03 | -8.09E-04 | 1986 | 6.89E-03 | 4.12E-01 | -6.66E-16 |
| 260 | 4214950 | 4 | GEORGE RIVER | CA | 35200 | 1.30E-02 | 1.19E-03 | 1996 | 1.28E-02 | 1.12E-01 | -2.82E-03 | 3.81E-02 | -1.30E-03 | 1983 | 9.86E-03 | 3.04E-01 | 2.27E-03 |
| 265 | 4243610 | 4 | MANICOUAGAN (RIVIE | CA | 45800 | 5.66E-10 | 4.30E-03 | 1994 | 4.84E-06 | 2.14E-05 | 9.23E-03 | 7.20E-06 | -2.26E-03 | 1985 | 6.16E-05 | 9.82E-01 | 0.00E+00 |
| 267 | 4244635 | 4 | NATASHQUAN (RIVIER | CA | 15600 | 1.09E-04 | -3.12E-03 | 1995 | 5.95E-06 | 8.53E-04 | -6.66E-03 | 1.57E-10 | -4.97E-03 | 1993 | 1.95E-06 | 2.06E-04 | -1.35E-02 |
| 269 | 4351900 | 4 | BRAVO | MX | 450902 | 1.56E-07 | 3.20E-03 | 1993 | 1.69E-06 | 3.37E-02 | 3.27E-03 | 4.14E-06 | -7.61E-03 | 1989 | 3.67E-06 | 1.41E-02 | 3.96E-03 |
| 272 | 4356080 | 4 | SAN PEDRO | MX | 25800 | 1.15E-03 | 2.95E-03 | 1982 | 2.16E-04 | 3.77E-01 | -6.66E-04 | 3.34E-11 | -8.48E-03 | 1987 | 4.52E-06 | 1.78E-04 | -5.71E-03 |
| 273 | 4356100 | 4 | SANTIAGO | MX | 128943 | 1.41E-03 | -3.03E-03 | 1996 | 1.07E-04 | 5.58E-03 | -7.95E-03 | 3.03E-04 | 3.97E-03 | 1990 | 2.41E-06 | 9.04E-01 | 2.38E-04 |
| 275 | 4356700 | 4 | VERDE | MX | 17617 | 1.74E-02 | 1.92E-03 | 1994 | 1.25E-03 | 8.69E-01 | -3.33E-04 | 1.46E-03 | -2.70E-03 | 2000 | 7.37E-04 | 3.42E-04 | -1.39E-02 |
| 276 | 4358300 | 4 | PANUCO | MX | 58115 | 3.01E-02 | -1.67E-03 | 1980 | 1.34E-02 | 4.14E-01 | 7.86E-04 | 4.26E-08 | 4.95E-03 | 1995 | 1.85E-05 | 3.43E-01 | 1.85E-03 |
| 279 | 4362600 | 4 | USUMACINTA | MX | 50743 | 4.65E-06 | 3.04E-03 | 1990 | 9.49E-07 | 7.17E-01 | 5.75E-04 | 4.44E-07 | 2.82E-03 | 1991 | 2.72E-05 | 4.66E-02 | 2.45E-03 |
| 280 | 4664800 | 4 | LEMPA | SV | 18176 | 1.05E-13 | 1.34E-02 | 1989 | 1.10E-06 | 9.47E-06 | 1.07E-02 | 2.53E-04 | 1.27E-02 | 1990 | 8.82E-07 | 1.84E-01 | 2.58E-03 |
| 281 | 4772300 | 4 | GRANDE DE MATAGALP | NI | 14646 | 4.59E-11 | 9.45E-03 | 1990 | 8.82E-07 | 1.47E-07 | 1.12E-02 | 8.16E-03 | 2.15E-03 | 1999 | 5.73E-03 | 9.69E-04 | 7.53E-03 |
| 283 | 5101201 | 5 | BURDEKIN | AU | 129760 | 3.45E-09 | -3.83E-03 | 1991 | 4.22E-06 | 5.97E-02 | -2.28E-03 | 1.04E-04 | 2.84E-03 | 1987 | 4.52E-06 | 1.17E-01 | -1.55E-03 |
| 285 | 5109170 | 5 | GILBERT RIVER | AU | 11800 | 4.25E-11 | -7.78E-03 | 1998 | 6.55E-05 | 1.48E-03 | -1.05E-02 | 4.79E-03 | -1.12E-03 | 1997 | 1.98E-03 | 2.28E-01 | -1.37E-03 |
| 289 | 5223100 | 5 | KELANTAN | MY | 11900 | 1.12E-05 | 7.33E-03 | 1988 | 1.18E-06 | 2.45E-01 | 2.80E-03 | 1.22E-02 | -8.97E-03 | 1998 | 6.55E-05 | 2.00E-01 | -5.25E-03 |
| 290 | 5224500 | 5 | PAHANG | MY | 19000 | 1.57E-10 | 8.30E-03 | 1988 | 1.18E-06 | 2.88E-06 | 4.89E-03 | 1.67E-07 | -9.04E-03 | 1993 | 2.98E-06 | 7.62E-01 | -4.59E-03 |
| 291 | 5230300 | 5 | RAJANG | MY | 34053 | 2.21E-04 | 5.00E-03 | 1988 | 1.18E-06 | 9.79E-01 | -7.40E-17 | 5.85E-04 | -4.69E-03 | 1996 | 5.04E-04 | 1.33E-05 | -1.97E-02 |
| 292 | 5231700 | 5 | KINABATANGAN | MY | 10800 | 2.85E-05 | 3.56E-03 | 1995 | 1.44E-04 | 6.04E-05 | 8.25E-03 | 4.17E-06 | 9.21E-03 | 1985 | 5.95E-06 | 7.24E-01 | -9.24E-04 |
| 293 | 5404270 | 5 | MURRAY | AU | -999 | 2.44E-05 | 1.62E-03 | 1984 | 1.32E-03 | 4.98E-02 | 1.35E-03 | 5.26E-09 | 5.62E-03 | 1990 | 8.82E-07 | 3.70E-03 | 6.58E-03 |
| 295 | 5553100 | 5 | PURARI | PG | 11100 | 7.25E-06 | -4.14E-03 | 1996 | 1.52E-04 | 3.77E-02 | -6.89E-03 | 4.29E-03 | -1.92E-03 | 1991 | 1.80E-02 | 4.55E-01 | 2.04E-03 |
| 301 | 5607500 | 5 | DE GREY RIVER | AU | 49600 | 7.85E-11 | 6.23E-03 | 1991 | 9.49E-07 | 2.11E-02 | 5.65E-03 | 2.41E-04 | -3.56E-03 | 1995 | 2.16E-04 | 6.14E-04 | -1.43E-02 |
| 303 | 5608090 | 5 | ORD | AU | 46100 | 1.22E-02 | 1.41E-03 | 1991 | 6.27E-04 | 3.81E-01 | 1.16E-03 | 4.30E-04 | -3.07E-03 | 1999 | 2.29E-04 | 5.82E-01 | -8.31E-04 |
| 304 | 5608400 | 5 | DURACK RIVER | AU | 4150 | 8.74E-10 | 6.03E-03 | 1989 | 1.02E-06 | 7.65E-05 | 4.99E-03 | 1.14E-07 | -4.28E-03 | 1987 | 2.98E-06 | 4.87E-01 | -7.23E-04 |
| 307 | 5708145 | 5 | DALY | AU | 47000 | 4.59E-11 | 6.46E-03 | 1990 | 8.82E-07 | 5.82E-05 | 7.80E-03 | 7.79E-05 | 5.38E-03 | 1991 | 2.72E-05 | 2.50E-02 | 1.07E-02 |
| 309 | 5709110 | 5 | MACARTHUR RIVER | AU | 10400 | 7.88E-03 | -4.36E-03 | 1984 | 1.44E-04 | 1.33E-03 | 5.67E-03 | 1.40E-06 | -6.83E-03 | 1990 | 8.82E-07 | 2.04E-01 | 1.51E-03 |
| 311 | 5865300 | 5 | WAIKATO RIVER | NZ | 11395 | 1.45E-03 | 1.26E-03 | 1997 | 6.01E-03 | 3.25E-02 | 2.85E-03 | 2.51E-02 | -1.16E-03 | 1983 | 5.35E-02 | 6.63E-01 | 1.39E-04 |
| 312 | 5868100 | 5 | CLUTHA | NZ | 20306 | 2.31E-02 | -1.76E-03 | 1995 | 3.22E-04 | 9.90E-04 | -4.30E-03 | 3.05E-03 | 1.04E-03 | 1984 | 8.66E-04 | 7.70E-01 | -5.92E-17 |
| 314 | 6113050 | 6 | TEJO | PT | 67490 | 2.77E-04 | 2.76E-03 | 1983 | 7.88E-05 | 6.49E-01 | 3.18E-04 | 1.04E-02 | -1.61E-03 | 1997 | 3.82E-04 | 7.01E-01 | -1.26E-03 |
| 315 | 6116200 | 6 | GUADIANA | PT | 60883 | 2.44E-03 | 2.86E-03 | 1996 | 3.74E-05 | 1.97E-01 | 3.77E-03 | 2.31E-02 | 1.76E-03 | 1991 | 2.25E-05 | 2.05E-01 | -1.71E-03 |
| 318 | 6125100 | 6 | GARONNE | FR | 52000 | 8.72E-03 | 1.11E-03 | 1994 | 2.42E-04 | 5.64E-01 | -6.06E-04 | 1.35E-02 | -2.01E-03 | 2003 | 1.52E-02 | 5.36E-01 | -9.50E-04 |
| 319 | 6139100 | 6 | RHONE | FR | 95590 | 2.85E-03 | 2.49E-03 | 1987 | 8.89E-05 | 2.53E-01 | -1.09E-03 | 6.18E-12 | -7.85E-03 | 1989 | 2.25E-06 | 3.35E-03 | -3.05E-03 |
| 322 | 6229500 | 6 | VAENERN-GOETA (GOE | SE | 46886 | 3.30E-10 | 3.45E-03 | 1994 | 3.67E-06 | 9.91E-02 | 3.49E-03 | 1.14E-02 | -1.63E-03 | 1986 | 6.99E-04 | 4.54E-01 | 8.29E-04 |
| 323 | 6233650 | 6 | ANGERMANAELVEN | SE | 30638 | 2.74E-09 | 4.76E-03 | 1989 | 9.49E-07 | 6.12E-03 | 2.45E-03 | 7.82E-04 | 2.25E-03 | 1987 | 3.30E-05 | 5.34E-01 | -6.09E-04 |
| 326 | 6233900 | 6 | MUONIO | SE | 14408.5 | 3.20E-03 | -2.78E-03 | 1985 | 2.55E-05 | 3.43E-01 | 1.46E-03 | 2.90E-07 | -3.45E-03 | 1982 | 1.07E-04 | 3.22E-02 | -1.58E-03 |
| 328 | 6337200 | 6 | WESER | DE | 37720 | 2.24E-06 | 4.78E-03 | 1990 | 9.55E-06 | 6.44E-04 | 4.65E-03 | 6.46E-07 | -3.15E-03 | 1994 | 2.78E-06 | 3.86E-01 | -1.80E-03 |
| 329 | 6340110 | 6 | ELBE RIVER | DE | 131950 | 1.32E-04 | 2.55E-03 | 1984 | 6.55E-05 | 2.87E-01 | 1.30E-03 | 8.16E-10 | -5.33E-03 | 1990 | 7.81E-06 | 2.15E-01 | -1.54E-03 |
| 332 | 6401120 | 6 | THJORSA | IS | 7380 | 3.22E-09 | 1.65E-02 | 1988 | 1.18E-06 | 5.50E-03 | 4.98E-03 | 8.17E-03 | 1.83E-03 | 1982 | 7.78E-04 | 8.43E-02 | -1.75E-03 |
| 333 | 6401601 | 6 | SVARTA, SKAGAFIROI | IS | 393 | 2.60E-07 | 1.90E-02 | 1990 | 8.82E-07 | 8.90E-04 | 5.64E-03 | 1.78E-03 | -1.71E-03 | 1987 | 1.32E-03 | 1.64E-01 | 1.43E-03 |
| 334 | 6401701 | 6 | JOEKULSA A FJOELLU | IS | 7074 | 7.76E-07 | 1.57E-02 | 1988 | 1.18E-06 | 5.26E-01 | -1.30E-03 | 1.57E-09 | 5.75E-03 | 1993 | 2.41E-06 | 7.29E-04 | 5.63E-03 |
| 336 | 6421100 | 6 | MAAS | NL | 29000 | 5.32E-11 | 3.45E-03 | 1991 | 1.36E-06 | 1.32E-03 | 3.91E-03 | 3.80E-02 | -1.80E-03 | 1994 | 4.27E-04 | 5.75E-02 | -7.65E-03 |
| 337 | 6457010 | 6 | ODER RIVER | PL | 109729 | 2.76E-07 | 7.58E-03 | 1990 | 8.82E-07 | 2.04E-01 | -2.07E-03 | 7.25E-04 | -2.47E-03 | 1987 | 7.30E-06 | 3.72E-01 | 1.07E-03 |
| 338 | 6458010 | 6 | WISLA | PL | 194376 | 2.74E-08 | 5.25E-03 | 1999 | 1.81E-04 | 1.64E-02 | 6.24E-03 | 9.73E-07 | 3.41E-03 | 1995 | 1.97E-05 | 4.39E-04 | 7.55E-03 |
| 341 | 6605600 | 6 | TRENT | GB | 7486 | 3.61E-12 | 5.49E-03 | 1989 | 1.02E-05 | 1.14E-03 | 3.15E-03 | 5.17E-06 | 4.80E-03 | 1992 | 2.78E-06 | 1.32E-01 | 4.64E-03 |
| 342 | 6607650 | 6 | THAMES | GB | 9948 | 3.75E-16 | 9.56E-03 | 1991 | 9.49E-07 | 1.51E-06 | 7.21E-03 | 5.79E-05 | -2.44E-03 | 1983 | 4.52E-05 | 2.52E-01 | -9.99E-04 |
| 345 | 6730500 | 6 | TANA (NO, FI) | NO | 14165 | 2.37E-02 | -1.21E-03 | 1982 | 4.33E-03 | 1.65E-01 | 1.05E-03 | 3.01E-09 | -5.83E-03 | 1986 | 2.78E-06 | 1.27E-04 | -7.25E-03 |
| 346 | 6731310 | 6 | DRAMSELV | NO | 16020 | 8.99E-06 | 3.92E-03 | 1989 | 8.93E-06 | 3.82E-01 | -2.49E-03 | 7.58E-04 | 3.56E-03 | 1998 | 6.55E-05 | 1.48E-05 | 1.24E-02 |
| 347 | 6731400 | 6 | GLOMA | NO | 40243 | 5.63E-10 | 5.71E-03 | 1989 | 9.49E-07 | 8.50E-02 | 2.32E-03 | 8.25E-04 | 2.30E-03 | 1999 | 1.07E-03 | 1.64E-02 | 5.82E-03 |
| 349 | 6854100 | 6 | KOKEMAENJOKI | FI | 26025 | 1.14E-02 | -1.62E-03 | 1987 | 5.62E-04 | 9.01E-01 | -1.71E-04 | 2.94E-07 | -4.53E-03 | 1991 | 1.27E-06 | 1.83E-03 | -4.80E-03 |
| 350 | 6854500 | 6 | OULUJOKI | FI | 22841 | 6.93E-04 | -2.49E-03 | 1985 | 1.00E-04 | 7.24E-01 | -1.80E-04 | 1.94E-12 | -7.17E-03 | 1994 | 3.67E-06 | 1.07E-07 | -1.23E-02 |
| 354 | 6855400 | 6 | VUOKSI | FI | 61061 | 1.06E-03 | 2.59E-03 | 1994 | 7.30E-06 | 3.57E-02 | 6.53E-03 | 4.04E-08 | -3.06E-03 | 1989 | 1.27E-06 | 3.68E-02 | -1.57E-03 |
| 355 | 6934100 | 6 | SKJERN A | DK | 1040 | 2.77E-15 | 8.41E-03 | 1989 | 9.49E-07 | 3.22E-07 | 5.87E-03 | 1.74E-02 | 1.80E-03 | 1997 | 4.04E-04 | 1.15E-05 | 7.27E-03 |
| 359 | 6970500 | 6 | MEZEN | RU | 56400 | 1.32E-10 | -2.88E-03 | 1988 | 1.33E-05 | 4.70E-05 | -3.73E-03 | 6.37E-10 | 4.67E-03 | 1989 | 9.55E-06 | 5.79E-02 | 1.37E-03 |
| 361 | 6971130 | 6 | TULOMA | RU | 17500 | 4.48E-07 | 3.46E-03 | 1987 | 8.93E-06 | 7.09E-01 | 3.03E-04 | 5.38E-04 | -2.52E-03 | 1994 | 2.10E-05 | 4.78E-02 | -3.53E-03 |
| 367 | 6972800 | 6 | KEM | RU | 27900 | 4.38E-02 | -1.13E-03 | 1985 | 3.61E-04 | 1.53E-02 | 2.62E-03 | 1.52E-04 | -2.95E-03 | 1995 | 8.93E-06 | 3.12E-04 | -7.24E-03 |
| 371 | 6977100 | 6 | VOLGA | RU | 1360000 | 9.28E-07 | 2.86E-03 | 1990 | 4.22E-06 | 3.06E-05 | 4.07E-03 | 2.73E-13 | 6.88E-03 | 1990 | 1.02E-06 | 5.08E-05 | 9.16E-03 |
| 372 | 6978250 | 6 | DON | RU | 378000 | 2.13E-10 | 4.54E-03 | 1990 | 3.67E-06 | 7.51E-05 | 4.28E-03 | 3.57E-03 | 1.76E-03 | 1995 | 1.27E-04 | 5.84E-02 | 3.81E-03 |
| 375 | 6981800 | 6 | DNIESTR | MD | 66100 | 5.15E-04 | 2.27E-03 | 1999 | 7.37E-04 | 1.93E-01 | 3.90E-03 | 2.27E-13 | 9.45E-03 | 1990 | 8.82E-07 | 1.11E-08 | 1.44E-02 |

Table 3. Shannon entropy dynamics for extreme values of precipitation and temperature

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Lp | GRDC\_NO | WMO\_REG | RIVER | STATION | COUNTRY\_CO | COUNTRY | AREA | PRECIP | TEMP | DYN |
|  |  | WMO region | Name of river | Name of station | Country Code | Name of country | Area catchment  [km2] | Dynamic of Shannon entropy of precipitation  [bit/year] | Dynamic of Shannon entropy of temperature  [bit/year] | Total dynamic of Shannon entropy  [bit/year] |
| 2 | 1147010 | 1 | CONGO | KINSHASA | CD | CONGO, THE DE | 3475000 | 8.06E-03 | 1.03E-02 | 1.31E-02 |
| 3 | 1159100 | 1 | ORANGE | VIOOLSDRIF | ZA | SOUTH AFRICA | 850530 | 3.04E-03 | 8.15E-03 | 8.70E-03 |
| 14 | 1362100 | 1 | NILE | EL EKHSASE | EG | EGYPT | 2900000 | 9.78E-03 | 4.83E-03 | 1.09E-02 |
| 19 | 1427500 | 1 | SASSANDRA | SOUBRE | CI | COTE D'IVOIRE | 62000 | 1.91E-02 | 4.09E-03 | 1.95E-02 |
| 24 | 1530100 | 1 | TANO | ALANDA | GH | GHANA | 15800 | 5.20E-03 | 5.39E-03 | 7.49E-03 |
| 25 | 1531700 | 1 | VOLTA | SENCHI(HALCROW) | GH | GHANA | 394100 | 1.74E-02 | 5.65E-03 | 1.83E-02 |
| 31 | 1812100 | 1 | SENEGAL | DAGANA | SN | SENEGAL | 268000 | 1.11E-02 | 6.31E-03 | 1.28E-02 |
| 38 | 1891500 | 1 | ZAMBEZI | MATUNDO-CAIS | MZ | MOZAMBIQUE | 940000 | 3.02E-03 | 4.78E-03 | 5.65E-03 |
| 44 | 1992900 | 1 | SHIRE | CHIROMO | MW | MALAWI | 149500 | 7.33E-03 | 1.06E-02 | 1.28E-02 |
| 48 | 2179100 | 2 | LIAO HE | CHILING | CN | CHINA | 120764 | 1.21E-02 | 3.56E-03 | 1.26E-02 |
| 56 | 2260500 | 2 | IRRAWADDY | SAGAING | MM | MYANMAR | 117900 | 6.72E-03 | 4.13E-03 | 7.89E-03 |
| 58 | 2335950 | 2 | INDUS | KOTRI | PK | PAKISTAN | 832418 | 9.12E-03 | 6.56E-03 | 1.12E-02 |
| 59 | 2371300 | 2 | TRANH (NR THU BON) | NONG SON | VN | VIET NAM | -999 | 1.51E-02 | 3.84E-03 | 1.56E-02 |
| 63 | 2569005 | 2 | MEKONG | STUNG TRENG | KH | CAMBODIA | 635000 | 5.31E-03 | 5.07E-03 | 7.34E-03 |
| 66 | 2588301 | 2 | KISO | INUYAMA | JP | JAPAN | 4683.8 | 2.90E-03 | 5.19E-03 | 5.94E-03 |
| 69 | 2588700 | 2 | KITAKAMI | TOME | JP | JAPAN | 7869.4 | 7.37E-03 | 5.07E-03 | 8.95E-03 |
| 83 | 2854080 | 2 | BRAHMANI RIVER (BH | BARKOT BR. | IN | INDIA | -999 | 2.01E-02 | 4.85E-03 | 2.07E-02 |
| 88 | 2856900 | 2 | GODAVARI | POLAVARAM | IN | INDIA | 299320 | 1.26E-02 | 1.85E-02 | 2.24E-02 |
| 90 | 2902850 | 2 | KAMCHATKA | BOLSHIE SCHEKI | RU | RUSSIAN FEDER | 51600 | 8.69E-03 | 4.88E-03 | 9.97E-03 |
| 94 | 2912600 | 2 | OB | SALEKHARD | RU | RUSSIAN FEDER | 2949998 | 5.16E-03 | 6.50E-03 | 8.30E-03 |
| 96 | 2917100 | 2 | AMU DARYA | CHATLY | UZ | UZBEKISTAN | 450000 | 1.14E-02 | 7.57E-03 | 1.37E-02 |
| 105 | 2998702 | 2 | ANYUY (TRIB. KOLYM | OSTROVNOJE | RU | RUSSIAN FEDER | 30000 | 4.39E-02 | 2.22E-03 | 4.40E-02 |
| 112 | 2999850 | 2 | KHATANGA | KHATANGA | RU | RUSSIAN FEDER | 275000 | 3.37E-02 | 5.92E-03 | 3.42E-02 |
| 114 | 3102500 | 3 | ATRATO | TAGACHI | CO | COLOMBIA | 9432 | 1.42E-02 | 3.34E-03 | 1.46E-02 |
| 117 | 3178100 | 3 | LOA | QUILLAGUA | CL | CHILE | -999 | 1.07E-02 | 1.31E-02 | 1.70E-02 |
| 119 | 3178900 | 3 | HUASCO | EL ALGODON (ALGODO | CL | CHILE | 7187 | 2.44E-02 | 6.32E-03 | 2.52E-02 |
| 124 | 3258200 | 3 | SALADO | ACHUPALLAS | AR | ARGENTINA | 29000 | 4.06E-03 | 2.84E-03 | 4.95E-03 |
| 128 | 3276200 | 3 | CHUBUT | LOS ALTARES | AR | ARGENTINA | 16400 | 5.61E-03 | 1.05E-02 | 1.19E-02 |
| 129 | 3276800 | 3 | SANTA CRUZ | CHARLES FUHR | AR | ARGENTINA | 15550 | 2.62E-02 | 6.95E-03 | 2.71E-02 |
| 135 | 3469050 | 3 | URUGUAY | SALTO | UY | URUGUAY | 244000 | 1.99E-03 | 5.39E-03 | 5.75E-03 |
| 137 | 3514800 | 3 | OYAPOCK | MARIPA | GF | FRENCH GUIANA | 25120 | 5.99E-03 | 8.82E-03 | 1.07E-02 |
| 146 | 3649950 | 3 | TOCANTINS | TUCURUI | BR | BRAZIL | 742300 | 8.62E-03 | 5.86E-03 | 1.04E-02 |
| 153 | 3650525 | 3 | RIO ACARAU | SOBRAL | BR | BRAZIL | 11160 | 2.10E-02 | 2.95E-03 | 2.13E-02 |
| 157 | 3652039 | 3 | RIO ITAPICURU | USINA ALTAMIRA | BR | BRAZIL | 35150 | 8.20E-03 | 9.16E-03 | 1.23E-02 |
| 160 | 3652220 | 3 | RIO DE CONTAS | JEQUIE | BR | BRAZIL | 42245 | 6.33E-03 | 1.06E-02 | 1.23E-02 |
| 176 | 4101500 | 4 | COLVILLE RIVER | NEAR NUIQSUT ALAS. | US | UNITED STATES | 53535.3 | 8.16E-03 | 6.83E-03 | 1.06E-02 |
| 177 | 4101800 | 4 | NOATAK RIVER | NOATAK | US | UNITED STATES | 31080 | 7.68E-03 | 4.57E-03 | 8.94E-03 |
| 179 | 4102100 | 4 | KUSKOKWIM RIVER | CROOKED CREEK, ALA | US | UNITED STATES | 80549 | 7.64E-03 | 8.70E-03 | 1.16E-02 |
| 183 | 4103200 | 4 | YUKON RIVER | PILOT STATION, AK | US | UNITED STATES | 831390 | 7.71E-03 | 8.99E-03 | 1.18E-02 |
| 186 | 4126800 | 4 | RED RIVER | ALEXANDRIA, LA. | US | UNITED STATES | 174825 | 6.87E-03 | 3.79E-03 | 7.85E-03 |
| 188 | 4145081 | 4 | SKAGIT RIVER | NEAR CONCRETE, WA | US | UNITED STATES | 7088.8 | 5.09E-03 | 6.06E-03 | 7.91E-03 |
| 189 | 4145900 | 4 | ROGUE RIVER | NEAR AGNESS, OREG. | US | UNITED STATES | 10202 | 5.42E-03 | 3.90E-03 | 6.67E-03 |
| 203 | 4148050 | 4 | JAMES RIVER | NEAR RICHMOND, VA. | US | UNITED STATES | 17503.2 | 9.29E-03 | 5.59E-03 | 1.08E-02 |
| 211 | 4149120 | 4 | PEARL RIVER | NEAR BOGALUSA, LA. | US | UNITED STATES | 17024.1 | 4.94E-03 | 5.81E-03 | 7.62E-03 |
| 212 | 4149400 | 4 | ALABAMA RIVER | CLAIBORNE, ALA. | US | UNITED STATES | 56894.5 | 3.53E-03 | 1.01E-02 | 1.07E-02 |
| 213 | 4149413 | 4 | TOMBIGBEE RIVER | COFFEEVILLE L&D NE | US | UNITED STATES | 47700 | 6.43E-03 | 4.78E-03 | 8.01E-03 |
| 219 | 4150500 | 4 | BRAZOS RIVER | RICHMOND, TEX. | US | UNITED STATES | 116827.1 | 4.16E-03 | 2.90E-03 | 5.07E-03 |
| 222 | 4152050 | 4 | COLORADO RIVER (PA | BELOW YUMA MAIN CA | US | UNITED STATES | 618715 | 4.07E-03 | 8.33E-03 | 9.27E-03 |
| 225 | 4204900 | 4 | STIKINE RIVER | NEAR WRANGELL | US | UNITED STATES | 51592.8 | 1.64E-02 | 7.07E-03 | 1.79E-02 |
| 226 | 4206100 | 4 | NASS RIVER | ABOVE SHUMAL CREEK | CA | CANADA | 19200 | 6.01E-03 | 2.48E-03 | 6.50E-03 |
| 236 | 4213711 | 4 | NELSON RIVER | LONG SPRUCE GENERA | CA | CANADA | 1060000 | 3.24E-03 | 9.25E-03 | 9.80E-03 |
| 239 | 4214040 | 4 | CANIAPISCAU | CHUTE DE LA PYRITE | CA | CANADA | 86800 | 5.07E-03 | 5.12E-03 | 7.21E-03 |
| 245 | 4214100 | 4 | QUOICH RIVER | ABOVE ST. CLAIR FA | CA | CANADA | 30100 | 4.07E-02 | 7.16E-03 | 4.13E-02 |
| 250 | 4214520 | 4 | ALBANY RIVER | NEAR HAT ISLAND | CA | CANADA | 118000 | 4.31E-03 | 9.05E-03 | 1.00E-02 |
| 254 | 4214700 | 4 | EASTMAIN | TETE DE LA GORGE D | CA | CANADA | 44300 | 3.10E-03 | 5.15E-03 | 6.01E-03 |
| 259 | 4214940 | 4 | FEUILLES (RIVIERE | EN AVAL DE LA RIVI | CA | CANADA | 41700 | 1.47E-02 | 6.52E-03 | 1.61E-02 |
| 267 | 4244635 | 4 | NATASHQUAN (RIVIER | EN AVAL DE LA DECH | CA | CANADA | 15600 | 9.70E-03 | 5.87E-03 | 1.13E-02 |
| 269 | 4351900 | 4 | BRAVO | MATAMOROS | MX | MEXICO | 450902 | 7.21E-03 | 8.25E-03 | 1.10E-02 |
| 272 | 4356080 | 4 | SAN PEDRO | SAN PEDRO | MX | MEXICO | 25800 | 2.19E-02 | 8.98E-03 | 2.36E-02 |
| 275 | 4356700 | 4 | VERDE | PASO DE LA REYNA | MX | MEXICO | 17617 | 5.76E-03 | 3.32E-03 | 6.65E-03 |
| 276 | 4358300 | 4 | PANUCO | LAS ADJUNTAS | MX | MEXICO | 58115 | 3.00E-03 | 5.23E-03 | 6.03E-03 |
| 279 | 4362600 | 4 | USUMACINTA | BOCA DEL CERRO | MX | MEXICO | 50743 | 6.77E-03 | 4.15E-03 | 7.94E-03 |
| 280 | 4664800 | 4 | LEMPA | SAN MARCOS | SV | EL SALVADOR | 18176 | 1.07E-02 | 1.84E-02 | 2.13E-02 |
| 281 | 4772300 | 4 | GRANDE DE MATAGALP | SAN PEDRO DEL NORT | NI | NICARAGUA | 14646 | 6.44E-03 | 9.70E-03 | 1.16E-02 |
| 283 | 5101201 | 5 | BURDEKIN | HOME HILL | AU | AUSTRALIA | 129760 | 4.65E-03 | 4.77E-03 | 6.66E-03 |
| 285 | 5109170 | 5 | GILBERT RIVER | ROCKFIELDS | AU | AUSTRALIA | 11800 | 3.80E-03 | 7.86E-03 | 8.73E-03 |
| 290 | 5224500 | 5 | PAHANG | TEMERLOH | MY | MALAYSIA | 19000 | 1.13E-02 | 1.23E-02 | 1.67E-02 |
| 291 | 5230300 | 5 | RAJANG | KAPIT WHARF | MY | MALAYSIA | 34053 | 5.36E-03 | 6.85E-03 | 8.70E-03 |
| 309 | 5709110 | 5 | MACARTHUR RIVER | M.I.M PUMP | AU | AUSTRALIA | 10400 | 3.91E-02 | 8.11E-03 | 3.99E-02 |
| 311 | 5865300 | 5 | WAIKATO RIVER | NGARUAWAHIA | NZ | NEW ZEALAND | 11395 | 3.36E-03 | 1.71E-03 | 3.77E-03 |
| 312 | 5868100 | 5 | CLUTHA | BALCLUTHA | NZ | NEW ZEALAND | 20306 | 7.88E-03 | 2.04E-03 | 8.14E-03 |
| 314 | 6113050 | 6 | TEJO | ALMOUROL | PT | PORTUGAL | 67490 | 9.91E-03 | 3.19E-03 | 1.04E-02 |
| 315 | 6116200 | 6 | GUADIANA | PULO DO LOBO | PT | PORTUGAL | 60883 | 7.83E-03 | 3.36E-03 | 8.52E-03 |
| 318 | 6125100 | 6 | GARONNE | MAS-D'AGENAIS | FR | FRANCE | 52000 | 2.34E-03 | 2.29E-03 | 3.27E-03 |
| 319 | 6139100 | 6 | RHONE | BEAUCAIRE | FR | FRANCE | 95590 | 5.07E-03 | 8.24E-03 | 9.67E-03 |
| 322 | 6229500 | 6 | VAENERN-GOETA (GOE | VAENERSBORG - VARG | SE | SWEDEN | 46886 | 3.56E-03 | 3.82E-03 | 5.22E-03 |
| 323 | 6233650 | 6 | ANGERMANAELVEN | SOLLEFTEA | SE | SWEDEN | 30638 | 1.36E-02 | 5.26E-03 | 1.46E-02 |
| 328 | 6337200 | 6 | WESER | INTSCHEDE | DE | GERMANY | 37720 | 6.02E-03 | 5.73E-03 | 8.31E-03 |
| 329 | 6340110 | 6 | ELBE RIVER | NEU-DARCHAU | DE | GERMANY | 131950 | 9.21E-03 | 5.91E-03 | 1.09E-02 |
| 333 | 6401601 | 6 | SVARTA, SKAGAFIROI | REYKJAFOSS | IS | ICELAND | 393 | 4.66E-03 | 1.91E-02 | 1.96E-02 |
| 336 | 6421100 | 6 | MAAS | LITH | NL | NETHERLANDS | 29000 | 5.07E-03 | 3.89E-03 | 6.39E-03 |
| 341 | 6605600 | 6 | TRENT | COLWICK | GB | UNITED KINGDO | 7486 | 4.90E-03 | 7.29E-03 | 8.78E-03 |
| 345 | 6730500 | 6 | TANA (NO, FI) | POLMAK | NO | NORWAY | 14165 | 9.14E-03 | 5.95E-03 | 1.09E-02 |
| 346 | 6731310 | 6 | DRAMSELV | DOVIKFOSS | NO | NORWAY | 16020 | 4.24E-03 | 5.29E-03 | 6.78E-03 |
| 347 | 6731400 | 6 | GLOMA | LANGNES | NO | NORWAY | 40243 | 9.36E-03 | 6.16E-03 | 1.12E-02 |
| 361 | 6971130 | 6 | TULOMA | VERHNE-TULOMSKAYA | RU | RUSSIAN FEDER | 17500 | 5.06E-03 | 4.28E-03 | 6.62E-03 |
| 367 | 6972800 | 6 | KEM | PODUZHEMIE | RU | RUSSIAN FEDER | 27900 | 6.65E-03 | 3.16E-03 | 7.36E-03 |