

Table S1: Parameters calculated using the 3-day calibration.

Calibrated parameters	Default	Lower bound	Upper bound	Optimum parameters
mannn1	0.55	0.05	0.6	0.199596
mannn2	0.35	0.05	0.6	0.218347
mannn3	0.15	0.05	0.5	8.84E-02
mannn4	0.1	0.05	0.5	5.00E-02
mannn5	7.00E-02	0.01	0.3	4.10E-02
mannn6	5.00E-02	0.01	0.3	2.03E-02
mannn7	4.00E-02	0.01	0.2	1.26E-02
mannn8	3.00E-02	0.001	0.1	2.45E-03
mannn9	2.00E-02	0.001	0.05	4.87E-02
mannn10	1.00E-02	0.001	0.05	1.00E-03
xslope1	0.1	1.00E-04	1	0.412796
xslope2	0.6	1.00E-04	1	0.6
xslope3	1	1.00E-04	1	1
xslope4	0.35	1.00E-04	1	0.351282
xslope5	0.55	1.00E-04	1	0.547404
xslope6	0.8	1.00E-04	1	0.801104
xslope7	0.63	1.00E-04	1	0.63
xslope8	1.00E-06	1.00E-08	1	1.00E-06
xslope9	1.00E-06	1.00E-08	1	1.00E-06
refdk	2.00E-06	1.00E-09	1.00E+02	2.10E-07
refkdt	1	0.01	10	1.72369
ovn1	2.50E-02	0.005	0.35	5.07E-03
ovn2	3.50E-02	0.005	0.35	0.103207
ovn3	3.50E-02	0.005	0.35	9.19E-02
ovn4	5.50E-02	0.005	0.35	5.50E-02
ovn5	3.50E-02	0.005	0.35	1.63E-02
ovn6	6.80E-02	0.005	0.35	4.60E-02
ovn7	5.50E-02	0.005	0.35	5.00E-03
ovn8	5.50E-02	0.005	0.35	5.50E-02
ovn9	5.50E-02	0.005	0.35	5.50E-02
ovn10	5.50E-02	0.005	0.35	0.299628
ovn11	0.2	0.005	0.35	0.314094
ovn12	0.2	0.005	0.35	0.199799
ovn13	0.2	0.005	0.35	0.199799
ovn14	0.2	0.005	0.35	4.27E-02
ovn15	0.2	0.005	0.35	2.29E-02
ovn16	5.00E-03	0.005	0.35	5.00E-03
ovn17	7.00E-02	0.005	0.35	4.92E-02

ovn18	7.00E-02	0.005	0.35	4.92E-02
ovn19	3.50E-02	0.005	0.35	2.06E-02
ovn20	5.50E-02	0.005	0.35	5.50E-02
ovn21	5.50E-02	0.005	0.35	5.50E-02
ovn22	5.50E-02	0.005	0.35	5.50E-02
ovn23	5.50E-02	0.005	0.35	5.50E-02
ovn24	1.00E-02	0.005	0.35	2.00E-02
ovn25	1.00E-02	0.005	0.35	2.00E-02
ovn26	0.1	0.005	0.35	9.94E-02
ovn27	1.00E-02	0.005	0.35	2.00E-02
ovn28	5.00E-03	5.00E-04	0.35	5.00E-04
