Supplementary Material:

Table S1. Correlation coefficients between electrical conductivity (EC) and water table (WT), EC and rainfall (RF), and WT and RF data.

Piezometer	Parameters	WT	RF	Piezometer	Parameters	WT	RF
P1	EC	-0.64	-0.46	**P19**	EC	-0.68	-0.54
	WT		0.52		WT		0.87
P2	EC	0.18	0.33	**P20**	EC	0.31	0.05
	WT		0.66		WT		-0.48
P3	EC	0.23	-0.06	**P21**	EC	0.11	0.29
	WT		0.51		WT		0.60
P4	EC	0.22	0.01	**P22**	EC	0.37	-0.08
	WT		0.28		WT		0.11
P5	EC	0.07	0.29	**P23**	EC	-0.19	-0.13
	WT		0.39		WT		0.51
P6	EC	0.12	-0.15	**P24**	EC	-0.55	-0.42
	WT		-0.16		WT		0.43
P7	EC	0.32	0.32	**P25**	EC	-0.69	-0.45
	WT		0.03		WT		0.29
P8	EC	-0.32	0.23	**P26**	EC	-0.02	-0.26
	WT		-0.39		WT		0.47
P9	EC	-0.32	-0.61	**P27**	EC	-0.28	-0.52
	WT		0.32		WT		0.54
P10	EC	0.60	0.10	**P28**	EC	0.23	0.02
	WT		0.47		WT		0.51
P11	EC	0.21	0.14	**P29**	EC	-0.31	0.49
	WT		-0.22		WT		0.13
P12	EC	-0.77	-0.41	**P30**	EC	-0.78	-0.73
	WT		0.77		WT		0.89
P13	EC	0.29	0.17	**P31**	EC	-0.92	-0.92
	WT		0.55		WT		0.92
P14	EC	0.09	0.25	**P33**	EC	-0.49	-0.24
	WT		0.75		WT		0.45
P15	EC	-0.65	-0.25	**P34**	EC	-0.60	-0.42
	WT		0.62		WT		0.54
P16	EC	-0.36	-0.29	**P35**	EC	-0.56	-0.65
	WT		0.24		WT		0.80
P17	EC	-0.59	-0.55	**P37**	EC	0.67	0.35
	WT		0.68		WT		0.29
P18	EC	0.05	0.06				
	WT		0.60				

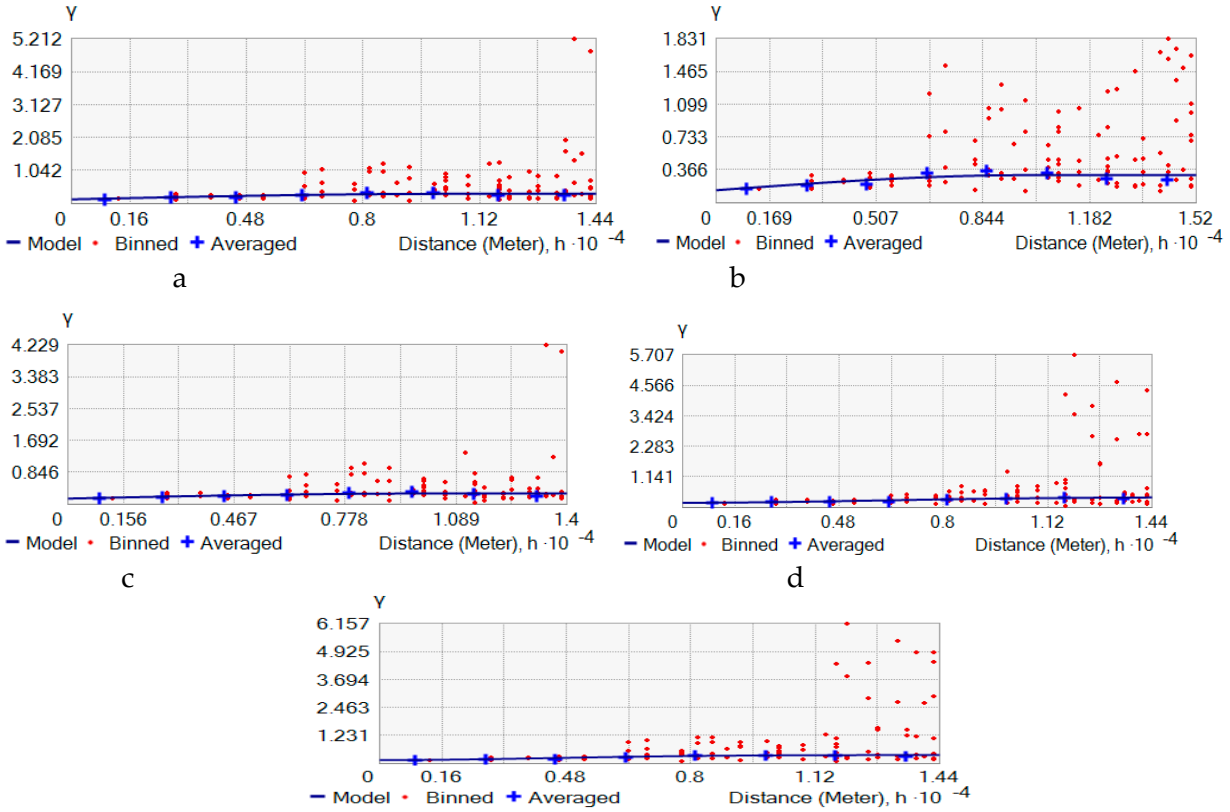

Figure S1A. Fitting semi-variogram models for the mean WT levels. (a) Summer 2009, (b) Autumn 2009, (c) Spring 2010, (d) Spring 2018, (e) Average 2009-2018. Blue lines represent the model, red dots represent binned values, and blue crosses the average values. Binned values, showing local variation in the semi-variogram, are generated by grouping (binning) empirical semi-variogram points together using square cells that are one lag wide. Average points, indicating smooth semi-variogram variation, are generated by binning empirical semi-variogram points that fall within angular sectors.

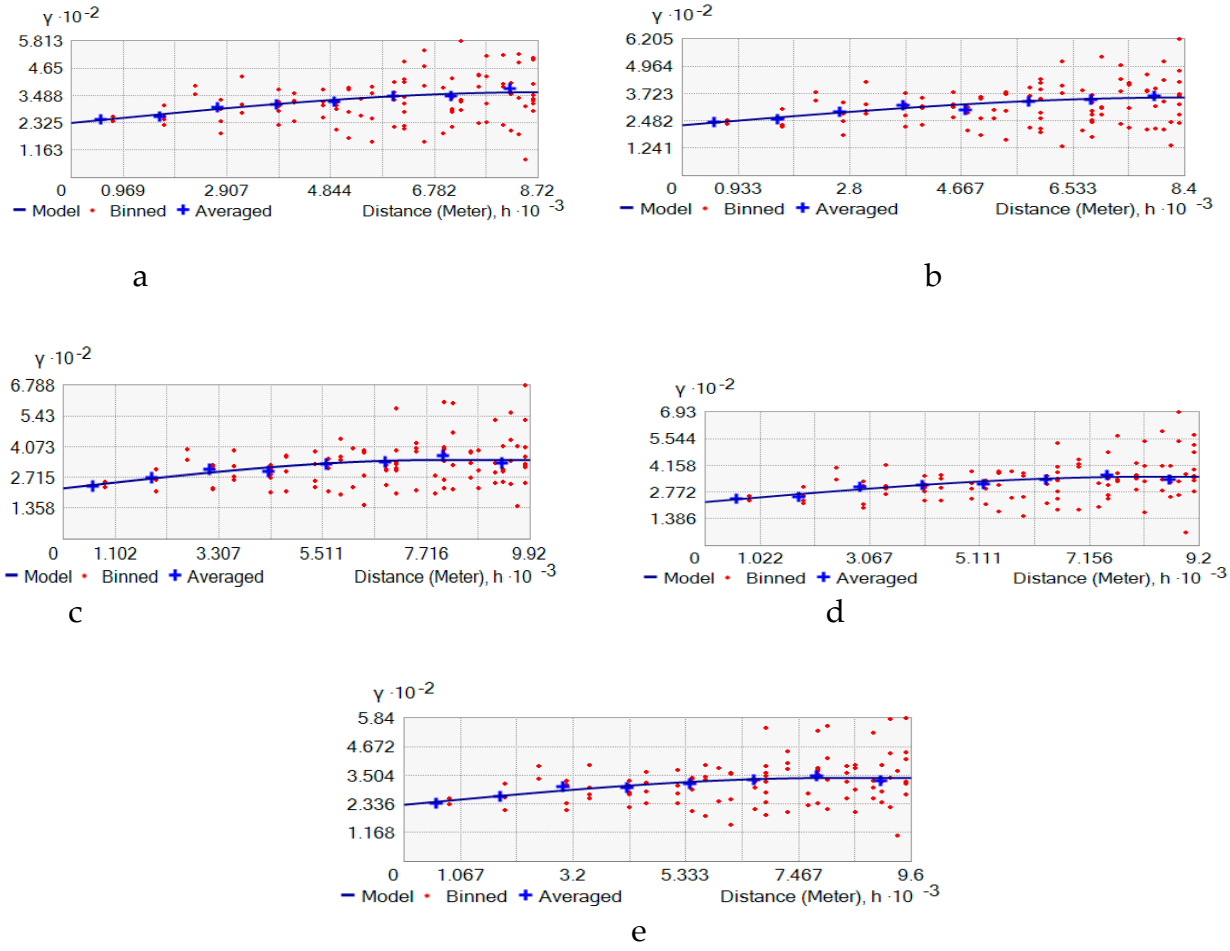

Figure S2A. Fitting semi-variogram models for the mean EC. (a) Summer 2009, (b) Autumn 2009, (c) Spring 2010, (d) Spring 2018, (e) Average 2009-2018. Blue lines represent the model, red dots represent binned values, and blue crosses the average values. Binned values, showing local variation in the semi-variogram, are generated by grouping (binning) empirical semi-variogram points together using square cells that are one lag wide. Average points, indicating smooth semi-variogram variation, are generated by binning empirical semi-variogram points that fall within angular sectors.