SEAL ROCK WATER DISTRICT

Regular Board Meeting

Thursday, July 12, 2018 @ 4:00 pm

1037 NW Grebe Street, Seal Rock 97376

1. **Call Regular Meeting to Order:**

2. **Announcements/Visitor Public Comments:**
   Public comment period provides the public with an opportunity to address the Commissioners regarding Items on the agenda. Please limit comments to (10) minutes.

3. **Consent Calendar:**
   Managers' reports included under consent calendar are an executive summary provided to Commissioners as an update of system conditions, projects, and programs. Management welcomes your feedback and request for more detailed information regarding any item before or during the meeting:

• Invoice List	June/July – 2018
• Budget Committee Meeting Minutes	April 19, 2018
• Board Meeting Minutes	May 10, 2018
• Board Meeting Minutes	June 14, 2018
• Financial Report / Approve Invoices	June/July – 2018
• AMI Project Contractor's Payment Application No. 7	July 12, 2018
• USDA Phase-3 Project Monitoring Report #33	June/July – 2018
• General Manager's Monthly Report	June/July – 2018

4. **Discussion and Information Items:**
   - Consider Primary Source Water Project Update
     Presented by: Adam Denlinger, General Manager

   - Consider Phase-3 AMI Project Update
     Presented by: Adam Denlinger, General Manager

5. **Decision Items:** None

6. **Reports, Comments and Correspondence:**
   - OHA Notice of Temporary Rulemaking for OAR 333, Division -61 "Cyanotoxin monitoring and testing at public drinking water systems".

7. **Executive Session: according to ORS 192.660(2), Concerning:**
   - (e) To deliberate with persons designated by the governing body with regards to sale/purchase of real property.

8. **Adjournment:** Next Meeting: August 9, 2018 @ 4:00 p.m. Regular Board Meeting or establish date.

Seal Rock Water District | Payment Approval Report - by GL | Page: 1
Report dates: 6/29/2018-6/29/2018 | Jun 29, 2018 03:19PM

ORIGINAL

Report Criteria:
Detail report.
Invoices with totals above $0 included.
Paid and unpaid invoices included.

Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
01-5063						
BRENDI HARGROVE	063018	Quarterly Mileage Reimbursement	06/30/2018	19.51	.00	
JOCELYN KING	063018	Quarterly Mileage (April - June 20	06/30/2018	122.90	.00	
PETTY CASH	063018	AMI meeting at City of Gresham	06/30/2018	12.00	.00	
PETTY CASH	063018	AMI meeting at City of Gresham	06/30/2018	12.00	.00	
Total 01-5063:				166.41	.00	
01-5190						
PETTY CASH	063018	CPR Masks for employees	06/30/2018	11.99	.00	
Total 01-5190:				11.99	.00	
01-5291						
PETTY CASH	063018	Postage	06/30/2018	6.70	.00	
US POSTAL SERVICE - WALDP	062218	Bulk Mailing	06/22/2018	899.40	.00	
Total 01-5291:				906.10	.00	
01-5310						
OREGON DEQ	062518	Wastewater System Operator Cert	06/25/2018	120.00	.00	
PNWS-AWWA	062918	Oregon Water Utility Council dues	06/29/2018	700.00	.00	
Total 01-5310:				820.00	.00	
01-5610						
CENTRAL LINCOLN P.U.D.	062018	Utility Services x 15	06/20/2018	1,500.11	.00	
Total 01-5610:				1,500.11	.00	
01-5621						
PETTY CASH	063018	AMI meeting at City of Gresham	06/30/2018	12.00	.00	
Total 01-5621:				12.00	.00	
01-5630						
PLATT ELECTRIC SUPPLY, INC	R601527	phi pl-t 42w/841/4p/ll/a/alto	06/12/2018	30.15	.00	
PLATT ELECTRIC SUPPLY, INC	R608822	phiplt26w841apalt	06/12/2018	59.88	.00	
PLATT ELECTRIC SUPPLY, INC	R608822	C-H 3S550 550va ups 0930120	06/12/2018	396.00	.00	
PLATT ELECTRIC SUPPLY, INC	R663798	pvc 3/4" 2hole cond clamp	06/12/2018	1.64	.00	
PLATT ELECTRIC SUPPLY, INC	R663798	car ln43ea 3/4 str l/t	06/12/2018	5.19	.00	
PLATT ELECTRIC SUPPLY, INC	R663798	pvc 3/4 female adapter	06/12/2018	.37	.00	
PLATT ELECTRIC SUPPLY, INC	R663798	rac 752 4sq flat blank cvr	06/12/2018	1.49	.00	
PLATT ELECTRIC SUPPLY, INC	R663798	pvc3/4"type-lb cond ftg	06/12/2018	4.17	.00	
PLATT ELECTRIC SUPPLY, INC	R663798	emt 3/4"stl set scr con	06/12/2018	.89	.00	
PLATT ELECTRIC SUPPLY, INC	R663798	rac 192 4sq1-1/2d drawn	06/12/2018	3.62	.00	
TRADENET LLC	6-15-18	4" thick concrete slab 2802 oceani	06/17/2018	850.00	.00	
Total 01-5630:				1,353.40	.00	
01-5631						
NAPA AUTO PARTS	062518	Blue DEF 2.5 gal	06/25/2018	19.98	.00	
NAPA AUTO PARTS	062518	Blue DEF 2.5 gal	06/25/2018	9.99	.00	

Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
NAPA AUTO PARTS	062518	6m2t megaflex hose	06/25/2018	14.50	.00	
NAPA AUTO PARTS	062518	hyd hose fitting	06/25/2018	8.99	.00	
NAPA AUTO PARTS	062518	hyd hose fitting	06/25/2018	7.99	.00	
NAPA AUTO PARTS	062518	air hose	06/25/2018	32.49	.00	
NAPA AUTO PARTS	062518	coupler	06/25/2018	5.49	.00	
NAPA AUTO PARTS	062518	oil filter	06/25/2018	12.46	.00	
NAPA AUTO PARTS	062518	T4 15w40	06/25/2018	69.95	.00	
Total 01-5631:				181.84	.00	
Grand Totals:				4,951.85	.00	

Dated: June 29, 2018

General Manager: A. Wanlin

Dated: _____

Treasurer: _____

Report Criteria:
Detail report.
Invoices with totals above $0 included.
Paid and unpaid invoices included.

SEAL ROCK WATER DISTRICT
MINUTES OF THE
Regular Board Meeting
June 14, 2018

Call Regular Board Meeting: Commissioner Glen Morris called the regular board meeting to order at 4:02 p.m., Thursday, June 14, 2018.

Present: Commissioner Glen Morris, Treasurer; Commissioner Saundra Mies-Grantham, Secretary; and Commissioner Karen Otta, member. Staff: Adam Denlinger, General Manager; Joy King, Office Manager. See sign in sheet for public attendance.

Excused Absences: President John Garcia, and Commissioner Rob Mills.

Announcements: None

Public Comments: David Young commented that he received a diagram of the proposed building and electrical location of the intake on his property at Beaver Creek from the engineer. He was very appreciative of the inter-action he had with staff, lawyer, surveyor and engineer when they toured the intake site and addressed his concerns.

Agenda Calendar: Items on the consent calendar are Invoice Lists for May/June 2018; April 12, 2018 Board meeting minutes; April 19, 2018 Budget Committee Meeting Minutes; May 10, 2018 Board meeting minutes; May/June Financial Report/Invoices to approve; AMI Project Contractor's Payment Application No. 6; USDA Phase 3- Project Monitoring Report No. 32; General Manager's Report.
Commissioner Saundra Mies-Grantham motioned to approve the consent calendar, except the April 19 Budget Committee Meeting minutes and May 10, 2018 board meeting minutes. This exception is noted as there's no majority to approve each minutes of the meeting. Motion was seconded by Commissioner Karen Otta. Motion carried 3-0.

Discussion and Information Items:

Primary Source Water Project Update:

Water Pipeline Route: The District is looking into placing the raw water line from the intake along Beaver Creek Road, up through the Tysman's property and up to the proposed water treatment facility located above the Makai subdivision. Staff recently learned that route is also in a conservation easement which could be too restrictive to allow the District's raw water line to go through. The Wetland Conservancy wants to have a copy of the project final design to review but they don't guarantee they will approve a conservation easement. The District can't afford to engineer two routes so staff and consultants are considering another route to avoid the conservation lands and work with the surveyor to access the proposed treatment site through the Makai Subdivision. This route is through the Tysman's access road, through a parcel of private land in Makai, to Kona Street, to Estate Drive and to the proposed treatment site. Staff has contacted the property owner who is living out of state and she has no problem granting the District access through her property as long as it will not pose any problem when she is ready to develop the land. There are also big trees that the Tymans don't want to be cut down in order to avoid seeing the Makai Subdivision from their house. This final route could cost more than the first route due to extra length of pipes and open road restorations but considered as the best route to avoid the conservation easement.

Biological Assessment: Environmental consultants have provided a draft Biological Assessment of the Beaver Creek Source Water Project to National Marine and Fisheries Service (NMFS) early March 2018 and again in May 2018 reflecting revision to meet NMFS's concerns. Dialogue continues between the environmental consultants and NMFS to finalize details of the Beaver Creek Biological Assessment. NMFS representatives, Ken Pippen and Jennie Franks would like the District to set a date for an on-site visit to Beaver Creek. The two main concerns of NMFS are the loss of habitat and temperature of the water. Environmental consultants' theory is that the bathtub effect of the stream is sufficient to allow surface water elevation to act as a surrogate for aquatic habitat. If it is not sufficient NMFS might require 7 to 10 channel cross sections to prove the theory.

There is not enough available temperature data on Beaver Creek, but as a condition of the District's water permit, staff has been gathering temperature data and report that to DEQ. Jennie Franks feels long term temperature monitoring and reporting them to NOAA and DEQ would be helpful. The District's environmental consultants are feeling positive for the willingness of the representatives of NMFS to have an open communication to discuss the draft BA.

Decision Items:

Phase IV Final Design: Craig Massie from Jacobs Engineering (CH2M) explained that the system cannot be designed without knowing what type of membrane will be used. There are two types of membrane – pressure membrane and submerged membrane and there are 3 primary vendors who would qualify to respond to the membrane procurement process. Consultants are continuing to test the water to determine what type of membrane will work best to treat the water from Beaver Creek. Once the type of membrane is determined then the engineer can continue with the detail design of the system and the Membrane Procurement Request for Proposal (RFP). The District will have to pay around $30K-$40K to order the membrane, the bulk of the cost will be paid when its delivered and the balance will be paid when the membrane is installed, tested and working. The funding for the engineering design and the membrane procurement will come from Business Oregon IFA, which is a reimbursement process. District will have to pay for the monthly invoices and submit them to IFA for reimbursement. The cost for the engineering design is $895K. IFA asked to include Contract Language Clause with the Professional Service Contract with Jacobs Engineering (CH2M) which is added as an Attachment A to the contract. Commissioner Saundra Mies-Grantham motioned to approve and authorize Jacobs Engineering to begin final design and pre-purchase of membrane equipment. Motion seconded by commissioner Karen Otta. Motion carried 3-0.

Budget Resolution No. 0618-01: Motion by Commissioner Karen Otta to approve Resolution No. 0618-01, a resolution adopting the 2018-19 Budget in the total amount of $19,345,748; a resolution making appropriations beginning July 1, 2018; a resolution imposing the tax within the District beginning July 1, 2018 at a permanent rate of $.1259 per $1,000 of assessed value for General Fund operations and in the amount of $770,300 for debt service on the General Obligation Bonds; and a resolution categorizing the tax as permanent tax rate $.1259/$1,000 subject to the General Government Limitations and for General Obligation Bond Debt Service $770,300 as excluded from Limitations. Motion seconded by Commissioner Saundra Mies-Grantham. Motion carried 3-0.

Budget Transfer Resolution No. 0618-02: Commissioner Saundra Mies-Grantham motioned to approve Resolution No. 1618-02 To transfer money between appropriation categories in the General Fund . Motion seconded by commissioner Karen Otta. Motion carried 3-0.

Reports & Comments: Staff sent a letter to Senator Ron Wyden regarding Rescission Proposal H.R. 3 in support of USDA-RUS. This is a proposal by the Federal Government to take back unobligated budget balances from different federal agencies.

The Consumer Confidence Report (CCR) has been completed and will be posted to the website. Notices will also go out to customers where and how to access the CCR on the District's website.

Legal Counsel is requesting that the fee per hour for general legal counsel ($125 per hour) be the same as the capital projects legal fee which is $150 per hour.

There will be an Oregon Coastal Caucus on August 22-23 at the Chinook Winds Casino & Resort in Lincoln City.

Adjournment: Commissioner Glen Morris adjourned the meeting at 5:00 p.m.

Next Board Meeting: July 12, 2018 at 4:00 p.m. Regular Board Meeting.

Approved by Secretary Date

Month End: June 2018

SRWD Monthly Financial Report

6

Date: 7/2/18

Monthly Statistics		Comments
Total customers	2551	Includes new connection Less Abandoned / Forfeited meter plus 3 SRWD meters (shop X 2 & office) plus 1 Hydrant meter
New connections	2	
Abandonments / Forfeitures / Meter Removed	0	

Financial Report	Checking/MM	LGIP/PFMMA	Fund Balances	Comments
General	$186,130.96	$16,610.06	$202,741.02	
Bond	$361,452.17	$0.00	$361,452.17	
Capital Projects	$209,230.29	$254,810.67	$464,040.96	$2,691,821.79 G.O. Bond Proceeds;
Revenue Bond	$2,710.69	$11,485.26	$14,195.95	
Rural Development Reserve	$0.00	$46,786.27	$46,786.27	
2000 Loan Reserve	$0.00	$0.00	$0.00	
Dist. Office/Shop Reserve	$2,522.06	$135,631.82	$138,153.88	
Depreciation Reserve	$0.00	$72,650.69	$72,650.69	
Special Projects / ODOT Reserve	$0.00	$0.00	$0.00	
SDC (formerly SIP)	$0.00	$325,420.38	$325,420.38	$838,018.50 sdc collections thru 6/30/18
Water Source Improvement Rsrv	$0.00	$770,476.15	$770,476.15	
TOTALS	$762,046.17	$1,633,871.30	$2,395,917.47	

General Fund Review	Current	FYTD	Budgeted Amount	Comments
Revenue	$171,300.38	1,982,430.41	$2,371,900.00	
Expenses	$200,810.41	1,572,629.41	$2,371,900.00	Contingency $100,050; Transfers $547,950. Total expenses budgeted $1,723,950
Net Gain or (Loss) from Operations	-$29,510.03	$409,801.00		

Water Sales Revenue Comparison	Month	FYTD	Comments
Projected Water Sales	$126,261	$1,545,922	Leak Adjustments & Billings Adjustments (YTD = July - June)
Actual + In Lieu of Water Sales Less H2O CR	$119,503	$1,624,887	Less:Billing Adj YTD $-428.04 ; Leak Adj YTD $7,791.07
Over or (Under)	-$6,758.22	$78,965.14	TOTAL YTD ADJUSTMENTS $7,363.03

Gallonage Comparison	Current	Prior Year	Cost Comparison	Current	Prior Year
Gallons Purchased	9,080,000	8,913,000	Toledo Charges	$30,872.00	$29,858.55
Gallons Sold (includes accountable loss)	6,879,220	7,884,260	SRWD Sales	$161,652.09	$143,171.87
Variance %	24.24%	11.54%	Ratio: Sales/Cost	5.24	4.80
Accountable Water Loss (gallons)	675,000		City of Toledo Intertie Usage		0

Approval To Pay Bills	Payroll 6/08/18 $22,145.71		Payroll 6/22/18 $19,120.28		
Month of:	June	(after meetings)	July		
	GF A/P	$4,951.85	GF A/P	$38,802.41	up to 7/5/18
	CPF A/P	$0.00	CPF A/P	$0.00	
	City of Toledo	$0.00	City of Toledo	$0.00	
	Bond Fund	$0.00	Bond / Rev Bond Fund	$0.00	
	Depreciation Rsv	$0.00	Depreciation Rsv	$0.00	
	AMI Project-Phase 3	$0.00	AMI Project-Phase 3	$0.00	
	Master Plan - Phase 3	$0.00	Master Plan - Phase 3	$0.00	
	Prelim. MP- Phase 4	$0.00	Prelim. MP- Phase 4	$0.00	
	SDC Study/Projects	$0.00	SDC Study/Projects	$0.00	
	Water Source Impr.	$0.00	Water Source Impr.	$0.00	

Monthly Accrual Statistics	Beg. Balance	Accrued	Used/Paid	Balance	
	5/31/2018			6/30/2018	
Office Overtime Hours (2-01)	0.00	0.00	0.00	0.00	
Field Overtime Hours (2-02)	0.00	4.50	4.50	0.00	
PTO (3-01)	1763.68	115.70	60.00	1819.38	
Comp Time (9-01 / 9-02)	140.22	27.77	47.00	120.99	

PO Box 190 · 1037 NW Grebe Street · Seal Rock, Oregon 97376
Phone: 541.563.3529 · FAX 541.563.4246 · Email: info@srwd.org

Seal Rock Water District

General Manager's Report:
Board Meeting July 12, 2018

This report is an executive summary provided with this Board agenda to Commissioners with recommended actions if any. Detailed information, staff reports, and supporting materials are provided within the full agenda packet.

• PHASE-3 USDA-RD GRANT FUNDED AMI PROJECT:

District crews have coordinated with the contractor to install two of the three expected repeaters located at various district pump stations to provide added coverage for those meters that are currently not receiving signal at the towers. A third repeater is expected to be approved for installation in mid-July. It is anticipated that with the installation of the repeaters the read rate will be at 98%.

While the system is still in its infancy, the District has already received an overwhelming positive response from customers who have received notification of high water use generated through the AMI program. The District has contacted several customers with an alert to the potential of a water leak in their system. With the old system, high usage was detected only through monthly meter readings and generally left the customer with a high volume of water usage to pay for before fixes were made. With 2,550 connections, detecting water leaks early with AMI is already having a positive impact on the District, our customers and, ultimately, the environment.

AMI installation is a $1.5 million-dollar project, fully funded through a grant provided by the United States Department of Agriculture Rural Development (USDA-RD) through its Water and Waste Disposal Loan and Grant Program.

PHASE-4 SOURCE WATER PROJECT:

District staff and engineer are working continually with representatives from USDA-RD to certify the District's Biological Assessment (BA) for the Beaver Creek Source Water project. Environmental consultants provided a revised draft copy of the Beaver Creek Biological Assessment to National Marine Fisheries Services (NMFS) in early March 2018, and again in May 2018, and June. After reviewing comments provided by NMFS in June consultants are preparing a final draft.

District surveyor has surveyed the new route to access the proposed treatment plant site through the Makai Community. This option avoids impacts to the conservation easement, but obviously adds additional cost to the overall project. Staff have been in contact with one property owner affected by this option to allow the District to access the property for the installation of the raw water line to access the Makai Community. Property owner is willing to allow the District to use the property as along as improvements do not prevent the property from being developed in the future.

District staff will continue to work with representatives from NMFS to provide additional information, in an effort to expedite the review process. Phase-4 improvements project continues to move forward with several critical path tasks currently in progress:

- Biologist Assessment is being reviewed for final submittal to NMFS.
- Geotechnical investigation was completed in June.
- Easement and access agreement for construction and maintenance have been revised by the District's Legal Counsel. Draft copies of the easement agreements have been provided to the various property owners affected by the project.
- District staff will continue coordinating with USDA-RD funding representatives to provide information and updates related to the project.
- District crews have begun working with consultants to begin the Sampling and Analysis Plan (SAP) required as a condition of the District's water right permit for use of water on Beaver Creek.
- Engineer continues to provide water quality and treatability testing in preparation for developing specification for membrane procurement.
- Final Design was approved by the Board in June and will begin July 1st.
- Membrane Procurement RFP was advertised in the DJC on June 29, 2018

- **OTHER NOTABLE ACTIVITIES FOR THE MONTHS OF JUNE/JULY INCLUDE:**

  - Attended weekly meetings with engineers and contractor to discuss AMI and source water improvements.
  - Coordinated site visits with surveyor and wetlands delineation field expert to evaluate final pipeline route into the Makai Community.
  - Facilitated District personnel staff/safety meeting.
  - Attended SDAO Board meeting in Salem.
  - Provided source water project presentation to City of Toledo City Council.
  - Coordinated installation of communication equipment at the Bayshore Pump Station.
  - Attended Mid-Coast Integrated Water Resources Coordinating Committee meetings.
  - Hosted regional municipal and water district working group meeting.
  - Coordinated with LC Work Crews to remove trees affecting the waterline east of Pacific Shores Pump Station along the right-of-way.

Public Health Division
Center for Health Protection
Drinking Water Program
Kate Brown, Governor

Oregon Health Authority

800 NE Oregon Street, Suite 640
Portland, OR 97232
Voice (971) 673-0405
TTY (971) 673-0372

Date: June 27, 2018

TO: Interested Parties

FROM: David Emme, Manager
Drinking Water Services

RE: Notice of Temporary Rulemaking for OAR chapter 333, division 61 – "Cyanotoxin monitoring and testing at public drinking water systems"

The Oregon Health Authority (Authority), Public Health Division, Drinking Water Services section is adopting temporary administrative rules related to cyanotoxin monitoring and testing at public drinking water systems. The temporary cyanotoxin testing and monitoring rules require water suppliers, subject to regulation under OAR 333-061-0010, to monitor for the presence of cyanotoxins in drinking water at certain public water systems supplied by a surface water source or a groundwater source under the direct influence of surface water, if that source is susceptible to harmful algal blooms or the release of cyanotoxins. Water suppliers must also notify the public of the presence of cyanotoxins in drinking water, report testing results to the Authority and issue health advisories when cyanotoxin advisory levels are exceeded.

These rules are effective July 1, 2018 through December 27, 2018. These rules will be in effect through the 2018 algae season. The Authority intends to develop permanent cyanotoxin rules through the permanent rulemaking process by the time the temporary rules expire.

For more details, please see the Certificate and Order for Filing, Statement of Need and Justification, and the full text of the temporary rules at the following website: https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/RULES/Pages/index.aspx. If you have any questions or would prefer a hardcopy to be sent, please contact Brad Daniels at (971) 673-0407 or bradley.k.daniels@state.or.us.

OFFICE OF THE SECRETARY OF STATE
DENNIS RICHARDSON
SECRETARY OF STATE

LESLIE CUMMINGS
DEPUTY SECRETARY OF STATE

ARCHIVES DIVISION
MARY BETH HERKERT
DIRECTOR

800 SUMMER STREET NE
SALEM, OR 97310
503-373-0701

TEMPORARY ADMINISTRATIVE ORDER

INCLUDING STATEMENT OF NEED & JUSTIFICATION

PH 231-2018
CHAPTER 333
OREGON HEALTH AUTHORITY
PUBLIC HEALTH DIVISION

FILED
06/26/2018 4:39 PM
ARCHIVES DIVISION
SECRETARY OF STATE
& LEGISLATIVE COUNSEL

FILING CAPTION: Cyanotoxin monitoring and testing at public drinking water systems

EFFECTIVE DATE: 07/01/2018 THROUGH 12/27/2018

AGENCY APPROVED DATE: 06/26/2018

CONTACT: Brittany Hall
503-449-9808
publichealth.rules@state.or.us

800 NE Oregon St. Suite 930
Portland,OR 97232

Filed By:
Brittany Hall
Rules Coordinator

NEED FOR THE RULE(S):

The Oregon Health Authority (Authority) establishes rules for public drinking water systems to ensure all Oregonians have safe drinking water. Cyanobacteria are naturally occurring bacteria in marine and fresh water ecosystems, and may produce cyanotoxins, which at sufficiently high concentrations can pose a risk to public health. Cyanotoxins are currently an unregulated contaminant under the Federal Safe Drinking Water Act and public drinking water systems are not required to monitor and test for the presence of these toxins in drinking water. Recent events have indicated that cyanotoxins are present in certain drinking water systems supplied by water sources that are susceptible to harmful algal blooms that produce the release of cyanotoxins. These rules require water suppliers to monitor for the presence of cyanotoxins in drinking water at public water systems that are supplied by susceptible water sources. Water suppliers must also notify the public of the presence of cyanotoxins in drinking water, report testing results to the Authority and issue health advisories when cyanotoxin advisory levels are exceeded.

JUSTIFICATION OF TEMPORARY FILING:

If the Oregon Health Authority (Authority) fails to adopt cyanotoxin monitoring rules applicable to certain water systems there would be no standardized process to determine whether cyanotoxins are present in susceptible water sources and whether those water sources present a risk to public health. A lack of knowledge of the presence of cyanotoxins and process for public water systems to notify the public of the potential public health risks of the presence of cyanotoxins may endanger the health of vulnerable populations and the general public. Failure to immediately take rulemaking action would leave public water suppliers and the Authority without sufficient data to provide adequate actions to ensure safe drinking water and protect public health. These temporary rules will require public water systems to monitor the presence and levels of cyanotoxins in drinking water and standardize a process to timely notify the public of potential risk to health.

The Authority finds that failure to act promptly will result in serious prejudice to the public interest, the Authority, and vulnerable populations including children under the age of six, the elderly and those with illnesses or immune-compromised. These rules need to be adopted promptly so that applicable public drinking water systems are required to

test for cyanotoxins that may pose a risk to public health and timely notify the public and issue health advisories to protect public health.

DOCUMENTS RELIED UPON, AND WHERE THEY ARE AVAILABLE:

EPA, Recommendations for Public Water Systems to Manage Cyanotoxins in Drinking Water: https://www.epa.gov/ground-water-and-drinking-water/recommendations-public-water-systems-manage-cyanotoxins-drinking

Ohio rule regulating harmful algal blooms, Chapter 3745-90: http://epa.ohio.gov/ddagw/rules#112029992-chapter-3745-90-harmful-algal-blooms

RULES:
333-061-0510, 333-061-0520, 333-061-0530, 333-061-0540, 333-061-0550, 333-061-0560, 333-061-0570, 333-061-0580

ADOPT: 333-061-0510

RULE TITLE: Applicability of Cyanotoxin Rules

RULE SUMMARY: 333-061-0510, Applicability of Cyanotoxin Rules: defines which water suppliers are subject to OAR 333-061-0510 to 333-061-0580

RULE TEXT:
(1) Water suppliers subject to OAR 333-061-0510 to 333-061-0580 are those water suppliers operating water systems subject to regulation under OAR 333-061-0010 that:
(a) Are supplied by a surface water source that is susceptible to harmful algae blooms or release of cyanotoxins; or
(b) Are supplied by a groundwater source determined by the Authority to be under the direct influence of a surface water source that is susceptible to harmful algae blooms or release of cyanotoxins; or
(c) Purchase water from another water system that is supplied by a surface water source or a groundwater source determined by the Authority under the direct influence of a surface water that is susceptible to harmful algae blooms or release of cyanotoxins.
(2) A water source is susceptible to harmful algae blooms or release of cyanotoxins when:
(a) One or more harmful algae blooms have been documented or at least one cyanotoxin was previously detected in the water source or at any location in a public water system supplied by that water source;
(b) The point of diversion into the water system is downstream of or influenced by another surface water source susceptible to harmful algae blooms or release of cyanotoxins;
(c) The surface water source is susceptible to cyanotoxins based on a water quality limited listing in the Oregon DEQ Integrated Report and Clean Water Act Section 303(d) list for the limiting factors of algae and aquatic weeds, chlorophyll-a, nitrates, phosphorus, pH, or dissolved oxygen; or
(d) The Authority determines the source is susceptible to harmful algae blooms and cyanotoxins based on the characteristics of the source, including, but not limited to, slow moving or stagnant water, or available sources of nutrients.
(3) The Authority may, in its discretion, exempt a water supplier that would otherwise be subject to OAR 333-061-0510 to 333-061-0580 if the water supplier submits sufficient evidence, including but not limited to, water quality data, watershed characteristics, and environmental conditions such that the Authority determines that the water source has a low susceptibility to cyanotoxins when considered with any other information available to the Authority.

(4) A water supplier subject to OAR 333-061-0510 to 333-061-0580 under this rule must begin monitoring as described in OAR 333-061-0510 to 333-061-0580 beginning the week of July 15, 2018.

STATUTORY/OTHER AUTHORITY: 448.131, 448.150, ORS 448.123

STATUTES/OTHER IMPLEMENTED: 448.150, ORS 448.123

ADOPT: 333-061-0520

RULE TITLE: Definitions

RULE SUMMARY: 333-061-0520, Definitions: defines terms used in OAR 333-061-0510 to 333-061-0580.

RULE TEXT:

Except as follows, or unless the context indicates otherwise, the definitions in OAR 333-061-0020 shall apply to OAR 333-061-0510 to 333-061-0580. In addition, the following definitions apply to OAR 333-061-0510 to 333-061-0580:

(1) "Confirmation sample" means a finished water sample taken on a different day but the same location and analyzed by the same method.

(2) "Cyanobacteria" are photosynthetic bacteria that share some properties with algae and are found naturally in freshwater and saltwater. Some species of cyanobacteria can produce toxins, which are known to be harmful to human health above certain concentrations.

(3) "Cyanotoxins" means total microcystins and cylindrospermopsin produced by cyanobacteria.

(4) "Detected" or "detection" means an analytical result that is equal to or greater than the reporting limit for the analytical method being used.

(5) "Distribution sampling points" means representative points in the distribution system.

(6) "Finished water sampling point" means each entry point to the distribution system which is representative of the water intended for distribution and consumption without further treatment, except as necessary to maintain water quality in the distribution system (for example, booster chlorination).

(7) "Harmful algae bloom" means a dense colony of cyanobacteria that can rapidly multiply in surface waters when environmental conditions are favorable for growth.

(8) "Health advisory level" is the concentration of a cyanotoxin determined by the US Environmental Protection Agency, as specified in OAR 333-061-0530(1), at or below which adverse health effects are not expected to occur if consuming water containing cyanotoxins at this concentration for up to 10 days.

(9) "Monitoring" means collecting a sample, having it analyzed by a competent lab, and reporting the results to the Authority.

(10) "Raw water sampling point" means a sampling point on each water source intake in use prior to any treatment, or another raw water sampling point acceptable to the Authority.

(11) "Subject water suppliers" means a water supplier subject to OAR 333-061-0010 and OAR 333-061-0510 to 333-061-0580 as described in OAR 333-061-0510.

(12) "Vulnerable people" means formula-fed infants, people under the age of six, pregnant women, nursing mothers, the elderly, those receiving dialysis treatment, those with pre-existing liver conditions, and other sensitive populations.

STATUTORY/OTHER AUTHORITY: ORS 448.123, 448.131, 448.150

STATUTES/OTHER IMPLEMENTED: ORS 448.123, 448.150

ADOPT: 333-061-0530

RULE TITLE: Health Advisory Levels

RULE SUMMARY: 333-061-0530, Health Advisory Levels: identifies levels for cyanotoxins, above which a health advisory is issued.

RULE TEXT:

(1) The health advisory levels are as follows:

(a) Total Microcystins: 0.3 ug/L for vulnerable people; 1.6 ug/L for people aged 6 and older.

(b) Cylindrospermopsin: 0.7 ug/L for vulnerable people; 3 ug/L for people aged 6 and older.

(2) Exceeding a health advisory level in a sample collected from a finished water sampling point or a distribution sampling point requires additional monitoring and public notification as prescribed by OAR 333-061-0540(4) and OAR 333-061-0570.

STATUTORY/OTHER AUTHORITY: ORS 448.123, 448.131, 448.150

STATUTES/OTHER IMPLEMENTED: ORS 448.123, 448.150

ADOPT: 333-061-0540

RULE TITLE: Cyanotoxin Monitoring

RULE SUMMARY: 333-061-0540, Cyanotoxin Monitoring: defines when and how water suppliers must monitor for cyanotoxins.

RULE TEXT:

Subject water suppliers must monitor for cyanotoxins as follows.

(1) Water suppliers with raw water intakes must monitor at raw water sampling points as follows:

(a) From May 1 through October 31 water suppliers shall monitor at the raw water sampling point at least once every two weeks for cyanotoxins.

(b) If cyanotoxin levels are greater than or equal to 0.3 ug/L, or there is a recreational harmful algae bloom advisory in a water body upstream, water suppliers must immediately increase monitoring to weekly.

(c) Water suppliers may resume raw water monitoring every two weeks if cyanotoxin levels are less than 0.3 ug/L in at least two consecutive weekly samples.

(2) Water suppliers with raw water intakes must monitor at finished water sampling points as follows:

(a) If cyanotoxin levels are greater than or equal to 0.3 ug/L at the raw water sampling point, water suppliers must monitor finished water weekly, beginning within 24 hours of receiving raw water results.

(b) If any finished water sample detects cyanotoxins, water suppliers must immediately begin monitoring finished water daily.

(c) Water suppliers may resume weekly finished water monitoring if cyanotoxins are not detected in two consecutive daily samples collected at the finished water sampling point.

(d) Finished water monitoring may be discontinued if both cyanotoxin levels are less than 0.3 ug/L in two consecutive samples of the raw water and is not detected in any finished or distribution sample.

(3) Revised cyanotoxin monitoring frequency. The cyanotoxin monitoring frequency may be revised (decreased, increased or discontinued) at the discretion of the Authority. When establishing the revised schedule, the Authority may consider cyanotoxin data collected in accordance with this rule, locations of intakes and dilution factors for raw water monitoring of sources downstream of a harmful algae bloom, operational changes made, and other information provided by the water supplier.

(4) Monitoring following a cyanotoxin health advisory level exceedance in finished water.

(a) If the cyanotoxin concentration exceeds a health advisory level in a finished water sample, the water supplier must collect a finished water confirmation sample as soon as practical, but no later than 24 hours after receiving results.

(b) Distribution sampling. A water supplier with a confirmed finished water result greater than or equal to 0.3 ug/L for total microcystins or greater than or equal to 0.7 ug/L for cylindrospermopsin, and all water suppliers that purchase water from a water supplier with an exceedance, shall monitor daily at representative sites in the distribution system within 24 hours of receiving the confirmation sample result. Additional distribution system monitoring may be required by the Authority based on sampling results and other relevant circumstances.

(c) Once the health advisory is lifted as permitted under OAR 333-061-0570(4), water suppliers must monitor no less frequently than prescribed in sections (1) and (2) of this rule.

(5) Monitoring extension. Upon a request from a water supplier, the Authority may agree to extend the 24-hour monitoring timeline required pursuant to this rule on a case-by-case basis when the water supplier has a logistical problem timely collecting or analyzing samples in accordance with the requirements of OAR 333-061-0510 to 333-061-0580. When an extension is agreed to by the Authority, the Authority shall specify in writing how much time the water supplier has to monitor. Examples of potential logistical problems include, but are not limited to:

(a) Extreme weather conditions that create unsafe travel or on-site conditions for the person collecting the sample.

(b) Limited laboratory capacity on weekends and holidays.

STATUTORY/OTHER AUTHORITY: ORS 448.123, 448.131, 448.150

STATUTES/OTHER IMPLEMENTED: ORS 448.123, 448.150

ADOPT: 333-061-0550

RULE TITLE: Analytical Methods

RULE SUMMARY: 333-061-0550, Analytical Methods: identifies how cyanotoxin monitoring water samples must be analyzed by drinking water laboratories.

RULE TEXT:

(1) A water supplier shall ensure that cyanotoxin samples are analyzed using the Enzyme-linked immunosorbent assay (ELISA) for the specific cyanotoxin, EPA method 546, or another method approved in writing by the Authority.
(2) After December 31, 2018, to analyze samples required by OAR 333-061-0510 to 333-061-0580, a water supplier must use a laboratory accredited according to OAR chapter 333, division 64 and the Oregon Environmental Laboratory Accreditation Program (ORELAP), or the Oregon Department of Environmental Quality Laboratory.

STATUTORY/OTHER AUTHORITY: ORS 448.123, 448.131, 448.150

STATUTES/OTHER IMPLEMENTED: ORS 448.123, 448.150

ADOPT: 333-061-0560

RULE TITLE: Reporting

RULE SUMMARY: 333-061-0560, Reporting: requires water suppliers to notify purchasing water systems when advisory levels are exceeded and requires laboratories and water suppliers to report laboratory results to the Authority.

RULE TEXT:

(1) If the cyanotoxin concentration exceeds a health advisory level in the confirmation sample collected at any finished water sampling point in accordance with OAR 333-061-540(2), the water supplier shall notify all purchasing systems served by the water supplier as soon as practical but no later than 24 hours after receiving the confirmation sample results.

(2) Mandatory reporting requirements for laboratories:

(a) Laboratories must report validated results of any analysis that exceeds a health advisory level directly to the Authority and to the water supplier as soon as possible but no later than 24 hours or one business day of validating results, or within 72 hours or three business days post analysis.

(b) Subcontracted laboratories must report validated results of any analysis that exceeds the health advisory level directly to their client laboratory as soon as practical but no later than 24 hours or one business day of validating results, or within 72 hours or three business days post analysis.

(3) The water supplier shall:

(a) Ensure that laboratories conducting the testing report as described in section (2) of this rule; and

(b) Report to the Authority any analytical result used to determine whether an advisory may be lifted pursuant to OAR 333-061-0570(4) within 24 hours; and

(c) Report to the Authority any analytical result that changes the frequency of monitoring pursuant to OAR 333-061-0540 within 24 hours;

(d) Report to the Authority all other analytical results less than the health advisory levels within 10 days of the end of the month the sample results were received.

(4) Analyses required by OAR 333-061-0540 must be uploaded by the laboratory to the Authority in an approved XML format, or submitted in a format approved by the Authority.

STATUTORY/OTHER AUTHORITY: ORS 448.123, 448.131, 448.150

STATUTES/OTHER IMPLEMENTED: ORS 448.123, 448.150

ADOPT: 333-061-0570

RULE TITLE: Public Notification

RULE SUMMARY: 333-061-0570, Public Notification: identifies how and when water suppliers must notify the public of monitoring results and the standard language to be used.

RULE TEXT:

Subject water suppliers must notify the public as follows.

(1) Issuance of a Health Advisory. If cyanotoxin levels from a confirmation sample in finished water or in the distribution system exceed any health advisory level, the water supplier and any suppliers that purchase water from that system must issue a health advisory as soon as possible, but no later than 24 hours of receipt of results. The public notification shall include, at a minimum, the cyanotoxin and health advisory level exceeded, the sample collection dates, dates results were received, locations of the samples, and the standard health effects language in section (6) of this rule.

(2) The Authority may allow a water supplier additional time to issue an advisory, in order to await additional results or implement operational changes to reduce cyanotoxin levels, including but not limited to switching sources and optimizing treatment. If the Authority allows additional time, the water supplier shall issue public notification to all customers within 24 hours of receiving the confirmation sample results. The notification must include the date the samples were collected, the dates results were received, whether the sample was collected at the finished water sampling point or in the distribution, the results of the analyses, and steps the water supplier is taking to minimize risk to public health.

(3) The Authority may allow the water supplier to limit distribution of the health advisory in accordance with OAR 333-061-0042(1)(b).

(4) Unless otherwise specified by the Authority based on public health and safety considerations, a health advisory shall remain in effect until the following occur:

(a) Cyanotoxin concentrations are below the applicable health advisory level in two consecutive samples collected a minimum of 24 hours apart at the finished water sampling point; and

(b) Cyanotoxin concentrations are below the applicable health advisory level in two consecutive sets of samples collected at representative distribution sampling points.

(5) Consumer confidence report. Each water supplier that detects a cyanotoxin in a sample collected at a finished water sampling point or a distribution sampling point collected within its water system in accordance with OAR 333-061-0540 shall include the following in the consumer confidence report required by OAR 333-061-0043:

(a) The range of levels detected and highest single measurement of cyanotoxin concentration in samples collected at finished water sampling points and distribution sampling points, the cyanotoxin health advisory level, and whether an advisory was required to be issued.

(b) Information regarding the major source of the contaminant using definitions found in OAR 333-061-0520(2), (3), and (7).

(c) Standard health effects language in section (6) of this rule.

(6) Standard health effects language. Water suppliers shall include the following standard health effects language in public notification and consumer confidence reports: "Consuming water containing concentrations of cyanotoxins over the health advisory level for more than 10 days may result in upset stomach, diarrhea, vomiting, as well as liver or kidney damage. Formula-fed infants, children younger than six, pregnant women, nursing mothers, the elderly, those receiving dialysis treatment and those with pre-existing liver conditions may be more susceptible than the general population to the health effects of cyanotoxins. Seek medical attention if you or your family members experience illness."

STATUTORY/OTHER AUTHORITY: ORS 448.123, 448.131, 448.150

STATUTES/OTHER IMPLEMENTED: ORS 448.123, 448.150

ADOPT: 333-061-0580

RULE TITLE: Record Keeping

RULE SUMMARY: 333-061-0580, Record Keeping: identifies record keeping requirements for water suppliers.

RULE TEXT:

(1) Subject water suppliers shall retain, on its premises or at a convenient location near its premises, records of cyanotoxin analyses made pursuant to OAR 333-061-0510 to 333-061-0580 for not less than 10 years. Actual laboratory reports may be kept, or data may be transferred to tabular summaries, provided that the following information is included:

(a) The date, place and time of sampling, and the name of the person who collected the sample;

(b) Identification of the sample as to whether it was collected at a raw, finished or distribution sampling point;

(c) Date of analysis;

(d) Laboratory and person responsible for performing analysis;

(e) The analytical method used; and

(f) The results of the analysis.

(2) Subject water suppliers shall retain, on its premises or at a convenient location near its premises, health advisories issued in accordance with OAR 333-061-0510 to 333-061-0580, and consumer confidence reports issued in accordance with OAR 333-061-0510 to 333-061-0580 and OAR 333-061-0043, for not less than 10 years.

STATUTORY/OTHER AUTHORITY: ORS 448.123, 448.131, 448.150

STATUTES/OTHER IMPLEMENTED: ORS 448.123, 448.150

OREGON ADMINISTRATIVE RULES
OREGON HEALTH AUTHORITY, PUBLIC HEALTH DIVISION
CHAPTER 333

DIVISION 61

DRINKING WATER

333-061-0510
Applicability of Cyanotoxin Rules

(1) Water suppliers subject to OAR 333-061-0510 to 333-061-0580 are those water suppliers operating water systems subject to regulation under OAR 333-061-0010 that:
  (a) Are supplied by a surface water source that is susceptible to harmful algae blooms or release of cyanotoxins; or
  (b) Are supplied by a groundwater source determined by the Authority to be under the direct influence of a surface water source that is susceptible to harmful algae blooms or release of cyanotoxins; or
  (c) Purchase water from another water system that is supplied by a surface water source or a groundwater source determined by the Authority under the direct influence of a surface water that is susceptible to harmful algae blooms or release of cyanotoxins.

(2) A water source is susceptible to harmful algae blooms or release of cyanotoxins when:
  (a) One or more harmful algae blooms have been documented or at least one cyanotoxin was previously detected in the water source or at any location in a public water system supplied by that water source;
  (b) The point of diversion into the water system is downstream of or influenced by another surface water source susceptible to harmful algae blooms or release of cyanotoxins;
  (c) The surface water source is susceptible to cyanotoxins based on a water quality limited listing in the Oregon DEQ Integrated Report and Clean Water Act Section 303(d) list for the limiting factors of algae and aquatic weeds, chlorophyll-a, nitrates, phosphorus, pH, or dissolved oxygen; or
  (d) The Authority determines the source is susceptible to harmful algae blooms and cyanotoxins based on the characteristics of the source, including, but not limited to, slow moving or stagnant water, or available sources of nutrients.

(3) The Authority may, in its discretion, exempt a water supplier that would otherwise be subject to OAR 333-061-0510 to 333-061-0580 if the water supplier submits sufficient evidence, including but not limited to, water quality data, watershed characteristics, and environmental conditions such that the Authority determines that the water source has a low susceptibility to cyanotoxins when considered with any other information available to the Authority.

(4) A water supplier subject to OAR 333-061-0510 to 333-061-0580 under this rule must begin monitoring as described in OAR 333-061-0510 to 333-061-0580 beginning the week of July 15, 2018.

Stat. Auth.: ORS 448.123, 448.131 and 448.150
Stats. Implemented: ORS 448.123 and 448.150

333-061-0520
Definitions

Except as follows, or unless the context indicates otherwise, the definitions in OAR 333-061-0020 shall apply to OAR 333-061-0510 to 333-061-0580. In addition, the following definitions apply to OAR 333-061-0510 to 333-061-0580:

(1) "Confirmation sample" means a finished water sample taken on a different day but the same location and analyzed by the same method.

(2) "Cyanobacteria" are photosynthetic bacteria that share some properties with algae and are found naturally in freshwater and saltwater. Some species of cyanobacteria can produce toxins, which are known to be harmful to human health above certain concentrations.

(3) "Cyanotoxins" means total microcystins and cylindrospermopsin produced by cyanobacteria.

(4) "Detected" or "detection" means an analytical result that is equal to or greater than the reporting limit for the analytical method being used.

(5) "Distribution sampling points" means representative points in the distribution system.

(6) "Finished water sampling point" means each entry point to the distribution system which is representative of the water intended for distribution and consumption without further treatment, except as necessary to maintain water quality in the distribution system (for example, booster chlorination).

(7) "Harmful algae bloom" means a dense colony of cyanobacteria that can rapidly multiply in surface waters when environmental conditions are favorable for growth.

(8) "Health advisory level" is the concentration of a cyanotoxin determined by the US Environmental Protection Agency, as specified in OAR 333-061-0530(1), at or below which adverse health effects are not expected to occur if consuming water containing cyanotoxins at this concentration for up to 10 days.

(9) "Monitoring" means collecting a sample, having it analyzed by a competent lab, and reporting the results to the Authority.

(10) "Raw water sampling point" means a sampling point on each water source intake in use prior to any treatment, or another raw water sampling point acceptable to the Authority.

(11) "Subject water suppliers" means a water supplier subject to OAR 333-061-0010 and OAR 333-061-0510 to 333-061-0580 as described in OAR 333-061-0510.

(12) "Vulnerable people" means formula-fed infants, people under the age of six, pregnant women, nursing mothers, the elderly, those receiving dialysis treatment, those with pre-existing liver conditions, and other sensitive populations.

Stat. Auth.: ORS 448.123, 448.131 and 448.150
Stats. Implemented: ORS 448.123 and 448.150

333-061-0530
Health Advisory Levels

(1) The health advisory levels are as follows:
  (a) Total Microcystins: 0.3 ug/L for vulnerable people; 1.6 ug/L for people aged 6 and older.
  (b) Cylindrospermopsin: 0.7 ug/L for vulnerable people; 3 ug/L for people aged 6 and older.

(2) Exceeding a health advisory level in a sample collected from a finished water sampling point or a distribution sampling point requires additional monitoring and public notification as prescribed by OAR 333-061-0540(4) and OAR 333-061-0570.

Stat. Auth.: ORS 448.123, 448.131 and 448.150
Stats. Implemented: ORS 448.123 and 448.150

333-061-0540
Cyanotoxin Monitoring

Subject water suppliers must monitor for cyanotoxins as follows.

(1) Water suppliers with raw water intakes must monitor at raw water sampling points as follows:
  (a) From May 1 through October 31 water suppliers shall monitor at the raw water sampling point at least once every two weeks for cyanotoxins.
  (b) If cyanotoxin levels are greater than or equal to 0.3 ug/L, or there is a recreational harmful algae bloom advisory in a water body upstream, water suppliers must immediately increase monitoring to weekly.
  (c) Water suppliers may resume raw water monitoring every two weeks if cyanotoxin levels are less than 0.3 ug/L in at least two consecutive weekly samples.

(2) Water suppliers with raw water intakes must monitor at finished water sampling points as follows:
  (a) If cyanotoxin levels are greater than or equal to 0.3 ug/L at the raw water sampling point, water suppliers must monitor finished water weekly, beginning within 24 hours of receiving raw water results.
  (b) If any finished water sample detects cyanotoxins, water suppliers must immediately begin monitoring finished water daily.
  (c) Water suppliers may resume weekly finished water monitoring if cyanotoxins are not detected in two consecutive daily samples collected at the finished water sampling point.
  (d) Finished water monitoring may be discontinued if both cyanotoxin levels are less than 0.3 ug/L in two consecutive samples of the raw water and is not detected in any finished or distribution sample.

(3) Revised cyanotoxin monitoring frequency. The cyanotoxin monitoring frequency may be revised (decreased, increased or discontinued) at the discretion of the Authority. When establishing the revised schedule, the Authority may consider cyanotoxin data collected in accordance with this rule, locations of intakes and dilution factors for raw water monitoring of sources downstream of a harmful algae bloom, operational changes made, and other information provided by the water supplier.

(4) Monitoring following a cyanotoxin health advisory level exceedance in finished water.
  (a) If the cyanotoxin concentration exceeds a health advisory level in a finished water sample, the water supplier must collect a finished water confirmation sample as soon as practical, but no later than 24 hours after receiving results.
  (b) Distribution sampling. A water supplier with a confirmed finished water result greater than or equal to 0.3 ug/L for total microcystins or greater than or equal to 0.7 ug/L for cylindrospermopsin, and all water suppliers that purchase water from a water supplier with an exceedance, shall monitor daily at representative sites in the distribution system within 24 hours of receiving the confirmation sample result. Additional distribution system monitoring may be required by the Authority based on sampling results and other relevant circumstances.
  (c) Once the health advisory is lifted as permitted under OAR 333-061-0570(4), water suppliers must monitor no less frequently than prescribed in sections (1) and (2) of this rule.

(5) Monitoring extension. Upon a request from a water supplier, the Authority may agree to extend the 24-hour monitoring timeline required pursuant to this rule on a case-by-case basis when the water supplier has a logistical problem timely collecting or analyzing samples in accordance with the requirements of OAR 333-061-0510 to 333-061-0580. When an extension is agreed to by the Authority, the Authority shall specify in writing how much time the water supplier has to monitor. Examples of potential logistical problems include, but are not limited to:
  (a) Extreme weather conditions that create unsafe travel or on-site conditions for the person collecting the sample.
  (b) Limited laboratory capacity on weekends and holidays.

Stat. Auth.: ORS 448.123, 448.131 and 448.150
Stats. Implemented: ORS 448.123 and 448.150

333-061–0550
Analytical Methods

(1) A water supplier shall ensure that cyanotoxin samples are analyzed using the Enzyme-linked immunosorbent assay (ELISA) for the specific cyanotoxin, EPA method 546, or another method approved in writing by the Authority.

(2) After December 31, 2018, to analyze samples required by OAR 333-061-0510 to 333-061-0580, a water supplier must use a laboratory accredited according to OAR chapter 333, division 64 and the Oregon Environmental Laboratory Accreditation Program (ORELAP), or the Oregon Department of Environmental Quality Laboratory.

Stat. Auth.: ORS 448.123, 448.131 and 448.150
Stats. Implemented: ORS 448.123 and 448.150

333-061-0560
Reporting

(1) If the cyanotoxin concentration exceeds a health advisory level in the confirmation sample collected at any finished water sampling point in accordance with OAR 333-061-540(2), the water supplier shall notify all purchasing systems served by the water supplier as soon as practical but no later than 24 hours after receiving the confirmation sample results.

(2) Mandatory reporting requirements for laboratories:
  (a) Laboratories must report validated results of any analysis that exceeds a health advisory level directly to the Authority and to the water supplier as soon as possible but no later than 24 hours or one business day of validating results, or within 72 hours or three business days post analysis.
  (b) Subcontracted laboratories must report validated results of any analysis that exceeds the health advisory level directly to their client laboratory as soon as practical but no later than 24 hours or one business day of validating results, or within 72 hours or three business days post analysis.

(3) The water supplier shall:
  (a) Ensure that laboratories conducting the testing report as described in section (2) of this rule; and
  (b) Report to the Authority any analytical result used to determine whether an advisory may be lifted pursuant to OAR 333-061-0570(4) within 24 hours; and
  (c) Report to the Authority any analytical result that changes the frequency of monitoring pursuant to OAR 333-061-0540 within 24 hours;
  (d) Report to the Authority all other analytical results less than the health advisory levels within 10 days of the end of the month the sample results were received.

(4) Analyses required by OAR 333-061-0540 must be uploaded by the laboratory to the Authority in an approved XML format, or submitted in a format approved by the Authority.

Stat. Auth.: ORS 448.123, 448.131 and 448.150
Stats. Implemented: ORS 448.123 and 448.150

333-061-0570
Public Notification

Subject water suppliers must notify the public as follows.

(1) Issuance of a Health Advisory. If cyanotoxin levels from a confirmation sample in finished water or in the distribution system exceed any health advisory level, the water supplier and any suppliers that purchase water from that system must issue a health advisory as soon as possible, but no later than 24 hours of receipt of results. The public notification shall include, at a minimum, the cyanotoxin and health advisory level exceeded, the sample collection dates, dates results were received, locations of the samples, and the standard health effects language in section (6) of this rule.

(2) The Authority may allow a water supplier additional time to issue an advisory, in order to await additional results or implement operational changes to reduce cyanotoxin levels, including but not limited to switching sources and optimizing treatment. If the Authority allows additional time, the water supplier shall issue public notification to all customers within 24 hours of receiving the confirmation sample results. The notification must include the date the samples were collected, the dates results were received, whether the sample was collected at the finished water sampling point or in the distribution, the results of the analyses, and steps the water supplier is taking to minimize risk to public health.

(3) The Authority may allow the water supplier to limit distribution of the health advisory in accordance with OAR 333-061-0042(1)(b).

(4) Unless otherwise specified by the Authority based on public health and safety considerations, a health advisory shall remain in effect until the following occur:
  (a) Cyanotoxin concentrations are below the applicable health advisory level in two consecutive samples collected a minimum of 24 hours apart at the finished water sampling point; and
  (b) Cyanotoxin concentrations are below the applicable health advisory level in two consecutive sets of samples collected at representative distribution sampling points.

(5) Consumer confidence report. Each water supplier that detects a cyanotoxin in a sample collected at a finished water sampling point or a distribution sampling point collected within its water system in accordance with OAR 333-061-0540 shall include the following in the consumer confidence report required by OAR 333-061-0043:
  (a) The range of levels detected and highest single measurement of cyanotoxin concentration in samples collected at finished water sampling points and distribution sampling points, the cyanotoxin health advisory level, and whether an advisory was required to be issued.
  (b) Information regarding the major source of the contaminant using definitions found in OAR 333-061-0520(2), (3), and (7).
  (c) Standard health effects language in section (6) of this rule.

(6) Standard health effects language. Water suppliers shall include the following standard health effects language in public notification and consumer confidence reports: "Consuming water containing concentrations of cyanotoxins over the health advisory level for more than 10 days may result in upset stomach, diarrhea, vomiting, as well as liver or kidney damage. Formula-fed infants, children younger than six, pregnant women, nursing mothers, the elderly, those receiving dialysis treatment and those with pre-existing liver conditions may be more susceptible than the general population to the health effects of cyanotoxins. Seek medical attention if you or your family members experience illness."

Stat. Auth.: ORS 448.123, 448.131 and 448.150
Stats. Implemented: ORS 448.123 and 448.150

333-061-0580
Record Keeping

(1) Subject water suppliers shall retain, on its premises or at a convenient location near its premises, records of cyanotoxin analyses made pursuant to OAR 333-061-0510 to 333-061-0580 for not less than 10 years. Actual laboratory reports may be kept, or data may be transferred to tabular summaries, provided that the following information is included:
  (a) The date, place and time of sampling, and the name of the person who collected the sample;
  (b) Identification of the sample as to whether it was collected at a raw, finished or distribution sampling point;
  (c) Date of analysis;
  (d) Laboratory and person responsible for performing analysis;
  (e) The analytical method used; and
  (f) The results of the analysis.

(2) Subject water suppliers shall retain, on its premises or at a convenient location near its premises, health advisories issued in accordance with OAR 333-061-0510 to 333-061-0580, and consumer

confidence reports issued in accordance with OAR 333-061-0510 to 333-061-0580 and OAR 333-061-0043, for not less than 10 years.

Stat. Auth.: ORS 448.123, 448.131 and 448.150
Stats. Implemented: ORS 448.123 and 448.150

PWS_ID	PWS Name [1]	Drinking Water Source	County	System Type [2]	Population Served	Potential risk criteria/factors identified in the Drinking Water Source Area							
						Previous HAB Advisory [3]	DEQ Water Quality Limited (WQL) listing indicating the waterbody needs a TMDL (a Total Maximum Daily Load is the calculated amount of pollutant a water body can receive and still meet Oregon water quality standards) Based on OR DEQ 2012 Integrated Report and 303(d) list					Waters of Potential Concern for HABs [4]	OHA DWS sampling location for Cyanobacteria Toxin (2011-2017)
							Algae and Aquatic Weeds	Chlorophyll-a	Phosphorus or Nitrates	pH	Dissolved Oxygen (cold/cool water criteria only)		
OR4100391	Idanha City Water	Spring; Rainbow Creek	Linn	C	140							X	
OR4190730	Jackson Co Pks Emigrant Lake	Emigrant Lake (South Intake)	Jackson	NC	800				X			X	
OR4190730	Jackson Co Pks Emigrant Lake	Emigrant Lake (North Intake)	Jackson	NC	800				X			X	
OR4100408	Jefferson, City of	Santiam River	Marion	C	3,165	X	X					X	
OR4190186	Josephine Co Pks Lake Selmac 1	Lake Selmac	Josephine	NC	50		X					X	X
OR4194645	Josephine Co Pks Lake Selmac 2	Lake Selmac	Josephine	NC	50		X					X	X
OR4100457	Lake Oswego Municipal Water (*)	Clackamas River	Clackamas	C	36,093	X	X					X	
OR4101001	Lakeshore RV Park	Woahink Lake	Lane	NC	33							X	
OR4100463	Lakeside Water District	Eel Lake	Coos	C	1,800							X	
OR4100466	Langlois Water District	Floras Creek	Curry	C	220					X	X		
OR4100707	Lawson Acres Water Association	Cow Creek	Douglas	C	75	X				X			
OR4100473	Lebanon, City of (*)	Santiam Canal	Linn	C	15,690		X					X	
OR4190476	Little River Christian Camp	Well	Douglas	NC	30					X			
OR4105092	Long Rock Court	North Umpqua River	Douglas	NP	14	X	X			X	X	X	X
OR4100492	Lowell, City of	Dexter Lake	Lane	C	1,170	X	X					X	X
OR4100493	Lyons Mehama Water District	North Santiam River	Marion	C	1,300	X	X					X	X
OR4100513	Medford Water Commission (*)	Rogue River	Jackson	C	91,100	X	X			X	X	X	X
OR4100250	Milo Academy	South Umpqua River	Douglas	C	150	X				X			X
OR4100540	Monroe, City of	Long Tom River	Benton	C	615	X	X			X	X	X	X
OR4100559	Myrtle Creek, City of	South Umpqua River	Douglas	C	3,460	X	X	X		X	X	X	X
OR4100551	Myrtle Point, City of (*)	North Fork Coquille River	Coos	C	2,500						X		X
OR4100566	Newport, City of	Big Creek	Lincoln	C	10,160	X						X	X
OR4100580	North Clackamas County Water	Clackamas River	Clackamas	C	87,700	X	X					X	
OR4100581	Oakland, City of (*)	Calapooya Creek	Douglas	C	954					X	X		
OR4194929	On The River RV Park	Well	Douglas	NC	60	X	X	X		X	X		
OR4100587	Ontario, City of	Snake River	Malheur	C	14,465			X	X		X		
OR4191044	OPRD Jm Honeyman Memorial Park	Woahink Lake	Lane	NC	350							X	
OR4100613	Pendleton, City of	Umatilla River	Umatilla	C	17,310		X			X			
OR4100623	Philomath Public Works	Mary's River	Benton	C	4,670						X		
OR4100657	Portland Bureau of Water Works (*)	Bull Run	Clackamas	C	614,059							X	
OR4100672	Powers, City of	South Fork Coquille River	Coos	C	700	X	X					X	
OR4101012	PP&L-Toketee Village	Toketee Lake (N.Umpqua River)	Douglas	C	50	X	X			X	X	X	X
OR4100706	Riddle, City of (*)	Cow Creek	Douglas	C	1,300	X				X			
OR4101445	River Bend West Water	Umpqua River	Douglas	NP	24		X	X	X	X	X		
OR4100717	Roberts Creek Water District	South Umpqua River	Douglas	C	6,500	X	X	X		X	X		
OR4100712	Rogue River, City of	Rogue River	Jackson	C	2,000	X	X		X	X		X	

Table 1. Public Water Systems susceptible to harmful algae blooms (HABs) and subject to OAR 333-061-0510 to 333-061-0580 (as of June 28, 2018, subject to change)

Notes:

(1) Includes surface water intake and groundwater under the direct influence of surface water (GWUDI) sources. Systems that sell water to other providers are denoted with (*)
(2) System Type: C = Community; NTNC = Non-Transient Non-Community; NC=Transient Non-Community; NP= Non-Public State Regulated systems
(3) HAB Advisory's: from OHA, 2011 updated with data from OHA Recreational HAB Website for 2012-2017
(4) Waters of Potential Concern as identified in Appendix B of DEQ's HAB Strategy (2011) or by sampling conducted by OHA's Recreational HABs program

PWS_ID	PWS Name[1]	Drinking Water Source	County	System Type[2]	Population Served	Potential risk criteria/factors identified in the Drinking Water Source Area							
						Previous HAB Advisory [3]	DEQ Water Quality Limited (WQL) listing indicating the waterbody needs a TMDL (a Total Maximum Daily Load is the calculated amount of pollutant a water body can receive and still meet Oregon water quality standards) Based on OR DEQ 2012 Integrated Report and 303(d) list					Waters of Potential Concern for HABs [4]	OHA DWS sampling location for Cyanobacteria Toxin (2011-2017)
							Algae and Aquatic Weeds	Chlorophyll-a	Phosphorus or Nitrates	pH	Dissolved Oxygen (cold/cool water criteria only)		
OR4100003	Adair Village Water System	Willamette River	Benton	C	875						X		
OR4100012	Albany, City of (*)	South Santiam River - Lebanon - Albany Canal	Linn	C	56,100		X					X	
OR4100012	Albany, City of (*)	Santiam River	Marion	C	56,100		X					X	
OR4100304	Alderwood Water Development Co	Woahink Lake	Lane	C	35							X	
OR4100041	Amity, City of	South Yamhill River	Yamhill	C	1,670				X				
OR4101483	Angler's Cove/SCHWC	Rogue River	Jackson	C	80	X	X			X	X	X	X
OR4100047	Ashland Water Department	Ashland Creek	Jackson	C	21,505						X		X
OR4101174	Buell-Red Prairie Water Association	Gooseneck Creek	Polk	C	976						X		X
OR4191786	Camp Baker BSA	Infiltration Gallery	Lane	NC	75	X	X					X	X
OR4100157	Canby Utility	Molalla River	Clackamas	C	16,866								X
OR4100171	Carlton, City of (*)	Panther Creek	Yamhill	C	2,125						X		
OR4192152	Cascade Pacific Pulp LLC	Willamette River	Linn	NTNC	800		X		X	X	X	X	
OR4100187	Clackamas River Water - Clackamas	Clackamas River	Clackamas	C	37,638	X	X					X	
OR4100548	Clarks Branch Water Association	South Umpqua River	Douglas	C	140	X	X	X		X	X	X	
OR4100213	Coquille, City of (*)	Coquille River	Coos	C	3,866			X			X		
OR4100225	Corvallis, City of (*)	Willamette River	Benton	C	56,000						X		X
OR4100236	Cottage Grove, City of	Row River IG	Lane	C	9,992	X	X					X	X
OR4100808	Country View MH Estates	Rogue River	Jackson	C	132	X	X			X	X	X	X
OR4100246	Creswell, City of	Coast Fork Willamette River	Lane	C	5,075	X	X		X	X			X
OR4100248	Dallas, City of	Rickreal Creek	Polk	C	14,700						X		
OR4100276	Elkton, City of	Umpqua River	Douglas	C	200		X	X	X	X	X		X
OR4100279	Estacada, City of	Clackamas River	Clackamas	C	3,155	X	X					X	
OR4100287	Eugene Water & Electric Board (*)	McKenzie River	Lane	C	183,055	X	X					X	
OR4100317	Gates, City of	North Santiam River	Marion	C	490	X	X					X	X
OR4100323	Glendale, City of	Cow Creek	Douglas	C	872						X		
OR4100326	Glide Water Association	North Umpqua River	Douglas	C	1,200	X				X	X	X	
OR4100333	Gold Hill, City of	Rogue River	Jackson	C	1,115	X	X		X	X	X	X	
OR4100342	Grants Pass, City of (*)	Rogue River	Josephine	C	37,088	X	X		X	X		X	
OR4100301	Heceta Water District	Clear Lake	Lane	C	4,500				X			X	
OR4101520	Hiland WC - Shady Cove (*)	Rogue River	Jackson	C	975	X	X			X			
OR4100379	Hillsboro & JWC Plant (*)	Tualatin River	Washington	C	397,769	X		X	X		X	X	

PWS_ID	PWS Name [1]	Drinking Water Source	County	System Type [2]	Population Served	Potential risk criteria/factors identified in the Drinking Water Source Area							
						Previous HAB Advisory [1]	DEQ Water Quality Limited (WQL) listing indicating the waterbody needs a TMDL (a Total Maximum Daily Load is the calculated amount of pollutant a water body can receive and still meet Oregon water quality standards) Based on OR DEQ 2012 Integrated Report and 303(d) list					Waters of Potential Concern for HABs [1]	OHA DWS sampling location for Cyanobacteria Toxin (2011-2017)
							Algae and Aquatic Weeds	Chlorophyll a	Phosphorus or Nitrates	pH	Dissolved Oxygen (cold/cool water criteria only)		
OR4194300	Roseburg Forest Products - Dillard	South Umpqua River	Douglas	NTNC	2,000	X	X	X		X	X		
OR4100720	Roseburg, City of (*)	North Umpqua River	Douglas	C	28,800	X				X		X	
OR4100731	Salem Public Works (*)	North Santiam River I.G.	Marion	C	192,000	X	X					X	
OR4100799	Seaside Water Department (*)	Necanicum River/SF	Clatsop	C	6,605								X
OR4100835	Shangri La Water District	Well	Lane	C	200	X							
OR4100811	Sheridan, City of	South Yamhill River	Yamhill	C	5,800				X		X		
OR4100823	Silverton, City of	Silver Creek	Marion	C	9,502						X		
OR4194283	Sleepy Hollow RV Park	Coquille River (Middle Fork)	Coos	NP	17						X		
OR4100302	South Coast Water District Inc.	Siltcoos Lake	Lane	C	200	X	X					X	X
OR4100591	South Fork Water Board - Oregon City	Clackamas River	Clackamas	C	65,000	X	X					X	
OR4100837	Springfield Utility Board (*)	Middle Fork Willamette River	Lane	C	59,500	X	X				X	X	X
OR4100837	Springfield Utility Board (*)	Thurston Well #2 (GU)	Lane	C	59,500	X	X					X	
OR4100843	Stayton Water Supply	North Santiam River	Marion	C	7,830	X	X					X	X
OR4194508	Susan Creek Mobile Home Park	North Umpqua River	Douglas	NP	20	X	X			X	X	X	X
OR4100847	Sutherlin, City of (*)	Calapooya Creek Non-Pariel	Douglas	C	7,930						X		X
OR4100851	Sweet Home, City of	In Foster Lake Dam	Linn	C	9,065		X					X	
OR4100519	Tri-City JW & SA	South Umpqua River	Douglas	C	3,500	X	X	X		X	X	X	X
OR4100719	Umpqua Basin Water Association	North Umpqua River	Douglas	C	8,900	X							
OR4194179	USFS Horseshoe Bend CG	North Umpqua River	Douglas	NC	80	X	X			X	X	X	X
OR4101091	USFS Steamboat Work Center	North Umpqua River	Douglas	NC	20	X	X			X	X	X	X
OR4101092	USFS Tiller Ranger Station	South Umpqua River	Douglas	NTNC	34	X	X			X		X	
OR4192762	USFS Wolf Creek CG Umpqua Nf	Little River	Douglas	NC	10					X			
OR4101095	USFS Wolf Creek Job Corps	Little River	Douglas	C	291					X			
OR4100932	Warrenton, City of (*)	Lewis & Clark River	Clatsop	C	9,080						X		
OR4100939	West Fir, City of	North Fork of Willamette River	Lane	C	240							X	
OR4100953	Willamina, City of	Willamina Creek	Yamhill	C	2,020				X				
OR4100954	Wilsonville, City of (*)	Willamette River	Clackamas	C	22,729			X	X	X	X	X	
OR4100957	Winston-Dillard Water District	South Umpqua River	Douglas	C	8,000	X	X	X		X	X		X
OR4194188	Woahink Lake Suites	Woahink Lake	Lane	NP	12							X	
OR4106133	Woahink View Water System	Woahink Lake	Lane	NP	20							X	
OR4101246	Young Life	Current Creek and Well #25	Wasco	C	482								visual
				Total per column		49	50	13	16	37	42	60	34
				Total CUMULATIVE DWSs		49	59	62	68	73	86	95	98