

Table S5: Range of selected dbMEMs and their Pearson correlations to site and setting variables. *p* 0.05→0.001 plain text, *p* 0.001→0.0001 underlined, *p* ≤0.0001 bold (unadjusted).

		MEM3	MEM4	MEM6	MEM7	MEM14	MEM23	MEM39
range (km)		33.7	33.2	18.2	17.9	9.2	11.8	1.2
Feature	Variable							
pH	pH	-	-	-0.17	-	-	0.15	-
total ions	EC	-	-	-0.22	-	-	0.22	-
cations	Al	-	-	-	-	-	-	-
	Na	-0.16	-	-0.17	-	-	<u>0.28</u>	-
	K	-0.18	-0.29	-0.15	-	-	0.17	-
	Ca	-0.16	-	-0.15	-	-	0.17	-
	Mg	-	-	-0.22	-0.16	-	0.17	-
	Fe	-	-	0.29	-	-	-	-
anions	SO ₄	-	-	-0.15	-	-	-	-
	Cl	-	-	-	-	-	<u>0.24</u>	-
phosphorus	TP	<u>-0.26</u>	-	-	-	-	0.15	-
	TPmax.	-0.18	-	0.17	-	-	0.19	-
	ortho-P	-0.23	-	-	-	-	-	-
	ortho-Pmax.	-0.17	-	-	-	-	0.17	-
nitrogen	NO ₃	-	-	-	-	-	-0.19	-
	TIN	-	-	-	-	-	-0.17	-
	KjN	-0.20	-	-	-	-	-	-0.16
	TON	<u>-0.27</u>	-	-	-	-	-	-0.16
	TONmax.	-0.22	-	-	-	-	-	-
	TN	-0.16	-	-	-	-	-	-
silica	SiO ₂	-0.18	-	-	-0.19	-	-	-
organics	COD	-0.20	-	-	-	-	-	-0.16
	COD _f	-0.16	-	-	-	-	-	-
	COD _p	-0.18	-	0.18	-	<u>0.24</u>	-	-
	A440	-	-	0.15	-	0.17	-	-
	A254	-	-	-	-	-	-	-0.17
phytoplankton	chl <i>a</i>	-0.19	-	0.19	-	0.20	-	-
	chl <i>a</i> max.	-0.17	-	0.17	-	-	-	-
	phaeopigments	-0.22	-	-	-	0.21	-	-

metabolism	oxygen saturation	0.22	-	-	-	-	-	-
	BOD	-0.23	-	-	-	-	-	-0.15
	pGOP	-0.20	-	-	-	-	-	-
soil	sandloam	-	-	-	0.16	-	-	-
	loam	-	-	-	-0.22	-	-	-
	clay	-0.17	-	-0.19	-	-	-	-
	peat	-	-0.16	0.20	-	-	-	-
morphology	surface	0.17	-	-	-	-	-	-
	width	0.22	-	-	-	-	-	-
	Dsl	-0.22	-	-	-	-	-	-
	depth	0.18	-	-	-	-	-	-
	shoreline slope	-0.18	-	-	-	-	-	-
connectivity	ponds	-0.16	-0.21	-	-	-	-	-
land cover	dune	-	-	-	-	0.49	-	-
	coniferous	-	0.20	0.15	0.19	-	-	-
	deciduous	0.18	-	-	-	-	-0.15	-
	poplar	<u>-0.27</u>	-	-	-	-	-	-
	pasture	-	-	-0.18	-	-	-	-
	field	-	-	-	-	0.14	-	-
	fallow	-	-	-	-	-	-0.16	-
	built	-	-	-	-	-	-	0.17
	infrastructure	-	-	-0.15	-	-	-	-
vegetation	macrophytes	-0.18	-	-	-	-	-	-
