



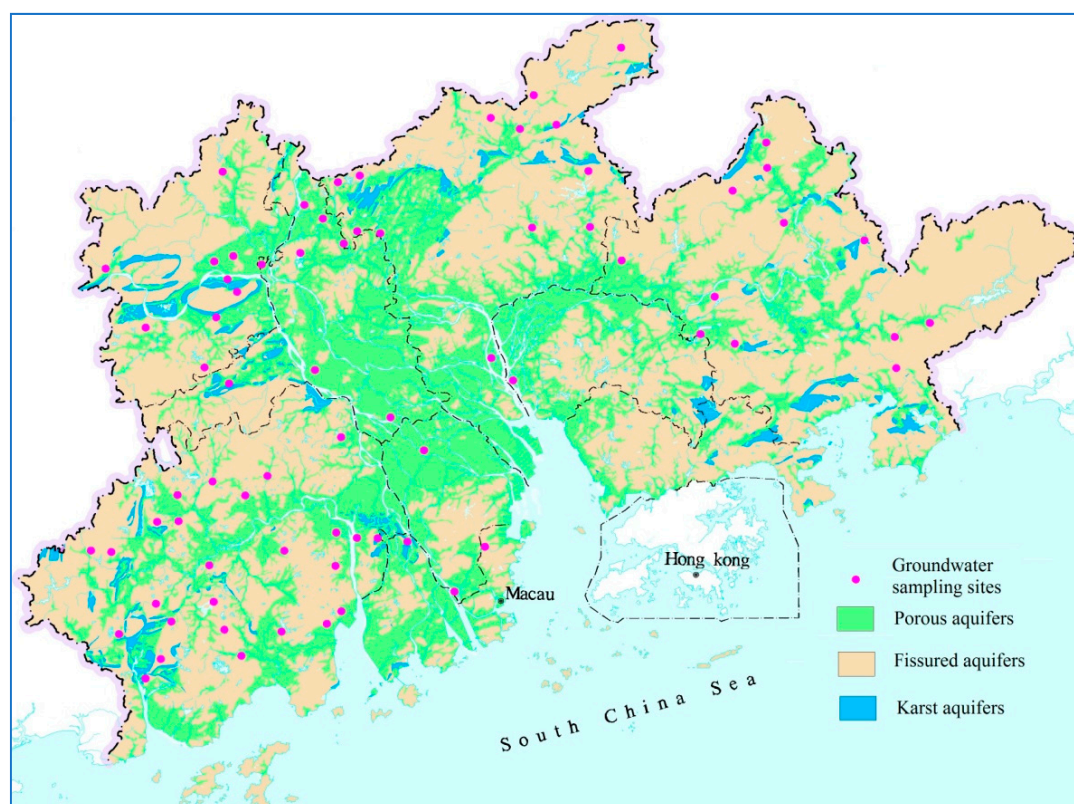
**Supplementary Table S1.** Bartlett's test for the suitability of PCA in groundwater chemical data of porous and fissured aquifers.

Items	Porous Aquifers	Fissured Aquifers
Bartlett's test of sphericity	937.945	897.425
Approximate chi-square		
Significance	0.000	0.000

**Supplementary Table S2.** Standards for groundwater quality of China and drinking water quality of WHO and US EPA.

Item	Class I	Class II	Class III	Allowable Limits of WHO	Allowable Limits of US EPA	Class IV	Class V
TDS (mg/L)	≤300	≤500	≤1000		≤500	≤2000	>2000
Cl <sup>-</sup> (mg/L)	≤50	≤150	≤250		≤250	≤350	>350
NO <sub>3</sub> <sup>-</sup> (mg/L)	≤8.9	≤22.1	≤88.6	≤50	≤44.3	≤132.9	>132.9
Na <sup>+</sup> (mg/L)	≤100	≤150	≤200			≤400	>400
SO <sub>4</sub> <sup>2-</sup> (mg/L)	≤50	≤150	≤250		≤250	≤350	>350
Fe (mg/L)	≤0.1	≤0.2	≤0.3		≤0.3	≤2	>2
Mn (mg/L)	≤0.05	≤0.05	≤0.1		≤0.05	≤1.5	>1.5
NH <sub>4</sub> <sup>+</sup> (mg/L)	≤0.026	≤0.13	≤0.64			≤1.93	>1.93
Zn (mg/L)	≤0.05	≤0.5	≤1		≤5	≤5	>5
Pb (μg/L)	≤5	≤5	≤10	≤10	≤15	≤100	>100
Cu (μg/L)	≤10	≤50	≤1000	≤2000	≤1000	≤1500	>1500
As (μg/L)	≤1	≤1	≤10	≤10	≤10	≤50	>50
I <sup>-</sup> (μg/L)	≤40	≤40	≤80			≤500	>500
Hg (μg/L)	≤0.1	≤0.1	≤1	≤6	≤2	≤2	>2
Suitability	Drinking, Irrigation	Drinking, Irrigation	Drinking, Irrigation	Drinking, Irrigation	Drinking, Irrigation	Irrigation	Not suitable

Data from General administration of quality supervision inspection and quarantine of the people's republic of China [20], World Health Organization [22], and United States Environmental Protection Agency [21].



**Supplementary Figure S1.** Groundwater sampling sites in various aquifers in the Pearl River Delta.