

Response to Comments

Enforcement Order and Public Participation Plan for Spokane International Airport PFAS

Public comment period held March 29 – May 27, 2024 Facility Site ID: 6332493, Cleanup Site ID: 16774

Toxics Cleanup Program

Washington State Department of Ecology Spokane, Washington

July 2024

Document Information

This document is available on the Washington Department of Ecology's <u>Spokane International</u> <u>Airport PFAS cleanup site page.</u>¹

Related Information

- Facility site ID: 6332493
- Cleanup site ID: 16774

Contact Information

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¹ https://apps.ecology.wa.gov/cleanupsearch/site/16774

² https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Cleanup-sites

³ https://ecology.wa.gov/About-us/Accountability-transparency/Our-website/Accessibility

Toxics Cleanup in Washington State

Accidental spills of dangerous materials and past business practices have contaminated land and water throughout the state. The Washington Department of Ecology (Ecology) Toxics Cleanup Program (TCP) works to remedy these situations through cleanup actions. TCP cleanup actions range from simple projects requiring removal of a few cubic yards of contaminated soil to large, complex projects requiring engineered solutions.

Contaminated sites in Washington are cleaned up under the <u>Model Toxics Control Act</u>⁴ (MTCA, Chapter 173-340 Washington Administrative Code), a citizen-mandated law passed in 1989. This law sets standards to ensure toxics cleanup protects human health and the environment and includes opportunities for public input.

Public Comment Period Summary

Ecology held a comment period March 29 through May 27, 2024, for the <u>Enforcement Order.</u>⁵ (EO) and <u>Public Participation Plan</u>⁶ for the Spokane International Airport PFAS cleanup site. We held a public meeting May 6 (<u>download the slides</u>⁷) that was attended by more than 100 people. We presented the content of the EO, described the public participation process at cleanup sites, and answered questions about the comment period and cleanup process.

The EO requires Spokane International Airport (SIA) to complete a remedial investigation and feasibility study. The remedial investigation will determine the full extent of per- and polyfluoroalkyl substances (PFAS) and other contamination in soil and groundwater, and the feasibility study will assess cleanup options. The EO includes a scope of work and schedule for completing the investigation and study. The Public Participation Plan describes how you will be informed and can comment during the cleanup process. More information is available in the public notice⁸ we mailed to the surrounding community.

Ecology appreciates the comments we received from 21 people. We address them in the Response to Comments section that begins on Page 4. As identified in the responses below, many include ideas and suggestions we will incorporate into the work required by the EO.

Site Background

In October 2017, SIA hired an environmental consultant to drill two new groundwater monitoring wells in the northeast part of the airport property. In November, these wells and an

⁴ https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Rules-directing-our-cleanup-work/Model-Toxics-Control-Act

⁵ https://apps.ecology.wa.gov/cleanupsearch/document/138780

⁶ https://apps.ecology.wa.gov/cleanupsearch/document/138781

⁷ https://apps.ecology.wa.gov/cleanupsearch/document/141356

⁸ https://apps.ecology.wa.gov/cleanupsearch/document/138778

existing well were sampled to determine if PFAS were in groundwater. <u>Sample results</u>⁹ for all three wells had levels of PFAS above current state and federal drinking water standards.

PFAS contamination had been identified in wells in and around the nearby <u>Fairchild Air Force</u> <u>Base</u>¹⁰ earlier in 2017. PFAS, a known human health hazard, are in <u>firefighting foam</u>¹¹ used to control petroleum fires at airports and military installations.

In March 2019, SIA hired another consultant to sample groundwater monitoring wells for PFAS in an area that had been used for fire training drills in the southwest portion of the airport property. <u>Sample results</u>¹² for three wells had levels of PFAS above current state and federal drinking water standards.

Ecology received the 2017 and 2019 sampling results in early 2023 from a third party who had obtained them through a public records request. Ecology completed an <u>initial investigation</u>, ¹³ and then added the airport to the Contaminated Sites List.

Ecology invited SIA to negotiate an agreed order to complete a remedial investigation and feasibility study in October 2023. After granting SIA's two extension requests beyond the 60--day negotiation period and denying a third request, we issued the EO on March 29, 2024. The EO went into effect the day we issued it. We planned a 60-day comment period to allow public input for at least 30 more days after people received the notice in the mail.

Response to Comments

The comment letters are printed verbatim. Ecology's responses follow the comments. The letters are in alphabetical order based on the commenter's last name.

Index of comments received

Everyone who submitted comments is listed in Table 1 in alphabetical order by their last name, followed by the date we received their comments and the page on which their comments are printed as received. Contact information (postal and email addresses and phone numbers) has been omitted.

⁹ https://apps.ecology.wa.gov/cleanupsearch/document/123634

¹⁰ https://www.fairchild.af.mil/Information/Restoration/

¹¹ https://ecology.wa.gov/waste-toxics/reducing-toxic-chemicals/addressing-priority-toxic-chemicals/pfas/afff

¹² https://apps.ecology.wa.gov/cleanupsearch/document/125373

¹³ https://apps.ecology.wa.gov/cleanupsearch/document/124785

Table 1.	Index of	f comments	received

Name	Organization	Date received	Page
Anonymous	None	May 27	5
Jared Atwood	None	May 18	9
Mary Benham	None	May 6 and 21	11
Alexandra Biggs	None	May 25	11
Crystal A. Bingham	None	April 4	12
M. Vern Brock	None	May 20	12
Charles (Chuck) Danner	None	April 3	12
Jerry Goertz	Deep Creek Ranchettes Water Association	May 7	14
Bill Gray	None	April 20	14
Debra Gronning	None	April 28	14
John Hancock	None	May 7 and 20	15, 21
John Hancock	West Plains Water Coalition	May 22	21
James Hendricks	None	May 6	22
Scott Holbrook	None	May 13	23
Douglas and Mary McBride	None	May 6	25
Faith Moeser	Soil Food Web School	April 6	26
John Oswald	None	April 16	27
Nick Scharff	None	April 2	27
Katelynn Scott	Spokane Riverkeeper	May 16	28
David Snipes	None	April 1 and 26	30
Albert Tripp	City of Airway Heights	May 27	30
Christian Westbrook	None	May 20	34

Anonymous, received online May 27

As part of the cleanup process, I want a PFAS-free clean well/water supply. In addition, I would expect that all the soil contaminated by the toxic water from our wells be removed and replaced with clean, PFAS-free, tested soil. I would also expect yearly testing and maintenance on the well filter. Health and home issues would undoubtedly need to be addressed as well.

Ultimately, families should have no fear of toxic water.

Kids should play in sprinklers, in pools, and run on grass that is free from toxins.

Animals should have clean, healthy drinking water.

Gardens and fruit trees should be toxic-free, and the produce should be safe for families to eat.

Questions:

Will bottled water continue to be provided until full house filters are installed? Although one undermount filter if/when provided would be helpful, it would be better to have more options. I, for one, would minimally like to have clean water available on each floor of my house until PFAS-free water is available for my entire property.

Once filters are provided, will follow-up water testing be done to ensure filters are working properly and at the level needed to provide safe, clean water?

-What will be the protocol for testing?

-What will be the protocol to receive new filters?

-Will the filters remove all types of PFAS to the level set by the new guideline requirements?

In 2017, following the Airway Heights/FAFB incident, the CDC and ATSDR were brought in to assess exposure and health risks due to the length of time the public had been exposed to drinking water from a contaminated source. Their process covered analysis and overall testing of blood, urine, water, and dust. As the airport failed to alert the public regarding the toxic water, families have continued drinking the water for years. Will the CDC and ATSDR be brought in again as part of our health and safety evaluations and clean up process? How soon would that happen? What would that protocol look like?

Reference: <u>https://www.atsdr.cdc.gov/pfas/docs/ATSDR-PFAS-EA-Site-DSpokaneCounty-Report-508.pdf</u>

Will SIA, EPA, or other government agencies have funds in place to help with current and/or future health concerns?

Will the Spokane International Airport be fined for failure to report a public safety issue or for not maintaining a safe property? If not the EPA, which government agency will be investigating the situation at SIA?

Will emails and correspondence between SIA employees regarding the PFAS-contaminated wells be made public so we can have a better understanding of where the communication breakdown occurred? Is/was any publicly voted representative on a board or committee that had prior knowledge about SIA and PFAS found in the airport wells? Again, this would help with our understanding of the communication breakdown.

How much of the firefighting foam and PFAS toxins remain on-site at the SIA? As SIA was not forthcoming in the first place, who will be monitoring SIA to ensure that more PFAS is not released into our water supply? What happens to the contaminated soil and other contaminated masses that will be removed from the site during the clean-up process? Where will it go, and will it continue to pose a risk to others?

Will the SIA release the addresses of any and all off-site testing locations that they used as practice sites or training sites for fighting fires using PFAS?

Is the EPA actively seeking out companies and agencies in our area that have previously used firefighting foam and verifying that it was disposed of properly and is no longer on-site?

Can you provide a best-case and worst-case timeline regarding how long it will take to decontaminate all of the sites contaminated by PFAS?

Ecology's response

Thank you for your comment; Ecology's regulatory role aligns with the goals you highlight. The mission of Ecology's Toxics Cleanup Program is to protect Washington's human health and environment by preventing and cleaning up pollution, supporting sustainable communities, and protecting natural resources for the benefit of current and future generations. The purpose of our cleanup law, MTCA, is to provide a workable process to accomplish effective and expeditious cleanups that protect human health and the environment.

Ecology is providing bottled water on an interim basis until point-of-use filters are provided by the Washington Department of Health (DOH). DOH will provide information regarding filtration, replacement filters, and testing once their grant is fully established. These efforts can help until investigation and cleanup of PFAS sources provide more permanent solutions.

The Agency for Toxic Substances and Disease Registry (ATSDR) has a petition process for these types of environmental health concerns stemming from chemical contamination. The West Plains Water Coalition (WPWC) had a meeting with ATSDR Region 10 to discuss a petition. WPWC learned the ATSDR is unlikely to approve a public petition for a second PFAS exposure assessment in the West Plains area. This is because they have already done 10 similar community exposure assessments across the nation, including the one in this area. They gained a good understanding of the relationship between long-term drinking water exposure to PFAS and blood levels in the residents served by that water.

Based on the <u>findings from the 10 exposure assessments</u>, ¹⁴ they developed a <u>PFAS Blood Level</u> <u>Estimation Tool</u>.¹⁵ based on people's drinking water results for four types of PFAS. ATSDR also evaluated indoor dust and asked about cleaning products and dietary habits.

ATSDR indicated that if the community focused on other pathways of PFAS exposure, such as food, gardens, and livestock, the petition was more likely to be accepted. These pathways were not covered by these 10 previous exposure assessments. There are no guarantees, however, and the process is competitive. ATSDR evaluates all petitions they receive across the nation annually and selects some to carry out. DOH is providing the WPWC technical support in drafting the petition. You can contact WPWC at <u>info@westplainswater.org</u> for more information.

Ecology's authority at cleanup sites is outlined in the MTCA Regulation <u>Chapter 173-340 WAC</u>¹⁶ and Statute <u>Chapter 70.105D RCW</u>.¹⁷ MTCA gives Ecology authority to require potentially liable

 $^{^{14}\} https://www.atsdr.cdc.gov/pfas/activities/assessments/final-report.html$

¹⁵ https://www.atsdr.cdc.gov/pfas/bloodlevelestimator/index.html

¹⁶ https://apps.leg.wa.gov/wac/default.aspx?cite=173-340

¹⁷ https://app.leg.wa.gov/rcw/dispo.aspx?cite=70.105D

persons (PLPs) to conduct cleanup at contaminated sites and to mitigate exposure to contaminants. Ecology does not have the authority to require PLPs to address potential health concerns from exposure to contamination. If a person believes they were or are harmed by contamination from a cleanup site, that person would need to seek relief directly from the PLP(s) responsible for the contaminated site. We recommend you speak to a lawyer. Any compensation for health effects or material damages past and present would need to be addressed under a separate private action. You might reach out to <u>Gonzaga University's Center</u> for Justice.¹⁸ or the <u>Spokane County Bar Association Volunteer Lawyers Program</u>.¹⁹ to see if they can provide any assistance.

Ecology's responsibility is to implement MTCA to attain effective and expeditious cleanup at contaminated sites. In this instance, we do not believe issuing fines to SIA for not reporting known contamination to Ecology will result in a more effective or expeditious cleanup. Rather, we believe punitive actions by Ecology at this time would result in delaying action and reduce the funding available to investigate and clean up contamination. Ecology will be overseeing cleanup at the SIA PFAS site.

As a government body, SIA is subject to Washington's <u>Public Records Act</u>²⁰ and must respond accordingly to public records requests. Anyone may submit a request. Ecology will not spend time researching the details of SIA's past actions, as this will take valuable resources away from cleanup oversight. This would result in higher costs to the public and further delay the work required by the EO.

The reports the EO requires will provide information on the current amount of firefighting foam that remains on-site. In addition, the remedial investigation will determine the extent and magnitude of contamination on-site. Ecology will be conducting oversight of the cleanup to determine if impacts to groundwater have occurred and, if so, we will require those impacts to be mitigated. It is too soon to know if the cleanup will include removing contaminated soil; however, Ecology will ensure that SIA manages any contaminated soil, unused products, or waste in ways that meet all applicable regulations.

Ecology will work with SIA to identify all locations firefighting foam was tested, and this information will be included in the remedial investigation report, which will be available for public comment before becoming final.

Ecology is unaware of whether EPA is seeking out companies or agencies that previously used firefighting foam. However, we do anticipate learning about additional PFAS-contaminated sites in the near future. In Washington, Ecology's Hazardous Waste and Toxics Reduction Program is working with municipal fire departments to <u>collect and safely dispose of unused PFAS-containing firefighting foam</u>²¹ they have on-site.

¹⁸ https://serve.gonzaga.edu/agency/detail/?agency_id=101214

¹⁹ https://www.spokanebar.org/volunteer-lawyers-program/

²⁰ https://app.leg.wa.gov/rcw/default.aspx?cite=42.56

 $^{^{21}\} https://ecology.wa.gov/waste-toxics/reducing-toxic-chemicals/washingtons-toxics-in-products-laws/toxics-infirefighting$

Unfortunately, without investigations completed, it is not possible to estimate how long it will take to clean up all sites contaminated with PFAS. Since PFAS is very long-lasting in the environment, we expect even after cleanup actions are in place, PFAS will still be present for many years. It will just be contained or treated regularly.

Jared Atwood, received online May 18

As a concerned citizen of the neighboring community of the Spokane International Airport I am taking this opportunity to submit my comment concerning the contamination to the water we used for drinking, eating, watering our vegetables, fruits and giving to our animals. I am very upset with the negligence of the airport hierarchy for not sharing this information with the public when the issue was found. It is unfortunate that a concerned citizen had to ask for a public record of the water samples and pass them on to the Department of Ecology, only then was the public made aware of the toxic levels of PFAS and other chemical contaminants in our private wells. One of the things that upsets me the most, is that the airport knew in 2017 that they had contaminated the water in the west plains. My daughter was born in 2016 and could have avoided a lifetime of toxic levels of exposure by simple honesty and transparency from city and county officials that knew the results of the test. For the past 42 years I have been exposed to toxic levels of the contaminants from either the airport or the airbase. The damage done to me is what it is. Could it have been avoided? Maybe. But the exposure to my family could have been minimal if not for the negligence of greedy public officials and airport management who were trying to make a profit from keeping this whole thing quiet and not letting the public know their dirty little secret. For this, these officials need to be held accountable. In my opinion, there are a few different issues here. Who is responsible for the contamination of the water in the west plains and who will be accountable for the cleanup response? The airport and the air base are also 2 different parties who have to share in their responsibility for this mess. But at least FAFB was upfront in letting the cat out of the bag of the contamination they caused. The attempted cover up by SIA is completely unacceptable. You have knowingly put public health in jeopardy. I don't know how this cannot be an issue that just isn't discussed with some passion. SIA is owned and operated by the city and county of spokane. Why would they not share the information when it was found? What did they have to gain by not disclosing the information? Why in good conscience would they keep this information private and keep allowing people like my little girl to continue to be exposed to this poison? I deserve answers to these questions. The people and families of this community deserve answers. I look forward to attending every meeting and pursuing a proper resolution to this problem.

Ecology's response

Thank you for your comments and sharing your concerns. We understand PFAS exposure in drinking water to your family, especially children, is distressing, and we are sorry you have had to experience that.

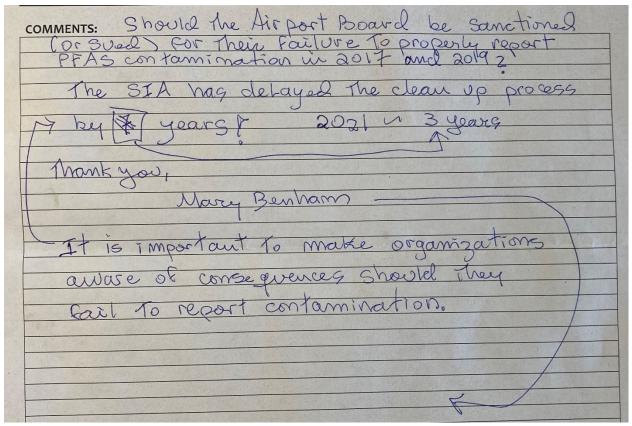
At this time, it is too soon to know the source(s) of all PFAS contamination on the West Plains; however, the work required by the EO includes completing a remedial investigation that will

determine the extent and magnitude of contamination associated with SIA. Ecology will work diligently to oversee this cleanup.

We have no knowledge of, and cannot speak to, SIA's historical decisions about disclosure or non-disclosure of contamination.

Ecology looks forward to your participation in this cleanup process.

Mary Benham, received at the public meeting, May 6



Ecology's response

Thank you for attending the public meeting and submitting comments. Ecology's responsibility is to implement MTCA to attain effective and expeditious cleanup at contaminated sites. In this instance, we do not believe issuing fines to SIA for not reporting known contamination to Ecology will result in a more effective or expeditious cleanup. Rather, we believe punitive actions by Ecology at this time would result in delaying action and reduce the funding available for investigation and cleanup.

Mary Benham, received online May 21

1. How will the (Deliverables) Actions-- task compliance-- required of the PLP (SIA) be made public? Will there be quarterly reports sent via email to the community? Will there be quarterly meetings to explain compliance and progress? The public needs transparency from the SIA along with Ecology's vigilant oversight.

2. Will the SIA and/or Ecology pay for yearly well testing? In 5 to 10 years we will need to know if remediation is slowing the spread of PFAS.

Ecology's response

Thank you for your questions.

1. Final, major deliverables required by the EO will be placed in the <u>documents section</u>²² of Ecology's <u>SIA PFAS cleanup site page</u>.²³ We also provide status updates on the cleanup process and public comment period announcements on this page. Ecology plans to hold more community meetings to update the public once more is known regarding the extent and magnitude of contamination at the site. In addition, we are available at any time in the cleanup process to answer questions, and our contact information can be found on the SIA PFAS cleanup site page and on Page 2 of this document.

2. SIA is responsible to pay for and implement the requirements in the EO, which will include periodic sampling of on-property monitoring wells and potentially off-property monitoring and drinking water wells should we find contamination has moved off SIA's property. SIA will be responsible for this monitoring for the duration of the cleanup process.

Alexandra Biggs, received online May 25

I am concerned about the monitoring and well tests at this time. I would like to know that there would be an independent licensed company doing the tests sampling and that being monitored and available to all the public with the results. I don't believe in self-monitoring nor self-mitigation, since that hasn't worked in many instances here.

Ecology's response

Thank you for your comment. Ecology will oversee the work SIA is required to perform in the EO. This includes developing a Sampling and Analysis Plan and Quality Assurance Project Plan that Ecology reviews and approves. We will require revisions until it meets our approval.

All samples collected during the work will be transported via chain-of-custody procedures to be analyzed at laboratories accredited by Ecology to perform the applicable analyses. These strict quality control measures will ensure accurate and reliable results from which sound decisions can be made.

²² https://apps.ecology.wa.gov/cleanupsearch/site/16774#site-documents

²³ https://apps.ecology.wa.gov/cleanupsearch/site/16774

Crystal A. Bingham, received online April 4

Thank you for the department's diligence to ensure SIA does right to protect our water and our health! French is well known for NOT looking out for the interests of the citizens who elected him to serve.

Look forward to the meeting.

Ecology's response

Thank you for your interest and participation in the cleanup process. Public participation is an important part of Washington's cleanup process that can positively impact the timeline and final outcome.

M. Vern Brock, received online May 20

Officials of the county and the airport conspired to hide relevant information on contamination of the aquifer from the well owners on the west plains. They compounded that by blocking testing which would have revealed the extent of contamination. This is not just a failure of government agencies but of specific individuals who stood to gain personally by their actions.. Not only should this order be enforced but those individuals should be charged as well.

Ecology's response

We appreciate your support of an expedited cleanup. We have no knowledge of, and cannot speak to, SIA's historical decisions regarding disclosure or non-disclosure of contamination.

Charles (Chuck) Danner, received online April 3

I'd like to express concerns of mine as part of the "Public Comment" process for the SIA Investigation and the "Interim Actions" that might be appropriate.

I've been injured by PFAS contamination (from fire fighting foam) in my well water, as well as a number of my neighbors! The nature of my injuries include, but may not be limited to; adverse health effects for myself and my daughter both current and in the future, de-valuation of my property, risks for any future irrigation of my vegetable garden and fruit trees, plus high levels of stress and mental anguish with regard to the whole situation. I'm positive that many of my neighbors have and are experiencing the same type of injuries!

I understand there is a procedure and protocol to be adhered to during the investigation process. However, waiting for that process to play out does little or nothing to address my/our immediate needs for physical and mental health created by the PFAS contamination, not the least of which would be reasonable availability of safe drinking water for everyday household use!

There are several well-known, well documented FACTS in this case that would be difficult for anyone to dispute. Such as, where the PFAS chemicals in our wells came from and at least some of whom the "Responsible Persons" are! I feel there has been a degree of stonewalling and

inappropriate delays with regard to disclosure and accountability by SIA officials in the overall PFAS contamination and subsequent investigation effort!

"Interim Actions" within "Washington's Formal Cleanup Process" should include, in my opinion, a certain amount of funds immediately available to injured individuals for the purpose of obtaining clean, safe water for everyday household use! These funds should be made available to us from the already known "Responsible Persons" as an advance partial payment portion of their responsibility. Similar, in part to what FAFB has been doing with funds from DOD during their own investigation.

I can only speak for myself here, but I believe many of my affected neighbors feel the same as I do! Please include this and your response as part of the public record.

Ecology's response

Ecology's focus is on identifying and removing the source or sources of contamination and reducing risk to the environment and human health. We are moving as quickly as possible to expedite the investigation into where PFAS from the airport is located.

If private wells are affected by contamination from the airport or any other source we can identify, MTCA gives Ecology authority to require those responsible to provide safe water to homeowners and to either connect the residence to city water or install a whole-house treatment system. This can be done as an interim action as soon as the source is identified.

However, we agree even the interim action process does not address the drinking water issue quickly enough, and that is why we worked with the EPA to sample people's wells at no cost to them in March and again in June 2024 for those who missed the first round or were in the expanded sampling area we added after reviewing the March results. When PFAS is higher than drinking water standards, we are supplying safe drinking and cooking water. DOH is working on providing point-of-use filters to replace bottled water. These efforts can help until investigation and cleanup of PFAS sources provide more permanent solutions.

For other issues regarding impacts from contamination, like real estate devaluations, medical bills, or the physical and emotional toll this has taken, we recommend that you speak to a lawyer. Any compensation for health effects or material damages past and present would need to be addressed under a separate private action, as Ecology does not have authority to impose such actions on behalf of individuals. You might reach out to <u>Gonzaga University's Center for</u> <u>Justice</u>²⁴ or the <u>Spokane County Bar Association Volunteer Lawyers Program</u>.²⁵ to see if they can provide any assistance.

²⁴ https://serve.gonzaga.edu/agency/detail/?agency_id=101214

²⁵ https://www.spokanebar.org/volunteer-lawyers-program/

Jerry Goertz, Deep Creek Ranchettes Water Association, received online May 7

As President of a small Class A water system serving 49 homes on the West Plains I have been very concerned about the PFOA-AFFF contamination first at Fairchild AFB and now from Spokane International Airport (SIA). I remember back in 2017 I was told by FAFB that the contamination would never cross Highway 2, sadly we now know that wasn't true. I am very disappointed that SIA after they learned about their contamination FAILED to disclose this information to the public and only admitted it after a Whistleblower submitted a FOIA request, received the information, and turned it over to the Dept of Ecology. I am very disappointed in my elected officials primarily Spokane County Commissioner AI French for his stonewalling of the process. SIA as a FUDS (Formerly Used Defense Site) IE: Geiger Field Air Base then a Washington National Guard Base flying fighter aircraft until 1976. As a FUDS site I believe they (US Government) have the same responsibility as FAFB to clean up the whole West Plains area as ONE SITE and quit pointing fingers at each other on who's fault it is. It was a FEDERAL requirement to use AFFF it should be a FEDERAL requirement to clean it up. People on the West Plains deserve better than what they are getting.

Ecology's response

Thank you for your comment. Ecology's focus is on ensuring SIA implements the work required by the EO, including the completion of a remedial investigation that will determine the extent and magnitude of contamination associated with SIA; Ecology will work diligently to oversee this investigation.

Bill Gray, received online and via email April 20

Your map on page 3 of the mailer is nice, but without a color index is useless. What does the shaded color mean?

Ecology's response

Thank you for the question, and our apologies the shaded area wasn't defined in a legend. The shaded area is SIA's property boundary. Since the investigation is just beginning, we don't have more detailed information to include besides the base map for the area.

Debra Gronning, received online April 28

I live near Finch arboretum but have property with a well about five miles south of I-90. I understand that the aquapher flows North to Northeast but that doesn't necessarily mean that the wells South of I-90 are unaffected. If we find that wells South of I-90 have also been contaminated, then I would advocate for biological clean-up as described in the link included in Faith Moeser's comment https://e360.yale.edu/digest/bacteria-break-down-pfas-foreverchemicals. Since biological solutions can take time I would also want the Federal government to remedy the situation by hooking all those impacted up to city water at government expense. I know city waterlines are less than a mile from my well. Lastly, we must consider the impact that PFAS has already had on our long term health from drinking the contaminated water for years and how will folks be compensated for that?

Ecology's response

The SIA PFAS site investigation will delineate the full extent of groundwater contamination, regardless of roads.

The private well sampling Ecology and the EPA are doing is outside of the SIA cleanup process. It will help inform that investigation, but the two agencies wanted to provide West Plains residents water quality results and clean drinking water more quickly.

We initially selected the sampling area based on our understanding of groundwater flow direction, as you point out, and the sample results people had shared with us prior to the sampling in March 2024.

When the first round of sampling closed at the end of March, we started hearing from people in the sampling area who did not get sampled. We saved their information and, as the list grew, decided with the EPA to do another round to help people who didn't get sampled in March.

After reviewing the March 2024 sampling information, we expanded the sampling area to the southeast to include the area between Interstate 90, Highway 195, and Thorpe Road. We hadn't included it in the first round because we thought the area homes received water from the City of Spokane, and many do. One of the reference wells sampled in March was in this expanded area and had PFAS above the drinking water standard. We wanted to extend sampling to other residents with private wells nearby who may be concerned about their drinking water. We are continuing to work with local, state, and federal agencies to provide clean drinking water to those who need it, as the investigation and cleanup progresses.

Please see our response to Faith Moeser's comment on page 26 for more information on her suggested cleanup method.

For compensation for health impacts from contamination, we recommend you speak to a lawyer. Those would need to be addressed under a separate private action, as Ecology does not have authority to impose such actions on behalf of individuals. You might reach out to <u>Gonzaga</u> <u>University's Center for Justice</u>.²⁶ or the <u>Spokane County Bar Association Volunteer Lawyers</u> <u>Program</u>.²⁷ to see if they can provide any assistance.

John Hancock, received online May 7

You've done a fine job of opening this issue to public awareness.

Airport Public Comment to Ecology JH May 6, 2024 at the HUB

I'm John Hancock, a West Plains resident since 2006, in the Fairchild PFAS Zone on Deep Creek. I'm a leader of the West Plains Water Coalition, but I speak today only for myself.

²⁶ https://serve.gonzaga.edu/agency/detail/?agency_id=101214

²⁷ https://www.spokanebar.org/volunteer-lawyers-program/

THE AIRPORT'S DISDAIN FOR ITS NEIGHBORS IS AN OUTRAGE

A thousand pages of internal PFAS communications illustrated a single strategy—dodge responsibility for contamination from firefighting foam. After the Airport's own PFAS well testing, its only considerations were legal and political. There is no record of science or health inquiries. The factual uncertainties of regulation and toxicity were treated as an opportunity to evade, not a responsibility to discuss, or protect.

Moral or ethical principles of care for neighbors have been absent from Airport management. But that's the clear and inescapable duty of the elected officials, both City and County, who own the Airport, to ensure that it operates responsibly, in service to citizens, not just passengers.

The 2-part mission of Spokane County government is **economic opportunity** and **quality of life**. It says so on the first page of its website, side by side, not as hierarchy. Airport's expansions seem unchecked since its PFAS discoveries in 2017.

Mr. French's conflicts of interest were built into his economic development fever. **He was the** only leader with both knowledge and power.

He was the only leader with both knowledge and power.

Concurrently, he led the Commission, the Airport Board, S3R3, and the Board of the Health Department. Twice, he prevented a half-million dollar PFAS assessment grant for Dr. Pritchard's comprehensive exploration of nearby groundwater. Al's loyalty to the Airport's real estate speculation is illustrated by the Airport's first response to Ecology's cleanup order: "We believe that these reckless statements by Ecology have removed all economically beneficial use of this property and may constitute a taking of the subject property that the Airport was seeking to sell."

The customary legal standards of conflict of interest for any boards of directors require disclosure as a first step. This ensures that other persons and systems know about the issue, establish the facts, and confirm that legitimate conflicting goals or methods are decided by additional persons or agencies.

The FAA gives the Airport an operating license, naming both requirements and opportunities. We air travelers experience uniform expectations and obligations at every airport. But SIA operates here as an independent enterprise, on properties owned by City & County. SIA is not any sort of exempted federal facility, in spite of its assertions that "we were only following orders."

But duties to FAA don't excuse the airport from local or state law.

The just-released opinion letter from FAA to SIA says, "In general, there is no bar on an airport using its own revenue to discharge its legal liability or to settle cases even where liability has yet to be adjudged."

This 3-page letter says that SIA must follow local environmental requirements, on its own dime. Beyond acknowledging PFAS as the topic, FAA's requirement for the use of AFFF is not addressed. So far, we don't know whether SIA followed FAA's safety requirements for firefighting foam. But we do know that Airport did not join a national study about AFFF, ²⁸ published in 2017 by the FAA and the National Academy of Sciences. 176 Airports participated, but not ours.

This report "is a comprehensive resource for understanding the potential environmental and health impacts of per- and polyfluoroalkyl substances (PFASs) typically found in aqueous film-forming foams (AFFFs).

The report will be of particular interest to airport industry practitioners who wish to learn about the issue, take steps to identify areas of potential concern at their airport, and implement recommended management and remediation practices.

The report features a primer on PFASs that summarizes their composition, structure, and sources, as well as potential environmental and toxicological concerns about PFASs, regulatory issues, and how PFASs may affect airports.

The report also provides a discussion of AFFF management in an airport setting and recommended practices to investigate legacy environmental impacts, potential risks, and remediation options."

Airport's PFAS correspondence obtained through FOIA showed no evidence of either contributing to or learning from this industry-wide study. Two former Airport Board members have explained that such a research opportunity would not have received Board attention, nor would groundwater investigation costing less than \$50,000. Instead of assessing the current science and health dangers, or contacting WA Ecology, Airport called on its lobbyists and lawyers. Airport's hope was regulatory relief. The CEO, Mr. Krauter, sought to escape his trouble, not admit it.

SIA has grown fast, an accomplishment for which Mr. Krauter, and Mr. French have shared so much mutual self-glorification. Mr. Krauter wins national awards from his peers, but none that I know of for environmental stewardship or ethical leadership. I doubt that his performance evaluation invites opinions by the Airport's neighbors or the County voters.

A former safety chief at Fairchild told me about a long-time Airport Fire Chief, who was prideful about evading regulations he didn't care for. That man's duty, as the FAA report summarizes, probably included the safety obligations and record-keeping of AFFF training, storage, spills, and containment.

SIA wasn't interested in Fairchild's PFAS, revealed in 2017 by the WA Department of Health, in the municipal wells of the City of Airway Heights. Just 2 miles separate these two airports, where AFFF was used the same way since the 1970's. AFFF training drills often involved firefighters from both Airports.

²⁸ http://nap.edu/24800

Airport's own drinking water was safe, because surrounding properties, then and now, receive DoH-regulated municipal water from the City of Spokane. Airport's personnel and visitors drink PFAS-free water. Not so the neighbors, and we had no way to know.

Airport's behind-the scenes efforts towards regulatory relief were threatened by Washington's new PFAS disclosure requirements, effective in 2022. Airport chose not to comply, as its own records reveal.

Airport's real estate speculation, across 14,000 formerly-agricultural acres, is largely hidden from public awareness. It includes the two main paleochannels, in which PFAS flows most easily and quickly. Its public/private real estate development venture, with the meaningless name S3R3, operates in secret, behind the twin screens of confidentiality of real estate and legal affairs. Its governors, Mr. French and Mr. Krauter, both involved in Airport groundwater PFAS, may not have ever officially revealed it to either S3R3 or its customer-developers. We still don't know, because the S3R3 Executive Director has not been allowed to discuss the matter. He refused to attend a public neighborhood meeting even as a listener. S3R3 is not a party to the Ecology cleanup, because it has no firefighting operations, so anwers to this question require an additional investigation. Isn't it interesting that S3R3 was founded in 2017, the same year as the Fairchild PFAS revelations and the start of the Airport's own sampling? I think that the "buy low, sell high" opportunities of quasi-government economic development have been too juicy to risk truth-telling about groundwater.

I encourage Ecology, with the Spokane County zoning and development authorities, to assess groundwater disclosures required in real estate development. We know that homeowner properties are required in the RCW to disclose water contamination. Have the Airport and its subsidiaries complied with that law, which in SuperFund neighborhoods establishes a national standard of environmental safety review?

County's recent approval of new gravel pits on Hayford Road may have violated this aquifer protection aspect of Washington's Growth Management Act. PFAS is proven in this paleochannel, and I fear that both deep-pit mining and dust-control water wells have the potential to spread PFAS-contaminated gravel products throughout the County. I ask that the boundary of PFAS Airport sampling extends as far as the recent EPA test zone, and that the facts of the Hayford Rd boundary be established by new Ecology evidence shared with the public.

I'm glad that the Airport-area stormwater utility plan was abandoned. We note that that plan to artificially recharge the aquifer was silent on PFAS, even though key leaders knew about it. The City of Spokane paid the million-dollar design cost, but there's no evidence that Airport shared what it knew about the aquifer contamination.

Unidentified Spokane County leaders chose not to notify potential rural property buyers of potential groundwater trouble. A toothless notice was given to well-drilling companies, asking that they give cautionary notifications to their customers. We doubt that notification meant much to the drillers, because we've heard from outraged new residents on properties developed since 2017, with brand new wells costing \$30-40,000 drawing contaminated water

from the Airport paleochannel. Well permitting didn't miss a beat, because SIA didn't report the conditions.

At my own home near these 2 airports since 2006, our awareness was noisy planes over my house, growing traffic congestion, and industrial development on the airport margins. Only in 2022 did I learn about the PFAS flowing 5 miles towards me in the groundwater, from sources known to government but hidden from me.

Because I'm not a scientist or an engineer, the cleanup details are far beyond my understanding. But for us on the West Plains, the protections owed us by the people we vote for, and the agencies spending our tax dollars, are not hard to understand. We want leaders who'll do their best for us, not for themselves.

The current systems find too many excuses why nothing can be done, with pre-rehearsed responses, even when the facts are new.

I've tried hard over the last year and a half to speak up for our neighborhood. Dozens of times in conversation or correspondence with actual agency representatives, I've met kind and skillful people who nonetheless give replies like this:

- "good idea. But we can't do it
- Regulations prohibit us from . . .
- "you should ask agency X, not us
- "confidentiality prevents . . .

These are agencies who say that to me:

- Spokane County Environmental Services
- Spokane Regional Health District
- WA Department of Health
- WA Dept of Ecology
- EPA
- Fairchild Air Force Base
- Air Force Civil Engineering Corps
- Dept of Defense

These agencies use lawful by arbitrary distinctions between surface water, groundwater, irrigation water, livestock water, and drinking water. Since Washington was settled, tremendous legal energy has addressed water rights. That system is all about ownership and quantity, not safety. We need a new and comprehensive method of public water stewardship. The WA Constitution says, "all the water belongs to all the people". But whose duty is it to keep it all clean?

Here in the country, there's just one kind of water, the original kind. It doesn't follow government rules and regs. We need water to stay alive, every day, in the original clean

version. That's what we each invested in when we moved here, and we understood our duty to pump it out for ourselves. But PFAS flowing 10 miles underground is not our fault.

Water is the original forever chemical. The water has not been harmed by the PFAS. It's just the carrier of the contamination. The toxicity harms us, not the water itself.

Government is the only force big enough to fix such a huge, widespread, and dangerous trouble. I can't do much myself, and I'm not the cause of PFAS pollution. The logjam of government rescue from government misbehavior must be resolved.

We need impatient new leaders, both professionals and electeds, with bold new ideas for how to solve this. The old ways can't do it.

I'm grateful to Ecology and all the persons who want to help solve our PFAS trouble. Thanks to this Public Comment invitation, I now understand the legal mechanisms in place to ensure safe water in MTCA projects. Full speed ahead, Ecology, and thanks for listening.

For any person with their own views on any of this, I urge your written comments to Ecology, because they'll be published in the public record, and easily available online to others anywhere.

This cleanup will take a long time. Let's keep up scrutiny, patience, and intensity.

Thank you for listening. Count me in on the work.

Ecology's response

Thank you for your detailed comments and for sharing your experience working on this issue. Ecology's Water Resources Program is evaluating the need to expand or require additional disclosures when new drinking water wells are installed in the West Plains.

Ecology does not have compliance authority regarding real estate disclosure requirements in 64.06 RCW, nor any knowledge of whether SIA has complied with those requirements. Regardless, inaccuracies associated with disclosure requirements that caused injury require adjudication via a civil process, and Ecology would not be involved. However, we have drafted a publication to help people understand what is required of sellers when there is known contamination on their property and to educate buyers on their rights. When it's finished, we will share it on our <u>PFAS in West Plains private wells website</u>.²⁹ and through our <u>West Plains</u> <u>PFAS updates email list</u>.³⁰

Regarding the areal extent of the remedial investigation required by the EO, there is no predetermined boundary. The EO requires a remedial investigation that fully determines the extent and magnitude of contamination, regardless of property boundaries or road locations.

We appreciate your support of an expedited cleanup. Ecology's focus is on ensuring SIA implements the work required by the EO, and we will work diligently to oversee this cleanup.

 ²⁹ https://ecology.wa.gov/spills-cleanup/contamination-cleanup/cleanup-sites/west-plains-pfas
³⁰ https://public.govdelivery.com/accounts/WAECY/subscriber/new?topic_id=WAECY_314

John Hancock, received online May 20

Now that SIA is collaborating,

- Ecology should require SIA to participate in public relations about the project, directly, not through its engineers.
- Ecology should require the Airport Board to treat this in public sessions, not Executive. This is now public factfinding, not a lawsuit.

We know now that the balance of the Airport's health stewardship with its core mission requires public oversight, which is not possible without a full and continuous engagement in the risks and facts about environmental contamination.

Regarding AFFF, SIA served itself only, and us when we travelled. Not when we simply existed, in our nearby homes. That must change.

Ecology's leadership in Public Participation, not just chemistry, is a key opportunity to rebalance the forces of economics and quality of life. The Project will produce the facts necessary for new legislative and regulatory responses, in a local climate in which PFAS can no longer be hidden or minimized.

At the new EPA MCL's [maximum contaminant levels], the Spokane River will soon earn attention, and SIA's PFAS will be of interest to a far larger audience.

Only an alert and knowledgeable citizenry can compel the proper meshing of the huge industrial and military machinery of defense with our peaceful methods and goals, so that security and liberty may prosper together.

D. Eisenhauer, 1961

Ecology's response

Thank you for your comments. Ecology is responsible for the public participation process at cleanup sites. While we often invite parties responsible for cleanup to participate in this process, it is not required by regulation.

Ecology does not have regulatory authority to dictate the agenda, format, or topics for the public or executive sessions of Airport Board meetings.

John Hancock, West Plains Water Coalition, May 22

We encourage the intake and qualification of every PFAS sampling result performed by an accredited lab. Surely this will allow the airport investigation to progress more quickly, thoroughly, and constructively. No matter the age or intent or location, more samples will yield more confidence in the overall patterns and projections over a wider area than the 2 official zones of inquiry.

As the investigative focus moves from fault towards fix, information sharing among all parties builds momentum and influence. Please keep up the invitations for homeowners to submit their results.

We think that your quarter-section heat map report will allay most persons' fears about privacy. But the disclaimer message about "public records" access must be handled more persuasively, because it hurts confidence in public participation. This is one of the serious delays, since 2017, of actual public awareness. It's an institutional defensive lethargy that must be overcome through legal or operational creativity by the agencies.

Ecology's response

Thank you for encouraging the community to submit their well sampling results to Ecology. The results will help us better understand where PFAS came from and where it is going in the West Plains. We welcome your input on how to improve our messaging around results being subject to public records requests.

James Hendricks, received online May 6

We have concerns how long before we see clean water at our house. Our results were horrible. Out of the six test we showed positive for five. Three of them above the action level, 360,79,400. Three wells on our road were ok (N. Old Trails RD). We have been at our house since 1970, how save is our garden and fruit trees. We have horses, chickens, a dog and cat what about them. PFAS doesn't help your property value and our taxes should reflect that. Who is picking up the tab for clean up and supply clean water to all of us who are effected? The skin is your largest organ of your body and we wash and bath in PFAS contaminated water. Who is replacing the dirt? Are there going to be testing of the soil and vegetation?

Thank you for help in this matter.

Ecology's response

Thank you for sharing your concerns.

Currently, there is no consensus regarding PFAS levels that would be considered safe for irrigating gardens and fruit trees. PFAS from soil or irrigation water can be absorbed through plant roots. Some PFAS types remain in the roots, while other types more easily get into shoots, leaves, and fruits. Many different things influence PFAS levels such as plant type, soil conditions, and the amount of PFAS in irrigation water.

Most of the available information about the health effects of PFAS in pets and livestock is from studies in laboratory animals looking mainly at two PFAS types: PFOA and PFOS. These studies showed the predominant health effects in lab animals to be liver disease, thyroid disease, reproductive disease, and developmental effects. Lifetime health advisory levels for PFAS have not yet been set for pets or livestock. At this time, it is recommended that drinking water for pets and livestock meet the same safety standards as those for people.

Ecology has been advised that concerns regarding property value assessments should be discussed with the County appraiser assigned to your residence.

The EO requires SIA to complete a remedial investigation that will determine the extent and magnitude of contamination associated with the airport. SIA is responsible to pay for and implement the requirements in the EO, including the remedial investigation, periodic sampling

of on-property monitoring wells, and potentially off-property monitoring and drinking water wells should it be found that contamination has moved off SIA's property.

If it is found that private wells are affected by contamination from the airport or any other source, MTCA gives Ecology authority to require those responsible to provide safe water to homeowners and to either connect the residence to city water or install a whole-house treatment system. This can be done as an interim action as soon as the source is identified. Similarly, if it is found that residential soils have been impacted by contaminated groundwater from a known source, MTCA gives Ecology authority to require those responsible to remediate these conditions.

PFAS in your tap water don't get through the skin very well, so showering or bathing are not a significant source of PFAS exposure.

Scott Holbrook, received online May 13

1) Did the study tell us exactly how the contaminate got into the ground and aquifers? If so we need to focus first on stopping any and all activity that puts these chemicals in the ground water. Once the input has stopped the remediation plan can be solidified and implemented of course paid for by the offending party(s).

2) Is there any plan in all this for compensation to the residents in the affected area(s)? The Air Force also practiced using these same chemicals and I would guess that the Airport would be the vastly larger user of the chemicals.

3) So is there a proportional liability for all those who contributed to the issue based on their proportional contribution? I know it would be very difficult to know that distribution but based on purchase receipts one could make a well educated attempt at defining a number.

4) Or does the worst offender pay for all small offenders and would this be fairly justified?

5) We know that most airports are continually expanding and adding more terminal space, runways, taxiways and ramp space and we have heard that the Spokane International Airport is planning expansion. Will these major issues of what devastating chemicals they use during construction and operation of the airport be addressed now and in the future. As for the Air Force and the International Air Port way more potential runway fire training goes on than actual fires. So it is the training that gives us concern. The Air Force has done it's share of contaminating grounds and ground waters all over this country. And many people have been negatively affected. The Air Force usually gets more bad press than the local Airports and International Airports. We are concerned that once the focus dies down that all this will not happen in the future. What measures are in place or will be in place to not allow this in the future?

Ecology's response

Thank you for your comments. The EO requires SIA to complete a remedial investigation that will determine the extent and magnitude of contamination, which includes identifying contaminant source areas, pathways for transport, and receptors. Early actions, called interim actions, are identified in the EO for when a problem could get significantly worse or become significantly more expensive if action is delayed.

For injury claims associated with impacts from contamination, like real estate devaluations, medical bills, or the physical and emotional toll this has taken, we recommend that you speak to a lawyer. Any compensation for health effects or material damages past and present would need to be addressed under a separate private action, as Ecology does not have authority to impose such actions on behalf of individuals. You might reach out to <u>Gonzaga University's</u> <u>Center for Justice</u>³¹ or the <u>Spokane County Bar Association Volunteer Lawyers Program</u>³² to see if they can provide any assistance.

At cleanup sites in Washington where more than one party is responsible for contamination, each person is jointly and severally liable for cleanup at the site. That means each person can be held liable for the entire cost of cleanup. However, Ecology does not have authority to determine how much each party is responsible for; it is up to the parties to determine their individual responsibility amongst themselves.

Modern construction methods are not believed to be sources of contamination to the environment. However, potential contamination from past operations at SIA, including fire training areas, will be investigated and if contamination is found at levels above safe standards, cleanup will be required. Once a cleanup site in Washington has been identified, it remains a cleanup site until Ecology determines the site is cleaned up and no longer poses a risk to human health and the environment.

³¹ https://serve.gonzaga.edu/agency/detail/?agency_id=101214

³² https://www.spokanebar.org/volunteer-lawyers-program/

Douglas and Mary McBride, received at the public meeting, May 6

Question: What part of this process will private wells be given priority in water Systems to filter the PFAs from our drinking water?
Question: Will bottled water be continued to be provided until Filterious Systems are installed?
Question: How and when we will the source sources of the contamination be determined for our wells (As in AFB of Airport) <
Question: the How do "new residences" become covered by the oursent process to have their wells eligible for cleanup?
Question: When will livestock and Gardens be provided clean water? Question: Will we be reimbursed for Water Filtration
Question: Will we be reimbursed for Water Filtration Systems the we have purchased and installed?

Ecology's response

Thank you for attending the public meeting and submitting comments. The EO requires SIA to complete a remedial investigation that will determine the extent and magnitude of contamination at the airport. SIA is responsible for paying for and implementing the requirements in the EO, including:

- The remedial investigation
- Periodic sampling of on-property monitoring wells
- Off-property monitoring and sampling drinking water wells if contamination has moved off SIA's property

The private well sampling Ecology and the EPA are doing is outside of the SIA cleanup process. It will help inform that investigation, but the two agencies wanted to provide West Plains residents water quality results and clean drinking water more quickly. When PFAS is higher than drinking water standards in private wells within the priority sampling area, we are supplying safe drinking and cooking water. DOH is working on providing point-of-use filters to replace bottled water. These efforts can help until investigation and cleanup of PFAS sources provide more permanent solutions.

If it is found that private wells are affected by contamination from SIA or any other source, MTCA gives Ecology authority to require those responsible to provide safe water to homeowners and to either connect the residence to city water or install a whole-house treatment system that would also treat water used for livestock and gardens. This can be done as an interim action as soon as the source is identified. Ecology will oversee all work required to be completed by SIA. The goal is to have a complete remedial investigation within two years, but it could take significantly longer depending on the extent of contamination.

If a source of contamination is known and can be linked to a specific responsible party, new residences with wells that have PFAS concentrations above standards would be eligible for treatment systems provided by the party responsible for contamination. Aside from the current short-term bottled water/point-of-use filtration program for those within the eligible sampling area, there is no assistance available to residences where there is no known source of contamination. Anyone with drinking water that has PFAS above safe drinking water standards should get an alternative water supply or learn more about <u>home water treatment</u>.³³ and <u>point-of-use filters</u>.

For injury claims associated with impacts from contamination, like past water filtration expenses, we recommend that you speak to a lawyer. Any compensation for health effects or material damages past and present would need to be addressed under a separate private action, as Ecology does not have authority to impose such actions on behalf of individuals. You might reach out to <u>Gonzaga University's Center for Justice</u>.³⁵ or the <u>Spokane County Bar</u> <u>Association Volunteer Lawyers Program</u>.³⁶ to see if they can provide any assistance.

Faith Moeser, Soil Food Web School, received online and via email, April 6

Hello, I would like to propose a cleanup possibility for the PFA's contamination. I am in the Soil Food Web School and have been in contact with Adam Swan. He has worked on compost piles with DNA testing of the microorganisms. Through his process, he has been able to steer the piles to serve a function, for example, breaking down plastics through biology. He then has them DNA tested and can prove that the organisms are in there to break down the plastic.

With his help, I have a proposed idea. The compost that I make with the guidelines of the Soil Food Web School is called biocomplete compost. This means it meets biological minimums of bacteria, fungi, protozoa, nematodes, etc. which I confirm by using a microscope. A known amount of contaminated soil will be mixed in with a parent compost pile in equal proportions. Then it is tested for PFA's. After that, it is composted in a thermophilic fashion. As it is maturing, it will periodically be tested for PFA's. There will need to be three separate piles for better data, and they have to be covered to prevent the PFA's from leeching out. From these piles we will have biology that will break down PFA's. I would love to hear your thoughts on this.

Thank you for your time

³³ https://doh.wa.gov/sites/default/files/2022-10/331-699.pdf

³⁴ https://doh.wa.gov/sites/default/files/2023-02/331-713_0.pdf

³⁵ https://serve.gonzaga.edu/agency/detail/?agency_id=101214

³⁶ https://www.spokanebar.org/volunteer-lawyers-program/

Attached is an article on biology breaking down PFA's that was put into the water: <u>Scientists</u> <u>Identify Bacteria That Can Break Down 'Forever Chemicals' e360.yale.edu</u>³⁷

Ecology's response

Thank you for your interest in PFAS cleanup in the West Plains.

Bioremediation (using microbes to degrade pollutants) is a one of the many potential methods that will be evaluated during the feasibility study.

Over the past two decades, our understanding about how microbes degrade PFAS has expanded; however, the degradation reported in these studies does not completely defluorinate and/or detoxify PFAS compounds. Progress has been made in small-scale studies, but many different factors determine if degradation is occurring. PFAS are listed as hazardous substances and, as such, should be evaluated only in controlled studies.

We do appreciate your suggestion and look forward to continuing to receive your input.

John Oswald, received online April 16

My concern is watering my farm animals, feeding the cattle the hay off irrigated pasture and grazing pasture. Eating chicken eggs and garden produce. All this comes directly from the private well. A filter at the kitchen sink works for humans, but not for the farm animals. A filter system at the well site is my only option that is extremely expensive. Would you buy my property if the water was contaminated? Property taxes should decrease since the value has been effected through no fault mine. Last year I had water tested by the university of Indiana, the results indicated PFAS. I am still waiting for the local government results.

Ecology's response

Thank you for your comment. If it is found that private wells are affected by contamination from the airport or any other source, MTCA gives Ecology authority to require those responsible to provide safe water to homeowners and to either connect the residence to city water or install a whole-house treatment system that would also treat water used for livestock and gardens.

Spokane County has advised Ecology that concerns regarding property value assessments should be discussed with the County appraiser assigned to your residence.

Nick Scharff, received online April 2

I suspect some of this is buried in the enforcement order ,just not clear to me .

• the document references "the site", I want to make sure included are any and all parcels of land that in my opinion are off site, but are affected parties with above ground runoff or underground water contamination from Responsible Party (RP)

³⁷ https://e360.yale.edu/digest/bacteria-break-down-pfas-forever-chemicals

regardless of ownership . The "RP" must be held accountable for all the pollution regardless of land ownership. (it appears the document only refers to SIA as the site)

 affected parties with pollution above SALs in there water source shall be provided emergency clean drinking water sources imediantly .Then for parties above SAL a filtration system that provides clean water to entire house or system , including for pets , livestock and gardening or any other use they previously used water for ,By doing the latter this will enhance the cleanup process of the entire site as described previously comment . Then Responsible party provide whatever maintenance of filtration system ,along with proper disposal of any replaced/ repaired components must be required along with water sample testing on a semi annual basis to assure system is working as designed for reliability checks . (Any party that has installed a system out of pocket expense should be reimbursed and be included in water testing and maintenance provision above)

Ecology's response

Thank you for your comments. Under MTCA, a site is defined by where contamination has come to be located, regardless of property boundaries or road locations. Therefore, the actual site boundaries won't be known until the remedial investigation is finished.

If it is found that private wells are affected by contamination from the airport or any other source, MTCA gives Ecology authority to require those responsible to provide safe water to homeowners and to either connect the residence to city water or install a whole-house treatment system that would also treat water used for livestock and gardens. This can be done as an interim action as soon as the source is identified. Operations and maintenance of the treatment system would be provided by the party responsible for the contamination.

Katelynn Scott, Spokane Riverkeeper, received online May 16

Spokane Riverkeeper is a non-profit, advocacy organization that works to protect the Spokane River Watershed. The mission of the organization is to protect and restore the health of the Spokane River watershed, defend access to clean water, and the opportunity for all communities to enjoy the benefits of a clean and healthy Spokane River. We appreciate the opportunity to provide comments on the Enforcement Order and Public Participation Plan for Spokane International Airport.

We support a thorough investigation and comprehensive clean up plan for the Spokane International Airport site. This clean up is long overdue and we appreciate your efforts to investigate the potentially liable parties involved. Given the complexity of the area, we understand that a complete assessment and evaluation of the site will take time and significant effort. We strongly support your approach to clean up any and all identified contaminants on the site during this process. It is important to recognize that this area has been used for intense industrial uses for decades that may require extensive, multifaceted clean up. Addressing all of the contaminants present is important to protect against further contamination of the groundwater in the area. In light of preliminary results indicating surface water contamination at Mystic Falls/Indian Canyon Creek and Garden Springs Creek, we urge Ecology to consider impacts to surface water in its enforcement order. The Spokane River is the main source of water to the Spokane Valley Rathdrum Aquifer. In particular, Deep Creek enters the Spokane River in a section where the river loses water to the aquifer. Any PFAS contamination to Deep Creek and its tributaries on the West Plains would have the potential to contaminate the Spokane River and the Spokane Valley Rathdrum Aquifer.

Given the potential contamination to surface waters, should contamination be confirmed in the investigation, it is important to also test fish for PFAS contamination in the area. PFAS bioaccumulates in fish tissue, so bigger fish generally contain more chemicals. Studies indicate that eating just one fish contaminated with PFAS could equate to the same level of contamination as drinking contaminated water for one month. Even infrequent freshwater fish consumption can increase serum PFOS levels1. Failing to test the fish for contamination would leave communities who rely on the fish in our River vulnerable to increased health risks caused by PFAS. Please consider requiring fish tissue samples should related contamination be found in the Spokane River.

It is important to recognize the widespread, long-term effects that this site's contamination has had on the West Plains, and region overall. Taking significant steps to ensure all contaminants on the site are adequately addressed is required to protect the health of future generations in the region. Ensuring that the measures implemented protect some of the most vulnerable populations in our region should be a top consideration in addressing this contamination. We hope you will continue to monitor developments in this matter as they relate to surface water and aquatic life, and take prompt action to remediate any potential contamination.

References

 Barbo, N., Stoiber, T., Naidenko, O. V., & Andrews, D. Q. (2023). <u>Locally caught</u> <u>freshwater fish across the United States are likely a significant source of exposure to</u> <u>PFOS and other perfluorinated compounds</u>.³⁸ Environmental Research, 220, 115165.

Ecology's response

Thank you for your comments and your support for this cleanup effort.

The EO requires SIA to complete a remedial investigation that will determine the extent and magnitude of not only PFAS contamination, but also other potential contamination from past operations at SIA. If contamination is found at levels above safe standards, cleanup will be required.

The remedial investigation will determine the extent of contamination in all media, including potential impacts to surface water. Cleanup standards for contaminants are set to be protective of aquatic life and fish consumption; therefore, it is unlikely fish tissue sampling would be required as part of the remedial investigation should SIA be a confirmed source of surface

³⁸ https://www.sciencedirect.com/science/article/pii/S0013935122024926?via%3Dihub1

water contamination. However, if fish tissue sampling becomes necessary later in the cleanup process, Ecology will reserve its right to require such sampling as necessary.

David Snipes, received online April 1

In addition to testing the wells, please look into the pond at the northeast end of the main runway. These ponds collect the run off from the main runway and taxiways. Nothing seems to grown there.

Ecology's response

Thank you for your comment. The EO requires SIA to complete a remedial investigation that will determine the extent and magnitude of contamination in all media, including potential impacts to surface water. The area northeast of the main runway will be included in the investigation.

David Snipes, received online April 26

I have an additional concern other than my earlier comment. The spring on my property is the source for Garden Springs Creek. I wonder what the PFAS will do to the endangered Red Band Trout population in the Finch Arboretum. These fish have been isolated there for over 10,000 years. The airport seems to be trying to weasel out or its responsibilities. The Air Force should help in the mitigation efforts because much of that pollution was done when it was Geiger Field Air Base.

Ecology's response

Thank you for your follow-up comment. The EO requires SIA to complete a remedial investigation that will determine the extent and magnitude of contamination in all media, including potential impacts to surface water. If contamination is found at levels above safe standards for people, aquatic life, or for fish consumption, cleanup will be required.

Albert Tripp, City of Airway Heights, received via email May 27

I am the City Manager of the City of Airway Heights ("Airway Heights", or "the City"), a municipality neighboring Spokane International Airport ("SIA"). Thank you for the opportunity to comment on the Airport Board City of Spokane/Spokane County Enforcement Order, No. DE 22584 issued by the Department of Ecology ("Ecology") on March 29, 2024 ("the Enforcement Order"), requiring investigation and remedial action targeting per- and polyfluoroalkyl substances ("PFAS") contamination at SIA.

PFAS contamination is widespread in the West Plains, and the City is grateful for Ecology's help in investigating and developing solutions to this crisis. Remediating local PFAS contamination will require engagement by all levels of government, and we welcome Ecology's assistance in this work. The following comments provide suggestions on how Ecology can use its oversight role to maximize the benefits provided by remedial investigation and activities at SIA.

Comprehensively evaluate the geographic extent of PFAS contamination in the West Plains

Airway Heights has been navigating the impact of PFAS contamination of its drinking water sources for the past seven years. In 2017, the Air Force informed the City that sampling had detected PFAS in the City's water system; the Air Force subsequently began investigating and planning response actions to address contamination originating from Fairchild Air Force Base ("Fairchild"), where PFAS was used for decades in aqueous film forming foam ("AFFF") and possibly other products. As a result of PFAS contamination originating at Fairchild, the Air Force is providing bottled water and filtration systems for households with PFAS detected in their private wells. However, the Air Force has declined to extend this assistance to private well owners east of Hayford Road, disclaiming responsibility for any PFAS contamination impacting water sources in that area.

Further investigation into PFAS contamination sources is needed. As the PFAS detections at SIA indicate, AFFF or other PFAS products used at SIA have likely also contributed to PFAS contamination in the surrounding area. The local hydrogeology is complex, and determining the extent of area contamination may be a difficult undertaking. Evaluating the region's major PFAS sources will indicate how and where PFAS entered the ecosystem, a crucial first step to determining where such contamination has reached.

While the City appreciates the Air Force's efforts to investigate PFAS contamination originating from Fairchild, the Air Force is not a neutral party. It has a financial interest in limiting its responsibility for addressing PFAS contamination in the West Plains.

Accordingly, though the Air Force's investigations should be a resource for understanding local PFAS contamination, the City urges Ecology to critically evaluate what contamination may be linked to Fairchild while it determines the extent of any contamination originating from SIA.

Further, the preexisting investigation by the Air Force into local contamination has been guided by screening levels that are now superseded by the 4 parts per trillion ("ppt") maximum contaminant levels ("MCLs") for PFOS and PFOA that were finalized by the U.S. Environmental Protection Agency in April 2024. Any investigation into PFOS and PFOA contamination in the West Plains guided by sampling with detection limits above 4 ppt is incomplete and must be revisited. Sampling guided by the newer MCLs will likely cover a far wider geographic area; the edges of contamination plumes meeting health guidelines will most likely be more physically dispersed. The City hopes that a broader investigation will establish the party or parties responsible for contaminating drinking water supplies across the West Plains.

The City is also interested in determining the party or parties responsible for contaminating the Spokane Valley/Rathdrum Prairie Aquifer. To meet the City's need for uncontaminated water, the City sought authorization to drill a new municipal well near the crossing of Seven Mile Road over the Spokane River ("New Well"). However, these plans were paused after the discovery of PFAS during the initial well planning process. The City requests that Ecology determine whether contamination from SIA may be reaching the area of the proposed New Well.

Given the limited geographic scope of the investigation conducted thus far, injured parties like the City are left with insufficient information on who should be responsible for contributing to the remediation of the local drinking water sources. The City urges Ecology to ensure that investigations conducted by SIA into its PFAS contamination adequately address potential impacts from its activities.

Conduct sampling for as many PFAS chemicals as feasible

A comprehensive investigation must also analyze an appropriate spectrum of PFAS chemicals. PFOS and PFOA are not the only PFAS of concern; EPA finalized MCLs for four other PFAS as well (PFHxS, PFNA, HFPO-DA, and PFBS). Ecology itself recognizes the entire PFAS chemical family as hazardous substances under MTCA. Sampling in the City's water supplies has already detected at least nine PFAS: PFOA, PFOS, 6:2 FTS, 8:2 FTS, PFBS, PFHpA, PFHxA, PFHxS, and PFNA.

There are thousands of chemicals in the PFAS family. The City urges Ecology to require as comprehensive an approach to sampling as is feasible during the investigation stage of the remedial planning. PFAS composed of longer molecular chains may degrade into new PFAS chemicals with shorter molecular chains, the risks associated with which have become clearer over time. Ecology's approach to the SIA investigation should be shaped by the fast-evolving science on this issue. Ecology should require testing for a broad set of PFAS to ensure sufficient data gathering to scope adequate responses to this complex and long-term problem.

Prioritize investigating impacts on local private wells

As discussed, certain neighborhoods in Airway Heights have not been able to access the water treatment resources provided by the Air Force. The City asks Ecology to prioritize investigating which sources of PFAS contamination are impacting this segment of the City. Although Ecology is now providing bottled water upon request to homes with levels detected above safe drinking water standards, these residences still do not have clarity on who contaminated their water and need such information to receive funding for more permanent solutions.

If contamination originating at SIA extends beyond SIA's property line, the City hopes that Ecology will prioritize establishing whether SIA is culpable for contamination impacting local residents who are not yet receiving the financial support they need. If SIA is a contamination source for the households east of Hayford Road, the City further asks that Ecology require immediate interim actions to help these residents secure permanent access to clean drinking water.

Keep the City informed regarding remedial activities

The City requests copies of all deliverables from SIA under the Enforcement Order and formal notification regarding opportunities for public engagement in the SIA remedial action planning process. As a neighboring municipality managing PFAS contamination in its drinking water supplies, the City is deeply invested in adequate investigation of PFAS contamination originating at SIA. The City seeks to be a productive partner in ensuring that the investigation and planning process for this response occurs efficiently and effectively. In particular, the City requests early

and active involvement in planning any interim or final remedial actions that might address PFAS impacts to our drinking water sources.

Thank you again for the opportunity to provide feedback on the Enforcement Order. We are grateful for Ecology's attention to this important issue, and hope that the investigation will yield greater clarity on the parties responsible for contaminating our City's drinking water sources. Information on responsible parties will be essential to ensuring that impacted parties like the City can access the resources they need to address this crisis.

Ecology's response

Thank you for your detailed comments and desire to play an active role in cleanup decisions.

Ecology awarded the City of Medical Lake an area-wide groundwater investigation grant to develop a model of PFAS contamination in groundwater in the West Plains. The project includes public outreach, groundwater sampling and analysis, and identification of PFAS sources using geochemical fingerprinting, which will help locate other potential sources across the West Plains.

Groundwater samples will be taken from 30 locations four times a year to develop the model, which will help us understand where PFAS came from and where it is going in the West Plains. Sampling began in spring 2024. Sample results people share with us from the private well sampling EPA did in March and June 2024 and other analyses by accredited laboratories will also be added to the model.

We appreciate your concern regarding the true extent of contamination migrating from Fairchild Air Force Base. While Ecology is overseeing the cleanup at SIA, we also participate in the cleanup process at Fairchild and will continue to critically evaluate information produced by Fairchild with respect to its extent of contamination.

Ecology will rely on conservative values, including the new federal maximum contaminant levels (MCLs) for PFAS, when evaluating contamination at SIA. We believe the new MCL values will also be applicable at Fairchild; however, our regulatory authority only applies at SIA. We believe the investigations at Fairchild, SIA, and potentially through the results from private well sampling and the area-wide groundwater study will expose additional sites contaminated by PFAS in the West Plains.

The EO requires SIA to complete a remedial investigation that will determine the extent and magnitude of contamination in all media. While unknown at this time, if contamination from SIA impacts the New Well area, it will be determined during the remedial investigation.

Ecology requires the use of EPA Method 1633 for PFAS analysis at SIA. EPA Method 1633 is a laboratory validated method that provides a standardized approach for measuring 40 PFAS analytes in a diverse range of environmental matrices (e.g. non-potable water, solids, biosolids, and tissue samples). Ecology accredits environmental laboratories that provide essential data to protect public health and the environment to make sure they adhere to strict quality control measures.

As mentioned above, the EO requires SIA to complete a remedial investigation that will determine the extent and magnitude of contamination in groundwater. If it is found that private wells are affected by contamination from the airport or any other source, MTCA gives Ecology authority to require those responsible to provide safe water to affected homes and to either connect the residence to city water or install a whole-house treatment system. This can be done as an interim action as soon as the source is identified.

We appreciate and value the City's interest in the cleanup work overseen by Ecology on the West Plains; we are committed to comprehensive engagement for the benefit of the work and community. Final major deliverables required by the EO will be placed in the online document repository located on Ecology's <u>SIA PFAS cleanup site page</u>.³⁹ We also provide status updates on the cleanup process and public comment period announcements on this page. We have added two members of the City staff to Ecology's West Plains PFAS updates email list to ensure you receive periodic updates regarding all things PFAS in the West Plains. You may contact Erika Beresovoy at <u>Erika.Beresovoy@ecy.wa.gov</u> or 509-385-2290 to request adding more people.

If there are ever emerging issues or questions, please reach out to any of the contacts listed on Page 2 and our SIA PFAS cleanup site page for informal updates throughout the cleanup process. As the cleanup progresses further, if desired, we would welcome scheduling and participating in periodic update meetings with the City.

Christian Westbrook, received online May 20

After discovering that the water we have been drinking for decades is contaminated, many times over the established limits, we hope that the Polluters are made public and that they will address this problem in a public forum. We will need assistance dealing with this new reality. Please hold them accountable!

Ecology's response

Thank you for your comment. At this time, it is too soon to know the source(s) of all PFAS contamination on the West Plains; however, the work required by the EO includes completing a remedial investigation that will determine the extent and magnitude of contamination associated with SIA; Ecology will work diligently to oversee this cleanup.

³⁹ https://apps.ecology.wa.gov/cleanupsearch/site/16774