

SWIMM  
X

## Wisconsin DNR – Lake Level Monitoring Staff Gauge Survey Data Sheet

**Lake Information**  
 Lake Name Vincent Lake County Polk

**Data Collectors**  
 Primary Data Collector \_\_\_\_\_ Email \_\_\_\_\_ Phone No. \_\_\_\_\_  
 Additional Data Collector(s) \_\_\_\_\_

**Reference Mark and Staff Gauge Information**

**Reference Mark #1 (RM1)** Reference Mark Type: \_\_\_\_\_  
 Latitude: 45°32'12.212" Longitude: 92°21'34.317" Mean Sea Level Yes  No  Elevation: 1196.21 Photograph   
 Location Description: RM 1 is the North westerly corner of the westerly concrete Pad patio on lake side of house.

**Reference Mark #2 (RM2)** Reference Mark Type: \_\_\_\_\_  
 Latitude: 45°32'12.359" Longitude: 92°21'34.156" Mean Sea Level Yes  No  Elevation: 1195.85 Photograph   
 Location Description: RM 2 is the North westerly corner of the Easterly concrete Pad patio on Lake side of house.

**Reference Mark #3 (RM3)** Reference Mark Type: \_\_\_\_\_  
 Latitude: 45°32'13.016" Longitude: 92°21'34.947" Mean Sea Level Yes  No  Elevation: 1191.06 Photograph   
 Location Description: RM 3 is the Highest Point of a large rock near the OHWM on the North easterly side of yard

**Staff Gauge**  
 Latitude: 45°32'13.014" Longitude: 92°21'35.718" Mean Sea Level Yes  No  Elevation: 1188.10 Photograph   
 Location Description: Staff Gauge is located on North easterly side of Dock near the deepest end of Dock

Date: 6-28-2019 Time: 11:43 AM/PM Check one: Install  Midseason  Removal

**Survey Stage 1 - Instrument at first height\***

	Reference Mark 1	Fore sight (FS1)	Calculated Elevation (CE1)	
Given Elevation (GE <sub>RM1</sub> )	<u>1196.21</u>			Survey Equations: HI1 = GE <sub>RM1</sub> + BS1 CE1 = HI1 - FS1
Back sight 1 (BS1)	<u>+ 1.72</u>			
Height of Instrument (HI1)	<u>1197.93</u>	<u>9.83</u>	<u>1188.10</u>	
	HI1 - Ref Mark 2	<u>2.08</u>	<u>1195.85</u>	
	HI1 - Ref Mark 3	<u>6.87</u>	<u>1191.06</u>	

**Survey Stage 2 - Reset instrument at different height**

	Staff Gauge	Fore sight (FS2)	Calculated Elevation (CE2)	
Calculated Elevation 1	<u>1188.10</u> ←			Survey Equations: HI2 = CE <sub>SG1</sub> + BS2 CE2 = HI2 - FS2
Back sight 2 (BS2)	<u>+ 9.65</u>			
Height of Instrument (HI2)	<u>1197.75</u>	<u>1.54</u>	<u>1196.21</u>	
	HI2 - Ref Mark 2	<u>1.90</u>	<u>1195.85</u>	
	HI2 - Ref Mark 3	<u>6.69</u>	<u>1191.06</u>	

**Quality Assurance Checks:**

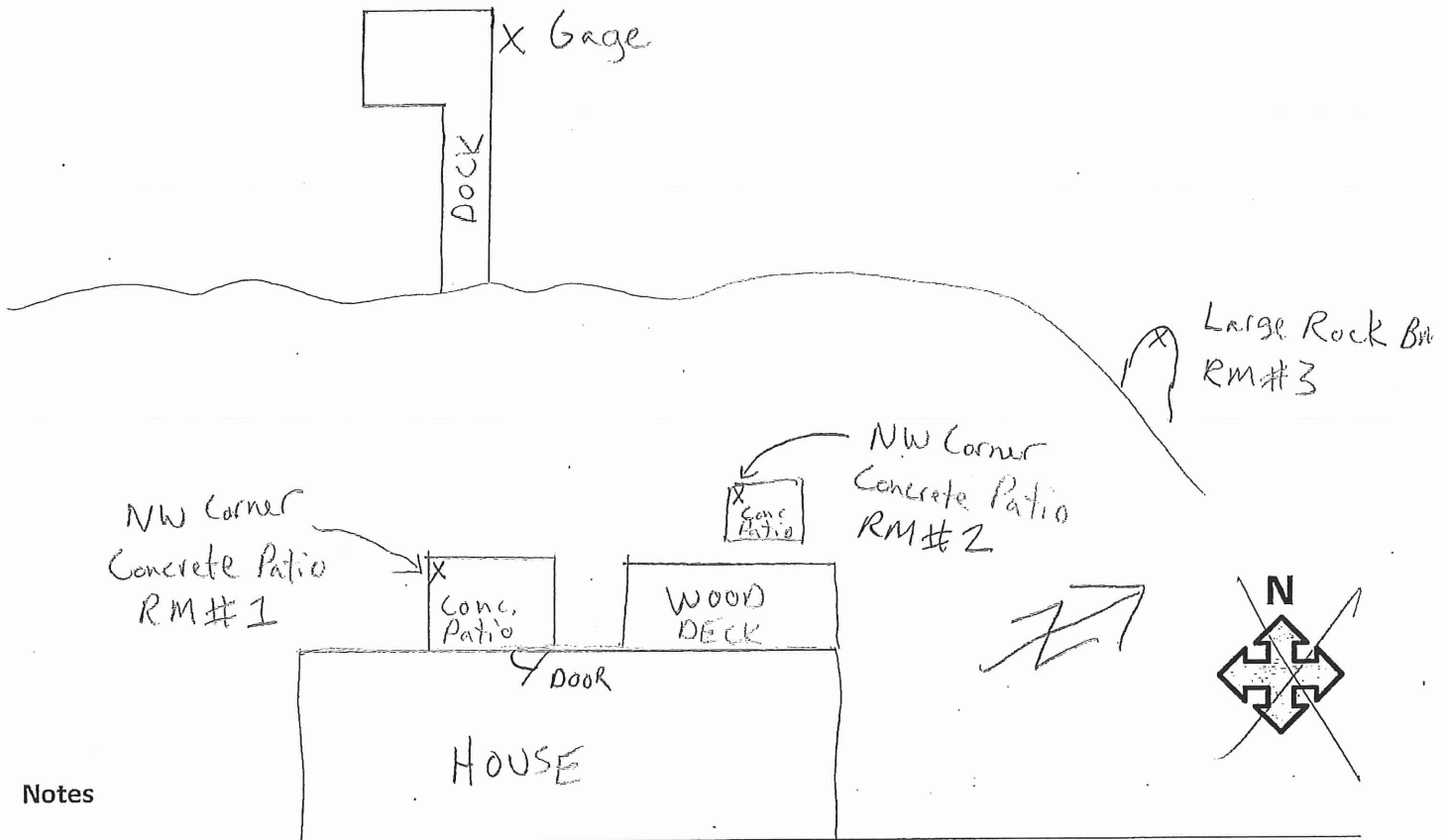
Reference Mark 1:	BS1 <u>1.72</u>	FS1 <u>9.83</u>	QA Equations:
GE = CE2	BS2 <u>+9.65</u>	FS2 <u>+1.54</u>	BS1 + BS2 = FS1 <sub>SG</sub> + FS2 <sub>RM1</sub>
	<u>1137</u>	<u>1137</u>	GE <sub>RM1</sub> = CE2 <sub>RM1</sub>

\*Accept Survey Stage 1 if QA checks within 0.01 ft. Use calculated elevations 1 for the rest of the season unless the gauge moves.

**Lake Level Reading:** 1.41 ft      Water Elevation - 1189.48'  
 Calculated Elevation 1: 1188.07

Wisconsin DNR – Lake Level Monitoring  
**Staff Gauge Survey Data Sheet**

Site Diagram (including Staff Gauge and Reference Marks)



Notes

Gage and Reference Marks are at residence: 957 Vincent Lake Lane

**Data Management**

Survey Data uploaded to SWIMS? Yes  No  Date: \_\_\_\_\_ Name: \_\_\_\_\_  
 Photographs uploaded to SWIMS? Yes  No  Date: \_\_\_\_\_ Name: \_\_\_\_\_  
 Data Sheet scan uploaded to SWIMS? Yes  No  Date: \_\_\_\_\_ Name: \_\_\_\_\_

**Equipment Maintenance**

Replace bolts/screws on staff gauge? Yes  No  Date: \_\_\_\_\_ Name: \_\_\_\_\_  
 Replace gauge plate on staff gauge? Yes  No  Date: \_\_\_\_\_ Name: \_\_\_\_\_  
 Replace post or wooden board? Yes  No  Date: \_\_\_\_\_ Name: \_\_\_\_\_



Swims  
CZ  
3/10/2020

## Wisconsin DNR – Lake Level Monitoring Staff Gauge Survey Data Sheet

**Lake Information**  
 Lake Name: Vincent LAKE County: Polk

**Data Collectors**  
 Primary Data Collector: \_\_\_\_\_ Email: \_\_\_\_\_ Phone No.: \_\_\_\_\_  
 Additional Data Collector(s): \_\_\_\_\_

**Reference Mark and Staff Gauge Information**  
**Reference Mark #1 (RM1)** Reference Mark Type: \_\_\_\_\_  
 Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Mean Sea Level Yes  No  Elevation: \_\_\_\_\_ Photograph   
 Location Description: \_\_\_\_\_

**Reference Mark #2 (RM2)** Reference Mark Type: \_\_\_\_\_  
 Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Mean Sea Level Yes  No  Elevation: \_\_\_\_\_ Photograph   
 Location Description: \_\_\_\_\_

**Reference Mark #3 (RM3)** Reference Mark Type: \_\_\_\_\_  
 Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Mean Sea Level Yes  No  Elevation: \_\_\_\_\_ Photograph   
 Location Description: \_\_\_\_\_

**Staff Gauge**  
 Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Mean Sea Level Yes  No  Elevation: \_\_\_\_\_ Photograph   
 Location Description: \_\_\_\_\_

Date: 9-19-2019 Time: 9:33 AM/PM Check one: Install  Midseason  Removal

**Survey Stage 1 - Instrument at first height\***

	Reference Mark 1	Fore sight (FS1)	Calculated Elevation (CE1)	
Given Elevation (GE <sub>RM1</sub> )	<u>1196.21</u>			Survey Equations: HI1 = GE <sub>RM1</sub> + BS1 CE1 = HI1 - FS1
Back sight 1 (BS1)	<u>+ 1.20</u>			
Height of Instrument (HI1)	<u>1197.41</u>	<u>9.31</u>	= <u>1188.10</u>	
	HI1 - Ref Mark 2	<u>1.56</u>	= <u>1195.85</u>	
	HI1 - Ref Mark 3	<u>6.35</u>	= <u>1191.06</u>	

**Survey Stage 2 - Reset instrument at different height**

	Staff Gauge	Fore sight (FS2)	Calculated Elevation (CE2)	
Calculated Elevation1	<u>1188.10</u> ←			Survey Equations: HI2 = CE <sub>SG1</sub> + BS2 CE2 = HI2 - FS2
Back sight 2 (BS2)	<u>+ 9.03</u>			
Height of Instrument (HI2)	<u>1197.13</u>	<u>0.93</u>	= <u>1196.20</u>	
	HI2 - Ref Mark 2	<u>1.29</u>	= <u>1195.91</u>	
	HI2 - Ref Mark 3	<u>6.09</u>	= <u>1191.04</u>	

**Quality Assurance Checks:**

Reference Mark 1:	BS1 <u>1.20</u>	FS1 <u>9.31</u>	
GE = CE2	BS2 + <u>9.03</u>	FS2 + <u>0.93</u>	
	<u>10.23</u>	=	<u>10.24</u>

QA Equations:  
 BS1 + BS2 = FS1<sub>SG</sub> + FS2<sub>RM1</sub>  
 GE<sub>RM1</sub> = CE2<sub>RM1</sub>

\*Accept Survey Stage 1 if QA checks within 0.01 ft. Use calculated elevations 1 for the rest of the season unless the gauge moves.

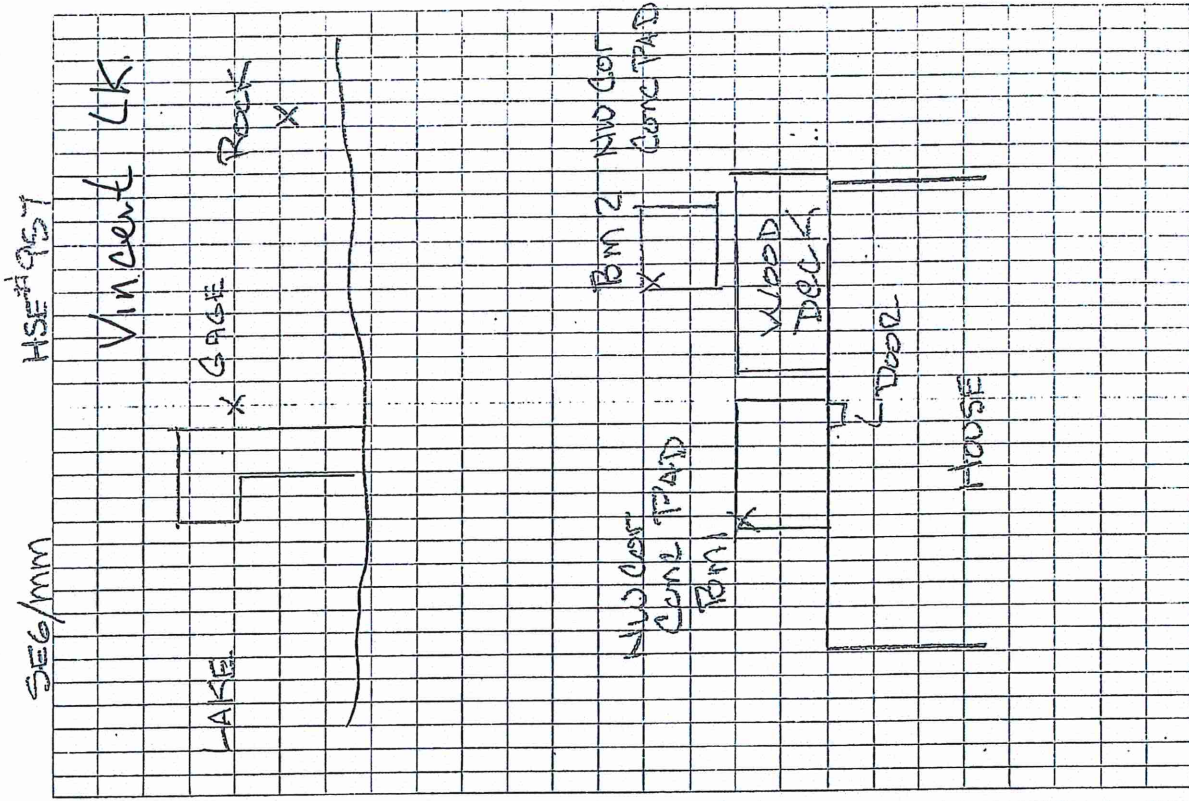
Lake Level Reading: 1.52 ft  
 WATER 7.55  
 1189.58  
 Calculated Elevation 1: 1188.06





Cloudy/Humid 6-28-2019

STA	BS	FS
WATER	8.80	1189.48
Bm 1	2.07	6.73 1196.21
Bm 2	2.43	6.37 1195.85
Bm 3	7.22	1.58 1191.06
WATER	8.45	1197.93
Bm 1	1.73	6.72 1196.20
Bm 2	2.09	6.36 1195.84
Bm 3	6.87	1.58 1191.06



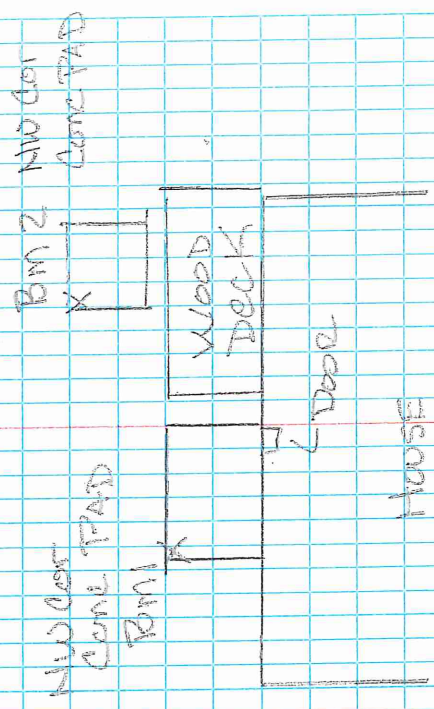
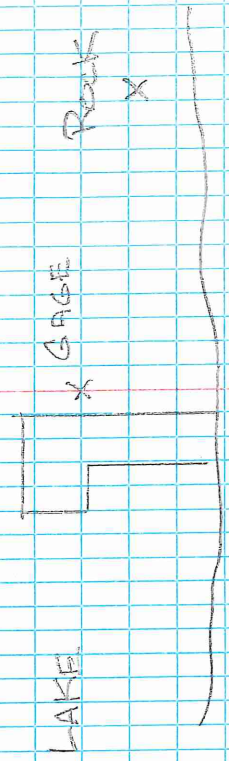


Cloudy/Humid 6-28-2019

STA	BS	FS	
WATER	3.80		1189.48'
Bm 1		2.07	6.73 1196.21'
Bm 2		2.43	6.37 1195.85'
Bm 3		7.22	1.58 1191.06'
WATER	8.45		
Bm 1		1.73	6.72 1196.20'
Bm 2		2.09	6.36 1195.84'
Bm 3		6.87	1.58 1191.06'

SEG/mm

HSE# 957



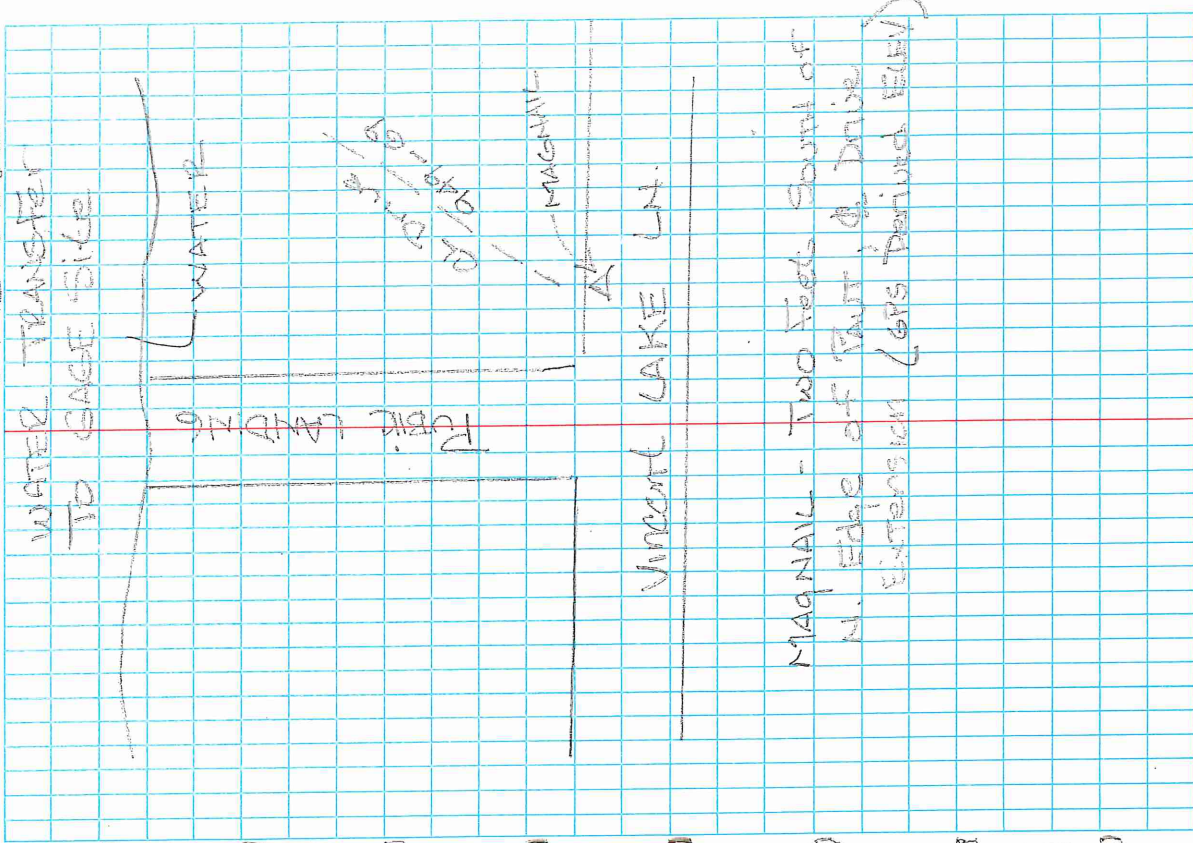


6-28-2019

SEG/MM

STA	BS	FS	ELEV
BM MAG NAIL	2.00		1200.31
WATER	12.41	12.83	1189.48
BM MAG NAIL	14.41	14.56	1200.33
		14.39	

VINCENT LAKE LEVELS



MAGNAIL - Two Feet South of N. Edge of PAUL & DRIVE EXTENSION (GPS Derived ELEV)



2020 INSTALL  
6/18/2020

### Wisconsin DNR – Lake Level Monitoring Staff Gauge Survey Data Sheet

**Lake Information**  
 Lake Name: Vincent Lake County: Polk

**Data Collectors**  
 Primary Data Collector: \_\_\_\_\_ Email: \_\_\_\_\_ Phone No.: \_\_\_\_\_  
 Additional Data Collector(s): \_\_\_\_\_

SWIMS 1/22/2021

**Reference Mark and Staff Gauge Information**  
**Reference Mark #1 (RM1)** Reference Mark Type: \_\_\_\_\_  
 Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Mean Sea Level Yes  No  Elevation: 1196.21 Photograph   
 Location Description: SAME AS 2019

**Reference Mark #2 (RM2)** Reference Mark Type: \_\_\_\_\_  
 Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Mean Sea Level Yes  No  Elevation: 1195.85 Photograph   
 Location Description: SAME AS 2019

**Reference Mark #3 (RM3)** Reference Mark Type: \_\_\_\_\_  
 Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Mean Sea Level Yes  No  Elevation: 1191.06 Photograph   
 Location Description: SAME AS 2019

**Staff Gauge**  
 Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Mean Sea Level Yes  No  Elevation: 1188.31 Photograph   
 Location Description: BOTTOM BOLT ON FACE

Date: 6-18-2020 Time: 9:00 (AM/PM) Check one: Install  Midseason  Removal

**Survey Stage 1 - Instrument at first height\***

	Reference Mark 1	Fore sight (FS1)	Calculated Elevation (CE1)	
Given Elevation (GE <sub>RM1</sub> )	<u>1196.21</u>			Survey Equations: HI1 = GE <sub>RM1</sub> + BS1 CE1 = HI1 - FS1
Back sight 1 (BS1)	+ <u>1.37</u>			
Height of Instrument (HI1)	<u>1197.58</u>	<u>9.27</u>	= <u>1188.31</u>	
	HI1 - Ref Mark 2	<u>1.75</u>	= <u>1195.83</u>	
	HI1 - Ref Mark 3	<u>6.55</u>	= <u>1191.03</u>	

**Survey Stage 2 – Reset instrument at different height**

	Staff Gauge	Fore sight (FS2)	Calculated Elevation (CE2)	
Calculated Elevation 1	<u>1188.31</u> ←			Survey Equations: HI2 = CE <sub>SG1</sub> + BS2 CE2 = HI2 - FS2
Back sight 2 (BS2)	+ <u>9.09</u>			
Height of Instrument (HI2)	<u>1197.40</u>	<u>1.19</u>	= <u>1196.21</u>	
	HI2 - Ref Mark 2	<u>1.56</u>	= <u>1195.84</u>	
	HI2 - Ref Mark 3	<u>6.36</u>	= <u>1191.04</u>	

**Quality Assurance Checks:**

Reference Mark 1:	BS1 <u>1.37</u>	FS1 <u>9.27</u>	QA Equations: BS1 + BS2 = FS1 <sub>SG</sub> + FS2 <sub>RM1</sub> GE <sub>RM1</sub> = CE2 <sub>RM1</sub>
GE = CE2	BS2 + <u>9.09</u>	FS2 + <u>1.19</u>	
	<u>10.46</u>	= <u>10.46</u>	

\*Accept Survey Stage 1 if QA checks within 0.01 ft. Use calculated elevations 1 for the rest of the season unless the gauge moves.

Lake Level Reading: 1.42 ft ELEV 1189.69' (WATER)

Calculated Elevation 1: 1188.27



2020 Removal  
9/17/2020

### Wisconsin DNR – Lake Level Monitoring Staff Gauge Survey Data Sheet

**Lake Information**  
 Lake Name Vincent LAKE County Polk

**Data Collectors**  
 Primary Data Collector \_\_\_\_\_ Email \_\_\_\_\_ Phone No. \_\_\_\_\_  
 Additional Data Collector(s) \_\_\_\_\_ SWIMS 1/22/2021

**Reference Mark and Staff Gauge Information**  
**Reference Mark #1 (RM1)** Reference Mark Type: \_\_\_\_\_  
 Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Mean Sea Level Yes  No  Elevation: 1196.21 Photograph   
 Location Description: SAME AS 2019 NW Cor Conc PAD

**Reference Mark #2 (RM2)** Reference Mark Type: \_\_\_\_\_  
 Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Mean Sea Level Yes  No  Elevation: 1195.85 Photograph   
 Location Description: SAME AS 2019 NW Cor Conc PAD

**Reference Mark #3 (RM3)** Reference Mark Type: \_\_\_\_\_  
 Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Mean Sea Level Yes  No  Elevation: 1191.03 Photograph   
 Location Description: SAME AS 2019 HIGH POINT ON ROCK

**Staff Gauge**  
 Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Mean Sea Level Yes  No  Elevation: 1188.31 Photograph   
 Location Description: BOTTOM BOLT ON FACE

Date 9/17/2020 Time 1:30 AM/PM  Check one: Install  Midseason  Removal

**Survey Stage 1 - Instrument at first height\***

	Reference Mark 1	Fore sight (FS1)	Calculated Elevation (CE1)	
Given Elevation (GE <sub>RM1</sub> )	<u>1196.21</u>			Survey Equations: HI1 = GE <sub>RM1</sub> + BS1 CE1 = HI1 - FS1
Back sight 1 (BS1)	<u>+ 0.84</u>			
Height of Instrument (HI1)	<u>1197.05</u>	<u>8.74</u>	<u>= 1188.31</u>	
	HI1 - Ref Mark 2	<u>1.21</u>	<u>= 1195.84</u>	
	HI1 - Ref Mark 3	<u>6.02</u>	<u>= 1191.03</u>	

**Survey Stage 2 - Reset instrument at different height**

	Staff Gauge	Fore sight (FS2)	Calculated Elevation (CE2)	
Calculated Elevation 1	<u>1188.31</u> ←			Survey Equations: HI2 = CE <sub>SG1</sub> + BS2 CE2 = HI2 - FS2
Back sight 2 (BS2)	<u>+ 8.51</u>			
Height of Instrument (HI2)	<u>1196.82</u>	<u>0.61</u>	<u>= 1196.21</u>	
	HI2 - Ref Mark 2	<u>0.98</u>	<u>= 1195.84</u>	
	HI2 - Ref Mark 3	<u>5.79</u>	<u>= 1191.03</u>	

**Quality Assurance Checks:**

Reference Mark 1:	BS1 <u>0.84</u>	FS1 <u>8.74</u>	QA Equations: BS1 + BS2 = FS1 <sub>SG</sub> + FS2 <sub>RM1</sub> GE <sub>RM1</sub> = CE2 <sub>RM1</sub>
GE = CE2	BS2 <u>+ 8.51</u>	FS2 <u>+ 0.61</u>	
	<u>9.35</u>	<u>= 9.35</u>	

\*Accept Survey Stage 1 if QA checks within 0.01 ft. Use calculated elevations 1 for the rest of the season unless the gauge moves.

Lake Level Reading: 0.76 ft

WATER ELEV 1189.02  
 Calculated Elevation 1: 1188.26



6/26/2021

# Wisconsin DNR - Lake Level Monitoring Staff Gauge Survey Data Sheet

Top of Board  
Bottom Board

**Lake Information**  
Lake Name: Vincent LAKE County: POLK

**Data Collectors**  
Primary Data Collector: \_\_\_\_\_ Email: \_\_\_\_\_ Phone No.: \_\_\_\_\_  
Additional Data Collector(s): \_\_\_\_\_

**Reference Mark and Staff Gauge Information**  
**Reference Mark #1 (RM1)**  
Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Reference Mark Type: \_\_\_\_\_  
Mean Sea Level Yes  No  Elevation: 1196.21 Photograph  **A.0**  
Location Description: NW Cor Concrete PAD

**Reference Mark #2 (RM2)**  
Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Reference Mark Type: \_\_\_\_\_  
Mean Sea Level Yes  No  Elevation: 1195.85 Photograph  **A.01**  
Location Description: NW Cor Conc. PAD

**Reference Mark #3 (RM3)**  
Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Reference Mark Type: \_\_\_\_\_  
Mean Sea Level Yes  No  Elevation: 1191.06 Photograph  **A.02**  
Location Description: HIGH POINT ON ROCK

**Staff Gauge**  
Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Mean Sea Level Yes  No  Elevation: 1190.36 Photograph   
Location Description: \_\_\_\_\_

Date: 6/26/2021 Time: 9:30 AM/PM Check one: Install  Midseason  Removal

**Survey Stage 1 - Instrument at first height\***

	Reference Mark 1	Fore sight (FS1)	Calculated Elevation (CE1)	
Given Elevation (GE <sub>RM1</sub> )	<u>1196.21</u>			Survey Equations: $HI1 = GE_{RM1} + BS1$ $CE1 = HI1 - FS1$
Back sight 1 (BS1)	+ <u>1.28</u>			
Height of Instrument (HI1)	<u>1197.49</u>	<u>7.13</u>	= <u>1190.36</u>	
	HI1 - Ref Mark 2	<u>1.65</u>	= <u>1195.84</u>	
	HI1 - Ref Mark 3	<u>6.48</u>	= <u>1191.01</u>	

**Survey Stage 2 - Reset instrument at different height**

	Staff Gauge	Fore sight (FS2)	Calculated Elevation (CE2)	
Calculated Elevation 1	<u>1190.36</u> ←			Survey Equations: $HI2 = CE_{SG1} + BS2$ $CE2 = HI2 - FS2$
Back sight 2 (BS2)	+ <u>7.31</u>			
Height of Instrument (HI2)	<u>1197.67</u>	<u>1.46</u>	= <u>1196.21</u>	
	HI2 - Ref Mark 2	<u>1.83</u>	= <u>1195.84</u>	
	HI2 - Ref Mark 3	<u>6.63</u>	= <u>1191.04</u>	

**Quality Assurance Checks:**

Reference Mark 1:	BS1 <u>1.28</u>	FS1 <u>7.13</u>		QA Equations: $BS1 + BS2 = FS1_{SG} + FS2_{RM1}$ $GE_{RM1} = CE2_{RM1}$
GE = CE2	BS2 + <u>7.31</u>	FS2 + <u>1.46</u>		
	<u>8.59</u>	= <u>8.59</u>		

Calculated Elevation  
1 = 1186.575

\*Accept Survey Stage 1 if QA checks within 0.01 ft. Use calculated elevations 1 for the rest of the season unless the gauge moves.

Lake Level Reading: 1.46 ft

51  
48

① WATER 9.45

② 9.64

SWIMMING



Wisconsin DNR - Lake Level Monitoring  
**Staff Gauge Survey Data Sheet**

9/23/2021 10:12 AM

**Lake Information**

Lake Name Vincent LAKE County Polk

**Data Collectors**

Primary Data Collector \_\_\_\_\_ Email \_\_\_\_\_ Phone No. \_\_\_\_\_  
 Additional Data Collector(s) \_\_\_\_\_

**Reference Mark and Staff Gauge Information**

Reference Mark #1 (RM1) Reference Mark Type: \_\_\_\_\_  
 Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Mean Sea Level Yes  No  Elevation: 1196.21 Photograph   
 Location Description: (GONE) DESTROYED NW Cor Concrete PAD

Reference Mark #2 (RM2) Reference Mark Type: \_\_\_\_\_  
 Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Mean Sea Level Yes  No  Elevation: 1195.85 Photograph   
 Location Description: NW Cor Conc. PAD

Reference Mark #3 (RM3) Reference Mark Type: \_\_\_\_\_  
 Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Mean Sea Level Yes  No  Elevation: 1191.06 Photograph   
 Location Description: HIGH POINT ON BANK

Staff Gauge  
 Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Mean Sea Level Yes  No  Elevation: \_\_\_\_\_ Photograph   
 Location Description: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_ AM/PM \_\_\_\_\_ Check one: Install  Midseason  Removal

**Survey Stage 1 - Instrument at first height**

	Reference Mark <u>RM2</u>	Fore sight (FS1)	Calculated Elevation (CE1)
Given Elevation (GE <sub>RM1</sub> )	<u>1195.85</u>		
Back sight 1 (BS1)	<u>+ 1.63</u>		
Height of Instrument (HI1)	<u>1197.48</u> - Staff Gauge	<u>7.10</u>	<u>1190.38</u>
	HI1 - Ref Mark 2		
	HI1 - Ref Mark 3	<u>6.43</u>	<u>1191.05</u>

Survey Equations:  
 HI1 = GE<sub>RM1</sub> + BS1  
 CE1 = HI1 - FS1

**Survey Stage 2 - Reset instrument at different height**

	Staff Gauge	Fore sight (FS2)	Calculated Elevation (CE2)
Calculated Elevation 1	<u>1190.38</u> ←		
Back sight 2 (BS2)	<u>+ 6.86</u>		
Height of Instrument (HI2)	<u>1197.24</u> - Ref Mark 1		
	HI2 - Ref Mark 2	<u>1.39</u>	<u>1195.85</u>
	HI2 - Ref Mark 3	<u>6.20</u>	<u>1191.04</u>

Survey Equations:  
 HI2 = CE<sub>SG1</sub> + BS2  
 CE2 = HI2 - FS2

**Quality Assurance Checks**

Reference Mark 1:	BS1 <u>1.63</u>	FS1 <u>7.10</u>	QA Equations:
GE = CE2	BS2 <u>+6.86</u>	FS2 <u>+1.39</u>	BS1 + BS2 = FS1 <sub>SG</sub> + FS2 <sub>RM1</sub>
	<u>8.49</u>	= <u>8.49</u>	GE <sub>RM1</sub> = CE2 <sub>RM1</sub>

Calculated Elevation 1 = 1186.6

\*Accept Survey Stage 1 if QA checks within 0.01 ft. Use calculated elevations 1 for the rest of the season unless the gauge moves.

Lake Level Reading: 0.95 ft

WATER ① 9.92 1187.56 WATER ② 9.69 1187.54

*Swimmer*



install

TOP OF BOARD  
7/12/2022

SWIMS  
10/7/12

Wisconsin DNR - Lake Level Monitoring  
Staff Gauge Survey Data Sheet

Lake Information  
Lake Name Vincent LAKE County Polk

Data Collectors  
Primary Data Collector \_\_\_\_\_ Email \_\_\_\_\_ Phone No. \_\_\_\_\_  
Additional Data Collector(s) \_\_\_\_\_

Reference Mark and Staff Gauge Information **Bm 1 WAS DESTROYED**  
Reference Mark #1 (RM1) Reference Mark Type: \_\_\_\_\_  
Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Mean Sea Level Yes  No  Elevation: 1190.21 Photograph   
Location Description: (Gone) SAME AS 2019 NW Cor Conc PAD

Reference Mark #2 (RM2) Reference Mark Type: \_\_\_\_\_  
Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Mean Sea Level Yes  No  Elevation: 1195.85 Photograph   
Location Description: SAME AS 2019 NW Cor Conc PAD

Reference Mark #3 (RM3) Reference Mark Type: \_\_\_\_\_  
Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Mean Sea Level Yes  No  Elevation: 1191.05 Photograph   
Location Description: SAME AS 2019 HIGH POINT ON ROCK

Staff Gauge  
Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Mean Sea Level Yes  No  Elevation: \_\_\_\_\_ Photograph   
Location Description: \_\_\_\_\_

Date: 7/12/2022 Time: 9:30 AM Check one: Install  Midseason  Removal

Survey Stage 1 - Instrument at first height\*

	Reference Mark 1	Fore sight (FS1)	Calculated Elevation (CE1)	
Given Elevation (GE <sub>RM1</sub> )	<u>1195.85 (RM2)</u>			Survey Equations: $HI1 = GE_{RM1} + BS1$ $CE1 = HI1 - FS1$
Back sight 1 (BS1)	<u>+ 1.93</u>			
Height of Instrument (HI1)	<u>[117.78]</u>	<u>7.55</u>	<u>= 1190.23</u>	
	HI1 - Ref Mark 2			
	HI1 - Ref Mark 3	<u>6.73</u>	<u>= 1191.05</u>	

Survey Stage 2 - Reset instrument at different height

	Staff Gauge	Fore sight (FS2)	Calculated Elevation (CE2)	
Calculated Elevation1	<u>1190.23</u>			Survey Equations: $HI2 = CE_{SG1} + BS2$ $CE2 = HI2 - FS2$
Back sight 2 (BS2)	<u>+ 7.91</u>			
Height of Instrument (HI2)	<u>[118.74]</u>	<u>2.29</u>	<u>= 1195.85</u>	
	HI2 - Ref Mark 2			
	HI2 - Ref Mark 3	<u>7.08</u>	<u>= 1191.06</u>	

Quality Assurance Checks

Reference Mark 1:	BS1 <u>1.93</u>	FS1 <u>7.55</u>		QA Equations: $BS1 + BS2 = FS1_{SG} + FS2_{RM1}$ $GE_{RM1} = CE2_{RM1}$
GE = CE2	BS2 <u>+ 7.91</u>	FS2 <u>+ 2.29</u>		
	<u>[9.84]</u>	<u>[9.84]</u>		

\*Accept Survey Stage 1 if QA checks within 0.01 ft. Use calculated elevations 1 for the rest of the season unless the gauge moves.

Lake Level Reading: 1.00 ft

Calculated Elevation 1 = 1186.465

WATER 10.31 1187.47

WATER 10.68 1187.46



Removal

9/29/2022

Wisconsin DNR - Lake Level Monitoring Staff Gauge Survey Data Sheet

TOP OF BOARD 9:30 AM SWIMS 10/26/22

Lake Information Lake Name Vincent LAKE County POLK

Data Collectors Primary Data Collector Email Phone No. Additional Data Collector(s)

Reference Mark and Staff Gauge Information Reference Mark #1 (RM1) Reference Mark Type: B.M. DESTROYED Latitude: Longitude: Mean Sea Level Yes [X] No [ ] Elevation: 1196.21 Photograph [ ] Location Description: SAME AS 2019 NW COR CONC PAD

Reference Mark #2 (RM2) Reference Mark Type: Latitude: Longitude: Mean Sea Level Yes [X] No [ ] Elevation: 1195.85 Photograph [ ] Location Description: SAME AS 2019 NW COR CONC PAD

Reference Mark #3 (RM3) Reference Mark Type: Latitude: Longitude: Mean Sea Level Yes [X] No [ ] Elevation: 1191.06 Photograph [ ] Location Description: SAME AS 2019 HIGH POINT ON ROCK

Staff Gauge Latitude: Longitude: Mean Sea Level Yes [X] No [ ] Elevation: Photograph [ ] Location Description:

Date: Time: Check one: Install [ ] Midseason [X] Remove [ ]

Survey Stage 1 - Instrument at first height

Table with columns: Reference Mark 1, Fore sight (FS1), Calculated Elevation (CE1). Includes handwritten calculations for Height of Instrument (HI1) and Survey Equations: HI1 = GE\_RM1 + BS1, CE1 = HI1 - FS1.

Survey Stage 2 - Reset instrument at different height

Table with columns: Staff Gauge, Fore sight (FS2), Calculated Elevation (CE2). Includes handwritten calculations for Height of Instrument (HI2) and Survey Equations: HI2 = CE\_SG1 + BS2, CE2 = HI2 - FS2.

Quality Assurance Checks

Table for QA checks: Reference Mark 1: BS1, FS1, GE = CE2, BS2 + [ ], FS2 + [ ], [ ] = [ ]. QA Equations: BS1 + BS2 = FS1\_SG + FS2\_RM1, GE\_RM1 = CE2\_RM1.

\*Accept Survey Stage 1 if QA checks within 0.01 ft. Use calculated elevations 1 for the rest of the season unless the gauge moves.

Lake Level Reading: 0.48 ft

Calculated Elevation = 1186.48

WATER 10.43 1186.96

WATER 10.27 1186.96