

Supplementary Materials

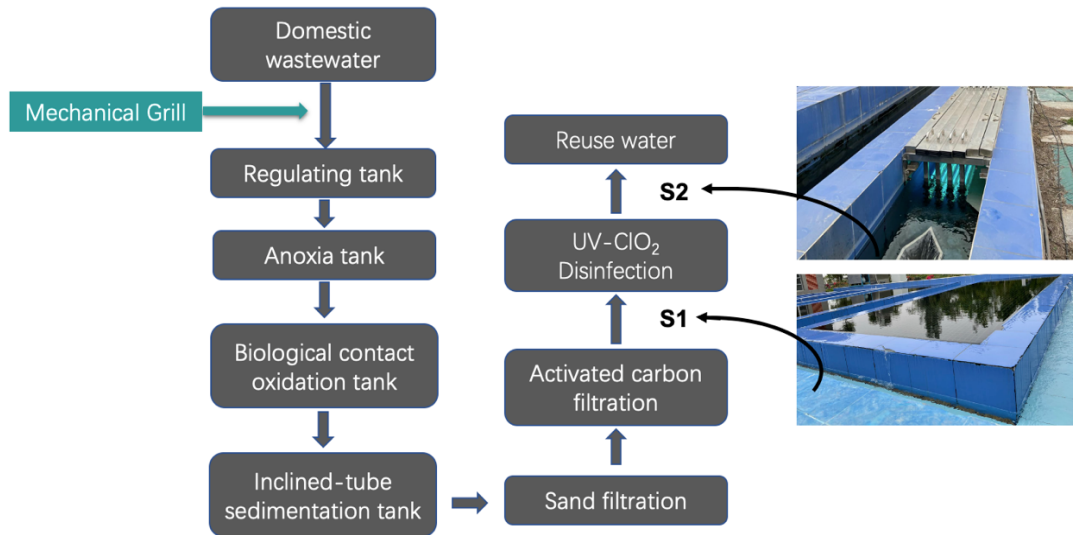


Fig. S1 Reuse water treatment process. Photographs of S1 (undisinfecting reclaimed water) and S2 (UV-CIO₂ effluent). Designed daily sewage treatment: 3000 tons

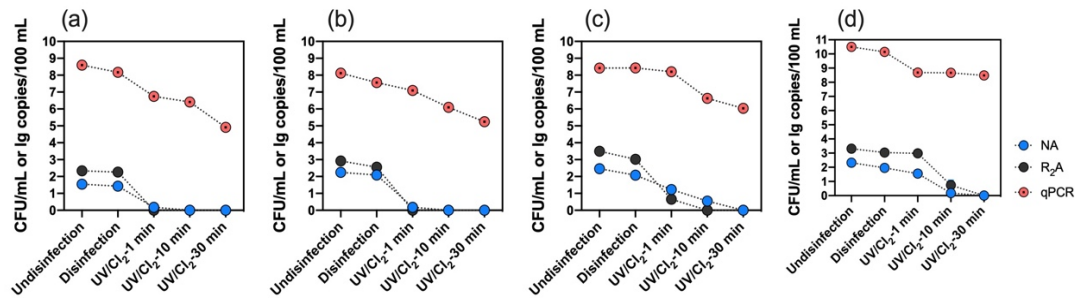


Fig. S2 Enumeration of the total bacteria with UV-CIO₂ and UV/chlorine treatments. (a) spring samples; (b) summer samples; (c) autumn samples; (d) winter samples. Culturable cells were detected with NA and R₂A. Total cells were detected with qPCR

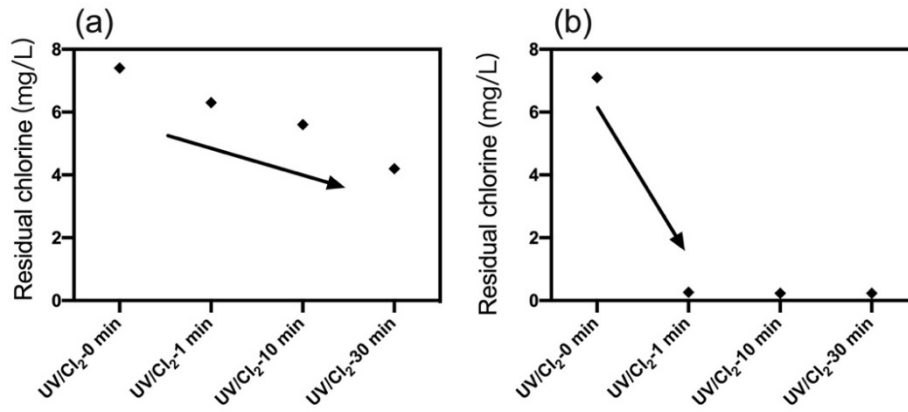


Fig. S3 Chlorine decay in reaction system. (a) spring samples; (b) winter samples

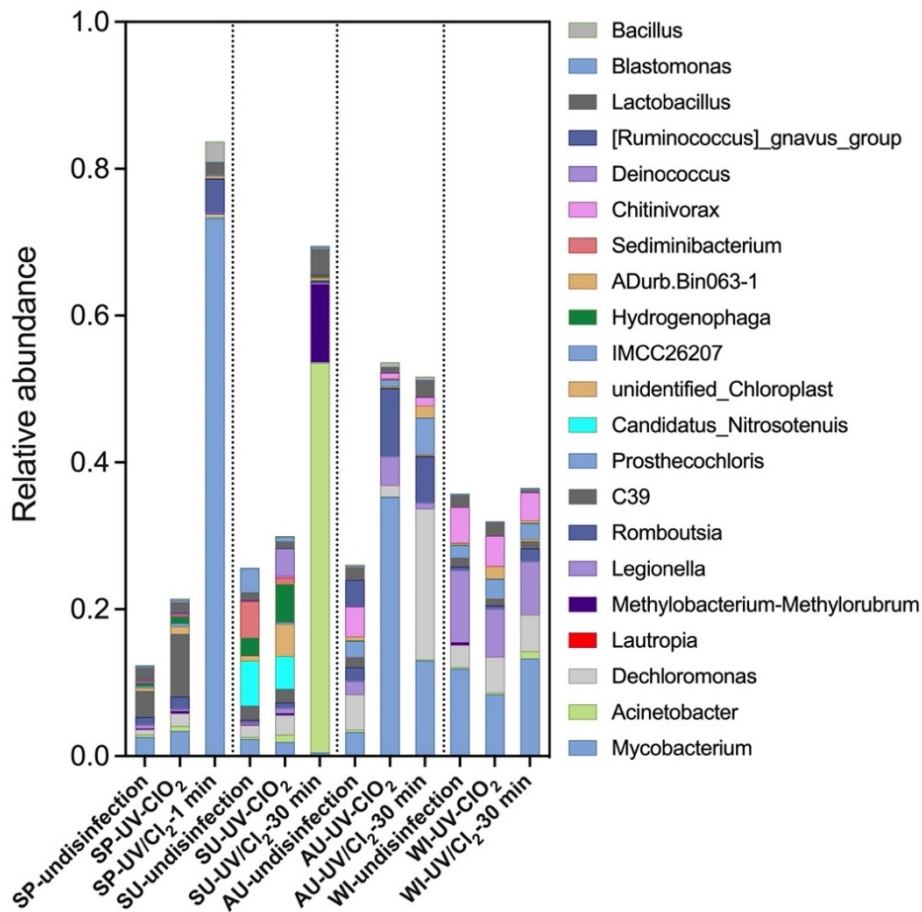


Fig. S4 Relative abundances of bacterial genus with UV-ClO₂ and UV/chlorine treatments. SP: spring samples; SU: summer samples; AU: autumn samples; WI: winter samples

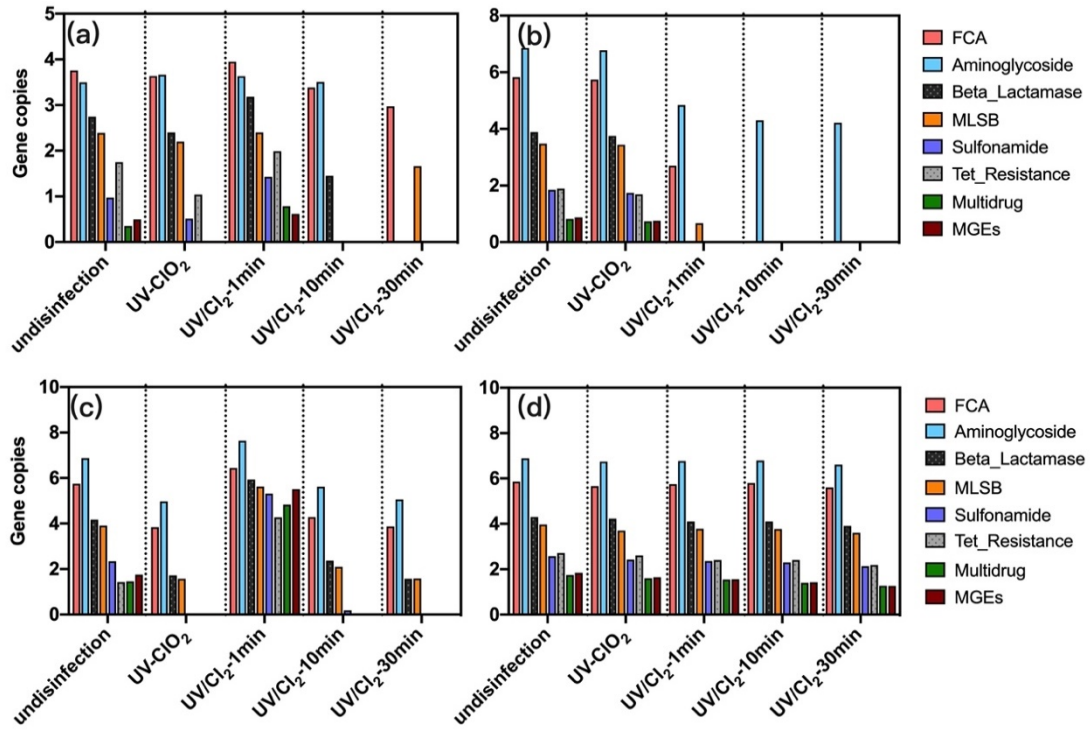


Fig. S5 Absolute abundance of ARGs and MGEs of undisinfected reclaimed water, UV-CIO₂ effluent, UV/Cl₂-1 min, UV/Cl₂-10 min, and UV/Cl₂-30 min

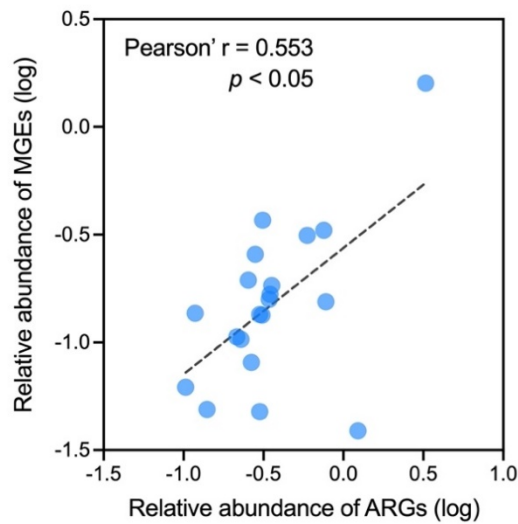


Fig. S6 Correlations between the relative abundances of ARGs and MGEs for all seasons. All data were log-transformed

Table S1 Primers, threshold cycle, and standard curves of qPCR

Target microorganism	Primers	Threshold cycle	Standard curves (y = Ct, x = gene copies No.)
<i>Pseudomonas aeruginosa</i>	F-ATGGAAATGCTGAAATTCGGC R-CTTCTTCAGCTCGACGCGACG	29.33	$y = -3.600x + 43.829$
<i>Staphylococcus aureus</i>	F-GAAAGGGCAATACGCAAAGA R-TAGCCAAGCCTTGACGAACT	27.49	$y = -3.618x + 43.089$
<i>Salmonella</i> spp.	F-GTGAAATTATCGCCACGTTTCGGGCAA R-TCATCGCACCGTCAAAGGAACC	29.76	$y = -3.339x + 37.245$
<i>Yersinia</i> sp	F-CGGCAGCGGGAAGTAGTTT R-GCCATTACCCACCTACTAGCTAA	19.63	$y = -2.111x + 25.186$
<i>Shigella</i> sp.	F-TGGGAAGCGAAAATCCTG R-CAGTACAGGTAGACTTCTG	25.62	$y = -3.123x + 34.288$
<i>Vibrio cholerae</i>	F-GAATTATTGGCTCCTGTGCAGG R-ATCGCTTGGCGCATCACTGCCC	29.12	$y = -3.118x + 35.865$
<i>Legionella</i> spp.	F-AGGGTTGATAGGTTAAGAGC R-CCAACAGCTAGTTGACATCG	23.14	$y = -2.931x + 30.697$
<i>Mycobacterium avium</i>	F-ACCAACGATGGTGTGTCCAT R-CTTGTCGAACCGCATAACCCT	22.48	$y = -3.023x + 29.976$
<i>Escherichia coli</i>	F-CAGGAAGGTGCATTAGTAAACTGG R-CTTAACAAAATCGCATGGGC	28.94	$y = -3.526x + 43.262$
Total bacteria (16S rRNA)	F-CCTACGGGAGGCAGCAG R-ATTACCGCGGCTGCTGG	26.84	$y = -3.435x + 52.991$

Table S2 Standard curves of specific gene copies and viable cell numbers after serial dilutions by qPCR

Target microorganism	Standard curves
<i>Escherichia coli</i>	$y = 0.954x + 2.76$, $R^2 = 0.93$, $x = \log(\text{CFU/mL})$, $y = \log(\text{copies/mL})$
<i>Pseudomonas aeruginosa</i>	$y = 0.834x + 3.45$, $R^2 = 0.98$, $x = \log(\text{CFU/mL})$, $y = \log(\text{copies/mL})$
<i>Shigella</i> spp.	$y = 0.946x + 1.28$, $R^2 = 0.99$, $x = \log(\text{CFU/mL})$, $y = \log(\text{copies/mL})$
<i>Staphylococcus aureus</i>	$y = 0.872x + 1.15$, $R^2 = 0.99$, $x = \log(\text{CFU/mL})$, $y = \log(\text{copies/mL})$

Table S3 Primers of HT-qPCR and target classification. Target gene designations were found by BLAST on the ARDB or National Center for Biotechnology Information (NCBI) databases.

FCA = fluoroquinolone, quinolone, florfenicol, chloramphenicol, and amphenicol resistance genes. MLSB = Macrolide-Lincosamide-Streptogramin B resistance genes

Gene Name	Forward Primer	Reverse Primer	Gene Classification	Mechanism
16S rRNA	GGGTTGCGCTCGTTGC	ATGGYTGTCGTCAGCTCGTG	16S rRNA	NA
<i>aac</i>	CCCTGCGTTGTGGCTATGT	TTGGCCACGCCAATCC	Aminoglycoside	deactivate
<i>aac(6')-Ib(aka aacA4)-01</i>	GTTTGAGAGGCAAGGTACCGTAA	GAATGCCTGGCGTGTGTTGA	Aminoglycoside	deactivate
<i>aac(6')-Ib(aka aacA4)-02</i>	CGTCGCCGAGCAACTTG	CGGTACCTTGCTCTCAAACC	Aminoglycoside	deactivate
<i>aac(6')-Ib(aka aacA4)-03</i>	AGAAGCACGCCCGACACTT	GCTCTCCATTCAGCATTGCA	Aminoglycoside	deactivate
<i>aac(6')-II</i>	CGACCCGACTCCGAACAA	GCACGAATCCTGCCTTCTCA	Aminoglycoside	deactivate
<i>aac(6')I1</i>	GACCGGATTAAGGCCGATG	CTTGCCTTGATATTCAGTTTTTATAACCA	Aminoglycoside	deactivate
<i>aac(6')-Iy</i>	GCTTTGCGGATGCCTCAAT	GGAGAACAAAAATACCTTCAAGGAAA	Aminoglycoside	deactivate
<i>aacA/aphD</i>	AGAGCCTTGGAAGATGAAGTTT	TTGATCCATACCATAGACTATCTCATCA	Aminoglycoside	deactivate
<i>aacC</i>	CGTCACTTATTTCGATGCCCTTAC	GTCGGGCGCGGCATA	Aminoglycoside	deactivate
<i>aacC1</i>	GGTCGTGAGTTCGGAGACGTA	GCAAGTCCCGAGGTAATCG	Aminoglycoside	deactivate
<i>aacC2</i>	ACGGCATTCTCGATTGCTTT	CCGAGCTTCACGTAAGCATT	Aminoglycoside	deactivate
<i>aacC4</i>	CGGCGTGGGACACGAT	AGGGAACCTTTGCCATCAACT	Aminoglycoside	deactivate
<i>aadA-01</i>	GTTGTGCACGACGACATCATT	GGCTCGAAGATACCTGCAAGAA	Aminoglycoside	deactivate
<i>aadA-02</i>	CGAGATTCTCCGCGCTGTA	GCTGCCATTCTCCAAATTGC	Aminoglycoside	deactivate
<i>aadA1</i>	AGCTAAGCGCGAACTGCAAT	TGGCTCGAAGATACCTGCAA	Aminoglycoside	deactivate
<i>aadA-1-01</i>	AAAAGCCCGAAGAGGAACTTG	CATCTTTCACAAAGATGTTGCTGTCT	Aminoglycoside	deactivate

<i>aadA-1-02</i>	CGGAATTGAAAAAACTGATCGAA	ATACCGGCTGTCCGTCATTT	Aminoglycoside	deactivate
<i>aadA2-01</i>	ACGGCTCCGAGTGGAT	GGCCACAGTAACCAACAAATCA	Aminoglycoside	deactivate
<i>aadA2-02</i>	CTTGTCGTGCATGACGACATC	TCGAAGATACCCGCAAGAATG	Aminoglycoside	deactivate
<i>aadA2-03</i>	CAATGACATTCTTGCGGGTATC	GACCTACCAAGGCAACGCTATG	Aminoglycoside	deactivate
<i>aadA5-01</i>	ATCACGATCTTGCGATTTTGCT	CTGCGGATGGGCTAGAAG	Aminoglycoside	deactivate
<i>aadA5-02</i>	GTTCTTGCTCTTGCTCGCATT	GATGCTCGGCAGGCAAAC	Aminoglycoside	deactivate
<i>aadA9-01</i>	CGCGGCAAGCCTATCTTG	CAAAATCAGCGACCGCAGACT	Aminoglycoside	deactivate
<i>aadA9-02</i>	GGATGCACGCTTGATGAA	CCTCTAGCGCCGAGTATT	Aminoglycoside	deactivate
<i>aadD</i>	CCGACAACATTTCTACCATCCTT	ACCGAAGCGCTCGTCGTATA	Aminoglycoside	deactivate
<i>aadE</i>	TACCTTATTGCCCTTGGAAGAGTTA	GGAACTATGTCCCTTTTAATTCTACAATCT	Aminoglycoside	deactivate
<i>acrA-01</i>	CAACGATCGGACGGGTTTC	TGGCGATGCCACCGTACT	FCA	efflux
<i>acrA-02</i>	GGTCTATCACCTACGCGCTATC	GCGCGCACGAACATAACC	FCA	efflux
<i>acrA-04</i>	TACTTTGCGCGCCATCTTC	CGTGCGCGAACGAACAT	FCA	efflux
<i>acrA-05</i>	CGTGCGCGAACGAACA	ACTTTGCGCGCCATCTTC	FCA	efflux
<i>acrB-01</i>	AGTCGGTGTTCGCCGTTAAC	CAAGGAAACGAACGCAATACC	FCA	efflux
<i>acrF</i>	GCGGCCAGGCACAAAA	TACGCTCTCCCACGGTTTC	FCA	efflux
<i>acrR-01</i>	GCGCTGGAGACACGACAAC	GCCTTGCTGCGAGAACAAA	other/efflux	efflux
<i>acrR-02</i>	GATGATACCCCCTGCTGTGAGA	ACCAAACAAGAAGCGCAAGAA	other/efflux	efflux
<i>adeA</i>	CAGTTCGAGCGCCTATTTCTG	CGCCCTGACCGACCAAT	FCA	efflux
<i>acrA-03</i>	CAGACCCGCATCGCATATT	CGACAATTTGCGGCTCATG	FCA	efflux
<i>ampC-01</i>	TGGCGTATCGGGTCAATGT	CTCCACGGGCCAGTTGAG	Beta-lactam	deactivate
<i>ampC-02</i>	GCAGCACGCCCCGTAA	TGTACCCATGATGCGGCTACT	Beta-lactam	deactivate
<i>ampC-04</i>	TCCGGTGACGCGACAGA	CAGCACGCCGGTGAAAGT	Beta-lactam	deactivate
<i>ampC-05</i>	CTGTTTCGAGCTGGGTTCTATAAGTAAA	CAGTATCTGGTACC GGATCGT	Beta-lactam	deactivate
<i>ampC-06</i>	CCGCTCAAGCTGGACCATAC	CCATATCCTGCACGTTGGTTT	Beta-lactam	deactivate
<i>ampC-07</i>	CCGCCCAGAGCAAGGACTA	GCTCGACTTCACGCCGTAAG	Beta-lactam	deactivate

<i>ampC-09</i>	CAGCCGCTGATGAAAAAATATG	CAGCGAGCCCACTTCGA	Beta-lactam	deactivate
<i>ampC/blaDHA</i>	TGGCCGCAGCAGAAAAGA	CCGTTTTATGCACCCAGGAA	Beta-lactam	deactivate
<i>aph</i>	TTTCAGCAAGTGGATCATGTAAAAT	CCAAGCTGTTTCCACTGTTTTTC	Aminoglycoside	deactivate
<i>aph(2')-Id-01</i>	TGAGCAGTATCATAAGTTGAGTAAAAAG	GACAGAACAATCAATCTCTATGGAATG	Aminoglycoside	deactivate
<i>aph6ia</i>	CCCATCCCATGTGTAAGGAAA	GCCACCGCTTCTGCTGTAC	Aminoglycoside	deactivate
<i>aphA1(aka kanR)</i>	TGAACAAGTCTGAAAGAAATGCA	CCTATTAATTTCCCCTCGTCAAAAA	Aminoglycoside	deactivate
<i>bacA-01</i>	CGGCTTCGTGACCTCGTT	ACAATGCGATAACCAGGCAAAAT	other/efflux	deactivate
<i>bacA-02</i>	TTCCACGACACGATTAAGTCATTG	CGGCTCTTTCGGCTTCAG	other/efflux	deactivate
<i>bla1</i>	GCAAGTTGAAGCGAAAAGAAAAGA	TACCAGTATCAATCGCATATACACCTAA	Beta-lactam	deactivate
<i>bla-ACC-1</i>	CACACAGCTGATGGCTTATCTAAAA	AATAAACGCGATGGGTTC	Beta-lactam	deactivate
<i>blaCMY</i>	CCGCGGCGAAAATTAAGC	GCCACTGTTTGCCTGTGCTAGTT	Beta-lactam	deactivate
<i>blaCMY2-01</i>	AAAGCCTCAT GGGTGCATAAA	ATAGCTTTTTGTTTGCCAGCATCA	Beta-lactam	deactivate
<i>blaCMY2-02</i>	GCGAGCAGCCTGAAGCA	CGGATGGGCTTGCTCCTTT	Beta-lactam	deactivate
<i>blaCTX-M-01</i>	GGAGGCGTGACGGCTTTT	TTCAGTGCGATCCAGACGAA	Beta-lactam	deactivate
<i>blaCTX-M-02</i>	GCCGCGGTGCTGAAGA	ATCGGATTATAGTTAACCAGGTCAGATTT	Beta-lactam	deactivate
<i>blaCTX-M-03</i>	CGATACCACCACGCCGTTA	GCATTGCCAACGTCAGATT	Beta-lactam	deactivate
<i>blaCTX-M-04</i>	CTTGGCGTTGCGCTGAT	CGTTCATCGGCACGGTAGA	Beta-lactam	deactivate
<i>blaCTX-M-05</i>	GCGATAACGTGGCGATGAAT	GTCGAGACGGAACGTTTCGT	Beta-lactam	deactivate
<i>blaCTX-M-06</i>	CACAGTTGGTGACGTGGCTTAA	CTCCGCTGCCGGTTTTATC	Beta-lactam	deactivate
<i>blaGES</i>	GCAATGTGCTCAACGTTCAAG	GTGCCCTGAGTCAATTCTTTCAAAG	Beta-lactam	deactivate
<i>blaIMP-01</i>	AACACGGTTTTGGTGGTTCTTGTA	GCGCTCCACAAACCAATTG	Beta-lactam	deactivate
<i>bla-L1</i>	CACCGGGTTACCAGCTGAAG	GCGAAGCTGCGCTGTAGTC	Beta-lactam	deactivate
<i>blaMOX/blaCMY</i>	CTATGTCAATGTGCCGAAGCA	GGCTTGCTCCTTTTGAATAGC	Beta-lactam	deactivate
<i>blaOCH</i>	GCGACTTGCGCCGTAT	TTTTCTGCTCGCCATGAG	Beta-lactam	deactivate
<i>blaOKP</i>	GCCGCCATCACCATGAG	GGTGACGTTGTCACCGATCTG	Beta-lactam	deactivate
<i>blaOXA10-01</i>	CGCAATTATCGGCCTAGAAACT	TTGGCTTTCGGTCCCATT	Beta-lactam	deactivate

<i>blaOXA10-02</i>	CGCAATTATCGGCCTAGAAACT	TTGGCTTTCCGTCCCATT	Beta-lactam	deactivate
<i>blaOXA1/blaOXA30</i>	CGGATGGTTTTGAAGGGTTTATTAT	TCTTGGCTTTTATGCTTGATGTTAA	Beta-lactam	deactivate
<i>blaOXY</i>	CGTTCAGGCGGCAGGTT	GCCGCGATATAAGATTTGAGAATT	Beta-lactam	deactivate
<i>blaPAO</i>	CGCCGTACAACCGGTGAT	GAAGTAATGCGGTTCTCCTTTCA	Beta-lactam	deactivate
<i>blaPER</i>	TGCTGGTTGCTGTTTTTGTGA	CCTGCGCAATGATAGCTTCAT	Beta-lactam	deactivate
<i>blaPSE</i>	TTGTGACCTATTCCCCTGTAATAGAA	TGCGAAGCACGCATCATC	Beta-lactam	deactivate
<i>blaROB</i>	GCAAAGGCATGACGATTGC	CGCGCTGTTGTCGCTAAA	Beta-lactam	deactivate
<i>blaSHV-01</i>	TCCCATGATGAGCACCTTTAAA	TTCGTCACCGGCATCCA	Beta-lactam	deactivate
<i>blaSFO</i>	CCGCCGCCATCCAGTA	GGGCCGCCAAGATGCT	Beta-lactam	deactivate
<i>blaSHV-02</i>	CTTCCCATGATGAGCACCTTT	TCCTGCTGGCGATAGTGGAT	Beta-lactam	deactivate
<i>blaTEM</i>	AGCATCTTACGGATGGCATGA	TCCTCCGATCGTTGTCAGAAGT	Beta-lactam	deactivate
<i>blaTLA</i>	ACACTTTGCCATTGCTGTTTATGT	TGCAAATTTGCGCAATAATCTTT	Beta-lactam	deactivate
<i>blaVEB</i>	CCCGATGCAAAGCGTTATG	GAAAGATTCCCTTTATCTATCTCAGACAA	Beta-lactam	deactivate
<i>blaVIM</i>	GCACTTCTCGCGGAGATTG	CGACGGTGATGCGTACGTT	Beta-lactam	deactivate
<i>blaZ</i>	GGAGATAAAGTAACAAATCCAGTTAGATATGA	TGCTTAATTTTCCATTTGCGATAAG	Beta-lactam	deactivate
<i>catA1</i>	GGGTGAGTTTCACCAGTTTTGATT	CACCTTGTCGCCTTGCGTATA	FCA	deactivate
<i>catB3</i>	GCACTCGATGCCTTCCAAAA	AGAGCCGATCCAAACGTCAT	FCA	deactivate
<i>catB8</i>	CACTCGACGCCTTCCAAAG	CCGAGCCTATCCAGACATCATT	FCA	deactivate
<i>ceoA</i>	ATCAACACGGACCAGGACAAG	GGAAAGTCCGCTCACGATGA	other/efflux	efflux
<i>cepA</i>	AGTTGCGCAGAACAGTCCTCTT	TCGTATCTTGCCCGTCGATAAT	Beta-lactam	deactivate
<i>cfiA</i>	GCAGCGTTGCTGGACACA	GTTCCGGATAAACGTGGTGACT	Beta-lactam	deactivate
<i>cfr</i>	GCAAAATTCAGAGCAAGTTACGAA	AAAATGACTCCCAACCTGCTTTAT	FCA	deactivate
<i>cfxA</i>	TCATTCCCTCGTTCAAGTTTTCAGA	TGCAGCACCAAGAGGAGATGT	Beta-lactam	deactivate
<i>cmeA</i>	GCAGCAAAGAAGAAGCACCAA	AGCAGGGTAAGTAAACTAAGTGGTAAATCT	FCA	efflux
<i>cmlA1-01</i>	TAGGAAGCATCGGAACGTTGAT	CAGACCGAGCACGACTGTTG	FCA	efflux
<i>cmlA1-02</i>	AGGAAGCATCGGAACGTTGA	ACAGACCGAGCACGACTGTTG	FCA	efflux

<i>cmr</i>	CGGCATCGTCAGTGGAATT	CGGTTCCGAAAAAGATGGAA	other/efflux	efflux
<i>cmx(A)</i>	GCGATCGCCATCCTCTGT	TCGACACGGAGCCTTGGT	FCA	efflux
<i>cphA-01</i>	GCGAGCTGCACAAGCTGAT	CGGCCCAGTCGCTCTTC	Beta-lactam	deactivate
<i>cphA-02</i>	GTGCTGATGGCGAGTTTCTG	GGTGTGGTAGTTGGTGTGATCAC	Beta-lactam	deactivate
<i>dfrA1</i>	GGAATGGCCCTGATATTCCA	AGTCTTGCGTCCAACCAACAG	Sulfonamide	deactivate
<i>dfrA12</i>	CCTCTACCGAACCGTCACACA	GCGACAGCGTTGAAACAACACTAC	Sulfonamide	deactivate
<i>emrD</i>	CTCAGCAGTATGGTGGTAAGCATT	ACCAGGCGCCGAAGAAC	other/efflux	efflux
<i>ereA</i>	CCTGTGGTACGGAGAATTCATGT	ACCGCATTCGCTTTGCTT	MLSB	deactivate
<i>ereB</i>	GCTTTATTTACAGGAGGCGGAAT	TTTTAAATGCCACAGCACAGAATC	other/efflux	deactivate
<i>erm(34)</i>	GCGCGTTGACGACGATTT	TGGTCATACTCGACGGCTAGAAC	MLSB	protection
<i>erm(35)</i>	TTGAAAACGATGTTGCATTAAGTCA	TCTATAATCACAACCTAACCATTGAACGT	MLSB	protection
<i>erm(36)</i>	GGCGGACCGACTTGCCAT	TCTGCGTTGACGACGGTTAC	MLSB	protection
<i>ermA</i>	TTGAGAAGGGATTTGCGAAAAG	ATATCCATCTCCACCATTAATAGTAAACC	MLSB	protection
<i>ermA/ermTR</i>	ACATTTTACCAAGGAACCTGTGGAA	GTGGCATGACATAAACCTTCATCA	MLSB	protection
<i>ermB</i>	TAAAGGGCATTTAACGACGAAACT	TTTATACCTCTGTTTGTAGGAATTGAA	MLSB	protection
<i>emrB/qacA</i>	CTTTTCTCTAACCGTACATTATCTACGATAAAA	AGAACGTAGCGACTGATAAAAATGCT	FCA	efflux
<i>ermC</i>	TTTGAAATCGGCTCAGGAAAA	ATGGTCTATTTCAATGGCAGTTACG	MLSB	protection
<i>ermF</i>	CAGCTTTGGTTGAACATTTACGAA	AAATTCCTAAAATCACAACCGACAA	MLSB	protection
<i>ermJ/ermD</i>	GGACTCGGCAATGGTCAGAA	CCCCGAAACGCAATATAATGTT	MLSB	protection
<i>ermK-01</i>	GTTTGATATTGGCATTGTCAGAGAAA	ACCATTGCCGAGTCCACTTT	MLSB	protection
<i>ermT-01</i>	GTTCACTAGCACTATTTTTAATGACAGAAGT	GAAGGGTGTCTTTTTAATACAATTAACGA	MLSB	protection
<i>ermT-02</i>	GTAAAATCCCTAGAGAATACTTTCATCCA	TGAGTGATATTTTGAAGGGTGTCTT	MLSB	protection
<i>ermX</i>	GCTCAGTGGTCCCCATGGT	ATCCCCCGTCAACGTTT	MLSB	protection
<i>ermY</i>	TTGTCTTTGAAAGTGAAGCAACAGT	TAACGCTAGAGAACGATTTGTATTGAG	MLSB	protection
<i>fabK</i>	TTTCAGCTCAGCACTTTGGTCAT	AAGGCATCTTTTTTCAGCCAGTTC	other/efflux	deactivate
<i>floR</i>	ATTGTCTTCACGGTGTCCGTTA	CCGCGATGTCGTCGAACT	FCA	efflux

<i>folA</i>	CGAGCAGTTCCTGCCAAAAG	CCCAGTCATCCGGTTCATAATC	Sulfonamide	deactivate
<i>fosB</i>	TCACTGTAACATAATGAAGCATTAGACCAT	CCATCTGGATCTGTAAAGTAAAGAGATC	other/efflux	deactivate
<i>fosX</i>	GATTAAGCCATATCACTTTAATTGTGAAAG	TCTCCTTCCATAATGCAAATCCA	other/efflux	deactivate
<i>fox5</i>	GGTTTGCCGCTGCAGTTC	GCGGCCAGGTGACCAA	Beta-lactam	deactivate
<i>imiR</i>	CCGGACTAGAGCTTCATGTAAGC	CCCACGCGGTACTCTTGTAAG	other/efflux	unknown
<i>lmrA-01</i>	TCGACGTGACCGTAGTGAACA	CGTGACTACCCAGGTGAGTTGA	MLSB	efflux
<i>lmuA-01</i>	TGACGCTCAACACACTCAAAAA	TTCATGCTTAAGTTCCATACGTGAA	MLSB	deactivate
<i>lmuB-01</i>	TGAACATAATCCCCTCGTTTAAAGAT	TAATTGCCCTGTTTCATCGTAAATAA	MLSB	deactivate
<i>lmuB-02</i>	AAAGGAGAAGGTGACCAATACTCTGA	GGAGCTACGTCAAACAACCAGTT	MLSB	deactivate
<i>IS613</i>	AGGTTCCGACTCAATGCAACA	TTCAGCACATAACCGCCTTGAT	other	transposase
<i>lmuC</i>	TGGTCAATATAACAGATGTAAACCAGATTT	CACCCAGCCACCATCAA	MLSB	deactivate
<i>marR-01</i>	GCGGCGTACTGGTGAAGCTA	TGCCCTGGTCGTTGATGA	other/efflux	efflux
<i>matA/mel</i>	TAGTAGGCAAGCTCGGTGTTGA	CCTGTGCTATTTAAGCCTTGTTTCT	MLSB	efflux
<i>mdt11</i>	ATACAGCAGTGGATATTGGTTTAAATTGT	TGCATAAGGTGAATGTTCCATGA	other/efflux	efflux
<i>mdtA</i>	CCTAACGGGCGTGACTTCA	TTCACCTGTTTCAAGGGTCAAA	MLSB	efflux
<i>mdtE/yhiU</i>	CGTCGGCGCACTCGTT	TCCAGACGTTGTACGGTAACCA	other/efflux	efflux
<i>mecA</i>	GGTTACGGACAAGGTGAAATACTGAT	TGTCTTTTAATAAGTGAGGTGCGTTAATA	Beta-lactam	protection
<i>mefA</i>	CCGTAGCATTGGAACAGCTTTT	AAACGGAGTATAAGAGTGCTGCAA	MLSB	efflux
<i>mepA</i>	ATCGGTCGCTCTTCGTTTAC	ATAAATAGGATCGAGCTGCTGGAT	other/efflux	efflux
<i>mexA</i>	AGGACAACGCTATGCAACGAA	CCGGAAAGGGCCGAAAT	FCA	efflux
<i>mexD</i>	TTGCCACTGGCTTTCATGAG	CACTGCGGAGAACTGTCTGTAGA	FCA	efflux
<i>mexE</i>	GGTCAGCACCGACAAGGTCTAC	AGCTCGACGTACTIONGAGGAACAC	FCA	efflux
<i>mexF</i>	CCGCGAGAAGGCCAAGA	TTGAGTTCGGCGGTGATGA	FCA	efflux
<i>mphA-01</i>	CTGACGCGCTCCGTGTT	GGTGGTGCATGGCGATCT	MLSB	deactivate
<i>mphA-02</i>	TGATGACCCTGCCATCGA	TTCGCGAGCCCCCTCTTC	MLSB	deactivate
<i>mphB</i>	CGCAGCGCTTGATCTTGATG	TTACTGCATCCATACGCTGCTT	MLSB	deactivate

<i>mphC</i>	CGTTTGAAGTACCGAATTGGAAA	GCTGCGGGTTGCCTGTA	MLSB	deactivate
<i>msrA-01</i>	CTGCTAACACAAGTACGATTCCAAAT	TCAAGTAAAGTTGTCTTACCTACACCATT	MLSB	efflux
<i>msrC-01</i>	TCAGACCGGATCGGTTGTC	CCTATTTTTTGGAGTCTTCTCTAATGTT	MLSB	efflux
<i>mtrC-01</i>	GGACGGGAAGATGGTCCAA	CGTAGCGTTCGGTTCGAT	other/efflux	efflux
<i>mtrC-02</i>	CGGAGTCCATCGACCATTG	ATCGTCGGCAAGGAGAATCA	other/efflux	efflux
<i>mtrD-02</i>	GGTCGGCACGCTCTTGTC	TGAAGAATTTGCGCACC ACTAC	other/efflux	efflux
<i>mtrD-03</i>	CCGCCAAGCCGATATAGACA	GGCCGGGTTGCCAAA	other/efflux	efflux
<i>oleC</i>	CCCGGAGTCGATGTTCGA	GCCGAAGACGTACACGAACAG	MLSB	efflux
<i>oprD</i>	ATGAAGTGGAGCGCCATTG	GGCCACGGCGAACTGA	other/efflux	efflux
<i>oprJ</i>	ACGAGAGTGGCGTCGACAA	AAGGCGATCTCGTTGAGGAA	FCA	efflux
<i>pbp</i>	CCGGTGCCATTGGTTTAGA	AAAATAGCCGCCCAAGATT	Beta-lactam	protection
<i>pbp2x</i>	TTTCATAAGTATCTGGACATGGAAGAA	CCAAAGGAAA CTGCTTGAGATTAG	Beta-lactam	protection
<i>Pbp5</i>	GGCGAACTTCTAATTAATCCTATCCA	CGCCGATGACATTCTTCTTATCTT	Beta-lactam	protection
<i>penA</i>	AGACGGTAACGTATAACTTTTTGAAAGA	GCGTG TAGCCGGCAATG	Beta-lactam	protection
<i>pikR1</i>	TCGACATGCGTGACGAGATT	CCGCGAATTAGGCCAGAA	MLSB	protection
<i>pikR2</i>	TCGTGGGCCAGGTGAAGA	TTCCCCTTGCCGGTGAA	MLSB	protection
<i>pmrA</i>	TTTGCAGGTTTTGTTCCCTAATGC	GCAGAGCCTGATTTCTCCTTTG	FCA	efflux
<i>pncA</i>	GCAATCGAGGCGGTGTTG	TTGCCGAGCCAATTCA	other/efflux	unknown
<i>putitive multidrug</i>	AATTTTGCCGATTATTGCTGAAA	GATTGTCATCATTGTTTATCACCAA	other/efflux	efflux
<i>qac</i>	CAATAATAACCGAAATAATAGGGACAAGTT	AATAAGTGTTCTAGTGTTGGCCATAG	other/efflux	efflux
<i>qacA</i>	TGGCAATAGGAGCTATGGTGTTT	AAGGTAACACTATTTTCGGTCCAAATC	other/efflux	efflux
<i>qacA/qacB</i>	TTTAGGCAGCCTCGCTTCA	CCGAATCCAAATAAAACCCAATAA	other/efflux	efflux
<i>qacEdelta1-01</i>	TCGCAACATCCGCATTA AAA	ATGGATTT CAGAAC CAGAGAAAGAAA	other/efflux	efflux
<i>qacEdelta1-02</i>	CCCCTCCGCCGTTGT	CGACCAGACTGCATAAGCAACA	other/efflux	efflux
<i>qacH-01</i>	GTGGCAGCTATCGCTTGAT	CCAACGAACGCCACAA	other/efflux	efflux
<i>qacH-02</i>	CATCGTGCTTGTGGCAGCTA	TGAACGCC CAGAAGTCTAGTTTT	other/efflux	efflux

<i>qnrA</i>	AGGATTTCTCACGCCAGGATT	CCGCTTTCAATGAAACTGCAA	FCA	unknown
<i>rarD-02</i>	TGACGCATCGCGTGATCT	AAATTTTCTGTGGCGTCTGAATC	other/efflux	efflux
<i>sat4</i>	GAATGGGCAAAGCATAAAAACTTG	CCGATTTTGAAACCACAATTATGATA	other/efflux	deactivate
<i>sdeB</i>	CACTACCGCTTCCGCACTTAA	TGAAAAAACGGGAAAAGTCCAT	other/efflux	efflux
<i>sdeB-ampC-03</i>	AACAAAAGATCCCCGGTATGG	ACGCCCCGTAAATGTTTTGCT	Beta-lactam	deactivate
<i>spcN-01</i>	AAAAGTTTCGATGAAACACGCCTAT	TCCAGTGGTAGTCCCCGAATC	Aminoglycoside	deactivate
<i>str</i>	AATGAGTTTTGGAGTGTCTCAACGTA	AATCAAAACCCCTATTAAGCCAAT	Aminoglycoside	deactivate
<i>strA</i>	CCGGTGGCATTGAGAAAAA	GTGGCTCAACCTGCGAAAAG	Aminoglycoside	deactivate
<i>strB</i>	GCTCGGTCGTGAGAACAATCT	CAATTTTCGGTCGCTGGTAGT	Aminoglycoside	deactivate
<i>sul1</i>	CAGCGCTATGCGCTCAAG	ATCCCGCTGCGCTGAGT	Sulfonamide	protection
<i>sul2</i>	TCATCTGCCAAACTCGTCGTTA	GTCAAAGAACGCCGCAATGT	Sulfonamide	protection
<i>Sulfonamide/folP-01</i>	CAGGCTCGTAAATTGATAGCAGAAG	CTTTCCTTGCGAATCGCTTT	Sulfonamide	protection
<i>Sulfonamide/folP-03</i>	CACGGCTTCGGCTCATGT	TGCCATCCTGTGACTAGCTACGT	Sulfonamide	protection
<i>tet(32)</i>	CCATTACTTCGGACAACGGTAGA	CAATCTCTGTGAGGGCATTAAACA	Tet_Resistance	protection
<i>tet(34)</i>	CTTAGCGCAAACAGCAATCAGT	CGGTGATACAGCGCGTAAACT	Tet_Resistance	unknown
<i>tet(36)</i>	AGAATACTCAGCAGAGGTCAGTTCCT	TGGTAGGTCGATAACCCGAAAAT	Tet_Resistance	protection
<i>tet(36)</i>	TGCAGGAAAGACCTCCATTACAG	CTTTGTCCACACTCCACGTAATATG	Tet_Resistance	protection
<i>tet(38)</i>	TTAATGTGGCGGTATCTGTAGGTATT	TTGCCTGGGAAATTTAATGCTTT	Tet_Resistance	efflux
<i>tet(35)</i>	ACCCCATGACGTACCTGTAGAGA	CAACCCACACTGGCTACCAGTT	Tet_Resistance	unknown
<i>tet(37)</i>	GAGAACGTTGAAAAGGTGGTGAA	AACCAAGCCTGGATCAGTCTCA	Tet_Resistance	unknown
<i>tetA-01</i>	GCTGTTTGTCTGCCGAAA	GGTTAAGTTCCTTGAACGCAAAC	Tet_Resistance	efflux
<i>tetA-02</i>	CTCACCAGCCTGACCTCGAT	CACGTTGTTATAGAAGCCGCATAG	Tet_Resistance	efflux
<i>tetB-01</i>	AGTGCGCTTTGGATGCTGTA	AGCCCCAGTAGCTCCTGTGA	Tet_Resistance	efflux
<i>tetB-02</i>	GCCCAGTGCTGTTGTTGTCAT	TGAAAGCAAACGGCCTAAATACA	Tet_Resistance	efflux
<i>tetC-01</i>	CATATCGCAATACATGCGAAAAA	AAAGCCGCGGTAAATAGCAA	Tet_Resistance	efflux
<i>tetC-02</i>	ACTGGTAAGGTAACGCCATTGTC	ATGCATAAACCCAGCCATTGAGTAAG	Tet_Resistance	efflux

<i>tetD-01</i>	TGCCGCGTTTGATTACACA	CACCAGTGATCCCGGAGATAA	Tet_Resistance	efflux
<i>tetD-02</i>	TGTCATCGCGCTGGTGATT	CATCCGCTTCCGGGAGAT	Tet_Resistance	efflux
<i>tetE</i>	TTGGCGCTGTATGCAATGAT	CGACGACCTATGCGATCTGA	Tet_Resistance	efflux
<i>tetG-01</i>	TCAACCATTGCCGATTCGA	TGGCCCGGCAATCATG	Tet_Resistance	efflux
<i>tetG-02</i>	CATCAGCGCCGGTCTTATG	CCCCATGTAGCCGAACCA	Tet_Resistance	efflux
<i>tetH</i>	TTGGGTCATCTTACCAGCATTAA	TTGCGCATTATCATCGACAGA	Tet_Resistance	efflux
<i>tetJ</i>	GGGTGCCGCATTAGATTACCT	TCGTCCAATGTAGAGCATCCATA	Tet_Resistance	efflux
<i>tetK</i>	CAGCAGTCATTGAAAAATTATCTGATTATA	CCTTGTACTAACCACAAAAATCAAAATA	Tet_Resistance	efflux
<i>tetL-01</i>	AGCCCGATTTATTCAAGGAATTG	CAAAATGCTTTCCCCCTGTTCT	Tet_Resistance	efflux
<i>tetL-02</i>	ATGGTTGTAGTTGCGCGCTATAT	ATCGCTGGACCGACTCCTT	Tet_Resistance	efflux
<i>tetM-01</i>	CATCATAGACACGCCAGGACATAT	CGCCATCTTTTGCAGAAATCA	Tet_Resistance	protection
<i>tetM-02</i>	TAATATTGGAGTTTTAGCTCATGTTGATG	CCTCTCTGACGTTCTAAAAGCGTATTAT	Tet_Resistance	protection
<i>tetO-01</i>	ATGTGGATACTACAACGCATGAGATT	TGCCTCCACATGATATTTTTCT	Tet_Resistance	protection
<i>tetPA</i>	AGTTGCAGATGTGTATAGTCGTAAACTATCTATT	TGCTACAAGTACGAAAACAAAACACTAGAA	Tet_Resistance	efflux
<i>tetPB-01</i>	ACACCTGGACACGCTGATTTT	ACCGTCTAGAACGCGGAATG	Tet_Resistance	protection
<i>tetPB-02</i>	TGATACACCTGGACACGCTGAT	CGTCCAAAACGCGGAATG	Tet_Resistance	protection
<i>tetPB-03</i>	TGGGCGACAGTAGGCTTAGAA	TGACCCTACTGAAACATTAGAAATATACCT	Tet_Resistance	protection
<i>tetPB-04</i>	AGTGGTGCAAATACTGAAAAAGTTGT	TTTGTTCCTTCGTTTTGGACAGA	Tet_Resistance	protection
<i>tetPB-05</i>	CTGAAGTGGAGCGATCATTCC	CCCTCAACGGCAGAAATAACTAA	Tet_Resistance	protection
<i>tetQ</i>	CGCCTCAGAAGTAAGTTCATACACTAAG	TCGTTTCATGCGGATATTATCAGAAT	Tet_Resistance	protection
<i>tetR-02</i>	CGCGATAGACGCCTTCGA	TCCTGACAACGAGCCTCCTT	Tet_Resistance	efflux
<i>tetR-03</i>	CGCGATGGAGCAAAAAGTACAT	AGTGAAAAACCTTGTTGGCATAAAA	Tet_Resistance	efflux
<i>tetS</i>	TTAAGGACAACTTTCTGACGACATC	TGTCTCCCATTGTTCTGGTTCA	Tet_Resistance	protection
<i>tetT</i>	CCATATAGAGGTTCCACCAAATCC	TGACCCTATTGGTAGTGGTTCTATTG	Tet_Resistance	protection
<i>tetU-01</i>	GTGGCAAAGCAACGGATTG	TGCGGGCTTGCAAAACTATC	Tet_Resistance	unknown
<i>tetV</i>	GCGGGAACGACGATGTATATC	CCGCTATCTCACGACCATGAT	Tet_Resistance	efflux

<i>tetW-01</i>	ATGAACATTCCCACCGTTATCTTT	ATATCGGCGGAGAGCTTATCC	Tet_Resistance	protection
<i>tetW-02</i>	CAACATTAACGGAAAGTTTATTGTATACCA	TTGACGCTCCAAATTCATTGTATC	Tet_Resistance	protection
<i>tetX</i>	AAATTTGTTACCGACACGGAAGTT	CATAGCTGAAAAAATCCAGGACAGTT	Tet_Resistance	unknown
<i>tnpA-01</i>	CATCATCGGACGGACAGAATT	GTCGGAGATGTGGGTGTAGAAAGT	other	transposase
<i>tnpA-02</i>	GGGCGGGTCGATTGAAA	GTGGGCGGGATCTGCTT	other	transposase
<i>tnpA-03</i>	AATTGATGCGGACGGCTTAA	TCACCAAACCTGTTTATGGAGTCGTT	other	transposase
<i>tnpA-04</i>	CCGATCACGGAAAGCTCAAG	GGCTCGCATGACTTCGAATC	other	transposase
<i>tnpA-05</i>	GCCGCACTGTCGATTTTATC	GCGGGATCTGCCACTTCTT	other	transposase
<i>IS1216</i>	TGCAGATGGTTAACCTTGATATTT	TCGGTTCATCAAACCTGCTTCAC	other	transposase
<i>tnpA-07</i>	GAAACCGATGCTACAATATCCAATTT	CAGCACCGTTTGCAGTGTAAG	other	transposase
<i>tolC-01</i>	GGCCGAGAACCTGATGCA	AGACTTACGCAATTCGGGGTTA	other/efflux	efflux
<i>tolC-02</i>	CAGGCAGAGAACCTGATGCA	CGCAATTCCGGGTTGCT	other/efflux	efflux
<i>tolC-03</i>	GCCAGGCAGAGAACCTGATG	CGCAATTCCGGGTTGCT	other/efflux	efflux
<i>Tp614</i>	GGAAATCAACGGCATCCAGTT	CATCCATGCGCTTTTGTCTCT	other	transposase
<i>ttgA</i>	ACGCCAATGCCAAACGATT	GTCACGGCGCAGCTTGA	other/efflux	efflux
<i>ttgB</i>	TCGCCCTGGATGTACACCTT	ACCATTGCCGACATCAACAAC	other/efflux	efflux
<i>vanWG</i>	ACATTTTCATTTTGGCAGCTTGTAC	CCGCCATAAGAGCCTACAATCT	Vancomycin	protection
<i>vanA</i>	AAAAGGCTCTGAAAACGCAGTTAT	CGGCCGTTATCTTGTA AAAACAT	Vancomycin	protection
<i>vanB-01</i>	TTGTCGGCGAAGTGGATCA	AGCCTTTTTCCGGCTCGTT	Vancomycin	protection
<i>vanB-02</i>	CCGGTCGAGGAACGAAATC	TCCTCCTGCAAAAAAAGATCAAC	Vancomycin	protection
<i>vanC-01</i>	ACAGGGATTGGCTATGAACCAT	TGACTGGCGATGATTTGACTATG	Vancomycin	protection
<i>vanC-03</i>	AAATCAATACTATGCCGGGCTTT	CCGACCGCTGCCATCA	Vancomycin	protection
<i>vanC1</i>	AGGCGATAGCGGGTATTGAA	CAATCGTCAATTGCTCATTCC	Vancomycin	protection
<i>vanC2/vanC3</i>	TTTACTGTGCGGTGCTTGTGA	TCAATCGTTTCAGGCAATGG	Vancomycin	protection
<i>vanG</i>	ATTTGAATTGGCAGGTATACAGGTTA	TGATTTGTCTTTGTCCATACATAATGC	Vancomycin	protection
<i>vanHB</i>	GAGGTTTCCGAGGCGACAA	CTCTCGGCGGCAGTCGTAT	Vancomycin	protection

<i>vanHD</i>	GTGGCCGATTATACCGTCATG	CGCAGGTCATTCAGGCAAT	Vancomycin	protection
<i>vanRA-01</i>	CCCTTACTCCCACCGAGTTTT	TTCTGTCGCCCCATATCTCAT	Vancomycin	protection
<i>vanRA-02</i>	CCACTCCGGCCTTGTCATT	GCTAACCACATTCGCCCTTGTTTT	Vancomycin	protection
<i>vanRB</i>	GCCCTGTCCGATGACGAA	TTACATAGTCGTCTGCCTCTGCAT	Vancomycin	protection
<i>vanRC</i>	TGCGGGAAAACTGAACGA	CCCCCATAACGGTTTTGATTA	Vancomycin	protection
<i>vanRD</i>	TTATAATGGCAAGGATGCACTAAAGT	CGTCTACATCCGGAAGCATGA	Vancomycin	protection
<i>vanSA</i>	CGCGTCATGCTTTCAAAATTC	TCCGCAGAAAGCTCAATTTGTT	Vancomycin	protection
<i>vanSB</i>	GCGCGGCAAATGACAAC	TTTGCCATTTTATTCGCACTGT	Vancomycin	protection
<i>vanSC-02</i>	GCCATCAGCGAGTCTGATGA	CAGCTGGGATCGTTTTTCCTT	Vancomycin	protection
<i>vanSE</i>	TGGCCGAAGAAGCAGGAA	CAATAATACTCGTCAAAGGAGTTCTCA	Vancomycin	protection
<i>vanTC-01</i>	CACACGCATTTTTTCCCATCTAG	CAGCCAACAGATCATCAAAACAA	Vancomycin	protection
<i>vanTC-02</i>	ACAGTTGCCGCTGGTGAAG	CGTGGCTGGTTCGATCAAAA	Vancomycin	protection
<i>vanTE</i>	GTGGTGCCAAGGAAGTTGCT	CGTAGCCACCGCAAAAAAAT	Vancomycin	protection
<i>vanTG</i>	CGTGTAGCCGTTCCGTTCTT	CGGCATTACAGGTATATCTGGAAA	Vancomycin	protection
<i>vanWB</i>	CGGACAAAGATACCCCCTATAAAG	AAATAGTAAATTGCTCATCTGGCACAT	Vancomycin	protection
<i>vanXA</i>	CGCTAAATATGCCACTTGGGATA	TCAAAAGCGATTCAGCCAACT	Vancomycin	protection
<i>vanXB</i>	AGGCACAAAATCGAAGATGCTT	GGGTATGGCTCATCAATCAACTT	Vancomycin	protection
<i>vanXD</i>	TAAACCGTGTATGGGAACGAA	GCGATAGCCGTCCATAAGA	Vancomycin	protection
<i>vanYB</i>	GGCTAAAGCGGAAGCAGAAA	GATATCCACAGCAAGACCAAGCT	Vancomycin	protection
<i>vanYD-01</i>	AAGGCGATACCCTGACTGTCA	ATTGCCGGACGGAAGCA	Vancomycin	protection
<i>vanYD-02</i>	CAAACGGAAGAGAGGTCACTTACA	CGGACGGTAATAGGGACTGTTT	Vancomycin	protection
<i>vatB-01</i>	GGAAAAAGCAACTCCATCTTGA	TCCTGGCATAACAGTAACATTCTGA	MLSB	deactivate
<i>vatB-02</i>	TTGGGAAAAAGCAACTCCATCT	CAATCCACACATCATTTCCAACA	MLSB	deactivate
<i>vatC-01</i>	CGGAAATTGGGAACGATGTT	GCAATAATAGCCCCGTTTCTTA	MLSB	deactivate
<i>vatC-02</i>	CGATGTTTGGATTGGACGAGAT	GCTGCAATAATAGCCCCGTTT	MLSB	deactivate
<i>vatD</i>	TGCAATAGTAGCTGCTAATTCTGTTGTT	TGTTTTATTTTCGTTAGCAGGATTTC	MLSB	deactivate

<i>vatE-01</i>	GGTGCCATTATCGGAGCAAAT	TTGGATTGCCACCGACAAT	MLSB	deactivate
<i>vatE-02</i>	GACCGTCCTACCAGGCGTAA	TTGGATTGCCACCGACAATT	MLSB	deactivate
<i>vgaA-01</i>	CGAGTATTGTGGAAAGCAGCTAGTT	CCCGTACCGTTAGAGCCGATA	MLSB	efflux
<i>vgaA-02</i>	GACGGGTATTGTGGAAAGCAA	TTTCCTGTACCATTAGATCCGATAAATT	MLSB	efflux
<i>vgaB-01</i>	TAAAAGAGAATAAGGCGCAAGGA	TGTTTAGTAGCATGTTGCATTTTCC	MLSB	efflux
<i>vgaB-02</i>	GAATGATTAAGCCCCCTTCAAAA	ATTCGTGTTTCCAACGATTTCG	MLSB	efflux
<i>vgb-01</i>	AGGGAGGGTATCCATGCAGAT	ACCAAATGCGCCCGTTT	MLSB	deactivate
<i>vgbB-01</i>	CAGCCGGATTCTGGTCCTT	TACGATCTCCATTCAATTGGGTAAA	MLSB	efflux
<i>vgbB-02</i>	ATACGAGCTGCCTAATAAAGGATCTT	TGTGAACCACAGGGCATTATCA	MLSB	deactivate
<i>yceE/mdtG-01</i>	TGGCACAAAATATCTGGCAGTT	TTGTGTGGCGATAAGAGCATTAG	other/efflux	efflux
<i>yceE/mdtG-02</i>	TTATCTGTTTTCTGCTCACCTTCTTTT	GCGTGGTGACAAACAGGCTTA	other/efflux	efflux
<i>yceL/mdtH-01</i>	TCGGGATGGTGGGCAAT	CGATAACCGAGCCGATGTAGA	other/efflux	efflux
<i>yceL/mdtH-02</i>	CGCGTGAAACCTTAAGTGCTT	AGACGGCTAAACCCCATATAGCT	other/efflux	efflux
<i>yceL/mdtH-03</i>	CTGCCGTTAAATGGATGTATGC	ACTCCAGCGGGCGATAGG	other/efflux	efflux
<i>yidY/mdtL-01</i>	GCAGTTGCATATCGCCTTCTC	CTTCCCGCAAACAGCAT	FCA	efflux
<i>yidY/mdtL-02</i>	TGCTGATCGGGATTCTGATTG	CAGGCGCGACGAACATAAT	FCA	efflux
<i>int11</i>	CAGGAGATCGGAAGACCT	TTGCAAACCCTCACTGAT	Integron	integrase
<i>int12</i>	TTGCGAGTATCCATAACCTG	TTACCTGCACTGGATTAAGC	Integron	integrase
<i>int13</i>	CCGGTTCAGTCTTTCCTCAA	GAGGCGTGTACTTGCCTCAT	Integron	integrase

Table S4 Physicochemical indices with UV-ClO₂ and UV/chlorine 30 min treatments. The data came from four quarterly sampling tests. The negative removal rate is recorded as 0%

Parameter	Undisinfection (mg/L)	UV-ClO₂ (mg/L)	Average removal	UV/chlorine-30 min (mg/L)	Average removal
TOC	4.74–6.76	4.47–9.10	1.43%	1.02–4.97	36.3%
NO₂-N	0.00–0.07	0.01–0.28	0%	0.00–0.14	50%
NH₄-N	0.02–0.26	0.06–2.37	0%	0.19–1.25	6.48%
NO₃-N	18.24–24.63	18.53–24.66	17.5%	9.41–24.01	23.41%
pH	5.98–7.01	6.13–6.61	–	5.32–6.99	–