



City Manager's Office

August 30, 2024

To: Honorable Mayor and Members of the City Council
From: LaTanya Bellow, Interim City Manager
Re: **Citation Issued for Tuolumne Camp Water Treatment System**

The following memo explains a recent State water citation issued and gives background on how City staff produce water at our resident camps.

On August 20th, the State Water Resources Control Board, Division of Drinking Water, issued a citation and compliance order for a turbidity performance standard violation at Tuolumne Camp, (see Attachment 1). The State has confirmed that this is not an emergency, but has required that we notify our customers, who have a right to know what happened, and to share what we are doing to correct the situation. We have posted the attached notice at Camp, on the City's website, and emailed our campers and staff, (see Attachment 2).

How does water treatment work at Camp?

The City owns or operates three resident camps at Cazadero, Echo Lake and Tuolumne. The Cazadero water system does not require treatment as water is provided via a well. At both Echo Lake and Tuolumne Camps, water is pumped from a lake or river and treated at a water treatment facility onsite.

Drinking water for Tuolumne Camp comes from the South Fork of the Tuolumne River, which flows through Camp. Each spring, certified water treatment operators place an intake pipe in the river, which pumps water to the water treatment plant, where it is treated to be made safe for drinking. After treatment, water is stored in a tank and distributed throughout Camp. The water treatment plant at Tuolumne Camp is a new, state-of-the-art package plant constructed in 2022. This plant is operated under a permit with the State Water Resource Control Board's Division of Drinking Water by certified water treatment operators. We continuously measure and monitor temperature, turbidity, pH and chlorine, among other factors, and report these readings to the Division of Drinking Water on a monthly basis.

What happened?

Our water system violated a drinking water standard for turbidity (cloudiness). We treat and routinely monitor the water at Tuolumne Camp for turbidity. This tells us whether we are effectively filtering the water supply. Water samples for June and July showed that 6.5% and

16.5%, respectively, of turbidity measurements were over 0.2 turbidity units. The standard is that no more than 5% of samples may exceed 0.2 turbidity units per month.

Why did this happen?

A problem occurred in the water treatment process at Tuolumne Camp. While we suspect that the dosage rate of Alum, a coagulant additive that is mandated in our operation, was too high, we are continuing to investigate. Alum is used to aid in the removal of solids during the filtration process, but can cause the opposite effect when dosed in excess. We are also reviewing the filter operation to rule out any mechanical issues.

What is being done to correct the situation?

We have engaged water specialists to adjust our dosage and establish an optimal dose. The system is currently operating within compliance, and we are continuing efforts to optimize the system.

Are there health impacts?

Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. These symptoms are not caused only by organisms in drinking water.

At Tuolumne Camp, there is no evidence of any contamination, and none of our testing has shown disease-causing organisms to be present in the drinking water.

Was this related to camper illness this summer?

There is no evidence that the turbidity in Camp water caused camper illness. Each month, we test for Total Coliform and E. Coli in the drinking water by collecting water samples from several sites at Camp and sending them for laboratory testing. These results confirmed the absence of Total Coliform and E. Coli in the drinking water, therefore meeting drinking water requirements.

We did have an early August virus that went through some staff and campers. This was reported to Tuolumne County Health Department to assure that all necessary procedures to control and prevent the spread of illness were in place. During this time, we increased cleaning in Camp, including frequent disinfection of all bathrooms, common spaces, and high touch surfaces. We communicated with campers and staff on the illness circulating and measures they should take to prevent the spread. Laboratory testing for Total Coliform and E. Coli was done during this time, which enabled us to rule out the drinking water as a cause.

What reporting actions are required going forward?

Per State requirements, by September 30th, the City will submit an incident report to the State Water Board that documents the turbidity exceedance incidents, circumstances surrounding the incident, and steps taken to prevent a similar incident in the future. The City will continue to submit monthly water quality reports to the State, in accordance with our permit.

Attachments:

- 1 – Citation
- 2 – Public Notice

cc: Anne Cardwell, Deputy City Manager
Scott Ferris, Director, Parks, Recreation & Waterfront
Farimah Brown, City Attorney
Jenny Wong, City Auditor
Mark Numainville, City Clerk
Matthai Chakko, Assistant to the City Manager

Attachment 1: Citation



State Water Resources Control Board Division of Drinking Water

August 19, 2024

Mr. Justin Pitcher, Program Supervisor
Berkeley Camp Water System – CA5500136
1720 Eight Street
Berkeley, CA 94710
JPITCHER@BERKELEYCA.GOV

CITATION AND COMPLIANCE ORDER NO. 03-28-24J-001 TURBIDITY PERFORMANCE STANDARD VIOLATION FOR JUNE AND JULY 2024

Enclosed is Citation and Compliance Order No. 03-28-24J-001 (Enforcement Action) issued to the Berkeley Camp (Water System) public water system. Please note that there are legally enforceable deadlines associated with this Enforcement Action.

The Water System will be billed at the State Water Resources Control Board (State Water Board) hourly rate for the time spent issuing this Enforcement Action, as required by law. (Health & Saf. Code, § 116577, subd. (a).) The Water System will receive a bill sent from the State Water Board in August of the next fiscal year. This bill will contain fees for enforcement time spent on the Water System for the current fiscal year.

A process exists by which a public water system can petition the State Water Board for reconsideration of this Enforcement Action. Petitions sent to the State Water Board “shall include the name and address of the petitioner, a copy of the order or decision for which the petitioner seeks reconsideration, identification of the reason the petitioner alleges the issuance of the order or decision was inappropriate or improper, the specific action the petitioner requests, and other information as the state board may prescribe. The petition shall be accompanied by a statement of points and authorities of the legal issues raised by the petition.” (Health & Saf. Code, § 116701, subd. (b).)

Petitions must be received by the State Water Board within 30 days of the issuance of this Enforcement Action by the State Water Board. If the 30th day falls on a Saturday, Sunday, or state holiday, the petition is due the following business day by 5:00 p.m. Information regarding filing petitions may be found at:

[Drinking Water Petitions for Reconsideration](https://www.waterboards.ca.gov/drinking_water/programs/petitions/instructions.html)

https://www.waterboards.ca.gov/drinking_water/programs/petitions/instructions.html

E. JOAQUIN ESQUIVEL, CHAIR | ERIC OPPENHEIMER, EXECUTIVE DIRECTOR

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If you have any questions regarding this matter, please contact Alexis Ortiz-Vasquez of my staff at 559-436-4609, alexis.ortiz-vasquez@waterboards.ca.gov or me at 559-447-3135. You may also contact us via email at dwpdist28@waterboards.ca.gov .

Sincerely,

Ofelia Romero-Maraccini, Ph.D., P.E.
Yosemite District Engineer
Division of Drinking Water
State Water Resources Control Board

ORM/mlm
Enclosure

Certified Mail No. 9589-0710-5370-0293-9520-76

ecc: Tuolumne County Environmental Health Department (digital copy)
Jonathan Howells, Operator T2, Berkeley Camp (digital copy)

Citation and Compliance Order No. 03-28-24J-001

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

Name of Public Water System: Berkeley Camp

Water System No: CA5500136

Attention: Mr. Justin Pitcher, Program Supervisor

1720 Eight Street

Berkeley, CA 94710

Issued: August 19, 2024

**CITATION AND COMPLIANCE ORDER FOR NONCOMPLIANCE
CALIFORNIA HEALTH AND SAFETY CODE SECTION 116555 AND
CALIFORNIA CODE OF REGULATIONS, TITLE 22, SECTIONS 64653 AND 64463.4**

**TURBIDITY PERFORMANCE STANDARD VIOLATION
JUNE AND JULY 2024**

The State Water Resources Control Board (State Water Board) is authorized to issue a citation or compliance order to a public water system when the State Water Board determines that the public water system has violated or is violating the California Safe Drinking Water Act (Health & Saf. Code, division 104, part 12, chapter 4, commencing

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with section 116270) (California SDWA) or any regulation, standard, permit, or order issued or adopted under the Act. (Health & Saf. Code, §§ 116650, 116655.)

The State Water Board, acting by and through its Division of Drinking Water (Division) and the Deputy Director for the Division, and pursuant to Health and Safety Code¹ sections 116650 and 116655, hereby issues Citation and Compliance Order No. 03-28-24J-001 to the Berkeley Camp (Water System), for violation of section 116555 and California Code of Regulations, title 22, sections 64653 and 64463.4, subdivision (b)(3).

STATEMENT OF FACTS

The Water System is classified as a transient-noncommunity public water system with a population of 380, serving 13 connections. The Water System operates under Domestic Water Supply Permit No. 03-11-22P-017 issued by the State Water Board on May 25, 2022. The Water System is using an approved surface water source to supply potable water to the distribution system.

The California SDWA requires all public water systems to comply with primary drinking water standards. (Health & Saf. Code, § 116555, subd. (a)(1).) “Primary drinking water standards” include maximum levels of contaminants, specific treatment techniques, and monitoring and reporting requirements as specified in regulations adopted by the State Water Board. (Health & Saf. Code, § 116275, subd. (c).)

Domestic Water Supply Permit number 03-11-22P-017 (Permit) specifies that the combined filter effluent turbidity of the WesTech Tri-mite Package Treatment Plant must be less than or equal to 0.2 NTU in at least 95 percent of the measurements taken each

¹ Unless otherwise indicated, all statutory citations are to the California Health and Safety Code.

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month. According to the monthly surface water treatment plant reports submitted for June and July 2024, only 93.5% and 83.9%, respectively, of the combined filter effluent turbidity measurements were less than or equal to 0.2 NTU; the respective 95th percentile of the combined filter effluent turbidity measurements were calculated as 0.255 NTU for June 2024 and 0.271 NTU for July 2024.

After a turbidity exceedance in violation of section 64653, a public water system is required to notify and consult with the State Water Board within 24 hours to determine whether a Tier 1 public notice is required. (Cal. Code Regs., tit. 22, § 64463.4, subd. (b)(3).) If the system does not, it must issue a Tier 1 public notice within 48 hours of the violation. (Cal. Code Regs., tit. 22, § 64463.4, subd. (b)(3).) The Water System failed to notify the State Water Board within 24 hours of the exceedance and failed to issue a Tier 1 public notice within 48 hours.

DETERMINATION

The State Water Board has determined that the Water System has failed to comply with section 116555 and California Code of Regulations, title 22, sections 64653 and 64463.4, subdivision (b)(3).

DIRECTIVES

The Water System is hereby directed to take the following actions:

1. By **September 30, 2024**, submit an incident report to the State Water Board that documents the turbidity exceedance incident(s), circumstances surrounding the incident(s), and steps taken by the Water System to prevent a similar incident in the future. At a minimum, the report must include the following, spanning the period June and July 2024:

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- a. All data collected by operators and monitoring instruments as it relates to the incident. Data must be provided in electronic form if the frequency of collection is greater than one sample per day. Monitoring locations must be identified for each parameter and must include, at a minimum:
 - i. Turbidity values that represent raw water, clarified water, if available, and combined filter effluent.
 - ii. Plant operations data including a detailed version of relevant parameters in the monthly report (e.g. flow meters, backwash events, chemical dosages, head loss, etc.).
 - iii. Descriptions of any events that disrupted plant operations (e.g. maintenance-related repairs or other events).
 - iv. Alarm information including the type of alarm sounded, the method by which the operators were notified, the time delay associated with the alarm, steps taken by the shift operator to respond to the alarm, and steps taken by the chief operator to respond to the alarm.
 - v. A copy of all jar test results.
 - b. A description of actions taken to prevent a similar incident from happening again in the future, including any changes to the operations plan.
2. By **August 31, 2024**, notify all persons served by the Water System of the violation of Section 64653, in conformance with California Code of Regulations, title 22, sections 64463, 64465, and 64463.4 (Tier 2). Appendix 1 – Notification Template must be used to fulfill this Directive, unless otherwise approved by the State Water Board. The contents of the public notice must be approved by the State Water Board prior to issuance. **The Water System must edit the wording of the public notice as necessary.**

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The public notice must be delivered in accordance with the following:

- By posting of the public notice in conspicuous places within the area served by the Water System. The notice must remain posted for a minimum of seven (7) consecutive days and;
- By one or more of the following secondary methods to reach persons not likely to be reached by posting:
 - By publication in a local newspaper or newsletter distributed to customers
 - By an email message to employees or students
 - By internet posting of the notice
 - By direct delivery to each customer served by the Water System

3. By **September 15, 2024**, complete Appendix 2 – Compliance Certification form.

Submit it together with a copy of the public notice required by Directive 3 to the State Water Board within 10 days following each public notification.

4. By **August 31, 2024** complete and return to the State Water Board the “Notification of Receipt” form attached to this Enforcement Action as Appendix 3. Completion of this form confirms that the Water System has received this Enforcement Action and understands that it contains legally enforceable directive(s) with due dates.

5. Notify the State Water Board in writing no later than five (5) business days prior to the deadline for performance of any directive(s) set forth herein if the Water System anticipates it will not meet the deadline.

All submittals required by this Enforcement Action, unless otherwise specified in the directives above, must be electronically submitted to the State Water Board at the

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following address. The subject line for all electronic submittals corresponding to this Enforcement Action must include the following information: water system name and number, Citation and Compliance Order number, and title of the document being submitted.

Ofelia Romero-Maraccini, Ph.D., P.E.

dwpdist28@waterboards.ca.gov

The State Water Board reserves the right to make modifications to this Enforcement Action as it may deem necessary to protect public health and safety. Such modifications may be issued as amendments to this Enforcement Action and shall be effective upon issuance.

Nothing in this Enforcement Action relieves the Water System of its obligation to meet the requirements of the California SDWA or any regulation, standard, permit, or order issued or adopted thereunder.

PARTIES BOUND

This Enforcement Action shall apply to and be binding upon the Water System, its owners, shareholders, officers, directors, agents, employees, contractors, successors, and assignees.

SEVERABILITY

If any provision of this Enforcement Action is held invalid or the application of that provision to any circumstance is held invalid, that invalidity shall not affect other provisions or applications of this Enforcement Action that can be given effect without the invalid provision or application, and to this end the provisions of this Enforcement Action are severable.

FURTHER ENFORCEMENT

The California SDWA authorizes the State Water Board to issue an order or citation with assessment of administrative penalties to a public water system for violation or continued violation of the requirements of the California SDWA or any regulation, permit, standard, citation, or order issued or adopted thereunder including, but not limited to, failure to correct a violation identified in a citation or compliance order. The California SDWA also authorizes the State Water Board to take action to suspend or revoke a permit that has been issued to a public water system if the public water system has violated applicable law or regulations or has failed to comply with an order of the State Water Board, and to petition the superior court to take various enforcement measures against a public water system that has failed to comply with an order of the State Water Board. The State Water Board does not waive any further enforcement by issuance of this Enforcement Action.

Ofelia Romero-Maraccini, Ph.D., P.E.
Yosemite District Engineer
Division of Drinking Water
State Water Resources Control Board

Appendices:

1. Notification Template
2. Compliance Certification
3. Notification of Receipt

Certified Mail No. 9589-0710-5370-0293-9520-76

Attachment 2: Public Notice



IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Berkeley Tuolumne Camp Did Not Meet Treatment Requirement (Turbidity)

Our water system recently violated a drinking water standard. Although this is not an emergency, as our customers, you have a right to know what you should do, what happened, and what we did to correct this situation.

We routinely monitor your water for turbidity (cloudiness). This tells us whether we are effectively filtering the water supply. Water samples for June and July showed that 6.5% and 16.5%, respectively, of turbidity measurements were over 0.2 turbidity units. The standard is that no more than 5 percent of samples may exceed 0.2 turbidity units per month. The turbidity levels are relatively low. However, their persistence is a concern. Normal turbidity levels at our plant are 0.1 turbidity units.

What should I do?

- **You do not need to boil your water or take other actions.**
- This is not an emergency. If it had been you would have been notified immediately. We do not know of any contamination, and none of our testing has shown disease-causing organisms in the drinking water.
- *Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.* These symptoms are not caused only by organisms in drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice.
- People with severely compromised immune systems, infants, and some elderly may be at increased risk. These people should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from U.S. EPA's Safe Drinking Water Hotline at 1(800) 426-4791.
- If you have other health issues concerning the consumption of the water, you may wish to consult your doctor.



What happened? What was done?

A problem occurred with the treatment system at the water plant. The dosage rate of Alum, a coagulant additive that is mandated in our operation, was too high. Alum is used to aid in the removal of solids during the filtration process, but can cause the opposite effect when dosed in excess. Our dosage rate has been adjusted and we have engaged a consultant to further adjust our dosage and establish an optimal dose. The system is currently operating within compliance.

For more information, please contact Justin Pitcher, Recreation Program Supervisor at 510-981-5123 or 2180 Milvia Street 3rd Floor, Berkeley, CA 94704

Please share this information with the other people who joined you on your visit to Berkeley Tuolumne Camp and who may not receive this message.

This notice is being sent to you by City of Berkeley

State Water System Number: CA550013

Date distributed: 8/23/24