April 21, 2021

Senator Joshua Revak
Chair Senate Resources Committee
Alaska Legislature
State Capitol, Room 125
Juneau, AK 99801

Dear Senator Revak:

Research has confirmed that per- and polyfluoroalkyl substances (PFAS) are persistent, bioaccumulate, and are a health concern. There are now calls for more regulatory guidance and stringent requirements have increased. Due to their unique properties, PFAS are widely used in industry and the production of everyday products like nonstick coatings for cookware, stain-repellent coatings for clothes and carpeting, detergents, cleaning products, and firefighting foams. After decades of widespread use, PFAS are ubiquitous and persistent in the environment and have been found in tissue samples in all parts of the world. Though PFAS were developed to simplify our lives, they have become a serious problem requiring increased monitoring and control. Alaskan communities are not immune to these impacts and many now have contaminated sites and drinking water sources. This health crisis has been decades in the making, more than 4,800 known PFAS have been created for commercial use. Regulatory guidance and restrictions vary across regions globally. As new PFAS are identified in the environment, and more toxicological information becomes available, further regulations are certain.

PFAS exposure has been linked to various adverse health outcomes such as thyroid disease, testicular cancer, kidney cancer, and pregnancy-induced hypertension. Thus, with each potential environmental spill or release, public health concerns rise further about PFAS, particularly with regard to drinking water safety. PFAS are of concern because many are persistent, bioaccumulate, and are toxic. PFAS readily bind to proteins in blood and are transported throughout the body. As a result, they are potentially associated with a wide range of adverse health outcomes, including decreased immune function, cancer, elevated cholesterol, and ulcerative colitis, among others. Also, the human body is not effective at eliminating PFAS, and half-lives of some PFAS in humans, such as perfluorohexane sulfonic acid, can exceed five years. Therefore, PFAS can accumulate in the body even when levels in drinking water are low. As a result, drinking water standards and health advisory levels are being set at low ng/L levels. Another reason for concern is the fear of the unknown. The PFAS class contains thousands of compounds, but we currently lack fully appropriate analytical methods and information about the toxicity for most. As a result, people may wonder which PFAS compounds they might have been exposed to and what the potential health effects could be.The unique chemical properties that make PFAS so valuable for modern applications are often the very same that make PFAS incredibly problematic in the environment. First-generation persistent organic pollutants (POPs) were pretty bad, but we could largely predict how they would behave in the environment. PFAS are a new style of pollutant that don't follow the 'rules' of traditional organic pollutants. This is why regulators and scientists unfortunately failed to predict how these chemicals would move through the environment, and why we now have a serious problem of such widespread PFAS contamination of drinking water, agricultural land, and the domestic environment. Furthermore, we are only really just beginning to characterize the health impacts of a chemical that is ubiquitously present throughout the built and natural environment.

April 21, 2021

Senator Joshua Revak, Chairman
Senate Resources Committee
State Capitol, Room 125
Juneau AK 99801

To: Members of the Senate Resources Committee
Re: SB 121 Regulating PFAS Use; Fire/Water Safety

We would like to express our support for Senate Bill 121, a bill to regulate PFAS and help mitigate the consequences of its use. We feel the Legislature must act due to the inertia on this issue by the Administration and federal government.

My husband and I have lived in Gustavus for over 40 years. We along with dozens of other family members were devastated to learn that our home and property are in the plume of PFAS contaminates and our well is one of many that has been contaminated by these chemicals.

This contamination was caused by the entirely avoidable and unnecessary use of AFFF foam at our airport. This foam was mandated to be used here by the FAA and the State of Alaska DOT/PF despite our airport being one that is exempt from having to use these products. Both the FAA and the State have been aware for many years of the toxic nature of these chemicals but have required our local firefighters to use and train with them anyway. Even worse, despite federal and state regulating agencies' longtime awareness of PFAS issues, these same responders were never made aware of the toxic nature of the foam.

It is our hope that your passage of SB 121 will help other communities in the state avoid the consequences we now have to deal with: fear of long-term health issues, inability to drink our water, no communication from the State if or when we will get any filtration systems for our homes, and the reduction in our property values due to a toxic water table.

Again, we urge your support towards the passage of SB 121 as a rational step forward in protecting the health of Alaska's residents, and the health and economic viability of our communities into the future.

Sincerely,

Melanie and Jim Lesh
P.O. Box 6
Gustavus, AK 99826

Cc: Senator Jessie Kiehl

Senator Jesse Kiehl introduced Senate Bill 121 on April 7 to protect Alaskans' drinking water by setting health-protective limits on per- and polyfluoroalkyl substances (PFAS) and to take measures that prevent the future contamination of our lands and waters. I hope that you will support Senate Bill 121. This bill will

- Set health-protective limits on the amount of PFAS in drinking water.
- Provide Alaskans with clean drinking water if theirs is contaminated.
- Allow for voluntary blood testing of affected community members and first responders.
- Prevent future pollution by replacing the use of PFAS-based firefighting foams in favor of safer alternatives.

It is imperative that this action take place soon so that the Alaskan public can be protected from these compounds while a more substantial understanding of the nature and extent of the impact is completed.

You are my representative to the Alaskan senate, but you probably do not know my professional background. I have a PhD in Analytical Chemistry from Portland State University and spent two hears as a postdoctoral researcher at the Oregon Health Science Center studying the metabolism of flame retardants that were used in the 70's on children's pajamas. In 1979, I joined the faculty at UAA where I taught Analytical, Inorganic, Environmental chemistry and Toxicology courses. I retired in 2015 after 36 years at UAA with 45 publications mainly with undergraduate students. Ironically, I actually worked at DuPont for five years before returning for advanced study. During those five years I came to understand the failure of industry to recognize the impact of its products on people resulting from a lack of full understanding of their toxicology in particular. The failure is slowly being recognized and a better approach is being applied to chemical uses now. Presently I am a member of the PWSRCAC science advisory committee to offer support on research projects of their concern. I would be pleased to provide similar scientific advise to any chemistry related questions of concern that you might have.

Sincerely,

John M. Kennish

John M. Kennish, PhD
Retired Professor of Chemistry

From: Sally McLaughlin <[redacted]>
Sent: Wednesday, April 14, 2021 9:11 AM
To: Sen. Jesse Kiehl <Sen.Jesse.Kiehl@akleg.gov>
Subject: SB121

Dear Senator Kiehl,
I am writing to express my strong support of SB121. I have been directly affected by PFAS contamination in our water and soil and it has taken a lot of hard work and much of our time to fight for our rights to clean water. It is absolutely imperative that Alaska sets standards for health protective limits of PFAS and to allow affected citizens to obtain blood tests to determine their body burden of PFAS chemicals. In addition, we need to replace fire fighting foams that contain PFAS chemicals with safer alternatives that we know exist. This will prevent future pollution - a step that will save millions of dollars and may save thousands of lives.
As you are well aware, our lives in Gustavus were severely disrupted when PFAS were discovered in our water. Life in this once pristine community will not be the same until we can rest assured that this will never happen again, here or anywhere else in Alaska.
Your continued support to our community, and to this issue in particular, has been very much appreciated.

Thank you for all of your work on this very important issue! And thank you for the letter of sympathy when my dad passed away - that was very thoughtful of you.

Sally McLaughlin

From: Greg Streveler <[redacted]>
Date: April 25, 2021 at 10:14:31 AKDT
To: Senate Resources <SenateResources@akleg.gov>
Cc: "Sen. Jesse Kiehl" <Sen.Jesse.Kiehl@akleg.gov>
Subject: SB121

To Resources Committee,
I wholeheartedly support this legislation and urge its passage out of your committee. Recent PFAS-related events at the Gustavus Airport's upgrade project serve to underscore its urgency.
Thank you,
Greg Streveler
Box94
Gustavus

Sent from my iPad

From: janet neilson <[redacted]>
Date: April 25, 2021 at 20:56:03 AKDT
To: Senate Resources <SenateResources@akleg.gov>
Cc: "Sen. Jesse Kiehl" <Sen.Jesse.Kiehl@akleg.gov>
Subject: support for Senate Bill 121 (PFAS Use & Remediation; Fire/Water Safety)

Dear Members of the Senate Resources Committee,

I am writing in support of Senate Bill 121 (PFAS Use & Remediation; Fire/Water Safety). I live in Gustavus, where in 2018 we were devastated to learn that aqueous film-forming foam (AFFF) had contaminated numerous private wells in our community.

As you know, currently the Alaska Department of Conservation uses the Environmental Protection Agency's lifetime health advisory level of 70 ppt for the sum of only two PFAS compounds (PFOA and PFOS). However, many peer-reviewed studies have found these chemicals to be dangerous at much lower levels. In addition, growing evidence shows the dangers of additional PFAS compounds, including PFHxS, PFNA, PFBS, PFHpA, and Gen-X.

Until now, I have felt despair that our state government is profoundly failing us and our environment by following the EPA's woefully inadequate guidance.

Senate Bill 121 gives me hope.

Among other things, this bill proposes to set lower limits for PFOA (8 ppt) and PFOS (16 ppt) and in so doing, demonstrates that Alaska can be a leader in our nation in protecting its residents and visitors from unsafe water.

I am also pleased to see the bill direct the Alaska Department of Environmental Conservation to offer voluntary blood tests to people with PFAS-contaminated drinking water, as well as to responders (such as firefighters) who are exposed to PFAS. Blood testing for PFAS is something that I have been advocating for the state to support since November 2018.

I strongly urge you to support SB 121. It is time for Alaska to step up and do more to protect its residents, visitors, and environment from these dangerous contaminants.

Sincerely,

Janet Neilson
PO Box 268
Gustavus, AK 99826

From: [redacted] <[redacted]>
Sent: Monday, April 26, 2021 12:00 PM
To: Senate Resources <SenateResources@akleg.gov>
Cc: Rep. Sara Hannan <Rep.Sara.Hannan@akleg.gov>; Sen. Jesse Kiehl <Sen.Jesse.Kiehl@akleg.gov>; Courtney <[redacted]>
Subject: SB121

Hello,

I understand there is a hearing this week on SB121. The safety of our drinking water, our most precious resource, is of utmost importance to me, and I hope for the governing body of this state as well.

Please get this bill out for a vote this session!! The health of our population, and future populations, (and all living beings) should be prioritized!

I grew up near a former navy base, and when I was in high school, it was discovered that the well water in the nearby neighborhood was contaminated. Everyone had to haul in water for basic needs every day. People died of cancer at crazy rates. We know that PFAS are very dangerous, and it is incumbent upon our elected officials to do the right thing. Do not put it off again for a future session, please!

Thank you,
Peggy Finnegan
2400 W Marston Dr
Anchorage, AK 99517

From: Eycewolf <[redacted]>
Sent: Monday, April 26, 2021 2:00 PM
To: House Resources <House.Resources@akleg.gov>; Senate Resources <SenateResources@akleg.gov>
Cc: Rep. Sara Hannan <Rep.Sara.Hannan@akleg.gov>; Sen. Jesse Kiehl <Sen.Jesse.Kiehl@akleg.gov>; <[redacted]>
Subject: HB 171 & SB 121

In 2010 the U.N. agreed to a resolution declaring the human right to "safe and clean drinking water and sanitation."

Safe and clean water is very important to me. Especially as my spouse and I have been trying to conceive our first child, I am extremely alarmed that such dangerously persistent carcinogens and endocrine disruptors are allowed to pollute our drinking water.
As for fire safety, safer alternatives exist that don't cause long-term harm to our water, land, wildlife and people.

Please protect our drinking water by vigorously supporting passage of SB 121 and HB 171.

Fenra Bondarenko
827 Merlin Loop, Anchorage, AK 99518

Randy Brand & Bill Troxler

Great Northwest, Inc. | www.grtnw.com

2975 Van Horn Road, Fairbanks, AK 99709

1. **Sec. 46.03.340. Testing; drinking water.**
   Article (c) deals with blood testing for "responders".

   Response: The definition of "responders" includes site remediation workers. It is not clear why this provision is included under a drinking water testing standard, since it includes several other routes of exposure (ingestion, inhalation, or absorption) rather than only ingestion through drinking water. The requirement itself is not necessarily inappropriate, but it would require remediation contractors to budget for blood testing for all site workers. As a precaution, Focus would also recommend baseline testing (before remediation starts) to confirm if an individual has already been exposed to PFAS and at what level. This procedure has been used on some dioxin/furan cleanup projects, but it is not routine in the remediation industry.

2. **Sec. 46.03.345. Liability for drinking water testing and blood testing costs.**
   (a) A person ***who causes a fire*** that results in a release of a firefighting substance containing a perfluoroalkyl substance or polyfluoroalkyl substance is liable for the costs of providing drinking water testing and blood testing under AS 46.03.340.

   Response: This article could be interpreted very broadly to apply to thermal treatment systems and emissions from such. Under this scenario, the boundaries for where water supply testing and blood testing would be required are very poorly defined. Section 46.03.340 refers to a "release in the area of the water supply", which is very vague.

3. **Sec. 46.03.355. Thermal remediation permit**
   "A facility that thermally remediates a perfluoroalkyl or polyfluoralkly substance contamination must have a permit from the department under 42 U.S.C. 7661 f (Clean Air Act, secs. 501-507) authorizing the remediation."

   Response: I would suggest that you check with a lawyer on the following point. The proposed regulatory language will require the thermal treatment system to obtain a Title V permit. However, Eielson AFB is a CERCLA site, and permits are not required under CERCLA. The remedial action must meet the Applicable and Relevant Requirements (ARARs). These typically will be similar to the technical permit requirements in a Title V permit, but without some of the administrative requirements (public notice, etc.).

   "The department may not issue a permit or allow a facility to retain a permit issued under this section if the department determines that the remediation will result in the release of more than ***a minimal amount*** of an airborne compound with a carbon-fluorine bond detectable through source testing."

Response: The language referring to "a minimal amount" is very problematic in that this term could be interpreted very differently by different individuals or organizations. To execute a remediation project, the contractor needs clearly defined performance objectives.

"Source testing under this section must include testing of all compounds with a carbon-fluorine bond for which the United States Environmental Protection Agency has approved a testing methodology."

Response: This statement is problematic in that there are many sampling and analytical methods, some with overlapping analyte lists, that report results for compounds with a carbon-fluorine bond. Implementing all these sampling and analytical methods would be cost prohibitive. There is now an approved EPA stack sampling and analytical method for PFAS compounds, OTM-45. It would be better to simply reference this method rather than leaving this open ended to require a number of sampling and analytical methods.

Betty Tangeman

From: Thomas McLaughlin <thomasmclaughlin49@gmail.com>
Sent: Monday, April 26, 2021 10:18 AM
To: Senate Resources
Cc: Sen. Jesse Kiehl
Subject: SB 121 PFAS Use & Remediation; Fire/Water Safety

To: Members of the Senate Resources Committee
Re: SB 121 PFAS Use & Remediation; Fire/Water Safety

I would like to urge your support of this legislation. I have been a resident of Gustavus off and on since the 1970's. I personally have been exposed to PFAS as well as my children and grandchildren. These are "forever chemicals" and once introduced into the environment do not go away.

Please support this legislation.
Sincerely,

Thomas S. McLaughlin
538 6th St.
Juneau, Alaska 99801

Betty Tangeman

From: JoAnn Lesh <joann@gustavusinn.com>
Sent: Monday, April 26, 2021 11:43 AM
To: Senate Resources
Subject: SB 176 Regulating PFAS Use; Fire/Water Safety

I am a resident of Gustavus directly in the path of PFAS washed from airport AFFF foam. It has ruined my business, health and retirement that I worked for for 40 years. Please allow regulation of PFAS and stop AFFF from poisoning our precious life giving water.

This contaminant has been shielded long enough by those profiting from its use and their dishonest careless business practices. It is time to protect Alaskans from this devastation. I seek your help in passing SB 176.

Sent from my iPhone

Betty Tangeman

From: Kathy <kwhitson@gci.net>
Sent: Monday, April 26, 2021 2:58 PM
To: Senate Resources
Subject: SB 176 Regulating PFAS Use; Fire/Water Safety

Please vote to protect our precious resource of water. As a RN I understand the need for fire retardants, but not at the expense of clean water. There are other options available to use for fire suppression.
I took a class recently in which the 1968 photo of Earthrise was presented, it is a powerful reminder that this is our home, let's keep this blue gem healthy for our children's sake, if not our own.
I thank you, Kathleen Whitson RN

Sent from my iPhone

Betty Tangeman

From: Lin Davis <molin@gci.net>
Sent: Monday, April 26, 2021 4:27 PM
To: Senate Resources
Cc: Rep. Sara Hannan; Sen. Jesse Kiehl
Subject: SB 121 Regulating PFAS Use; Fire/Water Safety

Dear Senate Resource Senators:

Please schedule a hearing on SB 121. Too many Alaskans are impacted by PFAS.

Please pass SB 121, an important health proposal. Many AK communities have contaminated drinking water, and immediate action must be taken.

This is your chance to protect the health of many Alaskans. Let's end the use of PFAS. SB 121 allows voluntary blood testing for those exposed, an important steps.

Counting on you for this important health action. Thank you.

Lin Davis
3099 Nowell Ave
Juneau 99801

Betty Tangeman

From:	Connie Markis <cmarkis@gci.net>
Sent:	Wednesday, April 28, 2021 8:26 PM
To:	Senate Resources; House Resources
Cc:	Rep. Sara Hannan; Sen. Jesse Kiehl; courtney.o@akaction.org
Subject:	SB 121 & HB 171 Regulating PFAS Use; Fire/Water Safety

Dear Senators and Representatives,

Please help pass these identical bills (SB 121 and HB 171) that are titled "PFAS Use & Remediation; Fire/Water Safety."

PFAS are known as "forever chemicals" because they are highly persistent in the environment and are passed down through generations from mother to child. They are used for stain, grease, and water resistance in products such as food packaging, carpets, upholstery, outdoor apparel, and to make non-stick pots and pans. They are also used in firefighting foams for fuel and chemical fires on military bases and airports. PFAS are linked with increased risk of thyroid disease, decreased fertility, decreased birth weight, immune suppression, liver disease, and certain cancers. People who are exposed to PFAS may be more vulnerable to COVID-19 and its complications.

In Alaska, the dispersive use of PFAS-containing firefighting foams on military bases and airports has contaminated the drinking water of communities from the North Slope to southeast Alaska. PFAS have been discovered at over 100 individual sites in nearly 30 locations and many more need to be investigated. There are safe alternatives that provide for fire safety without causing long-term harm to our waters, wildlife, and people.

SB 121 and HB 171 would:

- Set health-protective limits on the amount of PFAS in drinking water.
- Provide Alaskans with clean drinking water if their water is contaminated.
- Allow for voluntary blood testing of affected community members and first responders.
- Prevent future pollution by replacing the use of PFAS-based firefighting foams in favor of safer alternatives.

Unfortunately, I think if every Alaskan were tested for these "forever chemicals" in our blood, we would be shocked at the presence they have in our biology. Clean water is important to me as I feel it is to every Alaskan. Please protect our drinking water and health by supporting passage of SB 121 and HB 171.

Thank You!

Sincerely,
Connie Markis
7661 E 17th Ave
Anchorage, AK 99504
(907) 333-7657

Betty Tangeman

From: MA Nickles <manicklesak@gmail.com>
Sent: Saturday, May 1, 2021 10:24 AM
To: Senate Resources
Subject: SB121 must move

Dear Senate Resouces Committee members

55,000 gallons of firefighting foam were dumped illegally from Eielson into two gravel pits, one near the Salcha River. The dump-site is a stone's throw from Harding Lake. Contact ADEC for a full report on this egregious, unnecessary, toxic dump of chemicals. Please move SB121 now.

When I first came here to Fairbanks in 1958, 63 years ago, I enjoyed many summer hours swimming in gravel pits in the area. The only thing I thought I had to worry about was "swimmer's itch", but now I know there may have been much more lethal threats present.

I lived on Badger Road for a time and passed the fishing pullout access to Piledriver's Slough along the way. That is now contaminated water.

PFAS and PFOS have been known as toxics for decades and must be dealt with ASAP. Not just for swimmers, but for residents in the Fairbanks North Star Borough who use and drink the water daily.

Mary Ann Nickles
1035 Kellum St. #2G
Fairbanks, AK 99701