BEFORE THE BOARD OF ENVIRONMENTAL REVIEW

OF THE STATE OF MONTANA

In the matter of the proposed)
amendment of ARM 17.30.602)
and the adoption of NEW RULE I)
pertaining to the selenium)
standards for Lake Koocanusa)
and the Kootenai River)

TRANSCRIPT OF PROCEEDINGS - PUBLIC HEARING

VIA ZOOM

September 24, 2020

9:00 a.m.

BEFORE CHAIR CHRIS DEVENY,

BOARD MEMBERS JOHN DEARMENT,

CHRIS TWEETEN, DEXTER BUSBY, JEREMIAH LYNCH

HILLARY HANSON, and DAVID LEHNHERR

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WHEREUPON, the following proceedings were had and testimony taken, to-wit:

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CHAIR DEVENY: My computer says it's 9:00 so I guess we'll go ahead and get started.

I'm Chris Deveny, Chair of the Board of Environmental Review, and I call this meeting to order. Just for the record, this is a special meeting of the Board of Environmental Review, and we're meeting via Zoom technology because of the COVID-19 pandemic. And with that, I'll turn it over to Deb to take roll call, and then we'll do an introduction of all of the other people that are on board this morning. Go ahead, Deb.

MS. SUTLIFF: Thank you. We have Chris Deveny.

CHAIR DEVENY: Here.

MS. SUTLIFF: Hillary Hanson.

BOARD MEMBER HANSON: Here.

MS. SUTLIFF: Jerry Lynch.

BOARD MEMBER LYNCH: Here.

MS. SUTLIFF: David Lehnherr.

BOARD MEMBER LEHNHERR: Here.

MS. SUTLIFF: John DeArment.

BOARD MEMBER DEARMENT: Here.

CHAIR DEVENY: We should have Dexter and Chris Tweeten yet.

MS. SUTLIFF: I don't see Dexter and --

BOARD MEMBER BUSBY: Dexter is on the phone.

MS. SUTLIFF: All right. Dexter. Thank you.

CHAIR DEVENY: Dexter, could you speak up just so we can get it on the record.

BOARD MEMBER BUSBY: Yes, I'm here.

CHAIR DEVENY: Thank you.

MS. SUTLIFF: Chris Tweeten.

(No response)

MS. SUTLIFF: I do not see him yet. All right. And then we have George Mathieus with DEQ.

CHAIR DEVENY: We do have a quorum, so we will go on. If you want to do the other introductions, go ahead.

MS. SUTLIFF: Absolutely. It looks like we just have one person on the phones as our guest. We have a Michael Ryan as a guest, and Angela.

MS. CLERGET: Deb, I'm sorry to interrupt you, but as you go through and introduce people, could you ask them, please, whether or not

they want to make public comment.

MS. SUTLIFF: Absolutely. Michael Ryan. Michael, would you like to make comments today?

MR. RYAN: No, thank you.

MS. SUTLIFF: We have David Brooks is a guest with us. David, will you be making comments today?

MR. BROOKS: Yes, I likely will. Thank you.

MS. SUTLIFF: We have Brad Smith. Brad, will you be making comments today?

MR. SMITH: Yes, please.

MS. SUTLIFF: I have Travis Schmidt with the Montana Water Science Center. Travis, will you be making comments today?

MR. SCHMIDT: If needed.

MS. SUTLIFF: I have Angela Colamaria. I'm sorry if I'm pronouncing your name wrong. Angela is with the DEQ Legal.

MS. COLAMARIA: I don't need to speak today.

MS. SUTLIFF: Thank you. I'm trying not to do this very rough today. Jason Gildea.

MR. GILDEA: Hi. No comments.

MS. SUTLIFF: We have Erin Sexton.

Erin, will you be making comments today?

MS. SEXTON: Yes, I will. Thank you.

MS. SUTLIFF: We have Kirsten Bowers, DEQ Legal. Kirsten, will you be making comments today?

MS. BOWERS: No, I will not.

MS. SUTLIFF: Thank you. Kelsea Harris. She's a guest with us. Kelsea, will you be making comments today?

MS. HARRIS: No, thank you.

MS. SUTLIFF: We have Kayla Glossner is a guest. Kayla, will you be making comments today?

MS GLOSSNER: No.

MS. SUTLIFF: I have Julianne McLaughlin with EPA. Will you be making comments today?

MS. JULIANNE McLAUGHLIN: No comments. Thank you.

MS. SUTLIFF: John Kilpatrick with USGS. John, will you be making comments today?

MR. KILPATRICK: No comments.

MS. SUTLIFF: Lars Sander-Green is a guest with us today. Lars, will you be making comments?

MR. SANDER-GREEN: Yes, please.

MS. SUTLIFF: I have Lauren Sullivan with DEQ.

MS. SULLIVAN: I'll be presenting, but no other comment.

MS. SUTLIFF: Thank you, Lauren. We also have a Mark Adzick. (Phonetic)

MR. ADZICK: Good morning. No comments today.

MS. SUTLIFF: Thank you, Marko. We have a Mora Devin (phonetic) a guest with us today. Mora, will you be making comments?

MS. DEVIN: I will not. Thank you.

MS. SUTLIFF: The speaker with us today will be Myla Kelly with Montana DEQ.

MS. KELLY: Good morning.

MS. SUTLIFF: We have a Rachel Malison. Rachel, will you be making comments today?

MS. MALISON: No, I won't. Thank you.

MS. SUTLIFF: We have Rebecca Harbage with Montana DEQ. Rebecca, will you be making comments today?

MS. HARBAGE: No, I will not. Thanks, Deb.

MS. SUTLIFF: Sandy Scherer is with us this morning. Sandy, will you be making any

comments this morning?

MS. SCHERER: No, I will not.

MS. SUTLIFF: Thank you. We have Sarah Clerget, the Board's attorney. Sarah, will you be making comments today?

MS. CLERGET: No.

MS. SUTLIFF: We have Steve Gunderson, a guest with us today. Steve, will you be making comments?

MR. GUNDERSON: Yes, ma'am.

MS. SUTLIFF: Thank you, Steve.

MR. CUFFE: Can you hear me?

MS. SUTLIFF: Yes.

MR. CUFFE: This is Senator Mike Cuffe, and I'll be joining Steve on his computer here.

MS. SUTLIFF: Thank you, Senator. We'll note that. We have Tonya Fish with EPA. Tonya, will you be making comments?

MS. FISH: No, thank you.

MS. SUTLIFF: With DEQ Water Quality Division we have Tim Davis. Tim, will you be making comments today?

MR. DAVIS: No, but I'll be on to help answer any questions that may arise.

MS. SUTLIFF: All right. Thank you. I

do believe I've captured names today on our Zoom. Welcome, everybody.

CHAIR DEVENY: Thank you, Deb. I think there were some people that might have been missed. It looks like Vicki Marquis is on.

MS. MARQUIS: Good morning. Thank you, Madam Chair, and yes, I would like to give comments today. Thank you.

MS. SUTLIFF: Thank you so much.

CHAIR DEVENY: Is there any other people that we might have missed?

MS. SCHMIT: Good morning. This is Ayn Schmidt with EPA, and I will be making some brief comments.

CHAIR DEVENY: Thank you.

MS. SUTLIFF: I also see a Clayton Elliot. I don't see a microphone for Clayton. And that's our newest member. That's all I have, Madam Chair. Thank you.

MR. LEVIT: Madam Chair, if I could, Stu Levit with the Confederated Salish and Kootenai Tribes is also on, and I would appreciate the opportunity to make comments. Thank you. Stu Levit, S-T-U L-E-V-I-T. Thanks.

MS. SUTLIFF: Thank you, Stu, and

welcome.

MR. JAMISON: Madam Chair, this is Michael Jamison with the National Parks Conservation Association, and I likewise would like to make comments, please.

CHAIR DEVENY: Thank you, Michael. Anybody else?

MR. HADDEN: Dave Hadden with Headwaters Montana.

CHAIR DEVENY: Welcome, Dave. Thank you. We've got you on the list.

MS. JOANNA McLAUGHLIN: Joanna McLaughlin with DEQ. I won't be making comment.

CHAIR DEVENY: Anybody else?

MR. McGRATH: Good morning. Shaun McGrath from Montana DEQ, and I'll just be on observing. Thank you.

MS. SUTLIFF: Thank you, Shaun.

CHAIR DEVENY: I notice that Chris Tweeten has joined us as our Board member, so we have a full board complement this morning.

UNKNOWN SPEAKER: Madam Chair, I know others are trying to call in but they have trouble with the Zoom.

CHAIR DEVENY: I think we'll go ahead

with the meeting and get started, and then as people come in, when it's time for public comment, we'll double check and see if there are others on the list. We wanted to get an idea how many were speaking today, so just for matter of time management for the meeting. So thank you everybody, and appreciate your patience.

So with that, I will proceed. DEQ has, the Department has requested that the Board initiate rulemaking for the selenium water quality standards for Lake Koocanusa and the Kootenai River, and let's just start out with the presentation by the DEQ folks. And George Mathieus, I'll turn it over to you or whoever else was going to make the presentation.

MR. MATHIEUS: Sorry, Madam Chair. I'm talking with mute. Good morning. Both Lauren Sullivan and Myla Kelly will be presenting to the Board. You should be able to see their power point on our screen shortly.

CHAIR DEVENY: All right. So welcome, Myla and Lauren.

MS. CLERGET: Folks are who are not talking or Board members, could you turn off your video, because it helps with the bandwidth. Turn

off your video and mute your microphone, please. Go ahead. Sorry to interrupt.

MS. KELLY: Good morning, Madam Chair, Members of the Board. Can you hear me okay?

CHAIR DEVENY: Yes. We're all muted, but yes, we can hear you.

MS. KELLY: Okay. Good morning. Madam Chair, Members of the Board, my name is Myla Kelly. I'm the manager of Montana DEQ's Water Quality Standards and Modeling Section. And today myself and our technical project lead Lauren Sullivan will be providing you with a presentation to support our request to the Board today to initiate rulemaking for selenium water quality standards for both Lake Koocanusa and Kootenai River.

So I'll begin the presentation discussing the background, framework, and process of how we have arrived here; and then Lauren will address the technical and scientific aspects of the standards that we're proposing. Next slide, please.

I want to begin with the foundational concept of water quality standards, which may be a review for you all, but it is critical to our

presentation and discussion today.

As you well know, Montana has been delegated authority under the Clean Water Act to establish water quality standards for the protection of beneficial uses, and in turn, Montana's Board of Environmental Review has authority to adopt water quality standards.

We have water quality standards for multitudes of pollutants, and those standards provide a measure for how clean we want our water. And what do we mean by how clean.

We want clean water for aquatic life to propagate; for recreation; for swimming; sometimes for drinking; or for agriculture; or industry purposes. These are what we call our beneficial or designated uses, and our standards are established to protect those beneficial uses of our water bodies.

Selenium standards for Lake Koocanusa and the Kootenai River which we're discussing today are being set to protect our aquatic life, which means that the standard represents the limit or the cap of selenium concentration below which we have confidence that the aquatic life is protected. Next slide, please.

This timeline provides a high level overview of how we have arrived at this point.

In 2010 as a result of a Memorandum of Understanding and Cooperation between British Columbia and Montana, which was spurred by events pertaining to the transboundary Flathead River, coordinated efforts began between BC Environmental and DEQ to address regional transboundary water quality issues, including those in Elk Valley, British Columbia, which is upstream of Lake Koocanusa.

In 2012, increasing trends in selenium concentrations in Lake Koocanusa led Montana DEQ to list the lake as threatened for selenium on our impaired water bodies list. In 2013, in recognition of water quality impacts from past, current, and future mining activities in the Elk Valley in Lake Koocanusa, a BC ministerial order was signed to remediate water quality effects, and guide environmental management.

This led to the establishment in 2015 of the bi-national Lake Koocanusa Monitoring and Research Working Group, which has guided the subsequent work that we are here to present today.

In 2016, EPA updated their 1987 national

criteria for selenium, and that update included standards for fish tissue, as well as the water column, and recommended using site specific data where feasible, due to the unique way that selenium bioaccumulates, depending on local factors, such as species composition, water chemistry, and hydrology.

And since 2015, BC and Montana have been working in close collaboration with the goal of establishing an aligned transboundary selenium standard in 2020, which is protective of aquatic life in Lake Koocanusa. Next slide, please.

This has been a multi-year multi-national transboundary effort with significant collaborative actions, including six years of coordination with DEQ, BC Environment, co-leading this effort. Participation of an engaged working group consisting of broad ranging entitles -- state, tribal, federal, industry, etc. -- involvement and dedication from top selenium experts in the US and Canada guiding the development of this standard; coordinated transboundary data sharing and data collection; development of an extensive co-managed public website which houses all of our data, our meeting

summaries, our sampling and analysis plans, technical reports and relevant literature.

Public meetings were held in Montana beginning in 2015. Seven of those were large panel formats organized with assistance from the Kootenai River network; and in 2019, DEQ also met on a smaller scale with local officials in Troy, Eureka, and Libby, to provide an update on trends and standards developments.

As we work through our standards setting process based on the science you'll hear from Lauren, BC Environment is currently working through their standard setting process as well, again with the goal which is an aligned transboundary water column selenium standard. Next slide, please.

The forum we utilized for this transboundary effort was the Lake Koocanusa Monitoring and Research Working Group. Formed in 2015 to address transboundary water quality issues, the group has met eleven times on a semi-annual basis.

Selenium, in particular determination of the appropriate water quality standard, was determined to be the first priority, thus selenium

technical subcommittee was formed comprised of top experts in selenium to guide data collection and modeling work. That group has had nearly thirty meetings during which they consult on sampling plans, analyses and selenium modeling. Next slide, please.

I'll now provide an overview of the proposed standards, so you can have that in your mind as a framework as Lauren explains how we arrived at these values.

The standard is comprised of fish tissue values. These are the same for Lake Koocanusa and the Kootenai River, and they mirror EPA's national recommended criteria. These are detailed as egg ovary, full body, and muscle values.

There's also water column values, which for Lake Koocanusa is based on site specific data listed here proposed as 0.8 micrograms per liter; and for the Kootenai River, 3.1 micrograms per liter. This is based on EPA's national recommended criteria for flowing waters. Next slide, please.

Why now? So this is a question that has been raised, and so I really want to address it directly. Substantial and critical milestones

have been met. Each of them are significant achievements in and of themselves. We have completed a multi-year data collection effort.

The resulting peer reviewed modeling report has been completed by the United States Geological Survey. As one of the penultimate science agencies in the US, this has been peer reviewed under stringent scientific standards. Recommendations on model inputs were solicited and received by our selenium technical subcommittee members.

And based on those two previous milestones, BC and DEQ co-developed and agreed upon scenarios for protective water quality selenium standard.

And I'd like to emphasize these last two points. These standards are necessary to prevent impacts to aquatic life. Remembering back to that timeline, for over a decade there has been certainty that the selenium standard that now applies to Lake Koocanusa of five micrograms per liter does not protect our aquatic life, and uncertainty about what the standard should be to protect our aquatic life.

And for that reason, all the ensuing

work, and the reason we're here today, was put into answering that one simple question: What is the right standard? We've arrived at that point of what is the right standard, and we have arrived at that point before seeing the substantial fisheries impacts that are occurring upstream.

The Lake Koocanusa and Kootenai River fisheries remain today a healthy fishery, and it is our responsibility to maintain it that way. You will learn from Lauren that selenium impacts to aquatic life can be challenging to first detect, because the impacts happen at the reproductive phase.

If we were to get to the point of a fishery population crisis as a result of high selenium concentrations, that would be a hard point to come back from, which is why Montana Fish, Wildlife and Parks has been a key partner in all of this work from day one, and their fishery biologists support the standard that we're proposing.

Secondly, there are no adverse economic impacts to Montana. The standards proposed today have no adverse impact, economic impacts on our Montana businesses and permitted communities, and

that is because we don't have selenium sources in this watershed. The known source of increasing selenium in the Elk Valley is the Elk Valley in British Columbia.

We have no permitted sources of selenium for a couple of reasons, and the first reason is simple geology. These watersheds simply do not have a selenium rich geologic strata that are found in areas such as the Elk Valley.

And secondly, selenium mobilization and introduction to aquatic systems come from only a couple of human activities, one being opencut mining that creates large overburden spoil piles, and without the underlying geology, this is not a factor in the Montana portion of these watersheds.

Montanore Mine, a metals mine in the watershed, does not have selenium as a pollutant of concern.

Though our regulatory authority is pertinent only in the state of Montana, an established protective standard allows Canadian industry and regulators the certainty to apply treatment technologies and permit conditions to ensure this standard is met, and that our aquatic life is protected.

It also allows for certainty in determining whether the beneficial use is impaired, and whether transboundary clean water commitments are maintained.

Finally, outdoor recreation, fishing, and angling are all an important part of the local economy, and this standard will be a factor in ensuring that that sector remains strong.

We preceded this meeting with a presentation to our advisory council, WPCAC, the Water Pollution Control Advisory Council, who voted unanimously to bring this rule forward to the Board to initiate rulemaking. And with that, I'm going to turn it to Lauren.

MS. SULLIVAN: Thanks, Myla. Madam Chair, Members of the Board, my name is Lauren Sullivan. I'm a water quality scientist with Montana DEQ, and I'll be presenting the second portion of today's presentation.

To orient everybody to the location we're discussing today, this slide shows the Kootenai River watershed. You can see here that it's a transboundary watershed spanning British Columbia, Montana, and Idaho.

The Kootenai River originates in

northwest British Columbia. You can see it on the map over in the middle right. It flows south into Montana, into Lake Koocanusa, and flows out of the Libby Dam, turns west into Idaho, and then around Bonners Ferry, Idaho, the river turns north going back into British Columbia, where it enters Kootenai Lake, and eventually joins the Columbia River.

Lake Koocanusa is a reservoir created by the Libby Dam in the 1970s. It is a transboundary reservoir located in both Montana and British Columbia, with the majority located in Montana.

You can see here on the map the northern portion of the reservoir is located in British Columbia just below where the Elk River joins the Kootenai River.

Increasing levels of selenium have been detected over time in the Elk River, British Columbia. This graph here on the left shows selenium concentrations plotted over time from 1984 through 2019. The data comes from a Federal/Canadian long term water quality monitoring station located on the Elk River where this red circle is located on the map. It is about two miles upstream from Lake Koocanusa.

The purple line on the graph is marking the two micrograms per liter, which is the current British Columbia Provencial Water Quality Guideline for selenium. British Columbia additionally has an alert level at one microgram per liter, which is defined as a concentration below the guideline, but above which there may be risk to some environments and/or species that are sensitive to selenium bioaccumulation.

The graph shows levels quite a bit higher than the provincial guideline, and shows an increasing trend over time in selenium in the Elk River. And it's been identified that 95 percent of selenium entering Lake Koocanusa is coming from the Elk River.

The source of selenium in the Elk River is from historic and present day coal mining operations in the Elk Valley. The locations of these mining operations are circled here on the map on the right. This map shows the upper Kootenai watershed boundary. The orange areas represent existing mines, and the yellow areas represent coal bearing geology.

There are currently four mines in operation, solely owned and operated by one

company, Teck Resources, Limited, and there are four mines in the environmental assessment process.

The reason there are high concentrations of selenium detected in the Elk River is because selenium enters surface and groundwater from waste rock piles that are a byproduct of the open pit coal mining operations in Elk Valley.

This schematic at the bottom left walks through Step 1, how bedrock, which has naturally occurring selenium, is excavated to access coal seams underneath. That excavation process creates a byproduct called overburden or waste rock; this is labeled two in the schematic.

In this process selenium becomes exposed to oxidation, increasing mobilization or leaching through precipitation, infiltration, and runoff to nearby surface and/or groundwater . And that last step of entering surface water is labeled in the schematic as three.

To put some context to the extent of the mining, what you're seeing in the background of this image in the bottom right is one of these waste rock piles in the Elk Valley. It may be hard to see, but these are very large piles. They

can look like mountains themselves. The waste rock in the image is labeled two, and you can see by the sheer size they're too large to cap and piles like these are expansive throughout the Elk Valley.

The selenium leaches out of these piles and enters nearby surface or groundwater, and you can see a stream in the foreground of this photo labeled three. The selenium eventually makes its way downstream into Lake Koocanusa.

And I'm getting a little bit of feedback, so I might just ask if everyone can mute themselves. Thank you.

This schematic here is from the USGS, and effectively describes the dietary exposure of selenium in an aquatic ecosystem. It is a well established principle in the scientific community that the toxicity of selenium is predominantly through dietary exposure, so I'll just briefly walk you through this schematic.

In the upper left is the source of selenium, in this case waste rock, from openpit coal mining in the Elk Valley. The mobilized selenium enters surface water as dissolved selenium, from there becomes incorporated into

particulate matter.

That partitioning to biological particulate material is the first step in selenium entering the food web, and the partitioning between dissolved selenium to particulate selenium is referred to as a Kd. That step is displayed with the red arrow on the diagram.

That particulate matter is then consumed by invertebrates, transferring selenium into invertebrate tissues. Moving through the food chain, those invertebrates are then consumed by fish, further transferring selenium up the food chain and into the fish tissues.

The TTF labeled by the green arrows stands for trophic transfer factor, and that describes the transfer of selenium from prey to predator. It is a measure of bioaccumulative potential.

This understanding of how selenium moves through the food web, how aquatic organisms can experience toxicological effects due to dietary exposure, is important to understand because this is the reason fish tissue standards are necessary, and this understanding is the foundation of the selenium modeling that was done for Lake

Koocanusa.

One other point that is important to make is that the way selenium is processed in a lake or reservoir is different than in a river. There are a number of factors influencing that, but one of the primary ones is simply residence time. When water is not flowing, there is more time for organisms to interact with selenium to process it, moving that selenium through the food web.

This is why the updated EPA national recommended criteria, which is based on years of research in the collective scientific understanding of selenium by scientists across the country and the globe, recommends that lakes and reservoirs have a lower water column selenium standard than rivers.

Selenium is an interesting element because while it is an essential nutrient, it can become toxic at only slighter greater concentrations than what is required by an organism.

This figure here shows some of the reproductive efforts of selenium for fish. Selenium can cause reduced production of viable

eggs, reduced growth, mortality or deformity, altered liver enzyme function, and winter stress syndrome.

Winter stress syndrome is important to understand, in that fish that will experience any one of these toxicological effects that I just listed may simply not survive the environmental stresses of the winter.

Selenium can cause mortality to adult fish, but it's not common. More commonly the fish population level effects occur at the reproductive stage. For example, reduced viable egg production would eventually lead to population decreases.

Important to note, the Montana Fish Biologists DEQ works with in Lake Koocanusa has stated that selenium impacts reproductive success, and they do not necessarily expect to observe deformities in surviving adult fish, which is most often what is captured during their sampling efforts.

This figure shows selenium concentrations in egg ovary tissue from data collected in Montana and Lake Koocanusa from 2008 through 2018. Along the X axis are the different fish species, and the shaded points indicate the

year of data collection.

Along the Y axis is selenium concentration in micrograms per gram dry weight. Two horizontal lines are displayed. The lower line represents the British Columbia Provincial fish tissue guideline of eleven for egg ovary tissue, and the upper line represents the US EPA recommended fish tissue criteria of 15.1 for egg ovary tissue.

The reason for the difference in these guidelines has to do with the protection goals for the water bodies that differ between the US and British Columbia. As Myla mentioned, DEQ is proposing the 15.1 for Lake Koocanusa, and as you can see, at current water column concentrations, there are some individual fish exceeding that level.

The average selenium levels are currently around one microgram per liter. While data in British Columbia dating back to the 1980s for selenium that were shown on one of the previous slides, in Montana selenium has only been monitored in Lake Koocanusa since 2013, so we do not have that same sort of long term trend data.

This figure is showing dissolved

selenium on the Y axis. Along the X axis is time from 2013 through 2019. The points represent all sites within the reservoir at all depths. And based on these data, the average concentration is approximately one microgram per liter.

The proposed water column standard of 0.8 is only slightly lower than current concentrations, and is necessary to ensure that aquatic life beneficial use is being protected, and that no further exceedences in egg ovary tissue occur.

Data collection efforts for Lake Koocanusa selenium data increased in 2016. Impressive coordination between a whole variety of monitoring entities occurred, and those are listed here at the top: Montana Fish, Wildlife and Parks; the US Army Corps of Engineers; USGS; the US Fish and Wildlife Service; the British Columbia Ministry of Environment; and Teck, which is the company that owns and operates the mines in the Elk Valley, and who leads their monitoring efforts in the Elk River and the British Columbia portion of Lake Koocanusa.

A list of parameters collected over the years are shown here. Some of these parameters

were already included in routine monitoring, while other parameters have not previously been collected, and were recommended by the selenium technical subcommittee to be included.

There are four primary monitoring areas described by the boxes in this map. They include south of the Elk River, International Boundary, Tenmile, and Forebay.

Important to note: While there is extensive data collection upstream by Teck in the Elk Valley, British Columbia, and downstream in Idaho by the Kootenai Tribe of Idaho, Idaho DEQ, and the USGS, the data specifically used to develop a site specific selenium standard for Lake Koocanusa is Lake Koocanusa Reservoir data only. This gets back to the point that lakes and reservoirs process selenium different than rivers.

Working with the selenium technical subcommittee, these eleven resident species were identified to focus on for modeling. Bull trout at the top of that list is a federally listed species under the Endangered Species Act.

And not listed here, but also discussed and considered in standard development is the federally listed endangered downstream Kootenai

River white sturgeon, which is the known most sensitive fish species to selenium in the country.

DEQ partnered with the USGS to complete the selenium bioaccumulation modeling effort. That was done throughout the early part of 2020 and completed during the summer. The modeling work is quite complex, but to summarize, there are key model inputs required to calculate a protective dissolved selenium value.

Those inputs include a fish tissue selenium target; a food web; the trophic transfer and bioavailability percentage; the Kd -- which is that ratio between the suspended particulate selenium and the dissolved selenium.

The modeling effort for Lake Koocanusa was based on the peer reviewed ecosystem scale selenium model by Presser and Luoma that was published in 2010. The Lake Koocanusa model takes the Presser and Luoma model, which is the best science available on modeling selenium in aquatic ecosystems, and tailored it to Lake Koocanusa using site specific data.

The result of this modeling effort was a peer reviewed Lake Koocanusa modeling report that presented a range of candidate criteria based on

specified model inputs.

An organizing principle for the methodology of the model is the progressive solution of a set of equations, each of which quantifies a process important in selenium exposure. Ultimately those are combined and described by the equation listed here.

Looking at this equation in the numerator in the top where it states, "C tissue criterion element," this is the concentration or target whole body tissue number; and the denominator, the bottom, the TTF, is the trophic transfer factor. The TTF is what links the particulate selenium to prey and predator selenium.

The composite means it's the product of all the TTF in a given food web, and then the Kd, which is the base of the food web, and characterizes uptake and bioconcentration of selenium. Solving for this equation then calculates a protective dissolved selenium concentration.

The USGS presented two food webs with different consumption patterns. Summarized here, the two webs are the invertebrate to fish model,

or IFM; and the trophic fish model or TFM.

First focusing on the IFM on the left, this is the fish consuming insects and/or zooplankton. The TFM model on the right accounts for a piscivorous diet in which predator fish consume cray fish, with a diet of aquatic insects, zooplankton, or a mixture. That is illustrated here on the right, and that's the culturally and ecologically important fish species burbot that has been added to this diagram to represent a piscivore.

The eleven focal fish species shown on the previous slide were categorized into these different food web models and consumption patterns, informed by fish diet data from the reservoir.

To help visualize how the trophic transfer factors are applied, here are some example food webs and consumption patterns. Remember, TTF's are a measure of bioaccumulative potential. It's the transfer of selenium between an animal and its food.

These values here are TTF's from a robust global data set, to include an aquatic insect TTF of 2.8, zooplankton of 1.5, and fish

1.1. What you see here is that the highest TTF is lower in the food chain. This is getting back to that point that the greatest step in bioaccumulation is occurring at the base of the food web.

Going back to these diagrams on dietary exposure, in the context of the USGS ecosystem scale selenium model, ultimately the model tracks selenium as it bioaccumulates through the food web from dissolved to particulate through multiple trophic levels to fish tissue.

The last model input to talk about here is the Kd. Remember, this is the environmental partitioning between dissolved and particulate selenium. It is the base of the food web, and is a critical model parameter because as you've seen in these slides, the greatest step in bioaccumulation potential is occurring at the base of the food web.

There is a huge data collection effort in Lake Koocanusa to collect matched, dissolved, and particulate matter to inform this model parameter. This Kd is environment specific, and influenced by local environmental factors, and the Kd's in Lake Koocanusa are influenced by the

complex hydrodynamics of the reservoir and dam operations.

There is a wide range of Kd's from the lowest being around 400, to the highest being around 7500. Each Kd was considered an independent scenario for modeling. There are 87 Kd observations. These are listed on this figure on the left, or from lowest to highest.

What was determined and is detailed extensively in the peer reviewed Lake Koocanusa modeling report by the USGS is that any one of these Kd's could exist at any time at any place in the reservoir, so all must be considered. The result was 87 predictive dissolved selenium values for each model scenario.

An example of one of those model scenarios is here on the right, where 87 orange points represent the results of one of these modeling scenarios: The lowest Kd results in the highest predicted dissolved water column selenium concentration; and the highest Kd results in the lowest predicted water column selenium value.

MR. GUNDERSON: Lauren, are your slides showing properly? Because we're seeing fish identified by SeTSC for modeling, and nothing else

that you're covering. This is Representative Gunderson.

MR. CUFFE: And Senator Mike Cuffe.

MR. GUNDERSON: We're not seeing anything other than the fish identified by SeTSC for modeling slide; is that correct?

MS. SULLIVAN: I'm showing Slide 19, the Kd slide. Is anyone else seeing that Slide 19?

UNKNOWN SPEAKER: I'm seeing that slide.

BOARD MEMBER TWEETEN: This is Chris. I'm seeing that.

CHAIR DEVENY: Yes, I'm seeing it. Is anybody not seeing Slide 19 besides the people that just spoke up?

UNKNOWN SPEAKER: I'm seeing 19.

BOARD MEMBER LYNCH: I'm seeing 19. I'm sorry. This is Board Member Lynch.

MS. SULLIVAN: It sounds like it might just be one person or one group that's not seeing the slides. Would you recommend I continue with the presentation?

CHAIR DEVENY: Yes. This is Chris Deveny, Chair. It's unfortunate that some people are having technical difficulties, but it looks like the majority of the people are able to see

it, as well as particularly the Board members. So I'm going to ask you to continue, Lauren, and apologize for the fact that during this pandemic that we sometimes have to have some things that don't quite work out. So please go ahead, Lauren.

MS. CLERGET: Can I interrupt for one second. I'm sorry. The presentation is also available on the BER website. You can download it as a PDF, so you can follow along in hard copy, which is what I'm doing. And if you want to just indicate as you're going through maybe the slide number that you're on, and then people could follow along on the PDF or in their hard copy as well, if you can't see the share screen.

CHAIR DEVENY: Thank you, Sarah, for always coming up with a good solution.

MS. SULLIVAN: So I'll continue on. I'm going to continue on to Slide 20.

The USGS modeling applied the EPA national whole body criterion of 8.5 as the target tissue value, although other whole body values could be applied, such as the British Columbia guideline or appropriate target tissue values.

Modeling choices and assumptions were guided by the goals stated in the report, and

previously defined by technical subcommittee members.

USGS scientists produced a peer reviewed report on the selenium modeling of Lake Koocanusa which provided the foundation from which DEQ was able to develop a protective water column selenium standard in collaboration with British Columbia.

To summarize some of the goals previously defined by the technical subcommittee and listed in the report, I'll just read these four goals off here: Consideration of ecologically significant species and those important to stakeholders; protection of the ecosystem during maximum dietary exposure, so the most sensitive food web; 100 percent protection of the fish species in the reservoir, assuming a reproductive end point of reproductively mature females feeding in a lentic ecosystem; and long term protection for fish in all parts of the reservoir during all phases of reservoir operation, all selenium profiles in all water years.

Following the USGS publication, DEQ and British Columbia worked collaboratively going through the following steps: First, the Lake

Koocanusa working group steering committee chaired by both a DEQ and BC representative solicited recommendations from the selenium technical subcommittee and model inputs and final criteria recommendations.

Those technical subcommittee members provided recommendations during a half day teleconference, which had 100 percent attendance and participation, and following that meeting additional written recommendations from some members were submitted.

DEQ and British Columbia considered the recommendations from the technical subcommittee, as well as recommendations from members of the broader working group, to develop three additional scenarios for consideration; and ultimately DEQ identified a selenium standard protective of the aquatic life beneficial use.

I won't go into all of the detail on this slide, but presented here are a summary of technical subcommittee recommendations and modeling.

Five out of seven members recommended a whole body tissue value of lower than 8.5 be applied. Three out of seven members specifically

recommended the trophic fish model, or piscivore model, assuming a 100 percent aquatic insect diet; and there were no specific recommendations for any other food web to be used.

There is general agreement that the 60 percent bioavailability applied to the literature TTF may be over-predicting, and recommendations on this range from maintaining use of this bioavailability percentage of 60 percent as a conservative measure, given the uncertainties in the ecosystem, particularly if applying an 8.5 whole body value.

Other recommendations were to calculate more site specific TTF, and two of the seven members did that and provided some recommended values.

For Kd selection, there was general agreement that the median or 50th percentile would be appropriate if a whole body tissue value of less than 8.5 is applied; but if 8.5 is applied, then a more conservative Kd percentile would be appropriate.

Final recommendations were presented by four of the seven participating members. Those values ranged from 0.6 to 1.5, with three of the

four specific water column recommendations falling between 0.6 and 0.8 micrograms per liter.

Presented here are four modeling scenarios. The top three were co-developed between DEQ and British Columbia, and the bottom one was developed solely by DEQ based on the USGS modeling assumption presented in their publication, and it applies to the US EPA recommended fish tissue value.

British Columbia has more stringent fish tissue guidelines than the US does, and several technical subcommittee members provided a recommendation to apply a whole body value of less than 8.5, and several members recommended a value of 5.6. This value is consistent with British Columbia's guidelines.

The 5.6 was calculated using an egg ovary to whole body conversion factor applied to the British Columbia egg ovary guideline of eleven. So similar to the way the EPA recommended 8.5 whole body value is linked to recommended egg ovary tissue of 15.1, this 5.6 whole body value is linked to the BC egg ovary guideline of eleven.

From there food web scenarios were discussed, one IFM model and two TFM models with

different diet considerations. A bioavailability was calculated to 45 percent, which is less conservative, but determined appropriate to consider if using a 5.6 whole body tissue threshold; and a median 50th percentile from the Kd's was selected to come up with the range of values you see here.

Following the guidance from the technical subcommittee, DEQ selected the TFM food web model, assuming a diet of 100 percent aquatic insects, and arrived at a protective water column value of 0.8 micrograms per liter.

DEQ additionally applied the 8.5 whole body value to create a model scenario in step with our US process, applied the same TFM at 100 percent of aquatic insects, the 60 percent bioavailability which was determined appropriate by the technical subcommittee if applying the 8.5 whole body value, and a Kd value at the 75th percentile was selected as again following guidance to select a more conservative percentile if the 8.5 whole body tissue value was used.

The 75th percentile resulted at a protective water dissolved water column value of .08, following these two methodologies, one

co-developed with British Columbia, and the other developed by DEQ but in line with the EPA fish tissue recommendations, to arrive at the same protective water column criteria 0.8 micrograms per liter.

Today we are requesting that the Board initiate rulemaking on the following standards: Listed here are the proposed standards for Lake Koocanusa, the dissolved selenium value of 0.8 micrograms per liter, and the EPA nationally recommended fish tissue standards are proposed for egg ovary, muscle, and whole body.

And in the absence of site specific data for the Kootenai River, DEQ is proposing the EPA nationally recommended criteria for the Kootenai River, which includes water column standards, a water column standard of 3.1, and fish tissue standards the same as the EPA recommended values for Lake Koocanusa, which are 15.1 for eggs and ovaries, 11.3 for muscle, and 8.5 for whole body.

That is the end of the presentation, and at this point, we're happy to take questions.

CHAIR DEVENY: Thank you, Lauren. Let's give everybody a minute to get back on their videos, for Board members particularly. And

unmute if you're going to be speaking.

So first of all, I'd like to ask: Do any of the BER members have questions of Lauren or Myla regarding their presentation this morning?

BOARD MEMBER LYNCH: This is Board Member Lynch. I do have a question, Madam Chair.

CHAIR DEVENY: Go ahead, Jerry.

BOARD MEMBER LYNCH: If I understand correctly -- Lauren, I guess this is directed to you -- British Columbia has a 5.6 standard, is that correct, for whole body?

MS. SULLIVAN: Madam Chair, Board Member Lynch. Actually British Columbia has a whole body fish tissue standard of four micrograms per gram dry weight, so it's lower than the 5.6.

BOARD MEMBER LYNCH: And so the DEQ is proposing, again if I understand correctly, an 8.6 standard for whole body?

MS. SULLIVAN: 8.5. That's correct.

BOARD MEMBER LYNCH: Why would we go higher than the British Columbia standard? Is it necessary?

MS. SULLIVAN: That's a great question, and that comes back to the different protection goals between the US and British Columbia. And so

the 8.5 is following the US EPA guidance, which protects 95 percent of species nationwide.

British Columbia has more stringent guidelines. They updated their selenium guidelines in 2014, and they included a safety factor of two, which provides protection at 100 percent species in all life stages, and so it's more protective.

BOARD MEMBER LYNCH: That's where I'm a bit confused, if you bear with me for a moment. The 8.5 seems dramatically higher than what British Columbia has imposed, not that the United States or Montana is bound by that. But I understand the State's wanting to go along with, if you will, the EPA suggestion, but the State is not -- Montana is not bound by that, right? It has discretion?

MS. SULLIVAN: In the absence of data for site specific tissue standards, DEQ is comfortable adopting the US EPA recommended criteria. The science behind the EPA criteria is more recent than British Columbia's. And Myla, do you want to expand on that at all?

BOARD MEMBER LYNCH: Let me interrupt for one moment. I'm very sorry for doing this.

But one of my concerns is the white sturgeon, which as I understand the presentation is the most sensitive species, yet we have no data regarding how this affects white sturgeon, correct?

CHAIR DEVENY: That's correct. We need an oral response.

BOARD MEMBER LYNCH: That is correct, right?

MS. KELLY: Madam Chair, and Member Lynch, the 8.5 value from EPA does include data from the white sturgeon, so that incorporates the white sturgeon into that analysis.

And I would just add one additional note. The modeling efforts were designed, that we were discussing today, were designed to establish that protective water column value. So it's perhaps feasible, or potentially in the future there would be additional data collection that might adjust those fish tissue values; but we don't have that data at that time. So at this point in time, those EPA values are what we are confident moving forward with.

BOARD MEMBER LYNCH: So a followup question, if I may.

CHAIR DEVENY: Go ahead, Jerry.

BOARD MEMBER LYNCH: The EPA analysis regarding white sturgeon, is that based upon the white sturgeon in the ecosystem we're talking about, or is it somewhere else?

MS. KELLY: It's based on toxicity data for the white sturgeon, so --

BOARD MEMBER LYNCH: From which ecosystem?

MS. KELLY: I believe that was on a national scale. I'm not sure. I don't have the details of how the EPA conducts their toxicity studies.

BOARD MEMBER LYNCH: The reason I bring that up is I'm familiar with the problems created by the Libby Dam and the white sturgeon population in the Kootenai River, and the tremendous efforts made by the Kootenai Tribes of Idaho.

And I'm concerned that this level that DEQ is proposing for that ecosystem, the Kootenai ecosystem, may be dangerous to the white sturgeon without any data as to that population.

MS. KELLY: Thank you. And I do want to note that the Kootenai Tribe of Idaho has been integral throughout this entire process, and is supportive of the criteria that we're moving

forward with, and might be here to speak on their behalf today.

In addition, I think moving forward, I think it would be important to collect some additional site specific data on the Kootenai River to ensure that we have the correct standard in place.

BOARD MEMBER LYNCH: Just a final question, if I may, and then I'll be --

CHAIR DEVENY: Go ahead, Jerry.

BOARD MEMBER LYNCH: The Tribe, according to the letter that I read in the materials -- Richard Jamison from the Confederated Salish and Kootenai Tribes, Susan Ireland from the Kootenai Tribe of Idaho -- they're proposing a 5.6, which is more conservative than the 8.5 proposed by the DEQ. Why shouldn't the Board look at the 5.6? Give me the most compelling reason the Board should not consider the 5.6.

MS. KELLY: Well, Board Member, Chair, Members of the Board. I would like to refresh our memory that in the last, the second to last table that Lauren was highlighting, the water column value of .8, based on the three scenarios that BC and Montana co-developed, the water column of .8

was based on an input of using the fish tissue value of 5.6.

BOARD MEMBER LYNCH: Thank you. That helps very much.

MR. DAVIS: Madam Chair, this is Tim Davis with DEQ. If I can add one more thing.

CHAIR DEVENY: Okay. Go ahead, Tim.

MR. DAVIS: Thank you. I just wanted to add, Board Member Lynch, one thing I just wanted to note is the 3.1 on the main stem, micrograms per liter on the main stem of the Kootenai that we're proposing matches Idaho's 3.1 as well, and the Kootenai Tribe of Idaho was supportive of that in its design to be protective of white sturgeon.

Myla is right. There may be additional site specific data could be used in the future, but right now it would match up with what's across the border on the main stem of Idaho as well.

BOARD MEMBER LYNCH: Thank you.

CHAIR DEVENY: Other questions from Board members?

(No response)

CHAIR DEVENY: I have one, either Myla or Lauren, and/or Tim, and that kind of has to do with the fact that we have a limited amount of

data, and that things may change in the future. Do you have a monitoring plan in place to determine if in the future we need to change these standards to be lowered, or even if they're too stringent?

MS. KELLY: Madam Chair, one of the really excellent outcomes of all of this work has been this collaboration and these partnerships that have been developed, so we have very close partnerships at the United States Geological Survey, with Fish, Wildlife, and Parks, all who are partnering with us in monitoring efforts; and the USGS has monitoring efforts that will be continuing in the next couple of years, and maybe beyond that as well.

We've established, in conjunction with our Canadian partners, a transboundary monitoring group, where we set out our goals for monitoring for a variety of pollutants and parameters; and in that, we have I think strengthened those partnerships for long term monitoring.

And of course, as with any water quality standard, we go through a process where we look at our standards every three years through a triennial review.

CHAIR DEVENY: Okay. Great. Thank you, Ms. Kelly. Any other questions from Board members?

BOARD MEMBER LEHNHERR: Madam Chair, I have a question.

CHAIR DEVENY: Yes. David.

BOARD MEMBER LEHNHERR: I actually have a question and then a request, a question for either Lauren or Myla.

As I understood, the current selenium level average in Lake Koocanusa is 1.0, and we're proposing a selenium standard of 0.8, so there's a .2 difference obviously. Does that have any practical implications? What does that mean, if you're proposing a slightly lower selenium standard than the current average?

MS. KELLY: Madam Chair, Board Member Lehnherr. I think that we do, our research labs do have the capacity to test and analyze selenium levels in water column to very low levels, so that there is actually a difference between a 0.8 and a one, if that's what was -- micrograms per liter, and we can detect that.

BOARD MEMBER LEHNHERR: I'm just wondering. I understand that. I'm just wondering

if you have a slightly -- if you're proposing a slightly lower standard than the current average, does any action have to be taken to lower that average of 1.0 to 0.8?

MS. KELLY: Yes. So any standard that we have in place is the standard, the judgment by which we determine whether through our monitoring efforts, whether there's an impairment on a water body, and then subsequent actions that would -- or load allocations through a TMDL process that would need to be taken from there. So it would be the .8 that we would be -- if that is the standard that we ultimately end up adopting, it would be the .8 that we would be looking at for impairment decisions and subsequent load allocations.

BOARD MEMBER LEHNHERR: Thank you. And what would you have to do to then lower the -- what sort of enforcement actions, or mitigation actions would have to be taken to lower the current level of selenium to 0.8?

MS. KELLY: Tim, do you want to take that one?

MR. DAVIS: Madam Chair.

CHAIR DEVENY: Go ahead, Tim.

MR. DAVIS: Again, Tim Davis, DEQ. So

Myla is correct. If the Board sets the standard as a protective standard as proposed at .8, and we do, we find that the monthly average, on a monthly average that that standard is exceeded, we would then determine that there's an impairment coming, and we would work with our federal partners, BC, in order to make sure that steps are taken on the British Columbia side of the border to address that impairment.

Teck has made significant investments in research and development on wastewater treatment for selenium, so we would -- but we would work with our federal partners as well as British Columbia to make sure that the selenium levels are brought down to address the impairment going forward.

BOARD MEMBER LEHNHERR: Thank you, Tim, and Myla. And just one last thing, just for my information.

There's a difference between the selenium standard between a river and a reservoir, and can you -- I know Lauren dealt with that, but can you just give me another nutshell summary of why, sort of the biodynamics that are different that justifies or that explains why there's a

difference between the selenium standard in rivers and reservoirs.

MS. SULLIVAN: Madam Chair, Board Member Lehnherr, I can summarize a bit on that. So like I mentioned in the presentation, there are a number of factors contributing to that, and one of the main ones is residence time.

So if you think of selenium in water passing by an organism, if it's flowing water, it's going to pass by faster, there's less time for interaction to occur; versus in a lake or a reservoir where the water is still. There's just more time for that selenium to interact with organisms, for organisms to process it, and move it through the food chain.

Other contributing factors include water chemistry, dissolved oxygen, organic matter in the system, species composition, zooplankton or other species. Does that help answer your question?

BOARD MEMBER LEHNHERR: Yes. That was very helpful. Thank you.

BOARD MEMBER TWEETEN: Madam Chair.

CHAIR DEVENY: Go ahead, Board Member Tweeten.

BOARD MEMBER TWEETEN: Thank you. Just

to clarify my thinking on this. Since all of the selenium exists in Canada and not in the United States, as I understand your presentation, any mitigation -- (inaudible) --

CHAIR DEVENY: Chris, we lost you. Can you start over.

BOARD MEMBER TWEETEN: Okay. Since all of the sources of selenium are in Canada and not in the United States, as I understand the presentation, any mitigation effects to try to reduce that level from 1.0 to 0.8 are going to have to take place in Canada, correct? Anybody?

MS. KELLY: Yes, Board Member Tweeten, I think that really has been the impetus of why this partnership and collaboration between the two countries has been so important all along, and why we're striving for that aligned standard.

BOARD MEMBER TWEETEN: Madam Chair, follow up.

CHAIR DEVENY: Go ahead, Chris.

BOARD MEMBER TWEETEN: And we don't know of any geology on the US side of the border that could produce releases of selenium into this water body, correct?

MS. KELLY: We do not have any sources

of selenium right now in Montana, that's correct, in those watersheds, that's correct.

BOARD MEMBER TWEETEN: So the likelihood of the selenium standard affecting a permitting decision for some release into the water on the United States side, the likelihood of the standard affecting that is you think very, very low, correct?

MS. KELLY: Negligible, yes, and we do not see any permits right now that will be affected.

BOARD MEMBER TWEETEN: Okay. Thank you.

CHAIR DEVENY: Any other questions or comments from Board members?

BOARD MEMBER LYNCH: This is Board Member Lynch, Madam Chair.

CHAIR DEVENY: Go ahead, Jerry.

BOARD MEMBER LYNCH: Question to either Lauren or Myla. Do we have information as to what the concentration is on the Canadian side, concentration of selenium in the Elk River?

Because I understood that British Columbia is striving for a low standard of four, I think, Lauren, you said. What is the information that the DEQ has in terms of the concentration in

that river? Which is the main source.

MS. SULLIVAN: Madam Chair, Board Member Lynch. The current concentrations in the Elk River most recently range between six and nine micrograms per liter, and that was displayed on that figure I think on eight or so of the increasing trends over time.

BOARD MEMBER LYNCH: So in a nutshell, why should the Board not consider the two tribes 5.6 standard versus the 8.5? That's where I'm struggling in terms of -- I know you mentioned the Idaho tribe was in agreement, but I don't see that in the letter. I'm just trying to get my head wrapped around the 5.6 versus the 8.5 proposed by DEQ.

MS. KELLY: Board Member Lynch, I don't think I have a better answer other than what I said previously, but just want to refer back to that we don't have -- (inaudible) -- process of collecting the data that we needed to in order to establish what exactly the right fish tissue selenium concentrations would be in Lake Koocanusa, but again that was used as an input -- the 5.6 was used as an input to come up with a water column value of .8.

MR. DAVIS: Madam Chair, Board Member Lynch.

CHAIR DEVENY: Tim Davis. Go ahead.

MR. DAVIS: This is Tim Davis again. I would just when -- I do think it's important just to remember that those scenarios, those three scenarios that use the 5.6, were developed with British Columbia, and that they were technical scenarios that we're calculating.

British Columbia has -- they are still working through their standard setting process at this point, but that 5.6 which did result in the 0.8 water column criteria that we're proposing was developed with British Columbia, just the scenario itself.

BOARD MEMBER LYNCH: Thank you.

BOARD MEMBER TWEETEN: Madam Chair.

CHAIR DEVENY: Board Member Tweeten. Chris, go ahead.

BOARD MEMBER TWEETEN: This is just a comment. I think Jerry raises an interesting and potentially important question, but I think it's important for us to remember that we're at the stage of initiating rather than adopting at this point, and I would expect that both of the

affected tribes would be offering comments at the hearing or in writing through the rulemaking process --

CHAIR DEVENY: Chris, we lost you again. Can you -- just the very last part of what you said.

BOARD MEMBER TWEETEN: During the rulemaking process, I'm confident that the Tribes will voice any concerns they have about the 8.0 standard with respect to their own standards, and that will be information that we can take into consideration with respect to the question of final adoption.

CHAIR DEVENY: Okay. Great. I'm seeing a phone flashing up, and I just want to check in. Dexter, are you trying to speak up?

BOARD MEMBER BUSBY: Not yet.

CHAIR DEVENY: All right. Just wanted to make sure we weren't leaving you out.

BOARD MEMBER BUSBY: (Inaudible)

CHAIR DEVENY: Last call for Board members that might have any comments or questions. There'll be opportunity later as well. But I think I'd like to move forward.

I think what Chris Tweeten just said

kind of segues into the fact that we're here today to take action on whether or not DEQ should initiate rulemaking. We're not actually adopting rule at this point, so I want everybody to keep that in mind.

Let me, before we start in with public comments -- which we have quite a few of -- We're going to take a ten minute break, and we will reconvene then at about 10:23. I wanted to thank Myla and Lauren for their presentation. See you in ten minutes.

(Recess taken)

CHAIR DEVENY: Our ten minute break is over. Just double check in with Board members. Deb, do you want to run through the roll call. I'm here.

MS. SUTLIFF: Chris Tweeten.

BOARD MEMBER TWEETEN: Here.

MS. SUTLIFF: John Dearment.

BOARD MEMBER DEARMENT: Here.

MS. SUTLIFF: Dexter Busby.

BOARD MEMBER BUSBY: I'm here.

MS. SUTLIFF: Hillary, are you still on?

(No response)

CHAIR DEVENY: Hillary, are you here?

(No response)

MS. SUTLIFF: David Lehnherr.

BOARD MEMBER LEHNHERR: Here.

MS. SUTLIFF: Jerry Lynch.

(No response)

CHAIR DEVENY: We're missing Jerry and Hillary. Let's wait another 15 seconds or so.

Sarah, are you on?

MS. CLERGET: Yes.

CHAIR DEVENY: Hillary, have you joined us yet?

(No response)

CHAIR DEVENY: We do have a quorum, so I think we'll go ahead and continue.

At this point, do we have any other members of the public that have joined the meeting since we did an introduction at the beginning? And particularly, we need to find out if there are other members of the public besides those who identified themselves earlier that want to give public comment today on the proposed initiation of the selenium rulemaking. Deb, could you check in with folks.

MS. SUTLIFF: I have Sue Ireland has joined us. Sue, will you be offering comments?

MS. IRELAND: Yes, I would like to offer comments, please. Thank you very much.

MS. SUTLIFF: Sue Ireland is with the Kootenai Tribes. I don't see any other new connections.

CHAIR DEVENY: Let's just ask. Are there people who have joined in this meeting since we did an introduction at the beginning? If you could speak up right now.

MR. ELLIOTT: Madam Chair, this is Clayton Elliott with Montana Trout Unlimited, and actually David Brooks, our Executive Director, had to get on another call, but I will just be taking his place.

CHAIR DEVENY: Thank you, Clayton. Anybody else?

(No response)

CHAIR DEVENY: Okay. That gives me a good idea. It looks like we have about a dozen to 15 people that want to speak, so I'm going to ask people to limit their comments to three minutes, and Sarah Clerget is going to time for us, and when she -- she has to leave by eleven, so after that, Deb will take over as timer.

And I'm going to start out with opening

the proposed initiation of rulemaking for public comment, and I really request that people limit their comments to whether or not the BER should initiate this rulemaking. This isn't the time for comments on the specifics of the proposed rules, it's whether or not we should initiate rulemaking or not on this particular subject. So just try to keep that in mind.

With that, I'm going to ask Clayton Elliott to go ahead and start, because I believe David Brooks was the first person I had on my list.

MR. ELLIOTT: Thank you, Madam Chair. And lucky enough as I may be then, I appreciate the opportunity today to offer public comment on the question, and I do really think that that is the heart of the matter here is the question of whether or not to initiate rulemaking.

I think, one, I just wanted to say how deeply Montana Trout Unlimited and our chapters appreciate the thoroughness, the thoughtfulness, and the integrity of which DEQ has approached the question of selenium on Lake Koocanusa and the Kootenai River.

I think this has been a robust public

process; I think it's been a scientifically valid process; and I think that the right question today is about whether or not we go forward through the Administrative Procedures Act. So I just wanted to offer our thanks to the Department, obviously a whole threaded support of moving forward, and that the Board do in fact initiate rulemaking on this question.

I'll reserve our substantive comments about the merits of the question to that public comment period, but I think to not move forward would be the incorrect way to go here. So I just wanted to again thank the Department, thank the Board for the opportunity to offer this public comment, and thank you.

CHAIR DEVENY: Thank you, Mr. Elliott. Let's go now to Brad Smith.

MR. SMITH: Thank you, Madam Chair, and Members of the Board. My name is Brad Smith. I'm the North Idaho Director of the Idaho Conservation League, and on behalf of ICL and our members, I want to urge the Board to initiate rulemaking on this matter.

Here in Idaho we're downstream of just about everybody else in the Kootenai River

drainage, and actions that are taken upstream of us affect our water quality and our fisheries here in the Kootenai River as it flows through Idaho.

Although I'm not here to represent the Kootenai Tribe, I want to acknowledge and commend their work to recover Kootenai River sturgeon which are protected under the Endangered Species Act, as well as their proactive efforts to recover burbot and prevent them from being added to the Endangered Species list.

Adoption of a limit on selenium pollution in Lake Koocanusa and the river below the dam is necessary to protect our water quality and our fisheries in Idaho, and prevent regression of those recovery efforts.

And in fact, as suggested by Board Member Lynch, a more protective standard for the Kootenai River below the dam may be necessary, and following this process, I would urge Montana DEQ and its partners to gather site specific data, so that we can review that proposed standard in the future and to see if it is adequate.

I want to address a couple of concerns I've heard during other meetings on this matter. I've heard it expressed that this process could

negatively affect the economy here in the United States.

It's my understanding that there are currently no sources of selenium pollution in the Kootenai River south of the border, and in fact, as you've heard, 95 percent of the selenium pollution in Lake Koocanusa originates from coal mines in the Elk River Valley north of the border.

Therefore these standards will not affect current industry in the United States, and while not necessarily advocating for pollution on either side of the border, a strong standard at the border would provide more flexibility for industry in the US if that is your concern.

It has also been suggested that this process should be slowed down, but we know that selenium pollution in our waterways is rising and needs to be addressed. The proposed standards will be reviewed triennially, and as the science is further refined, there will be future opportunity to update these standards as necessary.

So in conclusion, I would urge the Board to initiate rulemaking on this matter. Thank you, Madam Chair, and Members of the Board.

CHAIR DEVENY: Thank you, Mr. Smith. Travis Schmidt.

MR. SCHMIDT: Yes, ma'am. I don't have a prepared statement. I think I was going to make myself available to chime in on science issues, and I think they've been handled.

CHAIR DEVENY: You're with USGS?

MR. SCHMIDT: Yes, ma'am.

CHAIR DEVENY: So okay. Thank you. Moving on, and I'm sorry I didn't get this person's last name, but his first name I believe was Jason.

MR. GILDEA: This is Jason Gildea, and I don't have any comments. Thank you.

CHAIR DEVENY: Thank you, Jason. Thank you very much. Next I have an Erin Sexton.

MS. SEXTON: Thank you, Madam Chair. And I really appreciate the opportunity to make a brief comment here.

My name is Erin Sexton. I'm a senior scientist for the University of Montana Flathead Lake Biological Station, and a water quality scientist by training. I've also represented the Confederated Salish and Kootenai Tribes in the long history of mining processes, mine expansion

processes that have taken place over the last decade and a half, starting with the process in BC to expand the Line Creek Coal Mine in 2012.

And so I just want to emphasize that this has been a very -- one of the most collaborative processes I've ever engaged in in terms of setting a site specific criteria for the reservoir.

There has been great cooperation across the province of BC, the State of Montana, all of our federal entities that have monitoring interests and activities in the reservoir in the river, as well as the -- (inaudible) -- nation in BC, the Confederated Salish and Kootenai Tribe, and the Kootenai Tribe of Idaho.

And so I think it should not be under emphasized how long this process has gone on, how much science has gone into it, and the collaborative nature of the work done to date.

I also just want to highlight the really amazing stature of the scientists that have been involved in the process. They're some of the top selenium experts from North American that have been participating in these conversations over the years.

And so with all that, I just want to say that we know that for decades contaminants have been leaching from the mines in the Elk and Fording Rivers into Koocanusa Reservoir and the Kootenai River downstream; and that the time, this is the right time to initiate this rulemaking process. We very much support this, very appreciative of the great conversation across the members of the Board, and very good questions regarding protection of water quality and fish species in the reservoir and the Kootenai River downstream.

And with all that, I just want to support the initiation of the rulemaking process, and also express support for the site specific criteria of 0.8 micrograms per liter at the international boundary and the reservoir. So thank you very much for your time.

CHAIR DEVENY: Thank you, Ms. Sexton. Lars Sander-Green.

MR. SANDER-GREEN: Yes. Hello. Thanks for the opportunity to speak. So I'm Lars Sander-Green. I'm with Wild Side, which is a conservation organization in the southeast of British Columbia, so just north of the border

there, and I just want to say we're very supportive of starting the rulemaking process here.

We also, like Erin, we've been very impressed with the quality of the science. It's frankly better than what we're used to in British Columbia, so we're very happy to see that.

And I also want to emphasize the long term nature of this problem. It's not a pollution problem that's only going to last as long as the mines are operating, it's a pollution problem that's going to be coming downstream for hundreds of thousands of years after the mines stop operating.

So it's really important when we have these four proposed mines in environmental assessment process in BC that both BC and Montana can adopt a shared standard that's going to provide some certainty for industry and regulators with respect to those expansions before they're approved.

And I also want to emphasize that we're not just upstream and the source of this problem, but we're also downstream. The Kootenai River of course returns to Canada at Creston, and into

Kootenai Lake, and there are a lot of concerns where with that same population of white sturgeon, who are also endangered in Canada, and travel back and forth between Idaho and Canada, so we're very concerned that the Koocanusa limit be set in a way that's going to be protective of that population as well. Thank you.

CHAIR DEVENY: Thank you, Mr. Sander-Green.

Let's see. Next Steve Gunderson, and he has a State Senator with him who I apologize, but I didn't catch your name because we were having some technical difficulties. But Mr. Gunderson, if you'd go ahead.

MR. CUFFE: Representative Gunderson had to go to another meeting. This is Senator Mike Cuffe, Senate District 1, which is Lincoln County, home to Lake Koocanusa, Kootenai River, Libby Dam.

And I will start -- I made a question to Director McGrath at DEQ and Myla Kelly that this process should be slowed down just a little bit. We seem to be rushing it all of a sudden. I was part of it in the beginning, a very integral active part; and then later we broke into two groups, and the group I was in kind of

disintegrated or something.

But anyway, I have trouble keeping up with all the data when it's particularly presented on the screen, and the malfunction -- which we lost a good part of the presentation today, the visual part -- we were listening, and blamed on COVID-19 when I requested a meeting at DEQ headquarters, so I could sit down and review and touch the paper -- I'm more of a paper kind of guy -- and discuss. And I was told because of COVID-19 we couldn't do that, we did it by phone.

So number one, it looks to me like, if I understand it right, what we're proposing is the lowest selenium standard anyplace in the world. Please correct me if I'm wrong. I have a little bit of confusion. There was talk about .85, and 8.5, 5.6, 3.2, and I'm not sure how those are comparable.

I'd like to also point out there was discussion that we should lower -- if I understood it right -- someone was suggesting that we lower the number for Lake Koocanusa and the site specific number there because of white sturgeon, and white sturgeon are not in the lake. I would think you would be more concerned about the down

stream river flow than what's in the lake, of reducing it when it's already at 1.5.

The fish species involved, where the -- how accurate, how much double check there has been. I felt earlier that there was some misleading data, some outlier data that was included in some of the graphs earlier.

And there's also Teck -- as I believe it was Tim Davis said -- Teck hasn't already invested considerable time and money, with I believe considerable success. If you pay attention to the numbers. I've been to the sites. I've looked at the water treatment facilities, and their new breaking ground.

And this is cutting edge stuff. Teck has been criticized a lot over the years, and I'm sure as heck not here to protect Teck. I live downstream. My house is only a few miles from the mouth of the Elk River. But I'm also about being fair, and being protective as we need to be, but not over-protective.

Now, we say that there would be no economic, no adverse economic impact; that could be argued. This isn't the place for me to argue it. We're saying that there's no potential source

of selenium in that lake.

Now, there could be some minerals in the mountains on the east side of the Tobacco Valley which is not far away. Is that the timer with your hand up? Anyway I'm nearing the end.

So there are some mineral deposits, potentially mineral, important mineral deposits up there that at some point could want to be developed.

So I'm going to stop there, but I will make the same request to the Board that I did to Director McGrath, that this almost seems to me like it exploded, and I'm the Senator for this district, and all of sudden hit in the face with this. So are the County Commissioners, so are the two State Representatives.

So with that, we are in agreement. It should be just slowed down a little bit. There's nothing imminent, there's no crisis here that waiting until January, April, July. There's no crisis that all of a sudden, bam, the world turns upside down.

Please consider my request to slow down on this thing, and help all of us to understand what the heck we're really talking about; and I

think including information that the Board may need to digest. Thank you.

CHAIR DEVENY: Thank you, Senator. Vicki Marquis.

MS. MARQUIS: Good morning, Madam Chair, Members of the Board. Thank you for this opportunity. My name is Vicki Marquis. I'm an attorney with Holland and Hart in Billings, and I represent Teck. And I've confined my comments to initiation of this rulemaking package, and we believe that it should not go forward for two reasons.

First, the basis that's been presented for initiation is wrong at this time. The threatened listing for Lake Koocanusa is wrong, and you can see this by looking at DEQ's water quality assessment records that are all available online.

As Myla noted, the lake was listed as threatened in 2012, and at that time DEQ projected based on estimates from the Elk River that Lake Koocanusa would exceed the current water quality standard of five micrograms per liter by 2015; but now here we are in 2020 and DEQ reports -- (inaudible) -- in Lake Koocanusa is less than 1.5

micrograms for selenium.

So clearly the estimates that led to the impairment listing or the threatened listing were wrong, and it's really not impaired based on water quality.

Now, DEQ has presented long term water quality data for the Elk River, but that's inappropriate to consider here. If you look at the data that's presented for Lake Koocanusa -- which should take precedence because this is a site specific standard -- that data indicates that from 2013 to the present, there is no increasing trend in selenium concentrations, and that is seen on Page 20 of the derivation document that you have before you. It's a clear graph with no increasing trends.

Also it's inappropriate to rely on the Elk River data, and this was presented in Slide 9 by Lauren. DEQ uses that data to say that there's an increasing trend in selenium, but in fact -- and this is shown in a 2016 report by a study team that included DEQ -- the trends in selenium loading in the Elk River have been decreasing, and the loads in 2019 were less than in 2018 and 2017. So to the extent that the proposed rule relies on

a presumption of increasing loads and concentrations, it simply is erroneous.

Similarly, most of what you've heard today has included some reference to Teck. The slides had a lot of information about Teck. There's a lot of stuff in the derivation document. No other Montana water quality standard setting process has been premised on a single corporation's operation, let alone a corporation that operates on the other side of an international border, and is wholly regulated by a foreign government.

So to the extent that this rulemaking is being initiated based on Teck's operation, it's ultra vires.

One other important point I want to make -- I realize I'm getting to the end of my time -- but you've been told here today by DEQ that there are exceedences in egg ovary fish tissues, and that they don't want to see any more exceedences.

But that statement presumes that there's a threshold level for exceedences in Montana which doesn't exist. So what DEQ and what this rulemaking is asking you to do is they've said, "Here we're exceeding 15.1, so you have to adopt

15.1 as the criterion." That's not accurate or true. It's circular reasoning.

And in fact we don't even have an assessment method in Montana for considering fish tissue data, and that's really important.

So I ask you if you're going to go down this road -- which as Board Member Lehnherr has suggested -- would result in an impairment listing, let's make sure we understand what that impairment listing is going to be, and that we have a valid assessment method for that.

We have that in other scenarios. There are two out for public comment --

CHAIR DEVENY: Ms. Marquis, you've exceeded your time by quite a bit. I'd like you to just take ten seconds and wrap up if you could.

MS. MARQUIS: Thank you. I apologize. I asked you to -- You know, the science and the research isn't going anywhere. It will still be there. Let's back this up, send this back to DEQ, get an assessment methodology in place, go back to the selenium subcommittee and make sure that there's consensus among all of those experts. The numbers here today indicate there isn't consensus.

And then do this the proper way, because

we know that triennial reviews --

CHAIR DEVENY: Thank you, Ms. Marquis. I appreciate your comments.

MS. MARQUIS: Thank you.

CHAIR DEVENY: I apologize for my scribbling here. There was somebody from EPA, Tim.

MS. SCHMIT: Thank you, Madam Chair. This is Ayn Schmit with EPA. Would you like me to --

CHAIR DEVENY: Yes, thank you. Go ahead.

MS. SCHMIT: Thank you. Good morning, Madam Chair, Board members. My name is Ayn Schmidt, and I'm senior water policy advisor in EPA's Region 8 office in Denver, and I have been leading EPA's multi-office engagement on Lake Koocanusa and the Kootenai watershed. I appreciate this opportunity to make a brief statement on behalf of EPA.

EPA appreciates the robust process that Montana DEQ in collaboration with British Columbia has implemented to develop a site specific selenium water quality criterion for Lake Koocanusa, a process which has been scientifically

rigorous and broadly inclusive.

As was mentioned earlier, EPA's selenium criteria guidance encourages states to adopt site specific standards for selenium where the data exists to inform that.

EPA supports the State moving forward at this time using the existing science that was so clearly explained by Lauren to establish a site specific selenium criterion for Lake Koocanusa and an updated selenium criteria for the Kootenai River.

If Montana ultimately adopts the proposed criteria, EPA will be reviewing those criteria as submitted by Montana DEQ in accordance with the Federal Clean Water Act and our implementing regulation.

Recognizing that scientific understanding of complex pollutants like selenium evolve over time, I'll note that the standards adoption process under the Clean Water Act is designed to set protective standards based on existing science, with states required to revisit those every three years, and resubmit to EPA where appropriate.

Finally I'd like to note that a

protective water quality standard is the best tool we have to assure that water flowing across the boundary of Canada is not, quote, "polluted on either side to the injury of health or property," end quote, in the US as required by Article 4 of the Boundary Waters Treaty, and to give the US the clarity and certainty to ensure that Canada is accountable for meeting Article 4. Thank you, Madam Chair, and Board members.

CHAIR DEVENY: Thank you, Ms. Schmit. Stu Levit, please.

MR. LEVIT: Thank you, Madam Chair, and Board. Hopefully this is -- I apologize -- I'm on the phone, having a little bit of digital issues with other users in my area on broadband. So I appreciate the opportunity to speak.

The CSKT and the State DEQ have worked for many years on this process, and the CSKT greatly appreciates the State coordination and consultation on the matter.

The collaborative group that has been working on this has included, as Erin Sexton noted, the foremost experts in selenium, fish, and water, that we could really ask for, including US EPA and USGS experts and staff. You couldn't ask

for a more robust and experienced, knowledgeable team working on this.

I personally have been working in mining issues for the better part of thirty years, and contamination in the Elk watershed is consistent with my experience, that without an enforceable standard, polluters have many reasons to state that they're dealing with things, and are being unfairly singled out, but the pollution keeps on happening. We are urged to believe based on the past pollution is a problem of old mines and old ideas, and the new processes and new thinking will change things, but contamination keeps happening.

These impacts degrade water, and species, and cultural uses that depend on the water. The contamination of the Elk has been going on for many years, and in fact mining in Elk watershed is increasing, with new mining companies seeking operating permits, and Teck itself seeking to almost double its mining activities with the proposed Castle Mine permit.

The criteria process has been going on for years also, and that process is robust, supportable, and essential. I therefore urge the Board to move forward with this process. Thank

you.

CHAIR DEVENY: Thank you, Mr. Levit. Dave Hadden.

MR. HADDEN: Thank you, Madam Chair, and committee. My name is Dave Hadden. I work for Headwaters Montana, a regional conservation organization in northwest Montana with over 2,000 subscribers. I'll try to be very brief, of course.

I would want to observe first that there were several other Lincoln County citizens who wished to be participating in this conversation and observe the meeting, but because of work obligations were unable to join, including two elected officials.

I would like to state that I've been involved in this as an observer on the selenium technical committee. This process has gone on for five years. Those who have wanted to stay engaged, the opportunities to stay informed and keep abreast of this issue were available to them.

This has been a robust process, as has been commented before. The science is peer reviewed. It's been highly collaborative. Myself as just an observer have had plenty of opportunity

to comment on the process throughout the process. And I think the adoption of -- the initiation of the rulemaking process at this time is very timely.

I think Montana must protect itself. We needn't and we shouldn't rely on BC to set a standard for us, or promise, make promises as to what that standard should be, or what they think they can achieve.

One of the questions earlier in the conversation amongst the Board was what the levels of contamination were in the Elk River. They are off the charts. And BC probably will never meet their own guidelines. They don't have standards, they have guidelines.

So I believe Montana needs to protect itself. We need to set a current standard based on best science. The 5 micrograms per liter standard is too high. And there's been plenty of opportunity to participate. I would urge you to adopt and move on rulemaking at this time. Thank you very much.

CHAIR DEVENY: Thank you, Mr. Hadden. Michael Jamison.

MR. JAMISON: Yes. Madam Chair, thank

you very much, and thank you to the Board for giving us the opportunity to participate today. I also want to thank the agencies, and particularly the scientists who have undertaken this process over many years.

I work for the National Parks Conservation Association. We've been working on transboundary river issues for many, many years now over where I live full time in the transboundary Flathead drainage, as well as where I live part of my year in the Flathead/Elk/Kootenai system.

This process, as has been mentioned, has been one of really quite remarkable integrity. It's been very satisfying to see agencies as diverse as EPA, USGS, DEQ, the UM Bio Station, and even now the Province of British Columbia, come together around consensus, scientific consensus, and around that number that they agree should be implemented.

Industry clearly has an opinion contrary to that science, which is perhaps not surprising. This has gone on for a long time. Teck has acknowledged its selenium problems as far back as the early to mid-1980s. The trend lines since

then have been troubling, and it's not just the selenium trend lines, but also the industrial trend lines.

As Mr. Levit spoke to earlier, Teck and other companies have active proposals on the table today to actively expand the mining footprint in our headwaters, and I would suggest that any delay initiating our rulemaking process at this time only increases our long term exposure to Canadian mining contamination.

It is correct that Teck Resources has been investing heavily in mitigation technologies, and hopefully will at some time in the future reduce selenium to an appropriate level. But in the meantime, we strongly support moving forward with this rulemaking process at this time.

As Mr. Hadden mentioned, those of us who have chosen to stay involved have been able to keep up with the science, and keep up with the process over many, many years. We've been dedicated to sticking to it. Any delay at this point really only exposes our liabilities. Thank you.

CHAIR DEVENY: Thank you, Mr. Jamison. Sue Ireland.

MS. IRELAND: Good morning. Thank you very much. On behalf of the Kootenai Tribe, we would like to support that the Board of Environmental Review move forward with this rulemaking process.

We very much appreciate Board Member Lynch's remarks, and we agree that potentially fish tissue may be needing to be lowered to 5.6 at some point in time in the future, but we support the water column number of .8 at the border. We feel like this is extremely important to support all of the -- and protect all of the downstream resources.

The Kootenai Tribe has been implementing large scale restoration over many, many decades in their area of cultural concern. And we have the endangered white sturgeon, the burbot that were almost wiped out, that have been restored to the point that we have a public fishery on them now in Idaho. We implement millions of dollars of large scale river restoration downstream on the banks of the Kootenai River.

And to have this threat of additional selenium coming downstream and potentially affecting all of those important cultural

resources is very, very concerning to Kootenai Tribe.

We support the .8 micrograms per liter at the Canadian border. It's really, really important to have a protective water quality standard. We need an enforceable standard, and so for that reason Kootenai Tribe would like to say that we have appreciated the collaborative and inclusive process that has gone on. There has been so much science that has gone into all these developed recommendations.

And so for that reason, we would like to support the initiation of rulemaking. Thank you.

CHAIR DEVENY: Thank you, Ms. Ireland. That's all I have on my list, but that doesn't mean that there aren't more members of the public who would wish to comment, so at this time I'd like to ask: Are there any other members of the public either on phone or on Zoom that would like to comment this morning on the rule initiation for selenium standards?

(No response)

MS. SUTLIFF: Madam Chair, I believe Rachel Malison had some comments. Rachel?

MS. MALISON: Thank you, but no.

CHAIR DEVENY: Are there any other members of the public that would wish to comment?

(No response)

CHAIR DEVENY: At this point, I'd like to thank everybody for their patience this morning, and for the comments, and for sticking to the limits, time limits; and I believe there was some good opportunity for people to comment on this, and I think the Board has a feel for maybe where people are standing on that.

At this point I'd like to have a discussion among the Board members, and I see Chris Tweeten, you're ready to start that. Go ahead, Chris.

BOARD MEMBER TWEETEN: Question for Tim Davis.

CHAIR DEVENY: Mr. Davis. Tim.

MR. DAVIS: Madam Chair, Board Member Tweeten.

BOARD MEMBER TWEETEN: Hi, Tim. We're having a special -- This is a special meeting of the Board, and as I recall, we scheduled it as a special meeting because of some time concerns. Can you refresh our memory about that.

MR. DAVIS: Madam Chair, Board Member

Tweeten. Yes, we have been targeting for years now 2020 for the proposed adoption of the rule, and we've been working towards that for years, and we've been working with the stakeholders, as well as the other agencies and industry on that, and British Columbia.

So when we looked out towards the -- in order to meet that, or propose to the Board to be able to meet that time period, we proposed this meeting, so that we could have a 45 day public comment period, get everybody's comments on the proposed rule prior to -- so then you would possibly take action at your final meeting of the year.

So that was the primary reason to remain consistent with our goal. We have all the science completed, and for all the reasons that Myla Kelly laid out as well, we're requesting today that you move forward, that the Board move forward with the rulemaking.

BOARD MEMBER TWEETEN: Madam Chair, follow up.

CHAIR DEVENY: Go ahead, Chris.

BOARD MEMBER TWEETEN: I'm concerned, because under MAPA, the Legislature can of course

overrule our rulemaking decision if we decide to adopt a rule. I'm concerned about Senator Cuffe's comments regarding complaints about process.

If challenges are to be made to any rule that we adopt -- not just this one, but any rule -- I would really prefer that they be made on the basis of substance, not process.

So I want to, if we do decide to proceed with rulemaking, I want to encourage DEQ to provide Senator Cuffe with whatever paper documents he needs, and to engage in whatever outreach needs to be done between now and the time of the hearing that's in the rulemaking request set for the fifth of November to be sure that all of their concerns regarding information are addressed as best we can.

And it may be that they can't all be eliminated, but certainly any opportunities for attacks on our regulations based on process I think need to be eliminated, if we can.

So I really want to encourage DEQ to work with Senator Cuffe and his colleagues to make sure that they have all of the information that they request, and that any questions they have about the data are answered, and that those

answers are documented, so if any issues arise about that later on, we'll have a record with respect to how those matters were addressed.

MR. DAVIS: Madam Chair, Board Member Tweeten. I actually sent Senator Cuffe a note after his testimony this morning offering to send him a hard copy.

I do want to note that we have had years of public meetings. There were two public meetings, and obviously they're virtual, just in the last couple weeks with local leaders, decision makers, to address their questions, walk through, you know, Lauren and Myla present a --

We're more than happy to continue to work with Senator Cuffe and others. We will -- The Water Policy Interim Committee has requested a presentation on the science as well, and so we'll be doing that in October.

But I hear your request, and we're taking it very seriously.

CHAIR DEVENY: Thank you, Tim. Chris, do you have any followup on that?

BOARD MEMBER TWEETEN: I don't, but I'm prepared with a motion as soon as the Board comment is concluded.

CHAIR DEVENY: Let's have some more discussion by Board members, if there is any. Jerry.

BOARD MEMBER LYNCH: Thank you, Madam Chair. I just want to first of all thank Lauren and Myla, as well as the DEQ and other agencies, for an excellent report and analysis.

That being said, I believe it's better to start sooner than later the process to address the standard. The environment does not wait until we administratively do things.

And with due respect to the two opponents who spoke today, I did not hear anything that persuasively -- or no persuasive argument why this process should not proceed, understanding that the brakes can always be put on if new information comes to light.

So I emphasize here we're talking about process. I want to thank Chris for reminding me I was putting the cart before the horse, because we are just simply talking about initiating rulemaking. The Board is not making a final decision.

And so I believe with the five years of collaborative effort, the excellent scientific

report, that there's no harm in proceeding forward with the initiation -- again emphasize -- initiation of the rulemaking. Thank you.

CHAIR DEVENY: John DeArment.

BOARD MEMBER DEARMENT: Thanks, Madam Chair. I would just second what Jerry Lynch had to say. Clearly some world class science went into this, a very robust collaboration process. It seems to me that the Department has very clearly met any bar they would need to meet for us to move forward with initiation, and I think by starting that process, we give opponents a chance to weigh in with suggestions on how to improve the standard or change the standard, but we should move forward with initiation today, would be my vote.

And also just thanks for the presentation, and to DEQ and everybody who was involved in the many years that have gone into the process. A lot of great work. So thanks, everyone.

CHAIR DEVENY: Thanks, John. Other Board member comments?

BOARD MEMBER BUSBY: This is Dexter. A couple quick questions to Tim Davis, please.

CHAIR DEVENY: Tim, are you still there?

MR. DAVIS: Madam Chair, Board Member --

CHAIR DEVENY: Busby.

MR. DAVIS: Busby. That's right. I can't see your picture, Dexter. Sorry. Go ahead.

BOARD MEMBER BUSBY: I'm on the phone. So Tim, as a practical matter, I've always been opposed to regulating for regulation sake, and regulating when we have no control or no way of enforcing.

So tell me how, from a practical side, will you be able to as the Water Quality Division enforce any regulation we pass, much less a little more stringent than what's already existing in the lake.

MR. DAVIS: Madam Chair, Board Member Busby. I think I would start by just reiterating what Myla and Lauren had pointed out. Right now we don't have a standard that is protective. The first place that we need to begin when adopting it to be able to protect Montana's water quality is to have a protective standard based on the science.

Then as Ms. Schmit from EPA talked about, once we have that standard in place, then

we have a benchmark in order to work either under the boundary waters treaty, or work directly with British Columbia, to make sure that that standard is met.

So we do think there's ways to be able to implement the standard, but the first thing we need to do is to have a protective standard, which we do not have, to ensure that Montana's water quality and aquatic life is protected. Does that help?

BOARD MEMBER BUSBY: Yeah, that goes a way in helping my thought pattern. My concern really comes from the whole idea of -- We don't know the impact of these standards downstream. They will have actually at this point no impact on the Idaho, and the Kootenai folks, or what goes back into Canada on the river.

But I'm just really reluctant to say we're going to have a one standard, or .8 standard, when the lake is already one -- and tell if I'm wrong on the tech -- and there is no upstream true enforcement mechanism that has been enacted.

They may be working very hard technically, and they may be successfully working

very hard; but as Montana, we really don't have any input on a foreign entity, a foreign state, or any other state. We can talk, we can advise, but we certainly don't have any control.

So I'm not sure we're going to affect the selenium in the river or the lake by passing these rules or by not passing these rules, but even initiating rulemaking until we have some form of commitment that's enforceable, and I don't see that happening.

MR. DAVIS: Madam Chair, Board Member Busby. I would just reiterate that I think this really is foundational. It's not possible right now, given our nonprotective standard, for us to -- we don't have a benchmark to work with British Columbia or Canada that is protective.

Until we have that in place, there really isn't a -- we can't have those conversations about whether or not that standard is being violated, and what steps they will take. Once we have a standard in place that is protective, that's where the State department gets involved, and it is possible that we could work out an agreement with BC on implementation once we have it.

But without that benchmark to begin with, it's not possible to have those enforcement conversations because we don't know, because right now, nothing in the United States is being violated, and we haven't taken that first important step to protect ourselves.

BOARD MEMBER BUSBY: Okay. That's all I had. Thank you.

CHAIR DEVENY: Thank you, Dexter. Other Board members that wish to make comments or have questions of DEQ?

(No response)

CHAIR DEVENY: Seeing none, I guess I'd like to commend DEQ for the work that they've done on this, and I have to say I'm very impressed with the collaborative work, and the number of agencies, and cross border groups, tribes, that have been involved in this.

I'm not sure in my tenure with the Board that I've seen quite that expansive amount of collaboration, and work, and I have to say from my reading of the science, it does seem quite rigorous, and that there's been a lot of really good work done there.

With that, Chris, I think you were ready

to make a motion for the Board, and so if you'd like to do so, I'll call on you.

BOARD MEMBER TWEETEN: Madam Chair, I move that we initiate rulemaking in accordance with the notice of intended rulemaking that's been provided to us by DEQ, and that Sarah Clerget be appointed as the party to conduct the administrative hearing.

CHAIR DEVENY: I would second that. Is there Board member discussion on the motion before us?

(No response)

CHAIR DEVENY: Any discussion?

(No response)

CHAIR DEVENY: With that, we will have a vote. All those in favor of initiating rulemaking as proposed by DEQ, and assigning Sarah Clerget as our Hearing Officer, please signify by saying aye.

(Response)

CHAIR DEVENY: Are there any opposed?

BOARD MEMBER BUSBY: I'm opposed. This is Dexter.

CHAIR DEVENY: So we have five in favor, one opposed. The motion passes. So with that, I believe we can move on to opening the meeting up

to any general public comment that is not concerning issues that we've already discussed today and I'd --

BOARD MEMBER TWEETEN: Madam Chair.

CHAIR DEVENY: Go ahead, Chris.

BOARD MEMBER TWEETEN: I'm late for an appointment, so I'm going to have to get off.

CHAIR DEVENY: Okay. Any other public comment?

MR. GUNDERSON: Madam Chair, I would like to make comment. Representative Gunderson.

CHAIR DEVENY: Yes, Mr. Gunderson.

MR. GUNDERSON: Madam Chair, the process I think that we're making -- and I apologize by not being able to make comment before because I had a meeting that conflicted here -- but I would like to point out that the procedural problems with the standard setting are great.

DEQ has not followed through following proper procedure by utilizing EQC or WPCAC to actually keep the Legislature in the loop on the standard.

I also feel there's scientific data that has been left out, and that includes the water treatment numbers from -- (inaudible) -- made

great strides in reducing the amount of selenium, and I think we are making a decision that's too fast, too soon. We need to take a step back and actually look at that data, and see what -- (inaudible) -- long term.

But again, nobody has shown me the trout where there is a selenium crash. Nobody has shown me the cause of the fish population decline on the Elk and upper Fording, and that's still under investigation to find out what actually caused it, and it appears that it's not selenium related.

So again, I think we're going too fast. We're on a steam roller mission to get something done that can actually take a little more time, and take in a little more debate, and look at more scientific data.

CHAIR DEVENY: Thank you, Mr. Gunderson. And with that, I would like to move that we adjourn this meeting.

BOARD MEMBER LYNCH: I'd second.

CHAIR DEVENY: It's been moved and seconded. All in favor of adjourning today's meeting, please signify by saying aye.

(Response)

CHAIR DEVENY: Any opposed?

(No response)

CHAIR DEVENY: Thank you, everybody, and we'll see you in a couple weeks.

(Chat received by Myla Kelly to be included in the transcript)

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From Shawna Kelsey to Everyone: 10:02 AM.

I apologize for missing the introductions at the beginning of the meeting. My name is Shawna Kelsey. I'm on the City Council in Troy, MT. I was born and raised in Troy and am now raising my family here and starting a business after many years in the non-profit world.

Thank you for all of the detailed information about selenium standards and the biological effects. I am in support of the DEQ recommended standards and that the BER move forward with establishing the standard. It is in the best interest of our watershed, our community and our economy to act now to prevent the negative consequences of higher selenium levels - especially when we can do so based on the best available science. Thank you for your work protecting this watershed that many of us take for granted.

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(The proceedings were concluded

at 11:17 am.)

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C E R T I F I C A T E

STATE OF MONTANA)
: SS.
COUNTY OF LEWIS & CLARK)

I, LAURIE CRUTCHER, RPR, Court Reporter, Notary Public in and for the County of Lewis & Clark, State of Montana, do hereby certify:

That the proceedings were taken before me at the time and place herein named; that the proceedings were reported by me in shorthand and transcribed using computer-aided transcription, and that the foregoing - 103 - pages contain a true record of the proceedings to the best of my ability.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal this 5th day of October, 2020.

_____

LAURIE CRUTCHER, RPR
Court Reporter - Notary Public
My commission expires
March 9, 2024.