

## Supplemental Data

**Supplemental Data Table S1.**

<b>Mean Sample Length (cm)</b>	<b>Median Sample Length (cm)</b>	<b>Minimum Sample Length (cm)</b>	<b>Maximum Sample Length (cm)</b>
<b>26.4</b>	<b>25.4</b>	<b>14.4</b>	<b>43.4</b>

**Supplementary Data Table S2**

<b>Lake Name</b>	<b>Site Number</b>	<b>Method</b>	<b>Hydraulic Conductivity (m/day)</b>
Police lake	2	Falling head	0.0424
Police lake	3	Falling head	0.226
Police lake	4	Falling head	0.206
Police lake	5	Falling head	0.735
Police lake	6	Falling head	1.72
Police lake	7	Falling head	0.232
Police lake	8	Falling head	0.189
Police lake	9	Falling head	0.0164
Police lake	10	Falling head	0.0265
Police lake	11	Falling head	0.0616
Police lake	12	Falling head	0.00354
Police lake	13	Falling head	0.0513
Police lake	14	Falling head	0.0684
Police lake	15	Falling head	0.0139
Police lake	16	Falling head	0.0462
Police lake	18	Falling head	0.153
Police lake	19	Falling head	0.198
Police lake	20	Falling head	0.163
Police lake	21	Falling head	0.00528
Police lake	22	Gravity drain	2.75
Police lake	24	Gravity drain	2.78
Police lake	25	Falling head	0.00362
Police lake	26	Gravity drain	2.04
SOVI lake	1	Falling head	0.634

SOVI lake	2	Falling head	0.0935
SOVI lake	3	Falling head	0.486
SOVI lake	4	Falling head	0.177
SOVI lake	5	Falling head	0.651
SOVI lake	6	Gravity drain	4.09
SOVI lake	7	Falling head	0.454
SOVI lake	8	Gravity drain	0.786
SOVI lake	10	Falling head	0.00213
SOVI lake	11	Gravity drain	1.86
SOVI lake	12	Gravity drain	2.34
SOVI lake	12	Falling head	8.8
SOVI lake	13	Falling head	0.00954
SOVI lake	14	Falling head	0.00657
SOVI lake	15	Falling head	0.0126
SOVI lake	16	Falling head	0.00199
SOVI lake	17	Falling head	3.9
SOVI lake	18	Falling head	1.15
SOVI lake	19	Falling head	3.29
SOVI lake	20	Falling head	8.06
SOVI lake	21	Falling head	0.832
SOVI lake	22	Falling head	0.0517

**Supplementary Data Table S3**

<b>Pond Name</b>	<b>Site Number</b>	<b>%Organic Content</b>	<b>Number of Layers</b>	<b>Mean Grain Size (um)</b>	<b>Median D<sub>10</sub> Grain Size Value (um)</b>
Police pond	2	47	2	200	10
Police pond	3	17	2	200	7
Police pond	4	2.5	2	200	10
Police pond	5	6.7	4	100	4
Police pond	6	3.8	3	200	8
Police pond	7	0.91	3	200	9
Police pond	8	21	4	100	4
Police pond	9	5.6	5	100	3
Police pond	10	7.1	2	200	8
Police pond	11	1.8	3	200	8
Police pond	12	17	4	60	2
Police pond	13	13	1	80	4

Police pond	14	7.7	2	200	20
Police pond	15	20	3	100	3
Police pond	16	5.3	4	100	5
Police pond	18	7	3	200	6
Police pond	19	0.87	3	200	90
Police pond	20	7.1	3	200	6
Police pond	21	10	6	80	2
Police pond	22	0.76	3	200	100
Police pond	24	0.62	2	200	100
Police pond	25	24	3	50	2
Police pond	26	0.72	2	200	100
SOVI pond	1	1.5	1	200	20
SOVI pond	2	7.2	4	200	0.3
SOVI pond	3	1.2	1	200	40
SOVI pond	4	8.1	4	200	10
SOVI pond	5	6.3	4	200	20
SOVI pond	6	1.8	3	200	30
SOVI pond	7	2	2	200	90
SOVI pond	8	0.8	4	200	90
SOVI pond	10	12	3	90	2
SOVI pond	11	1.7	5	200	80
SOVI pond	12	0.33	1	200	100
SOVI pond	12	0.33	1	200	100
SOVI pond	13	4.3	5	200	5
SOVI pond	14	13	3	100	3
SOVI pond	15	9.5	2	100	3
SOVI pond	16	10	2	100	3
SOVI pond	17	1.1	4	200	50
SOVI pond	18	1.3	4	200	20
SOVI pond	19	1.9	4	200	80
SOVI pond	20	1.2	3	200	70
SOVI pond	21	9.8	4	200	20
SOVI pond	22	2	3	200	7