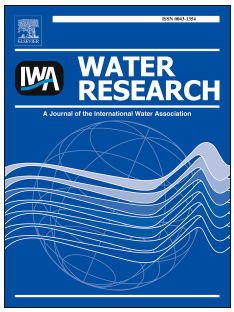
Accepted Manuscript



Genetic redundancy and persistence of plasmid-mediated trimethoprim/ sulfamethoxazole resistant effluent and stream water *Escherichia coli*

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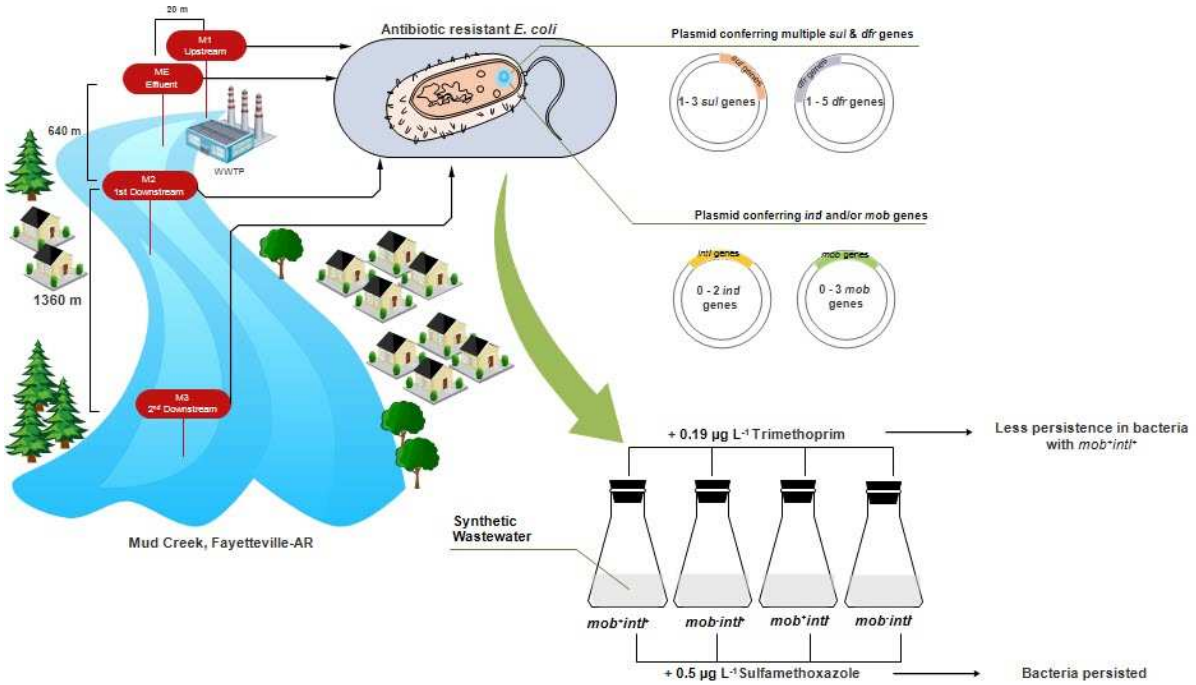
20 m
M1
Upstream
ME
Effluent
640 m
WWTP
M2
1st Downstream
1360 m
M3
2nd Downstream
Mud Creek, Fayetteville-AR
Antibiotic resistant E. coli
Plasmid conferring multiple sul & dfr genes
sul genes
dfr genes
1- 3 sul genes
1 - 5 dfr genes
Plasmid conferring ind and/or mob genes
intI genes
mob genes
0 - 2 ind genes
0 - 3 mob genes
+ 0.19 µg L-1 Trimethoprim
Less persistence in bacteria with mob+intI+
Synthetic Wastewater
mob+intI+
mob-intI+
mob+intI-
mob-intI-
+ 0.5 µg L-1 Sulfamethoxazole
Bacteria persisted