

Electronic supplemental information for:

Anthropogenic influences on Zambian water quality: hydropower and land-use change

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Table S1. Comparison of rainy season specific conductivity, phosphorus and nitrogen content of small heavily impacted and small minimally impacted reference catchments in Zambia.

Site name	date	Lat	Long	footprint	YSI_SpC	FIA_TP	FIA_TN
Zambezi source	2019_03_02	-11.350	24.328	minimal	7.8	0.8	33
Munsakamba Prison	2019_11_20	-13.499	29.294	minimal	428	2.5	82
Funda Stream	2019_11_20	-13.561	29.493	minimal	8.9	4.2	80
Chibefwe at Chipata	2019_11_21	-13.542	29.554	minimal	14.8	1.2	78
Nkolonga at Pita Lesa	2019_11_21	-13.489	29.609	minimal	16.3	1.3	59
Mulumbwashi Stream	2019_11_23	-13.365	29.461	minimal	19.8	7.9	95
Changwena mining camp	2019_11_23	-13.399	29.492	minimal	37.3	12.1	96
Chongwe	2018_03_21	-15.709	29.339	high	NA	18.7	400
Chongwe	2019_02_14	-15.709	29.339	high	455	25.3	444
Little Chongwe	2018_03_22	-15.949	28.845	high	521	24.3	1127
Little Chongwe	2019_02_14	-15.949	28.845	high	430	15.0	719
Maramba	2018_03_16	-17.887	25.859	high	534	22.3	660
Maramba	2019_02_21	-17.887	25.859	high	481	49.3	1282

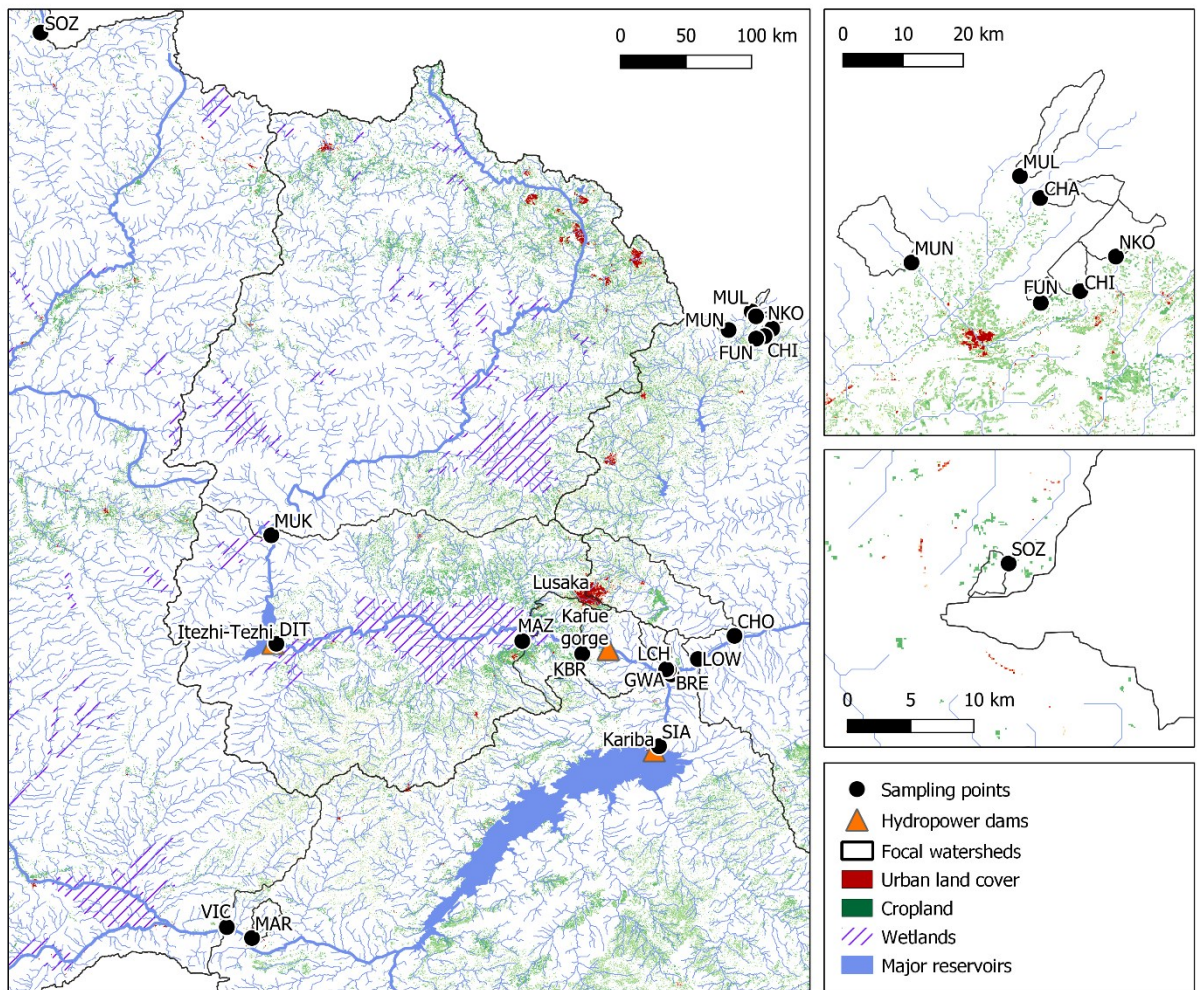


Fig. S1. Map of study area including locations of small catchments draining mostly forested protected areas including the Zambezi Source Protected Forest and North Swaka Forest Reserve.

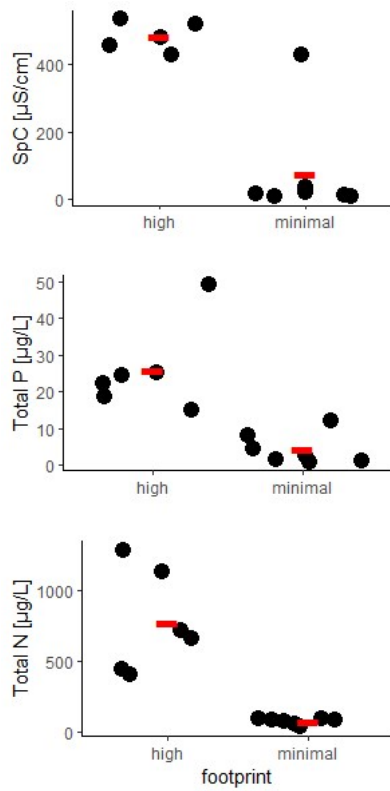


Figure S2. Visualization of specific conductivity, phosphorus and nitrogen content of small heavily impacted and small minimally impacted catchments in Zambia (from Table S1). Red bar highlights arithmetic mean of two groups. High conductivity value of one of the reference sites reflects the local limestone geology and the site has a high concentration of calcium cations and there is a lime mine nearby. This illustrates a limitation of relying on conductivity alone as a water quality indicator.