

Date: 8/10/2026

Subject: Cyanobacteria testing results – Agreement# 22-023-270

From: Tim Otten, Laboratory Director

To: Marisa Van Dyke, Freshwater HABS Program Manager
State Water Resources Control Board - Information Management & Quality Assurance

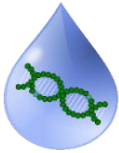
Testing results are enclosed for ELISA, QPCR, and microscopy analyses conducted on five samples collected from Tulloch Reservoir on 8/3/2026. All data have been reviewed and are considered final.

Analyses included in this report:

- Quantification of total cyanobacterial toxins (anatoxin-a, cylindrospermopsin, microcystin/nodularin (EPA 546), and saxitoxin) by enzyme linked immunosorbent assay (ELISA).
- Quantification of total toxin-producing cyanobacteria by toxin class (anatoxin-a, cylindrospermopsin, microcystin, and saxitoxin genes) using real-time quantitative polymerase chain reaction (QPCR) methods.
- Microscope photos and identification of potentially toxigenic (PTOX) cyanobacteria.

Submitted by: _____

Timothy G. Otten, MPH, PhD



Bend Genetics

Received: 8/3/2026

Time: 3:39 PM

Matrix: Water Grab Openwater

BG ID: WB6848

Reported: 8/10/2026 11:45

Customer: Water Board

Project: RWB5_IncResp_2026

Location: Kiva Swim Area

Collected: 8/3/2026 9:43

Sample ID: TR1

SAMPLE RESULTS

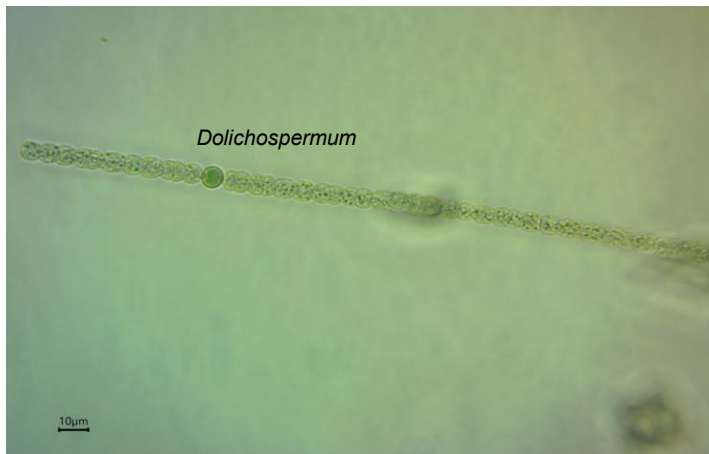
Method	Analyte	Result	Reporting Limit	Units	Qualifiers	Batch
ELISA	Microcystin/Nod.	ND	0.20	µg/L	U	2
QPCR	Anatoxin-a	ND	100	copies/mL	U	
QPCR	Cylindrospermopsin	ND	100	copies/mL	U	
QPCR	Microcystin	2,117	100	copies/mL		
QPCR	Saxitoxin	ND	100	copies/mL	U	

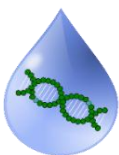
MICROSCOPY RESULTS - Identification of CyanoHABs

Dominant	Sub-dominant	Also present	Notes
----------	--------------	--------------	-------

Dolichospermum

This sample contained a moderate amount of *Dolichospermum* sp.; the photomicrograph was taken at 400X magnification.





Bend Genetics

Received: 8/3/2026

Time: 3:39 PM

Matrix: Water Grab Openwater

BG ID: WB6849

Reported: 8/10/2026 11:45

Customer: Water Board

Project: RWB5_IncResp_2026

Location: Cove n. Kiva Swim Area

Collected: 8/3/2026 9:48

Sample ID: TR2

SAMPLE RESULTS

Method	Analyte	Result	Reporting Limit	Units	Qualifiers	Batch
ELISA	Anatoxin-a	ND	0.15	µg/L	U	
ELISA	Cylindrospermopsin	ND	0.05	µg/L	U	
ELISA	Microcystin/Nod.	ND	0.20	µg/L	U	1
ELISA	Saxitoxin	ND	0.02	µg/L	U	
QPCR	Anatoxin-a	ND	100	copies/mL	U	
QPCR	Cylindrospermopsin	ND	100	copies/mL	U	
QPCR	Microcystin	3,790	100	copies/mL		
QPCR	Saxitoxin	ND	100	copies/mL	U	

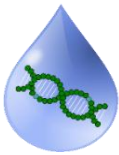
MICROSCOPY RESULTS - Identification of CyanoHABs

Dominant	Sub-dominant	Also present	Notes
----------	--------------	--------------	-------

Dolichospermum

This sample contained a moderate amount of *Dolichospermum* sp.; the photomicrograph was taken at 400X magnification.





Bend Genetics

Received: 8/3/2026

Time: 3:39 PM

Matrix: Water Grab Openwater

BG ID: WB6850

Reported: 8/10/2026 11:45

Customer: Water Board

Project: RWB5_IncResp_2026

Location: Northeast Black Creek Arm

Collected: 8/3/2026 10:21

Sample ID: TR3

SAMPLE RESULTS

Method	Analyte	Result	Reporting Limit	Units	Qualifiers	Batch
ELISA	Microcystin/Nod.	ND	0.20	µg/L	U	2
QPCR	Anatoxin-a	ND	100	copies/mL	U	
QPCR	Cylindrospermopsin	ND	100	copies/mL	U	
QPCR	Microcystin	10,624	100	copies/mL		
QPCR	Saxitoxin	ND	100	copies/mL	U	

MICROSCOPY RESULTS - Identification of CyanoHABs

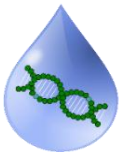
Dominant	Sub-dominant	Also present	Notes
----------	--------------	--------------	-------

Dolichospermum

Woronichinia

This sample contained a moderate amount of *Dolichospermum* sp., and a very low amount of *Woronichinia* sp.; the photomicrographs were taken at 400X magnification.





Bend Genetics

Received: 8/3/2026

Time: 3:39 PM

Matrix: Water Grab Openwater

BG ID: WB6851

Reported: 8/10/2026 11:45

Customer: Water Board

Project: RWB5_IncResp_2026

Location: Green Springs Arm

Collected: 8/3/2026 11:06

Sample ID: TR4

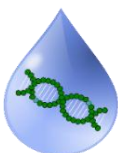
SAMPLE RESULTS

Method	Analyte	Result	Reporting Limit	Units	Qualifiers	Batch
ELISA	Microcystin/Nod.	ND	0.20	µg/L	U	2
QPCR	Anatoxin-a	ND	100	copies/mL	U	
QPCR	Cylindrospermopsin	ND	100	copies/mL	U	
QPCR	Microcystin	2,362	100	copies/mL		
QPCR	Saxitoxin	ND	100	copies/mL	U	

MICROSCOPY RESULTS - Identification of CyanoHABs

Dominant	Sub-dominant	Also present	Notes
<i>Dolichospermum</i>			This sample contained a moderate amount of <i>Dolichospermum</i> sp.; the photomicrograph was taken at 400X magnification.





Bend Genetics

Received: 8/3/2026

Time: 3:39 PM

Matrix: Water Grab Openwater

BG ID: WB6852

Reported: 8/10/2026 11:45

Customer: Water Board

Project: RWB5_IncResp_2026

Location: s. Shore Boat Launch & Campground

Collected: 8/3/2026 11:24

Sample ID: TR5

SAMPLE RESULTS

Method	Analyte	Result	Reporting Limit	Units	Qualifiers	Batch
ELISA	Microcystin/Nod.	ND	0.20	µg/L	U	2
QPCR	Anatoxin-a	ND	100	copies/mL	U	
QPCR	Cylindrospermopsin	ND	100	copies/mL	U	
QPCR	Microcystin	740	100	copies/mL		
QPCR	Saxitoxin	ND	100	copies/mL	U	

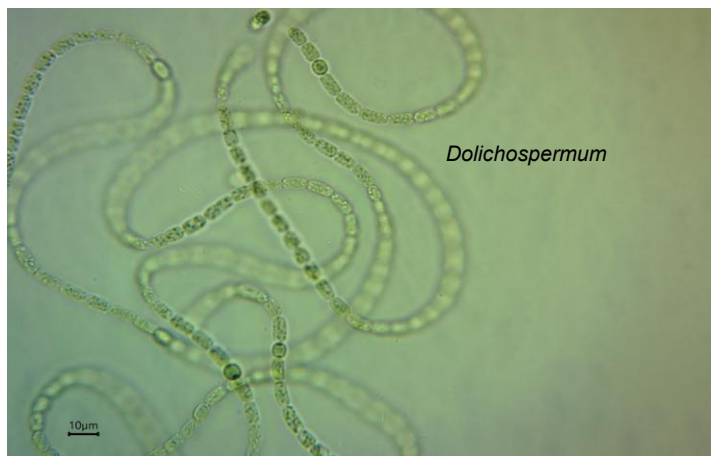
MICROSCOPY RESULTS - Identification of CyanoHABs

Dominant	Sub-dominant	Also present	Notes
----------	--------------	--------------	-------

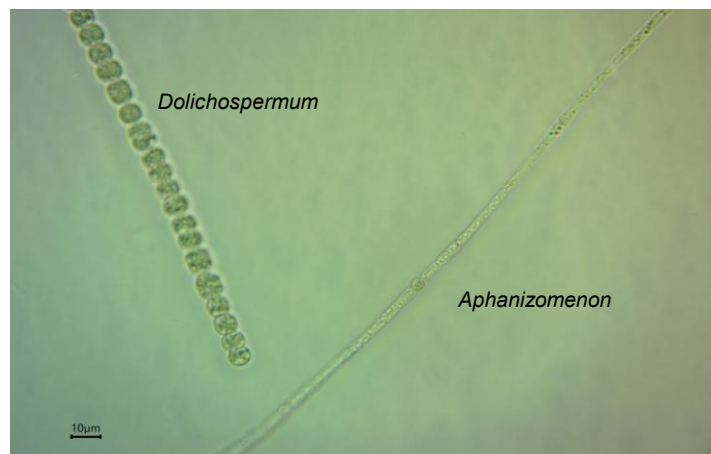
Dolichospermum

Aphanizomenon

This sample contained a moderate amount of *Dolichospermum* sp., and a very low amount of *Aphanizomenon* sp.; the photomicrographs were taken at 400X magnification.

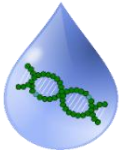


Dolichospermum



Dolichospermum

Aphanizomenon



Bend Genetics

Customer: Water Board
Project: RWB5_IncResp_2026

Reported: 8/10/2026 11:45

QUALITY CONTROL

Method	Analyte	Result	Units	Qualifiers	Spike	%Rec	%Rec Limit	Batch
ELISA	ATX - Blank	ND	µg/L	U	0			
ELISA	ATX - Positive	0.68	µg/L		0.75	91.3	70-130	
ELISA	ATX - Spike	1.29	µg/L		1.25	103.6	70-130	
ELISA	CYN - Blank	ND	µg/L	U	0			
ELISA	CYN - Positive	0.73	µg/L		0.75	97.9	70-130	
ELISA	CYN - Spike	0.95	µg/L		1.00	94.6	70-130	
ELISA	MC - Blank	ND	µg/L	U	0			1
ELISA	MC - Positive	0.71	µg/L		0.75	94.6	70-130	1
ELISA	MC - Spike	0.77	µg/L		1.00	77.3	70-130	1
ELISA	MC - Blank	ND	µg/L	U	0			2
ELISA	MC - Positive	0.84	µg/L		0.75	111.3	70-130	2
ELISA	MC - Spike	1.11	µg/L		1.00	111.0	70-130	2
ELISA	STX - Blank	ND	µg/L	U	0			
ELISA	STX - Positive	0.063	µg/L		0.075	83.3	70-130	
ELISA	STX - Spike	0.190	µg/L		0.200	94.8	70-130	
QPCR	anaC - Blank	ND	copies	U	0			
QPCR	anaC - Spike	49,330	copies		50,000	98.7	70-130	
QPCR	cyrA - Blank	ND	copies	U	0			
QPCR	mcyE - Blank	ND	copies	U	0			
QPCR	sxtA - Blank	ND	copies	U	0			

QUALIFIERS:

C1	The reported result for this analyte is below the quantification limit.
C2	The reported result for this analyte is above the calibration range of the assay.
D	Sample diluted - reported result accounts for dilution factor.
J	The reported result for this analyte should be considered as an estimated value.
U	Undetected