Agenda

Sacramento Suburban Water District

Regulatory Compliance Committee Meeting

3701 Marconi Avenue, Suite 100
Sacramento, CA 95821

Monday, April 5, 2021
4:00 p.m.

In accordance with the California Department of Public Health's and the Governor's Executive Orders N-29-20 and N-33-20, the District's boardroom is closed and this meeting will take place solely by videoconference and teleconference. The public is invited to listen, observe, and provide comments during the meeting by either method provided below. The Chairperson will call for public comment on each agenda item at the appropriate time and all votes will be taken by roll call.

For members of the public interested in viewing and having the ability to comment at the public meeting via Zoom, an internet enabled computer equipped with a microphone and speaker or a mobile device with a data plan is required. Use of a webcam is optional. You also may call in to the meeting using teleconference without video. Please use the following login information for videoconferencing or teleconferencing:

Join the meeting from a computer, tablet or smartphone:
https://us02web.zoom.us/j/84952075281?pwd=T09nS3owY1NwR0g0UmZrZ3R6ZVRvZz09

Meeting ID: 849 5207 5281
Password: 286467

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Please mute your line.

Where appropriate or deemed necessary, the Board may take action on any item listed on the agenda, including items listed as information items. Public documents relating to any open session item listed on this agenda that are distributed to all or a majority of the members of the Board of Directors less than 72 hours before the meeting are available for public inspection in the customer service area of the District's Administrative Office at the address listed above.

The public may address the Board concerning an agenda item either before or during the Board's consideration of that agenda item. Persons who wish to comment on either agenda or non-agenda items should fill out a Comment Card and give it to the General Manager. The President will call for comments at the appropriate time. Comments will be subject to reasonable time limits (3 minutes).

In compliance with the Americans with Disabilities Act, if you have a disability, and you need a disability-related modification or accommodation to participate in this meeting, then please contact Sacramento Suburban Water District Human Resources at 916.679.3972. Requests must be made as early as possible and at least one full business day before the start of the meeting.

Call to Order

Roll Call

Announcements

Public Comment
This is an opportunity for the public to comment on non-agenda items within the subject matter jurisdiction of the Committee. Comments are limited to 3 minutes.

Items for Discussion and Action

1. Monitoring of Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)
   Recommendation: Receive staff presentation and direct staff as appropriate.

Adjournment

* *

Upcoming Meetings:

Monday, May 17, 2021, at 6:00 p.m., Regular Board Meeting

* *

I certify that the foregoing agenda for the April 5, 2021 meeting of the Sacramento Suburban Water District was posted by April 2, 2021 in a publicly-accessible location at the Sacramento Suburban Water District office, 3701 Marconi Avenue, Suite 100, Sacramento, California, and was made available to the public during normal business hours.

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Dan York
General Manager/Secretary
Sacramento Suburban Water District

Back to Agenda

Regulatory Compliance Committee

Agenda Item: 1

Date: April 5, 2021

Subject: Monitoring of Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)

Staff Contact: David Armand, Environmental Compliance Supervisor

Recommended Committee Action:
Receive staff presentation and direct staff as appropriate.

Background:
On March 15, 2019, the State Water Resources Control Board, Division of Drinking Water (DDW) issued (its first ever) monitoring orders for perfluoroalkyl and polyfluoroalkyl substances (collectively "PFAS") for specific public water supply wells located throughout the State. Those orders were issued in response to an increased awareness of the human health effects of PFAS. Eight of the District's South Service Area (SSA) wells were included in the order (01-09-19M-002-3410001) received by Sacramento Suburban Water District (SSWD).

The eight wells identified for monitoring consisted of one well with a history of PFAS detections from year 2014 UCMR 3 monitoring (Well 46), the six wells closest to Well 46 (Wells 3A, 68, 69, 70, 76, and 77), and one well (Well 40A) north of the group. Two of the wells (Wells 69 and 70) were offline and therefore monitoring was not possible. Of the remaining wells that were monitored for the required four quarters, only Well 46 had reportable detections of PFAS.

Subsequent to DDW's August 22, 2019, lowering of the Notification Level (NL) for Perfluorooctanesulfonic Acid (PFOS – one of the PFAS compounds) to 6.5 nanograms per liter (ng/L), on September 30, 2019, SSWD provided the requisite notifications to SSWD's Board of Directors, Sacramento City Council and Sacramento County Board of Supervisors.

Discussion:
<u>DDW's Second PFAS Monitoring Order</u>
On September 4, 2020, DDW issued its second PFAS monitoring order (General Order No. DW2020-0003-DDW) that also lists specific public water supply wells located throughout the State. According to the information provided in the order received by SSWD, the sources listed

were selected due to their "*... proximity to other water sources known to have confirmed PFAS detections.*" The eight SSWD wells listed in this order are: the well with the previous PFAS detections (Well 46), the two offline wells that were not monitored during the first round (Wells 69 and 70), two wells nearby the previous group (Wells 2A and 30), and three North Service Area (NSA) wells (Wells N7, N10, and N29). These three NSA wells may be associated with the detection of PFOS just above the NL at a nearby well owned by California American Water.

Two rounds of monitoring have been completed to date at Wells 2A, 30, N10, and N29 and results show that low-levels of PFAS were detected (< 3 ng/L of PFOA and PFOS) in Well N10. Because Wells 69, 70, and N7 have been (and remain) offline, no PFAS monitoring has been performed there. In an effort to better standardize the operational parameters of offline wells, in December 2020, SSWD advised DDW in writing that, moving forward, no monitoring will occur at any well designated as "offline," including Well 46. DDW was also advised that SSWD brings all compliance monitoring up to date as soon as a well returns to service.

The monitoring orders requiring the second round of sampling differ from those of the first round in that they have specific requirements associated with monitoring, data submission, reporting, compliance calculations, public notification, responsive actions, etc. Those differences are specified in Assembly Bill 756 that was signed by the governor on July 31, 2019, and codified into law as Section 116378 of the California Health and Safety Code. None of those requirements currently has bearing on SSWD because Well 46 is offline and has not been used as a source of supply since 2014. In addition, the levels of PFAS detected in samples from Well N10 are below any established regulatory Notification Level (NL) or Response Level (RL).

<u>DDW's Third PFAS Monitoring Order</u>
On March 2, 2021, DDW issued a third PFAS monitoring order (General Order No. DW2021-0001-DDW) (Attachment 1) that again lists specific public water supply wells located throughout the State. According to the order, selection of the sources listed is associated with their close proximity to current and former Department of Defense (DOD) facilities that have used PFAS containing Aqueous Film Forming Foam (AFFF) – "firefighting foam". Unlike the second monitoring order, this order does not include wells listed in a previous monitoring order. The third order requires SSWD to begin quarterly monitoring by June 30, 2021, at the 24 NSA and SSA wells listed in Attachment 2.

Significantly, this order further specifies the analytical method to be used as the one (EPA Method 537.1) that reports the greatest number of PFAS compounds with the lowest reporting limits readily available. Commercial labs currently report results for at least 18 PFAS compounds via EPA Method 537.1.

The first monitoring orders were limited to four quarters of monitoring at which point the monitoring requirement sunsetted. The second and third monitoring orders require quarterly monitoring without an end date; however, they do contain provision for a public water system to request a reduction in monitoring frequency for any source having four consecutive quarters of PFAS results below their respective Consumer Confidence Report Detection Levels (i.e., "not detected").

Future PFAS Regulatory Activity

Prior to March 5, 2021, when the California Office of Environmental Health Hazard Assessment (OEHHA) established a Notification Level (NL) and Response Level (RL) for Perfluorobutane sulfonic acid (PFBS), only two PFAS compounds (PFOA and PFOS) had been assigned NLs and RLs. OEHHA is continuing to work on setting NLs and RLs for other PFAS.

OEHHA is also working on establishing Public Health Goals (PHGs) for both PFOA and PFOS. Following establishing these PHGs, DDW will begin work on developing Maximum Contaminant Levels (MCLs) for both contaminants. At this time, it appears unlikely that DDW will have an MCL established for either PFOA or PFOS within three to five years.

PFAS Monitoring Summary

Nine of the District's 24 wells included in the third PFAS monitoring order are offline and not expected to begin PFAS monitoring by the end of June 2021. Voluntary PFAS monitoring has been performed at three non-listed Active wells (Wells 59A, MC10, and N32C), one Standby well (Well N33), and one Inactive well (Well 39). There have been no PFAS detections in any of the voluntary monitoring samples. To date, DDW has issued PFAS monitoring orders to SSWD for 45 Active wells. An additional three Active wells have voluntary monitoring results. In the absence of additional monitoring orders from DDW, SSWD currently has no plans to monitor the 18 remaining Active wells that have not had samples collected for PFAS analysis by EPA Method 537.1. Attachment 3 summarizes the status of PFAS monitoring in the NSA and SSA.

Fiscal Impact:

Fiscal impact is unknown at this time.

Strategic Plan Alignment:

Goal A: Provide a High Quality Reliable Water Supply by Ensuring it is Sustainable, Clean, and Safe

Attachments:

1. March 2, 2021, Sacramento Suburban Water District (PWS. No. CA3410001) – Per- and Polyfluoroalkyl Substances (Collectively, PFAS) Monitoring
2. Wells Requiring PFAS Monitoring under DDW General Order No. DW2021-0001-DDW
3. PFAS Monitoring Status March 2021
4. Presentation

California Water Boards

Gavin Newsom
Governor

Jared Blumenfeld
Secretary for
Environmental Protection

State Water Resources Control Board

March 02, 2021

PWS No. CA3410001

Matthew Underwood
OPS Manager
Sacramento Suburban water District
3701 Marconi Avenue, Suite 100
Sacramento, CA, 95821

SACRAMENTO SUBURBAN WATER DISTRICT (PWS NO. CA3410001) – PER- AND POLYFLUOROALKYL SUBSTANCES (COLLECTIVELY, PFAS) MONITORING

This letter is in accordance with the requirements mandated by Assembly Bill 756 (2019) (codified as Health and Safety Code section 116378) The Department of Defense (DoD) has identified facilities that have used Aqueous Film Forming Foam (AFFF) known to contain per and polyfluoroalkyl substances (collectively, PFAS) in the State of California. The DoD is currently or has conducted a Preliminary Assessment and/or Site Investigation through the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process to determine PFAS discharged to land through use of AFFF which has a high probability to impact soil and groundwater. Oversight of the CERCLA efforts is being conducted by State Water Resources Control Board (State Water Board) and the Department of Toxic Substances Control. The State Water Board has determined that it is necessary to test sources located within and adjacent to the DoD facilities.

You are receiving this letter because one or more water sources for your public water system is required to test under General Order No. DW 2021-0001-DDW. Please review the attached Order carefully to determine the applicable requirements.

Exhibit A (attached) lists public water system sources, within your local DDW Section, selected for expanded monitoring. A full list of statewide sources selected for monitoring is available on request. Exhibit B (attached) lists the PFAS chemicals targeted for monitoring, aligning with EPA analytical method 537.1, and provides minimum detection levels. Effective April 1, 2021, all public water systems listed in Exhibit A must begin monitoring the identified sources for PFAS chemicals listed in Exhibit B and report all findings to the State Water Board – unless otherwise specified. Monitoring shall consist of quarterly samples beginning with the second calendar quarter of 2021 and continuing until further notice. If the listed source(s) are no longer in service, please notify your respective Division of Drinking Water District (DDW) District office immediately.

Last year, the Legislature passed, and the Governor signed, Assembly Bill 756 (AB 756). AB 756, which was codified as Health and Safety Code section 116378, provided the State Water Board with specific and increased authority to require public water systems to monitor for PFAS. AB756 also increases the public notification process by varying degrees based on the

concentration of PFAS detection. DDW developed a Frequently Asked Questions (AB 756 FAQ) to assist water systems.

Pursuant to Health and Safety Code section 116378, DDW is issuing the enclosed Order requiring testing for PFOA and PFOS along with all additional analytes in the approved DDW testing methodology. As specified in the enclosed Order, your drinking water system sources that are specifically listed in the Order are at risk for potential contamination by PFAS due to its proximity with other water sources known to have confirmed PFAS detections.

Links to additional resources are provided below:

AB756 FAQ:
https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/pfos_and_pfoa/pfas_ab756_factsheet.pdf

PFAS sampling guidelines:
https://www.waterboards.ca.gov/pfas/docs/march_pfas_sampling_guidelines.pdf

The State Water Board's PFAS investigation focused on drinking water with additional links to background information, previous investigation results, health information, Notification Levels, Response Levels, and other useful information:
https://www.waterboards.ca.gov/pfas/drinking_water.html

The State Water Board's PFAS investigation home page which includes many useful links, including a listing of ELAP accredited labs to test for PFAS using EPA method 537.1:
https://waterboards.ca.gov/pfas

The State Water Board appreciates the hard work of California's Public Water Systems in maintaining safe drinking water at all times. The information gathered from the enclosed Order will assist the State Water Board in its mission to protect water resources and to address risks to health caused by PFAS in drinking water.

If you have any questions regarding this matter, please contact me at 916-445-5285 or Ali.Rezvani@waterboards.ca.gov.

Sincerely,

Ali Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

ENCLOSURES

CERTIFIED MAIL NO. 7018 1830 0000 4000 2178

BCC Page

Email Addresses – To: MATTHEW UNDERWOOD munderwood@sswd.org

Rachid Ait-Lasri, P.E., WRCE, DDW, SWRCB Rachid.Ait-Lasri@waterboards.ca.gov

Marie Woodin, Director, Sacramento County Environmental Management Dept., WoodinM@saccounty.net

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

ORDER DW 2021-0001-DDW

GENERAL ORDER REQUIRING MONITORING FOR PER AND POLYFLUOROALKYL SUBSTANCES
CALIFORNIA HEALTH AND SAFETY CODE SECTION 116378

The State Water Resources Control Board ("State Water Board" or "Board"), acting by and through its Division of Drinking Water ("Division"), hereby issues General Order No. DW 2021-0001-DDW (hereinafter "Order") pursuant to section 116378 of the Health and Safety Code, as set forth below:

1. WHEREAS, Assembly Bill 756 (2019-Garcia), approved by the Governor on July 31, 2019 and codified as Health and Safety Code section 116378, authorizes the State Water Board to require public water systems to monitor for per and polyfluoroalkyl substances ("PFAS"), in accordance with conditions set by the Board; and
2. WHEREAS, Health and Safety Code section 116378, subdivision (a) requires a laboratory that has accreditation or certification pursuant to Article 3 (commencing with section 100825) of Chapter 4 of Part 1 of Division 101 of the Health and Safety Code perform the analysis of any material required by an order issued pursuant to Health and Safety Code section 116378; and
3. WHEREAS, an order issued pursuant to Health and Safety Code section 116378 may apply to an individual public water system, specific groups of water systems, or to all public water systems; and

4. WHEREAS, pursuant to Health and Safety Code section 116378, Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code does not apply to an order issued to groups of public water systems or all public water systems; and
5. WHEREAS, Health and Safety Code section 116378, subdivision (c)(1) states that if monitoring results in a confirmed detection, then a community water system or a nontransient-noncommunity water system must report that detection in the annual consumer confidence report. Section 116378, subdivision (c)(1) further states that unless the water source is taken out of use or new data becomes available to show that the applicable response level is no longer being exceeded, the community or nontransient-noncommunity water system will provide notice of the exceedance of the response level in the water system's consumer confidence report; and
6. WHEREAS, Health and Safety Code section 116378, subdivision (c)(2) states that in addition to the notice required by subdivision (c)(1), for PFAS with notification levels, a community water system or nontransient-noncommunity water system must report a detection which exceeds the notification level as required by Health and Safety Code section 116455; and
7. WHEREAS, Health and Safety Code section 116378, subdivision (c)(3) states that for PFAS with response levels where detected levels of a substance exceed the response level, a community water system or nontransient-noncommunity public water system must take the water source out of use, provide treatment or blending of the source, or provide public notification as specified therein; and
8. WHEREAS, among other things, Health and Safety Code section 116455 requires that within 30 days of a confirmed detection of a contaminant found in drinking water delivered by a public water system for human consumption that is in excess of a notification level set by the State Water Board, the public water

system which supplies water directly to the end user must notify the public water system's governing body and the governing body of any local agency whose jurisdiction includes areas supplied with drinking water by the water system. A local agency means a city or county. If the water system is a water company regulated by the California Public Utilities Commission ("Commission"), then the water system must also notify the Commission; and

9. WHEREAS, on August 22, 2019, pursuant to Health and Safety Code section 116455, the State Water Board: (1) updated the notification level for perfluorooctanoic acid ("PFOA") from 0.000014 mg/L to 0.0000051 mg/L, and specified EPA Methods 537.1 or 537 Rev. 1.1 as the analytical methods; (2) updated the notification level for perfluorooctanesulfonic acid ("PFOS") from 0.000013 mg/L to 0.0000065, and specified EPA Methods 537.1 or 537 Rev. 1.1 as the analytical methods; and
10. WHEREAS, on August 22, 2019, the Division requested the development of Public Health Goals (PHG) from the Office of Environmental Health and Hazard Assessment (OEHHA) for PFOA and PFOS; and
11. WHEREAS, on February 6, 2020, pursuant to Health and Safety Code section 116455, the State Water Board: (1) changed the response levels from a total combined PFOA and PFOS concentration of 0.000070 mg/l to 0.000010 mg/L for PFOA and 0.000040 mg/L for PFOS; and specified EPA Method 537.1; and
12. WHEREAS, the State Water Board anticipates adopting new and revised notification and response levels for PFAS analytes for which testing is required by this Order, and
13. WHEREAS, the Department of Defense (DoD) has identified facilities that have used AFFF known to contain PFAS in the State of California. The DoD is currently or has conducted a Preliminary Assessment and/or Site Investigation through the Comprehensive Environmental Response, Compensation, and

Liability Act (CERCLA) process to determine PFAS discharged to land through use of AFFF which has a high probability to impact soil and groundwater. Oversight of the CERCLA efforts is being conducted by Water Board and the Department of Toxic Substances Control.

14. WHEREAS, DoD is coordinating with State Water Board's Division of Drinking Water for sampling of DoD owned drinking water systems and raw groundwater sources that serve those systems within those facilities that are under PFAS investigation. and

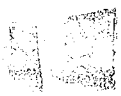
15. WHEREAS, by and through this Order, the State Water Board is exercising its authority under Health and Safety Code section 116378 to require those public water systems listed in Exhibit A to this Order to monitor for PFAS in accordance with the conditions set forth below.

THEREFORE, the State Water Board, by and through its Division of Drinking Water, hereby orders that the public water systems listed in Exhibit A to this Order monitor for PFAS as follows:

1. On or before June 30th, 2021, collect a sample from the sources listed in Exhibit A to be analyzed for PFAS. Samples must be collected at least once each calendar quarter thereafter.
2. Samples collected must be analyzed using a laboratory accredited by the California Environmental Laboratory Accreditation Program (ELAP) for analysis of PFAS using EPA Method 537.1. The laboratory must conduct and report a complete analysis for all PFAS analytes under EPA Method 537.1.
3. A PFAS detection is a positive finding of a quantifiable amount above the established detection level requirement for any PFAS analyte tested pursuant to this Order. For the purposes of meeting the requirements in Health and Safety Code section 116378, the established detection level requirement for each PFAS

analyte will be identified as the Consumer Confidence Report Detection Level (CCRDL). The detection level requirement for each PFAS constituent for which monitoring is required in this Order is identified by the State Water Board and attached to this Order.

4. If a laboratory reports the detection of PFAS in any sample at a concentration greater than the established detection level, the water system will have the option of collecting one or two confirmation samples within 30 days of being notified of the initial detected result by the laboratory.
5. If a PFAS detection is followed by a confirmation sample with a result less than the detection level, a second confirmation sample may be taken by the water system. Both the first and second confirmation samples must be collected within 30 days of the notification by the laboratory of the initial detected sample result. An initial detected result will be disregarded if both confirmation samples do not show the detection of the PFAS contaminant. If no confirmation sample – or only one confirmation sample – is collected, the initial detection must be presumed to be confirmed.
6. If the PFAS detection is confirmed, results of the initial and confirmation samples will be averaged within that quarter to determine if the confirmed detection is greater than the applicable notification level and/or response level. A result below the established detection level will be assigned a value of zero when averaging.
7. If the PFAS detection is confirmed, the detection must be reported in the water system's annual consumer confidence report.
8. If four consecutive quarters of testing results are below those listed on the CCRDL attached, the public water system may submit a request to their DDW District Engineer for a modification or reduction in monitoring.



9. If the results of a PFAS detection are confirmed to exceed a notification level, the water system must report the detection as required by Health and Safety Code section 116455. The section 116455 notification is required 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. As required by section 116455, if the public water system is a retail water system, then the person operating the retail water system must notify the retail 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 public water system is a wholesale water system, then the person operating the wholesale water system must notify the wholesale water system's governing body and the water systems that are directly supplied with that drinking water.
10. The specific methodology to determine response level exceedances are dependent on the PFAS analyte and health endpoint. An exceedance may be determined by calculating a quarterly running annual average (QRAA), a single or confirmed sample, or as prescribed in the PFAS analytes Notification Level Issuance by DDW. To determine whether monitoring shows an exceedance of a response level, refer to the appropriate methodology of the PFAS analyte. Exhibit B provides a summary of this information but may not be inclusive as new advisory levels are issued.
11. To determine whether monitoring shows an exceedance of a response level for those PFAS analytes that do not use the QRAA method, either a single sample or a confirmed sample is used to determine if the response level is exceeded. If laboratory analysis detects the presence of constituent in any sample above the response level, the water system will have an option to conduct a confirmation sample within 30 days of being notified of the result by the laboratory. If a confirmation sample is collected and analyzed, all results will be averaged within

that quarter to determine if the confirmed detection is greater than the response level.

12. To determine whether monitoring shows an exceedance of a response level for those PFAS analytes using the QRAA method, the water system must calculate a quarterly running annual average (QRAA). The QRAA means the average of sample results taken at an individual source, treatment effluent, or delivered water locations for the identified source during four calendar quarters. The QRAA is re-calculated each quarter using the most recent four quarters of results. A single sample may result in the exceedance of the response level. If any sample would cause the QRAA to exceed a response level, the water source would be deemed to have exceeded the response level. If sampling has just begun and there are less than 4 quarters of results to average, then the other quarters will be considered to have a zero value and the quarterly results would be divided by four. If a system takes more than one sample in a quarter, the average of all the results for that quarter must be used when calculating the running annual average. If a system fails to complete four consecutive quarters of monitoring, the running annual average must be based on an average of the available data by dividing the available data by the number of quarters for which data is available.
13. If any monitoring undertaken pursuant to this Order results in a concentration of PFAS in the water entering the distribution system that 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.
14. In addition to the sources listed in this Order, public water systems that provide treatment (example, blending, granular activated carbon, ion exchange or

reverse osmosis treatment) can also sample the treated or delivered water to determine notification requirements. If treated water or delivered water samples are proposed to be collected, please contact the local DDW district office for input on sampling location and configuration.

15. Public notification for community or nontransient-noncommunity water system that are delivering water exceeding a response level must meet the requirements of Health and Safety Code section 116378 and either take the source out of use or complete the public notification requirements.
16. The results of all analyses conducted pursuant to this Order must be reported to the Board by the analyzing laboratory using the EDT (Electronic Data Transfer) process in accordance with Section 64469 of Title 22 of the California Code of Regulations. Analytical results must be reported no later than the 10th day of the month following completion of the analysis.

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

SEVERABILITY

The requirements of this Order are severable, and each public water system listed in Exhibit A must comply with each and every provision thereof notwithstanding the effectiveness of any provision.

FURTHER ENFORCEMENT ACTION

The California Safe Drinking Water Act authorizes the State Water Board to issue a citation or order with assessment of administrative penalties to a public water system for violation or continued violation of the requirements of the California Safe Drinking Water

Act or any regulation, permit, standard, citation, or order issued or adopted thereunder including. The California Safe Drinking Water Act 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.

February 16, 2021

Darrin Polhemus, Deputy Director
State Water Resources Control Board
Division of Drinking Water

Date

Exhibit A – List of Sources Subject to General Order DW 2021-0001-DDW (for DDW Section)
Exhibit B - Consumer Confidence Report Detection Levels (CCRDL) and Advisory Levels
Exhibit C – Health and Safety Code Section 116378 Excerpt

Exhibit A - List of Sources Subject to General Order No. DW 2021-0001-DDW (For DDW Section 1)

County	Regulating Agency	PWS ID	Water System Name	PS Code	Source Name
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-011	WELL 13 - CALDERWOOD / MARCONI RAW
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-018	WELL 24 - BECERRA / WOODCREST RAW
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-021	WELL 28 - RED ROBIN / DARWIN RAW
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-030	WELL 41 - ALBATROSS / IRIS RAW
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-032	WELL 43 - EDISON / TRUAX RAW
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-042	WELL 60 - WHITNEY / CONCETTA RAW
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-051	WELL 65 - MERRILY / ANNADALE RAW
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-052	WELL 66 - EASTERN / WOODSIDE CHURCH RAW
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-061	WELL 72 - RIVER WALK / NETP RAW
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-062	WELL 04B - BELL / MARCONI RAW

Attachment 1

SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-065	WELL 73 - RIVER WALK / NETP EAST RAW
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-066	WELL 74 - RIVER WALK / NETP SOUTH RAW
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-072	WELL 33A - AUBURN / NORRIS RAW
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-076	WELL N01 - EVERGREEN RAW
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-078	WELL N05 - HILLSDALE RAW
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-087	WELL N14 - ORANGE GROVE RAW
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-089	WELL N17 - OAKDALE RAW
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-094	WELL N22 - RIVER COLLEGE RAW
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-096	WELL N24 - DON JULIO RAW
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-111	MC WELL 10 - MCLELLAN PARK RAW
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-133	WELL 27 - MELROSE / CHANNING RAW
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-139	WELL 52 - WEDDIGEN / GOTHBERG RAW

Attachment 1

SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-144	WELL 64 - GALBRATH / ANTELOPE WOODS RAW
SACRAMENTO	DISTRCIT 09 - SACRAMENTO	CA3410001	SACRAMENTO SUBURBAN WATER DISTRICT	3410001-145	WELL 56A - FAIRBAIN / KARL RAW

Attachment 1

EXHIBIT B

CONSUMER CONFIDENCE REPORT DETECTION LEVELS (CCRDL) and ADVISORY LEVELS

	Constituent	CCRDL[1], ng/L	Notification Level, ng/L	Response Level, ng/L	Exceedance Methodology[3]
1	PERFLUOROBUTANESULFONIC ACID (PFBS)[4]	4	-	-	-
2	PERFLUORONONANOIC ACID (PFNA)	4			
3	PERFLUORODECANOIC ACID (PFDA)	4			
4	PERFLUOROTETRADECANOIC ACID (PFTA)	4			
5	HEXAFLUOROPROPYLENE OXIDE DIMER ACID (HFPO-DA)[2]	4			
6	4,8-DIOXA-3H-PERFLUORONONANOIC ACID (ADONA)[2]	2			
7	PERFLUOROHEPTANOIC ACID (PFHpA)	4			
8	N-ETHYL PERFLUOROOCTANESULFONAMIDOACETIC ACID	4			
9	PERFLUORODODECANOIC ACID (PFDoA)	4			
10	PERFLUOROTRIDECANOIC ACID (PFTrDA)	4			
11	9-CHLOROHEXADECAFLUORO-3-OXANONE-1-SULFONIC ACID	2			
12	PERFLUOROOCTANE SULFONIC ACID (PFOS)	4	6.5	40	QRAA
13	PERFLUOROHEXANE SULFONIC ACID (PFHxS)	4			
14	N-METHYL PERFLUOROOCTANESULFONAMIDOACETIC ACID	4			
15	PERFLUOROHEXANOIC ACID (PFHxA)	4			

	Constituent (Continued)	CCRDL, ng/L	Notification Level, ng/L	Response Level, ng/L	Exceedance Methodology[3]
16	PERFLUOROUNDECANOIC ACID (PFUnA)	4			
17	11-CHLOROEICOSAFLUORO-3-OXAUNDECANE-1-SULFONIC ACID	2			
18	PERFLUOROOCTANOIC ACID (PFOA)	4	5.1	10	QRAA

NOTES:

1. The CCRDL is based on a review of the reporting levels reported for monitoring conducted between August and December 2019. Specifically, the SWB calculated the CCRDL as the reporting level that was achievable in 90 percent of all negative result reported during that period. Results were rounded to the nearest whole number.

2. For HFPO-DA, the rounded CCRDL is lower than the 90th percentile of conveyed reporting levels based on consultation with the laboratory reporting the highest volume of results, and their statement that a reporting level of 4 ng/L (4 ppt) could readily be achieved.

3. The specific methodology to determine response level exceedances are dependent on the PFAS analyte and health endpoint. An exceedance may be determined by a single or confirmed sample, by calculating a quarterly running annual average (QRAA), or as prescribed in the PFAS analytes Notification Level Issuance by DDW

   a. Single or confirmed sample: If laboratory analysis detects the presence of constituent in any sample above the response level, the water system will have an option to conduct a confirmation sample within 30 days of being notified of the result by the laboratory. If a confirmation sample is collected and analyzed, all results will be averaged within that quarter to determine if the confirmed detection is greater than the response level.

   b. QRAA: Using the QRAA method, the water system must calculate a quarterly running annual average (QRAA). The QRAA means the average of sample results taken at an individual source, treatment effluent, or delivered water locations for the identified source during four calendar quarters. The QRAA is re-calculated each quarter using the most recent four quarters of results. A single sample may result in the exceedance of the response level. If any sample would cause the QRAA to exceed a response level, the water source would be deemed to have exceeded the response level. If sampling has just begun and there are less than 4 quarters of results to average, then the other quarters will be considered to have a zero value and the quarterly results would be divided by four.

4. The Division of Drinking Water is proposing notification and response levels for perfluorobutane sulfonic acid (PFBS) of 0.5 parts per billion (ppb) and 5 ppb, respectively, based on toxicological endpoints.

5. Shaded cells represent the analytes that DDW is requesting health-based recommendations and advisory levels.

Exhibit C

HEALTH AND SAFETY CODE - HSC
DIVISION 104. ENVIRONMENTAL HEALTH [106500 - 119406]
(Division 104 added by Stats. 1995, Ch. 415, Sec. 6.)

PART 12. DRINKING WATER [116270 - 117130]
(Part 12 added by Stats. 1995, Ch. 415, Sec. 6.)

CHAPTER 4. California Safe Drinking Water Act [116270 - 116755]
(Chapter 4 added by Stats. 1995, Ch. 415, Sec. 6.)

ARTICLE 3. Operations [116350 - 116407]
(Article 3 added by Stats. 1995, Ch. 415, Sec. 6.)

116378.

(a) The state board may order a public water system to monitor for perfluoroalkyl substances and polyfluoroalkyl substances, in accordance with conditions set by the state board. A laboratory that has accreditation or certification pursuant to Article 3 (commencing with Section 100825) of Chapter 4 of Part 1 of Division 101 shall perform the analysis of any material required by an order to monitor for these substances. The order shall identify the analytical test methods to be used by laboratories and provide for the electronic submission of monitoring results to the state board.

(b) An order issued pursuant to subdivision (a) may apply to an individual public water system, specific groups of public water systems, or to all public water systems. Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code does not apply to an order issued pursuant to subdivision (a) to specific groups of public water systems or to all public water systems. All monitoring results shall be submitted to the state board electronically as directed by the state board in its order.

(c) (1) If any monitoring undertaken pursuant to an order issued under subdivision (a) results in a confirmed detection, a community water system or a nontransient noncommunity water system shall report that detection in the water system's annual consumer confidence report. Unless the water source is taken out of use or new data becomes available to show that the response level is no longer being exceeded, the community or nontransient noncommunity water system will provide notice of the exceedance of the response level in the water system's consumer confidence report.

(2) In addition to the notification pursuant to paragraph (1), for perfluoroalkyl substances and polyfluoroalkyl substances with notification levels, a community water system or a

nontransient noncommunity water system shall report the detection if the level exceeds the notification level as required by Section 116455.

(3) For perfluoroalkyl substances and polyfluoroalkyl substances with response levels where detected levels of a substance exceed the response level, a community water system or a nontransient noncommunity public water system shall take a water source where detected levels exceed the response level out of use or provide public notification within 30 days of the confirmed detection. For the purposes of this paragraph, notice shall be provided as follows:

(A) A community water system shall do the following:

(i) Mail or directly deliver notice to each customer receiving a bill, including those that provide drinking water to others, and to other service connections to which water is delivered by the water system.

(ii) Email notice to each customer of the water system with an email address known by the water system.

(iii) Post the notice on the internet website of the water system.

(iv) Use one or more of the following methods to reach persons not likely to be reached by the notice provided in clause (i):

(I) Publish notice in a local newspaper for at least seven days.

(II) Post notice in conspicuous public places served by the water system for at least seven days.

(III) Post notice on an appropriate social media site for at least seven days.

(IV) Deliver notice to community organizations.

(B) A nontransient noncommunity water system shall do both of the following:

(i) Post notice in conspicuous locations throughout the area served by the water system.

(ii) Use one or more of the following methods to reach persons not likely to be reached by the notice provided in clause (i):

(I) Publish notice in a local newspaper for at least seven days.

(II) Publish notice in a newsletter distributed to customers.

(III) Send notice by email to employees or students.

(IV) Post notice on the internet website of the water system and an appropriate social media site for at least seven days.

(V) Deliver notice directly to each customer.

(C) A notice shall contain all of the following information:

(i) A statement that there was a confirmed detection above the response level, the numeric level of the applicable response level, and the level of the confirmed detection.

(ii) A description of the potential adverse health effects as identified by the state board in establishing the notification level or response level.

(iii) The population at risk, including subpopulations particularly vulnerable from exposure.

(iv) The name, business address, and phone number of the water system owner, operator, or designee, as a source of additional information concerning the notice.

(v) A statement to encourage the notice recipient to distribute the notice to other persons served, using the following standard language: "Please share this information with all of the other people who drink this water, especially those who may not have received this public notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail."

(vi) Information in Spanish regarding the importance of the notice or a telephone number or address where Spanish-speaking residents may contact the water system to obtain a translated copy of the notice or assistance in Spanish.

(vii) If a non-English speaking group other than a Spanish-speaking group exceeds 1,000 residents or 10 percent of the residents served by the water system, either of the following:

(I) Information in the appropriate language regarding the importance of the notice.

(II) A telephone number or address where a resident may contact the water system to obtain a translated copy of the notice or assistance in the appropriate language.

(D) The following requirements apply to a notice provided by a water system:

(i) The notice shall be displayed so that it catches people's attention when printed or posted.

(ii) The message in the notice should be understandable at the eighth grade reading level.

(iii) The notice shall not contain technical language beyond an eighth grade reading level or print smaller than 12-point type.

(iv) The notice shall not contain language that minimizes or contradicts the information provided in the notice.

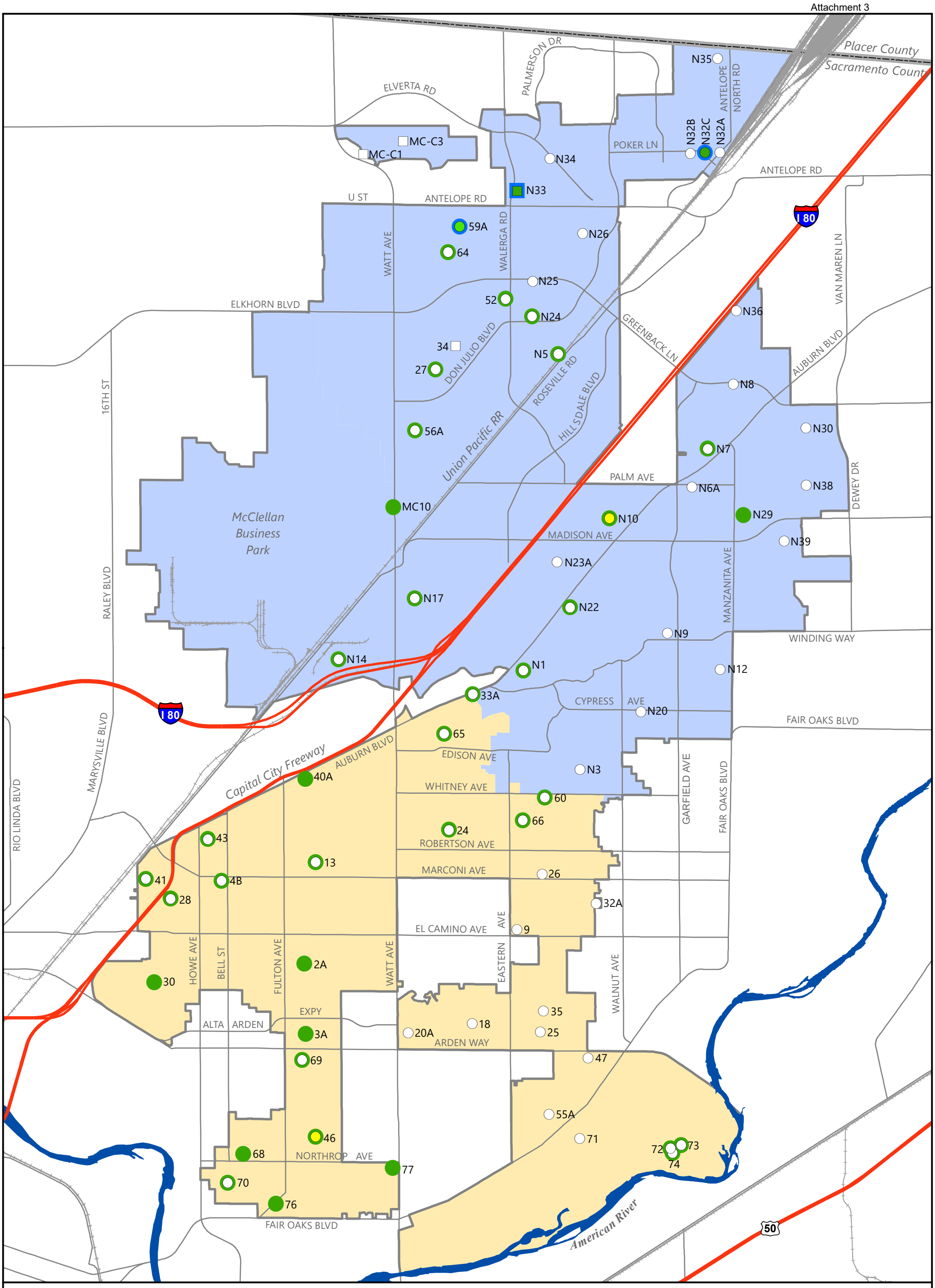
(d) This section is not a substitute for compliance with any requirements of Chapter 17.5 (commencing with Section 7290) of Division 7 of Title 1 of the Government Code that apply to a community water system or nontransient noncommunity water system.

(Added by Stats. 2019, Ch. 162, Sec. 1. (AB 756) Effective January 1, 2020.)

Wells Requiring PFAS Monitoring under DDW General Order No. DW2021-0001-DDW

Service Area	Well Name	Well Number		Service Area	Well Name	Well Number
NSA	Melrose/Channing	27		SSA	Bell/Marconi	4B
NSA	Weddigen/Gothberg	52		SSA	Calderwood/Marconi	13
NSA	Galbrath/Antelope Woods	64		SSA	Becerra/Woodcrest	24
NSA	Fairbairn/Karl	56A		SSA	Red Robin/Darwin	28
NSA	McClellan Park 10	MC10		SSA	Auburn/Norris	33A
NSA	Evergreen	N1		SSA	Albatross/Iris	41
NSA	Hillsdale	N5		SSA	Edison/Truax	43
NSA	Orange Grove	N14		SSA	Whitney/Concetta	60
NSA	Oakdale	N17		SSA	Merrily/Annadale	65
NSA	River College	N22		SSA	Eastern/Woodside Church	66
NSA	Don Julio	N24		SSA	River Walk/NETP	72
				SSA	River Walk/NETP East	73
				SSA	River Walk/NETP South	74

Attachment 3



Legend

- Active Well
- Standby Well
- Well Included in a DDW Monitoring Order
- Well with no PFAS Detections
- Well with PFAS Detections
- Well with Voluntary Monitoring Results - no PFAS Detections
- Standby Well with Voluntary Monitoring Results - no PFAS Detections

N
W E
S
NTS

- North Service Area
- South Service Area

PFAS Monitoring Status March 2021

SACRAMENTO SUBURBAN WATER DISTRICT

Drawn by: JWS - SSWD
Date: March 11, 2021
File: PFAS Monitoring Status 2021-03.mxd

WEST YOST
Water. Engineered.

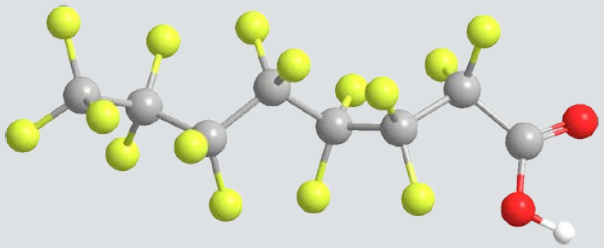
SACRAMENTO SUBURBAN WATER DISTRICT

Per- and Polyfluoroalkyl Substances (PFAS)

April 5, 2021

PFAS Compounds

C – F Bond



* Thousands of PFAS Compounds

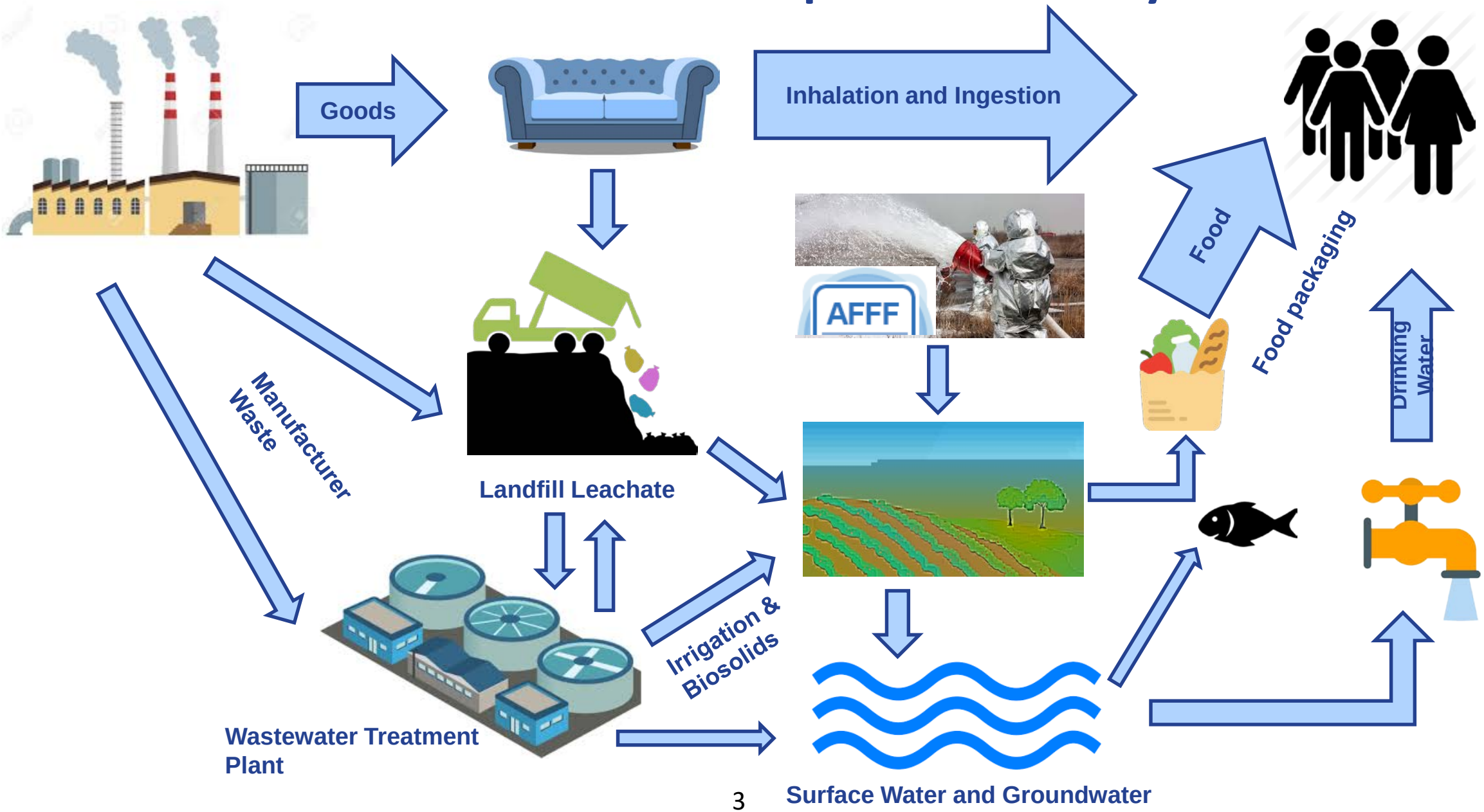
Large group of synthetic chemicals (water and lipid resistance)*

- **Extensively used in consumer** products such as: carpets, clothing, furniture, food packaging, cookware, and other waterproof, stain-resistant or non-stick products
- Aqueous Film Forming Foams (AFFF) – fire fighting foams

Properties: Extremely stable, soluble, resistant to temperature, bioaccumulate, mobile and persistent in the environment

Health Effects: Studies show exposure to PFAS may be related to many health effects, including immune system issues, thyroid, kidney, and reproductive health problems

Potential PFAS Exposure Pathways



PFOA and PFOS

Two PFAS that were widely used and studied are:

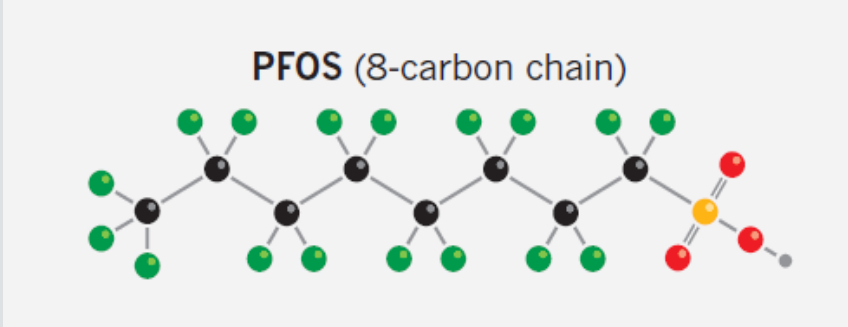
- **PFOA** (perfluorooctanoic acid)
- **PFOS** (perfluorooctane sulfonic acid)

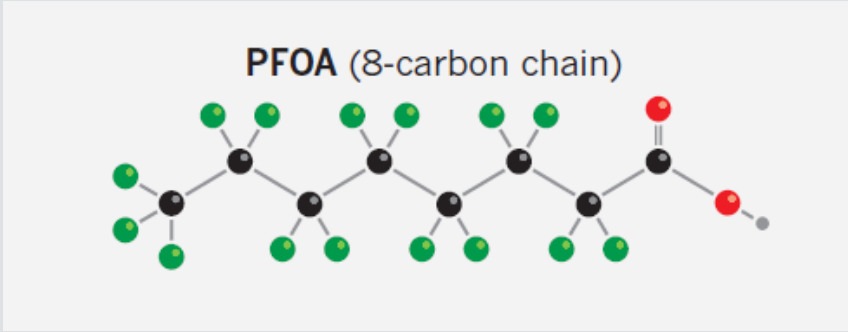
Phased out of production in early 2000s in US

In **2009** Federal EPA published provisional drinking water Health Advisory Level (HAL) for PFOA and PFOS:

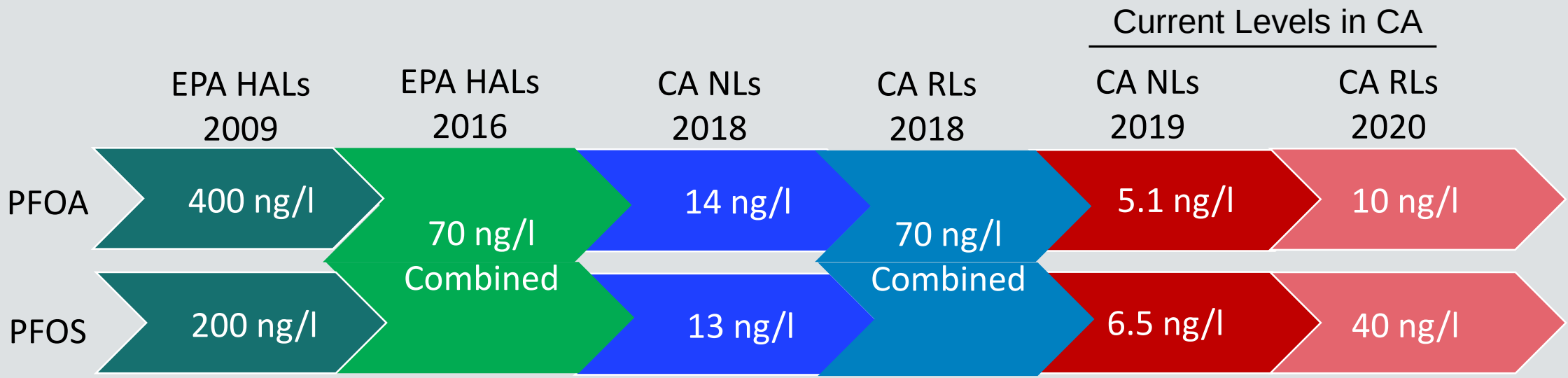
- **PFOA = 400 ng/L (400 ppt)**
- **PFOS = 200 ng/L (200 ppt)**

PFOS and PFOA are long-chain PFAS





PFOA and PFOS – History of Regulatory Levels in CA



CA Notification Levels (NLs) – notify customers

CA Response Levels (RLs) – remove the water source from service or implement treatment

State Senate Bill 756 in January 2020 made compliance with NL and RL requirements

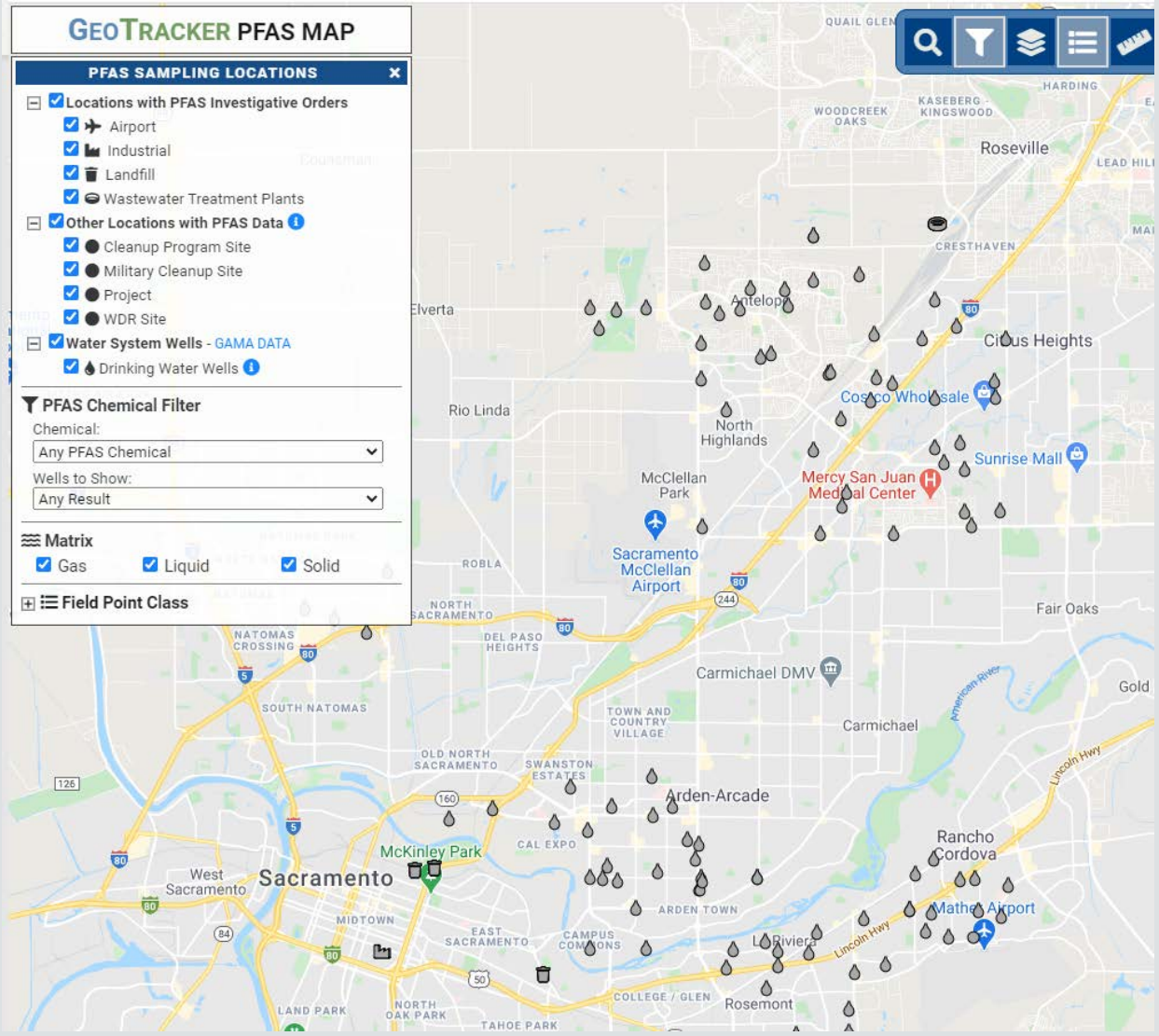
CA Investigative Monitoring Orders for PFAS 2019-2021

In March 2019 CA DDW– began plan to issue Investigative Orders for PFAS

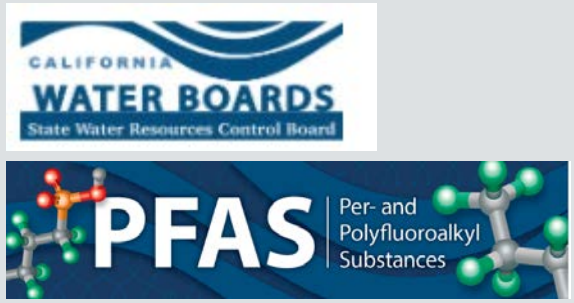
March 2019 – March 2021 multiple rounds of investigative orders:

- Airports (30), Landfills (196), and public water supply wells in the vicinity of airports and landfills (612 wells).
- Chrome plating Facilities (271)
- Publicly Owned Treatment Works (249)
- Refineries and Bulk Terminals (161)
- More public water supply wells (>880)

Laboratory Methods - 23 to 31 PFAS compounds



Impact on CA Water Agencies



2018

- Monitoring for PFOA/PFOS and other PFAS very limited. UCMR 3 indicated 20 CA water systems with PFAS above the EPA HALs and CA RLs

2019

- Starting in 2019, > 300 CA water systems served PFAS monitoring orders for 2019-current monitoring

2021

- More monitoring and lowering of CA RLs and NLs:
- > **100 water systems** implement treatment or remove water source
- **> 170 water systems** should notify customers

Future

MCLs for PFOA/PFOS in CA

NLs for 7 additional PFAS compounds → **March 2021 PFBS NL 500 ng/L**

Treatment Options

Best treatment option considers various factors:

- PFAS concentrations
- Source water quality
- Treatment and financial considerations: facility size, existing treatment, retrofit limitations, capital and operating cost, waste disposal, etc.

Activated Carbon

Granular (GAC) or Powdered Activated Carbon (PAC)

Rely on carbon media, GAC more common for PFAS

GAC - carbon filter can be regenerated

Ion Exchange (IX)

IX resins (anionic or cationic) used to remove PFAS

Requires periodic regeneration of resins – disposal of PFAS contaminated wastewater

Membrane Filtration

Reverse Osmosis (RO) or Nanofiltration

Pressured influent through membranes with small pores

Disposal of waste stream is a significant constraint

THANK YOU

WEST YOST

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