



WATER WATCH

2010 Project Update #1

Happy summer to all Dakota Water Watch volunteers. Hopefully, you all have been able to stay dry throughout all the rain we've had the last couple of weeks. For those of you new to the program this year, this is the first of two updates containing summaries of data collected so far this season along with some pointers and reminders to aid in your sampling activities.

Table 1. Secchi Depth Averages by Lake

Secchi Depth Average April-July 2010	
Lake/Stream	Depth (m)
Andes	0.35
Brant	1.14+
Campbell	0.36
Dry	1.00+
Grass	0.21
Hendricks	1.63
Henry	0.62+
Herman	0.71+
Long	0.85+
Madison	0.70+
Mitchell	0.83
Oakwood	0.93+
Pocasse	0.43
Poinsett	1.92+
Prior	0.55
Round	0.76
Thompson	0.40
Twin	1.30+

Currently there are volunteers sampling 18 different lakes and several other water bodies including rivers, streams, ponds, and drainage ditches. Table 1 shows monthly averages of transparency readings from the lakes based on data received through July 31st.

Lake Poinsett had the best Secchi depth average for the first four months of the 2010 sampling season with a value greater than 1.92 meters. Grass Lake had the poorest transparency, with a Secchi depth average of 0.21 meters. However, this value is based off of samples taken on one morning in July. The lowest Secchi depth average for a lake that undergoes repeated sampling is Lake Andes at 0.35 meters.

Table 2 shows *E. coli* bacteria averages for each month by site. If your lake or site does not appear on this table it is most likely because your mini lab has not yet submitted your data. Those numbers will be included in the second update and the final report. Overall, *E. coli* averages are well below the standard adopted by the state of South Dakota in August 2009 (Table 3). Brant Lake does have some elevated bacteria counts in June, but these quickly fall back into the area of minimal concern in July. The highlighted number for site 4302DDD (Brant Lake) in June is the result of there being too many *E. coli* colonies to accurately count. The average *E. coli* value for that site should be much higher, but it is impossible to accurately assign it a number.

Table 2. *E. coli* averages for each month by site

<i>E. coli</i> Bacteria (colony forming units/100mL)						
Lake/Stream	Monitoring Site	Monitor Name	April	May	June	July
River Sites						
Split Rock Creek	103-47-17A	Dave & Mary Finck	42		267	400
Woonsocket (City Drainage Canal)	107-62-35A	Noah Thompson		13	114	
	112-46-18A	Joe Beech			0	
Ditch 11 (MN)	112-47-25A	Joe Beech			27	
Deer Creek	112-47-32A	Joe Beech	0		20	
W. Pipestone Creek	102-48-10A	Jeanne Fromm			483	1133
Split Rock Creek	102-48-2A	Jeanne Fromm			300	250
unnamed pond	102-48-5A	Jeanne Fromm			0	0
Lake Andes						
Andes	1708AAA	D. Chytka, E. Conn	0	0	7	0
Andes	1708BBB	J. Evans, Di. Deurmier, T. Deurmier, A. Evans, A. Ronfeldt	0	0	0	13
Andes	1708CCC	Da. Deurmier, D. Ronfeldt, R. Svatos, A. Evans, T. Deurmier	33	20	53	13
Brant Lake						
Brant	4302AAA	David Phalen		0	44	0
Brant	4302BBB	David Phalen		13	71	13
Brant	4302CCC	David Phalen		7	4	0
Brant	4302DDD	David Phalen		7	30	0
Brant	4302EEE	David Phalen		7	158	0
Brant	4302FFF	David Phalen		20	111	7
Brant	4302GGG	David Phalen		0	118	13
Brant	4302HHH	David Phalen		7	27	0
Brant	4302III	David Phalen		20	42	0
Brant	4302JJJ	David Phalen		20	129	20
Brant	4302KKK	David Phalen		20	22	0
Brant	4302LLL	David Phalen		0	5	0
Brant	4302MMM	David Phalen		7	16	10
Brant	4302NNN	David Phalen		7	69	60
Brant	4302OOO	David Phalen		7	51	20
Brant	4302PPP	David Phalen		0	36	0
Brant	4302QQQ	David Phalen		0	100	0
Lake Campbell						
Campbell	9606BBB	Mike Barr		33		7
Campbell	9606GGG	LaQuita Lombard	0	7	93	
Dry Lake						
Dry	9503AAA	Vincent Flemming			13	120
Grass Lake						
Grass	9109AA	Rosalin Williams & Mary Finck				0
Grass	9109AAA	Dave Finck & Patrick Williams				0
Grass	9109BB	Jay Heath & Kati Albers				0
Grass	9109BBB	Dave Finck & Patrick Williams				0
Grass	9109EEE	Jay Heath & Kati Albers				0
Grass	9109GGG	Rosalin Williams & Mary Finck				13
Grass	9109KKK	Rosalin Williams & Mary Finck				0
Grass	9109NNN	Jay Heath & Kati Albers				7
Grass	9109OOO.	Dave Finck & Patrick Williams				0
Lake Hendricks						
Hendricks	9609AA	Joe Beech	0			
Hendricks	9609AAA	Joe Beech			47	
Hendricks	9609BB	Joe Beech	0		67	
Hendricks	9609CC	Joe Beech	0			
Lake Henry						
Henry	4208AAA	Paul Hope		7		
Long Lake						
Long	4308AAA	Carol DeShepper				
Lake Mitchell						
Mitchell	9801AAA	Noah Thompson		27	150	
Oakwood Lakes						
Oakwood	9613AAA	Janie Wittmeier		73	0	0
Oakwood	9613BBB	Lee Larsen		0	0	0
Oakwood	9613CCC	Janie Wittmeier		53	0	0
Oakwood	9613DDD	Lee Larsen		0	0	0
Oakwood	9614AAA	Robert Schultz		0	0	0
Oakwood	9614BBB	Janie Wittmeier		0	0	0
Oakwood	9615AA					
Oakwood	9615AAA	Philip Langner		0	0	0
Oakwood	9615BBB	Philip Langner		0	0	0
Oakwood	9615CCC	Lee Larsen		0	0	0
Oakwood	9615DDD	Lee Larsen		0	0	0
Oakwood	9615EEE	Janie Wittmeier		0	0	0
Oakwood	9615FFF	Lee Larsen		33	0	0
Oakwood	9615GGG	Roger Bommersbach		0	0	
Oakwood	9615HHH	Roger Bommersbach		0	0	
Oakwood	9615III	Robert Schultz		0	0	0
Lake Poinsett						
Poinsett	3125AAA	Ivan Palmer	0	7	20	7
Poinsett	3125DDD	Mike Glavaris		20	7	
Poinsett	3125GGG	Judith Nofziger			0	0
Lake Prior						
Prior	5406AAA	Noah Thompson		7	94	
Lake Thompson						
Thompson	4222AAA	Christine Hellekson		0		
Thompson	4222MMM	Larry Lienhard		53		
Twin Lakes						
Twin	5606AAA	Noah Thompson		27	60	

Table 3. South Dakota *E. coli* Standards

South Dakota <i>E. coli</i> Standards	
<u>Geometric Mean</u>	
Immersion Recreation Waters	≤ 126 cfu/100mL*
Limited Contact Recreation Waters	≤ 630 cfu/100mL*
<u>Single Sample Maximum</u>	
Immersion Recreation Waters	≤ 235 cfu/100mL
Limited Contact Recreation Waters	≤ 1178 cfu/100mL
* geometric mean based on a minimum of 5 samples taken during separate 24-hour periods for any 30 day period	

Additionally...

Safety

Safety is always the #1 priority of Dakota Water Watch. This is especially important with all the flooding and high water across the state this summer. We would like to remind you to be extra careful while collecting samples, and if conditions at your site raise any cause for concern, DO NOT sample at that time. No piece of data is worth risking your safety.

Registration Sheets

If any of you are submitting information, but have not turned in a registration sheet/liability waiver, please do so as soon as possible. If you need a registration sheet/liability waiver, please let me know and I will get one you as soon as possible.

Datasheets

Just a reminder to be careful to fill out your datasheets as completely as possible. We are not able to make any assumptions about information on datasheets, so any data that a monitor omits must be recorded as a blank. All the fields on the datasheet are useful, so again, please do your best to record your data completely and accurately. Also, please be sure to circle or record the correct units for rainfall, temperature, and depth measurements.

Database

While it is not yet fully operational, a beta version of a Dakota Water Watch database was completed this spring by the Missouri River Institute and is currently being populated with data collected by volunteers over the last few years. The database may be available online to view historical data as early as this winter and should be available for online data entry in the near future.

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