

Variable	Site	2014		2015		2016		2017		ANOVA results			
		U	R	U	R	U	R	U	R	Reach	Year	Reach (Year)	
Hyporheic bacterial abundance (x 106 cells ml-1)	KF	0.277 (0.330)	0.728 (0.535)	0.670 (0.284)	1.129 (0.395)	0.776 (0.080)	0.705 (0.184)	0.398 (0.167)	0.340 (0.046)	2014	R > U	a	ns
										2015		b	
	NF	0.623 (0.502)	1.126 (0.260)	1.571 (0.426)	1.345 (0.152)	1.993 (0.388)	1.373 (0.269)	0.537 (0.051)	0.599 (0.068)	2016		ab	
										2017		a	
	SF	0.747 (0.098)	0.402 (0.324)	1.007 (0.118)	0.715 (0.493)	0.871 (0.207)	0.919 (0.205)	0.451 (0.077)	0.444 (0.066)	2014	ns	a	ns
										2015		b	
2016	bc												
2017	c												
Ratio high NA : low NA bacteria	KF	0.41 (0.54)	0.33 (0.16)	0.84 (0.62)	1.48 (0.22)	0.84 (0.14)	1.44 (0.30)	1.26 (0.44)	1.54 (0.31)	2014	R > U	a	ns
										2015		b	
	NF	0.40 (0.12)	0.75 (0.45)	0.94 (0.43)	0.88 (0.14)	1.78 (0.34)	1.21 (0.49)	1.38 (0.42)	1.67 (0.55)	2016		ab	
										2017		b	
	SF	1.24 (0.27)	0.54 (0.36)	1.17 (0.17)	0.94 (0.64)	1.17 (0.31)	1.00 (0.27)	1.29 (0.29)	1.30 (0.42)	2014	U > R	a	ns
										2015		a	
2016	b												
2017	b												
Hyporheic heterotrophic production (µg C L-1 hr-1)	KF	0.10 (0.07)	0.26 (0.10)	0.63 (0.49)	1.03 (0.47)	0.39 (0.34)	0.93 (0.48)	0.34 (0.20)	0.82 (0.21)	2014	R > U	a	ns
										2015		b	
	NF	0.08 (0.05)	0.12 (0.06)	0.15 (0.08)	0.82 (0.37)	0.50 (0.51)	0.95 (0.56)	0.48 (0.31)	0.71 (0.16)	2016		b	
										2017		b	
	SF	0.06 (0.03)	0.22 (0.17)	0.50 ( 0.14)	0.99 (0.61)	0.40 (0.37)	0.24 (0.20)	0.60 (0.31)	0.62 (0.37)	2014	ns	a	ns
										2015		b	
2016	a												
2017	b												