



# **POTTAWATOMI DRINKING WATER SYSTEM**

## **PERFORMANCE REPORT**

**For the period of  
JANUARY 1, 2023 to OCTOBER 31, 2023**

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Reviewed by: Léo-Paul Frigault, Senior Operations Manager



**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

## 1. Process Performance & Regulatory Compliance

### 1.1 Summary of Non-Compliances & AWQIs

From **January 2023 to October 2023**:

- Number of Non-Compliances = **0**
- Number of Adverse Water Quality Incidents (AWQIs) = **0**

The table below summarizes Pottawatomi DWS' performance in accordance with the regulatory limits set out in:

- Municipal Drinking Water License (MDWL) 083-101, (Issue: 3) (expires August 13, 2026)
- Permit To Take Water (PTTW) 5731-AYDN9H (2018.05.08-2028.05.01)
- Ontario Regulation 170/03

<b>2023</b>	<b>Non-Compliances</b>	<b>AWQIs</b>
January	0	0
February	1	0
March	0	0
April	0	0
May	0	0
June	0	0
July	0	0
August	0	0
September	0	0
October	0	0
November		
December		

#### *Description of Non-Compliances*

The following is a summary of the requirements of the Act, the regulations, the system's approval, drinking water works permit, municipal drinking water license, and any orders applicable to the system that were not met at any time during the time period covered by this report; as well as the duration of the failure and the measures that were taken to correct the failure:

<b>Non-Compliance(s)</b>	<b>Duration</b>	<b>Required Actions &amp; Corrective Actions</b>
Monthly raw water sample not taken.	n/a	<ul style="list-style-type: none"> <li>• Sample taken immediately (49 days between samples)</li> <li>• Training on sample schedules and sampling calendars at Operations Meeting held March 16, 2023</li> </ul>

#### *Description of AWQIs*

The following contains details on notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to the Spills Action Centre:

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Date of Incident	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
n/a	n/a	n/a	n/a	n/a	n/a

### 1.1.1 Flow

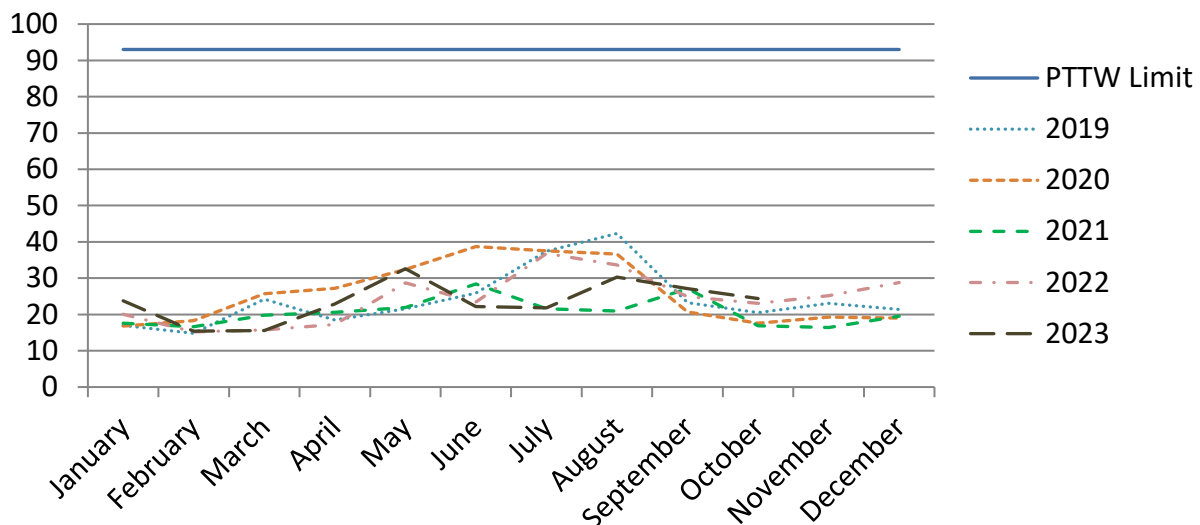
#### Raw Water

During the reporting period, raw water taking for the Pottawatomie DWS was **within the limits** of the current PTTW.

2023	Maximum Flow Rate (L/s)	Within Limits (1.97 L/s*)	Maximum Daily Flow (m <sup>3</sup> /d)	Within Limits (93 m <sup>3</sup> /d)
January	1.90	Yes	23.8	Yes
February	1.76	Yes	15.4	Yes
March	1.70	Yes	15.6	Yes
April	1.65	Yes	22.9	Yes
May	1.77	Yes	32.6	Yes
June	1.68	Yes	22.2	Yes
July	1.94	Yes	21.8	Yes
August	1.88	Yes	30.3	Yes
September	1.89	Yes	27.1	Yes
October	1.83	Yes	24.4	Yes
November				
December				

\*The PTTW defines the maximum flowrate as 118 L/min which has been converted it to 1.97 L/s for the table above. \*\*Well maintenance, replaced well piping over 1.97 L/s for 2 minutes due to flushing.

### Pottawatomie Drinking Water System Well 2 - Maximum Daily Flows



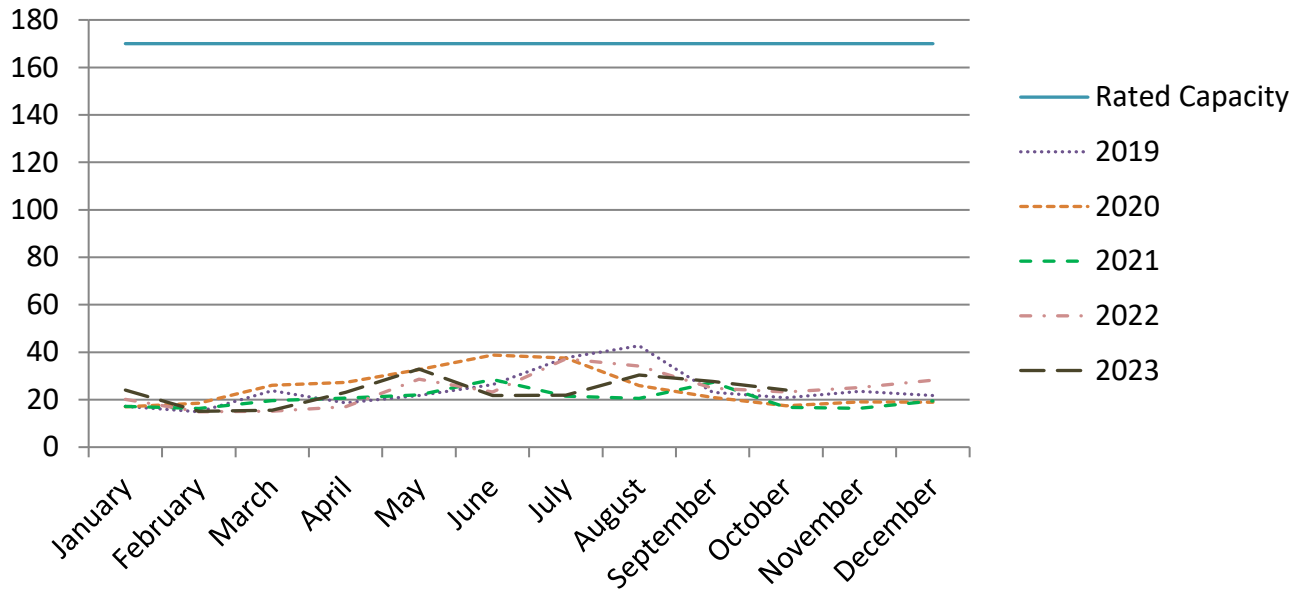
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**Treated Water**

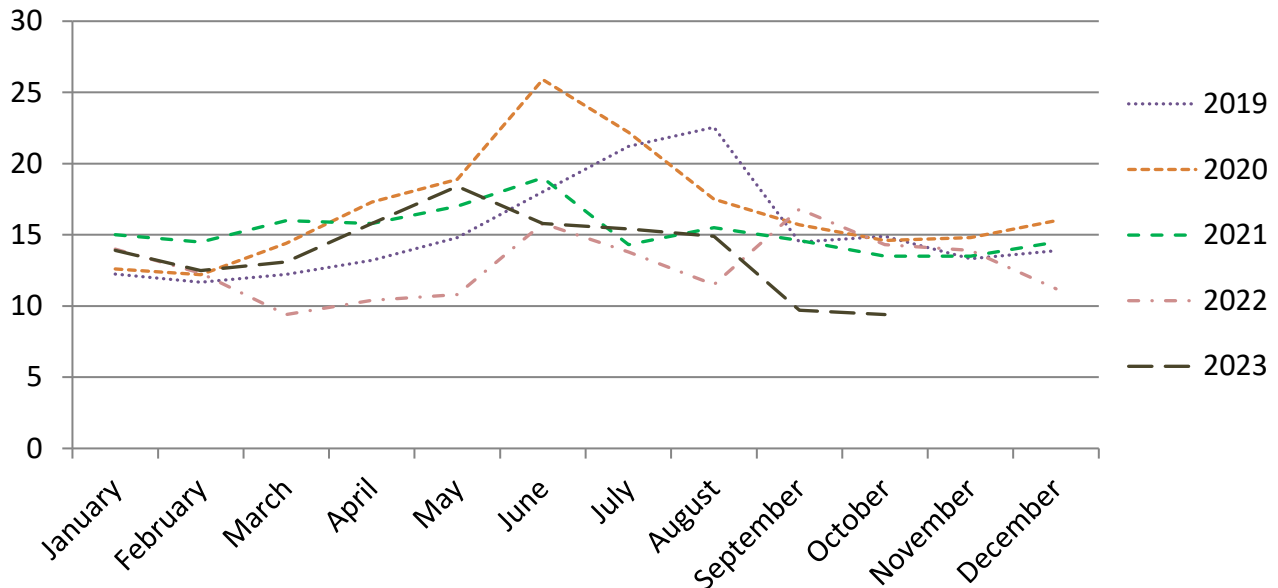
During the reporting period, the Pottawatomie DWS operated **within the rated capacity** set out in current MDWL.

2023	Average Flow (m <sup>3</sup> /day)	% of Rated Capacity	Maximum Flow (m <sup>3</sup> /day)	% of Rated Capacity	Within Limits (170 m <sup>3</sup> /day)
January	13.9	8.2%	24.0	14.1%	Yes
February	12.5	7.4%	15.1	8.9%	Yes
March	13.1	7.7%	15.6	9.2%	Yes
April	15.8	9.3%	23.1	13.6%	Yes
May	18.4	10.8%	32.9	19.4%	Yes
June	15.8	9.3%	21.7	12.8%	Yes
July	15.4	9.1%	21.9	12.9%	Yes
August	14.9	8.8%	30.4	17.9%	Yes
September	9.7	5.7%	27.7	16.3%	Yes
October	9.4	5.5%	24.0	14.1%	Yes
November					
December					

**Pottawatomie Drinking Water System  
Treated Water - Maximum Daily Flows**



### Pottawatomie Drinking Water System Treated Water - Average Daily Flows



#### 1.1.2 Water Quality

##### Microbiological Testing

###### Raw Water\*

2023	# of Samples	E.Coli (cfu/100mL)			Total Coliforms (cfu/100mL)		
		Minimum	Maximum	Within Limits?	Minimum	Maximum	Within Limits?
January	1	0	0	n/a	0	0	n/a
February	0	-	-	n/a	-	-	n/a
March	1	0	0	n/a	0	0	n/a
April	1	0	0	n/a	0	0	n/a
May	1	0	0	n/a	0	0	n/a
June	1	0	0	n/a	0	0	n/a
July	1	0	0	n/a	0	0	n/a
August	1	0	0	n/a	0	0	n/a
September	1	0	0	n/a	0	0	n/a
October	1	0	0	n/a	0	0	n/a
November							
December							

\*Raw water bacteriological samples do not have regulatory limits.

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Distribution Water

2023	# of Samples	E. Coli (0 cfu/100mL)			Total Coliforms (0 cfu/100mL)			HPC** (cfu/1mL)		
		Min	Max	Within Limits?	Min	Max	Within Limits?	Min	Max	Within Limits?
January	5	0	0	Yes	0	0	Yes	0	1	n/a
February	4	0	0	Yes	0	0	Yes	0	0	n/a
March	4	0	0	Yes	0	0	Yes	0	0	n/a
April	4	0	0	Yes	0	0	Yes	0	2	n/a
May	5	0	0	Yes	0	0	Yes	0	460	n/a
June	4	0	0	Yes	0	0	Yes	0	>2000	n/a
July	5	0	0	Yes	0	0	Yes	0	3	n/a
August	4	0	0	Yes	0	0	Yes	0	120	n/a
September	4	0	0	Yes	0	0	Yes	0	2	n/a
October	5	0	0	Yes	0	0	Yes	0	0	n/a
November										
December										

\*\*There is no regulatory limit for Heterotrophic Plate Count (HPC); it is used as an indicator test. At least 25% of distribution samples must be tested for Heterotrophic Plate Count (HPC).

Operational Testing: Distribution Water Free Chlorine Residual

2023	Minimum (mg/L)	Maximum (mg/L)	Within Limits? (>0.05 mg/L)
January	1.56	1.92	Yes
February	1.29	1.80	Yes
March	1.70	1.99	Yes
April	1.20	1.78	Yes
May	1.48	1.95	Yes
June	1.69	2.01	Yes
July	1.53	1.89	Yes
August	1.21	1.84	Yes
September	1.34	2.02	Yes
October	1.42	1.87	Yes
November			
December			

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*Quarterly Samples*

Treated Water: Nitrites

<b>2023</b>	<b>Concentration (mg/L)</b>	<b>Within Limits? (1 mg/L)</b>
January	<0.003	Yes
February	-	-
March	-	-
April	<0.003	Yes
May	-	-
June	-	-
July	<0.003	Yes
August	-	-
September	-	-
October	<0.003	Yes
November	-	-
December	-	-

Treated Water: Nitrates

<b>2023</b>	<b>Concentration (mg/L)</b>	<b>Within Limits? (10 mg/L)</b>
January	0.019	Yes
February	-	-
March	-	-
April	0.010	Yes
May	-	-
June	-	-
July	0.010	Yes
August	-	-
September	-	-
October	0.008	Yes
November	-	-
December	-	-

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Distribution Water: Trihalomethanes (THMs)

<b>2023</b>	<b>Concentration (ug/L)</b>	<b>Running Annual Average (ug/L)</b>	<b>Within Limits? (100 ug/L)</b>
January	2.3	3.3	Yes
February	-	-	-
March	-	-	-
April	2.1	3.1	Yes
May	-	-	-
June	-	-	-
July	1.1	2.4	Yes
August	-	-	-
September	-	-	-
October	5.6	2.8	Yes
November	-	-	-
December	-	-	-

Distribution Water: Haloacetic Acids (HAAs)

<b>2023</b>	<b>Concentration (ug/L)</b>	<b>Running Annual Average (ug/L)</b>	<b>Within Limits? (80 ug/L)</b>
January	<5.3	5.3	Yes
February	-	-	-
March	-	-	-
April	<5.3	5.3	Yes
May	-	-	-
June	-	-	-
July	<5.3	5.3	Yes
August	-	-	-
September	-	-	-
October	<5.3	5.3	Yes
November	-	-	-
December	-	-	-



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### Semi-Annual Samples

#### Distribution Water: Lead, pH and Alkalinity

Semi-Annual sampling is required to happen twice a year; once in the period from December 15<sup>th</sup> to April 15<sup>th</sup> and once in the period June 15<sup>th</sup> to October 15<sup>th</sup> for lead, pH and Alkalinity.

	# of Samples	Lead (ug/l)			pH			Alkalinity (mg/L)		
		Min	Max	Within Limits? (10 ug/L)	Min	Max	Within Limits?	Min	Max	Within Limits? (30-500 mg/L)
January	-	-	-	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-	-	-	-
March	2	-	-	-	7.69	7.71	Yes	227	231	Yes
April	-	-	-	-	-	-	-	-	-	-
May	-	-	-	-	-	-	-	-	-	-
June	-	-	-	-	-	-	-	-	-	-
July	-	-	-	-	-	-	-	-	-	-
August	-	-	-	-	-	-	-	-	-	-
September	2	-	-	-	7.61	7.65	Yes	224	228	Yes
October	-	-	-	-	-	-	-	-	-	-
November	-	-	-	-	-	-	-	-	-	-
December	-	-	-	-	-	-	-	-	-	-

### 60 Month Samples

#### Treated Water: Schedule 23 & Schedule 24

No samples for Schedule 23 & 24 were required to be taken during the reporting period. Parameters under Schedule 23 & Schedule 24 for Treated Water were last sampled on **January 5, 2022**.

The next set of Schedule 23 & 24 samples are scheduled for **January 2027**.

#### Treated Water: Sodium & Fluoride

No samples for Sodium and Fluoride were required to be taken during the reporting period.

Treated water Sodium and Fluoride were last sampled in **April 19, 2021** and were within regulatory limits. The next set of Sodium and Fluoride samples are scheduled for **April 2026**.

## 1.2 Reporting

A summary of the reports submitted by OCWA to/on behalf of the Township are summarized in the table below:

Report	Submission Frequency	Submit To	Submission Date
Annual Report (Section 11)	Annually	Owner	February 28, 2023
Summary Report (Schedule 22)	Annually	Owner	February 28, 2023

### 1.2.1 Annual Report (Section 11)

As required by Section 11 of O. Reg 170/03, OCWA prepares a report for the Township that covers the period from January 1 to December 31 by no later than February 28 of the following year. The annual report must:

- a) contain a brief description of the drinking water system, including a list of water treatment chemicals used by the system during the period covered by the report;
- b) summarize any reports made to the Ministry under subsection 18 (1) of the Act or section 16-4 of Schedule 16 during the period covered by the report;
- c) summarize the results of tests required under this Regulation, or under an approval, municipal drinking water licence or order, including an OWRA order, during the period covered by the report and, if tests required under this Regulation in respect of a parameter were not required during that period, summarize the most recent results of tests of that parameter;
- d) describe any corrective actions taken under Schedule 17 or 18 during the period covered by the report;
- e) describe any major expenses incurred during the period covered by the report to install, repair or replace required equipment;
- f) in the case of a large municipal residential system or a small municipal residential system, include a statement of where a report prepared under Schedule 22 will be available for inspection under subsection 12 (4); and
- g) in the case of a large municipal residential system, small municipal residential system or non-municipal year-round residential system, specify the number of points sampled during the periods described in subsection 15.1-4 (2) or subsection 15.1-5 (5) of Schedule 15.1 to the Regulation, the number of samples taken, and the number of points where a sample exceeded the prescribed standard for lead during those periods. O. Reg. 170/03, s. 11 (6); O. Reg. 418/09, s. 8; O. Reg. 458/16, s. 6 (1).

“The owner of a drinking water system shall ensure that a copy of an annual report for the system is given, without charge, to every person who requests a copy. If a drinking water system is connected to and receives all of its drinking water from another drinking water system, the owner of the system that obtains the water shall ensure that a copy of an annual report for the system from which the water is obtained is given, without charge, to every person who requests a copy. Every time that an annual report is prepared for a drinking water system, the owner of the system shall ensure that effective steps are taken to advise users of water from the system that copies of the report are available, without charge, and of how a copy may be obtained. If the DWS serves more than 10,000 people, the owner of the system shall ensure that a copy of every report prepared under this section is available to the public at no charge on a website on the Internet.”

### 1.2.2 Summary Report (Schedule 22)

As required by Schedule 22 of O. Reg 170/03 OCWA prepares a report on behalf of the Township by no later than March 31 each year for the preceding year. This report is to be given to members of council.

“The report must,

- a) List the requirements of the Act, the regulations, the system's approval, drinking water works permit, municipal drinking water licence, and any orders applicable to the system that were not met at any time during the period covered by the report; and
- b) For each requirement referred to that was not met, specify the duration of the failure and the measures that were taken to correct the failure.

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.
2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval, drinking water works permit or municipal drinking water licence, or if the system is receiving all of its water from another system under an agreement pursuant to subsection 5 (4), to the flow rates specified in the written agreement."

### **1.3 Third Party Inspections & Results**

There was an unannounced Ministry of Environment, Conservation and Parks (MECP) inspection on **April 28, 2023**. The report was issued on June 20, 2023. A rating of **99.34%** was received.

### **1.4 Drinking Water Quality Management Standard (DWQMS)**

Refer to Section 1.4 in the Shallow Lake DWS Performance Report for the reporting period for more information.

#### **1.4.1 Risk Assessment**

Refer to Section 1.4.1 in the Shallow Lake DWS Performance Report for the reporting period for more information.

#### **1.4.2 Review & Provision of Infrastructure**

Refer to Section 1.4.2 in the Shallow Lake DWS Performance Report for the reporting period for more information.

#### **1.4.3 Internal Audits**

Refer to Section 1.4.3 in the Shallow Lake DWS Performance Report for the reporting period for more information.

#### **1.4.4 External Audits**

Refer to Section 1.4.4 in the Shallow Lake DWS Performance Report for the reporting period for more information.

#### **1.4.5 Management Review**

Refer to Section 1.4.5 in the Shallow Lake DWS Performance Report for the reporting period for more information.

## **2. Operations & Maintenance**

### **2.1 Major & Unscheduled Maintenance**

#### *January*

- 7:** Replaced turbidity filters
- 23:** Performed maintenance on UV cover switch

#### *February*

- 7:** Replaced supply and discharge hoses to chlorine and turbidity analyzers

#### *March*

- 15:** Flow meter calibrations

#### *April*

- 12:** Walkerton Clean Water Centre on site for pilot study
- 13:** Replaced UV lamps, quartz sleeve and sensor on UV #3
- 25:** Replaced UV lamps, quartz sleeve and sensor on UV #2
- 28:** MECP Inspector on site for inspection

#### *May*

- 17:** Replaced UV lamps, quartz sleeve and sensor on UV #1
- 25:** Third party calibrations

#### *June*

- 13:** Replaced UPS on UV #2
- 22:** Replaced and cleaned chlorine injection log
- 30:** Replaced sediment filters

#### *July*

- 14:** Replaced all sections of well piping and installed 2 new check valves
- 19:** Replaced sediment filters
- 20:** Replaced chlorine injection valve for pump #2

#### *August*

- 01:** Walkerton Clean Water Centre on site for pilot study

#### *September*

- 07:** Cleaned and flushed all tanks and analyzers at plant

#### *October*

- 17:** Walkerton Clean Water Centre on site for pilot study

### **2.2 Call-Ins**

#### *January*

There were no call-ins to report for this month.

#### *February*

- 11:** Power outage

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**March**

There were no call-ins to report for this month.

**April**

**27:** Low chlorine alarm due to UPS failure

**May**

There were no call-ins to report for this month.

**June**

There were no call-ins to report for this month.

**July**

**15:** Low chlorine alarm due to air in analyzer from maintenance previous day

**August**

There were no call-ins to report for this month.

**September**

There were no call-ins to report for this month.

**October**

There were no call-ins to report for this month.

## **2.4 Community Complaints**

**January**

There were no complaints or public inquiries reported to OCWA staff during this month.

**February**

There were no complaints or public inquiries reported to OCWA staff during this month.

**March**

There were no complaints or public inquiries reported to OCWA staff during this month.

**April**

There were no complaints or public inquiries reported to OCWA staff during this month.

**May**

There were no complaints or public inquiries reported to OCWA staff during this month.

**June**

There were no complaints or public inquiries reported to OCWA staff during this month.

**July**

There were no complaints or public inquiries reported to OCWA staff during this month.

**August**

There were no complaints or public inquiries reported to OCWA staff during this month.

**September**

There were no complaints or public inquiries reported to OCWA staff during this month.

### October

There were no complaints or public inquiries reported to OCWA staff during this month.

## 3. Health & Safety

### 3.1 Incidents

- Number of Health & Safety Incidents Reported = 0

2023	Health & Safety Incidents	
	# Reported	Details
January	0	n/a
February	0	n/a
March	0	n/a
April	0	n/a
May	0	n/a
June	0	n/a
July	0	n/a
August	0	n/a
September	0	n/a
October	0	n/a
November		
December		

### 3.2 Training

Refer to the Shallow Lake DWS Performance Report for safety topics/training provided to staff during this reporting period.