

# Supplementary Materials: Spatio-Temporal Patterns and Source Identification of Water Pollution in Lake Taihu (China)

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**Table S1.** Upstream catchment area and annual mean streamflow of 20 rivers flowing into Lake Taihu.

River	Monitoring Site	Catchment Area (km <sup>2</sup> )	Annual Mean Streamflow (10 <sup>8</sup> m <sup>3</sup> )
Wangyu	s1	396	5.1
Baidugang	s2	390	1.1
Chendonggang	s3	2850	14.0
Dagang	s4	261	0.8
Dapugang	s5	1558	7.0
Nanxi	s6	321	1.3
Dongtiaoxi	s7	191	0.4
Wujingang	s8	966	3.9
Xitang	s9	1050	2.0
Guandugang	s10	227	1.0
Hexixingang	s11	1901	4.0
Hongxianggang	s12	388	1.8
Taigeyunhe	s13	1141	4.6
Qiandengpu	s14	1093	0.8
Pulou	s15	161	0.1
Shedugang	s16	521	2.4
Wuxigang	s17	361	1.4
Changxinggang	s18	2251	4.2
Zhihugang	s19	765	3.1
Nanyunhe	s20	740	3.0
<b>Total of 20 rivers (A)</b>		<b>17,531</b>	<b>61.5</b>
<b>All inflow rivers (B)</b>		<b>28,522</b>	<b>88.4</b>
<b>Percentage (= A/B, %)</b>		<b>61.5</b>	<b>69.6</b>

**Table S2.** Loadings of 11 measured variables on VARIMAX rotated factors of three clusters. Note: the meanings of variables can be found in the main text. VF, varifactor.

Variables	VFs for Cluster A					VFs for Cluster B				VFs for Cluster C			
	1	2	3	4	5	1	2	3	4	1	2	3	4
Petro	<b>0.82</b>	0.13	-0.09	0	-0.14	-0.01	-0.08	<b>0.73</b>	-0.12	0.34	-0.10	-0.44	0.06
Pb	<b>0.82</b>	-0.06	0.15	-0.02	-0.09	0.09	-0.06	0.08	<b>0.64</b>	0.41	0.25	0.39	<b>0.68</b>
V-ArOH	<b>0.48</b>	0.35	<b>0.48</b>	0.03	-0.01	0.20	0.22	-0.07	<b>0.68</b>	0.57	0.07	0.20	<b>-0.64</b>
TP	0.06	<b>0.79</b>	0.22	0.01	-0.22	<b>0.72</b>	-0.03	-0.02	0.20	<b>0.62</b>	-0.07	-0.24	-0.06
COD <sub>Mn</sub>	0.12	<b>0.71</b>	0.32	0.1	0.3	<b>0.85</b>	0.09	-0.10	-0.08	<b>0.72</b>	-0.02	-0.01	0.05
BOD <sub>5</sub>	-0.6	<b>0.64</b>	-0.03	-0.05	-0.02	<b>0.64</b>	-0.02	0.43	0.02	<b>0.65</b>	-0.26	0.05	0.23
Cond	-0.01	0.11	<b>0.85</b>	-0.09	-0.13	0.25	0.21	-0.08	-0.48	<b>0.57</b>	-0.03	-0.21	-0.17
NH <sub>4</sub> <sup>+</sup> -N	0.07	0.23	<b>0.8</b>	0.12	0.22	<b>0.64</b>	0.02	0.32	0.25	<b>0.77</b>	0.20	0.12	-0.16
DO	-0.14	-0.2	-0.14	<b>0.89</b>	-0.05	-0.09	<b>-0.91</b>	-0.23	-0.04	-0.17	<b>0.80</b>	-0.10	0.11
Temp	-0.17	-0.31	-0.19	<b>-0.8</b>	-0.05	-0.04	<b>0.90</b>	-0.10	-0.08	-0.16	<b>-0.88</b>	0.17	-0.03
pH	-0.2	-0.04	0.02	-0.02	<b>0.93</b>	0.21	-0.31	<b>-0.68</b>	-0.12	-0.29	0.06	<b>0.77</b>	0.10
Eigenvalue	2.04	1.88	1.84	1.46	1.1	2.29	1.78	1.52	1.13	2.72	1.78	1.12	1.00
% Total variance	18.58	17.09	16.7	13.29	9.97	20.78	16.16	13.79	10.23	24.74	16.20	10.16	9.13
Cumulative % variance	18.6	35.7	52.4	65.7	75.6	20.78	36.94	50.74	60.97	24.74	40.93	51.10	60.23

