

Supplementary Material

Table S1. *p*-values for post-hoc pairwise Mann-Whitney rank sum tests between sites for riverbed fine sediment Al_2O_3 proportions.

SITE	S1	S2	S3	S4	S5
S2	0.003				
S3	0.001	0.609			
S4	0.001	0.003	0.001		
S5	0.001	0.003	0.001	0.278	
S6	0.001	0.003	0.001	0.190	0.005

Table S2. *p*-values for post-hoc pairwise Mann-Whitney rank sum tests between sites for riverbed fine sediment Fe_2O_3 proportions.

SITE	S1	S2	S3	S4	S5
S2	0.002				
S3	0.001	0.898			
S4	0.001	0.001	0.001		
S5	0.001	0.001	0.001	0.297	
S6	0.001	0.001	0.001	0.001	0.001

Table S3. *p*-values for post-hoc pairwise Mann-Whitney rank sum tests between sites for riverbed fine sediment MnO proportions.

SITE	S1	S2	S3	S4	S5
S2	0.352				
S3	0.748	0.059			
S4	0.006	0.006	0.006		
S5	0.017	0.009	0.014	0.009	
S6	0.009	0.006	0.006	0.016	0.3959

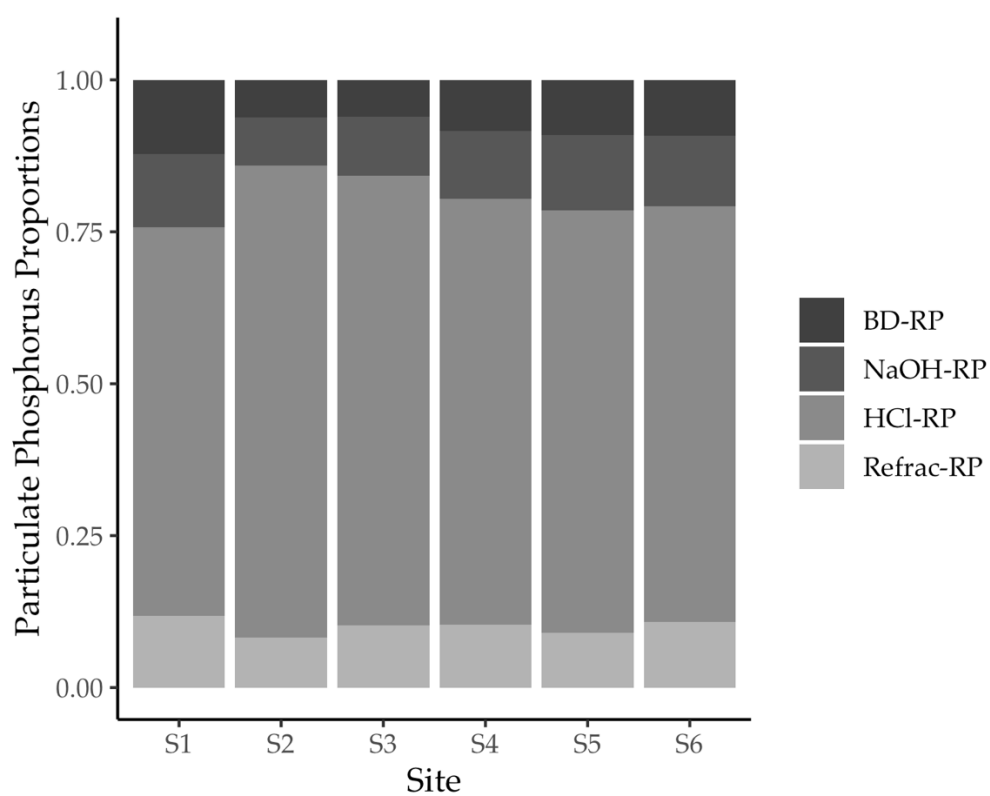


Figure S1. Average proportion of particulate phosphorus (PP) forms in fine sediments stored in the gravel bed of the Crowsnest River in 2016 and 2017 (n=4 per site).