



Corrigendum

Corrigendum to “Pesticides drive risk in wastewater-impacted streams during low flow conditions ” [Water Res. 110 (2017) 366–377]



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The authors regret to inform that there was an error in the above-cited paper related to the contribution of heavy metals to the list of the Top5 compounds contributing to the msPAF values at each site. However, the actual msPAF calculations are not affected nor is the overall conclusion of the manuscript that pesticides seem to be the drivers of the risk in small wastewater-impacted streams during low flow conditions.

As stated at the end of paragraph 3.2.3. *Risk driving substances* the msPAF was also calculated including heavy metals. However, when considering which compounds belonged to the Top5 in each sample, different thresholds were mistakenly used for listing the candidate compounds. Organic compounds were considered candidate compounds when their PAF values exceeded 0.0001%. For the heavy metals, the threshold was also very low (0.01%) but still higher. Due to this difference, some heavy metals were not listed among the Top5 in some cases, when the general toxicity level was low.

We stated that “Zn, at seven downstream and one upstream site, and Ni at only one upstream site, were part of the Top5 substances and contributed with fractions of 0.01–0.05% to the total msPAFs”. When using the same threshold for the heavy metals as for the other compounds, these numbers increase and yield the numbers listed in Table C1 for all the samples (total number of samples upstream and downstream: each 96):

Table C1. Corrected number of cases in which heavy metals belong to the Top5 substances

| Heavy metal | #Top5 upstream | #Top5 downstream |
|-------------|----------------|------------------|
| Zn | 27 | 42 |
| Ni | 20 | 13 |
| Cr | 53 | 14 |
| Cd | 10 | 2 |
| Ag | 1 | 0 |

Zn, Ni, Cr, Cd and Ag belong to the Top5 substances of the msPAF, the other measured heavy metals with good quality toxicity data (Cu, Pb) did not appear. In addition, although these five metals appear frequently in the Top5 substances, the total contribution to msPAF is almost negligible. This is because Ni, Cr, Cd and Ag are in most cases Top5 substances at upstream sites with low msPAF where almost no other substance was detected and the single PAF values of the heavy metals are in most cases very low; e.g. the maximum PAF of Cr is 0.00063%. In fact, this can be nicely seen in Figure S3.1 of the SI where the msPAF considering organic substances only is compared to the msPAF including heavy metals. This figure is still valid, as the thresholds used for the single PAF do not affect the total msPAF. In Table C2 (see below) the calculated msPAF values including heavy metals, using the same threshold for the PAF values for all Top5 substances are shown (compare Table S3.4 in the SI where only organic substances were considered for the msPAF).

The authors would like to apologize for any inconvenience caused.

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Table C2. msPAF calculations including heavy metals. For the May 2014 the extended screening data set was used. Subst 1 to Subst5 indicate the Top5 substances. Top5 substances are listed only if the PAF is greater or equal to 0.0001%.

| SiteName | LMR | Year | n Subst | msPAF | Top5 msPAF | %Tox Top5 Of Total | Name Subst1 | PAF Subst1 | Name Subst2 | PAF Subst2 | Name Subst3 | PAF Subst3 | Name Subst4 | PAF Subst4 | Name Subst5 | PAF Subst5 | msPAF - only HeavyMetals |
|------------------|------------|-------|---------|---------|------------|--------------------|------------------------|------------|----------------|------------|----------------|------------|-----------------|------------|-----------------|------------|--------------------------|
| Buttisholz | downstream | 13_06 | 124 | 0.472% | 0.470% | 100 | terbutylazine | 0.385% | diazinon | 0.081% | diclofenac | 0.004% | pirimicarb | 0.001% | tembotrione | 0.0002% | NA |
| Buttisholz | upstream1 | 13_06 | 124 | 0.003% | 0.003% | 100 | terbutylazine | 0.003% | tembotrione | 0.0001% | | | | | | | NA |
| Colombier | downstream | 13_06 | 124 | 0.467% | 0.467% | 100 | triflusalufuron-methyl | 0.462% | diclofenac | 0.002% | diuron | 0.001% | naproxen | 0.001% | atrazine | 0.0005% | NA |
| Colombier | upstream1 | 13_06 | 124 | 0.441% | 0.441% | 100 | triflusalufuron-methyl | 0.435% | imidacloprid | 0.006% | diuron | 0.000% | atrazine | 0.0001% | | | NA |
| Dürnten-Bubikon | downstream | 13_06 | 124 | 0.060% | 0.060% | 100 | diazinon | 0.036% | diclofenac | 0.013% | naproxen | 0.002% | fipronil | 0.001% | terbutrin | 0.001% | NA |
| Dürnten-Bubikon | upstream1 | 13_06 | 124 | 0.001% | 0.001% | 100 | terbutrin | 0.001% | terbutylazine | 0.0004% | diuron | 0.0001% | | | | | NA |
| Herisau | downstream | 13_06 | 124 | 0.150% | 0.145% | 96 | diazinon | 0.112% | diclofenac | 0.020% | diuron | 0.005% | terbutrin | 0.002% | naproxen | 0.002% | NA |
| Herisau | upstream1 | 13_06 | 124 | 0.005% | 0.005% | 100 | diuron | 0.003% | terbutrin | 0.001% | | | | | | | NA |
| Hochdorf | downstream | 13_06 | 124 | 0.023% | 0.023% | 100 | diazinon | 0.012% | diclofenac | 0.006% | terbutylazine | 0.001% | naproxen | 0.001% | terbutrin | 0.0003% | NA |
| Hochdorf | upstream1 | 13_06 | 124 | 0.003% | 0.003% | 100 | terbutylazine | 0.001% | diazinon | 0.001% | terbutrin | 0.0003% | | | | | NA |
| Hornussen | downstream | 13_06 | 124 | 0.051% | 0.051% | 100 | diazinon | 0.027% | linuron | 0.012% | diclofenac | 0.006% | naproxen | 0.002% | fipronil | 0.001% | NA |
| Hornussen | upstream1 | 13_06 | 124 | 0.0003% | 0.0003% | 100 | diuron | 0.0001% | | | | | | | | | NA |
| Kernenried | downstream | 13_06 | 124 | 0.168% | 0.162% | 97 | diazinon | 0.120% | diclofenac | 0.023% | imidacloprid | 0.013% | fipronil | 0.002% | naproxen | 0.002% | NA |
| Kernenried | upstream1 | 13_06 | 124 | 0.009% | 0.009% | 100 | imidacloprid | 0.008% | | | | | | | | | NA |
| Messen | downstream | 13_06 | 124 | 0.917% | 0.916% | 100 | diazinon | 0.894% | terbutylazine | 0.015% | diclofenac | 0.006% | fipronil | 0.001% | tembotrione | 0.0002% | NA |
| Messen | upstream1 | 13_06 | 124 | 2.066% | 2.064% | 100 | triflusalufuron-methyl | 0.136% | terbutylazine | 0.006% | isoproturon | 0.0002% | | | | | NA |
| Niederdorf | downstream | 13_06 | 124 | 0.020% | 0.020% | 100 | diazinon | 0.013% | diclofenac | 0.004% | naproxen | 0.002% | fipronil | 0.0001% | | | NA |
| Niederdorf | upstream1 | 13_06 | 124 | 0.0000% | 0.0000% | 100 | | | | | | | | | | | NA |
| Romont | downstream | 13_06 | 124 | 0.014% | 0.014% | 100 | diazinon | 0.011% | diclofenac | 0.001% | naproxen | 0.001% | claritromycine | 0.0002% | | | NA |
| Romont | upstream1 | 13_06 | 124 | 0.004% | 0.004% | 100 | diazinon | 0.004% | | | | | | | | | NA |
| Rothenturm | downstream | 13_06 | 124 | 0.001% | 0.001% | 100 | diclofenac | 0.001% | naproxen | 0.0002% | | | | | | | NA |
| Rothenturm | upstream1 | 13_06 | 124 | 0.0000% | 0.0000% | 100 | | | | | | | | | | | NA |
| Sévry | downstream | 13_06 | 124 | 0.002% | 0.002% | 100 | carbofuran | 0.001% | diuron | 0.0005% | diclofenac | 0.0005% | terbutylazine | 0.0001% | | | NA |
| Sévry | upstream1 | 13_06 | 124 | 0.001% | 0.001% | 100 | diuron | 0.001% | terbutylazine | 0.0001% | | | | | | | NA |
| Buttisholz | downstream | 14_02 | 36 | 0.0002% | 0.0002% | 100 | diclofenac | 0.0002% | | | | | | | | | NA |
| Buttisholz | upstream1 | 14_02 | 36 | 0.0001% | 0.0001% | 100 | | | | | | | | | | | NA |
| Colombier | downstream | 14_02 | 36 | 0.020% | 0.020% | 100 | clothianidine | 0.019% | diclofenac | 0.001% | | | | | | | NA |
| Colombier | upstream1 | 14_02 | 36 | 0.023% | 0.023% | 100 | clothianidine | 0.022% | isoproturon | 0.0001% | | | | | | | NA |
| Dürnten-Bubikon | downstream | 14_02 | 36 | 0.032% | 0.032% | 100 | clothianidine | 0.021% | thiamethoxam | 0.008% | claritromycine | 0.002% | thiamethoxam | 0.0005% | terbutrin | 0.0003% | NA |
| Dürnten-Bubikon | upstream1 | 14_02 | 36 | 0.017% | 0.017% | 100 | clothianidine | 0.017% | thiamethoxam | 0.0003% | terbutrin | 0.0001% | | | | | NA |
| Herisau | downstream | 14_02 | 36 | 0.037% | 0.037% | 100 | diclofenac | 0.023% | claritromycine | 0.008% | diazinon | 0.004% | sulfamethoxazol | 0.0003% | terbutrin | 0.0002% | NA |
| Herisau | upstream1 | 14_02 | 36 | 0.0001% | 0.0001% | 100 | | | | | | | | | | | NA |
| Hochdorf | downstream | 14_02 | 36 | 0.017% | 0.017% | 100 | diclofenac | 0.012% | claritromycine | 0.002% | diazinon | 0.002% | terbutrin | 0.0003% | | | NA |
| Hochdorf | upstream1 | 14_02 | 36 | 0.013% | 0.013% | 100 | clothianidine | 0.012% | | | | | | | | | NA |
| Hornussen | downstream | 14_02 | 36 | 0.017% | 0.017% | 100 | clothianidine | 0.012% | diclofenac | 0.005% | | | | | | | NA |
| Hornussen | upstream1 | 14_02 | 36 | 0.011% | 0.011% | 100 | clothianidine | 0.011% | | | | | | | | | NA |
| Kernenried | downstream | 14_02 | 36 | 0.129% | 0.128% | 99 | clothianidine | 0.093% | diclofenac | 0.027% | imidacloprid | 0.004% | diazinon | 0.002% | claritromycine | 0.002% | NA |
| Kernenried | upstream1 | 14_02 | 36 | 0.100% | 0.100% | 100 | clothianidine | 0.092% | isoproturon | 0.0001% | | | | | | | NA |
| Messen | downstream | 14_02 | 36 | 0.086% | 0.086% | 100 | clothianidine | 0.082% | diclofenac | 0.004% | claritromycine | 0.0001% | | | | | NA |
| Messen | upstream1 | 14_02 | 36 | 0.076% | 0.076% | 100 | clothianidine | 0.076% | | | | | | | | | NA |
| Niederdorf | downstream | 14_02 | 36 | 0.019% | 0.019% | 100 | clothianidine | 0.016% | diclofenac | 0.003% | | | | | | | NA |
| Niederdorf | upstream1 | 14_02 | 36 | 0.018% | 0.018% | 100 | clothianidine | 0.018% | | | | | | | | | NA |
| Romont | downstream | 14_02 | 36 | 0.012% | 0.012% | 100 | diclofenac | 0.009% | diazinon | 0.002% | claritromycine | 0.001% | | | | | NA |
| Romont | upstream1 | 14_02 | 36 | 0.0001% | 0.0001% | 100 | | | | | | | | | | | NA |
| Rothenturm | downstream | 14_02 | 36 | 0.002% | 0.002% | 100 | diclofenac | 0.002% | | | | | | | | | NA |
| Rothenturm | upstream1 | 14_02 | 36 | 0.0001% | 0.0001% | 100 | | | | | | | | | | | NA |
| Sévry | downstream | 14_02 | 36 | 0.019% | 0.019% | 100 | clothianidine | 0.013% | diazinon | 0.003% | diclofenac | 0.001% | claritromycine | 0.001% | | | NA |
| Sévry | upstream1 | 14_02 | 36 | 0.013% | 0.013% | 100 | clothianidine | 0.010% | diazinon | 0.003% | | | | | | | NA |
| Aadorf | downstream | 14_03 | 43 | 0.485% | 0.480% | 99 | diazinon | 0.297% | terbutrin | 0.131% | diclofenac | 0.027% | diuron | 0.019% | thiacloprid | 0.007% | 0.002% |
| Aadorf | upstream1 | 14_03 | 43 | 0.001% | 0.001% | 100 | Cr | 0.001% | terbutrin | 0.0001% | | | | | | | 0.001% |
| Birmensdorf | downstream | 14_03 | 43 | 0.060% | 0.060% | 100 | diclofenac | 0.034% | diazinon | 0.013% | imidacloprid | 0.005% | terbutrin | 0.004% | fipronil | 0.001% | 0.001% |
| Birmensdorf | upstream1 | 14_03 | 43 | 0.0004% | 0.0004% | 100 | Cr | 0.000% | | | | | | | | | 0.000% |
| Elikon | downstream | 14_03 | 43 | 0.050% | 0.050% | 100 | diclofenac | 0.020% | clothianidine | 0.019% | diazinon | 0.008% | imidacloprid | 0.005% | fipronil | 0.002% | 0.001% |
| Elikon | upstream1 | 14_03 | 43 | 0.021% | 0.021% | 100 | clothianidine | 0.021% | Cr | 0.001% | | | | | | | 0.001% |
| Elgg | downstream | 14_03 | 43 | 0.027% | 0.027% | 100 | diclofenac | 0.020% | diazinon | 0.004% | Zn | 0.001% | claritromycine | 0.001% | Cr | 0.001% | 0.001% |
| Elgg | upstream1 | 14_03 | 43 | 0.007% | 0.007% | 100 | imidacloprid | 0.006% | Cr | 0.001% | | | | | | | 0.001% |
| Knouau | downstream | 14_03 | 43 | 0.051% | 0.051% | 100 | diclofenac | 0.023% | diazinon | 0.013% | claritromycine | 0.007% | atrazine | 0.003% | terbutrin | 0.002% | 0.000% |
| Knouau | upstream1 | 14_03 | 43 | 0.009% | 0.009% | 100 | diazinon | 0.009% | | | | | | | | | 0.000% |
| Marthalen | downstream | 14_03 | 43 | 0.029% | 0.029% | 100 | diclofenac | 0.016% | clothianidine | 0.009% | fipronil | 0.002% | claritromycine | 0.001% | sulfamethoxazol | 0.001% | 0.000% |
| Marthalen | upstream1 | 14_03 | 43 | 0.0004% | 0.0004% | 100 | Cr | 0.0003% | | | | | | | | | 0.000% |
| Muri | downstream | 14_03 | 43 | 0.208% | 0.182% | 87 | diclofenac | 0.096% | diazinon | 0.039% | claritromycine | 0.021% | thiacloprid | 0.014% | Zn | 0.012% | 0.012% |
| Muri | upstream1 | 14_03 | 43 | 0.012% | 0.012% | 100 | clothianidine | 0.011% | Cr | 0.0002% | | | | | | | 0.000% |
| Reinach | downstream | 14_03 | 43 | 0.136% | 0.133% | 98 | diazinon | 0.073% | diclofenac | 0.050% | Ni | 0.004% | claritromycine | 0.004% | fipronil | 0.001% | 0.005% |
| Reinach | upstream1 | 14_03 | 43 | 0.0002% | 0.0002% | 100 | Cr | 0.0001% | | | | | | | | | 0.000% |
| Unterehrendingen | downstream | 14_03 | 43 | 0.053% | 0.053% | 100 | diclofenac | 0.023% | clothianidine | 0.018% | diazinon | 0.006% | claritromycine | 0.003% | Zn | 0.001% | 0.002% |
| Unterehrendingen | upstream1 | 14_03 | 43 | 0.019% | 0.019% | 100 | clothianidine | 0.019% | Cr | 0.0004% | | | | | | | 0.000% |
| Val-De-Ruz | downstream | 14_03 | 43 | 0.104% | 0.100% | 96 | clothianidine | 0.040% | diclofenac | 0.030% | diazinon | 0.020% | claritromycine | 0.007% | fipronil | 0.003% | 0.000% |
| Val-De-Ruz | upstream1 | 14_03 | 43 | 0.050% | 0.050% | 100 | clothianidine | 0.049% | diclofenac | 0.001% | Zn | 0.000% | | | | | 0.000% |
| Villeret | downstream | 14_03 | 43 | 0.011% | 0.011% | 100 | diclofenac | 0.010% | claritromycine | 0.001% | | | | | | | 0.000% |
| Villeret | upstream1 | 14_03 | 43 | 0.0000% | 0.0000% | 100 | | | | | | | | | | | 0.000% |
| Zulwil | downstream | 14_03 | 43 | 0.022% | 0.022% | 100 | diclofenac | 0.016% | diazinon | 0.005% | fipronil | 0.001% | Zn | 0.0003% | | | 0.000% |
| Zulwil | upstream1 | 14_03 | 43 | 0.010% | 0.010% | 100 | diazinon | 0.010% | | | | | | | | | 0.000% |
| Aadorf | downstream | 14_05 | 131 | 0.059% | 0.059% | 100 | diclofenac | 0.020% | clothianidine | 0.013% | imidacloprid | 0.006% | diazinon | 0.006% | naproxen | 0.002% | 0.002% |
| Aadorf | upstream1 | 14_05 | 131 | 0.013% | 0.013% | 100 | clothianidine | 0.012% | Cr | 0.001% | Zn | 0.0002% | | | | | 0.001% |
| Birmensdorf | downstream | 14_05 | 131 | 0.070% | 0.070% | 100 | diclofenac | 0.028% | diazinon | 0.025% | imidacloprid | 0.005% | naproxen | 0.003% | fipronil | 0.002% | 0.001% |
| Birmensdorf | upstream1 | 14_05 | 131 | 0.002% | 0.002% | 100 | diazinon | 0.002% | Cr | 0.0003% | | | | | | | 0.000% |
| Elikon | downstream | 14_05 | 131 | 0.349% | 0.334% | 96 | triflusalufuron-methyl | 0.262% | clothianidine | 0.028% | diclofenac | 0.024% | imidacloprid | 0.015% | diazinon | 0.006% | 0.001% |
| Elikon | upstream1 | 14_05 | 131 | 0.326% | 0.325% | 100 | triflusalufuron-methyl | 0.286% | clothianidine | 0.027% | imidacloprid | 0.011% | Cr | 0.001% | thiamethoxam | 0.0001% | 0.001% |
| Elgg | downstream | 14_05 | 131 | 0.025% | 0.025% | 100 | diclofenac | 0.012% | imidacloprid | 0.005% | diazinon | 0.002% | Zn | 0.001% | | 0.001% | 0.002% |
| Elgg | upstream1 | 14_05 | 131 | 0.002% | 0.002% | 100 | diuron | 0.001% | Cr | 0.001% | Zn | 0.0003% | | | | | 0.001% |
| Knouau | downstream | 14_05 | 131 | 0.090% | 0.090% | 100 | diazinon | 0.047% | diclofenac | 0.018% | naproxen | 0.015% | fipronil | 0.003% | terbutrin | 0.002% | 0.000% |
| Knouau | upstream1 | 14_05 | 131 | 0.014% | 0.014% | 100 | diazinon | 0.011% | azoxystrobin | 0.002% | terbutrin | 0.001% | | | | | 0.000% |
| Marthalen | downstream | 14_05 | 131 | 0.027% | 0.027% | 100 | diclofenac | 0.011% | diazinon | 0.007% | fipronil | 0.005% | imidacloprid | 0.002% | naproxen | 0.001% | 0 |

| SiteName | LMR | Year | n Subst | msPAF | Top5 msPAF | %Tox Top5 Of Total | Name Subst1 | PAF Subst1 | Name Subst2 | PAF Subst2 | Name Subst3 | PAF Subst3 | Name Subst4 | PAF Subst4 | Name Subst5 | PAF Subst5 | msPAF - only HeavyMetals |
|------------------|------------|-------|---------|---------|------------|--------------------|---------------|------------|----------------|------------|-----------------|------------|----------------|------------|-----------------|------------|--------------------------|
| Birmensdorf | downstream | 14_07 | 43 | 0.033% | 0.033% | 100 | clothianidine | 0.013% | thiacloprid | 0.009% | diclofenac | 0.007% | imidacloprid | 0.002% | Cr | 0.001% | 0.002% |
| Birmensdorf | upstream1 | 14_07 | 43 | 0.018% | 0.018% | 100 | clothianidine | 0.012% | thiacloprid | 0.005% | Cr | 0.0003% | | | | | 0.000% |
| Ellikon | downstream | 14_07 | 43 | 0.082% | 0.082% | 100 | clothianidine | 0.025% | diazinon | 0.013% | imidacloprid | 0.011% | diclofenac | 0.011% | terbutylazine | 0.008% | 0.008% |
| Ellikon | upstream1 | 14_07 | 43 | 0.048% | 0.048% | 100 | clothianidine | 0.027% | terbutylazine | 0.007% | imidacloprid | 0.004% | thiacloprid | 0.003% | diazinon | 0.002% | 0.002% |
| Elgg | downstream | 14_07 | 43 | 0.041% | 0.041% | 100 | clothianidine | 0.022% | terbutylazine | 0.010% | diclofenac | 0.003% | diazinon | 0.002% | Zn | 0.002% | 0.003% |
| Elgg | upstream1 | 14_07 | 43 | 0.034% | 0.034% | 100 | clothianidine | 0.022% | terbutylazine | 0.010% | Cr | 0.001% | Ag | 0.0002% | | | 0.001% |
| Knonau | downstream | 14_07 | 43 | 0.021% | 0.021% | 100 | clothianidine | 0.013% | diclofenac | 0.003% | terbutrin | 0.002% | Cr | 0.001% | Zn | 0.0003% | 0.001% |
| Knonau | upstream1 | 14_07 | 43 | 0.014% | 0.014% | 100 | clothianidine | 0.012% | Cr | 0.001% | diuron | 0.0002% | terbutrin | 0.0002% | terbutylazine | 0.0001% | 0.001% |
| Marthalen | downstream | 14_07 | 43 | 0.052% | 0.052% | 100 | diclofenac | 0.015% | fipronil | 0.013% | diazinon | 0.012% | imidacloprid | 0.003% | dimethoat | 0.001% | 0.001% |
| Marthalen | upstream1 | 14_07 | 43 | 0.003% | 0.003% | 100 | dimethoat | 0.002% | terbutylazine | 0.001% | Cr | 0.000% | Cd | 0.0002% | Ni | 0.0001% | 0.001% |
| Muri | downstream | 14_07 | 43 | 0.279% | 0.269% | 96 | diazinon | 0.144% | dimethoat | 0.076% | clothianidine | 0.028% | diclofenac | 0.013% | isoproturon | 0.003% | 0.003% |
| Muri | upstream1 | 14_07 | 43 | 0.028% | 0.028% | 100 | clothianidine | 0.026% | Cr | 0.001% | Cd | 0.0002% | thiamethoxam | 0.0001% | | | 0.001% |
| Reinach | downstream | 14_07 | 43 | 0.030% | 0.030% | 100 | diclofenac | 0.013% | clothianidine | 0.009% | diazinon | 0.003% | Zn | 0.002% | terbutrin | 0.001% | 0.003% |
| Reinach | upstream1 | 14_07 | 43 | 0.011% | 0.011% | 100 | clothianidine | 0.009% | Cr | 0.001% | terbutrin | 0.001% | Zn | 0.001% | Ni | 0.0001% | 0.001% |
| Unterehrendingen | downstream | 14_07 | 43 | 0.133% | 0.103% | 77 | diuron | 0.035% | diclofenac | 0.027% | clothianidine | 0.018% | diazinon | 0.016% | thiacloprid | 0.008% | 0.006% |
| Unterehrendingen | upstream1 | 14_07 | 43 | 0.016% | 0.016% | 100 | clothianidine | 0.012% | terbutrin | 0.001% | Cr | 0.001% | diuron | 0.0003% | dimethoat | 0.0002% | 0.001% |
| Val-De-Ruz | downstream | 14_07 | 43 | 0.528% | 0.445% | 84 | diazinon | 0.252% | diclofenac | 0.063% | Ni | 0.058% | Zn | 0.048% | fipronil | 0.025% | 0.108% |
| Val-De-Ruz | upstream1 | 14_07 | 43 | 0.023% | 0.023% | 100 | clothianidine | 0.020% | diazinon | 0.002% | Zn | 0.001% | terbutrin | 0.0002% | Cr | 0.0001% | 0.001% |
| Villeret | downstream | 14_07 | 43 | 0.029% | 0.029% | 100 | diclofenac | 0.015% | Zn | 0.005% | diazinon | 0.004% | fipronil | 0.001% | claritromycine | 0.001% | 0.005% |
| Villeret | upstream1 | 14_07 | 43 | 0.007% | 0.007% | 100 | clothianidine | 0.006% | Zn | 0.001% | | | | | | | 0.001% |
| Zulwil | downstream | 14_07 | 43 | 0.143% | 0.140% | 98 | diazinon | 0.097% | diclofenac | 0.027% | Zn | 0.011% | imidacloprid | 0.004% | pirimicarb | 0.003% | 0.011% |
| Zulwil | upstream1 | 14_07 | 43 | 0.001% | 0.001% | 100 | Ni | 0.0004% | Zn | 0.0003% | Cd | 0.0003% | Cr | 0.0002% | terbutrin | 0.0002% | 0.001% |
| Aadorf | downstream | 14_09 | 43 | 0.185% | 0.172% | 93 | diazinon | 0.104% | diclofenac | 0.042% | diuron | 0.015% | imidacloprid | 0.006% | thiacloprid | 0.005% | 0.004% |
| Aadorf | upstream1 | 14_09 | 43 | 0.0003% | 0.0003% | 100 | Cr | 0.000% | | | | | | | | | 0.000% |
| Birmensdorf | downstream | 14_09 | 43 | 0.040% | 0.040% | 100 | diclofenac | 0.018% | diazinon | 0.008% | imidacloprid | 0.006% | claritromycine | 0.002% | Zn | 0.001% | 0.002% |
| Birmensdorf | upstream1 | 14_09 | 43 | 0.005% | 0.005% | 100 | imidacloprid | 0.004% | Cr | 0.001% | thiamethoxam | 0.0002% | Cd | 0.0001% | | | 0.001% |
| Ellikon | downstream | 14_09 | 43 | 0.036% | 0.036% | 100 | diclofenac | 0.023% | imidacloprid | 0.005% | diazinon | 0.004% | Zn | 0.001% | Cr | 0.001% | 0.002% |
| Ellikon | upstream1 | 14_09 | 43 | 0.001% | 0.001% | 100 | Cr | 0.0005% | Cd | 0.0001% | | | | | | | 0.001% |
| Elgg | downstream | 14_09 | 43 | 0.041% | 0.041% | 100 | diclofenac | 0.027% | imidacloprid | 0.006% | sulfamethoxazol | 0.003% | diazinon | 0.003% | Cr | 0.001% | 0.002% |
| Elgg | upstream1 | 14_09 | 43 | 0.0003% | 0.0003% | 100 | | | | | | | | | | | 0.000% |
| Knonau | downstream | 14_09 | 43 | 0.015% | 0.015% | 100 | diclofenac | 0.006% | diazinon | 0.004% | terbutrin | 0.002% | Zn | 0.001% | sulfamethoxazol | 0.0005% | 0.001% |
| Knonau | upstream1 | 14_09 | 43 | 0.001% | 0.001% | 100 | terbutrin | 0.0002% | terbutylazine | 0.0002% | Cr | 0.0001% | | | | | 0.000% |
| Marthalen | downstream | 14_09 | 43 | 0.027% | 0.027% | 100 | diclofenac | 0.013% | imidacloprid | 0.004% | diazinon | 0.003% | fipronil | 0.001% | terbutrin | 0.001% | 0.001% |
| Marthalen | upstream1 | 14_09 | 43 | 0.0004% | 0.0004% | 100 | Cr | 0.000% | | | | | | | | | 0.000% |
| Muri | downstream | 14_09 | 43 | 0.045% | 0.045% | 100 | diclofenac | 0.019% | claritromycine | 0.008% | diazinon | 0.008% | imidacloprid | 0.003% | Zn | 0.003% | 0.004% |
| Muri | upstream1 | 14_09 | 43 | 0.001% | 0.001% | 100 | Cr | 0.0004% | thiamethoxam | 0.0003% | Ni | 0.0001% | | | | | 0.001% |
| Reinach | downstream | 14_09 | 43 | 0.062% | 0.062% | 100 | diclofenac | 0.033% | diazinon | 0.012% | terbutrin | 0.007% | Zn | 0.005% | claritromycine | 0.004% | 0.005% |
| Reinach | upstream1 | 14_09 | 43 | 0.003% | 0.003% | 100 | terbutrin | 0.002% | Cr | 0.0002% | Ni | 0.0002% | | | | | 0.000% |
| Unterehrendingen | downstream | 14_09 | 43 | 0.094% | 0.094% | 100 | diclofenac | 0.049% | diazinon | 0.017% | terbutrin | 0.010% | imidacloprid | 0.006% | claritromycine | 0.004% | 0.002% |
| Unterehrendingen | upstream1 | 14_09 | 43 | 0.001% | 0.001% | 100 | Cr | 0.001% | | | | | | | | | 0.001% |
| Val-De-Ruz | downstream | 14_09 | 43 | 0.227% | 0.170% | 75 | diclofenac | 0.075% | clothianidine | 0.032% | diazinon | 0.027% | Zn | 0.023% | claritromycine | 0.014% | 0.031% |
| Val-De-Ruz | upstream1 | 14_09 | 43 | 0.051% | 0.051% | 100 | clothianidine | 0.050% | Zn | 0.001% | | | | | | | 0.001% |
| Villeret | downstream | 14_09 | 43 | 0.027% | 0.027% | 100 | diclofenac | 0.019% | diazinon | 0.004% | Zn | 0.002% | fipronil | 0.001% | claritromycine | 0.0004% | 0.002% |
| Villeret | upstream1 | 14_09 | 43 | 0.001% | 0.001% | 100 | Ni | 0.0004% | Zn | 0.0001% | | | | | | | 0.001% |
| Zulwil | downstream | 14_09 | 43 | 0.030% | 0.030% | 100 | diclofenac | 0.013% | claritromycine | 0.004% | diazinon | 0.003% | imidacloprid | 0.003% | Zn | 0.002% | 0.003% |
| Zulwil | upstream1 | 14_09 | 43 | 0.003% | 0.003% | 100 | Ni | 0.002% | Cd | 0.0001% | Cr | 0.0001% | | | | | 0.002% |
| Aadorf | downstream | 14_11 | 43 | 0.206% | 0.196% | 95 | thiacloprid | 0.088% | diclofenac | 0.068% | diazinon | 0.022% | imidacloprid | 0.013% | diuron | 0.005% | 0.004% |
| Aadorf | upstream1 | 14_11 | 43 | 0.001% | 0.001% | 100 | dimethoat | 0.001% | terbutrin | 0.0001% | | | | | | | 0.000% |
| Birmensdorf | downstream | 14_11 | 43 | 0.023% | 0.023% | 100 | diclofenac | 0.023% | claritromycine | 0.002% | Cr | 0.001% | Zn | 0.001% | sulfamethoxazol | 0.0004% | 0.002% |
| Birmensdorf | upstream1 | 14_11 | 43 | 0.001% | 0.001% | 100 | Cr | 0.001% | | | | | | | | | 0.001% |
| Ellikon | downstream | 14_11 | 43 | 0.063% | 0.063% | 100 | diclofenac | 0.042% | imidacloprid | 0.006% | claritromycine | 0.003% | diazinon | 0.003% | Zn | 0.003% | 0.003% |
| Ellikon | upstream1 | 14_11 | 43 | 0.001% | 0.001% | 100 | Cr | 0.001% | isoproturon | 0.0003% | | | | | | | 0.001% |

| SiteName | LMR | Year | n Subst | msPAF | Top5 msPAF | %Tox Top5 Of Total | Name Subst1 | PAF Subst1 | Name Subst2 | PAF Subst2 | Name Subst3 | PAF Subst3 | Name Subst4 | PAF Subst4 | Name Subst5 | PAF Subst5 | msPAF - only HeavyMetals |
|------------------|------------|-------|---------|---------|------------|--------------------|---------------|------------|----------------|------------|----------------|------------|-----------------|------------|-----------------|------------|--------------------------|
| Elgg | downstream | 14_11 | 43 | 0.150% | 0.142% | 95 | diclofenac | 0.082% | diazinon | 0.049% | imidacloprid | 0.006% | diuron | 0.003% | sulfamethoxazol | 0.002% | 0.003% |
| Elgg | upstream1 | 14_11 | 43 | 0.001% | 0.001% | 100 | Cr | 0.001% | diclofenac | 0.0001% | | | | | | | 0.001% |
| Knonau | downstream | 14_11 | 43 | 0.032% | 0.032% | 100 | diclofenac | 0.013% | terbutrin | 0.010% | claritromycine | 0.004% | sulfamethoxazol | 0.002% | Zn | 0.001% | 0.001% |
| Knonau | upstream1 | 14_11 | 43 | 0.0004% | 0.0004% | 100 | Cr | 0.0003% | | | | | | | | | 0.000% |
| Marthalen | downstream | 14_11 | 43 | 0.136% | 0.130% | 95 | diclofenac | 0.066% | dimethoat | 0.029% | fipronil | 0.012% | diazinon | 0.012% | imidacloprid | 0.008% | 0.001% |
| Marthalen | upstream1 | 14_11 | 43 | 0.0003% | 0.0003% | 100 | Cr | 0.0001% | | | | | | | | | 0.000% |
| Muri | downstream | 14_11 | 43 | 0.051% | 0.051% | 100 | diclofenac | 0.039% | Zn | 0.006% | claritromycine | 0.003% | terbutrin | 0.002% | Cr | 0.0005% | 0.006% |
| Muri | upstream1 | 14_11 | 43 | 0.0001% | 0.0001% | 100 | | | | | | | | | | | 0.000% |
| Reinach | downstream | 14_11 | 43 | 0.036% | 0.036% | 100 | diclofenac | 0.028% | claritromycine | 0.003% | diazinon | 0.002% | Zn | 0.001% | terbutrin | 0.001% | 0.002% |
| Reinach | upstream1 | 14_11 | 43 | 0.0003% | 0.0003% | 100 | Cr | 0.0002% | | | | | | | | | 0.000% |
| Unterehrendingen | downstream | 14_11 | 43 | 0.103% | 0.092% | 90 | diclofenac | 0.052% | Zn | 0.016% | diazinon | 0.011% | dimethoat | 0.007% | diuron | 0.004% | 0.017% |
| Unterehrendingen | upstream1 | 14_11 | 43 | 0.006% | 0.006% | 100 | Zn | 0.005% | Cr | 0.0005% | diuron | 0.0004% | | | | | 0.005% |
| Val-De-Ruz | downstream | 14_11 | 43 | 0.172% | 0.150% | 88 | diclofenac | 0.057% | clothianidine | 0.041% | Zn | 0.029% | diazinon | 0.015% | imidacloprid | 0.008% | 0.030% |
| Val-De-Ruz | upstream1 | 14_11 | 43 | 0.065% | 0.065% | 100 | clothianidine | 0.062% | Zn | 0.002% | Cr | 0.0003% | | | | | 0.002% |
| Villeret | downstream | 14_11 | 43 | 0.032% | 0.032% | 100 | diclofenac | 0.019% | Zn | 0.006% | diazinon | 0.004% | claritromycine | 0.002% | sulfamethoxazol | 0.0004% | 0.005% |
| Villeret | upstream1 | 14_11 | 43 | 0.001% | 0.001% | 100 | Zn | 0.0003% | Cd | 0.0003% | | | | | | | 0.001% |
| Zulwil | downstream | 14_11 | 43 | 0.024% | 0.024% | 100 | diclofenac | 0.017% | Zn | 0.005% | claritromycine | 0.002% | Cr | 0.0003% | Cd | 0.0002% | 0.005% |
| Zulwil | upstream1 | 14_11 | 43 | 0.001% | 0.001% | 100 | Zn | 0.0004% | Cr | 0.0002% | | | | | | | 0.001% |
| Aadorf | downstream | 15_01 | 43 | 0.065% | 0.065% | 100 | diuron | 0.017% | clothianidine | 0.013% | diclofenac | 0.013% | thiacloprid | 0.008% | Zn | 0.005% | 0.009% |
| Aadorf | upstream1 | 15_01 | 43 | 0.018% | 0.018% | 100 | clothianidine | 0.011% | Ni | 0.005% | Cr | 0.001% | Zn | 0.0002% | | | 0.006% |
| Birmensdorf | downstream | 15_01 | 43 | 0.065% | 0.065% | 100 | pirimicarb | 0.033% | diclofenac | 0.018% | Zn | 0.005% | claritromycine | 0.004% | Ni | 0.003% | 0.009% |
| Birmensdorf | upstream1 | 15_01 | 43 | 0.004% | 0.004% | 100 | Ni | 0.003% | Cr | 0.001% | Zn | 0.001% | Cd | 0.0002% | | | 0.004% |
| Ellikon | downstream | 15_01 | 43 | 0.067% | 0.067% | 100 | clothianidine | 0.048% | Ni | 0.008% | diclofenac | 0.005% | Zn | 0.003% | Cr | 0.001% | 0.013% |
| Ellikon | upstream1 | 15_01 | 43 | 0.062% | 0.062% | 100 | clothianidine | 0.052% | Ni | 0.007% | Cr | 0.001% | Zn | 0.001% | Cd | 0.0003% | 0.009% |
| Elgg | downstream | 15_01 | 43 | 0.018% | 0.018% | 100 | diclofenac | 0.010% | Ni | 0.003% | Zn | 0.002% | claritromycine | 0.001% | Cr | 0.001% | 0.006% |
| Elgg | upstream1 | 15_01 | 43 | 0.019% | 0.019% | 100 | clothianidine | 0.013% | Ni | 0.005% | Cr | 0.001% | Zn | 0.0002% | diclofenac | 0.0002% | 0.006% |
| Knonau | downstream | 15_01 | 43 | 0.039% | 0.039% | 100 | diclofenac | 0.018% | Zn | 0.013% | Ni | 0.003% | claritromycine | 0.002% | Cr | 0.001% | 0.017% |
| Knonau | upstream1 | 15_01 | 43 | 0.044% | 0.044% | 100 | Zn | 0.033% | Cr | 0.007% | Ni | 0.004% | | | | | 0.044% |
| Marthalen | downstream | 15_01 | 43 | 0.044% | 0.044% | 100 | clothianidine | 0.025% | Ni | 0.008% | diclofenac | 0.007% | Zn | 0.002% | claritromycine | 0.001% | 0.010% |
| Marthalen | upstream1 | 15_01 | 43 | 0.040% | 0.040% | 100 | clothianidine | 0.029% | Ni | 0.010% | Zn | 0.001% | Cr | 0.0002% | | | 0.011% |
| Muri | downstream | 15_01 | 43 | 0.170% | 0.162% | 96 | diazinon | 0.112% | diclofenac | 0.028% | clothianidine | 0.015% | Zn | 0.005% | Ni | 0.003% | 0.009% |
| Muri | upstream1 | 15_01 | 43 | 0.019% | 0.019% | 100 | clothianidine | 0.016% | Ni | 0.003% | Cr | 0.0002% | | | | | 0.003% |
| Reinach | downstream | 15_01 | 43 | 0.040% | 0.040% | 100 | diclofenac | 0.023% | claritromycine | 0.008% | Ni | 0.005% | Zn | 0.003% | terbutrin | 0.001% | 0.008% |
| Reinach | upstream1 | 15_01 | 43 | 0.006% | 0.006% | 100 | Ni | 0.005% | Cr | 0.0003% | terbutrin | 0.0002% | Zn | 0.002% | | | 0.006% |
| Unterehrendingen | downstream | 15_01 | 43 | 0.153% | 0.150% | 98 | clothianidine | 0.106% | diazinon | 0.021% | diclofenac | 0.012% | Zn | 0.003% | Ni | 0.003% | 0.01% |
| Unterehrendingen | upstream1 | 15_01 | 43 | 0.125% | 0.125% | 100 | clothianidine | 0.116% | Ni | 0.004% | Zn | 0.002% | terbutrin | 0.001% | Cr | 0.0004% | 0.006% |
| Val-De-Ruz | downstream | 15_01 | 43 | 0.075% | 0.075% | 100 | clothianidine | 0.058% | Ni | 0.006% | diclofenac | 0.005% | claritromycine | 0.003% | Zn | 0.002% | 0.009% |
| Val-De-Ruz | upstream1 | 15_01 | 43 | 0.073% | 0.073% | 100 | clothianidine | 0.065% | Ni | 0.007% | Zn | 0.001% | Cr | 0.0002% | | | 0.008% |
| Villeret | downstream | 15_01 | 43 | 0.012% | 0.012% | 100 | Ni | 0.004% | diclofenac | 0.004% | Zn | 0.003% | claritromycine | 0.0004% | Cr | 0.0004% | 0.008% |
| Villeret | upstream1 | 15_01 | 43 | 0.005% | 0.005% | 100 | Ni | 0.004% | Zn | 0.001% | Cd | 0.0002% | | | | | 0.005% |
| Zulwil | downstream | 15_01 | 43 | 0.015% | 0.015% | 100 | Ni | 0.009% | Zn | 0.003% | diclofenac | 0.002% | Cr | 0.001% | Cd | 0.0002% | 0.013% |
| Zulwil | upstream1 | 15_01 | 43 | 0.005% | 0.005% | 100 | Ni | 0.003% | Zn | 0.001% | Cr | 0.0003% | terbutrin | 0.0002% | diuron | 0.0001% | 0.004% |