

**ALASKA STATE LEGISLATURE  
HOUSE RESOURCES STANDING COMMITTEE**

May 10, 2019  
1:02 p.m.

**MEMBERS PRESENT**

Representative John Lincoln, Co-Chair  
Representative Geran Tarr, Co-Chair  
Representative Grier Hopkins, Vice Chair  
Representative Sara Hannan  
Representative Chris Tuck  
Representative Ivy Spohnholz  
Representative Dave Talerico  
Representative George Rauscher

**MEMBERS ABSENT**

Representative Sara Rasmussen

**COMMITTEE CALENDAR**

CS FOR SENATE BILL NO. 91(FIN)

"An Act relating to the development and operation of a hydroelectric site at the Nuyakuk River Falls; providing for the amendment of the management plan for the Wood-Tikchik State Park; and providing for an effective date."

- MOVED CSSB 91(FIN) OUT OF COMMITTEE

SPONSOR SUBSTITUTE FOR HOUSE BILL NO. 116

"An Act relating to the renewal or extension of site leases for aquatic farming and aquatic plant and shellfish hatchery operations."

- MOVED SSHB 116 OUT OF COMMITTEE

PRESENTATION(S): UNDERSTANDING THE EFFECTS OF PFAS (PER- AND POLYFLUOROALKYL SUBSTANCES) CONTAMINATION IN ALASKAN MUNICIPALITIES

- HEARD

**PREVIOUS COMMITTEE ACTION**

BILL: SB 91

SHORT TITLE: NUYAKUK RIVER: HYDROELECTRIC SITE

SPONSOR (s) : SENATOR (s) HOFFMAN

03/15/19 (S) READ THE FIRST TIME - REFERRALS  
03/15/19 (S) RES, FIN  
04/05/19 (S) RES AT 3:30 PM BUTROVICH 205  
04/05/19 (S) <Bill Hearing Canceled>  
04/15/19 (S) RES AT 3:30 PM BUTROVICH 205  
04/15/19 (S) Heard & Held  
04/15/19 (S) MINUTE(RES)  
04/22/19 (S) RES RPT 3DP 2NR  
04/22/19 (S) DP: BIRCH, KIEHL, COGHILL  
04/22/19 (S) NR: REINBOLD, KAWASAKI  
04/22/19 (S) RES AT 3:30 PM BUTROVICH 205  
04/22/19 (S) Moved SB 91 Out of Committee  
04/22/19 (S) MINUTE(RES)  
04/30/19 (S) FIN AT 9:00 AM SENATE FINANCE 532  
04/30/19 (S) Heard & Held  
04/30/19 (S) MINUTE(FIN)  
05/06/19 (S) FIN RPT CS 3DP 4NR SAME TITLE  
05/06/19 (S) DP: STEDMAN, HOFFMAN, BISHOP  
05/06/19 (S) NR: VON IMHOF, MICCICHE, SHOWER, WILSON  
05/06/19 (S) FIN AT 9:00 AM SENATE FINANCE 532  
05/06/19 (S) Moved CSSB 91(FIN) Out of Committee  
05/06/19 (S) MINUTE(FIN)  
05/07/19 (S) TRANSMITTED TO (H)  
05/07/19 (S) VERSION: CSSB 91(FIN)  
05/08/19 (H) READ THE FIRST TIME - REFERRALS  
05/08/19 (H) RES  
05/08/19 (H) RES AT 1:00 PM BARNES 124  
05/08/19 (H) Heard & Held  
05/08/19 (H) MINUTE(RES)  
05/10/19 (H) RES AT 1:00 PM BARNES 124

BILL: HB 116

SHORT TITLE: AQUATIC FARM/HATCHERY SITE LEASES

SPONSOR (s) : REPRESENTATIVE (s) STORY

03/27/19 (H) READ THE FIRST TIME - REFERRALS  
03/27/19 (H) FSH, RES  
04/12/19 (H) SPONSOR SUBSTITUTE INTRODUCED  
04/12/19 (H) READ THE FIRST TIME - REFERRALS  
04/12/19 (H) FSH, RES  
04/16/19 (H) FSH AT 10:00 AM GRUENBERG 120  
04/16/19 (H) -- MEETING CANCELED --  
04/23/19 (H) FSH AT 10:00 AM GRUENBERG 120  
04/23/19 (H) Heard & Held  
04/23/19 (H) MINUTE(FSH)

04/25/19	(H)	FSH AT 10:00 AM GRUENBERG 120
04/25/19	(H)	Moved SSHB 116 Out of Committee
04/25/19	(H)	MINUTE(FSH)
04/26/19	(H)	FSH RPT 7DP
04/26/19	(H)	DP: TARR, VANCE, KOPP, EDGMON, NEUMAN, KREISS-TOMKINS, STUTES
05/03/19	(H)	RES AT 1:00 PM BARNES 124
05/03/19	(H)	Heard & Held
05/03/19	(H)	MINUTE(RES)
05/06/19	(H)	RES AT 1:00 PM BARNES 124
05/06/19	(H)	Scheduled but Not Heard
05/10/19	(H)	RES AT 1:00 PM BARNES 124

**WITNESS REGISTER**

ROBERT HIMSCHOOT, CEO/General Manager  
Nushagak Cooperative  
Dillingham, Alaska

**POSITION STATEMENT:** Provided a PowerPoint presentation titled "Nuyakuk Hydroelectric, Hydropower for Bristol Bay," and testified in support of CSSB 91(FIN).

CORY WARNOCK, Senior Licensing and Regulatory Consultant  
McMillen Jacobs Associates  
Ferndale, Washington

**POSITION STATEMENT:** Representing Nushagak Cooperative, provided information regarding the federal regulatory process during the hearing on CSSB 91(FIN).

CHRISTINE O'CONNOR, Executive Director  
Alaska Telecom Association (ATA)  
Anchorage, Alaska

**POSITION STATEMENT:** Testified in support of CSSB 91(FIN).

RICKY GEASE, Director  
Division of Parks & Outdoor Recreation  
Department of Natural Resources (DNR)  
Anchorage, Alaska

**POSITION STATEMENT:** Answered questions related to CSSB 91(FIN).

REPRESENTATIVE ANDI STORY  
Alaska State Legislature  
Juneau, Alaska

**POSITION STATEMENT:** Speaking as the sponsor of SSHB 116, reviewed aspects of the bill.

GREG SMITH, Staff

Representative Andi Story  
Alaska State Legislature  
Juneau, Alaska

**POSITION STATEMENT:** On behalf of Representative Story, sponsor of SSHB 116, answered questions regarding the bill.

CHRISTY COLLES, Operations Manager  
Central Office  
Division of Mining, Land and Water  
Department of Natural Resources (DNR)  
Anchorage, Alaska

**POSITION STATEMENT:** Answered questions related to SSHB 116.

META MESDAG, Owner  
Salty Lady Seafood Company  
Juneau, Alaska

**POSITION STATEMENT:** Testified in support of SSHB 116.

MARGO REVEIL, President  
Alaska Shellfish Growers Association  
Homer, Alaska

**POSITION STATEMENT:** Testified in support of SSHB 116.

NANCY HILLSTRAND  
Pioneer Alaskan Fisheries Inc.  
Homer, Alaska

**POSITION STATEMENT:** Expressed her concerns with SSHB 116 and suggested the inclusion of certain definitions.

VICKI JO KENNEDY  
Juneau, Alaska

**POSITION STATEMENT:** Testified in regard to SSHB 116.

HERMAN MORGAN  
Aniak, Alaska

**POSITION STATEMENT:** During the hearing of SSHB 116, testified on salmon hatcheries, a topic not included in the bill.

ALPHEUS BULLARD, Attorney  
Legislative Legal Counsel  
Legislative Legal Services  
Juneau, Alaska

**POSITION STATEMENT:** Answered questions related to SSHB 116.

JASON BRUNE, Commissioner  
Department of Environmental Conservation (DEC)  
Juneau, Alaska

**POSITION STATEMENT:** Provided a PowerPoint presentation titled "State Response to PFAS," dated 5/10/19, and answered questions.

DENISE KOCH, Director  
Division of Spill Prevention and Response (SPAR)  
Department of Environmental Conservation (DEC)  
Juneau, Alaska

**POSITION STATEMENT:** Answered questions during the PowerPoint presentation titled "State Response to PFAS," dated 5/10/19.

BRYCE WARD, Mayor  
Fairbanks North Star Borough (FNSB)  
Fairbanks, Alaska

**POSITION STATEMENT:** Provided a PowerPoint presentation titled "PFCs in the FNSB," dated 5/10/19, and answered questions.

CALVIN CASIPIT, Mayor  
City of Gustavus  
Gustavus, Alaska

**POSITION STATEMENT:** Testified during the presentation on per- and polyfluoroalkyl substances (PFAS) contamination.

TOM WILLIAMS, City Administrator  
City of Gustavus  
Gustavus, Alaska

**POSITION STATEMENT:** Testified during the presentation on per- and polyfluoroalkyl substances (PFAS) contamination and answered a question.

KELLY MCLAUGHLIN, Chair  
Gustavus PFAS Action Coalition (GPAC)  
Gustavus, Alaska

**POSITION STATEMENT:** Testified during the presentation on per- and polyfluoroalkyl substances (PFAS) contamination and answered questions.

#### **ACTION NARRATIVE**

[1:02:38 PM](#)

**CO-CHAIR GERAN TARR** called the House Resources Standing Committee meeting to order at 1:02 p.m. Representatives Tuck, Hannan, Talerico, Spohnholz, Rauscher, Hopkins, Lincoln, and Tarr were present at the call to order.

#### **SB 91-NUYAKUK RIVER: HYDROELECTRIC SITE**

1:03:27 PM

CO-CHAIR TARR announced that the first order of business would be CS FOR SENATE BILL NO. 91(FIN), "An Act relating to the development and operation of a hydroelectric site at the Nuyakuk River Falls; providing for the amendment of the management plan for the Wood-Tikchik State Park; and providing for an effective date."

CO-CHAIR TARR opened invited testimony on CSSB 91(FIN).

1:04:03 PM

ROBERT HIMSCHOOT, CEO/General Manager, Nushagak Cooperative, provided a PowerPoint presentation titled "Nuyakuk Hydroelectric, Hydropower for Bristol Bay." Turning to slide 2, he said the [proposed] location offers some natural advantages for hydroelectric production. He noted that the glacial moraine that creates the lake systems of the Tikchik drains all five lakes across that glacial moraine. He explained that the lake is a natural sediment sink, that there is about 40 feet of head across 2500 feet of river for a diversion project, and that the 2500 feet of river is in an oxbow configuration, which allows for running a 1500-foot penstock.

MR. HIMSCHOOT moved to slide 3 and stated that since 1953 the U.S. Geological Survey (USGS) has had a flow-monitoring gauge on the river just above the proposed hydro site. He reported that evaluation of these 60 years of flow data shows that 4.5 megawatts of power could still be made during the low three months of the low three years, using less than 25 percent of the flow; and during the summer considerably greater than 10 megawatts could be made. He further reported that the power curve from this projected production matches the load dynamics in Bristol Bay very well. Loads considerably peak in the summer with salmon production, he explained, so being able to use a consistent amount of the flow using the same dynamics would produce power when it is needed the most as well as produce enough power in the winter. He said the projection from this curve is that the diesels can be turned off 24/7/365 in the communities of Dillingham, Aleknagik, Koliganek, Stuyahok, Ekwok, and Levelock. Other than during maintenance periods or outages, he added, diesel power production would be completely replaced by hydropower. He further pointed out that if the actual study confirms the current projections, there is the potential to also include Naknek, South Naknek, and King Salmon. He specified that the diesel displacement projection for the

first subset of communities is 1.5 million gallons a year and if the second subset is able to be included it will be 2.9 million gallons a year.

MR. HIMSCHOOT displayed slide 4 and described how the power plant facility would look on the river. He said 1,500 feet of penstock would divert a portion of the flow across 2,500 feet of river, so only 2,500 feet would be affected. He offered the cooperative's belief that this project can be done with very minimal impact to the watershed and stated the studies will show how much impact there would be to the natural environment. He stated that while there is a considerable amount of data, modern geographical information system (GIS) data would help quite a bit in evaluation. The process requires that a considerable amount of studying be done to be able to get an operating license, he explained, and that is the point at which the cooperative is right now. He said the cooperative has gone as far as it can without getting in there and doing the physical studies that will actually define whether the project is feasible.

[1:09:31 PM](#)

REPRESENTATIVE TUCK observed the statement on slide 4, "Affected water flow 3000 feet from the top of the falls to the bottom". He inquired whether this is referring to a vertical or diagonal drop of 3,000 feet.

MR. HIMSCHOOT replied that until there is the actual design [the estimate is] 3,000 feet or 2,500 feet of longitudinal, not vertical. That is the actual river flow, he clarified, and the penstock, the pipeline that is put in there, is expected to be closer to 1,500 feet.

[1:10:13 PM](#)

REPRESENTATIVE HOPKINS asked how many miles of transmission line would need to be built to get power to the different villages.

MR. HIMSCHOOT responded it would be 130-150 [miles], depending on whether Naknek, South Naknek, and King Salmon are able to benefit from the project as well.

[1:10:44 PM](#)

REPRESENTATIVE TUCK asked how many people would be covered by the project.

MR. HIMSCHOOT answered it would be between 3,500 and 4,500 people, depending on the scope of the project.

1:11:05 PM

REPRESENTATIVE HANNAN noted the bill just gives the Department of Natural Resources (DNR) and the Alaska Department of Fish and Game (ADF&G) the authority to amend the management plan for Wood-Tikchik State Park so that the appropriate permitting can go forward. She asked how much the project is going to cost and how long it will take to construct.

MR. HIMSCHOOT replied that the Federal Energy Regulatory Commission (FERC) is the permitting authority for anything over five megawatts on an operating license. He stated this would just allow the cooperative to get in there and follow the FERC procedures and do the studies that will be necessary to that process. The estimate right now, he continued, is \$120-\$150 million to construct the project. He said much of that would be defined by the studies and if the studies show it is a viable project, then the design that follows the studies if the cooperative can acquire an operating permit.

REPRESENTATIVE HANNAN inquired how long the FERC process is anticipated to take to get to a project that can be permitted.

MR. HIMSCHOOT responded that the studies themselves are expected to take three years. He said the FERC process allows a three-year window, which the cooperative is one year into right now. As long as progress is being made, he continued, the FERC process also allows a two-year extension. He related that the cooperative expects it will need that extension and that sometime between now and four years from now the study will be completed. Once the studies are completed, he stated, there is roughly one year for engineering and design and then hopefully a two-year build process to bring this into production. So, he added, if everything goes according to plan it is about a six-year process from here.

1:13:38 PM

MR. HIMSCHOOT related that the Nushagak Cooperative started this process in late 2017 and since then the cooperative has done more than 70 meetings and presentations to build the social license and support for the project that the cooperative knows it will need in the region. Even though Nushagak Cooperative is

the entity that will be doing the studies here, he said, the cooperative understands fully that this is a regional impact and regional benefit and is doing everything it can to involve the region. He pointed out that the substitute language seen in the bill was part of that process. He explained that as the bill entered the legislative process, the cooperative found some local opposition to language in the bill. But, he continued, the cooperative was able to bring everybody together through a series of meetings and to come up with some additional language that continues to build that needed local support and does not materially affect the cooperative's ability to do the studies that are needed.

MR. HIMSCHOOT addressed the [\$20,000] fiscal note accompanying the bill. He stated the cooperative has agreed to reimburse DNR for its actual costs, estimated to be \$20,000, to update the management plan should the bill pass. That has several benefits for the project as well as the bill, he added, which is why the cooperative engaged in that process.

[1:15:21 PM](#)

CO-CHAIR TARR pointed out that before the committee is the Senate-passed version, CSSB 91(FIN). She noted that the House companion bill, HB 99, has the same original language as the original Senate bill. She explained the original bill version only added the Nuyakuk River Falls into existing statute as an area where this activity could take place. She said more specific restrictions would be added into statute by the amended version, [CSSB 91 (FIN), page 1, lines 6-12], which read:

(e) The development and operation of a hydroelectric site at the Nuyakuk River Falls is a compatible use if the development and operation

(1) does not include a dam that full spans a river;

(2) maintains at least 70 percent of the daily upstream water flow of an affected river along the natural course of the river; and

(3) after July 1, 2024, is licensed by the Federal Energy Regulatory Commission.

[1:17:00 PM](#)

CO-CHAIR TARR opened public testimony on CSSB 91(FIN).

[1:17:13 PM](#)

CORY WARNOCK, Senior Licensing and Regulatory Consultant, McMillen Jacobs Associates, testified he is representing the Nushagak Cooperative regarding the regulatory side of things. He related that in the past concern has been raised about this bill somehow expediting the overall licensing process associated with this project. Responding to Co-Chair Tarr, he provided more details related to the FERC regulatory process. He said it isn't a unique issue for park plans to be inconsistent with, or incompatible with, the use of a hydroelectric project. What is unique, he continued, is some of the concern that has been raised. But, he stated, the reality is that the FERC regulatory process is going to drive this overall licensing. All this bill will allow, he advised, is for the Nushagak Cooperative to actually conduct the requisite natural resource and engineering studies required to determine whether this project is actually feasible to construct and operate. The federal process will trump anything else, he added, and if in four or five years the natural resource and engineering studies show that this project can't be built because of fish impacts, or flow impacts, or other issues, Nushagak Cooperative has no intention of pushing it through, nor could it. Things are at the infancy of this overall federal process, he explained, and this is just the light switch to allow that process to continue.

[1:19:26 PM](#)

CHRISTINE O'CONNOR, Executive Director, Alaska Telecom Association (ATA), stated her personal support for CSSB 91(FIN) and noted she is a former board member and a current customer of Nushagak Cooperative. Speaking as a long-time former resident of the region, she said the high cost of energy is a significant economic drag on quality of life and therefore this project is very exciting.

MS. O'CONNOR testified that ATA supports the bill because it has a broadband component. She explained that, should the studies prove it feasible to go forward, the infrastructure that would eventually accompany the project would allow broadband fiber to be deployed, which would also be a benefit to the region.

[1:20:48 PM](#)

CO-CHAIR TARR closed public testimony on CSSB 91(FIN) after ascertaining that no one else wished to testify.

CO-CHAIR TARR requested Mr. Gease of the Division of Parks & Outdoor Recreation to confirm that DNR anticipates entering into a funding agreement with the project proponent under which DNR would collect approximately \$20,000 in receipts from the proponent to cover costs incurred to revise the park management plan and department regulations using the division's existing receipt authority.

[1:21:29 PM](#)

RICKY GEASE, Director, Division of Parks & Outdoor Recreation, Department of Natural Resources (DNR), confirmed Co-Chair Tarr's statement is correct and accurate. He said the division would follow that process moving forward.

[1:21:51 PM](#)

REPRESENTATIVE HANNAN noted that the original version of the bill listed two lakes, but now [the bill as amended] only considers a project that would be on the Nuyakuk River Falls. She inquired whether Lake Elva and Grant Lake are both in Wood-Tikchik State Park.

MR. GEASE offered his belief that hydro studies were done on those lakes in the past, but that they proved to be not feasible "and so this would be including this area to be a not incompatible use with park purposes."

CO-CHAIR TARR stated, "They had previously tried and so the original bill was just going to add the new location so that they were all in that same section, but then I guess from the community input, have further revised that."

REPRESENTATIVE HANNAN explained she is looking to see whether those lakes were removed because of engineering infeasibility or because of community response that a project was not wanted in those lakes.

[1:22:55 PM](#)

MR. HIMSCHOOT responded that Nushagak Cooperative was granted funding in 2009 to study Lake Elva and Grant Lake and the studies were completed in 2012. There was potential for hydro production, he said, but the amount that could be produced for the cost of the project didn't allow the project to move forward as it wasn't responsible financially to move it forward. At that point, he continued, Nushagak Cooperative declared the two

projects not feasible, returned the remainder of the grant funding to Alaska Energy Authority (AEA), and even though the lakes remain in the statutory language the study results are in the park management plan as far as feasibility is concerned.

[1:24:16 PM](#)

CO-CHAIR LINCOLN moved to report CSSB 91(FIN) out of committee with individual recommendations and the accompanying fiscal notes. There being no objection, CSSB 91(FIN) was reported out of the House Resources Standing Committee.

[1:24:45 PM](#)

The committee took an at-ease from 1:24 p.m. to 1:28 p.m.

### **HB 116-AQUATIC FARM/HATCHERY SITE LEASES**

[1:28:24 PM](#)

CO-CHAIR TARR announced that the next order of business would be SPONSOR SUBSTITUTE FOR HOUSE BILL NO. 116, "An Act relating to the renewal or extension of site leases for aquatic farming and aquatic plant and shellfish hatchery operations."

[1:28:50 PM](#)

REPRESENTATIVE ANDI STORY, Alaska State Legislature, sponsor of SSHB 116, stated that the bill seeks to simplify the Department of Natural Resources (DNR) lease renewal process for aquatic farms. Enactment of the bill, she said, would help Alaska-based aquaculture businesses succeed by expediting the renewal process and reducing risk for businesses that make significant capital investments. She further stated that the bill would reduce the workload on an overstretched state agency, while still allowing appropriate regulatory oversight, public engagement, and appeals of DNR's decision.

[1:29:51 PM](#)

GREG SMITH, Staff, Representative Andi Story, Alaska State Legislature, directed attention to a DNR document included in the committee packet that answers the committee's questions from the bill's previous hearing. Regarding the question about how many aquatic farm lease renewals are approved by DNR each year, he said the document states zero in 2014, seven in 2015, ten in 2016, one in 2017, and zero in 2018 with twelve applications

submitted. He offered his understanding that a number of lease renewal applications were submitted in 2017 that have not yet been approved due to the amount of work in the division. Regarding the question about the range in sizes of aquatic farm leases, Mr. Smith said the document states the range is from less than one acre on up to 127 acres of state-owned tide and submerged lands. Regarding the question of whether the director would have the authority to deny a lease renewal given that that authority appears to be removed in Section 3 of the bill, he said the document states that a director "may" renew or "may" not renew a lease under AS 38.05.070(e). Regarding the questions on salmon hatcheries that have DNR general leases, he said the document states yes, there are some. Regarding the length of salmon hatchery leases, he said the document states that there is a 25-year lease and a 30-year lease.

MR. SMITH continued speaking from the DNR document and noted there was a question about the length of aquatic farm leases and said that under regulation those are 10-year leases. Regarding questions about what DNR is able to do during the lease term, at renewal, and if there are violations of the lease terms, he said it appears from the document that DNR is able to deny, revoke, or rescind a lease during the lease term; change terms of the lease at renewal, both under the current renewal process and under the optional expedited renewal process under AS 38.05.070(e); and DNR is able to take action on a lease if there is a violation of the lease's terms. Regarding the question on the types of changes that would trigger a new lease application, Mr. Smith said the document states that changes to the lease's footprint or size, or changes to the lease's use, would trigger a new lease application.

[1:33:47 PM](#)

REPRESENTATIVE HANNAN drew attention to the number of aquatic farm lease renewals each year. She surmised that the sponsor's interest in the issue stems from there being 12 applications submitted in 2018 with none of them renewed. She asked whether the sponsor has heard from the applicants and if that is what motivated the bill. She further asked whether an aquatic farm must abandon work on the site if DNR does not renew the lease in a timely manner.

[1:34:29 PM](#)

REPRESENTATIVE STORY deferred to DNR to answer the question.

1:34:59 PM

CHRISTY COLLES, Operations Manager, Central Office, Division of Mining, Land and Water, Department of Natural Resources (DNR), responded that the division is working through them, so they do not have an authorization, but the division also knows that it is due to the workload and is no fault of the applicants. She said it is a situation that neither the division nor the applicant likes, but the division must go through the process before it can say whether the applicant can continue to operate. The applications are being worked on, she continued, but are not completed yet.

REPRESENTATIVE HANNAN asked what staffing levels are needed for this work to be completed in a timely fashion. She further asked whether DNR's operating budget for 2020 meets that operational need.

MS. COLLES answered she doesn't feel comfortable giving those numbers. She said she doesn't know exactly what type of staffing would be needed and she hasn't seen the numbers that have been given for the operational budget in 2020.

REPRESENTATIVE HANNAN asked what the staffing capacity was in 2016 as compared to 2018.

MS. COLLES replied [the division] supports the governor's budget at this point. She said the 2018 staffing level is the same as it was in 2016.

REPRESENTATIVE HANNAN interpreted Ms. Colles' answer as being that in 2016 the staffing level that could complete 12 renewal applications is the same staffing level that in 2018 was unable to complete any applications.

MS. COLLES responded yes, but explained that the reason it has changed is because the division has more new applications coming in. In 2016, she continued, the division did not have the level of interest in the industry as there is now, and that is why it is more difficult for staff to adjudicate these renewal applications.

REPRESENTATIVE HANNAN asked how many applications for new mariculture and shellfish permits were received in 2018.

MS. COLLES offered her belief that there was 14-16 [new applications] in 2018.

REPRESENTATIVE HANNAN inquired whether most of the applications were completed that year.

MS. COLLES answered that the division was unable to complete all of the applications and get them to issuance. She said she could not recall the exact number of how many were issued.

[1:38:12 PM](#)

REPRESENTATIVE RAUSCHER asked what the fate of the applications is now.

MS. COLLES replied the division is continuing to work through them; they are not put aside. She said the division has one dedicated staff member and approximately five other staff members, who also work on general leases, that are assisting with the applications that are coming in for aquatic farming. She stated that there are competing interests and projects for time and while she won't say that they are not a priority, the division is balancing those priorities.

REPRESENTATIVE RAUSCHER inquired whether processing of the applications will continue until they are finished, and that time will not kill them.

MS. COLLES responded correct.

REPRESENTATIVE RAUSCHER related his understanding from speaking with a former commissioner that sometimes the problem isn't lack of funding, but rather the problem of filling [the position]. He allowed, however, that this has nothing to do with today's discussions.

[1:40:12 PM](#)

REPRESENTATIVE LINCOLN asked whether the businesses that are waiting for their leases to be renewed are able to continue operating until the department addresses their renewal request.

MS. COLLES answered yes, [the applicants] are able to continue their business.

[1:41:02 PM](#)

CO-CHAIR TARR opened invited testimony on SSHB 116.

[1:41:13 PM](#)

META MESDAG, Owner, Salty Lady Seafood Company, testified in support of SSHB 116. She stated she is a board member of the Alaska Shellfish Growers Association and that both she and the association support the bill. She related that a year ago she submitted documents for a lease transfer for a farm site in Juneau, and it was just recently completed. She stated she currently has oysters at her farm and is getting ready to seed geoduck. Oysters take three years to become ready for market and geoducks take up to seven, she specified. She pointed out that her lease has five years left on it and she is not even through all of the process for getting her site fully permitted. During the next four years, she continued, [her renewal] will be up for public comment three times and no revenue will be seen from the geoduck before she has to start the leasing process all over again.

MS. MESDAG said SSHB 116 would allow DNR to sign off one time on the renewal of leases that are in good standing. She stated this would improve efficiencies in the agencies regulating this industry and would provide assurances for farmers wanting to enter the industry. This easy solution, she continued, would grant the director the authority to renew leases that are in the state's best interest.

MS. MESDAG pointed out that making changes to her lease takes years. She explained she has a parcel that is supposed to be for a hardening beach, but that it needs to be moved because it's not the right substrate. However, she continued, that move is going to take years, which means she is paying for property that she cannot actually utilize and the only reason is because the state is so backlogged that it cannot process new leases or transfers in a timely manner and in a way that makes it an industry that's easy for people to invest in.

[1:43:40 PM](#)

CO-CHAIR TARR opened public testimony on SSHB 116.

[1:43:51 PM](#)

MARGO REVEIL, President, Alaska Shellfish Growers Association, testified in support of SSHB 116. She said she owns a farm and that both her farm and the association support the bill. She stated the association successfully worked to develop the industry, with sales doubling in the last five years. But the

industry is still in its nascent stages, she continued, with only \$1.53 million in aquatic farm sales with 41 farms reporting. Mariculture has tremendous potential to diversify Alaska's economy and build resiliency in the state's coastal communities, she opined. She said SSHB 116 could alleviate the permitting bottlenecks that are hampering growth and causing lost revenue to the state. She stated that DNR currently processes lease renewals every 10 years using the same requirements as a new lease. She pointed out that this full process is required even if the farm has been a responsible steward of state water resources, has successfully met DNR's commercial use requirements, and is not proposing major changes to the lease.

MS. REVEIL stated that shellfish farming is a heavily regulated industry with ample opportunity for agency and public input. She said regulation of her own 24-acre farm in Kachemak Bay includes the following: a DNR lease renewal every 10 years with periodic inspections; an ADF&G 10-year operation permit with periodic inspections and a development plan report that must be filed annually; an ADF&G special area habitat permit that is renewed annually; a U.S. Army Corps of Engineers permit that is renewed every five years and includes a review by the National Oceanic and Atmospheric Administration (NOAA); Department of Environmental Conservation (DEC) quarterly inspections at the farm's processing plant; annual inspection by the Food and Drug Administration (FDA) for *Vibrio vulnificus* compliance [a bacteria that can contaminate raw oysters]; and compliance with all U.S. Coast Guard requirements. Ms. Reveil pointed out that each of these agencies has its own mechanism for responding to and processing public input. She further noted that a significant part of her time is spent managing agency relations for her small business.

MS. REVEIL stated that SSHB 116 is a modest bill that would accomplish several positive changes: reduce workload for DNR staff, make on-water leases more similar to land leases in terms of process, prioritize DNR staff time in new farm lease applications and managing DNR's program, and give more certainty for existing farmers who have invested in site infrastructure during the first 10-year lease; and slightly reduce [lease renewal] application times. She acknowledged opposition has been brought up regarding farm size and lack of public input, but said new farm applications and second renewals retain the extensive public input component where farm size and resource sharing issues are addressed. She added that the bill would

just give DNR the ability to process a single lease renewal faster if the lease is in good standing.

[1:47:28 PM](#)

NANCY HILLSTRAND, Pioneer Alaskan Fisheries Inc., noted her company has been in business since 1964. She said her main concern is the sponsor statement's [first line], which states: "helping small, Alaska-based businesses." She asked whether there is any way to define the meanings of "small" and "good standing." She said her business helped the oyster growers begin in Kachemak Bay in the early 1990s, but now problems are being seen as some of the oyster growers want to expand and as new oyster farmers come into the area because of the area's residents and navigable waters. She recalled statements that these leases should be aligned and standardized, but maintained that there is a difference because these are navigable waters belonging to the people of Alaska who are boating and fishing the near-shore waters.

MS. HILLSTRAND stated that not all the scientific information is on the table. For example, she said, there isn't a magnitude included for salmon hatcheries, nor an on-off switch. She maintained that the suspension and revocation statute hasn't been utilized properly so some of the hatcheries continue even though they aren't in compliance with their permits, which is what makes her concerned about what "good standing" means. She cautioned about the possibility of over capitalization and then having to buy out the businesses. She said she is by no means opposed to small farms being allowed to continue business, but is concerned that as big industry starts to enter the people of Alaska be allowed a good voice after 10 years for getting down to any problems and finding solutions.

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VICKI JO KENNEDY told the story of her friends in Sterling who invested \$250,000 in a fisheries business that included smoked salmon, processed fish, and shellfish. She said they were controlled by four separate state entities and one federal entity. She related that one agency would say it was okay to do something and then the next one would say it wasn't, and after almost three years her friends threw in the towel because it was such a nightmare. She urged the committee to grow the state by working with the people trying to have a business, to let them get through their permitting in a timely manner, and to not let

so many entities be in charge such that people cannot figure out what to do next.

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HERMAN MORGAN expressed his concern with salmon hatcheries. He said the commercial fishermen in his area used to have a market for their chum and red salmon, but the market was taken away when the hatcheries came online and started overproducing. He maintained the hatcheries are putting out too many fish and are stressing the carrying capacity of the ocean. The hatcheries are making it hard for people in his area to make a living, he continued. He urged that salmon hatcheries be regulated.

CO-CHAIR TARR pointed out that SSHB 116 affects shellfish hatcheries, not salmon hatcheries. She thanked Mr. Morgan for his comments.

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REPRESENTATIVE HANNAN requested the legal definition of "good standing" in the context of SSHB 116.

[1:55:15 PM](#)

ALPHEUS BULLARD, Attorney, Legislative Legal Counsel, Legislative Legal Services, responded that when it applies to a lease it means that there are no issues with the department, and it would be up to the department to define what those could be in this case.

REPRESENTATIVE HANNAN asked whether, because this is about lease renewals, it could be presumed to mean that the applicant must be in compliance with all the terms of the original lease to be considered in good standing for this expedited lease renewal.

MR. BULLARD replied, "That seems a reasonable interpretation."

REPRESENTATIVE HANNAN noted the term "small" doesn't actually appear in SSHB 116. She inquired about the current sizes of shellfish farms and whether the agencies define all those sizes as being "small" leases.

[1:56:55 PM](#)

MS. COLLES answered that for authorized leases the range is from less than one acre on up to 127 acres. She said most of the

farms are less than 30 acres and only one is above 30 acres - a new farm that is 127 acres. She stated that the division is seeing some larger farms come online in applications.

REPRESENTATIVE HANNAN inquired whether the 127-acre farm is a corporate type structure, rather than a mom-and-pop structure, for shellfish operation.

MS. COLLES replied it is hard to tell. She said a lot of these companies come in with business licenses and sometimes they are getting funding from an outside source, but the division doesn't always know all the different factors of where their sourcing is coming from. Therefore, she continued, she cannot say for sure whether they are a mom-and-pop.

REPRESENTATIVE HANNAN asked whether there is a difference in the division's application oversight based on the size of the acreage that is being sought for a lease; in other words, whether a 30-acre application is treated differently than an application for 127 acres.

MS. COLLES responded that some regulations give different consideration for larger farms taking up more than one-third of a bay or cove. It isn't always the size being so much larger, she explained, it is the size taking up a large area that makes the division look closer at the application to consider a few criteria that are listed in regulation. But, she added, she wouldn't say the division treats them differently. A lot more comments are received when the farms are larger, she noted. For example, she related, recently a farm wanted to expand a couple acres in Kachemak Bay, and since that requires public notice the division got a lot of comments because it is in a well-populated area and [the public] was concerned about navigation issues. So, she continued, it really depends on the location.

[2:00:04 PM](#)

REPRESENTATIVE TALERICO addressed Section 3 of the bill, page 2, lines 7-9, which state: "The commissioner, for good cause, may deny an application an application for issuance [OR RENEWAL] of a lease under this section but shall provide the applicant with written findings that explain the reasons for the denial." He said this language seems to mean that the only person who has access to the written denial is the applicant. He asked whether this would create an issue.

MR. BULLARD answered that this language would impose a duty on the commissioner to provide an applicant with the written findings that explain the reasons for the denial. He said there isn't anything [in the language] that would limit who else might see such a denial or that would make it confidential in any way.

CO-CHAIR TARR noted this particular reference is under the responsibilities of the commissioner. She interpreted Mr. Bullard to be saying it doesn't otherwise limit the commissioner to providing this information to people in a nearby community.

MR. BULLARD replied that that "is a reasonable interpretation of that phrase." He pointed out that the word "only" doesn't appear on line 8 or line 9 or page 2, "it's just requiring the commissioner to provide the applicant with those reasons."

[2:02:45 PM](#)

CO-CHAIR LINCOLN moved to report SSHB 116, Version 31-LS0696\U, out of committee with individual recommendations and the accompanying fiscal notes. There being no objection, SSHB 116 was reported out of the House Resources Standing Committee.

**PRESENTATION(S) : UNDERSTANDING THE EFFECTS OF PFAS (PER- AND  
POLYFLUOROALKYL SUBSTANCES) CONTAMINATION IN ALASKAN  
MUNICIPALITIES**

[2:03:02 PM](#)

CO-CHAIR TARR announced that the final order of business would be presentations on per- and polyfluoroalkyl substances (PFAS) contamination.

[2:03:12 PM](#)

JASON BRUNE, Commissioner, Department of Environmental Conservation (DEC), provided a PowerPoint presentation titled "State Response to PFAS," dated 5/10/19. He thanked the committee for its interest in the important issue of per- and polyfluoroalkyl substances (PFAS) and the impact, and potential impact, of these substances on Alaskans. He turned to slide 2 and explained that these manmade compounds were developed by 3M in 1949 and that their molecular structures make them extremely effective in the products they are used in, as well as very problematic for the environment and human health. He stated that PFAS, [a class of 5,000 manmade chemicals], are water soluble, toxic, and extremely persistent in the environment

because they do not break down and therefore bioaccumulate. The two most studied, he noted, are perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA).

COMMISSIONER BRUNE moved to slide 3 and stated PFAS are found in a wide range of consumer, industrial, and commercial products, including: Scotchguard, a product applied to furniture and [carpets]; non-stick coatings, such as Teflon; containers, clothing, and boots. He said PFAS provide stain, oil, and water resistance.

COMMISSIONER BRUNE displayed slide 4 and pointed out that PFAS are globally distributed. He explained PFAS are contained in products that people use on a day-to-day basis and that they are atmospherically transported on airborne particulates. Higher PFAS levels are found in urban areas, he noted, and nearly all U.S. residents have detectable PFAS in their blood. He said PFAS has been found in polar bear blood samples, which means the bears were exposed by eating seals that ate fish that had been exposed to PFAS.

COMMISSIONER BRUNE turned to slide 5 and addressed the sources of PFAS. He said the most significant impact in Alaska is from aqueous film-forming foam (AFFF), a product required at every state certified airport. He stated PFAS have been found in water treatment plants, biosolids, and landfill leachate. He added that PFAS have been found in all 50 states and that much effort is going toward this emerging issue.

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COMMISSIONER BRUNE related that meetings have been held within DEC, as well as between DEC and the governor's office, the Department of Transportation and Public Facilities (DOT&PF), the Alaska Department of Fish and Game (ADF&G), the Department of Administration (DOA), and the Department of Health and Social Services (DHSS). He said there has been significant discussion of this issue because of its potential impacts on the state.

COMMISSIONER BRUNE moved to slide 6 and said the most common exposure to PFAS is through consumption of contaminated food and water, although household products can also contribute to a person's PFAS exposure. He explained that exposure to PFAS through food can occur in a variety of ways: eating foods that were wrapped in PFAS packaging, preparing foods in non-stick pans, eating fish that were in PFAS contaminated waters, consuming crops grown in industrially contaminated soil or soil

mixed with biosolids or soils irrigated with contaminated water. A recent example, he continued, is a dairy in New Mexico whose cows were producing milk that had PFAS; those 4,000 cows had to be destroyed. Regarding water contamination in Alaska coming from the use of AFFF, he explained that once discharged into the environment, the PFAS compounds contained in the AFFF quickly enter nearby surface and groundwater supplies. For communities near airports required to use AFFF, he said, the exposure to groundwater has a significant potential impact.

2:10:10 PM

REPRESENTATIVE HOPKINS requested Commissioner Brune to detail the decision making process that he and the commissioners of DOT&PF and DHSS went through to arrive at the new and less stringent standards that are now being applied.

COMMISSIONER BRUNE replied that DEC had extensive conversations with all the departments that were impacted. He said DEC has a process in place from the previous administration, which had put out draft regulations but then decided not to finalize those regulations. A significant amount of comments came from both sides of the different parties for and against passage of those regulations, he related. He stated DEC wants to ensure that the resources and science necessary for making such important decisions are being used on this emerging issue, so it was decided to follow the lead of the Environmental Protection Agency (EPA). He said DEC, with the regulations that were passed in 2016, is doing more than are 34 other states. He related that DEC has a level of 400 parts per trillion (ppt) for groundwater cleanup and has spent significant effort in ensuring that Alaska's airports are being tested. He maintained that focusing on PFOS and PFOA, the two contaminants that the most is known about and the ones that EPA is choosing to lead their efforts on, is the best way to ensure that DEC is making the right approach going forward. He said DEC holds a significant number of meetings on a daily basis and is monitoring this, and in the future, if deemed appropriate, DEC will come forth with more stringent requirements based on the emerging science.

REPRESENTATIVE HOPKINS asked what new studies have come out that show there is less concern and less risk in these chemicals.

COMMISSIONER BRUNE responded, "I think where we are at is the studies that have been done, the predominant studies, are on PFOS and PFOA. There are not what we felt is a significant

number of studies that have been completed yet that show that the others are as big of a risk as PFOS and PFOA."

REPRESENTATIVE HOPKINS inquired whether those are still considered a risk.

COMMISSIONER BRUNE answered, "Definitely we're monitoring them, we definitely think that there is concern about them, but the ones that we're putting our emphasis on and that the EPA is putting its emphasis on are PFOS and PFOA."

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REPRESENTATIVE SPOHNHOLZ offered her understanding that DHSS released a report recommending much lower levels. She asked whether the distinction is that Commissioner Brune is talking about just PFAS and not PFOS. She noted that many folks are using those interchangeably.

COMMISSIONER BRUNE agreed there is much confusion between PFAS and PFOS. He explained PFAS is the general category of 5,000 or so polyfluoroalkyl substances. He said the State of Alaska and the EPA have chosen to put their emphasis on PFOS and PFOA [and have established a level of] 70 parts per trillion (ppt).

REPRESENTATIVE SPOHNHOLZ offered her understanding that all the chemicals across the board are associated with increased health risks that are significant and long lasting. She therefore asked why a more cautious approach isn't being taken while waiting for the science to emerge, rather than an approach that just risks it and hopes it is going to be okay for babies, children, and seniors and then brings it back after the EPA gets its very slow regulatory act together.

COMMISSIONER BRUNE replied DEC has had extensive conversations and there are different opinions on the issue. He said there are two principles: The precautionary principle, which says don't use anything until it is proven to be okay; and the keyhole principle which says to keep on using it until it is known to be bad. He opined that somewhere in between those two is when policy comes into play. He said 34 other states are currently doing nothing, while DEC is being proactive and is staying on top of the issue. He reiterated that EPA's action plan is focused on PFOS and PFOA and the other [chemicals] have not risen to that level in the EPA's plan. He added that he understands the concern and said he has staff with a similar concern as well as staff that are of the opinion that DEC should

be going with what the EPA is doing. As the science emerges, he continued, DEC will definitely make additional recommendations if it is appropriate.

REPRESENTATIVE SPOHNHOLZ commented that the DHSS public health team still seems to think that this is an issue. She said she feels there is an incongruity between what the two branches of government are doing and saying with regard to public health.

[2:16:44 PM](#)

DENISE KOCH, Director, Division of Spill Prevention and Response (SPAR), Department of Environmental Conservation (DEC), pointed out that the Lifetime Health Advisory, and the value that DEC is using, were developed by EPA with sensitive populations in mind. She said these more sensitive members of the population include expectant mothers, breastfeeding, and the elderly.

[2:17:24 PM](#)

REPRESENTATIVE HOPKINS, in regard to lowering these standards and assuming it's going to be okay, asked what guarantees can be provided by DEC that these previous levels are no longer a health concern for the Alaskans in the affected areas.

MS. KOCH responded that part of the challenge is that all states are wandering in an era of regulatory uncertainty and are trying to find the best science. She said the frank answer is that no one has a perfect guarantee on PFAS, it is being learned about every single day. Because it is so complex and the body of science so large, she continued, most states have either used the EPA Lifetime Health Advisory or don't have their own standards and some states haven't even tested for PFAS in the groundwater.

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COMMISSIONER BRUNE assured the committee that DEC is on top of this issue and said he understands the committee's concern about DEC lowering the standards. He said DEC has proven it's ahead of the game when it comes to 34 other states, given DEC is testing and monitoring for this and he is regularly speaking to different organizations. He further assured committee members that DEC absolutely will change its approach if a sufficient amount of additional studies are seen with respect to other PFAS related chemicals. Given the existing data for PFOS and PFOA, he continued, DEC felt the best approach was to follow the lead

of the EPA, the agency that has the resources. He reiterated that the previous administration received comments across the spectrum on the [proposed] regulations and ultimately decided not to finalize those regulations. This shows it isn't a political issue, he opined, it is an issue that is emerging, and new science is evolving every day and he is committed to staying on top of it.

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REPRESENTATIVE HANNAN acknowledged the commissioner's reference to 34 other states that aren't engaged in this process, but pointed out that a number of states have joined together in a class action lawsuit against 3M. She asked whether DEC has been engaged in dialogues with the administration about participating in that class action lawsuit against 3M, given concerns about the cost to states for the impact of this toxin on communities.

COMMISSIONER BRUNE answered that there have been discussions, but no decision has yet been made. He said he has talked to the governor and the attorney general about this issue. He said the community of Fairbanks has joined a class action lawsuit against 3M and the State of Minnesota settled with 3M for what he believes was \$800 million.

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COMMISSIONER BRUNE resumed his PowerPoint presentation and credited DHSS for providing the next several slides. He displayed slide 8 and reported that according to the EPA and the Agency for Toxic Substances and Disease Registry, studies show probable links between exposure to long-chain PFAS and the list of health concerns outlined on the slide [ulcerative colitis, liver damage, abnormal fat metabolism, high cholesterol, kidney cancer, chronic kidney disease, pregnancy-induced hypertension, decreased response to vaccines, testicular cancer, decreased fertility, thyroid disease, reduced birth weight]. He explained that these are population level epidemiological studies, not individual studies, and therefore it cannot be said at this point that an individual has gotten sick or died from PFAS. However, he continued, there are definitely associations and correlations with exposure. He advised that a number of these studies are exposures in communities that have had significant manufacturing using PFAS chemicals. He said DEC is monitoring these studies because they may have been done in certain areas and may not be population-wide studies.

COMMISSIONER BRUNE moved to slide 9 and pointed out that while many studies have been done on lab rats and other small mammals, most of the studies on human health have been on PFOS and PFOA. He read the quote on slide 9, which states: "The science around these compounds is emerging rapidly; and so, almost as we establish a benchmark ... in a matter of months, it may be out of date based on the new science". So, DEC is constantly evaluating the new science, he said.

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REPRESENTATIVE HOPKINS inquired whether any of the evolving monthly studies have shown that previous studies were wrong and the previous information too aggressive in regard to the levels.

COMMISSIONER BRUNE replied he is unable to answer the question because the slide was put together by DHSS. He offered to get back to the committee with an answer. He assured the committee that the PFOA and PFOS studies have shown more exposure, but said he is unable to speak to the other 5,000 PFAS-related chemicals.

REPRESENTATIVE HOPKINS remarked that if more and more evidence is seen by the month that these are substantially more impactful at lower levels than had been previously thought, he must question the logic for deciding to change the standards to be less stringent now.

COMMISSIONER BRUNE responded that he answered this question before when he said he understood the committee's concerns and that DEC is staying on top of it and is following the lead of the EPA, the national organization that has the resources to be able to study this. He stated DEC doesn't have the resources that are had by the EPA and large states like California and Washington that are leaders on this issue. As new data emerges, he continued, DEC will make a change if it is needed.

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REPRESENTATIVE SPOHNHOLZ, regarding the state not having the resources, asked whether DEC has considered partnering with the University of Alaska where there is a lot of expertise. She pointed out that the University of Alaska Anchorage (UAA) has a lab that does chemistry and testing and particularly looks at toxics. The lab is expert in this, she noted, and would be a useful guide to the state as it considers decisions.

COMMISSIONER BRUNE answered that in a meeting this week, DEC and DHSS had that exact question while talking about potential impacts from biosolid application and whether a study could be done that would show the potential impact of PFAS contaminated biosolids on growing vegetables or fruits. He said he thinks it is a great idea to try to get local science as well as to collaborate with other states and the science they are doing. He said DEC is not there yet, but the idea was a brainchild of DHSS a few days ago.

REPRESENTATIVE SPOHNHOLZ pushed back on Commissioner Brune's comments around science. She said science, research, and the scientific process is actually an incredibly slow, rigorous, deliberative process that does not move at breakneck speed. She pointed out that the research coming out over the last couple of years on PFAS in general, and on various [specific] PFAS, is the result of years and years of work. She further pointed out that those years of work were precipitated by people identifying unnatural levels of certain kinds of health consequences in communities. She urged caution in suggesting that something is happening very quickly with science. The body of knowledge is growing, she stated, and waiting for definitive evidence will result in waiting far too long and a lot of lives may be very significantly impacted. She said she thinks some of DEC's own scientists have serious concerns about reducing the number of chemicals that are allowed to count against that 70 ppt level.

COMMISSIONER BRUNE replied he doesn't disagree. These chemicals are ubiquitous in the environment, he stated, and the exposure pathways are through the air, through AFFF, and microwave popcorn bags, and rushing to judgment goes back to his statement about the precautionary principle and the keyhole principle. He said he understands leaning towards the precautionary principle, which is what many of DEC's scientists have recommended. But, he continued, there are others who feel otherwise, which is why it is important that DEC pays attention to the issue and makes those decisions as new science on the other PFAS-related chemicals comes forward.

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CO-CHAIR TARR expressed her extreme disappointment with DEC taking this position. She noted that the 1996 Food Quality Protection Act said to go back and re-test all the chemicals and use children as the benchmark for safety. Tens of thousands of chemicals currently in use in the U.S. have never been tested for human safety or impacts to the environment, she pointed out.

Now, in 2019, she said, just a small fraction of that work has been done from a bill that passed in 1996. She continued:

So we have every reason to know that the EPA will be slow to take action. We know that it's been highly politicized under this current administration. We know that there are intense lobbying efforts on the part of the chemical industry that spend hundreds of millions of dollars on lobbyists. It's just completely unacceptable in my mind that you would know all of that, and you must in your position, and as many years as you've worked around these industries and then just say it's acceptable for us to defer to the EPA when we know we have communities on bottled water right now because of the groundwater contamination. ... It's not okay. We could be waiting years and years and years before the EPA takes action, particularly under this federal administration that won't even acknowledge that climate change is real. So, nobody at the federal government right now in that president's office is listening to science, and to suggest that the EPA is going to come out with the kind of standards we need to protect.... Why wouldn't Alaska want to be the leader on this issue? ... That's the part I can't understand. We could move forward. We could say ... "In Alaska we're not going to wait around, the health of our people is so important we're going to be leaders on this issue, we're going to find the resources that it takes, we're going to do the studies that we need, and we're going to move forward." And instead we're just taking a total backseat and pretending like the federal government is going to do the work and we know that's not true.

[2:31:19 PM](#)

COMMISSIONER BRUNE maintained that Alaska is a leader. He said Alaska was the first state that set soil level cleanup levels at 400 ppt. Through working with DOT&PF, he stated, potentially affected communities were identified throughout the state that may have been impacted by the application of AFFF at DOT&PF airports. He continued:

We have been leaders in making sure that if we did see this impact to the groundwaters that we are providing alternative sources of drinking water, that we are holding companies and DOT to a high standard to ensure

that that water isn't being consumed right now. We have been leading the nation in this effort. We don't have our head in the sand and are saying, "Just go ahead and drink it." We are the ones that are out there actively testing, we are actively engaged in this process to ensure that our people are remaining safe and that the drinking water that they have is protected. ... The EPA levels that we are following at 70 ppt right now, ... we're one I believe of only [16] states that have that. ... You're absolutely right, there are other states that are absolutely more restrictive than we are, but there are 34 states that are way behind us. And as we're seeing this issue emerge, as we're watching this, we're not ignoring it, we're not ignoring the science, and we're not doing nothing about this. We're ... one of the leaders in the nation in doing this. And yes, we have made the decision to step back and only test for those two, PFOS and PFOA. As we learn more information ... if we need to, we will do more.

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CO-CHAIR TARR asked whether current testing tests for all six.

COMMISSIONER BRUNE responded that right now DEC is testing for two, PFOS and PFOA.

CO-CHAIR TARR offered her understanding that the commissioner is saying that when DOT&PF is doing soil testing it is not testing for six.

COMMISSIONER BRUNE answered that when DEC met with DHSS, DOT&PF, DOA, ADF&G, and the governor's deputy chief of staff, the decision was made by the State of Alaska that it would test for PFOS and PFOA.

CO-CHAIR TARR offered her belief that there is contradictory information that suggests [DEC] is testing for all six but only keeping the information for two. She offered her understanding that the commissioner is saying [DEC] is not collecting information for all six and only keeping two.

COMMISSIONER BRUNE replied the EPA testing panel actually tests for 14. He stated that when [DEC] was testing for the six [DEC] was getting the data for six, not for 14. The panel gives the opportunity to have all 14, he explained, but [DEC] chose at

that time to get six. Now at this time, he continued, [DEC] is choosing to get two and that decision to test PFOS and PFOA, consistent with what the EPA is doing, was made with everyone in the room having that discussion.

CO-CHAIR TARR asked where the data is from the testing that includes the other four. She surmised that [DEC] was never doing the full panel.

COMMISSIONER BRUNE responded that the full panel has always been done, that is the EPA methodology that is done. Before he was commissioner, he stated, the decision was made to only get the data for six, and then as of the technical memorandum published on April 9, [2019], the decision has been to test only for PFOS and PFOA going forward.

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MS. KOCH confirmed the aforementioned is correct. She said more information was collected in the past, but [testing for only PFOS and PFOA] is from the date of April 9, 2019, forward.

[2:36:05 PM](#)

CO-CHAIR LINCOLN inquired about the marginal cost of including some of the other chemicals while going through the effort of collecting samples and applying the testing methods. He surmised that the cost of adding a couple more chemicals would be much less than going out and testing for them specifically. He suggested that even if the data isn't being used for anything actionable, it would be helpful in the future, when better information comes out, to have some longitudinal understanding of how long those chemicals have been there and whether there has been any change over time. He requested the commissioner to explain the logic of not including other chemicals if the cost of adding them is marginal.

COMMISSIONER BRUNE answered he thinks the cost difference between testing for two or for all 14 is small, but that the staff time of interpreting all 14 definitely would add significant cost. So, he continued, the decision was made to focus on the two chemicals that the EPA has put the most emphasis on. He deferred to Ms. Koch to answer further.

MS. KOCH confirmed there is some difference in cost and that it is relatively nominal.

COMMISSIONER BRUNE added that significant staff time is involved to interpret where each chemical potentially originated from and the responsible party. He reiterated that DEC made the decision through significant consultation with DHSS, DOT&PF, ADF&G, and the governor's office to focus on the two that the EPA is focusing on.

CO-CHAIR LINCOLN clarified he is not asking to go through the expense and the time to analyze the data; the data could just be sitting there in a database without someone taking the time to evaluate it. He concluded he is hearing that DEC is currently not even collecting, recording, or keeping the data on those other chemicals even though it could be potentially useful in the future.

COMMISSIONER BRUNE replied the co-chair is correct. He said DEC is choosing to not collect the data for the other 12, just like the previous administration chose to not collect the data for the other eight, even though they are on the panel. He stated he doesn't know if a different test is done for getting the additional 12, but generally the panel is all 14. He said he thinks that just the two being asked for are reported to [DEC] and those are the two that the EPA has set as its health advisory levels.

CO-CHAIR LINCOLN asked if anyone else in the room knows whether it is the same test [that is done for getting the additional 12] and it is just access that is needed for the information.

MS. KOCH explained that it is one EPA method - the sample is collected and brought to the lab, the same method is essentially run, and it is chosen whether to do the analysis on that method to report out a particular compound or not. It is the same sort of core test, she continued, and then an analysis can be done for a particular compound based on the core test.

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COMMISSIONER BRUNE concluded his presentation by noting that DEC and DOT&PF have collaborated their work and are continuing risk assessments of airports around the state and the potentially impacted communities, with Aniak and Iliamna up next for testing. All of the airports that may have had contamination from AFFF are being evaluated, he added. He said he is continuing to make regular public presentations about this issue and staff is continuing to meet on the issue.

COMMISSIONER BRUNE turned to slides 25 and related that this is a nationwide concern. Some states have adopted the EPA Lifetime Health Advisory and several states have much more stringent requirements, he said, but most states have yet to take any action. He continued:

We are monitoring the legislation as well. The state environmental health directors just came forward with a list a few days ago ... of bills that have been proposed. There have been 58 bills introduced this session by other states related to PFAS, five of those have been enacted, approximately 20 states have proposed legislation.

COMMISSIONER BRUNE displayed slide 26 and continued:

We are actually farther along on this important issue than most states are. We will continue to monitor this very closely; my team is absolutely engaged on this issue. We're working collaboratively with the other departments across the state, and I will be happy to provide updates on a regular basis to this or other committees in the future.

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CO-CHAIR TARR invited Mayor Ward to provide his presentation on behalf of the Fairbanks North Star Borough.

[2:42:36 PM](#)

BRYCE WARD, Mayor, Fairbanks North Star Borough, provided a PowerPoint presentation titled "PFCS in the FNSB," dated 5/10/19. He displayed slide 1 and noted his presentation includes the impacts to the borough as well as to the City of North Pole and the City of Fairbanks. He further noted that much of the information included in his presentation comes from the State of Alaska's contaminated sites web page and publication [<https://dec.alaska.gov/spar/csp/pfas>].

MAYOR WARD moved to slide 2 and explained that perfluorinated chemicals (PFCs) are manmade compounds used in the manufacture of stain-, oil-, and water-resistant consumer products. He said they are also found in products such as firefighting foam, cleaners, cosmetics, paints, adhesives, and insecticides. They are persistent in the environment, he stated, because the natural processes do not rapidly degrade them. He pointed out

that in Alaska, spills or releases of PFCs into the environment are primarily associated with aqueous film-forming foams (AFFF) used during firefighting and fire training activities. He specified that PFC compounds of concern include PFOA and PFOS, the two most studied, but that a growing body of research indicates additional PFAS compounds may have similar health and environmental effects and may be co-contaminants.

MAYOR WARD turned to slide 3 and stated that in 2016 the Alaska DEC published cleanup levels for PFOS and PFOA and the EPA issued Lifetime Health Advisory (LHA) levels for PFCs in drinking water. In 2018, he said, DEC set action levels for six PFAS compounds, including PFOS and PFOA, which were higher than the EPA standard. On April 9, 2019, he continued, DEC published a revised technical memorandum on action levels for PFCs that superseded the 2018 action levels memorandum and raised the action levels to EPA's Lifetime Health Advisory levels. Action levels, he explained, serve as a threshold for determining when responsible parties need to provide water treatment or alternative water sources for impacted water supplies.

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MAYOR WARD addressed slides 4-5. He stated that in spring 2015, sampling of drinking water supply wells at Eielson Air Force Base revealed the presence of PFOA and PFOS at levels exceeding the EPA's then-termed Provisional Health Advisory Levels, now known as the EPA's Lifetime Health Advisory levels, for PFOS and PFOA. He said contamination from PFCs originated from historic AFFF use at Eielson Air Force Base from 1970-2000. Mitigation efforts to date, he continued, include installing granular activated carbon (GAC) filtration for Eielson Air Force Base drinking water wells and on many homes in the Moose Creek community. He noted that homes in Moose Creek not on a GAC system receive an alternative water supply of either bottled water or water delivery through a holding tank.

MAYOR WARD displayed slide 6 regarding the U.S. Air Force Interim Feasibility Study for the Community of Moose Creek, Alaska, Long-Term Drinking Water Supply, dated November 2017. He said the Record of Decision was issued for an extension of the North Pole water system, which will provide a piped water system to the community of Moose Creek. Moving to slide 7, he explained that extending the North Pole water system requires that a water pipeline be installed along the Richardson Highway to serve the Moose Creek water distribution system.

MAYOR WARD turned to slides 8-9 and related that in September 2015, Shannon & Wilson, Inc. completed a soil and groundwater investigation on the City of Fairbanks Regional Fire Training Center property and found PFAS and petroleum compounds in the groundwater on site. He said firefighting foam containing PFAS is suspected to have leaked through the lined training pit or from over-spraying on the edges of the pit during training activities. He noted that the burn pit was constructed in 1984 and was used for approximately 20 years. Due to concern about PFAS in drinking water, he continued, the City of Fairbanks began searching for water supply wells, including drinking water wells, immediately after the discovery.

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MAYOR WARD moved to slide 10 and related that the search was expanded between February 2016 and February 2017 and now extends to areas around Peger Lake, south of 30<sup>th</sup> Avenue, the Davis Road sports fields, and other properties between the Mitchell Expressway and Egan Avenue or Airport Way, and properties on both sides of the Chena River between Loftus and University Avenue.

MAYOR WARD displayed slide 11 and reported that in summer 2017 Fairbanks International Airport sampled a variety of groundwater wells and surface water on the airport property for PFCs. This investigation, he said, was prompted by the investigations at other facilities where fire training and response using AFFF had occurred and resulted in PFC impacts to groundwater having affected private drinking water wells. For many years, he noted, Fairbanks International Airport used AFFF in training and emergency responses on airport property and a burn pit at the airport was constructed in 1993 and used for training with AFFF. Prior to 1993, he continued, training with AFFF was conducted outside of a lined pit south of the east runway and at other locations adjacent to the airport response center.

MAYOR WARD turned to slide 12 and stated that initial samples were taken during investigations for other contaminants at the Don Bennett Shooting Range site. He said sample results indicated the concentrations of PFCs exceeded established cleanup levels, so the Fairbanks International Airport began plans to sample existing monitoring wells and surface water bodies throughout the facility. He reported that detections of PFOS and PFOA above cleanup levels prompted immediate searches and sampling of drinking water wells in the area down gradient from the airport.

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MAYOR WARD moved to slide 13 and stated that in 2018 DEC investigated and discovered PFCs in groundwater off the former refinery property in North Pole. During an expanded investigation, he said, PFCs were also identified at 122 ppt in Kimberly Lake, located to the northwest of the former North Pole refinery.

MAYOR WARD showed slide 14 and related that this discovery led to the sampling of Kimberly Lake fish. He said both PFOS and perfluorononanoic acid (PFNA) were measured at levels of concern in all the fish sampled from Kimberly Lake, with PFOS concentrations at 47-68 parts per billion (ppb) and PFNA concentrations at 16-22 ppb. He pointed out that the state advises not consuming surface water or fish from Kimberly Lake at this time.

MAYOR WARD displayed slide 15 and said sulfolane contamination of groundwater led to subsequent legal actions and settlement with Flint Hills Resources, the operator of the refinery during the sulfolane discovery. He specified that the State of Alaska and the City of North Pole are expanding the North Pole utility water system to cover the areas contaminated with sulfolane, which will reduce the chance of PFC ingestion through well drinking water.

MAYOR WARD turned to slide 16 and discussed groundwater contamination concerns. He pointed out that while it is known that spreading of pollution is not allowed under Alaska law, many may not be aware that using untreated contaminated well water may cause the spread of pollution. He explained that bringing impacted well water to the surface might expose people to the pollution and/or allow pollution to spread onto other properties, sloughs, or ponds. He further explained that these concerns are most notable when using groundwater to irrigate recreational fields or gardens where food is being grown for consumption. Irrigating recreational fields [slide 17] with contaminated groundwater creates concerns for the users, he continued, such as children who would be exposed by running or walking on grass watered with contaminated water. He informed the committee that PFC compounds remain in the human body for years after exposure and in the environment for even longer.

MAYOR WARD moved to slide 18 and explained that once an aquifer is contaminated it becomes very expansive. The Fairbanks North

Star Borough, he continued, currently has four major PFC contaminated sites over the urbanized area, which stretches about 30 miles.

MAYOR WARD concluded his presentation with slide 19. He said local governments and communities need and rely on DEC to set standards and give guidance for cleanup measures, which include establishing human health advisory or cleanup levels for groundwater contamination. Alaska's communities, he added, rely on DEC to protect the state's resources and population. He pointed out that financial resources will be needed for remedies such as extending water systems into the contaminated areas and assisting in development, implementation, and management of institutional controls for PFC contaminated areas.

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REPRESENTATIVE HOPKINS thanked Mayor Ward for his work and leadership on this issue. He noted that the concentrations in [Kimberly Lake] fish are parts per billion, while DEC's measures are parts per trillion, which indicates a pretty substantial concern in that lake. He further noted that nearly 4,000 children play on the potentially contaminated [soccer fields]. He asked whether testing by Shannon & Wilson has shown that the contamination has continued to expand and spread.

MAYOR WARD replied:

We are currently working with the City of Fairbanks, which this pollutant is coming from the Regional Fire Training Center, to work on remedies to make sure that we're not using water that is contaminated with perfluorinated compounds. That discussion is ongoing, but we have had measures put in place in prior years to mitigate or to eliminate that risk, whether it be through onsite storage and distribution of the water or having a very wet summer. So, we are still working on remedies to that and other alternatives have been considered.

CO-CHAIR TARR inquired whether Mayor Ward feels the state is taking the appropriate action at this time or should take a more cautionary approach.

MAYOR WARD responded that he couldn't speak on behalf of the assembly, but his personal opinion is that the conservative approach is probably the wisest approach. While he understands

there is guidance from EPA that the state has aligned the regulations with, he said his fear is that this needs to be continually monitored to ensure that a competitive edge is maintained, and standards are provided that meet the needs of communities. Ultimately zero would be an appropriate standard, he continued, although that is probably not reasonable. He added that it does concern him.

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CALVIN CASIPIT, Mayor, City of Gustavus, stated that the City of Gustavus is very concerned about its own financial health because of AFFF use in the city. He said the city is also very concerned about the effects [of contamination] on its tourism industry, the bread and butter of the community as the gateway to Glacier Bay National Park & Preserve. He related that when people say the community's water is poison, it causes issues. He said the city wants to have water that is clean and healthy for its visitors. He pointed out that it is causing many issues and concerns for the city's own residents since many rely on subsistence and on their own subsistence gardens where they grow their own food and water with groundwater. He deferred to the city's administrator to talk further.

[2:56:19 PM](#)

TOM WILLIAMS, City Administrator, City of Gustavus, thanked the committee for the opportunity to testify on a subject with potentially devastating implications for Gustavus. He said Gustavus is a community recognized as the gateway to Glacier Bay National Park & Preserve, a pristine area that exemplifies the natural environment of Alaska. He explained that Gustavus uses shallow wells and a few cisterns for its drinking and potable water sources. So, he continued, the PFAS contamination has (indisc. - technical difficulties) because Gustavus does not have a municipal filtration plant available.

MR. WILLIAMS stated PFAS is of concern because of the unknown impacts to the community's tourism-based economy and the quality of life of residents. He related that PFAS contamination hit Gustavus in two ways: 1) by the use of AFFF at the DOT&PF airport, and 2) by the one-time use of AFFF by the city's volunteer fire department in 2015 from a fire truck given to the city by DOT&PF long before PFAS was known to the city to be a dangerous substance.

MR. WILLIAMS pointed out that added to the concerns about the health of the community and the surrounding environment, DEC has targeted the city and threatened the viability of the community's survival with cleanup costs that could be in the millions of dollars and untold costs to the tourism-based economy that provides sustenance to many of the residents and businesses that call Gustavus home. He explained that this is because the Gustavus Fire Department used a fire truck given to it by DOT&PF to fight a fire at a local residence that resulted in the discharge of what he understands to have been AFFF to save lives and property. He said it can be seen in documents provided to the committee that an unreasonable timeline was given to the city to commence a very expensive process of remediation. Thanks to the governor, he continued, the very expensive cleanup process threatened by DEC has been put on hold until PFAS issues have been better understood.

MR. WILLIAMS related that DEC continues to take the position that the city is liable for the remediation associated with costs of a home site that was the location of a volunteer fire department use of AFFF. He said the methods used by DEC have brought uncertainty and concerns to the decisions for budgeting and tourism. Meanwhile, he reported, DOT&PF continues to refuse to use a non-PFAS substance at the airport, such as sodium bicarbonate that the U.S. Federal Aviation Administration said in a 2/28/19 letter could be used in place of AFFF substances like Purple K, the material currently used at the Gustavus airport. He recalled a comment by Commissioner Brune that the AFFF was necessary at the different airports. However, he pointed out, the federal government has said that sodium bicarbonate could be used to replace that chemical. He said he has a letter that states 500 pounds of sodium-based dry chemical, halon 1211, or a clean agent would be an acceptable substitute for an airport rated as the Gustavus airport is.

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KELLY MCLAUGHLIN, Chair, Gustavus PFAS Action Coalition (GPAC), testified as follows:

When I was asked to speak today, I was asked to focus on the costs and naming the cost of anything, especially when looking forward into unknown decades, is likely an impossible task. But I feel like I've taken on a lot of impossible tasks recently. And there have been achievements made. The State of

Alaska decided not to deploy AFFF for testing at small airports in Alaska. That was a win. PFOA was just banned globally at the Stockholm Convention just last week. Unfortunately, the United States is one country that does not abide by the decisions made at this Global Summit. For the rest of the world it is good news.

So it is important to me to acknowledge the positives, however small, in this sea of toxic chemicals, impossible tasks, and unresponsive government. So positives acknowledged, now I'll move on to the costs.

The greatest immediate cost to me, and others, in the Gustavus PFAS Action Coalition is our time. Working for a solution to this problem has cost me countless hours upon more countless more hours. We're doing the work that our state should be doing: raising public awareness, making public the results of PFAS fish testing that the state attempted to suppress, advocating for the toxic AFFF to be removed from our airport and all Index A Airports, organizing for medical monitoring and blood testing to take place. We're living in homes poisoned by toxic chemicals, and the Alaskan public largely hasn't even heard of PFAS.

I own a small business in Gustavus, and I have two kids, 11 and 2, and so I don't have a lot of extra time. So I'm giving time that I don't have because somebody has to. I'm taking time away from my family, my employees, time that should be spent gardening, walking the beach with my kids, tending my business. It's all going to PFAS now, to do what the state is not.

The State of Alaska has done little, arguably nothing, to raise public awareness. I have been persistent in talking about PFAS with friends and neighbors, non-profits, and state agencies. I have been diligent in tracking results of fish testing at DEC, in creating a platform for sharing information, but without that effort, I doubt very much that many would have heard about the contamination in Gustavus, at Kimberly Lake, Polaris Lake, or the Ruth Burnett Sport Fish Hatchery. Public awareness is key in protecting public safety, though through the lack of active public notices,

bulletins, etc., the state is costing Alaskans their health and safety.

The contamination of our salmon and other fish could cost fishermen their livelihoods and is a potential health cost to everyone who eats the fish. Contaminated fish, or even the fear of contaminated fish, is an economic cost to tourism-based fishing and commercial fishing. There are costs to Alaska's image and reputation if the state continues to try to suppress and downplay the major risk of contamination in our salmon, especially. At the very least Alaska needs to test its hatcheries, all of them, but especially William Jack Hernandez Sport Fish Hatchery, which resides within a known PFAS plume. The state needs to use the systems already in place for fish sampling, adding an element to process PFAS testing, and establish a database to determine the scope of contamination. We need to acknowledge that we may have a major public health crisis on our hands if people continue to eat contaminated fish. Further than that, our state may have a major financial crisis on our hands should Alaska salmon prove to be contaminated to any degree, but especially if the numbers are as high as what we've seen at Kimberly Lake.

Aqueous film-forming foam (AFFF) is the standard firefighting product used at airports across Alaska. However, it is required at only ... a little over half of them. The other 11 have unnecessarily carried AFFF since at least 2004, and possibly earlier, according to the Federal Aviation Administration (FAA). Adak, Kodiak, King Salmon, Bethel, Dillingham, Unalaska, Kenai, Homer, Gustavus, Sand Point, and Valdez are all Index A airports, which means that by FAA regulations, a sodium bicarbonate dry chem fire suppressant is sufficient. Yep, that's baking soda. We could have avoided over 15 years of contamination by simply following the rules the FAA had set out for Index A airports. When addressed with this question about baking soda alternative, DOT responded that they didn't have that information. However, once provided with the information from the FAA, DOT has still refused to act in the public interest, within existing law, to protect public safety. AFFF remains at our airport despite a sodium bicarbonate replacement

option, costing us our future health and safety, as well as our faith in the great State of Alaska to do the right thing, even when the right thing is easy.

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PFAS levels at the Gustavus School registered at 44 parts per trillion (ppt) when first tested. Given the lack of confidence interval set in testing procedures, and given that a 30 percent fluctuation in blind duplicate samples is considered a "good result," and given the proximity of the Gustavus School to results as high as 6,000 ppt, it is scientifically unconscionable to declare the water at the Gustavus School "safe to drink." The PFAS in the water at Gustavus School has cost generations of children their health, and the lack of DOT response to the contamination at the Gustavus School cost many of us our faith in the State of Alaska. The National Park Service owns the well that serves the school, and our amazing local park service employees took it upon themselves to create a filtration system that will hopefully protect future generations of children attending the school, and living in park housing nearby. DOT did nothing.

We have pursued DOT, who referred us to DHSS for medical monitoring, or at very least, a blood test, and breast milk tests to better understand the PFAS pollution in our bodies. We were denied. We were told it does not mitigate risk. I will tell you, with certainty, that my decision whether to wean or to continue to breast feed my baby was influenced by the results of the PFAS breast milk test that I paid for out of pocket. We cannot mitigate risk without information. GPAC is again stepping in here, doing what the state is not. We are working with Alaska Community Action on Toxics to hopefully offer medical monitoring to all residents of Gustavus who have been poisoned by the release of PFAS into our pristine environment.

The 50 acres my mother's family purchased from homesteaders when they moved here in the [1960s] is the heart of the plume. The plume saturates my history, it stains my childhood memories, it floods my mind with doubt about the future.

We feel like we've lost our homes. We've lost our gardens, our medicinal trees, our plentiful spring harvests that grew naturally in abundance at our doorsteps. No more fiddlehead breakfasts, no more fireweed shoots in butter, no more mushrooms picked in the woods as I've done for years.

More than that, though, I feel like I've lost the thing that's most precious to me in all the world - the health of my children. My ability to give my children a clean slate, the promise of a healthy future, the right start, has been taken from me. To me, that's the ultimate cost. Every parent has this immense and weighty opportunity to give their children health and happiness. As a mother, I hold the seed of promise for a lifetime of everything good that can come to pass in my children's lives. And that has been taken from me. It's been taken from my children. An unseen force has crept into our water, our blood, our lives, and taken the promise of my children's future.

So here's what we're asking:

The state to address the chemicals that are showing up in the fish and drinking water in Alaska - that's PFNA, PFHxS [perfluorohexane sulfonate], not just PFOA and PFOS. ... There is current science pointing to the toxicity of all PFAS chemicals, and the state is actively putting its citizens in harm's way by not recognizing all PFAS contaminants.

Please collect PFAS samples from sport and commercial catches in addition to the currently collected information on sex, age, length, etc.

Replace AFFF with a safe alternative in all airports immediately.

Provide blood and breast milk testing to any Alaskan who believes they may have been exposed to PFAS.

We in Gustavus would like to post some wild harvest information around town to warn people of the dangers in consuming the natural bounty that is our tradition to enjoy this time of year. Please ask DEC to address

contaminated natural foods, garden grown foods, fish, game, and fowl.

DEC should be aligned with CDC [Centers for Disease Control and Prevention] and ATSDR [Agency for Toxic Substances and Disease Registry] on setting limits for consumption. Please use the data that already exists to move forward, not backward, with setting safe standards for our water and natural resources.

[3:09:59 PM](#)

REPRESENTATIVE RAUSCHER recalled the figure of 6,000 parts per trillion. He requested Mr. Williams to provide a definition of "shallow wells," and offered his belief that 60 feet is the required depth for wells in the Matanuska-Susitna Borough.

MR. WILLIAMS replied that [Gustavus] is a unique area and its wells are anywhere from 6 to 30 feet as an average depth. He noted Gustavus has a few cisterns that capture rainwater, but that the majority of the area's potable and drinking water sources are the very shallow ground wells and they are all private wells.

[3:11:24 PM](#)

CO-CHAIR LINCOLN noted that these chemicals are continuing to be put into the environment right now. He asked whether any other chemicals besides AFFF are still being used.

MS. MCLAUGHLIN responded that the source is AFFF, which is still housed at the Gustavus airport and is still being used in the case of emergency. She said Shannon & Wilson has not determined the source, as there are several likely sources. It's hidden in the ground under the Gustavus airport, she continued, and Shannon & Wilson will hopefully be in Gustavus this summer to do site characterization to further understand the source and where it may be spreading from. At this point, she added, Gustavus may be seeing higher numbers before it sees lower numbers.

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CO-CHAIR LINCOLN said the committee would stay in touch for more information. He requested Commissioner Brune to speak to the state overall.

COMMISSIONER BRUNE answered that PFAS chemicals are ubiquitous, so it's not just AFFF. He said it's coming from landfills that have had biosolids put into them, Teflon pans, dental floss, microwave popcorn bags, and it can be found everywhere, including the air. In many Alaska communities, he continued, the location of where these are is predominantly AFFF, but in the environment it is coming from many different sources.

CO-CHAIR LINCOLN agreed it is ubiquitous with low-level exposure across the board; however, he pointed out, in some cases such as the application of AFFF there are acute shots of these chemicals. He inquired whether, other than that, there is an industry that is putting out an especially large amount of chemicals, or whether AFFF has been singled out as the major outlier in the pattern of this widespread exposure.

COMMISSIONER BRUNE replied that in Alaska it is predominantly AFFF. In other states, he said, there is a lot of manufacturing of these chemicals and in close proximity to those manufacturing bases there is a lot of it out there.

CO-CHAIR LINCOLN asked whether there is any plan currently to discontinue AFFF or whether Alaska is waiting for someone else to say the state should discontinue AFFF.

COMMISSIONER BRUNE responded that that is the biggest question out there and the reason AFFF is still required by the FAA is because it works so well in protecting human life and property. He said the FAA requires that AFFF be kept on site and tested on an annual basis. He related, however, that Commissioner MacKinnon of DOT&PF has made the executive decision that AFFF is no longer going to be tested, but will be available for use in case of an emergency. He stated research is being done to try to find alternatives and there are some alternatives that have shorter chained PFOS, but even so that still has PFAS in it. Regarding the previous speaker's statement that there are other alternatives, he maintained that they don't work as well as AFFF. He stated AFFF is so ubiquitous because it works so well, but said it does also lead to contamination.

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CO-CHAIR TARR stated the committee hopes to continue working on this issue that is having such significant impact.

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## **ADJOURNMENT**

There being no further business before the committee, the House Resources Standing Committee meeting was adjourned at 3:17 p.m.