

Supplementary material for

**The distribution of veterinary antibiotics in the river system in a
livestock-producing region and interactions between different
phases**

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8 Table S1 MRM parameters of the antibiotics analyzed in this study

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10 Table S2 Recoveries and limit of detection/quantification in water, sediment and
11 suspended particulate matter

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15 **Table S1** MRM parameters of the antibiotics analyzed in this study

| Compound | Q1 | Q3 | DP | CE |
|----------------------|-------|-------------|----|-------|
| Tetracycline | 445.2 | 154.2/410.2 | 65 | 37/25 |
| Oxytetracycline | 461.1 | 426.2/443.3 | 55 | 28/23 |
| Tetracycline -D6 | 451.2 | 416.2/160.1 | 50 | 35/28 |
| Ofloxacin | 362.1 | 261.3/318.4 | 85 | 40/28 |
| Enrofloxacin | 360.3 | 245.2/316.3 | 45 | 25/35 |
| Enrofloxacin -D5 | 365.3 | 245.1/288.2 | 55 | 40/35 |
| Sulfadiazine | 251.2 | 92.1/156.1 | 65 | 35/23 |
| Sulfamethoxazole | 254.2 | 92.1/156.1 | 65 | 35/22 |
| Sulfamethoxazole -D4 | 283.3 | 186.2/124.2 | 60 | 40/20 |

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Table S2 Recoveries and limit of detection/quantification in water, sediment and suspended particulate matter

| Compound | Water | | | | Sediment | | | | Suspended particle matter | | | |
|------------------|------------------|------------------|----------|------------------|----------|--------|----------|----------|---------------------------|--------|----------|----------|
| | LOD ^a | LOQ ^b | Recovery | RSD ^c | LOD | LOQ | Recovery | RSD | LOD | LOQ | Recovery | RSD |
| | (ng/L) | (ng/L) | (%) | (%, n=3) | (ng/g) | (ng/g) | (%) | (%, n=3) | (ng/g) | (ng/g) | (%) | (%, n=3) |
| Sulfadiazine | 0.03 | 0.10 | 95.7 | 3.9 | 2.33 | 7.75 | 56.0 | 6.2 | 0.72 | 2.37 | 82.1 | 5.5 |
| Sulfamethoxazole | 2.12 | 7.07 | 84.0 | 6.4 | 0.92 | 3.06 | 61.3 | 4.3 | 1.01 | 3.32 | 79.2 | 7.8 |
| Tetracycline | 0.12 | 0.40 | 71.7 | 12.5 | 0.30 | 1.00 | 68.0 | 7.1 | 0.46 | 1.52 | 83.9 | 3.5 |
| Oxytetracycline | 2.17 | 7.18 | 68.0 | 7.3 | 0.34 | 1.13 | 71.3 | 4.9 | 0.95 | 3.14 | 77.2 | 4.4 |
| Ofloxacin | 0.11 | 0.34 | 81.0 | 9.1 | 0.12 | 0.40 | 79.1 | 10.2 | 0.21 | 0.70 | 83.0 | 6.1 |
| Enrofloxacin | 0.52 | 1.72 | 80.3 | 7.9 | 0.13 | 0.41 | 81.3 | 6.6 | 0.24 | 0.80 | 92.6 | 10.2 |

^a LOD: Limit of detection; ^b LOQ: Limit of quantification; ^c RSD: Relative standard deviation

