1. ***Mean and standard deviation tables***

Table S1 – Mean and standard deviation of Solkan flow rate values (m3/s) aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the mean and standard deviation are not calculated (NA, i.e. not available).

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| **Solkan** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **2006** | 31.5 ± 16.2 | 61.6 ± 58.8 | 123.2 ± 123.4 | 108.5 ± 19.2 | 93 ± 29.2 | 38 ± 10.6 | 24 ± 3.2 | 51 ± 30.1 | 44 ± 28.3 | 77.6 ± 72.3 | 56.5 ± 38.1 | 104.4 ± 137.3 |
| **2007** | 73.3 ± 89.9 | 102.5 ± 68.1 | 80.1 ± 46.7 | 51.2 ± 8.5 | 42.4 ± 16.5 | 45.9 ± 19.2 | 60.9 ± 40.4 | 25.3 ± 5.6 | 83.4 ± 107.5 | 57.2 ± 35.3 | 52.7 ± 47.9 | 44.4 ± 26.5 |
| **2008** | 113.8 ± 87.3 | 63.4 ± 44.2 | 82 ± 31.7 | 167 ± 98.2 | 140.1 ± 57.7 | 107.1 ± 36.2 | 89.9 ± 46.5 | 47.4 ± 18.3 | 39.7 ± 18.3 | 83.4 ± 170 | 139.2 ± 120.7 | 226.3 ± 176.8 |
| **2009** | 105.1 ± 131.5 | 115.3 ± 102.6 | 142.1 ± 219.3 | 144.7 ± 57.9 | 100.8 ± 15.5 | 111.4 ± 55.7 | 92.9 ± 68.1 | 32.6 ± 8.9 | 65.7 ± 43.1 | 44.1 ± 36.2 | 86.5 ± 44.5 | 290.5 ± 394.5 |
| **2010** | 111.3 ± 43.8 | 132.2 ± 124 | 97.9 ± 42.8 | 85.1 ± 34.1 | 189.5 ± 113.4 | 86.8 ± 45.7 | 44.9 ± 21.9 | 77.7 ± 43.1 | 246.6 ± 286.8 | 116.4 ± 66.4 | 256.6 ± 175.4 | 278.6 ± 255.9 |
| **2011** | 104.7 ± 64.9 | 41.5 ± 8.7 | 125.9 ± 156.6 | 57.1 ± 12.1 | 55.6 ± 17.9 | 95.5 ± 64.1 | 50.3 ± 31.7 | 56 ± 46.6 | 38.7 ± 37.4 | 127.6 ± 161.1 | 65.7 ± 33.9 | 112.7 ± 110.4 |
| **2012** | 52.7 ± 43.8 | 21.6 ± 3 | 22.4 ± 3.2 | 150.3 ± 92.2 | 93.7 ± 37.5 | 92.4 ± 85.2 | 61.7 ± 37.5 | 25.3 ± 7.3 | 53 ± 54.8 | 152.4 ± 221.9 | 295.4 ± 317.7 | 135.7 ± 94.6 |
| **2013** | 83 ± 68.8 | 89.8 ± 85.8 | 190.8 ± 115.8 | 162.6 ± 47.8 | 196.1 ± 52.6 | 104.9 ± 51.2 | 37.5 ± 10.3 | 29.2 ± 12.5 | 94.3 ± 82.2 | 115.5 ± 67.7 | 242.8 ± 163.6 | 113.5 ± 155.7 |
| **2014** | 270.5 ± 234.2 | 370.6 ± 165.6 | 126.7 ± 79.7 | 83.6 ± 18.4 | 93.9 ± 36 | 92.6 ± 44.5 | 110 ± 55.7 | 118.9 ± 56 | 111.6 ± 46.6 | 99.2 ± 102.8 | 323.5 ± 266.8 | 129.5 ± 114 |
| **2015** | 69.2 ± 40.5 | 50.3 ± 13.8 | 78.5 ± 81.4 | 52.5 ± 14.9 | 83.9 ± 38.4 | 73 ± 79.3 | 44.9 ± 19.8 | 45.1 ± 24.7 | 125.1 ± 99.5 | 155.7 ± 179.3 | 42.9 ± 13.5 | 26.8 ± 9.2 |
| **2016** | 112.5 ± 176.5 | 205.1 ± 136.7 | 112.2 ± 66.6 | 86.2 ± 24.3 | 131.6 ± 76.4 | 168.2 ± 89.8 | 51.2 ± 18.5 | 42.8 ± 20.8 | 30.6 ± 10.5 | 76.2 ± 73 | 279.6 ± 316.7 | 50.9 ± 20.4 |
| **2017** | 34.9 ± 20.6 | 128.7 ± 103.5 | 110.9 ± 96.3 | 146.7 ± 289.7 | 112.9 ± 54.6 | 77.9 ± 68.9 | 56.2 ± 26.9 | 33.6 ± 9.4 | 162.5 ± 119.8 | 45.1 ± 16.7 | 113 ± 89.6 | 249.5 ± 295.9 |
| **2018** | 135.6 ± 82.5 | 91.8 ± 92.2 | 143.2 ± 128.2 | 179.3 ± 64.1 | 103.5 ± 22.4 | 61.6 ± 13.2 | 38.1 ± 12.5 | 35.7 ± 23.4 | 46.4 ± 27 | 94.9 ± 185.2 | 166.8 ± 128.7 | 45.5 ± 14.2 |
| **2019** | 38.2 ± 25.2 | 159.4 ± 234.8 | 44.5 ± 8.3 | 82.5 ± 57.6 | 154.2 ± 92.4 | 67.9 ± 30.4 | 36.8 ± 10.9 | 33.8 ± 15.2 | 37.8 ± 22.5 | 40.8 ± 14.6 | 333.3 ± 202.6 | 206.9 ± 209.7 |
| **2020** | 51.8 ± 24.5 | 44.7 ± 15.5 | 115 ± 127 | 38.9 ± 10.6 | 100.9 ± 65.2 | 150.4 ± 168 | 41.9 ± 9.3 | 54.6 ± 50 | 95 ± 104.3 | 183.6 ± 100.4 | 48.2 ± 20.1 | 172.5 ± 142.9 |
| **2021** | 152 ± 151.2 | 176.2 ± 159.4 | 46.4 ± 11.1 | 80.1 ± 71.8 | 275 ± 154.1 | 84.9 ± 22.4 | 40.5 ± 12.5 | 42.3 ± 21.7 | 34.5 ± 21.1 | 59.2 ± 45.2 | 104 ± 89.9 | 76.4 ± 46.1 |
| **2022** | 68.1 ± 71.3 | 39 ± 19.9 | 24.5 ± 10.4 | 76 ± 28.3 | 49.4 ± 13 | 23.2 ± 7.4 | 15.2 ± 1.1 | 15.2 ± 3.9 | 146.9 ± 188 | 115.8 ± 109.8 | 89.1 ± 54.3 | 149.3 ± 116.5 |

Table S2 – Mean and standard deviation of flow rate values (m3/s) calculated for the Gorizia gauging station aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the mean and standard deviation are not calculated (NA, i.e. not available).

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| **Gorizia** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **1998** | 128.9 ± 79.1 | 291.9 ± 20.8 | 285.3 ± 46 | 156.5 ± 87.8 | 80.5 ± 29.1 | 66.4 ± 21.5 | 133.7 ± 141.3 | 46.3 ± 23 | 184.1 ± 209.6 | 377.2 ± 546.2 | 176 ± 310.1 | 35.3 ± 4 |
| **1999** | 45.4 ± 15.2 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **2000** | 1158.8 ± 57.6 | 1201.7 ± 18.9 | 1167.8 ± 84.9 | 1142.8 ± 141.6 | 235.4 ± 404.1 | 45.3 ± 13.3 | 88.8 ± 84.5 | 42.1 ± 16.9 | NA | NA | 670.5 ± 571.2 | 158 ± 92.4 |
| **2001** | 278.4 ± 409.8 | 62.5 ± 26.1 | 235.6 ± 258.1 | 104.5 ± 39.4 | 86.8 ± 14.4 | 74.3 ± 29.6 | 62.6 ± 41 | 30.5 ± 3.7 | 122.9 ± 162.3 | 82 ± 53 | 56.3 ± 36.3 | 28.4 ± 5.9 |
| **2002** | 32.8 ± 19.8 | 45.6 ± 22.9 | 61 ± 38.3 | 65.4 ± 56.6 | 70.7 ± 24.6 | 63.9 ± 45.5 | 47.1 ± 25 | 99.6 ± 94.7 | 47.3 ± 38 | 156.7 ± 196 | 217.4 ± 217.7 | 76.9 ± 42.6 |
| **2003** | 64.4 ± 44.4 | 28 ± 6.5 | 25.7 ± 5 | 52.5 ± 21.9 | 32.5 ± 9.7 | 22.6 ± 8 | 28.9 ± 17.6 | 26.5 ± 21.2 | 27.2 ± 15.7 | 72.9 ± 57.6 | 185 ± 231.4 | 91.8 ± 108.5 |
| **2004** | 69.8 ± 51.3 | 67.3 ± 85 | 77.5 ± 47.6 | 101.8 ± 31.4 | 122.1 ± 77.3 | 86.2 ± 56.1 | 54.4 ± 30.1 | 42.9 ± 21.9 | 62.4 ± 39.9 | 197.4 ± 239.4 | 122.3 ± 179.5 | 76 ± 69.3 |
| **2005** | 31.7 ± 11.7 | 20.1 ± 1.9 | 33.7 ± 20.5 | 99.7 ± 61.7 | 63.5 ± 23.2 | 28.2 ± 6.7 | 54 ± 34.4 | 54.2 ± 37.5 | 71.8 ± 82.5 | 66.6 ± 49.4 | 44.3 ± 58.5 | 95.3 ± 125.9 |
| **2006** | 30.5 ± 18.1 | 60.8 ± 62.9 | 134.1 ± 170.5 | 105.6 ± 18.5 | 92.2 ± 31.2 | 45.3 ± 10.3 | 24.9 ± 3.3 | 50.6 ± 33.5 | 37.4 ± 26.7 | 73.7 ± 80.4 | 51.8 ± 37.3 | 113.8 ± 142.1 |
| **2007** | 74 ± 87.5 | 101.6 ± 64.6 | 81.3 ± 44.7 | 36.8 ± 22.1 | 42.5 ± 19.8 | 44.6 ± 18.7 | 56.2 ± 43 | 20.1 ± 12.4 | 97.2 ± 128.9 | 70.6 ± 39.9 | 67.1 ± 52.2 | 49.5 ± 31.3 |
| **2008** | 115.2 ± 98.7 | 61.7 ± 45.8 | 74.4 ± 32.3 | 149.1 ± 101.4 | 135.8 ± 69.6 | 110.5 ± 41.1 | 106.7 ± 46.6 | 38.1 ± 25.6 | 51.3 ± 23.4 | 101.4 ± 208.1 | 147 ± 124.9 | 241 ± 204.8 |
| **2009** | 99 ± 147.4 | 106 ± 102.3 | 154.5 ± 313.6 | 135.8 ± 56.4 | 91.7 ± 15.4 | 99.7 ± 54.3 | 81.8 ± 71.2 | 28.3 ± 9.6 | 57.6 ± 42.7 | 38.1 ± 34.3 | 79.4 ± 44 | 363.8 ± 618.6 |
| **2010** | 76 ± 48.4 | 123.6 ± 165.6 | 82.6 ± 42 | 77.7 ± 34.2 | 184.1 ± 121.6 | 76.2 ± 45 | 56.6 ± 39.9 | 119.4 ± 41.3 | 264.1 ± 438 | 95.3 ± 65.3 | 246.7 ± 218.8 | 285.3 ± 337.1 |
| **2011** | 85.5 ± 58.6 | 36.5 ± 10.2 | 114 ± 161.1 | 44 ± 10.8 | 41.2 ± 16.5 | 78.1 ± 58.4 | 38.9 ± 26.7 | 42.8 ± 40.1 | 31.3 ± 32.2 | 115.9 ± 169.7 | 50.5 ± 32.3 | 98 ± 112.8 |
| **2012** | 39.4 ± 39.8 | 18 ± 2.5 | 19.6 ± 2.7 | 130.7 ± 83.2 | 78.4 ± 34.6 | 76.3 ± 79.5 | 48.3 ± 32.8 | 20.5 ± 3.6 | 44.8 ± 47.8 | 157.5 ± 290.7 | 322.6 ± 470.2 | 124 ± 101.7 |
| **2013** | 70.3 ± 65.5 | 81.1 ± 95.3 | 172.7 ± 112.7 | 142.2 ± 40.9 | 173.7 ± 48.5 | 87.4 ± 48 | 27.8 ± 8.6 | 22.7 ± 12.6 | 80.6 ± 75.2 | 101.9 ± 61.5 | 236.4 ± 198.7 | 106.5 ± 175.9 |
| **2014** | 274.3 ± 311.9 | 351.8 ± 193.7 | 105.9 ± 80.5 | 67.9 ± 16.2 | 75.7 ± 30.4 | 74.1 ± 39.6 | 90.8 ± 50.9 | 99.2 ± 48.7 | 92.5 ± 42.4 | 84.9 ± 110.1 | 323.7 ± 330.1 | 108.1 ± 117.6 |
| **2015** | 50.5 ± 35.7 | 33.4 ± 12.6 | 64.1 ± 88.5 | 32.4 ± 13.6 | 61 ± 38.4 | 55.4 ± 77.2 | 27.7 ± 17.3 | 30.3 ± 24.7 | 109.9 ± 104.5 | 145.6 ± 205.5 | 27.1 ± 12.9 | 19 ± 5.2 |
| **2016** | 111.7 ± 212.3 | 195.4 ± 147.7 | 98.1 ± 65.1 | 71.3 ± 24.6 | 112.6 ± 74.9 | 152.6 ± 87.7 | 39 ± 15.1 | 36.3 ± 21.6 | 25 ± 7.4 | 65.1 ± 67 | 311.2 ± 447.5 | 39.1 ± 17.6 |
| **2017** | 27.9 ± 19.7 | 114.9 ± 108.2 | 96 ± 99.9 | 163.5 ± 402.4 | 99.8 ± 53.7 | 64.6 ± 68.9 | 43.4 ± 26.3 | 35.4 ± 25.7 | 150.6 ± 116.7 | 35.3 ± 14.6 | 101.1 ± 89.5 | 268.5 ± 414.9 |
| **2018** | 119.7 ± 87.4 | 73.7 ± 99.9 | 133.2 ± 133 | 168.9 ± 66.7 | 88.3 ± 23.9 | 59.3 ± 31 | 28 ± 9.8 | 28 ± 21.2 | 41.5 ± 30 | 93.3 ± 204.1 | 154 ± 133.4 | 38 ± 12.5 |
| **2019** | 32.4 ± 24.6 | 168.7 ± 318.9 | 40.4 ± 17.5 | 73.5 ± 56.4 | 146.6 ± 95.4 | 57 ± 30.9 | 30.8 ± 9.8 | 39.8 ± 33.5 | 31.3 ± 22.8 | 34.7 ± 14.3 | 349.3 ± 240.4 | 217.5 ± 266.8 |
| **2020** | 44 ± 23.4 | 39.2 ± 14.6 | 108.9 ± 135.4 | 31.1 ± 9.4 | 93.4 ± 64.3 | 152 ± 203.9 | 36 ± 9.3 | 50.9 ± 51.8 | 89.5 ± 106.2 | 172.2 ± 101.8 | 45.1 ± 20.7 | 168.7 ± 153.7 |
| **2021** | 153.7 ± 169.1 | 219 ± 192.4 | 58.4 ± 15.3 | 66.3 ± 61.3 | 238.8 ± 158.3 | 64.7 ± 21.7 | 28.6 ± 10 | 29.1 ± 17.9 | 24.5 ± 17.2 | 41.7 ± 37.4 | 80.9 ± 76.7 | 57.1 ± 38.6 |
| **2022** | 50.4 ± 59.9 | 27.3 ± 14.3 | 16.3 ± 5.9 | 54.9 ± 23.5 | 35.2 ± 10.3 | 23.1 ± 16.8 | 23 ± 22.4 | 63.8 ± 13.7 | 125.5 ± 169.3 | 78.2 ± 84.9 | 59.6 ± 43.5 | 109.8 ± 97.3 |

Table S3 – Mean and standard deviation of flow rate values (m3/s) calculated for the Gradisca gauging station aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the mean and standard deviation are not calculated (NA, i.e. not available).

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| **Gradisca** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **2001** | 267.2 ± 257.2 | 75.5 ± 27.9 | 243.6 ± 171 | 109.5 ± 44.5 | 78.8 ± 12.5 | 67.5 ± 23.9 | 55.1 ± 39.3 | 19.5 ± 6.4 | 121.7 ± 145.5 | 83.4 ± 51 | 51.5 ± 34.3 | 23 ± 8.2 |
| **2002** | 27.7 ± 23.2 | 77.4 ± 39.4 | 96.2 ± 54 | 86.6 ± 49.1 | 94.5 ± 22.8 | 90.2 ± 54.9 | 67.7 ± 24.2 | 125.9 ± 118.3 | 60 ± 28.1 | 135.6 ± 118.6 | 210.7 ± 185.7 | 98.5 ± 43.5 |
| **2003** | 89.3 ± 45.7 | 49.4 ± 12.1 | 44.1 ± 6.6 | 73.7 ± 23.6 | 52.4 ± 8.5 | 38.4 ± 8.2 | 44.3 ± 18.1 | 34.3 ± 19.3 | 43.9 ± 15.9 | 96.4 ± 59.5 | 202.3 ± 195.8 | 116.7 ± 124.7 |
| **2004** | 99.3 ± 71.2 | 101.7 ± 115.4 | 103.6 ± 52.8 | 127.6 ± 42.6 | 146.4 ± 91.8 | 94.7 ± 52.9 | 57.1 ± 33.6 | 41.5 ± 19.8 | 68.5 ± 41.2 | 204.5 ± 201.5 | 135.6 ± 162.7 | 100.2 ± 86.9 |
| **2005** | 41.9 ± 16.4 | 12.3 ± 5.9 | 35.5 ± 35.4 | 124.9 ± 75.5 | 76.3 ± 26.2 | 26.2 ± 8.9 | 57.1 ± 39.2 | 65.5 ± 44.4 | 83.3 ± 96.2 | 83.4 ± 56.6 | 58.8 ± 78.3 | 114 ± 136.2 |
| **2006** | 47 ± 34.8 | 76.7 ± 72.9 | 143.7 ± 127.4 | 109.2 ± 18 | 93.3 ± 32.8 | 47.6 ± 17.1 | 12.2 ± 6.9 | 51.5 ± 29.1 | 46.4 ± 28.2 | 76 ± 65.9 | 59.9 ± 40.5 | 116.3 ± 125 |
| **2007** | 85.5 ± 83.3 | 130.3 ± 86.2 | 89 ± 42.4 | 54.3 ± 9 | 43.4 ± 18.6 | 44.4 ± 20.3 | 62.4 ± 38.9 | 25.8 ± 12.7 | 86.2 ± 117.4 | 61.8 ± 36.6 | 54.3 ± 48.1 | 46 ± 30.3 |
| **2008** | 117.4 ± 102.5 | 64.3 ± 48.8 | 85.5 ± 37 | 174.1 ± 114.5 | 127.4 ± 64 | 101.1 ± 46.5 | 89.7 ± 56.5 | 47.5 ± 27.8 | 34.8 ± 20.4 | 78 ± 170.9 | 142.8 ± 118.7 | 251.5 ± 201.9 |
| **2009** | 96.2 ± 129.6 | 112 ± 99.2 | 145.2 ± 256.1 | 133.1 ± 66.1 | 82.9 ± 13.9 | 89.5 ± 43.7 | 78.7 ± 65.8 | 19.7 ± 9.4 | 48.7 ± 35.2 | 32.4 ± 33.6 | 82.9 ± 47.2 | 289.6 ± 384.1 |
| **2010** | 70.5 ± 47.3 | 106.7 ± 145.6 | 72.1 ± 36.6 | 64.2 ± 33 | 158.4 ± 102.7 | 67.1 ± 40 | 24.7 ± 20.6 | 51.9 ± 31.3 | 229.5 ± 293.4 | 98.6 ± 58 | 230.4 ± 161.6 | 268.8 ± 253.8 |
| **2011** | 96.5 ± 61 | 35.9 ± 9.3 | 112.3 ± 151 | 44.2 ± 11.3 | 42 ± 17.4 | 74.8 ± 53.1 | 36.1 ± 31.4 | 37.9 ± 35.8 | 22.7 ± 33.1 | 102.6 ± 135.9 | 50 ± 29.7 | 99.5 ± 104.4 |
| **2012** | 42.8 ± 43.3 | 9.8 ± 4.8 | 11.6 ± 4.6 | 127.8 ± 80.5 | 76.5 ± 30.1 | 77.2 ± 74.7 | 44.4 ± 30.9 | 11.4 ± 5.6 | 39.4 ± 45.1 | 142.5 ± 229.7 | 257.5 ± 244.4 | 128.6 ± 92.3 |
| **2013** | 79.7 ± 69.9 | 86.4 ± 85.8 | 186.2 ± 119.4 | 143.7 ± 42.7 | 165.8 ± 47.6 | 90.4 ± 46.1 | 21.5 ± 9.6 | 12.9 ± 13.5 | 76.7 ± 72.6 | 100.4 ± 54.5 | 213.8 ± 143.7 | 98.7 ± 124.7 |
| **2014** | 246.9 ± 213.8 | 336 ± 150.6 | 110.2 ± 62.4 | 70 ± 17.4 | 76.5 ± 27.1 | 72.7 ± 33.2 | 95.3 ± 51.7 | 101.4 ± 43.4 | 98.4 ± 41.2 | 90.2 ± 87.8 | 289.8 ± 246.6 | 117.6 ± 104.7 |
| **2015** | 60.2 ± 29.5 | 46.1 ± 10.5 | 71.1 ± 73 | 43.1 ± 11.9 | 67.9 ± 30.3 | 59.7 ± 70.7 | 34.7 ± 16.2 | 41.6 ± 23.6 | 108.5 ± 79.6 | 139.6 ± 171.7 | 38.2 ± 11.2 | 27.6 ± 8.1 |
| **2016** | 107.4 ± 160.1 | 197.6 ± 121 | 114.8 ± 63.4 | 80.5 ± 16.8 | 120.9 ± 67.8 | 163.4 ± 90.4 | 50.1 ± 14.8 | 40.6 ± 16 | 31.5 ± 11.2 | 75.5 ± 68.5 | 259.3 ± 287.6 | 53.7 ± 18.6 |
| **2017** | 39.3 ± 23.1 | 140.8 ± 113.3 | 104.6 ± 77.8 | 127 ± 236.8 | 97.6 ± 38.4 | 67.8 ± 51.9 | 51.1 ± 22.6 | 30.6 ± 8.8 | 139 ± 93.2 | 48.1 ± 14.8 | 109.9 ± 76.9 | 228.4 ± 257.7 |
| **2018** | 122.6 ± 69.7 | 89.4 ± 80.5 | 132.2 ± 105.6 | 152.3 ± 58.9 | 86.7 ± 14.2 | 58.6 ± 9.6 | 36.5 ± 11.3 | 31.4 ± 20.3 | 43.2 ± 21.9 | 75.3 ± 140.1 | 140.1 ± 98.8 | 52.8 ± 14.4 |
| **2019** | 42.8 ± 23.4 | 147.1 ± 198.1 | 46 ± 6.1 | 72.1 ± 36.4 | 134.9 ± 84.4 | 64.9 ± 25 | 36.2 ± 9.7 | 32.5 ± 16.2 | 36.4 ± 16.8 | 43.1 ± 12.7 | 277.5 ± 160.2 | 186.9 ± 169.4 |
| **2020** | 54.4 ± 21.5 | 50.5 ± 12.2 | 111.1 ± 111.6 | 39.7 ± 8.3 | 87 ± 44.6 | 131.3 ± 127.7 | 43.2 ± 8.7 | 51 ± 33.9 | 88.7 ± 94.4 | 159 ± 83.7 | 55.3 ± 20.7 | 158.5 ± 129.9 |
| **2021** | 135.4 ± 121.2 | 135.1 ± 126.2 | 29.5 ± 9.3 | 53.2 ± 57.2 | 186.6 ± 114.3 | 51.6 ± 14.3 | 22 ± 9.2 | 22.2 ± 14.3 | 16.2 ± 15 | 32.9 ± 28.3 | 62 ± 54.4 | 51.5 ± 35.6 |
| **2022** | 41.6 ± 47.8 | 22.9 ± 15.6 | 9.3 ± 7.8 | 46.4 ± 18.3 | 27.5 ± 8 | 13.6 ± 4.5 | 8.7 ± 2.2 | 5.2 ± 2.7 | 108.2 ± 139.3 | 80.9 ± 82.5 | 47.9 ± 28.8 | 100.6 ± 98.8 |

Table S4 – Mean and standard deviation of flow rate values (m3/s) calculated for the Turriaco gauging station aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the mean and standard deviation are not calculated (NA, i.e. not available).

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| **Turriaco** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **2006** | 20.1 ± 33.5 | 47.9 ± 75.6 | 127.1 ± 146.4 | 80.9 ± 22.7 | 59.1 ± 33.2 | 17 ± 16.4 | 0.7 ± 0.7 | 12.7 ± 18.2 | 9.7 ± 18.1 | 33.9 ± 61.4 | 26 ± 38.8 | 98.6 ± 157.2 |
| **2007** | 59.3 ± 107.2 | 104.6 ± 92.8 | 62.1 ± 51.2 | 25.6 ± 9.2 | 14.8 ± 12.4 | 15.2 ± 13.4 | 25.2 ± 38.4 | 1.6 ± 2.6 | 54.6 ± 101.4 | 31.4 ± 31.3 | 23.7 ± 39.9 | 18 ± 22.2 |
| **2008** | 94.5 ± 120.8 | 37.8 ± 48.5 | 53.2 ± 33.9 | 153.4 ± 127.4 | 108.9 ± 85 | 79.3 ± 54.5 | 62.6 ± 54.8 | 14.1 ± 11.9 | 9.1 ± 7.7 | 51.6 ± 164.4 | 153.3 ± 163.9 | 325.2 ± 331.2 |
| **2009** | 94.9 ± 192.1 | 115.9 ± 147 | 166.3 ± 369 | 123.6 ± 93.5 | 54.3 ± 17.8 | 59.3 ± 43.7 | 54.7 ± 76 | 5.3 ± 3.8 | 24 ± 25.5 | 13.8 ± 22.9 | 56 ± 44.9 | 376.3 ± 610.5 |
| **2010** | 66.8 ± 53.7 | 175.5 ± 285.5 | 108.8 ± 77.5 | 83.6 ± 64.5 | 212.8 ± 182.9 | 62.7 ± 55.8 | 7.4 ± 12.4 | 24.2 ± 24 | 275.5 ± 449.6 | 78.1 ± 95.3 | 287 ± 305.3 | 335 ± 411.7 |
| **2011** | 71.7 ± 93.7 | 6.7 ± 5.7 | 112.5 ± 234 | 11.6 ± 6.8 | 7.9 ± 9.2 | 40.1 ± 67 | 8 ± 18.2 | 9.9 ± 21.7 | NA | NA | 16.6 ± 18.7 | 64.5 ± 115.6 |
| **2012** | 7.1 ± 12.4 | 0.6 ± 0.6 | 0.9 ± 1 | 103 ± 102.6 | 36.4 ± 24.5 | 51 ± 88.6 | 13.9 ± 17.5 | 0.2 ± 0.3 | 13 ± 31.3 | 140.2 ± 322 | 318.5 ± 414.3 | 118.2 ± 129.2 |
| **2013** | 71.7 ± 94.5 | 97.8 ± 133.9 | 243.1 ± 197.1 | 145.3 ± 74.2 | 189.5 ± 89.9 | 81.1 ± 64.9 | 9.5 ± 7.5 | 3.6 ± 3.8 | 98 ± 124.5 | 368.2 ± 250.4 | 439.3 ± 583.1 | 101.8 ± 208.7 |
| **2014** | 363.1 ± 412.9 | 583.4 ± 337.3 | 136.6 ± 106.3 | 73.5 ± 21.6 | 76.3 ± 34.6 | 69 ± 38.5 | 106.3 ± 68.5 | 120 ± 63.2 | 116.6 ± 50.6 | 108.9 ± 104.5 | 464.9 ± 432.5 | 161.1 ± 186.4 |
| **2015** | 57.9 ± 37.7 | 36.3 ± 10.2 | 68.3 ± 104 | 31.3 ± 14.3 | 59.5 ± 37.8 | 48.2 ± 88.3 | 20.9 ± 16.2 | 22.7 ± 21 | 112.6 ± 123.4 | 198.7 ± 331.1 | 27.5 ± 11.2 | 7.6 ± 6.7 |
| **2016** | 129.1 ± 248.7 | 279.0 ± 238.8 | 140.4 ± 107.9 | 72.1 ± 18.8 | 166.8 ± 103.3 | 245.9 ± 134.2 | 67 ± 27.8 | 38.6 ± 19.7 | 22 ± 14 | 86.8 ± 96.2 | 396.7 ± 383.2 | 113.8 ± 44.7 |
| **2017** | 52 ± 46.8 | 261.4 ± 195 | 206.1 ± 144 | 193 ± 376.5 | 157.7 ± 73.3 | NA | 64.8 ± 42.9 | 25 ± 6.1 | 212.7 ± 166.1 | 56.4 ± 27.7 | 165.3 ± 125.9 | NA |
| **2018** | NA | NA | NA | NA | NA | 53.7 ± 15 | 27.7 ± 14 | 22.7 ± 24.7 | 43.1 ± 34.6 | 80.7 ± 189.8 | 218.1 ± 168.9 | 65.3 ± 29 |
| **2019** | 38.7 ± 30.5 | 222.8 ± 279.6 | 52.7 ± 9.9 | 105.2 ± 69.7 | 247 ± 159.3 | 119.9 ± 52.1 | 42.1 ± 12.2 | NA | NA | 36.3 ± 16.1 | 464.4 ± 244.3 | 326.8 ± 251.7 |
| **2020** | 88.8 ± 38.2 | 69.4 ± 21.4 | 181.4 ± 192.7 | 42.6 ± 12.7 | 132.8 ± 80 | 229.6 ± 210.7 | 59.4 ± 18.5 | 68.2 ± 57.8 | 133.1 ± 145.1 | 290 ± 140.3 | 84.1 ± 37.8 | 307.3 ± 256.3 |
| **2021** | 254.7 ± 195.8 | 290.5 ± 223.3 | 61.2 ± 27.8 | 100 ± 121.8 | 333.2 ± 173.6 | 85.1 ± 32.2 | 22.1 ± 14.3 | 19.5 ± 21.6 | 13.6 ± 16.9 | 36.2 ± 46.5 | 90.4 ± 91.7 | 88.8 ± 60.5 |
| **2022** | 76.7 ± 84.9 | 30.3 ± 29.8 | 7.1 ± 9.2 | 65.8 ± 28.9 | 35.4 ± 14.5 | 7.7 ± 5.7 | 0.3 ± 0.4 | 0 ± 0 | 147.3 ± 187.3 | 170.2 ± 137.6 | 154.6 ± 58.6 | 245 ± 145.1 |

Table S5 – Mean and standard deviation of flow rate values (m3/s) calculated for the Pieris gauging station aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the mean and standard deviation are not calculated (NA, i.e. not available).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Pieris** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **2010** | NA | NA | NA | NA | NA | 48.6 ± 45.6 | 10.9 ± 15.9 | 30.5 ± 26.9 | 259.9 ± 419.8 | 89.1 ± 100.5 | 271.2 ± 287.5 | 312.5 ± 378.7 |
| **2011** | 80.7 ± 100.8 | 13.3 ± 7.8 | 116.9 ± 232.1 | 17.4 ± 7.8 | 13.6 ± 10.8 | 48 ± 72.2 | 13.2 ± 21.9 | 15.5 ± 26.3 | 8.5 ± 21.6 | 94.2 ± 183.8 | 21.2 ± 18.8 | 68.7 ± 114.9 |
| **2012** | 20.6 ± 41.8 | 2.1 ± 0.8 | 2.3 ± 1.2 | 107 ± 109.5 | 34.2 ± 24.5 | 48.4 ± 87.3 | 13.3 ± 15.8 | 1.5 ± 0.3 | 15.2 ± 35.1 | 128.9 ± 302.2 | 278.5 ± 387.5 | 98 ± 123.2 |
| **2013** | 55.2 ± 95.9 | 65.3 ± 126.1 | 183 ± 174.3 | 105.4 ± 57.1 | 148.4 ± 78 | 50.6 ± 51.9 | 3.3 ± 2 | 2.1 ± 1.8 | 51.2 ± 75.4 | 55.8 ± 55.6 | 207.7 ± 204.5 | 90.5 ± 202.1 |
| **2014** | 320.1 ± 385.9 | 477 ± 293.4 | 100.7 ± 96.3 | 47.5 ± 15.5 | 51 ± 29.3 | 46.8 ± 33.3 | 71.5 ± 59.4 | 82.1 ± 58.2 | 73.9 ± 45.4 | 68.7 ± 101 | 385.7 ± 385.8 | 121.1 ± 167 |
| **2015** | 37.3 ± 41.1 | 18.3 ± 9.1 | 51.8 ± 100.4 | 14.5 ± 9.9 | 40.1 ± 40 | 35.6 ± 81.2 | 8.6 ± 9.1 | 10.8 ± 16.1 | 90.5 ± 128.2 | 153.8 ± 291 | 12.5 ± 7.4 | 4.2 ± 2.5 |
| **2016** | 99.9 ± 226.4 | 234.1 ± 217.3 | 102.6 ± 96.8 | 45 ± 21 | 98.7 ± 100 | 150.3 ± 124.8 | 15 ± 9.8 | 8.5 ± 7.5 | 5.2 ± 3.2 | 43.1 ± 71.6 | 320.6 ± 441.2 | 26.4 ± 22 |
| **2017** | 13.4 ± 23.7 | 136.1 ± 158.4 | 86.5 ± 110.6 | 150.8 ± 431.7 | 73 ± 56.5 | 47.6 ± 84.7 | 21 ± 23.3 | 6 ± 1.5 | 146.1 ± 147.9 | 17 ± 11.1 | 99.4 ± 116.4 | 296.9 ± 471.6 |
| **2018** | 120.1 ± 112.7 | 71.8 ± 124.5 | 131 ± 157.9 | 154.7 ± 107.3 | 53.1 ± 17.9 | 19.1 ± 8.9 | 5.1 ± 4.9 | 6.5 ± 12.6 | 11.3 ± 17.6 | 65 ± 187.3 | 136.3 ± 163.7 | 15.5 ± 11.9 |
| **2019** | 10.9 ± 16.8 | 161.8 ± 344.9 | 11.1 ± 3.7 | 44.1 ± 52.7 | 151.7 ± 166.3 | 36.9 ± 29.1 | 7.9 ± 3.7 | 8.8 ± 7.8 | 8.5 ± 12.2 | 10.9 ± 8.8 | 371 ± 283.1 | 216.2 ± 293.3 |
| **2020** | 26 ± 21.7 | 18.1 ± 10.6 | 114 ± 204.2 | 7.9 ± 6 | 61.9 ± 64.6 | 148.6 ± 250.1 | 14.1 ± 6.7 | 24.4 ± 39.8 | 69 ± 112.4 | 157.6 ± 128.9 | 28 ± 19.2 | 197.9 ± 267.9 |
| **2021** | 147.6 ± 198.7 | 174.4 ± 225.2 | 21.8 ± 8.7 | 68 ± 135.9 | 269 ± 234.1 | 56.4 ± 19.7 | 17.6 ± 9.6 | 17.9 ± 15.3 | 15.1 ± 12.9 | 31 ± 35.6 | 71.6 ± 79.3 | 59.9 ± 49.1 |
| **2022** | 48.5 ± 80.8 | 17 ± 15.8 | 5.8 ± 3 | 46.1 ± 26.2 | 20.4 ± 10.2 | 5.5 ± 1.6 | 3.9 ± 0.2 | 3.5 ± 0.1 | 136.7 ± 201.6 | 101.7 ± 152.5 | 67.6 ± 71.7 | 154.5 ± 175.4 |

Table S6 – Mean and standard deviation of flow rate values (m3/s) calculated for the ADCP station aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the mean and standard deviation are not calculated (NA, i.e. not available).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ADCP** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **2015** | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 1.4 ± 1.1 | 2 ± 1.1 |
| **2016** | 17.7 ± 44.8 | 240.6 ± 234.4 | 92.6 ± 111.5 | 33 ± 27.9 | 72 ± 89.4 | 163.3 ± 144.4 | 24.8 ± 16 | 24 ± 15 | NA | 66 ± 85.9 | 322 ± 433.9 | 31.4 ± 15.4 |
| **2017** | 19.6 ± 26.5 | 144.7 ± 177.5 | 91.9 ± 117.5 | 148.8 ± 424.8 | 84.8 ± 68 | NA | NA | NA | NA | NA | NA | NA |
| **2018** | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 32.3 ± 17 |
| **2019** | 20.5 ± 21.4 | 175.4 ± 335 | 7.8 ± 12.8 | 46.2 ± 55.2 | 160 ± 174.8 | 48.9 ± 33.2 | 18.6 ± 17.8 | 23.8 ± 16.9 | 20.4 ± 25.6 | 25.4 ± 24.7 | 376.9 ± 270.6 | 234.4 ± 320.1 |
| **2020** | 43.6 ± 25.4 | 34 ± 25.5 | 122.8 ± 219 | -0.1 ± 15.3 | 77.3 ± 98.3 | 156.1 ± 312.3 | 16.5 ± 30.1 | 29.4 ± 30.1 | NA | NA | NA | NA |
| **2021** | NA | 78.6 ± 96.7 | 19.3 ± 25.6 | 31.1 ± 110.1 | 181.8 ± 183.1 | 30.6 ± 17.7 | 16 ± 16.2 | 18.4 ± 20.4 | NA | NA | NA | 62.1 ± 40.2 |
| **2022** | 53 ± 67.8 | 24.6 ± 18.5 | 5.4 ± 20.1 | 28.1 ± 30.9 | 16 ± 16.2 | 7.6 ± 18.7 | 9.9 ± 10.3 | 7.5 ± 20.2 | 96.6 ± 154.2 | 98.3 ± 119.9 | 72.2 ± 55.4 | 138.6 ± 138.5 |

1. ***Median tables***

Table S7 – Median of Solkan flow rate values (m3/s) aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the mean and standard deviation are not calculated (NA, i.e. not available).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Solkan** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **2006** | 27.2 | 29.1 | 96.8 | 102.2 | 81 | 36.2 | 24.1 | 37.4 | 32.4 | 46 | 43.4 | 42.8 |
| **2007** | 38.6 | 70.7 | 67.2 | 50.6 | 39.1 | 41.2 | 47.4 | 23.8 | 27 | 47.4 | 32.4 | 33.2 |
| **2008** | 75 | 45.8 | 77.3 | 132.7 | 120.6 | 99.7 | 68 | 42.9 | 37.2 | 25.5 | 93.3 | 162.3 |
| **2009** | 56.5 | 76.2 | 62.5 | 120 | 99.7 | 93.7 | 72.3 | 31.4 | 47.4 | 31.5 | 77.9 | 138.8 |
| **2010** | 100.4 | 72.4 | 95.2 | 75.3 | 139.2 | 70 | 39.8 | 66.2 | 159.1 | 89.1 | 209.7 | 165.8 |
| **2011** | 85.8 | 40 | 70.6 | 56 | 51 | 68 | 42.8 | 41.6 | 28.1 | 51.3 | 54.8 | 70.3 |
| **2012** | 40.3 | 21.3 | 22.1 | 130.1 | 86.5 | 62.2 | 46.7 | 22.6 | 30.9 | 62.5 | 214.2 | 102 |
| **2013** | 59 | 57.5 | 182.7 | 160.9 | 188.9 | 92.3 | 37.1 | 26.5 | 58.5 | 98.3 | 199.2 | 53 |
| **2014** | 200 | 329.4 | 98.7 | 86.4 | 83.8 | 80.6 | 89.6 | 106.7 | 98.5 | 76 | 239.2 | 78.1 |
| **2015** | 58.7 | 47.3 | 43.7 | 50.1 | 83.2 | 51.2 | 43.5 | 39.6 | 85.7 | 84.8 | 42.5 | 23.5 |
| **2016** | 51.3 | 179.9 | 86.9 | 87.2 | 98.3 | 128.6 | 48.2 | 34.9 | 27 | 49.5 | 153.8 | 45.5 |
| **2017** | 27.8 | 83.7 | 70.1 | 52 | 99.2 | 50.7 | 49.7 | 32.4 | 121.1 | 43.4 | 74.1 | 133.7 |
| **2018** | 109.9 | 60.2 | 89.8 | 156.4 | 101.4 | 60.8 | 33.1 | 29.3 | 37.3 | 29.6 | 109.8 | 41.2 |
| **2019** | 29.5 | 78.2 | 43 | 59.6 | 124.9 | 57.6 | 34.8 | 28.7 | 33.1 | 38.6 | 269.9 | 121.7 |
| **2020** | 49.3 | 40 | 60.8 | 38.1 | 81.9 | 91.7 | 40.7 | 38.5 | 48.7 | 148 | 42 | 126.3 |
| **2021** | 110.8 | 110.7 | 47.2 | 58 | 214.1 | 81.8 | 37.9 | 34.1 | 26.4 | 41 | 67.5 | 60.8 |
| **2022** | 44.8 | 33.6 | 19.8 | 67.3 | 48.6 | 20.9 | 15.6 | 14.7 | 50.7 | 69.3 | 76.1 | 107.3 |

Table S8 – Median of flow rate values (m3/s) calculated for the Gorizia gauging station aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the median was not calculated (NA, i.e. not available).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gorizia** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **1998** | 109.3 | 287.7 | 281.8 | 137.1 | 75 | 59.5 | 91.5 | 37.6 | 112.3 | 168.3 | 80 | 34.7 |
| **1999** | 39 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **2000** | 1162.8 | 1202.4 | 1192 | 1109 | 85.9 | 41.2 | 64.3 | 38.7 | NA | NA | 488.4 | 121.9 |
| **2001** | 137.1 | 100.8 | 165.5 | 97.2 | 82.1 | 64.7 | 48.5 | 30.2 | 57.2 | 73.1 | 41.6 | 27.4 |
| **2002** | 23.7 | 38.5 | 49.3 | 43.3 | 60.4 | 50.9 | 37.4 | 66.5 | 31.9 | 83.1 | 193 | 55.7 |
| **2003** | 41.9 | 27.7 | 24.8 | 49.5 | 29 | 22.9 | 21 | 18.8 | 23.2 | 47.2 | 86.1 | 50.7 |
| **2004** | 47.6 | 29.9 | 64.1 | 93.1 | 90.1 | 63.9 | 42.6 | 33.8 | 46 | 114.7 | 73.2 | 54.5 |
| **2005** | 27.4 | 19.9 | 27.2 | 88.4 | 57.7 | 27 | 42 | 44.5 | 35.6 | 40.3 | 24.3 | 43.5 |
| **2006** | 24.4 | 26.3 | 91.9 | 101 | 78.7 | 44.3 | 25 | 41.4 | 28 | 43.1 | 34.5 | 58.5 |
| **2007** | 40.1 | 70.2 | 72.1 | 44.4 | 40.1 | 37.6 | 38 | 18.8 | 34.5 | 61 | 45.3 | 37.4 |
| **2008** | 65.6 | 39.8 | 66.4 | 118.4 | 113.7 | 99.5 | 89.7 | 34.2 | 49.2 | 31.7 | 100.5 | 166.1 |
| **2009** | 45.1 | 67.5 | 54.8 | 109.6 | 91.9 | 78.3 | 60.5 | 25 | 37.4 | 24.2 | 70.1 | 124.9 |
| **2010** | 56.4 | 46 | 75.1 | 66 | 128.2 | 59.3 | 39.5 | 115.4 | 134.6 | 66.8 | 175.6 | 124.5 |
| **2011** | 65.6 | 33.5 | 53.7 | 45.1 | 38.9 | 57.8 | 32.4 | 31.7 | 20.2 | 32.9 | 35.4 | 55.1 |
| **2012** | 26.3 | 17.1 | 19.5 | 111 | 72.8 | 49.9 | 35.3 | 19.4 | 25 | 51.8 | 196 | 89.7 |
| **2013** | 45.4 | 44.8 | 160 | 145.7 | 166.4 | 69.5 | 25.6 | 19.4 | 45 | 85 | 174.3 | 40.4 |
| **2014** | 176.9 | 282.3 | 76.4 | 69.9 | 65.4 | 62.6 | 73.3 | 89.3 | 79.6 | 61.5 | 203.2 | 61.2 |
| **2015** | 39.1 | 29 | 24.1 | 29.3 | 55.5 | 26.7 | 21.9 | 21.3 | 66.6 | 71.3 | 25.1 | 17.2 |
| **2016** | 37.8 | 171 | 71.3 | 69.4 | 83.3 | 120.8 | 35.1 | 27.7 | 22 | 38.2 | 163.5 | 36.8 |
| **2017** | 21 | 61.1 | 54.3 | 37.2 | 89.9 | 35.2 | 34.3 | 27.9 | 109.3 | 33.4 | 62.2 | 120.1 |
| **2018** | 100.2 | 41.3 | 75.1 | 149.1 | 85.8 | 49.5 | 26.1 | 22.3 | 25.4 | 21.8 | 102.4 | 33.2 |
| **2019** | 24.2 | 60.8 | 35.6 | 52.4 | 122.9 | 45 | 28.9 | 21.3 | 25.8 | 34.6 | 258.2 | 126.1 |
| **2020** | 40.9 | 34.5 | 47.4 | 30 | 67.8 | 84.5 | 34.9 | 32.5 | 40.8 | 138.3 | 40.1 | 124.2 |
| **2021** | 105.4 | 129.3 | 60.7 | 47.3 | 173.5 | 63.1 | 27 | 20.9 | 17.7 | 26.6 | 49.2 | 44 |
| **2022** | 32.1 | 22.5 | 13.6 | 46.3 | 34.4 | 16.1 | 13 | 66.7 | 44.9 | 39.6 | 44.9 | 75.4 |

Table S9 – Median of flow rate values (m3/s) calculated for the Gradisca gauging station aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the median was not calculated (NA, i.e. not available).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gradisca** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **2001** | 165.5 | 67.8 | 187 | 97.3 | 75.2 | 60.2 | 40.5 | 17.2 | 59.9 | 70.3 | 38.6 | 20.9 |
| **2002** | 16.4 | 72.6 | 71.4 | 76.6 | 83.3 | 72.7 | 60.9 | 81.5 | 51.4 | 91.3 | 135 | 76.9 |
| **2003** | 69.7 | 45.1 | 42.9 | 67.2 | 49.9 | 36.1 | 37.8 | 28 | 39.8 | 69.5 | 108.4 | 67.3 |
| **2004** | 69.3 | 56.2 | 86.2 | 117.2 | 103.6 | 74.5 | 45 | 34.1 | 52.8 | 140.9 | 95.3 | 60.2 |
| **2005** | 37.7 | 13.6 | 25.5 | 108.2 | 71.7 | 26.2 | 43.1 | 62.9 | 44.4 | 53.9 | 29.3 | 56.5 |
| **2006** | 38 | 40.7 | 108.5 | 102.1 | 81.8 | 44.5 | 11.3 | 41.2 | 37.3 | 53.2 | 48.8 | 65.4 |
| **2007** | 54.1 | 87.8 | 80.3 | 53.8 | 40.6 | 36.8 | 45 | 25.6 | 28.9 | 48.3 | 36.3 | 38.4 |
| **2008** | 79.6 | 45.9 | 77.2 | 128.9 | 104.9 | 89.4 | 65.2 | 40.4 | 29.9 | 23.1 | 100.8 | 191.9 |
| **2009** | 50.7 | 73.1 | 52.5 | 103.1 | 82.3 | 76 | 60.3 | 17.7 | 36 | 17.9 | 74.7 | 138.1 |
| **2010** | 55.4 | 33.2 | 67 | 52.3 | 142.6 | 52.9 | 17.3 | 40.8 | 148.4 | 80.8 | 180.1 | 146.3 |
| **2011** | 77.5 | 34.3 | 62.5 | 42.7 | 37.5 | 54.4 | 28.6 | 24.8 | 12.8 | 41 | 42.7 | 57.3 |
| **2012** | 30.7 | 7.7 | 12.3 | 112.8 | 74.2 | 53.2 | 28.7 | 8.8 | 21.4 | 51 | 188.6 | 100.6 |
| **2013** | 51.6 | 56.6 | 172.4 | 133 | 163.3 | 78.1 | 19.1 | 8.8 | 53.2 | 90.4 | 174.6 | 50.4 |
| **2014** | 175.6 | 306.7 | 85.1 | 71.3 | 69.1 | 64.6 | 77.3 | 85 | 84.2 | 72.3 | 206.1 | 74.6 |
| **2015** | 51.4 | 45.7 | 39.9 | 40.4 | 64.1 | 38.1 | 30 | 33.7 | 80.3 | 73.6 | 35.9 | 24.5 |
| **2016** | 48.5 | 172.9 | 91.6 | 80.9 | 95.7 | 120.4 | 45.5 | 35 | 27.6 | 53.3 | 140.6 | 47.7 |
| **2017** | 31.1 | 84.8 | 68.9 | 51.9 | 91.1 | 47.8 | 46.8 | 30.2 | 112.4 | 48.1 | 77.4 | 130.7 |
| **2018** | 98.8 | 61.5 | 88.2 | 131.8 | 85.7 | 59.1 | 35.5 | 25.2 | 36.6 | 26.1 | 95.8 | 49 |
| **2019** | 32.6 | 76 | 45.9 | 61.2 | 111.7 | 56.8 | 34.6 | 25.9 | 33.7 | 40.7 | 225.7 | 116.5 |
| **2020** | 53 | 47 | 62.1 | 39.9 | 74.8 | 78.5 | 42.9 | 42.5 | 48.3 | 142.1 | 48.9 | 98.1 |
| **2021** | 93.1 | 80 | 29.1 | 34.8 | 139.3 | 48.2 | 19.4 | 15.6 | 10.1 | 23.1 | 40.1 | 38.3 |
| **2022** | 26.1 | 19.7 | 7.2 | 40.8 | 27.6 | 12.5 | 8.9 | 5 | 34.7 | 48.3 | 40.5 | 63.3 |

Table S10 – Median of flow rate values (m3/s) calculated for the Turriaco gauging station aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the median was not calculated (NA, i.e. not available).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Turriaco** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **2006** | 6.6 | 6.6 | 91.6 | 73.5 | 47.6 | 12.6 | 0.4 | 3.2 | 2.3 | 10 | 8.1 | 36.3 |
| **2007** | 18.8 | 64.6 | 52.3 | 24.8 | 12 | 10.1 | 8.6 | 1 | 0.7 | 20.1 | 6.9 | 10.2 |
| **2008** | 50.3 | 19.5 | 49.1 | 97.3 | 77.1 | 65.6 | 35.8 | 10.5 | 5.8 | 2 | 93 | 230.9 |
| **2009** | 31.2 | 58.3 | 34.8 | 82.8 | 50.3 | 44.3 | 31.9 | 3.9 | 14.7 | 4 | 43 | 131.2 |
| **2010** | 44.2 | 27.3 | 94.1 | 66 | 129.3 | 42.2 | 2.5 | 13.9 | 136.6 | 45.5 | 183.2 | 119.7 |
| **2011** | 42.5 | 4.9 | 25.8 | 10.1 | 4.2 | 18.3 | 1.5 | 1.7 | NA | NA | 8.9 | 23.1 |
| **2012** | 2.5 | 0.3 | 0.4 | 67.9 | 31 | 17.9 | 3.3 | 0.1 | 0.3 | 14.1 | 170.8 | 71.6 |
| **2013** | 33.8 | 51.6 | 212.1 | 123.8 | 187.5 | 56.8 | 6.5 | 1.9 | 52.7 | 326.6 | 213.6 | 23.4 |
| **2014** | 202.8 | 448.7 | 98.3 | 74.4 | 66.8 | 60.8 | 82.5 | 98.7 | 101 | 84.1 | 269.9 | 85.7 |
| **2015** | 46.9 | 34.4 | 23.9 | 26.4 | 49.2 | 16.5 | 15.1 | 14.3 | 74.3 | 72.8 | 25.1 | 5 |
| **2016** | 39.6 | 214.0 | 95.7 | 71.6 | 129.3 | 177.7 | 60.4 | 28.5 | 17.6 | 55.6 | 259.6 | 102.7 |
| **2017** | 34.4 | 192.9 | 145.2 | 69.9 | 152.1 | NA | 50.7 | 23.7 | 178.6 | 54.2 | 126.6 | NA |
| **2018** | NA | NA | NA | NA | NA | 53.5 | 24 | 13.4 | 27.5 | 17.5 | 155.4 | 58.6 |
| **2019** | 24.7 | 119.1 | 53 | 85.9 | 204 | 115.3 | 40.5 | NA | NA | 30.8 | 410.2 | 231.8 |
| **2020** | 83 | 66.5 | 103.6 | 42.1 | 111.2 | 146 | 52.3 | 47.8 | 69.2 | 242.6 | 73.8 | 221.5 |
| **2021** | 199.2 | 210 | 56.9 | 59.5 | 278.2 | 77.9 | 19.3 | 7.6 | 2.4 | 16.6 | 57.4 | 70.8 |
| **2022** | 51.3 | 12.2 | 3.4 | 61.8 | 34.4 | 6.2 | 0.2 | 0 | 43.6 | 123.2 | 142.7 | 205.8 |

Table S11 – Median of flow rate values (m3/s) calculated for the Pieris gauging station aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the median was not calculated (NA, i.e. not available).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Pieris** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **2010** | NA | NA | NA | NA | NA | 31.2 | 5.9 | 20.3 | 130.1 | 52.3 | 180.8 | 128.8 |
| **2011** | 48 | 11.2 | 30 | 16.1 | 8.9 | 24.3 | 4.9 | 5.6 | 2.1 | 9.7 | 14.6 | 25.8 |
| **2012** | 6.4 | 1.8 | 1.9 | 67.5 | 30 | 16.1 | 3.6 | 1.5 | 1.8 | 13.2 | 149.4 | 57.2 |
| **2013** | 18.8 | 23.3 | 156.5 | 85.1 | 148.9 | 29 | 2.1 | 1.7 | 12.8 | 32.8 | 151.5 | 16.7 |
| **2014** | 170.9 | 363.4 | 64.5 | 47.4 | 42.3 | 38.3 | 49.3 | 57.2 | 57 | 49.4 | 227.7 | 52.3 |
| **2015** | 23.9 | 16.6 | 10.8 | 11 | 29.5 | 6.7 | 3.8 | 4.4 | 39.4 | 41.8 | 10.6 | 3.2 |
| **2016** | 15.8 | 181.9 | 60.7 | 43.7 | 57.6 | 86.2 | 10.7 | 5 | 4.1 | 12.4 | 141.2 | 17 |
| **2017** | 5.3 | 52.5 | 33.1 | 13.5 | 59 | 12.1 | 12.9 | 5.4 | 87.4 | 14 | 44.3 | 130.3 |
| **2018** | 78.1 | 28.9 | 59 | 121.6 | 53.4 | 18.2 | 3 | 2.5 | 3.3 | 2.5 | 59.3 | 10.8 |
| **2019** | 3.2 | 36.7 | 10.9 | 23.3 | 103.5 | 27.2 | 5.9 | 4.7 | 4.6 | 7 | 268.3 | 96.3 |
| **2020** | 22.6 | 15 | 32.7 | 7 | 40.7 | 52.4 | 11.9 | 11.3 | 17 | 110.8 | 22.2 | 75.6 |
| **2021** | 79.3 | 79.9 | 22.4 | 28.1 | 177.8 | 52 | 14.8 | 9.2 | 7.2 | 17.4 | 39.3 | 42.1 |
| **2022** | 25.3 | 7 | 4.6 | 38.9 | 18.9 | 4.8 | 3.9 | 3.5 | 19.2 | 39.7 | 46.6 | 93.3 |

Table S12 – Median of flow rate values (m3/s) calculated for the ADCP station aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the median was not calculated (NA, i.e. not available).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ADCP** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **2015** | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 1.4 | 2.1 |
| **2016** | 2.4 | 171.1 | 40 | 32.4 | 45.3 | 79.3 | 24.1 | 24.3 | NA | 41.7 | 112.5 | 28 |
| **2017** | 13.6 | 44.5 | 41.2 | 13.9 | 70.7 | NA | NA | NA | NA | NA | NA | NA |
| **2018** | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 27.9 |
| **2019** | 13.4 | 60.8 | 11.3 | 30.4 | 101.3 | 38.3 | 18.1 | 22.7 | 19 | 22.3 | 287.6 | 105.9 |
| **2020** | 41.6 | 32.5 | 34.7 | 4 | 49 | 50.6 | 17.5 | 29.1 | NA | NA | NA | NA |
| **2021** | NA | 43.8 | 26.8 | 8.2 | 134.8 | 34.1 | 14.8 | 20.6 | NA | NA | NA | 50.4 |
| **2022** | 45.5 | 19.7 | 10.1 | 33.1 | 14.6 | 8.7 | 11.1 | 9.6 | 21.6 | 69.5 | 71.3 | 89.9 |

1. ***Minima tables***

Table S13 – Minima of Solkan flow rate values (m3/s) aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the mean and standard deviation are not calculated (NA, i.e. not available).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Solkan** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **2006** | 20.5 | 21.4 | 35.8 | 85.5 | 62.8 | 25.5 | 19.4 | 26.8 | 23.4 | 26.4 | 26.4 | 18.1 |
| **2007** | 23.4 | 46 | 38 | 39.7 | 29.4 | 28 | 33.2 | 18.9 | 20.2 | 24.5 | 23.4 | 23.4 |
| **2008** | 24.8 | 26.2 | 38.3 | 63.3 | 73.8 | 57.9 | 50.1 | 32.3 | 17.7 | 14.7 | 38.5 | 47.8 |
| **2009** | 40.8 | 48.6 | 40.8 | 91 | 72.3 | 58.8 | 40.5 | 19.6 | 22.6 | 20.7 | 30.6 | 46.7 |
| **2010** | 58.9 | 50.5 | 42.7 | 49.6 | 75 | 50.9 | 19.1 | 34.5 | 46.2 | 53.6 | 96.2 | 80.2 |
| **2011** | 30.6 | 25.9 | 20.2 | 37.3 | 30.2 | 41.6 | 21.6 | 23.2 | 19.4 | 20.3 | 28 | 28.1 |
| **2012** | 23 | 17.7 | 18.4 | 22 | 34.9 | 31.6 | 17.7 | 17.6 | 19.7 | 31 | 67 | 57.1 |
| **2013** | 35.4 | 29.1 | 48.2 | 103.8 | 122.7 | 33.1 | 19.4 | 18.8 | 19.5 | 40.6 | 92.8 | 28.2 |
| **2014** | 102.2 | 147.2 | 66.5 | 43.6 | 57.9 | 30.3 | 42.8 | 39.9 | 55.6 | 33.4 | 37.3 | 42.6 |
| **2015** | 31.6 | 26.9 | 21 | 29.8 | 31.1 | 23.4 | 22.1 | 20.4 | 27.6 | 46.5 | 20.3 | 18.7 |
| **2016** | 19.7 | 39.8 | 36.3 | 49.5 | 64.5 | 74.5 | 19.2 | 24 | 21.2 | 19.8 | 50 | 24.2 |
| **2017** | 21.5 | 31.7 | 46.6 | 22.3 | 40.1 | 25.8 | 21.9 | 20.6 | 29 | 21.3 | 27.9 | 54.4 |
| **2018** | 49.3 | 39.2 | 22.6 | 115.4 | 69.5 | 34.6 | 22.2 | 20.9 | 22.2 | 21.6 | 51 | 30.3 |
| **2019** | 21.6 | 43.2 | 33.6 | 30.2 | 52.7 | 31.2 | 20.2 | 19.2 | 19.8 | 19.9 | 20.1 | 60.3 |
| **2020** | 19.2 | 27.8 | 33.3 | 22.9 | 36.9 | 33.5 | 22.2 | 20.3 | 19.5 | 73.6 | 19.1 | 23.9 |
| **2021** | 44.2 | 59 | 22.7 | 31.8 | 114.4 | 43 | 19.2 | 23 | 18.9 | 23.2 | 25.2 | 30.2 |
| **2022** | 16.9 | 16.8 | 16 | 35.6 | 25.3 | 14.6 | 12.8 | 13.5 | 15.9 | 26.7 | 37.5 | 38.5 |

Table S14 – Minima of flow rate values (m3/s) calculated for the Gorizia gauging station aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the minima were not calculated (NA, i.e. not available).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gorizia** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **1998** | 61.3 | 266.1 | 140.2 | 29.1 | 49.5 | 43.7 | 38.5 | 28.9 | 38.9 | 92.3 | 44.2 | 29 |
| **1999** | 30.2 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **2000** | 911.2 | 1174 | 879.5 | 895.4 | 49.8 | 30.6 | 31.2 | 22.9 | NA | NA | 135.1 | 80.8 |
| **2001** | 75.2 | 42.9 | 44.9 | 67.7 | 63.2 | 33.9 | 34.5 | 22.9 | 21.3 | 20 | 30.3 | 22 |
| **2002** | 21 | 18.3 | 24.3 | 23.9 | 43.9 | 22.1 | 27.1 | 32.7 | 26.1 | 12.9 | 23.9 | 34.2 |
| **2003** | 30.5 | 18.6 | 18.2 | 21.7 | 22.7 | 13.5 | 16.6 | 16.5 | 13.4 | 19.2 | 45.5 | 30.8 |
| **2004** | 22.8 | 22.6 | 31.1 | 66 | 62.1 | 49.5 | 28.3 | 24.6 | 28.8 | 29.7 | 34.8 | 17.3 |
| **2005** | 19.6 | 17.1 | 16.3 | 25.2 | 39.5 | 18.7 | 22.1 | 10 | 25.3 | 24 | 17.1 | 23.1 |
| **2006** | 16.2 | 16.4 | 35.1 | 85.2 | 67.4 | 28.7 | 18.6 | 23.2 | 17 | 22.3 | 20.7 | 28.7 |
| **2007** | 22.9 | 45.8 | 43.4 | 2.9 | 2.4 | 30.5 | 21.3 | 2.2 | 20.5 | 31.4 | 27.8 | 21.8 |
| **2008** | 21.6 | 27 | 36.7 | 46.6 | 66.1 | 73.4 | 57 | 7.9 | 20 | 18.1 | 43 | 48.5 |
| **2009** | 27.7 | 35.8 | 29.3 | 83.4 | 64.2 | 54.3 | 30.4 | 18.2 | 19.1 | 17.8 | 24.1 | 36 |
| **2010** | 27.7 | 25.6 | 35.2 | 45.2 | 65.6 | 42.5 | 23.8 | 23.1 | 26.6 | 17.6 | 86.3 | 63.3 |
| **2011** | 22 | 18.9 | 18 | 26.2 | 22.3 | 29.3 | 18.4 | 15.9 | 17.3 | 17.2 | 21.6 | 23.8 |
| **2012** | 17.8 | 15.3 | 15.5 | 19.1 | 24.2 | 23.5 | 18.3 | 15.8 | 17.6 | 25.6 | 54.8 | 45.8 |
| **2013** | 30.7 | 24.8 | 31.5 | 84.6 | 107.4 | 22.5 | 17.2 | 15.8 | 16.3 | 30.3 | 74.4 | 23.1 |
| **2014** | 83.9 | 122.8 | 43.2 | 36.7 | 47.9 | 22.9 | 35.2 | 34.8 | 43.7 | 23.2 | 31.7 | 24.6 |
| **2015** | 22.6 | 19.2 | 14.8 | 17.5 | 18.2 | 16.2 | 16.2 | 15.3 | 17.9 | 34 | 12.7 | 14.7 |
| **2016** | 14.7 | 29.5 | 32.5 | 36.7 | 49.9 | 57.2 | 20 | 19.9 | 19.7 | 17.7 | 40.1 | 20 |
| **2017** | 17.7 | 21.7 | 31.3 | 18.2 | 29.6 | 21.3 | 19.2 | 14 | 20.2 | 19.2 | 21.9 | 34.9 |
| **2018** | 30 | 23.1 | 17.7 | 103.2 | 49 | 23.6 | 15.2 | 18.2 | 16.3 | 17 | 35.5 | 24.5 |
| **2019** | 17.9 | 35.4 | 22.3 | 21.7 | 46.5 | 24.9 | 18.3 | 16.7 | 16.5 | 17.7 | 17.9 | 49.6 |
| **2020** | 19.1 | 24.2 | 24.9 | 18.9 | 32.3 | 30.6 | 19.4 | 18.9 | 16.8 | 65.3 | 17.2 | 25.5 |
| **2021** | 37 | 77.9 | 30.6 | 21.6 | 96 | 26 | 13.1 | 14.8 | 12.4 | 15.4 | 16.1 | 17.1 |
| **2022** | 13.3 | 10.7 | 10.6 | 23.9 | 17.8 | 10.6 | 8.9 | 35.4 | 12.3 | 12.3 | 21 | 22.5 |

Table S15 – Minima of flow rate values (m3/s) calculated for the Gradisca gauging station aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the minima were not calculated (NA, i.e. not available).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gradisca** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **2001** | 65.5 | 43.7 | 43.7 | 68.6 | 60.9 | 36.8 | 27.1 | 9.2 | 19.5 | 22.5 | 28.2 | 14.5 |
| **2002** | 12 | 19.5 | 45.9 | 44.9 | 69.4 | 50.8 | 46 | 54.7 | 37.2 | 47.8 | 62.9 | 60.3 |
| **2003** | 52.7 | 37.6 | 34.4 | 41.7 | 41.7 | 31.1 | 27.2 | 24.3 | 28.8 | 38 | 67.5 | 44.5 |
| **2004** | 44.2 | 35.4 | 50.6 | 84 | 72.8 | 51.4 | 22.8 | 18.8 | 21.9 | 33.7 | 42.4 | 39.8 |
| **2005** | 20.3 | 1.2 | 1 | 27.9 | 44.4 | 12 | 8.8 | 8.5 | 20.8 | 31.7 | 16.8 | 29.7 |
| **2006** | 19.6 | 17.1 | 52.8 | 87.9 | 67.3 | 22.1 | 1.7 | 18.8 | 20.7 | 26.4 | 16.9 | 36.1 |
| **2007** | 31 | 53.6 | 52.5 | 39.1 | 22.3 | 22.3 | 29.3 | 10.2 | 10.4 | 22.4 | 17 | 15.7 |
| **2008** | 13.6 | 21.8 | 35.1 | 62.8 | 71.1 | 48 | 40.6 | 25.4 | 7.9 | 0.6 | 46.8 | 53.4 |
| **2009** | 26.2 | 38 | 33.2 | 78.8 | 61.2 | 48.4 | 28 | 6.2 | 6.9 | 5.7 | 21 | 41 |
| **2010** | 19.6 | 16.2 | 29.3 | 34.7 | 51.8 | 35.1 | 8.2 | 15.5 | 26.9 | 38.3 | 86.7 | 79.1 |
| **2011** | 28.3 | 19.8 | 13 | 25 | 19 | 28.3 | 6.9 | 10.1 | 6.1 | 6.9 | 15.7 | 15.9 |
| **2012** | 11.5 | 3.9 | 5.4 | 11 | 31.8 | 14.2 | 9.7 | 6.4 | 7.7 | 22.4 | 64.2 | 59.1 |
| **2013** | 30.9 | 26.1 | 44.2 | 96.4 | 94 | 29.6 | 5.2 | 3.5 | 3 | 35.2 | 79.2 | 30.3 |
| **2014** | 95.3 | 134.3 | 61.2 | 38.6 | 45 | 26 | 43.2 | 33.1 | 46.2 | 25.2 | 29.6 | 44.9 |
| **2015** | 31.4 | 28.3 | 22 | 24.9 | 30.8 | 18.4 | 17.9 | 18.2 | 27.6 | 37 | 20.9 | 19.4 |
| **2016** | 19.2 | 44.5 | 43.5 | 54.8 | 61.7 | 73.4 | 26.2 | 24 | 22.5 | 20.4 | 55.1 | 31.1 |
| **2017** | 23.4 | 44 | 48.8 | 23.4 | 43.5 | 22.3 | 24 | 16.8 | 30.9 | 25.8 | 30.2 | 63.3 |
| **2018** | 52.7 | 43 | 35.7 | 95.4 | 65 | 43.9 | 17.7 | 16.5 | 19.9 | 16.2 | 49.2 | 34.1 |
| **2019** | 23.9 | 43.8 | 36 | 36.5 | 59.5 | 27.5 | 20.3 | 14.8 | 18.4 | 24.7 | 24.7 | 75.7 |
| **2020** | 26.8 | 33.4 | 37 | 27 | 38.3 | 38.9 | 28.3 | 22.9 | 17.9 | 78.6 | 28.4 | 33.8 |
| **2021** | 50.6 | 47 | 13 | 15.7 | 71.5 | 27.3 | 10.5 | 7.9 | 2.1 | 6.3 | 13.1 | 18.7 |
| **2022** | 8.3 | 2.7 | 1.5 | 22.8 | 12 | 7.7 | 2.7 | 2.6 | 7.2 | 17.8 | 21.9 | 15 |

Table S16 – Minima of flow rate values (m3/s) calculated for the Turriaco gauging station aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the minima were not calculated (NA, i.e. not available).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Turriaco** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **2006** | 1.5 | 1.1 | 19 | 55 | 33 | 3.3 | 0.1 | 0.1 | 0.7 | 0.8 | 0.7 | 6.2 |
| **2007** | 5.5 | 22.4 | 20.4 | 11.1 | 3.2 | 4.6 | 2.4 | 0.3 | 0.2 | 2.4 | 1 | 1.2 |
| **2008** | 0.8 | 5.1 | 5 | 32.9 | 38.1 | 26.2 | 17.3 | 4.8 | 1.6 | 0.9 | 32.1 | 40.3 |
| **2009** | 11.4 | 18.9 | 16.1 | 52.2 | 30.7 | 19.5 | 9 | 1.7 | 1.5 | 2.3 | 5.6 | 21.6 |
| **2010** | 18 | 12.1 | 31.5 | 20.3 | 38.4 | 21.3 | 0.8 | 3.2 | 8.3 | 6.8 | 55.9 | 41.2 |
| **2011** | 7.5 | 0.4 | 0 | 3.2 | 1.2 | 3.5 | 0.1 | 0 | NA | NA | 0.4 | 0.2 |
| **2012** | 0.2 | 0.1 | 0.1 | 0.1 | 7.5 | 3.3 | 0.8 | 0 | 0 | 2.1 | 32.8 | 31.5 |
| **2013** | 17.3 | 21.5 | 33.1 | 80.1 | 67.5 | 16.6 | 2.9 | 0.7 | 2.7 | 86.5 | 58.8 | 7.5 |
| **2014** | 80.1 | 174.2 | 60 | 28.6 | 41.7 | 21.9 | 46.1 | 36.5 | 57 | 32.5 | 56.4 | 42.4 |
| **2015** | 27.7 | 16.9 | 10.4 | 11 | 24.1 | 4.9 | 4.8 | 4.2 | 9.1 | 32.3 | 12.3 | 1.3 |
| **2016** | 0.8 | 18.1 | 37.6 | 44.1 | 85.4 | 114.2 | 30.6 | 23.1 | 11.2 | 9.8 | 75.4 | 47.4 |
| **2017** | 20.5 | 86.8 | 72 | 40.2 | 57.6 | NA | 28.3 | 15.7 | 15.4 | 21.6 | 18.8 | NA |
| **2018** | NA | NA | NA | NA | NA | 29.6 | 15.1 | 9.1 | 18.3 | 7.1 | 54.2 | 31 |
| **2019** | 11.9 | 53.5 | 33.1 | 30.1 | 99.2 | 42.8 | 25.7 | NA | NA | 19.2 | 18.2 | 146.9 |
| **2020** | 37.1 | 39.5 | 44.6 | 28.9 | 52.1 | 52.1 | 32.2 | 28.9 | 27.2 | 145.6 | 35.5 | 35.8 |
| **2021** | 82.1 | 106.7 | 27.1 | 22.7 | 132 | 29.8 | 6.2 | 2.7 | 1.2 | 4.1 | 6.6 | 30.3 |
| **2022** | 8 | 4.1 | 0.3 | 27.6 | 11.6 | 1.5 | 0 | 0 | 0 | 37.8 | 100.8 | 72 |

Table S17 – Minima of flow rate values (m3/s) calculated for the Pieris gauging station aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the minima were not calculated (NA, i.e. not available).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Pieris** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **2010** | NA | NA | NA | NA | NA | 13.4 | 3.5 | 5.5 | 11.9 | 15.6 | 60.4 | 43.5 |
| **2011** | 13.3 | 4.2 | 3 | 7 | 4.1 | 7.7 | 2.5 | 2.2 | 1.6 | 1.7 | 2.4 | 2.2 |
| **2012** | 1.8 | 1.5 | 1.4 | 1.4 | 7.2 | 3 | 1.9 | 1.1 | 1.1 | 3.3 | 23.7 | 21.6 |
| **2013** | 9 | 5.4 | 13 | 52.3 | 43.8 | 5.7 | 1.8 | 1.4 | 1.5 | 8.2 | 33.9 | 4.3 |
| **2014** | 62.2 | 116.8 | 42.3 | 14.7 | 23.4 | 11.3 | 24.3 | 15.2 | 23.8 | 6.8 | 18.8 | 17 |
| **2015** | 9.1 | 4.3 | 3.3 | 3.7 | 9.8 | 3 | 2.8 | 2.6 | 2.9 | 10.8 | 4.2 | 2.5 |
| **2016** | 2.5 | 6.9 | 11.4 | 17.9 | 28.3 | 33.4 | 5.2 | 4.3 | 3.8 | 3.5 | 17 | 5.4 |
| **2017** | 4.7 | 13.6 | 13.9 | 5 | 14.5 | 6.3 | 6 | 4.8 | 5 | 5.4 | 5.2 | 28 |
| **2018** | 19.4 | 8.8 | 4 | 63.8 | 27 | 6.6 | 2.8 | 2.3 | 2.6 | 2 | 11.3 | 3.7 |
| **2019** | 2.5 | 10.5 | 4.9 | 4.3 | 31.4 | 5.6 | 4.8 | 4.4 | 4.1 | 4.4 | 4.3 | 45.7 |
| **2020** | 5.7 | 6.2 | 7.6 | 2.5 | 13 | 12.8 | 5 | 5.2 | 6.1 | 51.5 | 6.8 | 7.8 |
| **2021** | 29.7 | 35.7 | 9.7 | 7.9 | 71.4 | 22.2 | 8.9 | 7.3 | 6.8 | 7.9 | 7.4 | 16.1 |
| **2022** | 5.9 | 5.3 | 4.1 | 13.4 | 5.5 | 4.2 | 3.6 | 3.2 | 3.6 | 6.5 | 25.3 | 13.5 |

Table S18 – Minima of flow rate values (m3/s) calculated for the ADCP station aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the minima were not calculated (NA, i.e. not available).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ADCP** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **2015** | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | -0.7 | -1.1 |
| **2016** | -1.5 | 1.7 | -1 | -31.4 | 25.5 | 45.3 | -34.2 | 5.6 | NA | -22.1 | -9.8 | 6.4 |
| **2017** | -23.6 | -3.2 | 0.4 | -36.9 | -15.3 | NA | NA | NA | NA | NA | NA | NA |
| **2018** | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 10 |
| **2019** | -8.7 | -25.6 | -21.7 | -57.3 | 13.9 | 5.9 | -14.5 | -1.6 | -18.7 | -26.9 | 21.6 | 58.7 |
| **2020** | -0.8 | -9.2 | -14.6 | -30.7 | 5 | -26.2 | -50.8 | -22.9 | NA | NA | NA | NA |
| **2021** | NA | -1.4 | -37.6 | -64.4 | 11.8 | -18.6 | -22.4 | -35.5 | NA | NA | NA | 17.9 |
| **2022** | 2.8 | -1.5 | -36.3 | -72.5 | -12 | -32.5 | -10.3 | -35.4 | -47.5 | -0.7 | -11.7 | -16.7 |

1. ***Maxima tables***

Table S19 – Maxima of Solkan flow rate values (m3/s) aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the mean and standard deviation are not calculated (NA, i.e. not available).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Solkan** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **2006** | 108.7 | 237.8 | 716.1 | 163.3 | 212.8 | 72.8 | 29.8 | 157.5 | 142.7 | 321.5 | 180.1 | 550.3 |
| **2007** | 456.7 | 300.4 | 248.3 | 70.9 | 112.7 | 112.7 | 236.5 | 46 | 456.7 | 187.5 | 211.5 | 131.7 |
| **2008** | 327.5 | 198.3 | 160.4 | 469.4 | 309.2 | 218.7 | 207.6 | 111.9 | 77.4 | 795.2 | 574.4 | 707.2 |
| **2009** | 636 | 472.6 | 1164.2 | 290.3 | 151.4 | 297.6 | 393.1 | 63.3 | 174.1 | 189.9 | 206.1 | 1870.8 |
| **2010** | 231.1 | 640.5 | 199.7 | 193.6 | 477.5 | 255.4 | 144.7 | 206.7 | 1435.7 | 300.1 | 907.8 | 1024.8 |
| **2011** | 333 | 61.2 | 714.9 | 81.4 | 126.2 | 353.2 | 153.3 | 227.7 | 177 | 690.3 | 148.3 | 604.8 |
| **2012** | 223.8 | 27.3 | 30.2 | 389.3 | 205.3 | 390.5 | 144.4 | 40.9 | 267.4 | 932.5 | 1683.7 | 441 |
| **2013** | 341.5 | 400.3 | 445.1 | 307.6 | 356.1 | 246.8 | 62 | 83.1 | 296.7 | 293.3 | 779.6 | 703.4 |
| **2014** | 1189.5 | 774.7 | 408 | 131.1 | 250.3 | 223.2 | 291.8 | 270.3 | 270.5 | 600.3 | 1056.4 | 498.6 |
| **2015** | 233.3 | 77.2 | 366.7 | 99.8 | 216.2 | 427.6 | 122.9 | 125.8 | 476.2 | 773.2 | 75.9 | 52 |
| **2016** | 718.6 | 673.9 | 301.5 | 154.2 | 356.8 | 400.4 | 106.9 | 105.7 | 68 | 353 | 1475.3 | 107.6 |
| **2017** | 111.8 | 374.1 | 467.9 | 1367.6 | 281.1 | 295.1 | 152.5 | 57.5 | 416.1 | 110.3 | 422.1 | 1551.7 |
| **2018** | 366.6 | 499.9 | 560.5 | 419.6 | 159.4 | 92.3 | 74.2 | 132.6 | 140.5 | 782.9 | 526.7 | 83 |
| **2019** | 140.1 | 1125.2 | 70.9 | 240.4 | 520.1 | 154.4 | 68.7 | 83.3 | 132.4 | 99.4 | 813 | 997.8 |
| **2020** | 153.8 | 86.5 | 565.3 | 75.6 | 298.4 | 843.5 | 58.6 | 241.1 | 441.4 | 514 | 120.1 | 613.1 |
| **2021** | 771.5 | 653.6 | 69 | 382.4 | 804.4 | 130.8 | 79.7 | 110.9 | 110.7 | 245.9 | 400 | 236.6 |
| **2022** | 345.9 | 90.8 | 53.5 | 136.8 | 73.5 | 44.1 | 18.4 | 35.9 | 744.9 | 537.2 | 281.6 | 528.5 |

Table S20 – Maxima of flow rate values (m3/s) calculated for the Gorizia gauging station aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the maxima were not calculated (NA, i.e. not available).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gorizia** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **1998** | 376.2 | 347.6 | 394.7 | 359.1 | 152.9 | 140.3 | 696.5 | 140.3 | 877.4 | 2432.4 | 1505.1 | 45.3 |
| **1999** | 95.6 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **2000** | 1251.8 | 1231.5 | 1221.8 | 1455 | 1406.3 | 89 | 439.5 | 102.1 | NA | NA | 2229.9 | 493.1 |
| **2001** | 1757.3 | 107.4 | 1480.1 | 262.7 | 133.9 | 150.4 | 230.3 | 39.3 | 775.7 | 294.7 | 158.6 | 52.1 |
| **2002** | 102.4 | 113.3 | 175.9 | 241.6 | 121.9 | 235.5 | 128.5 | 475.7 | 198.1 | 760.6 | 927.1 | 185.4 |
| **2003** | 209.6 | 47.1 | 37 | 104.8 | 66.6 | 51.7 | 90.7 | 99.6 | 93.2 | 221.4 | 917.4 | 559.2 |
| **2004** | 231.3 | 347.6 | 200.1 | 208.5 | 435.2 | 278.3 | 158 | 125.3 | 198.3 | 1037.5 | 1007.1 | 323.7 |
| **2005** | 64 | 26.1 | 91.6 | 242 | 123.6 | 54.2 | 145.4 | 137.3 | 347.1 | 198.1 | 307.1 | 584.1 |
| **2006** | 106.3 | 242.6 | 975.4 | 159 | 218.7 | 78.4 | 31.2 | 170.7 | 132.3 | 338.9 | 174.2 | 597.7 |
| **2007** | 447.4 | 283.2 | 246.9 | 71.8 | 115.3 | 116.1 | 225.8 | 61.9 | 490.6 | 207.3 | 240.4 | 147 |
| **2008** | 367 | 199.5 | 170.4 | 492 | 379.5 | 247.6 | 239.5 | 121.2 | 102.1 | 1020 | 626.4 | 850.3 |
| **2009** | 705.3 | 471.2 | 1719.1 | 281.7 | 141.8 | 285.2 | 401.1 | 58.6 | 163.9 | 176.4 | 199.3 | 3005.5 |
| **2010** | 227.8 | 817.9 | 181 | 188.1 | 519.4 | 244.7 | 198 | 220 | 2227.5 | 294.3 | 1124.9 | 1448.3 |
| **2011** | 308.4 | 67.5 | 767.7 | 63.7 | 106.2 | 312.2 | 127.9 | 186 | 155 | 769.3 | 134.9 | 620 |
| **2012** | 201 | 24.8 | 26.2 | 356 | 175.8 | 371.2 | 121.1 | 28.7 | 227.9 | 1232.9 | 2546.1 | 462.8 |
| **2013** | 323.4 | 473.8 | 446.6 | 265.7 | 319 | 212.7 | 52.1 | 84.9 | 264.7 | 266.4 | 905.1 | 826.9 |
| **2014** | 1665.7 | 862.8 | 390.2 | 108.8 | 199.8 | 183.5 | 250.7 | 231.1 | 233.7 | 643 | 1380.7 | 522.3 |
| **2015** | 185.9 | 67.4 | 376.4 | 88.2 | 189.3 | 393.9 | 107.7 | 122.7 | 458.3 | 900 | 76.9 | 40.4 |
| **2016** | 896.3 | 732.1 | 280.7 | 141.2 | 333.1 | 375.2 | 91.6 | 93.5 | 52.4 | 323.1 | 2122.7 | 89.8 |
| **2017** | 109.7 | 382.4 | 477.6 | 1917.9 | 259.7 | 282.9 | 142.1 | 115 | 402.6 | 96 | 424 | 2194.7 |
| **2018** | 363.6 | 526 | 592.5 | 416.6 | 146.4 | 118 | 58.7 | 122.9 | 130.2 | 860 | 548.9 | 66.1 |
| **2019** | 132.2 | 1598.1 | 108 | 226.2 | 541.9 | 146.5 | 59 | 117.8 | 133.9 | 94.4 | 1033 | 1336.2 |
| **2020** | 144.6 | 80.9 | 596.4 | 62.4 | 290.4 | 1076.9 | 61.8 | 235.4 | 438.7 | 535.5 | 125.8 | 668.5 |
| **2021** | 880.9 | 793.5 | 89.8 | 330.1 | 862.7 | 105.3 | 63.5 | 89.7 | 90.7 | 193.5 | 342.2 | 186.5 |
| **2022** | 276.2 | 64.6 | 36.3 | 107.8 | 56.5 | 77.3 | 75.2 | 87 | 714.5 | 424.4 | 221.6 | 451.7 |

Table S21 – Maxima of flow rate values (m3/s) calculated for the Gradisca gauging station aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the maxima were not calculated (NA, i.e. not available).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gradisca** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **2001** | 1073.7 | 143.1 | 877.7 | 275.5 | 125.2 | 131.6 | 200.1 | 33.3 | 629.6 | 272.7 | 176.4 | 46.9 |
| **2002** | 110.5 | 172.7 | 250.1 | 251.2 | 149.1 | 313.5 | 156.7 | 558.1 | 164.7 | 451.4 | 736.7 | 221.3 |
| **2003** | 226.5 | 83.9 | 59.4 | 140.3 | 78.3 | 68 | 101.7 | 104 | 110 | 228.9 | 820.9 | 634.8 |
| **2004** | 370.9 | 529.5 | 247.7 | 277.6 | 473.5 | 289.1 | 173 | 102.2 | 202.9 | 791.2 | 909.3 | 394.5 |
| **2005** | 81.3 | 19.8 | 121.4 | 313 | 157.1 | 44.7 | 141.9 | 156.6 | 440.4 | 221.7 | 377 | 621.6 |
| **2006** | 194.3 | 310.9 | 691.9 | 155.7 | 215.6 | 102.2 | 23.6 | 142 | 150.3 | 317.9 | 191.1 | 532.2 |
| **2007** | 432.8 | 335.1 | 270.5 | 80.2 | 111.7 | 113.5 | 222.8 | 81.5 | 446.3 | 180.2 | 205.2 | 151.1 |
| **2008** | 425.7 | 214 | 195 | 531.5 | 352.9 | 266.5 | 276.2 | 144.1 | 83.6 | 822 | 586.9 | 855.2 |
| **2009** | 650.3 | 413.7 | 1333.2 | 328.2 | 136.4 | 233.1 | 366.6 | 46.1 | 138.1 | 169.3 | 228.5 | 1709.1 |
| **2010** | 215.8 | 678.9 | 168 | 171.4 | 389.8 | 200.8 | 113.6 | 130.6 | 1304 | 255.6 | 788.1 | 957.5 |
| **2011** | 298.6 | 57.1 | 702 | 63.4 | 114.2 | 279.5 | 142.4 | 164.9 | 150 | 526.6 | 120.7 | 561.1 |
| **2012** | 188.4 | 19 | 22.3 | 350.4 | 160.2 | 315.7 | 109.2 | 25 | 205.6 | 1039.8 | 1218 | 478.9 |
| **2013** | 324.5 | 391.3 | 455.6 | 273.3 | 311 | 210.4 | 44.5 | 69 | 239 | 224.1 | 639.5 | 525.5 |
| **2014** | 1053.3 | 744.2 | 352.9 | 120 | 185.9 | 170.8 | 260.7 | 209.5 | 225.9 | 504.8 | 944.9 | 466.9 |
| **2015** | 177.3 | 66.9 | 350.1 | 77.4 | 159.4 | 381.7 | 88.2 | 123.7 | 375 | 756.3 | 66.3 | 50.2 |
| **2016** | 705.9 | 615.6 | 315.2 | 132.7 | 319.3 | 386.6 | 87.7 | 91.2 | 63.2 | 330.7 | 1290.9 | 102.3 |
| **2017** | 129.5 | 385.6 | 364.8 | 1148 | 206.3 | 233 | 130.6 | 58.3 | 302 | 94.5 | 358.5 | 1342.3 |
| **2018** | 317.9 | 434.1 | 454.7 | 377.5 | 121.7 | 76.1 | 70.6 | 100.1 | 104.1 | 591.8 | 406.1 | 97.8 |
| **2019** | 113.9 | 888 | 63.7 | 168.3 | 479.1 | 139.9 | 56.6 | 72 | 98.7 | 90.1 | 587.2 | 766 |
| **2020** | 143.5 | 81.7 | 488.8 | 69.7 | 209 | 605.2 | 59 | 179.1 | 405.2 | 422.7 | 140.9 | 592.4 |
| **2021** | 646.1 | 489.1 | 50.3 | 305.5 | 605.9 | 79.7 | 52.6 | 67.9 | 59.2 | 150.5 | 226.8 | 186.6 |
| **2022** | 242.3 | 60.4 | 25.4 | 89.6 | 42 | 24.2 | 13.9 | 12.9 | 488.9 | 417.7 | 145.5 | 461 |

Table S22 – Maxima of flow rate values (m3/s) calculated for the Turriaco gauging station aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the maxima were not calculated (NA, i.e. not available).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Turriaco** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **2006** | 167.9 | 330.3 | 687 | 146.4 | 171.8 | 80.4 | 2.3 | 75.9 | 88.5 | 309.1 | 169 | 661.9 |
| **2007** | 531.4 | 325 | 299.3 | 52.1 | 55.4 | 66.5 | 198.8 | 14.9 | 375 | 117.3 | 169.4 | 106.7 |
| **2008** | 512.7 | 198 | 136.3 | 522.6 | 430 | 297.5 | 225.8 | 52.1 | 30 | 788.2 | 704.1 | 1524.6 |
| **2009** | 1017.2 | 587.3 | 1882.1 | 427.3 | 126.5 | 191.7 | 385.9 | 15.5 | 93.2 | 116 | 204.4 | 2782.9 |
| **2010** | 239.7 | 1244.1 | 344.7 | 268.5 | 694.4 | 234.2 | 56.8 | 77.4 | 1817.4 | 372.1 | 1326.2 | 1353.1 |
| **2011** | 454.7 | 23.3 | 1098.3 | 24 | 49.8 | 276.6 | 86.7 | 104.3 | NA | NA | 72.2 | 601.9 |
| **2012** | 56.2 | 2.3 | 4.1 | 439.8 | 104 | 379.7 | 62.5 | 0.8 | 150.3 | 1589.5 | 1890.7 | 693.2 |
| **2013** | 396.8 | 665.3 | 768.6 | 424 | 465 | 278.4 | 31.2 | 16.5 | 536.7 | 1073.5 | 2372.8 | 977.3 |
| **2014** | 1801.2 | 1308.7 | 604.7 | 113.2 | 203.9 | 166.9 | 313.9 | 305.3 | 249.5 | 571 | 1605 | 875.5 |
| **2015** | 223.6 | 56 | 507.3 | 63.9 | 177.3 | 459.1 | 61 | 102.5 | 592.9 | 1534.6 | 50.2 | 24.5 |
| **2016** | 1206.7 | 1091.0 | 485.0 | 146.8 | 474.5 | 507.7 | 114 | 102.5 | 68.6 | 427.6 | 1515 | 208.9 |
| **2017** | 224.7 | 731.4 | 585.8 | 1824 | 346.5 | NA | 215.2 | 42.1 | 537.7 | 108.5 | 534.7 | NA |
| **2018** | NA | NA | NA | NA | NA | 81.7 | 76.7 | 123.1 | 153 | 756.8 | 692.4 | 143.7 |
| **2019** | 149.5 | 1153.7 | 72.2 | 303.4 | 859.8 | 261.7 | 66.5 | NA | NA | 68.8 | 984.6 | 1165.7 |
| **2020** | 205 | 118.8 | 830.6 | 93.3 | 375.2 | 934.1 | 97.4 | 313.7 | 614.8 | 702.6 | 215.8 | 1106.4 |
| **2021** | 987.9 | 874.9 | 112.4 | 643.8 | 919.2 | 151 | 59.6 | 81.5 | 56.3 | 225.9 | 334.6 | 324.9 |
| **2022** | 441.9 | 99.8 | 35.2 | 131.3 | 61.9 | 21.2 | 1.4 | 0 | 654.2 | 697.1 | 375.3 | 707.8 |

Table S23 – Maxima of flow rate values (m3/s) calculated for the Pieris gauging station aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the maxima were not calculated (NA, i.e. not available).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Pieris** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **2010** | NA | NA | NA | NA | NA | 190.8 | 80.3 | 94.5 | 1817 | 405.6 | 1354.4 | 1275.8 |
| **2011** | 520.9 | 36.1 | 1094.7 | 31.8 | 60.8 | 318.8 | 102 | 127.3 | 109.5 | 714.6 | 77.1 | 612 |
| **2012** | 175.8 | 4.2 | 6.4 | 463.7 | 112.7 | 345.4 | 54.5 | 2.1 | 177.7 | 1462 | 1855.8 | 638.9 |
| **2013** | 392.9 | 620.6 | 653.1 | 294.7 | 381.1 | 211.5 | 9.1 | 11.1 | 238 | 207.7 | 949.3 | 907.3 |
| **2014** | 1780.6 | 1118.8 | 520.6 | 84.8 | 176.8 | 136.8 | 273.7 | 278.3 | 202.6 | 552.1 | 1368.7 | 719.7 |
| **2015** | 223.6 | 34.9 | 475.7 | 41.8 | 185.5 | 423.6 | 36.3 | 81.9 | 595.4 | 1264.6 | 31.4 | 12.8 |
| **2016** | 1097 | 967.8 | 389.5 | 133.5 | 385.1 | 419.5 | 39.6 | 35.1 | 17.7 | 342.7 | 1794.2 | 88.5 |
| **2017** | 124.3 | 509.8 | 428.5 | 2095.8 | 261.4 | 378.4 | 112.9 | 11.3 | 455 | 53.8 | 498.6 | 2437.9 |
| **2018** | 496.9 | 599.6 | 653.5 | 603.3 | 103 | 37 | 24.9 | 60.4 | 77 | 774.4 | 660.6 | 56.8 |
| **2019** | 77 | 1505.3 | 19.6 | 212.5 | 843.6 | 129.7 | 15.7 | 33.6 | 53 | 45.4 | 1002 | 1218.1 |
| **2020** | 116.5 | 47.8 | 846.2 | 32.7 | 272.1 | 1214.7 | 30 | 205.1 | 490.9 | 627.6 | 104.7 | 1154.3 |
| **2021** | 1017.9 | 806.8 | 40.1 | 734.9 | 1206.9 | 95.9 | 46.6 | 68.9 | 49.2 | 179.6 | 330 | 252.3 |
| **2022** | 433.6 | 57.5 | 17.5 | 111.7 | 39.7 | 10.9 | 4.1 | 3.6 | 743 | 770.1 | 322.7 | 789.3 |

Table S24– Maxima of flow rate values (m3/s) calculated for the ADCP station aggregated by month and by year. In case the number of missing values was equal or greater than 25%, the maxima were not calculated (NA, i.e. not available).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ADCP** | | | | | | | | | | | | |
|  | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **October** | **November** | **December** |
| **2015** | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 3.2 | 4 |
| **2016** | 219.9 | 1003.2 | 459.8 | 104.2 | 376.7 | 469.8 | 52 | 72.1 | NA | 409.6 | 1624.7 | 72.3 |
| **2017** | 111.9 | 555.1 | 467.6 | 2032.3 | 258.9 | NA | NA | NA | NA | NA | NA | NA |
| **2018** | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 87.4 |
| **2019** | 80.4 | 1324.2 | 27.7 | 212.2 | 848.4 | 153.4 | 76.8 | 85.5 | 96.5 | 75.1 | 1004.8 | 1430.7 |
| **2020** | 119.4 | 88.2 | 848.8 | 26.9 | 474.5 | 1359.6 | 70.2 | 84.3 | NA | NA | NA | NA |
| **2021** | NA | 388.2 | 67.4 | 535.9 | 978.8 | 63.4 | 51.5 | 48.8 | NA | NA | NA | 237.3 |
| **2022** | 386.9 | 63.5 | 36.6 | 75.1 | 48.1 | 46.7 | 29.6 | 44.5 | 557.6 | 650.7 | 259.9 | 641.3 |