Supporting Information

Influence of Anthropogenic and Climatic Factors on the Dynamics of Nitrogen and Phosphorus in an Urbanized River Basin

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Table S1. Standard values for NH_3-N and TP concentrations of river water according to the China Surface Water Environmental Quality Standard (National Standard of the People's Republic of China, 2002)

Name	Grade I	Grade II	Grade III	Grade IV	Grade V
NH_3-N (mg/L)	0.15	0.5	1.0	1.5	2.0
TP (mg/L)	0.02	0.1	0.2	0.3	0.4
COD_{Mn} (mg/L)	2	4	6	10	15

Table S2. The average value and standard deviation of each parameter

Parameters	Statistics	Jinjiang	Laodao	Liuyang	Longwanggang	Shahe	Weishui	Xiangjiang
pH	Mean	7.70	7.46	7.37			7.68	7.74
	std	0.29	0.43	0.45			0.50	0.30
DO	Mean	7.41	7.53	7.26			8.35	8.02
	std	1.69	1.72	2.45			2.38	1.52
COD_{Mn}	Mean	3.13	3.29	3.00	2.98	2.86	3.50	1.90
	std	0.87	0.70	0.79	1.42	0.98	0.95	0.33

COD_{Cr}	Mean	13.22	15.01	14.53			16.45	9.87
	std	3.97	3.71	4.83			5.57	2.82
BOD	Mean	1.26	1.62	1.74			1.94	0.82
	std	0.60	0.75	1.02			1.32	0.47
NH_3-N	Mean	0.48	0.63	0.99	1.38	0.44	0.75	0.22
	std	0.33	0.43	0.74	1.65	0.30	1.08	0.18
TP	Mean	0.07	0.13	0.17	0.14	0.11	0.13	0.05
	std	0.03	0.06	0.08	0.14	0.05	0.11	0.02

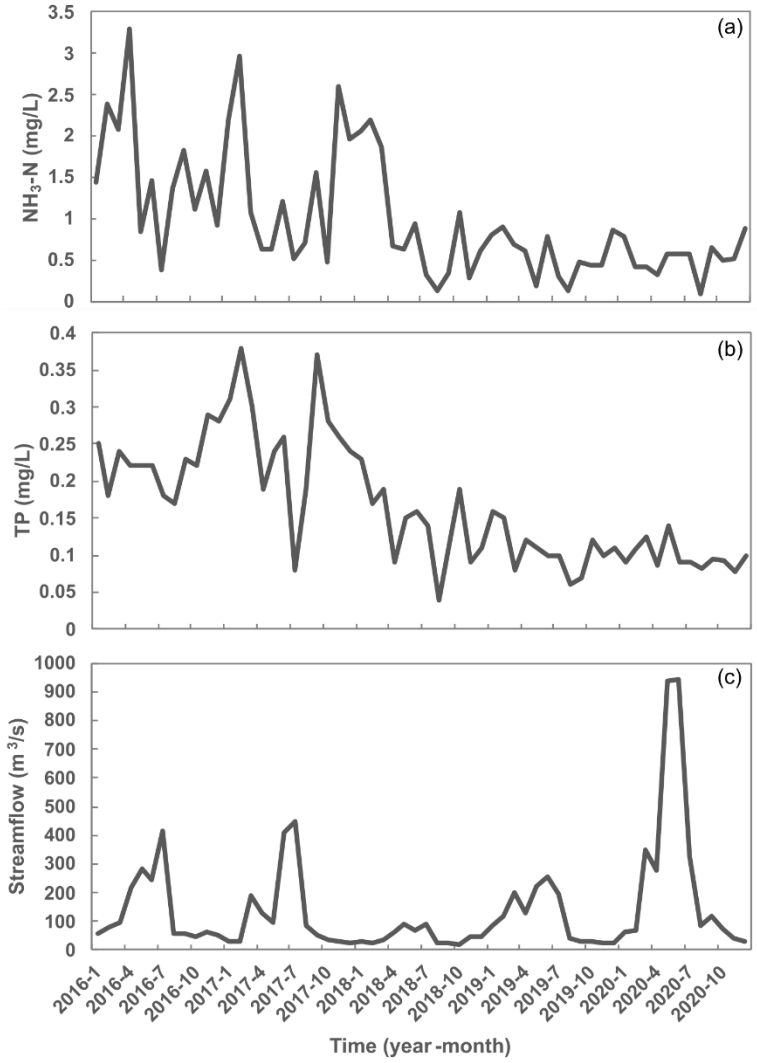


Figure S1. Time series of NH_3-N and TP concentrations, and average monthly streamflow from 2016 to 2020 in Liuyang river