

**Supplementary table 1.**

Mean difference (lower half of tables) and Tukey's *post-hoc* pairwise comparison of the different environmental parameters and bacterial abundance at the sampling points

Significance codes: '\*\*\*' p<0.001 '\*\*' p<0.01 '\*' p<0.05, '.' p<0.1

**A. Conductivity**

Source pool	P				M				T			
Mean difference/p	Drying	Control	Early rewetted	Late rewetted	Drying	Control	Early rewetted	Late rewetted	Drying	Control	Early rewetted	Late rewetted
Drying		***	***	***		***	***	***		***	***	***
Control	-3190				-401				-866		**	
Early rewetted	-2601	589			-341	60			-656	231		
Late rewetted	-2846	344	-245		-357	44	-16		-830	56	-174	

**B. TP**

Source pool	P				M				T			
Sampling point	Drying	Control	Early rewetted	Late rewetted	Drying	Control	Early rewetted	Late rewetted	Drying	Control	Early rewetted	Late rewetted
Drying			***	***		***	***	***		***	***	***
Control	-131				-268				-950			
Early rewetted	-246	-115			-275	-8			-721	229		
Late rewetted	-235	-104	11		-273	-5	3		-813	137	-92	

**C. TN**

Source pool	P				M				T			
Sampling point	Drying	Control	Early rewetted	Late rewetted	Drying	Control	Early rewetted	Late rewetted	Drying	Control	Early rewetted	Late rewetted
Drying		**	**	***		***	***	***		**	***	***
Control	-4.9				-9.3				-10.9			
Early rewetted	-4.9	-0.7			-8.3	0.9			-11.7	-0.7		
Late rewetted	-5.2	-0.4	-0.3		-10.0	-0.8	-1.7		-12.3	-1.4	-0.7	

**D. DOC**

Mean difference/p	Drying	Control	Early rewetted	Late rewetted
Drying			**	***
Control	-65		*	*
Early rewetted	-268	-204		
Late rewetted	-272	-272	-4	

E. BA

Source pool	P				M				T			
Sampling point	Drying	Control	Early rewetted	Late rewetted	Drying	Control	Early rewetted	Late rewetted	Drying	Control	Early rewetted	Late rewetted
Drying		*	**	**		***	***	***		*		
Control	-2.5E+06				-4.0E+06		**		-2.6E+06			
Early rewetted	-3.2E+06	-7.2E+05			-6.9E+06	-2.9E+06			-7.0E+05	1.9E+06		
Late rewetted	-3.2E+06	-6.6E+05	6.3E+04		-6.1E+06	-2.1E+06	7.8E+05		-1.7E+06	8.8E+05	-9.8E+05	

F. sBR

Source pool	P				M				T			
Sampling point	Drying	Control	Early rewetted	Late rewetted	Drying	Control	Early rewetted	Late rewetted	Drying	Control	Early rewetted	Late rewetted
Drying			**	***		***	***	***				*
Control	-1.87		*	**	-8.47			*	-2.84			
Early rewetted	-5.27	-7.14			-10.06	-1.59			-10.39	-13.26		
Late rewetted	-7.34	-9.21	-2.07		-13.19	-4.73	-3.13		-15.72	-18.56	-5.32	