

Table 1: 2007 SOD Survey Locations

Station	LAT	LONG	River Miles	Descriptions
A	17.30	-81.55	23.0	North of Oak Meadows Dam/in Golf Course
B	17.30	-81.55	22.9	North of Oak Meadows Dam/in Golf Course
C	17.30	-81.56	22.8	South of Oak Meadows Dam/north of I290
D	17.30	-81.56	22.7	South of Oak Meadows Dam/south of I290
E	16.95	-81.46	12.7	North of Oakbrook Road
F	16.94	-81.45	12.5	South of Oakbrook Road
G	16.93	-81.45	12.2	Spring Road Salt Creek junction (north of road)
H	16.93	-81.43	11.4	Northern Fullersburg Woods Impoundment
I	16.91	-81.43	11.0	Southern Fullersburg Woods Impoundment
J	16.91	-81.42	10.7	Southern FWI, north of spillway
K	16.90	-81.42	10.6	Downstream of York Road
L	16.91	-81.40	10.1	Wide Channel north of industrial park

Table 2
2007 SOD Measurement Station: A

Date: 7/31/2007
Location: Oak Meadows Golf Course, Upstream 2, North of Island, West side of Creek
River: Width = 100 ft, Depth = 1-1.2 ft, % sediment composition = 75%
Sediment: 2.5- 3.0 ft deep, light, fluffy, organic, little vegetation and debris

DO Meter Air Calibration Info:

	Meter 1	Meter 2	Meter 3
DO (mg/L)	7.22	6.98	7.12

Photosynthesis reference and QC:

	Time		Probe Reading	
	Start	End	DO (mg/L)	Temp. (°C)
Initial	11:44 AM		6.63	26.7
Light bottle	11:47 AM	1:21 PM	7.12	26.9
Dark bottle	11:47 AM	1:23 PM	6.21	26.6

Measurements:

Time	Probe 1		Probe 2		Blank	
	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)
11:47 AM	6.31	25.5	6.19	25.7	6.47	25.6
11:57 AM	6.21	25.5	6.15	25.4	6.31	25.8
12:07 PM	6.10	25.7	6.09	25.4	6.23	25.9
12:17 PM	5.99	25.8	6.09	25.4	6.19	26.0
12:27 PM	5.89	25.9	6.07	25.5	6.16	26.1
12:37 PM	5.78	26.0	6.07	25.6	6.11	26.3
12:47 PM	5.69	26.1	6.03	25.6	6.03	26.4
12:57 PM	5.58	26.2	5.98	25.7	6.00	26.5
1:07 PM	5.48	26.3	5.96	25.8	5.94	26.5
1:17 PM	5.39	26.4	5.89	25.9	5.89	26.6

Table 3
2007 SOD Measurement Station: B

Date: 7/31/2007
Location: Oak Meadows Golf Course Upstream 1, 150 ft Upstream of Dam
River: Width = 90 ft, Depth = 1.2- 2.0 ft, 100% sediment
Sediment: 4 ft deep, light, fluffy, organic, lots of vegetative debris, 100% sediment on x-section

DO Meter Air Calibration Info:

	Meter 1	Meter 2	Meter 3
DO (mg/L)	7.68	7.60	7.60

Photosynthesis reference and QC:

	Time		Probe Reading	
	Start	End	DO (mg/L)	Temp. (°C)
Initial	9:27 AM		5.64	24.3
Light bottle	9:34 AM	11:08 AM	5.97	25.7
Dark bottle	9:34 AM	11:09 AM	5.07	25.0

Measurements:

Time	Probe 1		Probe 2		Blank	
	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)
9:32 AM	5.07	24.0	5.37	24.3	5.36	24.1
9:42 AM	4.80	23.7	5.10	23.8	5.34	24.1
9:52 AM	4.63	23.8	4.97	23.8	5.29	24.1
10:02 AM	4.49	23.8	4.89	23.8	5.22	24.2
10:12 AM	4.35	23.8	4.79	23.9	5.22	24.2
10:22 AM	4.22	23.9	4.71	23.9	5.21	24.3
10:32 AM	4.09	24.0	4.62	24.0	5.17	24.3
10:42 AM	3.96	24.0	4.51	24.0	5.12	24.4
10:52 AM	3.84	24.1	4.45	24.1	5.09	24.5
11:02 AM	3.72	24.2	4.36	24.2	5.05	24.6

Table 4
2007 SOD Measurement Station: C

Date: 8/1/2007
Location: Golf Meadows Downstream 1, Upstream of 290
River: Width = 45 ft, Depth = 0.9- 2.0 ft, 30% sediment on cross-section.
Sediment: Depth 0.4- 0.8 ft, gravelly, silt

DO Meter Air Calibration Info:

	Meter 1	Meter 2	Meter 3
DO (mg/L)	8.36	8.40	8.40

Photosynthesis reference and QC:

	Time		Probe Reading	
	Start	End	DO (mg/L)	Temp. (°C)
Initial	9:22 AM		6.21	24.8
Light bottle	9:25 AM	10:58 AM	6.24	25.2
Dark bottle	9:25 AM	11:00 AM	6.18	24.9

Measurements:

Time	Probe 1		Probe 2		Blank	
	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)
9:25 AM	5.54	24.4	5.45	24.6	5.72	24.5
9:35 AM	5.44	24.3	5.24	24.3	5.65	24.5
9:45 AM	5.38	24.3	5.17	24.4	5.62	24.6
9:55 AM	5.32	24.3	5.10	24.4	5.61	24.6
10:05 AM	5.27	24.4	5.04	24.4	5.59	24.6
10:15 AM	5.22	24.4	4.98	24.5	5.56	24.7
10:25 AM	5.17	24.4	4.93	24.5	5.54	24.7
10:35 AM	5.12	24.5	4.87	24.5	5.51	24.8
10:45 AM	5.07	24.5	4.82	24.6	5.48	24.8
10:55 AM	5.02	24.6	4.76	24.6	5.44	24.9

Table 5
2007 SOD Measurement Station: D

Date: 8/1/2007
Location: Oak Meadows, Downstream 2, Downstream of 290 East side of Creek
River: Width = 90 ft, Depth = 2 ft, 40% sediment ON X-SECTION
Sediment: 0.3- 0.4 ft deep, silty sand progressing to silty gravel

DO Meter Air Calibration Info:

	Meter 1*	Meter 2	Meter 3
DO (mg/L)	8.31	8.07	8.11

Photosynthesis reference and QC:

	Time		Probe Reading	
	Start	End	DO (mg/L)	Temp. (°C)
Initial	11:26 AM		6.22	25.6
Light bottle	11:33 AM	1:05 PM	6.58	26.5
Dark bottle	11:33 AM	1:07 PM	6.18	26.3

Measurements:

Time	Probe 1		Probe 2		Blank	
	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)
11:31 AM	6.08	25.2	6.01	25.3	5.89	25.2
11:41 AM	6.06	24.9	5.87	25.0	5.83	25.3
11:51 AM	6.02	25.0	5.81	25.0	5.79	25.4
12:01 PM	5.98	25.0	5.76	25.1	5.79	25.5
12:11 PM	5.94	25.1	5.74	25.2	5.74	25.5
12:21 PM	5.90	25.2	5.66	25.3	5.69	25.6
12:31 PM	5.87	25.3	5.61	25.4	5.65	25.8
12:41 PM	5.82	25.4	5.56	25.5	5.62	25.9
12:51 PM	5.78	25.5	5.52	25.6	5.58	26.0
1:01 PM	5.74	25.6	5.47	25.7	5.52	26.1

Note: * DO Probe - Plastic cover is damaged

Table 6
2007 SOD Measurement Station: E

Date: 7/30/2007
Location: Oak Brook Dam Upstream 2, N of 31st St
River: 60 ft wide, 1.2 ft depth, % sediment unknown (~50% minimum), river is deep 2-3 ft
Sediment: Depth 0.1- 0.3 ft, light, fluffy organic with hard clay underneath

DO Meter Air Calibration Info:

	Meter 1	Meter 2	Meter 3
DO (mg/L)	8.85	8.90	8.87

Photosynthesis reference and QC:

	Time		Probe Reading	
	Start	End	DO (mg/L)	Temp. (°C)
Initial	9:04 AM	10:45 AM	4.85	23.6
Light bottle			5.32	24.6
Dark bottle			5.23	23.9

Measurements:

Time	Probe 1		Probe 2		Blank	
	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)
9:09 AM	4.91	23.4	4.74	23.3	5.10	23.6
9:19 AM	4.79	23.4	4.57	23.3	5.03	23.6
9:29 AM	4.72	23.4	4.48	23.3	5.00	23.6
9:39 AM	4.66	23.4	4.40	23.3	5.00	23.6
9:49 AM	4.60	23.4	4.33	23.3	4.93	23.6
9:59 AM	4.55	23.4	4.26	23.3	4.93	23.6
10:09 AM	4.50	23.4	4.19	23.3	4.93	23.6
10:19 AM	4.45	23.5	4.13	23.3	4.92	23.7
10:29 AM	4.40	23.5	4.07	23.3	4.88	23.7
10:39 AM	4.35	23.4	4.01	23.3	4.87	23.7

Table 7
2007 SOD Measurement Station: F

Date: 7/30/2007
Location: South of 31st St Oak Brook Dam
River: 100ft wide, 1-1.3 ft deep, 20% sediment
Sediment: 3.1- 3.4 ft deep, thick, fluffy organic

DO Meter Air Calibration Info:

	Meter 1	Meter 2	Meter 3
DO (mg/L)	8.34	8.26	8.28

Photosynthesis reference and QC:

	Time		Probe Reading	
	Start	End	DO (mg/L)	Temp. (°C)
Initial	11:16 AM	1:00 PM	6.13	24.5
Light bottle			5.75	26.1
Dark bottle			4.83	25.6

Measurements:

Time	Probe 1		Probe 2		Blank	
	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)
11:21 AM	4.89	24.2	4.98	24.1	5.40	24.3
11:31 AM	4.71	24.0	4.99	24.0	5.47	24.4
11:41 AM	4.61	24.1	4.85	24.1	5.43	24.6
11:51 AM	4.52	24.2	4.74	24.2	5.38	24.7
12:01 PM	4.43	24.3	4.64	24.3	5.32	24.9
12:11 PM	4.34	24.5	4.54	24.4	5.28	25.1
12:21 PM	4.25	24.7	4.45	24.5	5.21	25.2
12:31 PM	4.17	24.5	4.35	24.6	5.19	25.3
12:41 PM	4.09	24.5	4.22	24.7	5.15	25.5
12:51 PM	4.01	25.1	4.19	24.9	5.11	25.6

Table 8
2007 SOD Measurement Station: G

Date: 7/25/2007
Location: Oak Brook Dam-Downstream 1 OBD-DS1
River: Width 35 ft, Depth 1.5-2.3 ft, 50% sediment, pool with sediment before a riffle, gravel & shell upstream
Sediment: Depth 0.7-1.0 ft, sandy sediment

DO Meter Air Calibration Info:

	Meter 1	Meter 2	Meter 3
DO (mg/L)	8.26	8.15	8.09

Photosynthesis reference and QC:

	Time		Probe Reading	
	Start	End	DO (mg/L)	Temp. (°C)
Initial	9:55 AM		6.66	24.4
Light bottle	10:06 AM	11:42 AM	7.05	25.0
Dark bottle	10:06 AM	11:42 AM	6.68	24.7

Measurements:

Time	Probe 1		Probe 2		Blank	
	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)
10:06 AM	6.53	24.0	6.54	24.0	6.31	24.3
10:16 AM	6.50	24.0	6.49	23.9	6.29	24.3
10:26 AM	6.43	24.0	6.44	23.9	6.26	24.3
10:36 AM	6.36	24.0	6.40	24.0	6.24	24.4
10:46 AM	6.30	24.1	6.39	24.0	6.26	24.4
10:56 AM	6.24	24.1	6.30	24.1	6.21	24.5
11:06 AM	6.17	24.2	6.25	24.2	6.21	24.5
11:16 AM	6.12	24.3	6.20	24.2	6.15	24.5
11:26 AM	6.06	24.3	6.16	24.3	6.15	24.7
11:36 AM	5.99	24.4	6.10	24.4	6.15	24.7

Table 9
2007 SOD Measurement Station: H

Date: 7/25/2007
Location: Oak Brook Downstream 2. 500 ft North of Visitor Center
River: Width 80 ft, Depth 1.7-2.4 ft, 25% sediment
Sediment: Depth 0.5-1.0 ft, light, fluffy, silty and highly organic

DO Meter Air Calibration Info:

	Meter 1	Meter 2	Meter 3
DO (mg/L)	7.48	7.57	7.77

Photosynthesis reference and QC:

	Time		Probe Reading	
	Start	End	DO (mg/L)	Temp. (°C)
Initial	12:45 PM		7.17	25.7
Light bottle	12:45 PM	2:20 PM	7.29	25.8
Dark bottle	12:45 PM	2:20 PM	6.87	25.7

Measurements:

Time	Probe 1		Probe 2		Blank	
	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)
12:45 PM	6.93	25.5	6.80	24.9	6.68	25.8
12:55 PM	6.78	25.4	6.62	25.4	6.83	25.7
1:05 PM	6.64	25.3	6.49	25.3	6.78	25.7
1:15 PM	6.52	25.3	6.36	25.3	6.76	25.6
1:25 PM	6.39	25.3	6.23	25.2	6.73	25.6
1:35 PM	6.27	25.3	6.09	25.2	6.66	25.6
1:45 PM	6.14	25.2	5.97	25.2	6.63	25.5
1:55 PM	6.02	25.3	5.84	25.2	6.60	25.5
2:05 PM	5.90	25.3	5.72	25.2	6.57	25.6
2:15 PM	5.79	25.3	5.59	25.3	6.52	25.7

Table 10
2007 SOD Measurement Station: I

Date: 8/1/2007
Location: Grave Mill Upstream 2, where Creek turns north, opposite Salt Creek Circle
River: Width 130 ft, Depth 1.6- 2.2 ft, 100% sediment
Sediment: Depth 2.3- 2.7 ft, light, fluffy, gelatinous, organic

DO Meter Air Calibration Info:

	Meter 1	Meter 2	Meter 3
DO (mg/L)	7.62	7.51	7.58

Photosynthesis reference and QC:

	Time		Probe Reading	
	Start	End	DO (mg/L)	Temp. (°C)
Initial	2:51 PM		6.51	28.9
Light bottle	2:51 PM	4:36 PM	6.38	28.7
Dark bottle	2:51 PM	4:39 PM	6.37	28.6

Measurements:

Time	Probe 1		Probe 2		Blank	
	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)
3:03 PM	5.88	28.3	5.90	28.4	5.98	28.7
3:13 PM	5.75	28.2	5.67	28.3	6.10	28.7
3:23 PM	5.60	28.2	5.49	28.3	6.05	28.7
3:33 PM	5.46	28.2	5.33	28.3	5.98	28.7
3:43 PM	5.31	28.2	5.17	28.3	5.93	28.7
3:53 PM	5.17	28.2	5.02	28.3	5.90	28.8
4:03 PM	5.03	28.3	4.87	28.3	5.85	28.8
4:13 PM	4.90	28.3	4.72	28.3	5.77	28.8
4:23 PM	4.76	28.3	4.59	28.3	5.73	28.8
4:33 PM	4.62	28.4	4.46	28.4	5.68	28.8

Table 11
2007 SOD Measurement Station: J

Date: 7/24/2007
Location: Just upstream of GM Dam along west bank
River: Width 200 ft, Depth 1.8-2.2 ft, 100% sediment, slow flow above dam, murky, leeches
Sediment: 0.8-2.0 ft deep, light fluffy gelatinous sediment

DO Meter Air Calibration Info:

2:35 DST	Meter 1	Meter 2	Meter 3
DO (mg/L)	8.49	8.28	7.72

Photosynthesis reference and QC:

	Time		Probe Reading	
	Start	End	DO (mg/L)	Temp. (°C)
Initial	2:37 PM		10.11	26.0
Light bottle	2:42 PM	4:47 PM	8.38	25.4
Dark bottle	2:42 PM	4:49 PM	8.17	25.2

Measurements:

Time	Probe 1		Probe 2		Blank	
	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)
2:44 PM	9.78	25.7	9.70	25.6	8.80	26.0
2:54 PM	9.52	25.6	9.48	25.5	8.86	26.0
3:04 PM	9.29	25.5	9.27	25.5	8.82	25.9
3:14 PM	9.07	25.4	9.08	25.3	8.68	25.8
3:24 PM	8.87	25.4	8.90	25.3	9.13	25.8
3:34 PM	8.65	25.4	8.70	25.3	9.26	25.8
3:44 PM	8.46	25.3	8.53	25.3	9.55	25.9
3:54 PM	8.27	25.3	8.38	25.3	9.51	25.9
4:06 PM	8.10	25.3	8.22	25.3	9.47	25.8
4:16 PM	7.93	25.3	8.07	25.3	9.39	25.8
4:26 PM	7.75	25.3	7.92	25.3	9.31	25.8
4:36 PM	7.58	25.3	7.77	25.3	9.29	25.8
4:45 PM	7.43	25.3	7.64	25.3	9.17	25.7

Note: Installed plug in Probe 3 between 3:14 PM and 3:24 PM.

Pump hose came loose in Probe 3 between 3:44 PM and 3:54 PM.

Table 12
2007 SOD Measurement Station: K

Date: 7/24/2007
Location: SC downstream, along west bank, of Grane Mill & York Road
River: Width 80 - 90 ft, Depth 1.6 ft, 20% Sediment
Sediment: 4.8 inches deep, sandy with silt

DO Meter Air Calibration Info:

	Meter 1	Meter 2	Meter 3
DO (mg/L)	9.08	9.07	9.08

Photosynthesis reference and QC:

	Time		Probe Reading	
	Start	End	DO (mg/L)	Temp. (°C)
Initial	9:00 AM		7.13	23.9
Light bottle	9:09 AM	10:45 AM	7.60	24.7
Dark bottle	9:09 AM	10:47 AM	7.03	24.2

Measurements:

Time	Probe 1		Probe 2		Blank	
	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)
9:09 AM	7.08	23.7	7.20	23.8	6.53	24.0
9:18 AM	6.90	23.8	7.04	23.9	6.58	24.1
9:28 AM	6.80	23.8	6.95	23.9	6.56	24.1
9:39 AM	6.70	23.8	6.85	23.9	6.52	24.1
9:50 AM	6.60	23.9	6.75	23.9	6.50	24.1
10:01 AM	6.51	23.9	6.67	24.0	6.45	24.1
10:11 AM	6.42	23.9	6.58	24.0	6.49	24.2
10:22 AM	6.32	24.0	6.49	24.1	6.47	24.3
10:33 AM	6.23	24.1	6.40	24.1	6.41	24.3
10:42 AM	6.15	24.2	6.33	24.2	6.38	24.5

Note: Plug out on Probe 1

Table 13
2007 SOD Measurement Station: L

Date: 7/24/2007
Location: SC West Bank Behind Robert Clolun Center
River: Width 250 ft, Depth 1.5-2.0 ft, 90% sediment, murky brown
Sediment: 0.8-1.0 ft deep, silty sand with lots of organic matter

DO Meter Air Calibration Info:

	Meter 1	Meter 2	Meter 3
DO (mg/L)	9.68	9.24	8.43

Photosynthesis reference and QC:

	Time		Probe Reading	
	Start	End	DO (mg/L)	Temp. (°C)
Initial	11:21 AM		8.70	25.0
Light bottle	11:21 AM	12:57 PM	8.88	25.5
Dark bottle	11:21 AM	12:59 PM	8.27	25.4

Measurements:

Time	Probe 1		Probe 2		Blank	
	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)	DO (mg/L)	Temp. (°C)
11:24 AM	8.85	24.8	8.81	24.8	8.00	25.0
11:34 AM	8.69	24.7	8.59	24.7	8.15	25.1
11:44 AM	8.57	24.8	8.44	24.8	8.07	25.2
11:53 AM	8.45	24.8	8.31	24.8	8.04	25.3
12:04 PM	8.33	24.9	8.19	24.9	7.94	25.5
12:15 PM	8.21	25.0	8.09	25.0	7.85	25.6
12:25 PM	8.10	25.1	7.99	25.0	7.79	25.7
12:35 PM	7.98	25.2	7.87	25.1	7.74	25.8
12:45 PM	7.87	25.2	7.78	25.2	7.72	25.8
12:55 PM	7.76	25.3	7.68	25.2	7.69	25.8

Table 14: Summary of In-Situ Sediment Oxygen Demand (SOD) during 2007 SOD Survey

In-Situ SOD Measurement Chamber Dimensions: Volume (L) = 64.86; Area (m²) = 0.27

Station ID	Slope (mg/L/d)			SOD (g/m ² /d)			Average Temperature (°C)		SOD (g/m ² /d) - Temperature Corrected to 20 °C		
	Probe 1	Probe 2	Blank	Probe 1	Probe 2	Average	Probe 1	Probe 2	Probe 1	Probe 2	Average
A	-14.84	-4.15	-8.28	1.58	0.00	0.79	25.9	25.6	1.00	0.00	0.50
B	-20.55	-14.69	-4.84	3.77	2.37	3.07	23.9	24.0	2.79	1.74	2.27
C	-7.92	-9.79	-3.93	0.96	1.41	1.18	24.4	24.5	0.68	1.00	0.84
D	-5.58	-7.93	-5.59	0.00	0.56	0.28	25.2	25.3	0.00	0.37	0.19
E	-8.42	-10.93	-3.26	1.24	1.84	1.54	23.4	23.3	0.95	1.43	1.19
F	-13.41	-13.94	-6.65	1.62	1.75	1.69	24.4	24.4	1.16	1.25	1.20
G	-8.83	-6.99	-2.71	1.47	1.03	1.25	24.1	24.1	1.07	0.75	0.91
H	-18.14	-18.98	-5.50	3.04	3.24	3.14	25.3	25.2	2.02	2.17	2.09
I	-20.25	-22.60	-7.54	3.05	3.62	3.34	28.3	28.3	1.62	1.91	1.76
J	-27.40	-24.08	-8.69	4.49	3.70	4.10	25.4	25.4	2.96	2.45	2.70
K	-13.55	-12.82	-3.07	2.52	2.34	2.43	23.9	24.0	1.86	1.72	1.79
L	-16.87	-16.93	-8.58	1.99	2.01	2.00	25.0	25.0	1.36	1.37	1.36

Note: For Station A, SOD of Probe 2 is zero as DO depletion in the blank chamber was greater than in the Probe 2 chamber.

Table 15: Summary of Average SOD in the Upstream and Downstream of the Dam during 2007 SOD Survey

Dam	Loaction	SOD (g/m ² /d) - Temperature Corrected to 20 °C
Oak Meadows Golf Course Dam	Upstream	1.38
	Downstream	0.51
Old Oak Brook Dam	Upstream	1.20
	Downstream	0.91
Graue Mill (Fullersburg) Dam	Upstream	2.19
	Downstream	1.58