



LIVE OAK CITY COUNCIL

REGULAR MEETING AGENDA NOVEMBER 20, 2024 6:00 PM

MEETING LOCATION
LIVE OAK COUNCIL CHAMBERS
9955 LIVE OAK BOULEVARD
LIVE OAK, CALIFORNIA 95953

MEMBERS OF THE COUNCIL

ASHLEY HERNANDEZ, MAYOR
NANCY SANTANA, VICE MAYOR
JERAMY CHAPDELAINE, COUNCILMEMBER
LAKHVIR GHAG, COUNCILMEMBER
BOB WOTEN, COUNCILMEMBER

RICK CRABTREE,
INTERIM CITY MANAGER

NICOLE ROSSER,
CITY ATTORNEY

The Council may take up any agenda item at any time, regardless of the order listed. Action may be taken on any item on this agenda. Materials related to an item on this Agenda submitted to the Council after distribution of the agenda packet are available for public inspection at City Hall, 9955 Live Oak Boulevard, Live Oak, during normal business hours. Such documents are also available on the City of Live Oak's website at www.liveoakcity.org, subject to staff's availability to post the documents before the meeting.

In compliance with the Americans with Disabilities Act, the meeting room is wheelchair accessible and disabled parking is available. If you have a disability and need disability-related modifications or accommodations to participate in this meeting, please contact the City Clerk's office at (530) 695-2112 x107. Requests must be made at least 24 hours in advance.

- **Remote Viewing:**

- Members of the public can view a livestream of the meeting online at https://liveoakca.granicus.com/ViewPublisher.php?view_id=1.
- Members of the public can access the Zoom webinar as follows:
 - **Join by Electronic Device:**
<https://us02web.zoom.us/j/88338962207>
 - **Join by Phone:**
1-669-900-6833 or 1-833-548-0282 (Toll Free)
Webinar ID: 883 3896 2207

- **Public Comment:** Members of the public can submit general public comments, as well as comment on specific agenda items in the following ways:
 - **Public Attendance:** Members of the public who attend in person may make comments from the Council Chamber podium.

- **Live Remote Public Comment:** Members of the public can submit a live remote public comment by:
 - *Joining the virtual Council meeting via the link below. When public comment is opened, raise your virtual hand and be called upon to speak for up to 3 minutes.*

<https://us02web.zoom.us/j/88338962207>
 - *Joining the virtual Council meeting by calling the phone number below. When public comment is opened, dial *9 to raise your hand and be called upon to speak for up to 3 minutes.*

1-669-900-6833 or 1-833-548-0282 (Toll Free)
Webinar ID: 883 3896 2207
 - **Email Public Comment:** Comments from the public on agenda items will be accepted until 1:00 pm on the date of the meeting, via email to the City Clerk at cmenchaca@liveoakcity.org. Comments will be distributed to Council prior to the meeting and attached to the minutes. Please note that emailed comments will NOT be read aloud by staff during the meeting.
 - **eComment Feature:** Comments from the public on agenda items will be accepted until 1:00 pm on the date of the meeting, via the eComment feature at https://liveoakca.granicus.com/ViewPublisher.php?view_id=1. Comments will be distributed to Council prior to the meeting and attached to the minutes. Please note that eComments will NOT be read aloud by staff during the meeting.
-

CALL TO ORDER**ROLL CALL****PLEDGE OF ALLEGIANCE AND INVOCATION****CORRECTIONS AND/OR CHANGES TO THE AGENDA BY CITY MANAGER ONLY****PRESENTATIONS AND RECOGNITIONS****PUBLIC COMMENT**

Any person wishing to address the City Council on general jurisdictional matters or consent calendar items may do so at this time. If you are commenting on an agenda item, your comments will be heard at the time that item is scheduled for discussion. The City Council adopted a time limit of three minutes per person. The Brown Act does not allow for Council discussion of items not on the agenda. Councilmembers may only a) refer the matter to staff; b) ask for additional information; c) request a report back; or d) provide a limited factual response for items not listed on the agenda.

CONSENT ITEMS

Consent Calendar is passed by one motion with exceptions and separate votes as noted.

1. City Council Meeting Minutes
Recommendation: Approve the November 6, 2024, City Council Regular Meeting minutes.
(Clarissa Menchaca, City Clerk)
2. City Council Meeting Minutes
Recommendation: Approve the November 6, 2024, City Council Special Meeting minutes.
(Clarissa Menchaca, City Clerk)
3. Notification of Detection of PFAS (PFHxS) Above Notification Level in Well 2A
Recommendation: Information only, no action required.
(Jeff Nelson, Interim Public Works Director)

BUSINESS ITEMS

4. Write-off of Past Due Water and Sewer Accounts Collections
Recommendation: Adopt resolution.
(James Ramsey, Finance Director)

DISCUSSION ITEMS

5. Discussion Regarding Possible Expansion of the City Limits
Recommendation: Discuss the possible expansion of City limits.
(Rick Crabtree, Interim City Manager)

ITEMS REMOVED FROM THE CONSENT AGENDA FOR COUNCIL CONSIDERATION AND ACTION**UPDATES AND ANNOUNCEMENTS FROM THE CITY ATTORNEY AND CITY MANAGER****COUNCILMEMBER REPORTS / COMMENTS / REQUESTS**

ADJOURNMENT



**City of Live Oak
Report to City Council**

Meeting Date: November 20, 2024

Title: City Council Meeting Minutes

Contact Information: Clarissa Menchaca, City Clerk

Recommendation: Approve the November 6, 2024, City Council Regular Meeting minutes.

Attachments:

[Minutes](#)



LIVE OAK CITY COUNCIL

MINUTES
NOVEMBER 6, 2024
6:00 PM

MEETING LOCATION
LIVE OAK COUNCIL CHAMBERS
9955 LIVE OAK BOULEVARD
LIVE OAK, CALIFORNIA 95953

MEMBERS OF THE COUNCIL

ASHLEY HERNANDEZ, MAYOR
NANCY SANTANA, VICE MAYOR
JERAMY CHAPDELAINE, COUNCILMEMBER
LAKHVIR GHAG, COUNCILMEMBER
BOB WOTEN, COUNCILMEMBER

MARK SCOTT,
INTERIM CITY MANAGER

NICOLE ROSSER,
CITY ATTORNEY

CALL TO ORDER

Meeting called to order by Mayor Hernandez at Live Oak City Council Chambers, 9955 Live Oak Boulevard, Live Oak, CA at 6:02 pm.

ROLL CALL

Present: Councilmembers Woten, Chapdelaine, Ghag, and Mayor Hernandez

Absent: Vice Mayor Santana

PLEDGE OF ALLEGIANCE AND INVOCATION

Councilmember Ghag led the Pledge of Allegiance. Councilmember Chapdelaine delivered the invocation.

CORRECTIONS AND/OR CHANGES TO THE AGENDA BY CITY MANAGER ONLY

There were no corrections and/or changes.

PRESENTATIONS AND RECOGNITIONS

There were no presentations and/or recognitions.

PUBLIC COMMENT

Public Comment was opened and closed without any speakers.

CONSENT ITEMS

Consent Calendar is passed by one motion with exceptions and separate votes as noted.

MOTION: APPROVE THE CONSENT AGENDA.
(MOTION: GHAG; SECOND: HERNANDEZ)

VOTE: MOTION PASSED 4-0-1

AYES: COUNCILMEMBERS WOTEN, CHAPDELAINE, GHAG, AND MAYOR HERNANDEZ

NOES: NONE

ABSENT: VICE MAYOR SANTANA

1. City Council Meeting Minutes
Clarissa Menchaca, City Clerk
Council action: October 2, 2024, City Council Regular Meeting minutes approved.
2. City Council Meeting Minutes
Clarissa Menchaca, City Clerk
Council action: October 8, 2024, City Council Special Meeting minutes approved.
3. California Department of Resources Recycling and Recovery (CalRecycle) a Collaborative Application for the Waste Tire Enforcement Grant, Fiscal Year 2025-26 Yuba County Applicant on Behalf of the City of Live Oak
Mark Scott, Interim City Manager
Council action: Resolution No. 25-2024 adopted.

BUSINESS ITEMS

4. Approval of Contract with Bob Murray & Associates to Perform Executive Search Services for the Live Oak City Manager Position
Mark Scott, Interim City Manager

Mark Scott, Interim City Manager, provided a report for the Council.

Public Comment was opened and closed without any speakers.

MOTION: APPROVE THE CONTRACT WITH BOB MURRAY & ASSOCIATES FOR PERFORMANCE OF CITY
MANAGER EXECUTIVE SEARCH SERVICES.
(MOTION: GHAG; SECOND: HERNANDEZ)

VOTE: MOTION PASSED 4-0-1
AYES: COUNCILMEMBERS WOTEN, CHAPDELAINE, GHAG, AND MAYOR HERNANDEZ
NOES: NONE
ABSENT: VICE MAYOR SANTANA

5. Resolution Appointing Richard Crabtree as Interim City Manager and Approving an Employment Agreement
Mark Scott, Interim City Manager

Mark Scott, Interim City Manager, provided a report for the Council.

Public Comment was opened and closed without any speakers.

MOTION: ADOPT RESOLUTION OF APPOINTMENT AND APPROVE THE EMPLOYMENT AGREEMENT FOR
RICHARD CRABTREE FOR THE INTERIM CITY MANAGER POSITION.
(MOTION: GHAG; SECOND: HERNANDEZ)

VOTE: MOTION PASSED 4-0-1
AYES: COUNCILMEMBERS WOTEN, CHAPDELAINE, GHAG, AND MAYOR HERNANDEZ
NOES: NONE
ABSENT: VICE MAYOR SANTANA

Reference Resolution No. 26-2024.

6. Establishment of PARS Section 115 Trust
James Ramsey, Finance Director

James Ramsey, Finance Director, provided a report for the Council.

Public Comment was opened and closed without any speakers.

MOTION: ADOPT RESOLUTION TO ESTABLISH THE PARS TRUST.
(MOTION: CHAPDELAINE; SECOND: WOTEN)

VOTE: MOTION PASSED 4-0-1

AYES: COUNCILMEMBERS WOTEN, CHAPDELAINE, GHAG, AND MAYOR HERNANDEZ

NOES: NONE

ABSENT: VICE MAYOR SANTANA

Reference Resolution No. 27-2024.

DISCUSSION ITEMS

7. Business Grant Program Update
Mark Scott, Interim City Manager

Mark Scott, Interim City Manager, provided a report for the Council.

Public Comment was opened and closed without any speakers.

Council action: Provided staff direction relating to adjustments in program policy.

ITEMS REMOVED FROM THE CONSENT AGENDA FOR COUNCIL CONSIDERATION AND ACTION

There were no items removed from the Consent Agenda for Council consideration and action.

UPDATES AND ANNOUNCEMENTS FROM -THE CITY ATTORNEY AND CITY MANAGER

Mark Scott, Interim City Manager, thanked the Council and staff for their service to the community.

COUNCILMEMBER COMMENTS

Councilmember Woten touched on his excitement of moving the city forward and thanked Mark for his service.

Councilmember Chapdelaine highlighted his attendance at the Regional Housing Authority Board of Commissioners meeting. Councilmember Chapdelaine thanked Mark for his time and service to the city.

Councilmember Ghag touched on his attendance at the League of California Cities Annual Conference and the annual Sikh festival. Councilmember Ghag thanked Mark for his service.

Mayor Hernandez thanked Mark for his time and service to the city.

ADJOURNMENT

Mayor Hernandez adjourned the meeting at 6:55 pm in memory of Bobbi's sister Sandip Rai.

Ashley Hernandez, Mayor

ATTEST:

Clarissa Menchaca, City Clerk



**City of Live Oak
Report to City Council**

Meeting Date: November 20, 2024

Title: City Council Meeting Minutes

Contact Information: Clarissa Menchaca, City Clerk

Recommendation: Approve the November 6, 2024, City Council Special Meeting minutes.

Attachments:

[Minutes](#)



LIVE OAK CITY COUNCIL

SPECIAL MEETING MINUTES NOVEMBER 6, 2024 6:30 PM

MEMBERS OF THE COUNCIL

ASHLEY HERNANDEZ, MAYOR
NANCY SANTANA, VICE MAYOR
JEREMY CHAPDELAINE, COUNCILMEMBER
LAKHVIR GHAG, COUNCILMEMBER
BOB WOTEN, COUNCILMEMBER

MARK SCOTT,
INTERIM CITY MANAGER

NICOLE ROSSER,
CITY ATTORNEY

MEETING LOCATION
LIVE OAK COUNCIL CHAMBERS
9955 LIVE OAK BOULEVARD
LIVE OAK, CALIFORNIA 95953

CALL TO ORDER

Meeting called to order by Mayor Hernandez at Live Oak City Council Chambers, 9955 Live Oak Boulevard, Live Oak, CA at 6:56 pm.

ROLL CALL

Present: Councilmembers Woten, Chapdelaine, Ghag, and Mayor Hernandez

Absent: Vice Mayor Santana

BUSINESS ITEMS

1. Update to LAIF Information
James Ramsey, Finance Director

James Ramsey, Finance Director, provided a report for the Council.

Public Comment was opened and closed without any speakers.

MOTION: ADOPT RESOLUTION TO UPDATE THE LAIF INFORMATION.
(MOTION: CHAPDELAINE; SECOND: GHAG)

VOTE: MOTION PASSED 4-0-1
AYES: COUNCILMEMBERS WOTEN, CHAPDELAINE, GHAG, AND MAYOR HERNANDEZ
NOES: NONE
ABSENT: VICE MAYOR SANTANA

ADJOURNMENT

Mayor Hernandez adjourned the meeting at 7:02 pm.

Ashley Hernandez, Mayor

ATTEST:

Clarissa Menchaca, City Clerk



City of Live Oak Report to City Council

Meeting Date: November 20, 2024

Title: Notification of Detection of PFAS (PFHxS) Above Notification Level in Well 2A

Contact Information: Jeff Nelson, Interim Public Works Director

Background: In response to General Order NO. DW-2024-0002-DDW, water quality samples were collected from all of the City's water supply wells. A Polyfluoroalkyl Substance (PFAS) subspecies (PFHxS) was detected at a concentration of 3.3 nanograms/liter (ng/l) or parts per trillion, above the recently established Notification Level (NL) of 3.0 ng/l for PFHxS in City Well 2A. This concentration is below the Response Level of 20 ng/l for PFHxS. Other PFAS subspecies detected in this sample were at concentrations below their respective NLs. PFAS were not detected above the NL in any other of samples collected from the other City Wells.

As required by General Order NO. DW-2024-0002-DDW, staff is notifying the City Council that a PFAS was detected at a concentration exceeding the adopted Notification Level.

Analysis: No other action is required at this time.

Fiscal Impacts: None.

Recommendation: Information only, no action required.

Attachments:

[Above Notification Level Notice](#)
[Notification Level Exceedance](#)



SACRAMENTO STATE

Sent via email: apalmer@liveoakcity.org

October 30, 2024

CA5110001

AARON PALMER, CITY MANAGER
CITY OF LIVE OAK
9955 LIVE OAK BLVD.
LIVE OAK, CA 95953

GENERAL ORDER NO. DW-2024-0002-DDW NOTIFICATION OF PFAS RESULTS FOR CA5110001_013_013, WELL 02A - PFAS DETECTED ABOVE NOTIFICATION LEVEL

You are receiving this document because a water source for CITY OF LIVE OAK public water system (PWS) was required to be tested for Per- and Polyfluoroalkyl Substances (PFAS) under the General Order DW 2024-0002-DDW (2024 Order). This document is to notify you that one or more PFAS chemicals were detected above the Notification Level via US Environmental Protection Agency (EPA) Method 533 in the PWS source (WELL 02A) with a primary station (PS) code of CA5110001_013_013. The analytical laboratory results for those PFAS compounds with notification and response levels issued by the State Water Board's Division of Drinking Water are presented in the table below.

Well Results Table for PFAS with Notification and Response Levels

PFAS	Sample Result ¹ (ng/L, ppt)	CCRDL ² (ng/L, ppt)	Notification Level ³ (ng/L, ppt)	Response Level ^{3, 4} (ng/L, ppt)
PFOA	2.7	4	5.1	10
PFOS	2.2	4	6.5	40
PFHxS	3.3	3	3	20
PFBS	2.1	3	500	5,000

Notes:

ng/L = nanograms per liter

ppt = parts per trillion

ND = not detected above the laboratory reporting limit

¹By US EPA Method 533

²The CCRDL is based on the US EPA UCMR 5 minimum reporting levels and listed in Exhibit B of the General Order (Order), dated March 4, 2024, and issued to the public water system. The Order can be accessed on the State Water Board's Division of Drinking Water website at https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/pfas_ddw_general_order/.

³A description of the notification and response level terminology can be found in the Order.

⁴The specific methodology to determine response level exceedances is dependent on the PFAS analyte and health endpoint. An exceedance of the response level for PFOA and PFOS is based on a quarterly running annual average

(QRAA). An explanation on how QRAA is calculated is provided in the 2024 Order.

Furthermore, the PWS source (WELL 02A) with PS code of CA5110001_013_013 was analyzed for PFAS chemicals that cannot be specifically identified. The concentration of organofluorine is a proxy for total PFAS and was determined to be ND ng/L (nanograms per liter) via a method modeled after US EPA Method 1621.

The analytical lab report for the EPA Method 533 and modified 1621 analytical tests performed on the sample collected on 08/19/2024 from WELL 02A are attached (Attachment 1).

Please note that there are thousands of different PFAS, some of which have been more widely used and studied than others. Scientific research suggests that exposure to certain PFAS may lead to adverse health outcomes. Research is still ongoing to determine how exposure to these different PFAS chemicals occurs and how they can affect human health.

ACTIONS REQUIRED

1. By **November 29, 2024** notify your local agency governing the area in which your drinking water consumers reside (e.g., city council, county board of supervisors). If the PWS is a water company regulated by the California Public Utilities Commission ("Commission"), then your PWS must also notify the Commission. Governing Body Notification Templates (Attachment 2) are provided and must be used to fulfill this directive, unless otherwise approved by the State Water Board. The PWS must edit the wording of the notice as necessary. **The PWS must send the notice(s) for PFAS chemical(s) exceeding the NL.**
2. The PWS is required to report any PFAS detections above CCRDL in the annual Consumer Confidence Report (CCR) when PFAS is detected above CCRDL. Guidance is provided as follows depending on the PFAS that exceeds the CCRDL.

If any PFAS chemicals **other than PFOA, PFOS, PFHxS, or PFBS** are found to be at concentrations above the corresponding CCRDLs, the PWS may also include the following health effects language in the CCR:

"Please note that there are thousands of different PFAS, some of which have been more widely used and studied than others. Scientific research suggests that exposure to certain PFAS may lead to adverse health outcomes. Research is still ongoing to determine how exposure to these different PFAS chemicals occurs and how they can affect human health."

If **PFOA** was at the concentration above the corresponding CCRDL, PWS may also add the following health effects language in the CCR:

"Perfluorooctanoic acid exposures resulted in increased liver weight and cancer in laboratory animals."

If **PFOS** was at the concentration above the corresponding CCRDL, PWS may also add the following health effects language in the CCR:

"Perfluorooctanesulfonic acid exposures resulted in immune suppression and cancer in laboratory animals."

If **PFHxS** was at the concentration above the corresponding CCRDL, PWS may also add the following health effects language in the CCR:

"Perfluorohexane sulfonic acid exposures resulted in decreased total thyroid hormone in male rats."

If **PFBS** was at the concentration above the corresponding CCRDL, PWS may also add the following health effects language in the CCR:

"Perfluorobutane sulfonic acid exposures resulted in decreased thyroid hormone in pregnant female mice."

Additional information about the CCR including details on reporting requirements can be found on the following webpage https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/CCR.html.

Attached is a fact sheet (Attachment 2) for more general information about PFAS and actions being taken to understand the occurrence in drinking water in California. This fact sheet has been translated into multiple languages other than English (i.e. Spanish, Cantonese, Mandarin, Arabic, French, Farsi, Korean, Russian, Vietnamese) and available

for distribution to your staff and customers. Contact California State University, Sacramento's Office of Water Programs (OWP) at pfas@owp.csus.edu and available on the web portal (<https://pfas.owp.csus.edu/>) to download under Resources.

Thank you for your cooperation with the State Water Resources Control Board, Division of Drinking Water. If you have any questions regarding this document, please contact the California State University, Sacramento's Office of Water Programs (OWP) at pfas@owp.csus.edu.

cc: twright@liveoakcity.org
DWPRedding@waterboards.ca.gov
rebecca.tabor@waterboards.ca.gov

Attachments:

1. Analytical Laboratory Report
2. Governing Body Notification Template
3. PFAS Fact Sheet

Filename: CA5110001_013_013_Above_NL_10.30.2024.PDF

ATTACHMENT 1 – ANALYTICAL LABORATORY REPORT



BABCOCK Laboratories, Inc.
The Standard of Excellence for Over 100 Years

Babcock Laboratories, Inc. - Riverside
6100 Quail Valley Court
Riverside, CA 92507-0704
(951) 653-3351

20 September 2024

Wendy Linck
State Water Resources Control Board - DDW
1001 I Street, 18th Floor
Sacramento, CA 95814

RE: PFASDAC2024SamplingEvent

Dear Wendy Linck,

The following pages contain the analytical results for the sample(s) received for your project. The second page of this report lists the individual sample descriptions with the corresponding laboratory number(s). We have also provided a copy of the Chain of Custody document (if received with your sample(s)). Please note that any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our Client Service Department.

Sincerely,

A handwritten signature in blue ink that reads 'A. Guerra'.

Alexandria L. Guerra
Special Programs Coordinator



BABCOCK Laboratories, Inc.
The Standard of Excellence for Over 100 Years

Babcock Laboratories, Inc. - Riverside
6100 Quail Valley Court
Riverside, CA 92507-0704
(951) 653-3351

State Water Resources Control Board - DDW
1001 I Street, 18th Floor
Sacramento CA, 95814

Project: PFASDAC2024SamplingEvent
Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Lab ID	Matrix	Station Code	Location Code	Sampled	Received
CA5110001_013_013_S_533	C4H2639-01	Water	N/A	N/A	08/19/24 10:55	08/20/24 09:25
CA5110001_013_013_S_AOF	C4H2639-02	Water	N/A	N/A	08/19/24 10:55	08/20/24 09:25
CA5110001_013_013_FB_533	C4H2639-03	Water	N/A	N/A	08/19/24 10:55	08/20/24 09:25

Babcock Laboratories, Inc. - Riverside

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Alexandria L. Guerra, Special Programs Coordinator



BABCOCK Laboratories, Inc.
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Babcock Laboratories, Inc. - Riverside
6100 Quail Valley Court
Riverside, CA 92507-0704
(951) 653-3351

State Water Resources Control Board - DDW
1001 I Street, 18th Floor
Sacramento CA, 95814

Project: PFASDAC2024SamplingEvent
Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

CA5110001_013_013_S_533
C4H2639-01 (Water, Sampled: 08/19/24 10:55)

Analyte	Result	MDL	RL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Babcock Laboratories, Inc. - Riverside										
Per-/Polyfluorinated Alkyl Substances										
11-chloroeicosafluoro 3oxaundecane-1-sulfonic Acid	ND		2.0	ng/L	1	4110030	09/10/24	09/13/24	EPA 533	
4,8-dioxa-3H-perfluorononanoic Acid (ADONA)	ND		2.0	"	"	"	"	"	"	
4:2 Fluorotelomer Sulfonate	ND		2.0	"	"	"	"	"	"	
6:2 Fluorotelomer Sulfonate	ND		5.0	"	"	"	"	"	"	
8:2 Fluorotelomer Sulfonate	ND		5.0	"	"	"	"	"	"	
9-chlorohexadecafluoro-3-oxanone- 1-sulfonic Acid	ND		2.0	"	"	"	"	"	"	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND		2.0	"	"	"	"	"	"	NISm
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	"	"	"	"	"	"	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND		2.0	"	"	"	"	"	"	
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	"	"	"	"	"	"	
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	"	"	"	"	"	"	
Perfluorobutanesulfonic Acid (PFBS)	2.1		2.0	"	"	"	"	"	"	
Perfluorobutanoic acid (PFBA)	ND		2.0	"	"	"	"	"	"	
Perfluorodecanoic Acid (PFDA)	ND		2.0	"	"	"	"	"	"	
Perfluorododecanoic Acid (PFDoDA)	ND		2.0	"	"	"	"	"	"	
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	"	"	"	"	"	"	
Perfluoroheptanoic Acid (PFHpA)	ND		2.0	"	"	"	"	"	"	
Perfluorohexanesulfonic Acid (PFHxS)	3.3		2.0	"	"	"	"	"	"	
Perfluorohexanoic Acid (PFHxA)	3.1		2.0	"	"	"	"	"	"	
Perfluorononanoic Acid (PFNA)	ND		2.0	"	"	"	"	"	"	
Perfluorooctanesulfonic Acid (PFOS)	2.2		2.0	"	"	"	"	"	"	
Perfluorooctanoic Acid (PFOA)	2.7		2.0	"	"	"	"	"	"	
Perfluoropentanesulfonate (PFPeS)	ND		2.0	"	"	"	"	"	"	

Babcock Laboratories, Inc. - Riverside

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Alexandria L. Guerra, Special Programs Coordinator



BABCOCK Laboratories, Inc.
The Standard of Excellence for Over 100 Years

Babcock Laboratories, Inc. - Riverside
6100 Quail Valley Court
Riverside, CA 92507-0704
(951) 653-3351

State Water Resources Control Board - DDW
1001 I Street, 18th Floor
Sacramento CA, 95814

Project: PFASDAC2024SamplingEvent
Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

CA5110001_013_013_S_533
C4H2639-01 (Water, Sampled: 08/19/24 10:55)

Analyte	Result	MDL	RL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Babcock Laboratories, Inc. - Riverside

Per-/Polyfluorinated Alkyl Substances

Perfluoropentanoic acid (PFPeA)	3.8	2.0	ng/L	1	4110030	09/10/24	09/13/24	EPA 533	
Perfluoroundecanoic Acid (PFUnA)	ND	2.0	"	"	"	"	"	"	
Surrogate: 13C2-4:2 FTS-[IDA]		91 %	50-200		"	"	"	"	
Surrogate: 13C2-6:2-FTS-[IDA]		88 %	50-200		"	"	"	"	
Surrogate: 13C2-8:2 FTS-[IDA]		84 %	50-200		"	"	"	"	
Surrogate: 13C2-PFDoA-[IDA]		54 %	50-200		"	"	"	"	
Surrogate: 13C3-HFPO-DA-[IDA]		48 %	50-200		"	"	"	"	NSint
Surrogate: 13C3-PFBS-[IDA]		90 %	50-200		"	"	"	"	
Surrogate: 13C3-PFHxS-[IDA]		90 %	50-200		"	"	"	"	
Surrogate: 13C4-PFBA-[IDA]		61 %	50-200		"	"	"	"	
Surrogate: 13C4-PFHpA-[IDA]		51 %	50-200		"	"	"	"	
Surrogate: 13C5-PFHxA-[IDA]		53 %	50-200		"	"	"	"	
Surrogate: 13C5-PFPeA-[IDA]		54 %	50-200		"	"	"	"	
Surrogate: 13C6-PFDA-[IDA]		52 %	50-200		"	"	"	"	
Surrogate: 13C7-PFUnA-[IDA]		53 %	50-200		"	"	"	"	
Surrogate: 13C8-PFOA-[IDA]		50 %	50-200		"	"	"	"	
Surrogate: 13C8-PFOS-[IDA]		86 %	50-200		"	"	"	"	
Surrogate: 13C9-PFNA-[IDA]		52 %	50-200		"	"	"	"	

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(951) 653-3351

State Water Resources Control Board - DDW
1001 I Street, 18th Floor
Sacramento CA, 95814

Project: PFASDAC2024SamplingEvent
Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

CA5110001_013_013_S_AOF
C4H2639-02 (Water, Sampled: 08/19/24 10:55)

Analyte	Result	MDL	RL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Aggregate Organic Compounds

AOF (Adsorbable Organic Fluorine)	ND		800	ng/L	1	4110056	09/11/24	09/11/24	ESB SOP T758	
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Sacramento CA, 95814

Project: PFASDAC2024SamplingEvent
Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

CA5110001_013_013_FB_533
C4H2639-03 (Water, Sampled: 08/19/24 10:55)

Analyte	Result	MDL	RL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Babcock Laboratories, Inc. - Riverside										
Per-/Polyfluorinated Alkyl Substances										
11-chloroeicosafluoro 3oxaundecane-1-sulfonic Acid	ND		2.0	ng/L	1	4105002	09/05/24	09/09/24	EPA 533	
4,8-dioxa-3H-perfluorononanoic Acid (ADONA)	ND		2.0	"	"	"	"	"	"	
4:2 Fluorotelomer Sulfonate	ND		2.0	"	"	"	"	"	"	
6:2 Fluorotelomer Sulfonate	ND		5.0	"	"	"	"	"	"	
8:2 Fluorotelomer Sulfonate	ND		5.0	"	"	"	"	"	"	
9-chlorohexadecafluoro-3-oxanone- 1-sulfonic Acid	ND		2.0	"	"	"	"	"	"	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND		2.0	"	"	"	"	"	"	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	"	"	"	"	"	"	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND		2.0	"	"	"	"	"	"	
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	"	"	"	"	"	"	
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	"	"	"	"	"	"	
Perfluorobutanesulfonic Acid (PFBS)	ND		2.0	"	"	"	"	"	"	
Perfluorobutanoic acid (PFBA)	ND		2.0	"	"	"	"	"	"	
Perfluorodecanoic Acid (PFDA)	ND		2.0	"	"	"	"	"	"	
Perfluorododecanoic Acid (PFDDA)	ND		2.0	"	"	"	"	"	"	
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	"	"	"	"	"	"	
Perfluoroheptanoic Acid (PFHpA)	ND		2.0	"	"	"	"	"	"	
Perfluorohexanesulfonic Acid (PFHxS)	ND		2.0	"	"	"	"	"	"	
Perfluorohexanoic Acid (PFHxA)	ND		2.0	"	"	"	"	"	"	
Perfluorononanoic Acid (PFNA)	ND		2.0	"	"	"	"	"	"	
Perfluorooctanesulfonic Acid (PFOS)	ND		2.0	"	"	"	"	"	"	
Perfluorooctanoic Acid (PFOA)	ND		2.0	"	"	"	"	"	"	
Perfluoropentanesulfonate (PFPeS)	ND		2.0	"	"	"	"	"	"	
Perfluoropentanoic acid (PFPeA)	ND		2.0	"	"	"	"	"	"	

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Project: PFASDAC2024SamplingEvent
Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

CA5110001_013_013_FB_533
C4H2639-03 (Water, Sampled: 08/19/24 10:55)

Analyte	Result	MDL	RL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Per-/Polyfluorinated Alkyl Substances

Perfluoroundecanoic Acid (PFUnA)	ND	2.0	ng/L	1	4105002	09/05/24	09/09/24	EPA 533	
Surrogate: 13C2-4:2 FTS-[IDA]		83 %	50-200		"	"	"	"	
Surrogate: 13C2-6:2-FTS-[IDA]		81 %	50-200		"	"	"	"	
Surrogate: 13C2-8:2 FTS-[IDA]		80 %	50-200		"	"	"	"	
Surrogate: 13C2-PFDoA-[IDA]		81 %	50-200		"	"	"	"	
Surrogate: 13C3-HFPO-DA-[IDA]		60 %	50-200		"	"	"	"	
Surrogate: 13C3-PFBS-[IDA]		87 %	50-200		"	"	"	"	
Surrogate: 13C3-PFHxS-[IDA]		87 %	50-200		"	"	"	"	
Surrogate: 13C4-PFBA-[IDA]		65 %	50-200		"	"	"	"	
Surrogate: 13C4-PFHpA-[IDA]		69 %	50-200		"	"	"	"	
Surrogate: 13C5-PFHxA-[IDA]		71 %	50-200		"	"	"	"	
Surrogate: 13C5-PFPeA-[IDA]		68 %	50-200		"	"	"	"	
Surrogate: 13C6-PFDA-[IDA]		80 %	50-200		"	"	"	"	
Surrogate: 13C7-PFUnA-[IDA]		77 %	50-200		"	"	"	"	
Surrogate: 13C8-PFOA-[IDA]		72 %	50-200		"	"	"	"	
Surrogate: 13C8-PFOS-[IDA]		91 %	50-200		"	"	"	"	
Surrogate: 13C9-PFNA-[IDA]		78 %	50-200		"	"	"	"	

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Sacramento CA, 95814

Project: PFASDAC2024SamplingEvent
Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

Per-/Polyfluorinated Alkyl Substances - Quality Control

Babcock Laboratories, Inc. - Riverside

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4I05002, Prep Method: SPE, Analyst: azp

Blank (4I05002-BLK1)

Prepared: 09/05/24 Analyzed: 09/09/24

Perfluorobutanoic acid (PFBA)	ND		2.0	ng/L							
Perfluoropentanoic acid (PFPeA)	ND		2.0	"							
Perfluorohexanoic Acid (PFHxA)	ND		2.0	"							
Perfluoroheptanoic Acid (PFHpA)	ND		2.0	"							
Perfluorooctanoic Acid (PFOA)	ND		2.0	"							
Perfluorononanoic Acid (PFNA)	ND		2.0	"							
Perfluorodecanoic Acid (PFDA)	ND		2.0	"							
Perfluoroundecanoic Acid (PFUnA)	ND		2.0	"							
Perfluorododecanoic Acid (PFDoDA)	ND		2.0	"							
Perfluorobutanesulfonic Acid (PFBS)	ND		2.0	"							
Perfluoropentanesulfonate (PFPeS)	ND		2.0	"							
Perfluorohexanesulfonic Acid (PFHxS)	ND		2.0	"							
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	"							
Perfluorooctanesulfonic Acid (PFOS)	ND		2.0	"							
4:2 Fluorotelomer Sulfonate	ND		2.0	"							
6:2 Fluorotelomer Sulfonate	ND		5.0	"							
8:2 Fluorotelomer Sulfonate	ND		5.0	"							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND		2.0	"							
4,8-dioxa-3H-perfluorononanoic Acid (ADONA)	ND		2.0	"							
9-chlorohexadecafluoro-3-oxanone-1-sulfonic Acid	ND		2.0	"							
11-chloroeicosafluoro 3oxaundecane-1-sulfonic Acid	ND		2.0	"							
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	"							
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	"							
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	"							
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND		2.0	"							
Surrogate: 13C9-PFNA-[IDA]	15.2			"	20.0		76	50-200			
Surrogate: 13C8-PFOS-[IDA]	16.4			"	19.1		86	50-200			
Surrogate: 13C8-PFOA-[IDA]	15.1			"	20.0		76	50-200			
Surrogate: 13C7-PFUnA-[IDA]	15.5			"	20.0		77	50-200			
Surrogate: 13C6-PFDA-[IDA]	15.7			"	20.0		78	50-200			
Surrogate: 13C5-PFPeA-[IDA]	12.8			"	20.0		64	50-200			

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Sacramento CA, 95814

Project: PFASDAC2024SamplingEvent
Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

Per-/Polyfluorinated Alkyl Substances - Quality Control

Babcock Laboratories, Inc. - Riverside

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4I05002, Prep Method: SPE, Analyst: azp

Blank (4I05002-BLK1)

Prepared: 09/05/24 Analyzed: 09/09/24

Surrogate: 13C5-PFHxA-[IDA]	13.2			ng/L	20.0		66	50-200			
Surrogate: 13C4-PFHpA-[IDA]	13.5			"	20.0		68	50-200			
Surrogate: 13C4-PFBA-[IDA]	13.0			"	20.0		65	50-200			
Surrogate: 13C3-PFHxS-[IDA]	15.4			"	18.9		81	50-200			
Surrogate: 13C3-PFBS-[IDA]	13.9			"	18.6		75	50-200			
Surrogate: 13C2-PFDoA-[IDA]	15.7			"	20.0		79	50-200			
Surrogate: 13C2-8:2 FTS-[IDA]	58.3			"	76.8		76	50-200			
Surrogate: 13C2-6:2 FTS-[IDA]	56.4			"	76.0		74	50-200			
Surrogate: 13C2-4:2 FTS-[IDA]	56.8			"	74.8		76	50-200			
Surrogate: 13C3-HFPO-DA-[IDA]	12.7			"	20.0		63	50-200			

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Project: PFASDAC2024SamplingEvent
Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

Per-/Polyfluorinated Alkyl Substances - Quality Control

Babcock Laboratories, Inc. - Riverside

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4I05002, Prep Method: SPE, Analyst: azp

LCS (4I05002-BS1)

Prepared: 09/05/24 Analyzed: 09/09/24

Perfluorobutanoic acid (PFBA)	2.0	2.0	ng/L	2.00	98	50-150
Perfluoropentanoic acid (PFPeA)	1.8	2.0	"	2.00	92	50-150
Perfluorohexanoic Acid (PFHxA)	2.1	2.0	"	2.00	103	50-150
Perfluoroheptanoic Acid (PFHpA)	2.1	2.0	"	2.00	105	50-150
Perfluorooctanoic Acid (PFOA)	1.8	2.0	"	2.00	89	50-150
Perfluorononanoic Acid (PFNA)	2.0	2.0	"	2.00	102	50-150
Perfluorodecanoic Acid (PFDA)	2.0	2.0	"	2.00	99	50-150
Perfluoroundecanoic Acid (PFUnA)	1.9	2.0	"	2.00	93	50-150
Perfluorododecanoic Acid (PFDoDA)	2.2	2.0	"	2.00	108	50-150
Perfluorobutanesulfonic Acid (PFBS)	1.5	2.0	"	2.00	77	50-150
Perfluoropentanesulfonate (PFPeS)	1.9	2.0	"	2.00	93	50-150
Perfluorohexanesulfonic Acid (PFHxS)	1.2	2.0	"	2.00	61	50-150
Perfluoroheptanesulfonic acid (PFHpS)	1.5	2.0	"	2.00	73	50-150
Perfluorooctanesulfonic Acid (PFOS)	1.1	2.0	"	2.00	55	50-150
4:2 Fluorotelomer Sulfonate	1.3	2.0	"	2.00	66	50-150
6:2 Fluorotelomer Sulfonate	1.8	5.0	"	2.00	90	50-150
8:2 Fluorotelomer Sulfonate	1.7	5.0	"	2.00	83	50-150
Hexafluoropropylene oxide dimer acid (HFPO-DA)	1.7	2.0	"	2.00	86	50-150
4,8-dioxa-3H-perfluorononanoic Acid (ADONA)	1.8	2.0	"	2.00	89	50-150
9-chlorohexadecafluoro-3-oxanone-1-sulfonic Acid	1.9	2.0	"	2.00	97	50-150
11-chloroeicosafluoro 3-oxaundecane-1-sulfonic Acid	1.8	2.0	"	2.00	88	50-150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	1.9	2.0	"	2.00	93	50-150
Perfluoro-4-methoxybutanoic acid (PFMBA)	1.7	2.0	"	2.00	85	50-150
Perfluoro-3-methoxypropanoic acid (PFMPA)	1.8	2.0	"	2.00	88	50-150
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	1.8	2.0	"	2.00	92	50-150
Surrogate: 13C9-PFNA-[IDA]	16.7		"	20.0	83	50-200
Surrogate: 13C8-PFOS-[IDA]	16.1		"	19.1	84	50-200
Surrogate: 13C8-PFOA-[IDA]	17.0		"	20.0	85	50-200
Surrogate: 13C7-PFUnA-[IDA]	16.9		"	20.0	84	50-200
Surrogate: 13C6-PFDA-[IDA]	16.7		"	20.0	84	50-200
Surrogate: 13C5-PFPeA-[IDA]	15.5		"	20.0	77	50-200
Surrogate: 13C5-PFHxA-[IDA]	15.5		"	20.0	77	50-200

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Sacramento CA, 95814

Project: PFASDAC2024SamplingEvent
Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

Per-/Polyfluorinated Alkyl Substances - Quality Control

Babcock Laboratories, Inc. - Riverside

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4I05002, Prep Method: SPE, Analyst: azp

LCS (4I05002-BS1)

Prepared: 09/05/24 Analyzed: 09/09/24

Surrogate: 13C4-PFHpA-[IDA]	16.3			ng/L	20.0		82	50-200			
Surrogate: 13C4-PFBA-[IDA]	15.2			"	20.0		76	50-200			
Surrogate: 13C3-PFHxS-[IDA]	15.4			"	18.9		82	50-200			
Surrogate: 13C3-PFBS-[IDA]	15.6			"	18.6		84	50-200			
Surrogate: 13C2-PFDoA-[IDA]	16.8			"	20.0		84	50-200			
Surrogate: 13C2-8:2 FTS-[IDA]	63.7			"	76.8		83	50-200			
Surrogate: 13C2-6:2-FTS-[IDA]	63.1			"	76.0		83	50-200			
Surrogate: 13C2-4:2 FTS-[IDA]	66.1			"	74.8		88	50-200			
Surrogate: 13C3-HFPO-DA-[IDA]	14.1			"	20.0		70	50-200			

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Project: PFASDAC2024SamplingEvent
Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

Per-/Polyfluorinated Alkyl Substances - Quality Control

Babcock Laboratories, Inc. - Riverside

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4I05002, Prep Method: SPE, Analyst: azp

Matrix Spike (4I05002-MS1)		Source: C4H2645-01			Prepared: 09/05/24		Analyzed: 09/09/24				
Perfluorobutanoic acid (PFBA)	4.1	2.0	ng/L	1.90	2.4	88	50-150				
Perfluoropentanoic acid (PFPeA)	6.6	2.0	"	1.90	4.8	91	50-150				
Perfluorohexanoic Acid (PFHxA)	6.9	2.0	"	1.90	4.7	112	50-150				
Perfluoroheptanoic Acid (PFHpA)	4.3	2.0	"	1.90	2.3	105	50-150				
Perfluorooctanoic Acid (PFOA)	8.3	2.0	"	1.90	6.0	121	50-150				
Perfluorononanoic Acid (PFNA)	2.3	2.0	"	1.90	ND	122	50-150				
Perfluorodecanoic Acid (PFDA)	2.1	2.0	"	1.90	ND	111	50-150				
Perfluoroundecanoic Acid (PFUnA)	1.9	2.0	"	1.90	ND	101	50-150				
Perfluorododecanoic Acid (PFDoDA)	1.9	2.0	"	1.90	ND	99	50-150				
Perfluorobutanesulfonic Acid (PFBS)	4.0	2.0	"	1.90	2.0	106	50-150				
Perfluoropentanesulfonate (PFPeS)	2.0	2.0	"	1.90	ND	104	50-150				
Perfluorohexanesulfonic Acid (PFHxS)	6.5	2.0	"	1.90	3.2	173	50-150				QMS(D)
Perfluoroheptanesulfonic acid (PFHpS)	2.5	2.0	"	1.90	ND	129	50-150				
Perfluorooctanesulfonic Acid (PFOS)	8.1	2.0	"	1.90	7.0	53	50-150				
4:2 Fluorotelomer Sulfonate	1.8	2.0	"	1.90	ND	95	50-150				
6:2 Fluorotelomer Sulfonate	1.6	5.0	"	1.90	ND	86	50-150				
8:2 Fluorotelomer Sulfonate	2.3	5.0	"	1.90	ND	122	50-150				
Hexafluoropropylene oxide dimer acid (HFPO-DA)	1.9	2.0	"	1.90	ND	101	50-150				
4,8-dioxa-3H-perfluorononanoic Acid (ADONA)	1.8	2.0	"	1.90	ND	95	50-150				
9-chlorohexadecafluoro-3-oxanone-1-sulfonic Acid	2.1	2.0	"	1.90	ND	108	50-150				
11-chloroeicosafluoro 3-oxaundecane-1-sulfonic Acid	1.6	2.0	"	1.90	ND	86	50-150				
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	1.5	2.0	"	1.90	ND	80	50-150				
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.0	2.0	"	1.90	ND	106	50-150				
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.0	2.0	"	1.90	ND	106	50-150				
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.2	2.0	"	1.90	ND	114	50-150				
Surrogate: 13C9-PFNA-[IDA]	10.1		"	19.0		53	50-200				
Surrogate: 13C8-PFOS-[IDA]	17.1		"	18.2		94	50-200				
Surrogate: 13C8-PFOA-[IDA]	9.59		"	19.0		50	50-200				
Surrogate: 13C7-PFUnA-[IDA]	11.2		"	19.0		59	50-200				
Surrogate: 13C6-PFDA-[IDA]	10.8		"	19.0		57	50-200				
Surrogate: 13C5-PFPeA-[IDA]	10.2		"	19.0		54	50-200				
Surrogate: 13C5-PFHxA-[IDA]	10.4		"	19.0		55	50-200				

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State Water Resources Control Board - DDW
1001 I Street, 18th Floor
Sacramento CA, 95814

Project: PFASDAC2024SamplingEvent
Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

Per-/Polyfluorinated Alkyl Substances - Quality Control

Babcock Laboratories, Inc. - Riverside

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4I05002, Prep Method: SPE, Analyst: azp

Matrix Spike (4I05002-MS1)	Source: C4H2645-01			Prepared: 09/05/24 Analyzed: 09/09/24							
Surrogate: 13C4-PFHpA-[IDA]	9.71			ng/L	19.0		51	50-200			
Surrogate: 13C4-PFBA-[IDA]	10.8			"	19.0		57	50-200			
Surrogate: 13C3-PFHxS-[IDA]	15.2			"	18.0		84	50-200			
Surrogate: 13C3-PFBS-[IDA]	14.6			"	17.7		82	50-200			
Surrogate: 13C2-PFDoA-[IDA]	11.9			"	19.0		63	50-200			
Surrogate: 13C2-8:2 FTS-[IDA]	59.5			"	73.0		81	50-200			
Surrogate: 13C2-6:2-FTS-[IDA]	55.1			"	72.2		76	50-200			
Surrogate: 13C2-4:2 FTS-[IDA]	59.2			"	71.1		83	50-200			
Surrogate: 13C3-HFPO-DA-[IDA]	8.80			"	19.0		46	50-200			QSint

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Project: PFASDAC2024SamplingEvent
Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

Per-/Polyfluorinated Alkyl Substances - Quality Control

Babcock Laboratories, Inc. - Riverside

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4I05002, Prep Method: SPE, Analyst: azp

Matrix Spike Dup (4I05002-MSD1)		Source: C4H2645-01			Prepared: 09/05/24		Analyzed: 09/09/24				
Perfluorobutanoic acid (PFBA)	4.2	2.0	ng/L	2.01	2.4	87	50-150	0.9	50		
Perfluoropentanoic acid (PFPeA)	6.7	2.0	"	2.01	4.8	95	50-150	4	50		
Perfluorohexanoic Acid (PFHxA)	6.8	2.0	"	2.01	4.7	102	50-150	9	50		
Perfluoroheptanoic Acid (PFHpA)	4.8	2.0	"	2.01	2.3	124	50-150	17	50		
Perfluorooctanoic Acid (PFOA)	8.9	2.0	"	2.01	6.0	147	50-150	20	50		
Perfluorononanoic Acid (PFNA)	2.1	2.0	"	2.01	ND	105	50-150	15	50		
Perfluorodecanoic Acid (PFDA)	1.6	2.0	"	2.01	ND	78	50-150	35	50		
Perfluoroundecanoic Acid (PFUnA)	1.6	2.0	"	2.01	ND	81	50-150	22	50		
Perfluorododecanoic Acid (PFDoDA)	1.9	2.0	"	2.01	ND	94	50-150	5	50		
Perfluorobutanesulfonic Acid (PFBS)	4.4	2.0	"	2.01	2.0	120	50-150	12	50		
Perfluoropentanesulfonate (PFPeS)	2.4	2.0	"	2.01	ND	117	50-150	12	50		
Perfluorohexanesulfonic Acid (PFHxS)	5.8	2.0	"	2.01	3.2	130	50-150	28	50		
Perfluoroheptanesulfonic acid (PFHpS)	1.9	2.0	"	2.01	ND	92	50-150	34	50		
Perfluorooctanesulfonic Acid (PFOS)	7.6	2.0	"	2.01	7.0	26	50-150	70	50		QMint, QRPDo
4:2 Fluorotelomer Sulfonate	1.8	2.0	"	2.01	ND	91	50-150	5	50		
6:2 Fluorotelomer Sulfonate	ND	5.0	"	2.01	ND		50-150		50		QMS(D)
8:2 Fluorotelomer Sulfonate	1.6	5.0	"	2.01	ND	78	50-150	44	50		
Hexafluoropropylene oxide dimer acid (HFPO-DA)	1.6	2.0	"	2.01	ND	78	50-150	26	50		
4,8-dioxa-3H-perfluorononanoic Acid (ADONA)	1.5	2.0	"	2.01	ND	77	50-150	21	50		
9-chlorohexadecafluoro-3-oxanone-1-sulfonic Acid	1.9	2.0	"	2.01	ND	95	50-150	12	50		
11-chloroeicosafluoro	1.6	2.0	"	2.01	ND	78	50-150	10	50		
3oxaundecane-1-sulfonic Acid											
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	1.7	2.0	"	2.01	ND	84	50-150	5	50		
Perfluoro-4-methoxybutanoic acid (PFMBA)	1.6	2.0	"	2.01	ND	81	50-150	26	50		
Perfluoro-3-methoxypropanoic acid (PFMPA)	1.7	2.0	"	2.01	ND	86	50-150	20	50		
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	1.7	2.0	"	2.01	ND	86	50-150	28	50		
Surrogate: 13C9-PFNA-[IDA]	8.37		"	20.1		42	50-200				QSout
Surrogate: 13C8-PFOS-[IDA]	17.4		"	19.2		91	50-200				
Surrogate: 13C8-PFOA-[IDA]	8.32		"	20.1		41	50-200				QSout
Surrogate: 13C7-PFUnA-[IDA]	8.53		"	20.1		42	50-200				QSout
Surrogate: 13C6-PFDA-[IDA]	8.06		"	20.1		40	50-200				QSout
Surrogate: 13C5-PFPeA-[IDA]	8.29		"	20.1		41	50-200				QSout

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Sacramento CA, 95814

Project: PFASDAC2024SamplingEvent
Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

Per-/Polyfluorinated Alkyl Substances - Quality Control

Babcock Laboratories, Inc. - Riverside

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4I05002, Prep Method: SPE, Analyst: azp

Matrix Spike Dup (4I05002-MSD1)	Source: C4H2645-01			Prepared: 09/05/24 Analyzed: 09/09/24							
Surrogate: 13C5-PFHxA-[IDA]	8.31			ng/L	20.1	41	50-200				QSout
Surrogate: 13C4-PFHpA-[IDA]	8.06			"	20.1	40	50-200				QSout
Surrogate: 13C4-PFBA-[IDA]	9.30			"	20.1	46	50-200				QSout
Surrogate: 13C3-PFHxS-[IDA]	15.9			"	19.0	84	50-200				
Surrogate: 13C3-PFBS-[IDA]	15.7			"	18.7	84	50-200				
Surrogate: 13C2-PFDoA-[IDA]	8.43			"	20.1	42	50-200				QSout
Surrogate: 13C2-8:2 FTS-[IDA]	59.1			"	77.1	77	50-200				
Surrogate: 13C2-6:2 FTS-[IDA]	59.8			"	76.3	78	50-200				
Surrogate: 13C2-4:2 FTS-[IDA]	62.8			"	75.1	84	50-200				
Surrogate: 13C3-HFPO-DA-[IDA]	7.31			"	20.1	36	50-200				QSint

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Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

Per-/Polyfluorinated Alkyl Substances - Quality Control

Babcock Laboratories, Inc. - Riverside

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4I10030, Prep Method: SPE, Analyst: MOF

Blank (4I10030-BLK1)

Prepared: 09/10/24 Analyzed: 09/13/24

Perfluorobutanoic acid (PFBA)	ND	2.0	ng/L
Perfluoropentanoic acid (PFPeA)	ND	2.0	"
Perfluorohexanoic Acid (PFHxA)	ND	2.0	"
Perfluoroheptanoic Acid (PFHpA)	ND	2.0	"
Perfluorooctanoic Acid (PFOA)	ND	2.0	"
Perfluorononanoic Acid (PFNA)	ND	2.0	"
Perfluorodecanoic Acid (PFDA)	ND	2.0	"
Perfluoroundecanoic Acid (PFUnA)	ND	2.0	"
Perfluorododecanoic Acid (PFDoDA)	ND	2.0	"
Perfluorobutanesulfonic Acid (PFBS)	ND	2.0	"
Perfluoropentanesulfonate (PFPeS)	ND	2.0	"
Perfluorohexanesulfonic Acid (PFHxS)	ND	2.0	"
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0	"
Perfluorooctanesulfonic Acid (PFOS)	ND	2.0	"
4:2 Fluorotelomer Sulfonate	ND	2.0	"
6:2 Fluorotelomer Sulfonate	ND	5.0	"
8:2 Fluorotelomer Sulfonate	ND	5.0	"
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	"
4,8-dioxa-3H-perfluorononanoic Acid (ADONA)	ND	2.0	"
9-chlorohexadecafluoro-3-oxanone-1-sulfonic Acid	ND	2.0	"
11-chloroeicosafluoro 3-oxaundecane-1-sulfonic Acid	ND	2.0	"
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0	"
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	2.0	"
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	2.0	"
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	2.0	"
Surrogate: 13C9-PFNA-[IDA]	18.5	"	20.0
Surrogate: 13C8-PFOS-[IDA]	18.5	"	19.1
Surrogate: 13C8-PFOA-[IDA]	18.5	"	20.0
Surrogate: 13C7-PFUnA-[IDA]	18.6	"	20.0
Surrogate: 13C6-PFDA-[IDA]	18.5	"	20.0
Surrogate: 13C5-PFPeA-[IDA]	18.3	"	20.0
Surrogate: 13C5-PFHxA-[IDA]	18.7	"	20.0

92	50-200
97	50-200
92	50-200
93	50-200
93	50-200
91	50-200
93	50-200

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Project: PFASDAC2024SamplingEvent
Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

Per-/Polyfluorinated Alkyl Substances - Quality Control

Babcock Laboratories, Inc. - Riverside

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4I10030, Prep Method: SPE, Analyst: MOF

Blank (4I10030-BLK1)

Prepared: 09/10/24 Analyzed: 09/13/24

Surrogate: 13C4-PFHpA-[IDA]	18.4			ng/L	20.0		92	50-200			
Surrogate: 13C4-PFBA-[IDA]	18.4			"	20.0		92	50-200			
Surrogate: 13C3-PFHxS-[IDA]	18.3			"	18.9		97	50-200			
Surrogate: 13C3-PFBS-[IDA]	18.4			"	18.6		99	50-200			
Surrogate: 13C2-PFDoA-[IDA]	18.7			"	20.0		93	50-200			
Surrogate: 13C2-8:2 FTS-[IDA]	73.4			"	76.8		96	50-200			
Surrogate: 13C2-6:2-FTS-[IDA]	74.7			"	76.0		98	50-200			
Surrogate: 13C2-4:2 FTS-[IDA]	73.6			"	74.8		98	50-200			
Surrogate: 13C3-HFPO-DA-[IDA]	17.9			"	20.0		90	50-200			

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Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

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09/20/24 11:05

Per-/Polyfluorinated Alkyl Substances - Quality Control

Babcock Laboratories, Inc. - Riverside

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4I10030, Prep Method: SPE, Analyst: MOF

LCS (4I10030-BS1)

Prepared: 09/10/24 Analyzed: 09/13/24

Perfluorobutanoic acid (PFBA)	2.2	2.0	ng/L	2.00	111	50-150
Perfluoropentanoic acid (PFPeA)	2.2	2.0	"	2.00	108	50-150
Perfluorohexanoic Acid (PFHxA)	2.2	2.0	"	2.00	108	50-150
Perfluoroheptanoic Acid (PFHpA)	2.1	2.0	"	2.00	104	50-150
Perfluorooctanoic Acid (PFOA)	2.1	2.0	"	2.00	106	50-150
Perfluorononanoic Acid (PFNA)	2.2	2.0	"	2.00	108	50-150
Perfluorodecanoic Acid (PFDA)	2.1	2.0	"	2.00	104	50-150
Perfluoroundecanoic Acid (PFUnA)	2.3	2.0	"	2.00	115	50-150
Perfluorododecanoic Acid (PFDoDA)	2.3	2.0	"	2.00	115	50-150
Perfluorobutanesulfonic Acid (PFBS)	2.5	2.0	"	2.00	125	50-150
Perfluoropentanesulfonate (PFPeS)	2.2	2.0	"	2.00	109	50-150
Perfluorohexanesulfonic Acid (PFHxS)	2.2	2.0	"	2.00	111	50-150
Perfluoroheptanesulfonic acid (PFHpS)	1.9	2.0	"	2.00	94	50-150
Perfluorooctanesulfonic Acid (PFOS)	1.8	2.0	"	2.00	91	50-150
4:2 Fluorotelomer Sulfonate	1.8	2.0	"	2.00	89	50-150
6:2 Fluorotelomer Sulfonate	2.2	5.0	"	2.00	112	50-150
8:2 Fluorotelomer Sulfonate	2.1	5.0	"	2.00	105	50-150
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.1	2.0	"	2.00	106	50-150
4,8-dioxa-3H-perfluorononanoic Acid (ADONA)	1.9	2.0	"	2.00	97	50-150
9-chlorohexadecafluoro-3-oxanone-1-sulfonic Acid	2.2	2.0	"	2.00	108	50-150
11-chloroeicosafluoro 3-oxaundecane-1-sulfonic Acid	2.0	2.0	"	2.00	102	50-150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.1	2.0	"	2.00	103	50-150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.2	2.0	"	2.00	112	50-150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.1	2.0	"	2.00	107	50-150
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.2	2.0	"	2.00	108	50-150
Surrogate: 13C9-PFNA-[IDA]	17.4		"	20.0	87	50-200
Surrogate: 13C8-PFOS-[IDA]	17.8		"	19.1	93	50-200
Surrogate: 13C8-PFOA-[IDA]	17.2		"	20.0	86	50-200
Surrogate: 13C7-PFUnA-[IDA]	17.2		"	20.0	86	50-200
Surrogate: 13C6-PFDA-[IDA]	17.0		"	20.0	85	50-200
Surrogate: 13C5-PFPeA-[IDA]	16.3		"	20.0	81	50-200
Surrogate: 13C5-PFHxA-[IDA]	17.5		"	20.0	87	50-200

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Project: PFASDAC2024SamplingEvent
Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

Per-/Polyfluorinated Alkyl Substances - Quality Control

Babcock Laboratories, Inc. - Riverside

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4I10030, Prep Method: SPE, Analyst: MOF

LCS (4I10030-BS1)

Prepared: 09/10/24 Analyzed: 09/13/24

Surrogate: 13C4-PFHpA-[IDA]	17.0		ng/L	20.0	85	50-200
Surrogate: 13C4-PFBA-[IDA]	17.2		"	20.0	86	50-200
Surrogate: 13C3-PFHxS-[IDA]	18.0		"	18.9	95	50-200
Surrogate: 13C3-PFBS-[IDA]	17.4		"	18.6	93	50-200
Surrogate: 13C2-PFDoA-[IDA]	17.2		"	20.0	86	50-200
Surrogate: 13C2-8:2 FTS-[IDA]	70.3		"	76.8	92	50-200
Surrogate: 13C2-6:2-FTS-[IDA]	71.7		"	76.0	94	50-200
Surrogate: 13C2-4:2 FTS-[IDA]	71.1		"	74.8	95	50-200
Surrogate: 13C3-HFPO-DA-[IDA]	15.5		"	20.0	78	50-200

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Per-/Polyfluorinated Alkyl Substances - Quality Control

Babcock Laboratories, Inc. - Riverside

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4I10030, Prep Method: SPE, Analyst: MOF

Matrix Spike (4I10030-MS1) Source: C4H3814-01 Prepared: 09/10/24 Analyzed: 09/13/24

Perfluorobutanoic acid (PFBA)	9.0	1.8	ng/L	9.09	ND	99	70-130
Perfluoropentanoic acid (PFPeA)	8.9	1.8	"	9.09	ND	98	70-130
Perfluorohexanoic Acid (PFHxA)	9.1	1.8	"	9.09	ND	100	70-130
Perfluoroheptanoic Acid (PFHpA)	8.9	1.8	"	9.09	ND	98	70-130
Perfluorooctanoic Acid (PFOA)	10	1.8	"	9.09	ND	111	70-130
Perfluorononanoic Acid (PFNA)	9.2	1.8	"	9.09	ND	101	70-130
Perfluorodecanoic Acid (PFDA)	8.8	1.8	"	9.09	ND	97	70-130
Perfluoroundecanoic Acid (PFUnA)	9.6	1.8	"	9.09	ND	106	70-130
Perfluorododecanoic Acid (PFDoDA)	9.7	1.8	"	9.09	ND	107	70-130
Perfluorobutanesulfonic Acid (PFBS)	9.2	1.8	"	9.09	ND	101	70-130
Perfluoropentanesulfonate (PFPeS)	9.3	1.8	"	9.09	ND	102	70-130
Perfluorohexanesulfonic Acid (PFHxS)	9.0	1.8	"	9.09	ND	99	70-130
Perfluoroheptanesulfonic acid (PFHpS)	9.1	1.8	"	9.09	ND	100	70-130
Perfluorooctanesulfonic Acid (PFOS)	8.6	1.8	"	9.09	ND	94	70-130
4:2 Fluorotelomer Sulfonate	8.7	1.8	"	9.09	ND	96	70-130
6:2 Fluorotelomer Sulfonate	8.6	4.5	"	9.09	ND	95	70-130
8:2 Fluorotelomer Sulfonate	8.7	4.5	"	9.09	ND	96	70-130
Hexafluoropropylene oxide dimer acid (HFPO-DA)	8.9	1.8	"	9.09	ND	98	70-130
4,8-dioxa-3H-perfluorononanoic Acid (ADONA)	8.4	1.8	"	9.09	ND	93	70-130
9-chlorohexadecafluoro-3-oxanone-1-sulfonic Acid	8.6	1.8	"	9.09	ND	95	70-130
11-chloroeicosafluoro 3-oxaundecane-1-sulfonic Acid	7.8	1.8	"	9.09	ND	86	70-130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	41	1.8	"	36.4	ND	112	70-130
Perfluoro-4-methoxybutanoic acid (PFMBA)	8.7	1.8	"	9.09	ND	96	70-130
Perfluoro-3-methoxypropanoic acid (PFMPA)	8.9	1.8	"	9.09	ND	98	70-130
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	8.9	1.8	"	9.09	ND	98	70-130
Surrogate: 13C9-PFNA-[IDA]	13.3		"	18.2		73	50-200
Surrogate: 13C8-PFOS-[IDA]	16.0		"	17.4		92	50-200
Surrogate: 13C8-PFOA-[IDA]	13.5		"	18.2		74	50-200
Surrogate: 13C7-PFUnA-[IDA]	12.8		"	18.2		70	50-200
Surrogate: 13C6-PFDA-[IDA]	13.9		"	18.2		76	50-200
Surrogate: 13C5-PFPeA-[IDA]	13.8		"	18.2		76	50-200
Surrogate: 13C5-PFHxA-[IDA]	13.7		"	18.2		76	50-200

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1001 I Street, 18th Floor
Sacramento CA, 95814

Project: PFASDAC2024SamplingEvent
Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

Per-/Polyfluorinated Alkyl Substances - Quality Control
Babcock Laboratories, Inc. - Riverside

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----	----	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 4I10030, Prep Method: SPE, Analyst: MOF

Matrix Spike (4I10030-MS1) Source: C4H3814-01 Prepared: 09/10/24 Analyzed: 09/13/24

Surrogate: 13C4-PFHpA-[IDA]	13.4		ng/L	18.2	74	50-200
Surrogate: 13C4-PFBA-[IDA]	14.6		"	18.2	80	50-200
Surrogate: 13C3-PFHxS-[IDA]	16.6		"	17.2	96	50-200
Surrogate: 13C3-PFBS-[IDA]	16.0		"	16.9	94	50-200
Surrogate: 13C2-PFDoA-[IDA]	12.3		"	18.2	68	50-200
Surrogate: 13C2-8:2 FTS-[IDA]	64.7		"	69.8	93	50-200
Surrogate: 13C2-6:2 FTS-[IDA]	64.9		"	69.1	94	50-200
Surrogate: 13C2-4:2 FTS-[IDA]	72.0		"	68.0	106	50-200
Surrogate: 13C3-HFPO-DA-[IDA]	12.4		"	18.2	68	50-200

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Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

Per-/Polyfluorinated Alkyl Substances - Quality Control

Babcock Laboratories, Inc. - Riverside

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----	----	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 4I10030, Prep Method: SPE, Analyst: MOF

Matrix Spike Dup (4I10030-MSD1)

Source: C4H3814-01

Prepared: 09/10/24

Analyzed: 09/13/24

Perfluorobutanoic acid (PFBA)	8.7	1.8	ng/L	9.09	ND	95	70-130	4	30
Perfluoropentanoic acid (PFPeA)	8.9	1.8	"	9.09	ND	98	70-130	0.3	30
Perfluorohexanoic Acid (PFHxA)	8.6	1.8	"	9.09	ND	94	70-130	6	30
Perfluoroheptanoic Acid (PFHpA)	9.0	1.8	"	9.09	ND	99	70-130	0.4	30
Perfluorooctanoic Acid (PFOA)	9.1	1.8	"	9.09	ND	100	70-130	10	30
Perfluorononanoic Acid (PFNA)	8.8	1.8	"	9.09	ND	97	70-130	4	30
Perfluorodecanoic Acid (PFDA)	8.8	1.8	"	9.09	ND	97	70-130	0.5	30
Perfluoroundecanoic Acid (PFUnA)	9.7	1.8	"	9.09	ND	106	70-130	0.2	30
Perfluorododecanoic Acid (PFDoDA)	10	1.8	"	9.09	ND	115	70-130	7	30
Perfluorobutanesulfonic Acid (PFBS)	8.9	1.8	"	9.09	ND	98	70-130	4	30
Perfluoropentanesulfonate (PFPeS)	9.6	1.8	"	9.09	ND	105	70-130	3	30
Perfluorohexanesulfonic Acid (PFHxS)	9.0	1.8	"	9.09	ND	99	70-130	0.08	30
Perfluoroheptanesulfonic acid (PFHpS)	8.7	1.8	"	9.09	ND	96	70-130	4	30
Perfluorooctanesulfonic Acid (PFOS)	9.6	1.8	"	9.09	ND	105	70-130	11	30
4:2 Fluorotelomer Sulfonate	9.0	1.8	"	9.09	ND	99	70-130	3	30
6:2 Fluorotelomer Sulfonate	9.0	4.5	"	9.09	ND	99	70-130	4	30
8:2 Fluorotelomer Sulfonate	9.3	4.5	"	9.09	ND	102	70-130	6	30
Hexafluoropropylene oxide dimer acid (HFPO-DA)	8.9	1.8	"	9.09	ND	98	70-130	0.6	30
4,8-dioxa-3H-perfluorononanoic Acid (ADONA)	8.1	1.8	"	9.09	ND	89	70-130	4	30
9-chlorohexadecafluoro-3-oxanone-1-sulfonic Acid	9.5	1.8	"	9.09	ND	105	70-130	10	30
11-chloroeicosafluoro 3-oxaundecane-1-sulfonic Acid	7.9	1.8	"	9.09	ND	87	70-130	1	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	39	1.8	"	36.4	ND	107	70-130	4	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	9.4	1.8	"	9.09	ND	103	70-130	7	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	8.4	1.8	"	9.09	ND	92	70-130	7	30
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	9.0	1.8	"	9.09	ND	99	70-130	1	30
Surrogate: 13C9-PFNA-[IDA]	14.2		"	18.2		78	50-200		
Surrogate: 13C8-PFOS-[IDA]	15.2		"	17.4		88	50-200		
Surrogate: 13C8-PFOA-[IDA]	13.9		"	18.2		77	50-200		
Surrogate: 13C7-PFUnA-[IDA]	12.5		"	18.2		69	50-200		
Surrogate: 13C6-PFDA-[IDA]	13.8		"	18.2		76	50-200		
Surrogate: 13C5-PFPeA-[IDA]	13.3		"	18.2		73	50-200		
Surrogate: 13C5-PFHxA-[IDA]	14.3		"	18.2		78	50-200		

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Sacramento CA, 95814

Project: PFASDAC2024SamplingEvent
Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

Per-/Polyfluorinated Alkyl Substances - Quality Control

Babcock Laboratories, Inc. - Riverside

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----	----	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 4I10030, Prep Method: SPE, Analyst: MOF

Matrix Spike Dup (4I10030-MSD1) Source: C4H3814-01 Prepared: 09/10/24 Analyzed: 09/13/24

Surrogate: 13C4-PFHpA-[IDA]	13.7		ng/L	18.2	76	50-200
Surrogate: 13C4-PFBA-[IDA]	14.3		"	18.2	78	50-200
Surrogate: 13C3-PFHxS-[IDA]	16.4		"	17.2	96	50-200
Surrogate: 13C3-PFBS-[IDA]	15.6		"	16.9	92	50-200
Surrogate: 13C2-PFDoA-[IDA]	11.7		"	18.2	64	50-200
Surrogate: 13C2-8:2 FTS-[IDA]	57.5		"	69.8	82	50-200
Surrogate: 13C2-6:2-FTS-[IDA]	65.2		"	69.1	94	50-200
Surrogate: 13C2-4:2 FTS-[IDA]	71.8		"	68.0	106	50-200
Surrogate: 13C3-HFPO-DA-[IDA]	12.8		"	18.2	70	50-200

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Project: PFASDAC2024SamplingEvent
Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

Per-/Polyfluorinated Alkyl Substances - Quality Control

Babcock Laboratories, Inc. - Riverside

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----	----	-------	-------------	---------------	------	-------------	-----	-----------	-------

Aggregate Organic Compounds - Quality Control

Babcock Laboratories, Inc. - Riverside

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----	----	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 4I10056, Prep Method: None, Analyst: MKL

Blank (4I10056-BLK1)

Prepared & Analyzed: 09/11/24

AO (Adsorbable Organic Fluorine) ND 800 ng/L

Blank (4I10056-BLK2)

Prepared & Analyzed: 09/11/24

AO (Adsorbable Organic Fluorine) ND 800 ng/L

LCS (4I10056-BS1)

Prepared & Analyzed: 09/11/24

AO (Adsorbable Organic Fluorine) 8200 800 ng/L 8080 101 70-130

Matrix Spike (4I10056-MS1)

Source: C4H2645-02

Prepared & Analyzed: 09/11/24

AO (Adsorbable Organic Fluorine) 8100 800 ng/L 7830 390 99 70-130

Matrix Spike Dup (4I10056-MSD1)

Source: C4H2645-02

Prepared & Analyzed: 09/11/24

AO (Adsorbable Organic Fluorine) 8000 800 ng/L 7770 390 98 70-130 0.6 30

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Project: PFASDAC2024SamplingEvent
Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

Notes and Definitions

NISm	Due to matrix interference, the internal standard recovery for this analyte did not meet laboratory acceptance criteria.
NSint	Due to matrix interference, the surrogate recovery for this sample cannot be accurately quantified.
QMint	Due to matrix interference, the MS and/or MSD did not meet laboratory acceptance criteria.
QMS(D)	Matrix spike recovery was out of acceptance criteria. Precision and accuracy demonstrated by remaining matrix spike results.
QRPD	The RPD value for the sample duplicate or MS/MSD did not meet laboratory acceptance criteria.
QSint	Due to matrix interference, the surrogate recovery for this QC sample cannot be accurately quantified or does not meet laboratory acceptance limits.
QSout	Surrogate recoveries did not meet laboratory acceptance criteria.

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the Reporting Limit (or Method Detection Limit when listed)
NR	Not Reported
Dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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Project: PFASDAC2024SamplingEvent
Project Number: PFAS DAC Well Sampling
Project Manager: Wendy Linck

Reported:
09/20/24 11:05

Babcock Laboratories, Inc. - Riverside - Certification(s) List

Cert. ID	Description	Cert. Number	Expires
----------	-------------	--------------	---------

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Sample Collection Agency: CA State Water Board DDW				Agreement No: 23-035-270				Sample Matrix (See Codes Below)	Sample Type (G = Grab; C = Composite; O = Other)	Container Size (ml)	Container Type (HDPE = High Density Polyethylene)	Preservation Code (See the Codes Below)	# of Containers	Analyses Requested			Field Quality Meter Readings (last measurement before sample collection)			KIT A	
Sample Collection Agency Address: 1001 I Street, Sacramento, CA 95814				Project Codes: PFASDAC2024SamplingEvent PFASDAC2025SamplingEvent										pH (unitless)	Conductivity (µS)	Turbidity (NTU)	Notes				
PWS Name: CITY OF LIVE OAK				Project Name: PFAS DAC Well Sampling																	
Project Lead: State Water Resources Control Board/Geosyntec Consultants				Field Lead: Jason Dioguardi																	
Name: Wendy Linck				Regional Lead: Hannah McIntyre																	
Phone: (916) 323-0888				Phone: 913-224-1057																	
Email: Wendy.linck@waterboards.ca.gov				Email: hannah.mcintyre@geosyntec.com																	
Sample ID		Date	Time	Well Name																	
1)	CA5110001_013_013_FB_533	08.19.24	10:55	WELL 02A	DW	G	250	HDPE	1,13	1	X										
2)	CA5110001_013_013_FB_AOF			WELL 02A	DW	G	250	HDPE	1	1		X									
3)	CA5110001_013_013_S_533			WELL 02A	DW	G	250	HDPE	1,13	2	X										
4)	CA5110001_013_013_S_AOF			WELL 02A	DW	G	250	HDPE	1	2		X									
5)																					
6)																					
7)																					
8)																					
9)																					
10)																					
Samples Relinquished By:										Samples Received By:											
Name (Print) and Agency					Signature		Date		Time		Name (Print) and Agency					Signature		Date		Time	
1) Jason Dioguardi/Geosyntec					[Signature]		08.19.24		14:15		FedEx: 2784 8463 8783					[Signature]		08/19/24		14:15	
2)					Fedex						BIONGA GARCIA					[Signature]		8/20/24		925	
3)																					
4)																					
Sample Matrix		Preservation Codes		Sample Receipt - Completed by Laboratory personnel:						Laboratory Notes				Special Instructions							
SFW = Surface Fresh Water; SSW = Surface Salt Water; DW = Drinking Water; GW = Ground Water; SW = Stormwater; WW = Wastewater; OL = Other Liquids; SO = Soil / Sediment; SL = Sludge / Slurry; OS = Other Solids; O = Other		1. Cool, < 6 °C; 2. HNO3 3. HCL 4. H2SO4 5. Na2S2O3 6. NaOH 7. NaOH/ZnAcetate 8. NH4CL 9. Trizma 10. Filtered 11. Freeze, < -10 °C 12. None required 13. NH4CH3CO2		Total Number of Sample Containers Received:		6		TG: 72		C4H2639 Rc'd: 08/20/2024 09:25 BXG Manual-PDF		Evidence sample handling required?		☐							
				Sample(s) Properly Cooled: ☒ N / NA		6°		Return Shipping Containers?				☐									
				Sample(s) Intact: ☒ N / NA				Routine				☒									
				Custody Seal(s) Intact: Y / N / NA				Turn Around Time:				*3-5 Day (Rush)		☐							
								Sample(s) Accepted: ☒ N				Send results to:		Project FTP site (https://ftp.waterboards.ca.gov)		*48-Hr (Rush)		☐			

ATTACHMENT 2 – GOVERNING BODY NOTIFICATION TEMPLATE

(Delete red text)

([Replace] blue text)

(Green text is conditional)

Example Letter required by Health and Safe Code §116455 to the water system's governing body and the governing body of any local agency whose jurisdiction includes areas supplied with drinking water by the retail water system. If the retail water system is a water company regulated by the California Public Utilities Commission, then the retail water system shall also notify the commission.

Subject: Notification of PFOA and PFOS and PFHxS and PFBS Notification Level Exceedance

Dear [Local Agency]

The purpose of this letter, consistent with Health and Safety Code Sections 116378 and 116455, is to inform you of the presence of Per- and polyfluoroalkyl substances (PFAS) in the [Water Source, PSCode] that is currently [Operational Status].

(Operational Status options: In service with PFAS Treatment, In service without PFAS Treatment, Out-of-Service, for Emergency Use Only)

Pursuant to Health and Safety Code Sections 116378 and 116455, the [Water System Name] is required to inform its governing body and the governing body of any local agency whose jurisdiction includes the areas supplied with drinking water by the [Water System Name] of concentrations exceeding the Notification Levels for PFAS. These Notification Levels are health-based advisory levels established by the State Water Resources Control Board (State Water Board), Division of Drinking Water (DDW) for chemicals in drinking water that lack maximum contaminant levels. When chemicals are found at concentrations greater than their Notification Levels, certain notification requirements and recommendations apply.

The DDW determined that the Notification Level(s) have been exceeded specifically for PFAS as set forth in the following table (Only include PFAS that exceed their NL(s)):

PFAS	Notification Level	Response Level	Concentration	Health Effects
PFBS	500 ng/L	5000 ng/L	[PFBS_Conc.]	PFBS has been shown to interfere with thyroid hormones levels. Thyroid hormones are needed for normal prenatal growth and development of the fetus, as well as for normal growth and development in the infant and child. In adults, thyroid hormones are needed for normal metabolism and mental function.
PFHxS	3 ng/L	20 ng/L	[PFHxS_Conc.]	PFHxS has been shown to interfere with thyroid hormones levels. Thyroid hormones are needed for normal prenatal growth and development of the fetus, as well as for normal growth and development in the infant and child. In adults, thyroid hormones

PFAS	Notification Level	Response Level	Concentration	Health Effects
				are needed for normal metabolism and mental function.
PFOS	6.5 ng/L	40 ng/L	[PFOS_Conc.]	Some people who drink water containing PFOS in excess of the Notification Level over many years may experience adverse health effects. PFOS exposures have been shown to cause immune suppression and cancer in laboratory animals.
PFOA	5.1 ng/L	10 ng/L	[PFOA_Conc.]	Some people who drink water containing PFOA in excess of the Notification Level over many years may experience adverse health effects. PFOA exposures have been shown to cause increased liver weight and cancer in laboratory animals.

PFAS are manmade substances that have been synthesized for their water and liquid resistance properties. They have been used extensively in consumer products such as carpets, clothing, fabrics for furniture, paper packaging for food, and other materials (e.g., cookware) designed to be waterproof, stain-resistant or non-stick. In addition, they have been used in fire-retarding foam and various industrial processes. The origin of the contaminant in our water supply at this time is unknown but the water system is working with the State Water Board and other agencies to identify the circumstances of the contamination.

Pursuant to Health and Safety Code section 116378 and , if a chemical is present in drinking water that is provided to consumers at concentrations exceeding the Response Level, the drinking water system must either (1) take the source out of service immediately; (2) utilize treatment or blending; or (3) provide public notification of the Response Level exceedance. Additional information will be provided to our customers in the [PWS_water_system_name] Consumer Confidence Report that comes out next year.

Please refer to the following links for additional information about PFAS:

DDW PFAS Website:

https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/pfas.html

DDW PFAS Factsheet:

https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/docs/2024/pfas-fact-sheet-ddw-2024.pdf

If you have any questions regarding this matter, please contact [Water System Name] at [Water System Number] or at [Water System Email].

Sincerely,

[Signature Block of Water System]

ATTACHMENT 3 – PFAS FACT SHEET



Fact Sheet

Per- and Polyfluoroalkyl Substances (PFAS) Fact Sheet

**State Water Resources Control Board
Division of Drinking Water**

May 2024

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Division of Drinking Water	Error! Bookmark not defined.
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List of Acronyms & Abbreviations

Acronyms/Abbreviations	Definitions
DDW	Division of Drinking Water
MCL	Maximum Contaminants Level
NPDWR	National Primary Drinking Water Regulation
OEHHA	Office of Environmental Health Hazard Assessment
PFAS	Per- and Polyfluoroalkyl Substances
PHG	Public Health Goal
State Water Board	State Water Resources Control Board
US EPA	The U.S. Environmental Protection Agency

Overview

This fact sheet provides information about Per- and Polyfluoroalkyl Substances (PFAS) and State Water Resources Control Board (State Water Board), Division of Drinking Water actions to manage PFAS issues in drinking water in California.

PFAS Background

1. PFAS definition

PFAS, or Per- and Polyfluoroalkyl Substances, are a large group of man-made substances that do not occur naturally in the environment and are resistant to heat, water, oil, grease, and stains. Since the 1940s, PFAS have been used in industry and consumer products, such as non-stick cookware, waterproof clothing, stain-resistant fabrics and carpets, some firefighting foams, and products that resist grease, water, and oil. PFAS can be found in a variety of consumer products and in groundwater.

2. PFAS concerns

Long term exposure to PFAS is potentially harmful to health. A recent review from the [U.S. Centers for Disease Control and Prevention \(CDC\)](#) outlines that over a long time PFAS may:

- Decrease fertility and birth weight.
- Weaken a body's ability to fight disease.
- Increase the risk for some cancers, asthma, thyroid disease, and liver damage.
- Increase cholesterol levels (which can increase the risk for heart attack or stroke).

Because of the potential health risks of PFAS, the State Water Board requires monitoring PFAS to protect drinking water quality. Monitoring PFAS in drinking water ensures that your water remains safe to drink and helps the State Water Board to protect public health.

3. PFAS found in the environment

PFAS can be found in air, water, and soil in and around manufacturing facilities. Although these releases have been declining since companies began phasing out the production and use of several PFAS in the early 2000s, PFAS are very stable in the environment and are resistant to breaking down. They remain in the environment and the human body for long periods of time. Some PFAS are volatile and can be carried long distances through the air, which may lead to contamination of soil and groundwater far from the source of the PFAS emission.

4. Sources of PFAS

The primary sources of PFAS are: fire training/fire response sites, industrial sites landfills, and wastewater treatment plants/biosolids. The following picture shows examples of products containing PFAS.



Figure 1. Examples of consumer products containing PFAS.

5. Human exposure to PFAS

The main ways that PFAS get into people's bodies are through:

- **Drinking water:** Contaminated drinking water has led to high levels of exposure to PFAS for some populations residing near manufacturing facilities that have used PFAS.
- **Food:** Food produced in water or soil contaminated with PFAS, such as vegetables fish, meat, and eggs may contain PFAS due to bioaccumulation and crop uptake. Also, food packaging made with PFAS can lead to PFAS transfer to food.
- **Consumer Products:** Hand-to-mouth contact with consumer products made with PFAS, such as carpets and textiles, or cosmetics and lotions.
- **Inhalation:** Breathing in contaminated air or household dust can expose people to PFAS. Both outdoor and indoor air or dust may contain PFAS. PFAS in outdoor air may be because of manufacturing releases. Clothing, textiles, and carpets treated with PFAS may result in higher concentrations of some PFAS in indoor air.

PFAS chemicals are not easily absorbed through the skin; therefore, dermal exposure is considered a less significant route of exposure for the general population.

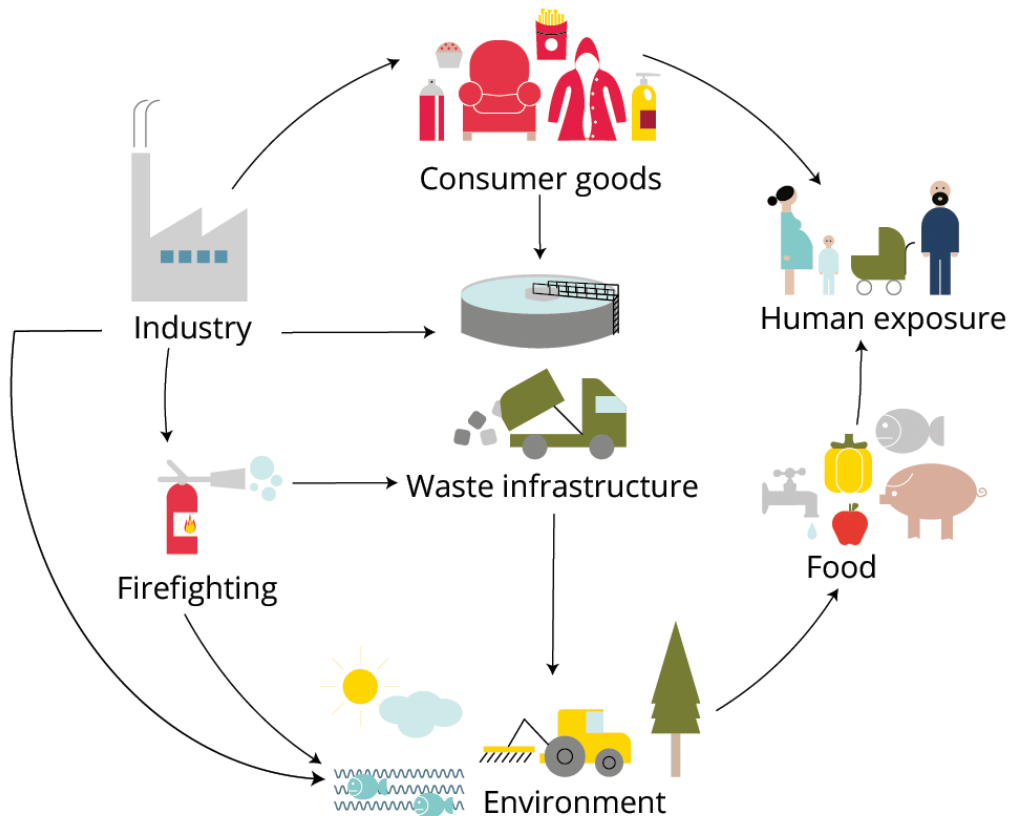


Figure 2. PFAS exposure pathways to the environment and human.
Image is adopted from <https://extension.umaine.edu/livestock/dairy/pfas-and-dairy-animals/>

6. PFAS in drinking water

PFAS can get into drinking water when products containing them are used or spilled onto the ground or into lakes and rivers. Once in groundwater, PFAS are easily transported large distances and can contaminate drinking wells. PFAS in the air can also end up in rivers and lakes used for drinking water. Additional information regarding PFAS fate and transport in the environment may be found on the [Interstate Technology Regulatory Council](https://pfas-1.itrcweb.org/) (<https://pfas-1.itrcweb.org/>).

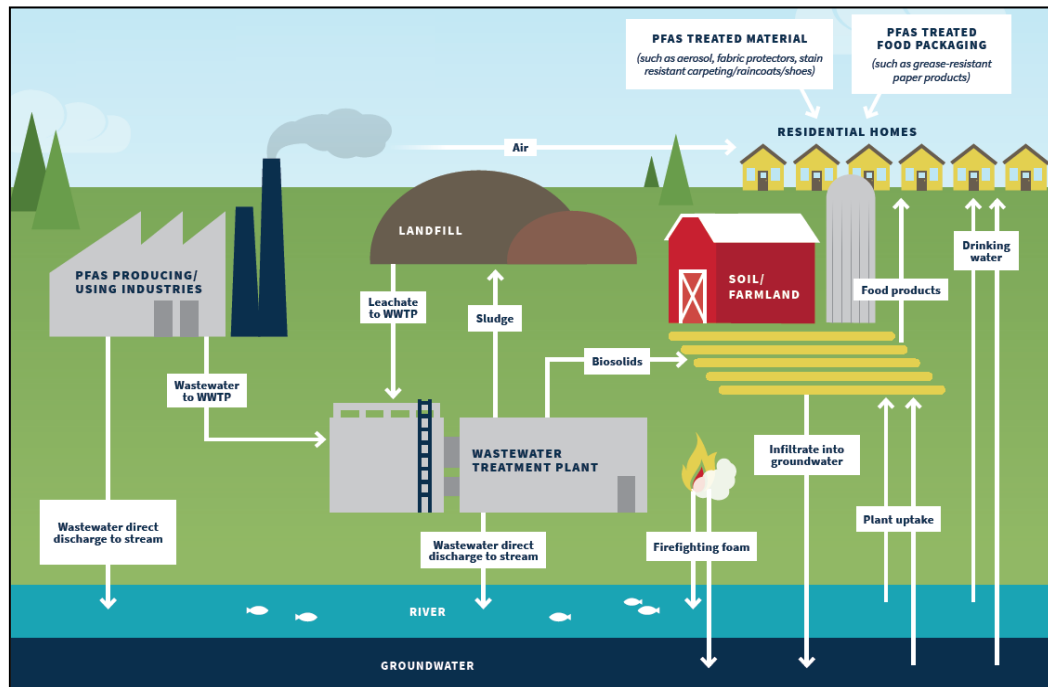


Figure 3. PFAS sources and pathways to drinking water. Image is adopted from <https://health.hawaii.gov/heer/environmental-health/highlighted-projects/pfas/>

7. PFAS production in the United States

The U.S. Environmental Protection Agency (US EPA) has announced that eight major PFAS producers have phased out PFAS from emissions and products. However, manufacturers have developed replacement substances in the PFAS family. Additionally, there could be some imported goods containing these substances.

8. PFAS exposure reduction

Preventing exposure to PFAS is not practical due to the widespread historic and current use of PFAS, which are commonly used in consumer products throughout the world. Exposure can be reduced by avoiding or limiting exposure with some products, as follows:

- Use non-stick coated cookware according to manufacturer guidelines (not all non-stick coatings contain PFAS).
- Use stainless steel or cast-iron cookware in place of non-stick coated items.
- Avoid oil and water-resistant food packaging.

- Avoid stain resistant coatings on carpet, furniture and clothing.
- Avoid water repellants on clothing.
- Use personal care products without “PTFE” or “Fluoro” ingredients.
- Wipe or clean household surfaces with a damp cloth regularly.

The Food and Drug Administration (FDA) recommends that people should eat different types of foods to maintain a healthy diet. They mentioned that the findings from the first tests conducted on various foods didn't show a need to avoid specific foods because of PFAS contamination. More information may be obtained from the [Food and Drug Administration](https://www.fda.gov/food/process-contaminants-food/questions-and-answers-pfas-food) (<https://www.fda.gov/food/process-contaminants-food/questions-and-answers-pfas-food>).

Efforts by the California State Water Resources Control Board (State Water Board) to Address PFAS

9. Efforts to identify the sources of PFAS in California

Since 2019, the State Water Board, Division of Drinking Water (DDW) has been strategically planning and issuing statewide investigative orders to identify the occurrence of PFAS in areas of the highest potential impact to the environment and drinking water. These areas include industrial use of PFAS in fire-fighting foams, at certain industrial applications, and at those industries impacted secondarily by PFAS.

Based on statewide sampling efforts, PFAS has been mostly identified in areas of industrial use of firefighting foams containing PFAS at airports, bulk fuel terminals, refineries, and when PFAS-containing mist suppressants have been used as part of plating processes. However, PFAS has also been identified in landfills and at wastewater treatment plants, because they are receiving PFAS secondarily in waste streams.

10. State Water Board efforts to manage PFAS issues in drinking water

The DDW has issued [several investigation orders](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/pfas_ddw_general_order) (https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/pfas_ddw_general_order) to public water systems requiring testing for PFAS. Most recently, General Order DW 2024-0002-DDW (2024 Order) has been issued to public water systems for monitoring PFAS in community public water systems serving disadvantaged and severely disadvantaged communities. The purpose of this

monitoring is to understand PFAS impacts on drinking water in these communities.

California State Assembly Bill 756 (codified as Health and Safety Code section 116378) authorizes the State Water Board to more broadly order public water systems to monitor for PFAS and report their detections. Additional and more assessment might be required in the coming years.

In combination with investigating industrial sources, public water systems have been sampling wells in the vicinity of these areas per State Water Board General Order [DW 2022-0001-DDW](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/pfas_ddw_general_order/) (https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/pfas_ddw_general_order/).

Additionally, the DDW has issued notification levels and response levels for four common PFAS compounds listed in Table 1. Additional notification and response levels could be issued in the future based on occurrence and recommendations from Office of Environmental Health Hazard Assessment (OEHHA) on the potential risks to human health.

Table 1. Four PFAS constituents with Notification and Response levels in nanograms per liter or parts per trillion.

PFAS Constituent	Notification Level (ng/L or ppt)	Response Level (ng/L or ppt)
Perfluorobutanesulfonic acid (PFBS)	500	5,000
Perfluorohexanesulfonic acid (PFHxS)	3	20
Perfluorooctanesulfonic acid (PFOS)	6.5	40
Perfluorooctanoic acid (PFOA)	5.1	10

11. Notification level and Response level

Notification levels are health-based advisory levels established by the DDW for chemicals in drinking water that lack maximum contaminant levels (MCLs). When chemicals are found at concentrations greater than their notification levels, certain requirements and recommendations apply. The law's notification requirements apply to:

- Wholesale water systems, who must notify their governing bodies and the water systems that are directly supplied with that drinking water.

- Retail water systems, who must notify their governing bodies and the governing bodies of any local agencies (i.e., city or county, or a city and county) whose jurisdictions include areas supplied with their drinking water.
- Wholesale and retail water systems regulated by the California Public Utilities Commission, who must also notify the commission.

Response level is the level at which DDW recommends removal of a drinking water source from service. When a confirmed detection exceeds the response level, a community water system or a nontransient noncommunity public water system is required to:

- Report that detection in the water system's annual consumer confidence report.
- Take a water source where detected levels exceed the response level out of use or provide public notification (as specified in Health and Safety §116378) within 30 days of the confirmed detection.

12. PFAS Notification level or Response level exceedance requirements

Currently, there are only four PFAS with notification levels (refer to Table 1). Additional notification levels could be established for other PFAS as more data and information become available.

If the water system voluntarily samples the well and performs the analytical testing and the results of a PFAS detection are confirmed to exceed its respective notification level, the water system must report the detection within 30 days after the water system is first informed by the laboratory of a confirmed detection of the contaminant that exceeds the notification level.

For the 2024 Order, if the results of a PFAS detection are confirmed to exceed its respective notification level, the State Water Board will already have been notified of the results since the State Water Board's contractor is performing the analytical testing. Therefore, the water system does not need to report the exceedance to the State Water Board.

If the results of a PFAS exceeds a response level, the water system must either (1) take the source out of service immediately; (2) utilize treatment or blending; or (3) provide public notification of the response level exceedance. Additionally, the exceedance of the response level must be reported in the annual consumer confidence report.

13. US EPA issuance of PFAS maximum contaminant levels (MCLs) for drinking water

US EPA published the final federal PFAS Rule establishing the Maximum Contaminants Levels (MCLs) as part of the National Primary Drinking Water Regulation (NPDWR) per Safe Drinking Water Act for regulating drinking water contaminants on April 26, 2024. These levels are set using health-protective standards for the specific PFAS in drinking water, feasibility of laboratory analysis and treatment, and an analysis of the costs and benefits. Water systems must comply with monitoring and related reporting and public notification requirements. Water systems must also follow the MCLs and provide public notification to consumers if the MCLs are violated. Table 2 presents the MCLs. For more information, visit EPA's website at <https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas>.

Table 2. PFAS constituents with EPA MCLs in nanograms per liter or parts per trillion.

Compound	EPA MCL
PFOA	4.0 ppt
PFOS	4.0 ppt
PFHxS	10 ppt
PFNA	10 ppt
HFPO-DA (commonly known as GenX Chemicals)	10 ppt
Mixtures containing two or more of PFHxS, PFNA, HFPO-DA, and PFBS	1 (unitless) Hazard Index*

*USEPA established MCLs for PFAS mixtures containing at least two or more of PFHxS, PFNA, HFPO-DA, and PFBS using a Hazard Index MCL to account for the combined and co-occurring levels of these PFAS in drinking water. For more details about Hazard Index refer to the EPA's factsheet at: https://www.epa.gov/system/files/documents/2024-04/pfas-ncdwr_fact-sheet_hazard-index_4.8.24.pdf

14. US EPA PFAS MCLs impact on California public water systems compliance

In the final federal PFAS rule establishing MCLs for PFOA, PFOS, PFNA, PFHxS, PFBS, and HFPO-DA (Table 2), the initial monitoring period was set to 3 years (2027) and the compliance period was set to 5 years (2029) after the final rule is promulgated (April 26, 2024).

The DDW must evaluate whether the US EPA MCLs are protective of public health based on the uses of drinking water in California. If DDW is to set their own MCLs they must be equal to or more restrictive than the MCLs set by US EPA. California Health & Safety Code §116365(a) requires a contaminant's MCL

to be established at a level as close to its Public Health Goal (PHG) as is technologically and economically feasible, placing primary emphasis on the protection of public health. PHGs are established by the Office of Environmental Health Hazard Assessment (OEHHA) and then adopted by the DDW.

Subject: Notification of PFOA and PFOS and PFHxS and PFBS Notification Level Exceedance

Dear Live Oak City Council:

The purpose of this letter, consistent with Health and Safety Code Sections 116378 and 116455, is to inform you of the presence of Per- and polyfluoroalkyl substances (PFAS) in Well 2 that is currently in service without PFAS Treatment.

Pursuant to Health and Safety Code Sections 116378 and 116455, the City of Live Oak Water System is required to inform its governing body and the governing body of any local agency whose jurisdiction includes the areas supplied with drinking water by the Live Oak Water System of concentrations exceeding the Notification Levels for PFAS. These Notification Levels are health-based advisory levels established by the State Water Resources Control Board (State Water Board), Division of Drinking Water (DDW) for chemicals in drinking water that lack maximum contaminant levels. When chemicals are found at concentrations greater than their Notification Levels, certain notification requirements and recommendations apply.

The DDW determined that the Notification Level(s) have been exceeded specifically for PFAS as set forth in the following table:

PFAS	Notification Level	Response Level	Concentration	Health Effects
PFHxS	3 ng/L	20 ng/L	3.3 ng/L	PFHxS has been shown to interfere with thyroid hormone levels. Thyroid hormones are needed for normal prenatal growth and development of the fetus, as well as for normal growth and development in the infant and child. In adults, thyroid hormones are needed for normal metabolism and mental function.

PFAS are manmade substances that have been synthesized for their water and liquid resistance properties. They have been used extensively in consumer products such as carpets, clothing, fabrics for furniture, paper packaging for food, and other materials (e.g., cookware) designed to be waterproof, stain-resistant or non-stick. In addition, they have been used in fire-retarding foam and various industrial processes. The origin of the contaminant in our water supply, at this time is unknown, but the water system is working with the State Water Board and other agencies to identify the circumstances of the contamination.

Pursuant to Health and Safety Code sections 116378 and 116455, if a chemical is present in drinking water that is provided to consumers at concentrations exceeding the Response Level, the drinking water system must either (1) take the source out of service immediately; (2) utilize treatment or blending; or (3) provide public notification of the Response Level exceedance. Additional information will be provided to our customers in the City of Live Oak Water System Consumer Confidence Report that comes out next year.

Please refer to the following links for additional information about PFAS:

DDW PFAS Website:

https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/pfas.html

DDWPFAS Factsheet:

https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/docs/2024/pfas-fact-sheet-ddw-2024.pdf

If you have any questions regarding this matter, please contact the City of Live Oak at (530) 695-2112 or at (email).

Sincerely,



City of Live Oak Report to City Council

Meeting Date:	November 20, 2024
Title:	Write-off of Paste Due Water and Sewer Accounts Collections
Contact Information:	James Ramsey, Finance Director
Background:	Periodically, the City will evaluate past due balances and determine that there is no recourse to collect on those amounts based on the number of days outstanding. The accounts on the attached listing have been outstanding for a significant period of time and as such, management is requesting that the amounts be written off and sent to collections. If not collected by next year, there is a possibility of that these may be collected next year via a lien on the property tax rolls. These amounts are outstanding from the period July 2024 - September 2024.
Fiscal Impacts:	Total write-offs of \$1,880.85 are split between water and sewer funds.
Recommendation:	Adopt resolution.
Attachments:	

[Resolution
Exhibit A](#)

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LIVE OAK AUTHORIZING PAST DUE
ACCOUNT COLLECTION LOSS WRITE-OFF IN THE AMOUNT OF \$1,880.85

WHEREAS, the City of Live Oak furnishes a water and sewer system for obtaining, conserving and disposing of water for public and private uses; and

WHEREAS, providing utility services for citizens includes the collection of monthly utility billings;
and

WHEREAS, the City of Live Oak makes every attempt to collect outstanding balances; and

WHEREAS, Exhibit A provides a list of uncollectible accounts for the period ending September 30, 2024, and is made a part of this resolution.

NOW, THEREFORE BE IT RESOLVED, by the City Council of the City of Live Oak authorizes the Finance Director to write-off as collection losses the accounts receivables listed on Exhibit A totaling \$1,880.85.

PASSED AND ADOPTED by the City Council of the city of Live Oak this 20th day of November, 2024, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAINED:

APPROVED:

Ashley Hernandez, Mayor

ATTEST:

Clarissa Menchaca, City Clerk

Account	Name	Service Address	Balance
01-3710-04	ALEXSANDRA LOPEZ	2251 FIR STREET	558.64
04-0750-02	SURINDER PHAGURA	9755 O STREET	396.49
04-3980-07	ARASELI BANDILLA	2781 FIR STREET	218.00
04-8443-01	MANUEL JACOBO	10132 ROSE AVENUE	167.79
04-9656-02	BERTIE/MICHAEL HILGERT	9799 SAVOY WAY	385.31
04-9853-01	FRANCES KANNELY	3363 BERLIN WAY	154.62
TOTAL			\$1,880.85
			Updated 11/14/24



City of Live Oak Report to City Council

Meeting Date:	November 20, 2024
Title:	Discussion Regarding Possible Expansion of the City Limits
Contact Information:	Rick Crabtree, Interim City Manager
Location:	Sutter County
Background:	Discuss the annexation process with the City Council. Describe a Municipal Services Review, (MSR). Obtain direction from the City Council.
Fiscal Impacts:	Unknown
Recommendation:	Discuss the possible expansion of City limits.