

JOINT REVIEW PANEL PUBLIC HEARING

IN THE MATTER OF Application Nos. 1844520, 1902073,
001-00403427, 001-00403428, 001-00403429, 001-00403430,
001-00403431, MSL160757, MSL160758, and LOC160842
to the Alberta Energy Regulator

GRASSY MOUNTAIN COAL PROJECT - BENGA MINING LIMITED

VOLUME 22

VIA REMOTE VIDEO

November 23, 2020

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1 Proceedings Taken via Remote Video

2

3 November 23, 2020 Morning Session

4

5 A. Bolton The Chair

6 D. O'Gorman Hearing Commissioner

7 H. Matthews Hearing Commissioner

8

9 M. LaCasse AER Counsel

10 B. Kapel Holden AER Counsel

11

12 K. Lambrecht, QC Joint Review Panel Secretariat
13 Counsel

14

15 T. Utting IAAC Staff

16 E. Arruda AER Staff

17 D. Campbell AER Staff

18 T. Turner AER Staff

19 T. Wheaton AER Staff

20 A. Shukalkina AER Staff

21

22 M. Ignasiak For Benga Mining Limited

23 C. Brinker

24

25 R. Warden For Ktunaxa Nation

26 T. Howard

1	K. Poitras	For Métis Nation of Alberta
2		Region 3
3		
4	Chief B. Cote	For Shuswap Indian Band
5		
6	B. Snow	For Stoney Nakoda Nations
7		
8	R. Drummond	For Government of Canada
9	S. McHugh	
10		
11	A. Gulamhusein	For Municipality of Crowsnest
12		Pass
13		
14	M. Niven, QC	For MD of Ranchland No. 66
15	R. Barata	
16	J. Nijjer (Student-at-Law)	
17		
18	B. McGillivray	For Town of Pincher Creek
19		
20	D. Yewchuk	For Canadian Parks and
21		Wilderness Society, Southern
22		Alberta Chapter
23		
24	R. Secord	For Coalition of Alberta
25	I. Okoye	Wilderness Association, Grassy
26		Mountain Group, Berdina Farms

1		Ltd., Donkersgoed Feeder
2		Limited, Sun Cured Alfalfa
3		Cubes Inc., and Vern Emard
4		
5	R. Cooke	For Crowsnest Conservation
6		Society
7		
8	G. Fitch, QC	For Livingstone Landowners
9	C. Agudelo	Group
10		
11	M. Sawyer	For Timberwolf Wilderness
12		Society and Mike Judd
13		
14	(No Counsel)	For Barbara Janusz
15		
16	(No Counsel)	For Jim Rennie
17		
18	S. Elmeligi	For Alberta Chapter of the
19	A. Morehouse	Wildlife Society and the
20	S. Milligan	Canadian Section of the
21	M. Boyce	Wilderness Society
22		
23	J. Gourlay-Vallance	For Eco-Elders for Climate
24		Action
25		
26	L. Peterson	For Trout Unlimited Canada

1 R. Campbell For Coal Association of Canada
2
3 (No Counsel) For Alistair Des Moulins
4
5 (No Counsel) For David McIntyre
6
7 (No Counsel) For Fred Bradley
8
9 (No Counsel) For Gail Des Moulins
10
11 (No Counsel) For Ken Allred
12 (Not Present)
13
14 (No Counsel) For Monica Field
15
16 S. Frank For Oldman Watershed Council
17 A. Hurly
18
19 C. Forster, CSR(A) Official Court Reporter
20

21 (PROCEEDINGS COMMENCED AT 9:01 AM)

22 Discussion

23 THE CHAIR: Good morning, everyone.

24 Just a reminder that live audio and video streams
25 and video recordings of this proceeding are available
26 to the public through the AER's website and YouTube.

1 Anyone in the virtual hearing room with their camera or
2 microphone turned on will be captured, and images and
3 recordings of you and your surroundings will be
4 broadcast to a publicly available YouTube video. If
5 you have concerns about this, please contact counsel
6 well in advance of the time you're scheduled to
7 participate to explain your concerns. We will make
8 best efforts to try and accommodate your concerns
9 considering the need for an open and transparent public
10 process.

11 I have one preliminary matter, and then I will see
12 if there are any others. So on Saturday we talked
13 about the possibility of combining the air and wildlife
14 and health sections into one -- one larger session
15 rather than two separate sessions. I invited the
16 participants to provide any comments on whether they
17 had any concerns about that. We have heard from a
18 number of the participants, and so far no concerns have
19 been raised.

20 The Panel would like to make a decision on this
21 probably by midday today so we can issue a revised
22 schedule. So if anyone hasn't spoken to this yet and
23 you do have concerns, let us know. Otherwise, we will
24 probably go ahead to combine the two sessions.

25 And just for clarity, by combining the two
26 sessions, our approach would be just to combine the

1 times for direct evidence and cross-examination for
2 each of the participants for those two sessions. And
3 this isn't a commitment that we expect to finish the
4 hearing by the end of this week. Our feeling is that
5 by -- with the amount of material we still have to go
6 through, it's quite likely we'll need at least Monday
7 next week, and possibly into Tuesday, unless things go,
8 you know, much quicker than anticipated.

9 So does anybody want to speak to that issue now
10 before I look for other preliminary matters?

11 MR. DRUMMOND: Thank you, Mr. Chair. It's
12 Robert Drummond, Justice Canada.

13 I did not send a response, but we concur that
14 there's certain practicality in combining them and have
15 no concerns with doing so. Thank you.

16 THE CHAIR: Thank you, Mr. Drummond.

17 Anyone else?

18 Okay. Hearing nothing further on that matter, are
19 there any other preliminary matters we need to deal
20 with?

21 Hearing none, we are going to continue with direct
22 evidence from the other participants today on the water
23 topic area. And first up is the Government of Canada.

24 So, Mr. Drummond.

25 MR. DRUMMOND: Thank you, Mr. Chair.

26 First thing, we would need to swear and affirm a

1 number of witnesses. There are 20 Government of Canada
2 witnesses for this subject area. We've provided a list
3 to the court reporter in advance, which I hope would
4 make things go a little bit smoother. So I just ask
5 that the witnesses be sworn or affirmed at this time.

6 THE CHAIR: Okay. Thank you. Madam Court
7 Reporter, if you have a list and you are ready to
8 proceed.

9 THE COURT REPORTER: Thank you.

10 STEPHANIE MARTENS, TOM HOGGARTH, MARTYN CURTIS,
11 MELANIE TOYNE, EVA ENDERS, JODY SMALL, AIMEE ZWEIG,
12 BRANDI MOGGE, LAURA PHALEN, ROBYN KUTZ, KEN GLASBERGEN,
13 PETER JOHN THOMPSON, BEN PLUMB, MARIE-CLAUDE SAUVÉ,
14 JESSICA COULSON, ASHLEY GILLESPIE, MIROSLAV NASTEV,
15 MICHAEL TAKEDA, Affirmed

16 MARGARET FAIRBAIRN, ANNE WILSON, Sworn

17 MR. DRUMMOND: I believe that's everyone,
18 Madam Court Reporter.

19 THE CHAIR: Go ahead, Mr. Drummond.

20 Direct Evidence of Government of Canada

21 (Water, including surface and groundwater management,
22 quantity and quality, selenium management and aquatic
23 resources, including fish and fish habitat and fish
24 species at risk)

25 MR. DRUMMOND: Ms. Martens, I believe you are
26 going to present some direct evidence on behalf of the

1 Department and Fisheries and Oceans.

2 A MS. MARTENS: I am. Thank you.

3 Can everyone hear me okay?

4 Q Yes.

5 A MS. MARTENS: Good morning. Good morning,
6 Panel Chair, Panel Members, hearing participants, and
7 members of the public. My name is Stephanie Martens,
8 and I am a regional manager for DFO's fish and fish
9 habitat protection program in the Ontario and Prairie
10 Region. I will be responsible for coordinating DFO's
11 team of experts and will also act as the Government of
12 Canada's panel lead for the water session.

13 I will be giving an overview of the submission to
14 the Panel provided by DFO. Following that, Environment
15 and Climate Change Canada and Natural Resources Canada
16 will both give presentations.

17 But before getting started, we would like to
18 acknowledge that the project is located on Treaty 7
19 lands in the traditional territories of the Piikani,
20 Kainai, Siksika, Tsuut'ina, and Stoney Nakoda Nations
21 as well as the traditional territories for the Ktunaxa
22 Nation, Secwepemc Nation, and the Métis people of
23 Southern Alberta.

24 I would first like to take a few minutes to
25 describe DFO's role in the environmental assessment
26 process. DFO has participated as a federal authority

1 in the environmental assessment process for this
2 project under the Canadian Environmental Assessment Act
3 2012 or SEIA 2012 since it began in 2015.

4 DFO's role as a federal authority under Section 20
5 of SEIA 2012 is to provide specialist or expert
6 information and knowledge within our mandate to the
7 Panel to assist in the assessment of the project. This
8 information includes potential environmental effects of
9 the project on fish and fish habitat and aquatic
10 species at risk.

11 In addition to DFO's responsibilities under SEIA
12 2012, DFO's minister is the -- is responsible for the
13 administration and enforcement of the Fisheries Act and
14 regulations thereunder. The amended Fisheries Act
15 received royal assent and became law on June 21st,
16 2019. This modernized act restores protections lost in
17 the 2012 changes to the Act and incorporates modern
18 safeguards. The Act improves the protection of
19 Canadian fisheries and their ecosystems and recognizes
20 that decisions can be guided by the principles of
21 sustainability, precaution, and ecosystem management.

22 DFO's responsible for the administration of the
23 fish and fish habitat protection provisions of the
24 Fisheries Act, while the pollution prevention
25 provisions are administered by -- and enforced by
26 Environment and Climate Change Canada, including

1 Section 36(3) related to the deposit of a deleterious
2 substance.

3 The fish and fish habitat protection provisions
4 include a legal framework to regulate impacts to fish
5 and fish habitat associated with projects. The
6 provisions prohibit works, undertakings, or activities
7 that cause the death of fish by means other than
8 fishing and the harmful alteration, disruption, or
9 destruction of fish habitat unless otherwise authorized
10 by the minister. The information required to apply for
11 a ministerial authorization is described in the
12 authorization regulations and includes an offsetting
13 plan, among other requirements.

14 Before recommending the issuance of an
15 authorization, the minister must consider the eight
16 factors set out in subsection 34.11 of the Act. This
17 includes, among others, fisheries management
18 objectives, cumulative effects, and any other factors
19 that the minister considers relevant.

20 DFO's responsibilities under the fish and fish
21 habitat protection provisions are linked closely to
22 DFO's responsibilities under the Species at Risk Act.
23 The Minister of Fisheries and Oceans Canada is the
24 competent minister for aquatic species at risk and has
25 responsibilities ranging from the development of
26 recovery strategy and action plans to assessing

1 applications for permits for activities affecting
2 listed wildlife species, any part of its critical
3 habitat, or the residences of individuals.

4 The Species at Risk Act prohibits killing,
5 harming, harassing, capturing, or taking of a species;
6 damaging or destroying the residence of one or more
7 individuals; and the destruction of critical habitat if
8 a species is listed as endangered, threatened,
9 extirpated -- or extirpated on Schedule 1 of the
10 Species at Risk Act.

11 However, the Species at Risk Act does have
12 provisions to permit these activities under Section 73
13 provided it is one of the following activities:
14 Scientific research related to the conservation of the
15 species conducted by qualified persons, the activity
16 benefits the species or is required to enhance its
17 chance of survival in the wild, or affecting the
18 species is incidental to the carrying out of the
19 activity.

20 Projects such as the Grassy Mountain Coal Project
21 fall under the third category with the activity
22 affecting the species being incidental to the carrying
23 out of the activity.

24 Additionally, prior to the issuing of the permit,
25 the minister must also be satisfied that the
26 subsection 73(3), preconditions of the Species at Risk

1 Act have been met, including that the activity will not
2 jeopardize the survival or recovery of the species.
3 Measures to offset can be taken to assist in meeting
4 those preconditions so long as the activity will not
5 jeopardize the survival and recovery of a species.
6 Measures to offset should not be relied on exclusively,
7 and there are circumstances in which offsetting is not
8 appropriate, such as where critical habitat is
9 irreplaceable or there is a high probability of failure
10 or uncertainty.

11 DFO's offsetting policy also applies in a species
12 at risk context but with additional considerations
13 required to account for the sensitivity of the species
14 being impacted. These include but are not limited to:
15 The contribution of the offsetting to the attainment of
16 population and distribution objectives described in the
17 recovery strategy or action plan and offsetting being
18 implemented and confirmed functioning prior to impacts
19 occurring. These key pieces of legislation guided
20 DFO's scope of review of the project as a federal
21 authority.

22 I will now move on to outline the status and
23 protection of westslope cutthroat trout as it relates
24 to the project.

25 The proposed Grassy Mountain Coal Project will
26 result in the destruction and alteration of large

1 amounts of aquatic and riparian habitat in both
2 Blairmore and Gold Creeks, which are both home to
3 westslope cutthroat trout. Westslope cutthroat trout
4 are listed as threatened under Schedule 1 of the
5 Species at Risk Act.

6 Westslope cutthroat trout populations exhibiting
7 greater than or equal to 99 percent genetic purity are
8 afforded protection under the Species at Risk Act,
9 while near pure populations exhibiting greater than
10 1 percent introgression are not. These near pure
11 populations can still be of high value to support the
12 recovery objective of identifying opportunities to help
13 recover genetically pure and near genetically pure
14 popu -- strains of westslope cutthroat trout.

15 This supports the overall population and
16 distribution objective to protect and maintain the
17 existing distribution of greater than or equal to
18 99 percent genetically pure populations of westslope
19 cutthroat trout and re-establish genetically pure
20 populations to self-sustaining levels within the
21 original distribution of the species in the
22 Saskatchewan-Nelson river watersheds in Alberta.

23 There are 51 known pure populations of westslope
24 cutthroat trout in Alberta outside of national parks.
25 The Gold Creek population is pure, and Gold Creek and
26 its tributaries are designated critical habitat

1 required for the survival and recovery of the species.

2 The federal Recovery Strategy and Action Plan,
3 which I will refer to as the "RSAP", was updated in
4 December of 2019. It included an updated extent of
5 critical habitat, including the primary riparian zone
6 around watercourses, as well as headwater areas that
7 contribute to westslope cutthroat trout habitat. The
8 Gold Creek population is one of ten populations that is
9 estimated to have enough individuals to be considered
10 viable as per the committee on the status of endangered
11 wildlife in Canada, or COSEWIC, 2016 assessment.

12 In addition, Alberta's Fish Sustainability Index
13 tool identifies the adult population in Gold Creek to
14 be low, with a very high need for habitat protection.
15 Despite this low adult density rating in Gold Creek, it
16 is higher than the majority of populations, which are
17 rated as having very low adult densities.

18 The population of westslope cutthroat trout in
19 Blairmore Creek is near pure and is therefore not
20 afforded protection under the Species at Risk Act. The
21 habitat in Blairmore Creek is not designated as
22 critical.

23 However, as I had alluded to earlier regarding
24 near pure populations, Blairmore Creek is a candidate
25 location to support recovery and population and
26 distribution objectives. For this reason, DFO

1 considers the RSAP a fisheries management objective for
2 Blairmore Creek, and it is therefore a high priority
3 for protection under the Fisheries Act.

4 I will now summarize DFO's technical submission,
5 giving a brief overview of our recommendations. DFO's
6 technical submission presents our assessment of the
7 proponent's EIS and predictions of effects on westslope
8 cutthroat trout, taking into consideration the various
9 rounds of technical information requests.

10 The proponent identified pathways of effects that
11 are generally aligned with DFO's guidance. The
12 determination of significance framework the proponent
13 applied to those pathways of effects, while appropriate
14 in a more typical setting, does not reflect the
15 sensitivity of isolated populations of westslope
16 cutthroat trout with unique genetic pools that are
17 critical to the species' survival and recovery as a
18 whole.

19 The pathways of effects were well defined by the
20 proponent, but the methods, analysis, and resulting
21 residual effects conclusions for many of these pathways
22 have limitations that likely underestimate the effects
23 to westslope cutthroat trout.

24 I will now summarize those pathways. DFO's 1998
25 blasting guidelines may be an acceptable approach to
26 mitigate effects of blasting in certain situations, and

1 the proponent has indicated they will meet this
2 guideline. However, new research has been conducted
3 since the development of those guidelines that includes
4 considerations for factors such as local habitat
5 conditions and life-stage affected.

6 DFO has recommended the development of a more
7 robust assessment and site-specific mitigation and
8 monitoring plan for the effects of blasting that
9 adequately considers the species' sensitivity and the
10 potential for non-lethal injury, which is prohibited
11 under Section 32 of the Species at Risk Act.

12 Westslope cutthroat trout are a cold-water
13 species, sensitive to changes in stream temperature.
14 The proponent's model for predicting changes in stream
15 temperature appears to have used primarily changes in
16 flow as a predictor of temperature change. While this
17 is a valid pathway, other relevant variables, such as
18 riparian habitat loss, upland vegetation loss, and the
19 influence of the sedimentation ponds, do not appear to
20 be explicitly included, despite recognition by the
21 proponent that these activities do have the potential
22 to alter water temperature. DFO recommended the
23 proponent undertake updated modelling at an appropriate
24 scale relative to westslope cutthroat trout habitat and
25 update their residual effects analysis.

26 Further, the proponent indicates that inclusion of

1 stream temperature monitoring in the Aquatics
2 Monitoring Plan, or AMP, will support early
3 identification of changes and enable them to respond
4 with appropriate mitigation. However, it is unclear at
5 what temperature the proponent would employ mitigation.
6 DFO is uncertain what mitigation measures could
7 feasibly adjust stream temperature, particularly when
8 the cause of the change may be from numerous factors
9 over a potentially large spatial scale.

10 There is no -- sorry, the conclusion of no
11 residual effects to isolated populations of westslope
12 cutthroat trout due to the loss of invertebrate food
13 drift and fishless tributaries was not well supported
14 by the literature or the proponent's data and is not
15 aligned with the sensitive nature of the populations in
16 habitat. DFO made a recommendation to perform a more
17 robust analysis of effects from invertebrate food drift
18 losses.

19 The proponent characterized changes in surface
20 flows using a water balance and load model that allows
21 the modeller to incorporate a suite of hydrologic
22 processes. In this case, considerable uncertainty
23 exists when relying on the model to adequately assess
24 potential hydrologic impacts to westslope cutthroat
25 trout due to the lack of incorporation of a
26 representative range of monthly and seasonal streamflow

1 variability owing to the use of annual precipitation
2 inputs and monthly distribution coefficients.

3 Additionally, the model did not consider natural
4 storage within the system, and significant hydrologic
5 components such as snowpack and evapotranspiration were
6 not considered due to the annual scale at which the
7 model operates. Overall, the model has a high level of
8 uncertainty on a monthly basis, particularly during
9 low-flow conditions when westslope cutthroat trout
10 would be sensitive to flow and temperature changes.
11 The model fails to adequately characterize natural
12 hydrologic conditions in Gold and Blairmore creeks.
13 The approach does not have the resolution to capture
14 seasonal variation nor to understand impacts at a
15 mesohabitat scale that matches the fish habitat
16 assessments.

17 DFO made recommendations to address modelling
18 uncertainty, define the low-flow threshold required to
19 maintain habitat functionality, request a mitigation
20 strategy for augmentation during low flow, and to
21 include a validation of the habitat suitability
22 predictions in the AMP. Subsequently, the residual
23 effects analysis for hydrology effects should be
24 updated.

25 In addition to surface water impacts, there are
26 also predicted alterations to groundwater flow that

1 would affect existing base-flow regimes in Blairmore
2 and Gold Creeks. DFO acknowledges that the proponent
3 indicated that the reduction in base flows will be
4 offset by discharges of water from sedimentation ponds.

5 In Blairmore Creek, the proponent has indicated
6 that discharges from the west sedimentation pond and
7 the plant site sedimentation pond will result in an
8 overall increase in total streamflows during and after
9 the life of mine.

10 In the case of Gold Creek, the proponent has
11 indicated that water will be discharged from the east
12 sedimentation pond and the northeast sedimentation
13 pond, though a net loss of flow is anticipated in the
14 reaches adjacent to the mine footprint.

15 Based on our understanding of the hydrogeologic
16 assessment and supporting groundwater modelling, the
17 limitations of the numerical groundwater model leaves a
18 high level of uncertainty associated with base-flow
19 predictions and the potential impact on westslope
20 cutthroat trout.

21 There are outstanding concerns with long-term base
22 flow in Blairmore Creek as the areas predicted to be
23 most severely impacted by base-flow reductions are
24 located upstream of the saturated backfill zone outfill
25 point. That is intended to be the sole mitigation
26 measure beyond the end of mine.

1 Additionally, we have outstanding concerns
2 regarding end-of-pipe flow augmentation as a surrogate
3 for groundwater discharge.

4 Changes to sediment supply have been identified
5 for both Gold and Blairmore Creeks. To clarify, DFO
6 has not implied that upstream sediment supply will
7 disappear but that the proponent has not sufficiently
8 assessed potential impacts associated with changes in
9 sediment supply due to loss of tributaries.

10 DFO has recommended further baseline data
11 collection in order to support an assessment of
12 potential impacts to westslope cutthroat trout and a
13 subsequent update of the effects assessment,
14 mitigation, and offsetting plans as required.

15 DFO has also recommended the sediment transport
16 analysis incorporate hydrologic changes over the entire
17 flow regime to assess impacts to channel maintenance
18 flows, transport of spawning gravel, and impacts to
19 channel morphology and sediment transport into
20 post-closure conditions. These results should inform
21 an updated effects assessment, mitigation, and
22 offsetting plans, if required.

23 Direct overprinting of large amounts of fish
24 habitat and critical habitat in Blairmore and Gold
25 Creeks respectively is anticipated. In an effort to
26 determine residual effects from the loss of riparian

1 habitat, the proponent rated riparian areas based on
2 quality and only accounted for impacts to some medium-
3 and high-quality riparian areas. Given the importance
4 of riparian habitat for providing food sources and
5 mitigating stream temperature increases as well as its
6 recent inclusion as designated critical habitat in the
7 updated RSAP, the proponent has not adequately
8 considered the ecological context and sensitivity of
9 westslope cutthroat trout in its assessment of residual
10 effects on riparian. DFO has made a recommendation to
11 reconcile this uncertainty.

12 Overall, the proponent has concluded that several
13 pathways of effects have no residual effect. DFO's
14 opinion is that there is too much uncertainty with the
15 analyses to date to support these conclusions. As a
16 result of this, the quantification of impacts the
17 proponent presents is incomplete, and, consequently,
18 the ability of the mitigation and offsetting plan to
19 counterbalance the impacts is uncertain.

20 The quantification of impacts will also need to be
21 updated to reflect the expanded critical habitat
22 definition in the updated RSAP. That includes the 30
23 -metre riparian buffer on Gold Creek and its
24 tributaries. DFO will apply the same requirement to
25 Blairmore Creek due to its potential to support
26 recovery.

1 With respect to the offsetting options the
2 proponent has proposed, DFO has recommended additional
3 assessments be undertaken to ensure the benefits,
4 feasibility, and sustainability of any offsetting
5 measures. The offsetting should be constructed and
6 proven functioning and effective prior to impacts to
7 verify it has resulted in net positive benefits to
8 westslope cutthroat trout. This would be required to
9 ensure the activities will not jeopardise the survival
10 and recovery of the species.

11 The proponent has proposed an aquatics monitoring
12 program to verify effects and support adaptive
13 management. The isolation and lack of resilience of
14 these populations of westslope cutthroat trout makes
15 typical monitoring approaches less feasible due to the
16 risks associated with long-term handling and stress.
17 While there are strategies to reduce potential harm
18 from the monitoring program as a whole, DFO notes
19 there's a significant risk in a wait-and-see approach
20 to monitoring for effects and then attempting to
21 mitigate and reverse them when those effects are on a
22 species at risk. This underlines the importance of
23 using a precautionary approach that includes robust
24 assessments of the potential effects to westslope
25 cutthroat trout.

26 The Grassy Mountain Coal Project is unique for DFO

1 in the Ontario and Prairie Region because it's one of
2 the first projects under review with proposed impacts
3 of this magnitude to an aquatic species at risk. DFO's
4 review approach was tailored to ensure the level of
5 review adequately considered the sensitivity of the
6 species.

7 DFO understands that there are uncertainties with
8 selenium concentration predictions as Environment and
9 Climate Change Canada has identified. DFO relies on
10 Environment and Climate Change Canada's expertise and
11 shares these concerns as they relate to the potential
12 for population model effects. DFO also spoke to
13 uncertainties with calcite impacts on habitat and water
14 quality impacts on invertebrate food sources in our
15 submission and have recommended further quantitative
16 assessments of the residual impacts.

17 This assessment should be supported by robust
18 mitigation and monitoring strategies to ensure impacts
19 related to these two pathways are mitigated. The
20 deposit of a deleterious substance is prohibited under
21 Section 36(3) of the Fisheries Act until such a time as
22 the regulation is in place.

23 DFO would like to provide a correction to
24 Recommendations 20 -- 19 and 20 in Section 5.3 related
25 to water quality. In short, the references to the
26 "offsetting plan" have been removed and reference to a

1 "monitoring plan" included in recommendation 20. I
2 will restate the corrected recommendations.

3 Recommendation 19 should read: (as read)

4 A quantitative assessment of the potential
5 for calcite precipitation and its effects on
6 westslope cutthroat trout habitat should be
7 completed. Based on the results of the
8 analysis, a robust mitigation strategy should
9 be developed, tested, and proven effective
10 prior to implementation. Any residual
11 effects should be accounted for in the final
12 assessment of impacts to westslope cutthroat
13 trout and described in combination with other
14 residual effects in the context of overall
15 potential effects on westslope cutthroat
16 trout survival and recovery. A comprehensive
17 monitoring and adaptive management program
18 should be developed and included in the AMP
19 and follow-up program to define thresholds
20 and triggers for action to prevent effects
21 beyond those predicted.

22 Recommendation 20 should read: (as read)

23 DFO recommends that an updated analysis of
24 residual effects to food sources that
25 accounts for potential long-term changes due
26 to water quality specific to feeding habitats

1 and diet of westslope cutthroat trout should
2 be undertaken. A comprehensive monitoring
3 and adaptive management program should be
4 developed and included in the AMP and
5 follow-up program to define thresholds and
6 triggers for action to prevent effects beyond
7 those predicted.

8 We would also like to make a correction to a statement
9 on PDF page 270, Section 4.6, on closure and
10 reclamation. The last sentence of the third paragraph
11 should read: (as read)

12 Of note to DFO is the long-term management of
13 the surge ponds post closure to mitigate
14 selenium effects, potential changes to
15 groundwater discharge to Blairmore and Gold
16 Creeks, the end-pit lake, and any potential
17 changes in flow to Blairmore and Gold Creeks
18 and recreational access.

19 DFO would also like to address part of an exchange that
20 occurred Friday morning between Mr. O'Gorman and
21 Dr. Bewley regarding a Canadian Science Advisory
22 Secretariat Report titled "Framework For Assessing the
23 Ecological Flow Requirements to Support Fisheries in
24 Canada" from 2013.

25 The framework suggests cumulative flow alterations
26 that result in less than a 10 percent change in

1 instantaneous flows will have a low probability of
2 detectable impacts. The proponent has equated
3 10 percent change in instantaneous flows cited in that
4 paper with a 10 percent change in physical habitat
5 area. These metrics are not equivalent, and DFO
6 consider any loss in critical habitat area as a result
7 of changes in flow a residual effect.

8 The paper also states: (as read)

9 The advice within this report is not
10 necessarily recommended for direct
11 application to intermittent, seasonal, or
12 ephemeral streams or rivers.

13 This suggests that this may not be an appropriate
14 threshold to apply in these systems.

15 At this point in our presentation, we would also
16 like to direct the Panel and participants to the recent
17 publication of "Science Advice on Westslope Cutthroat
18 Trout Critical Habitat Destruction and Jeopardy -
19 Grassy Mountain Coal Project" published by the Canadian
20 Science Advisory Secretariat on November 16th, 2020.

21 This document brings together existing, publicly
22 available information on westslope cutthroat trout and
23 recovery potential modelling but applied to the
24 Grassy Mountain Coal Project. The species-at-risk
25 process is cyclical as our knowledge on listed species
26 continues to evolve as we address research needs and

1 gaps on each species. As a result of this, new
2 information is continually being made available to
3 support recovery of these species, and DFO will
4 continue to apply this information to support
5 science-based decision-making.

6 DFO provided a submission to the Panel dated
7 September 21st, 2020, that includes 21 recommendations
8 with respect to this project. DFO's intention in
9 making these recommendations is to provide the Panel
10 information on the uncertainties, limitations, and gaps
11 in the proponent's assessment related to residual
12 effects on westslope cutthroat trout and fish and fish
13 habitat and to guide the proponent in addressing the
14 uncertainties should the project be approved.

15 With the information available to date, DFO is of
16 the opinion that the subsection 73(3) conditions of the
17 Species at Risk Act will likely not be met and that the
18 project has the potential to result in significant
19 adverse effects to westslope cutthroat trout.

20 I will now introduce DFO's panel and provide
21 background and scope to each expert's review.

22 Tom Hoggarth is the regional director for aquatic
23 ecosystems in the Ontario and Prairie Region. He is
24 accountable for the management of the aquatic
25 ecosystems directorate, which encompasses the
26 species-at-risk program, the fish and fish habitat

1 program, the aquatic invasive species program, and the
2 aquaculture program.

3 We have four panel members representing DFO's fish
4 and fish habitat protection program, which includes
5 Martyn Curtis, director of the fish and fish habitat
6 program and aquaculture program; myself, Stephanie
7 Martens, regional manager -- manager in the program;
8 Brandi Mogge, team leader for the program's mining,
9 oil, and gas south regulatory review unit, and
10 Laura Phalen, senior biologist in the mining, oil, and
11 gas south unit.

12 Martyn and I can speak broadly to the program and
13 its policies in the region. Laura and Brandi can speak
14 to DFO's assessment of the project from a risk
15 assessment and regulatory perspective under the
16 Fisheries Act and Species at Risk Act, including
17 analysis of effects of the project on westslope
18 cutthroat trout and the proponent's approach to
19 residual effects identification, mitigation,
20 offsetting, and monitoring.

21 We have three panel members from DFO's
22 species-at-risk program. These include Melanie Toyne,
23 the regional manager for the program; Ashley Gillespie,
24 senior species-at-risk biologist who focuses on
25 westslope cutthroat trout; and Robyn Kutz,
26 species-at-risk biologist who also focuses on westslope

1 cutthroat trout.

2 The species-at-risk program supports the minister
3 in development of the RSAP, progress reporting, and
4 collaborates with our partners to support work required
5 within the RSAP. They are available to speak to
6 species-at-risk policy, development of the westslope
7 cutthroat trout RSAP, and initiatives supporting
8 westslope cutthroat trout recovery.

9 Dr. Eva Enders is a research scientist with DFO's
10 science program at the Freshwater Institute in
11 Winnipeg, Manitoba. Her research is related to the
12 conservation of species at risk, ecohydraulics and
13 ecophysiology, among other areas. Her scope of review
14 for this project included supporting our review of
15 habitat modelling and current science related to
16 westslope cutthroat trout including riparian critical
17 habitat.

18 Finally, DFO retained experts from GeoProcess
19 Research Associates to provide technical expertise
20 related to hydrology, hydrogeology, and fluvial
21 geomorphology as these disciplines relate to fish and
22 fish habitat. This is expertise our department does
23 not currently possess.

24 Ken Glasbergen is the principal of GeoProcess with
25 professional experience in fisheries biology, ecology,
26 and fluvial geomorphology. Ken has worked on numerous

1 projects on behalf of the public, Indigenous, and
2 private sectors, assessing impacts of mining on aquatic
3 ecosystems. His scope of review focused on bridging
4 these disciplines of hydrology, hydrogeology, and
5 fluvial geomorphology with fisheries biology.

6 Dr. Ben Plumb is a professional engineer and
7 environmental consultant whose work has focused on
8 applied fluvial geomorphology, river engineering, and
9 stream rehabilitation. His scope of review included
10 fluvial geomorphology assessment as it relates to the
11 project's impacts on westslope cutthroat trout.

12 Peter Thompson is a professional engineer and
13 specialist in surface water hydrology with over a
14 decade of experience in hydrologic and integrated
15 surface water-groundwater modelling and evaluating the
16 effects of development and climate change on the
17 hydrologic regime. The scope of his review included
18 the hydrologic impact assessment and its suitability to
19 predict changes to hydrologic conditions in Blairmore
20 and Gold Creeks.

21 Michael Takeda is a professional engineer and
22 environmental consultant whose work has focused on the
23 construction, application, and review of numerical
24 groundwater models and integrated surface
25 water-groundwater models to support impact predictions
26 of land development, water taking, and aggregate and

1 mineral extraction. His review focused on the
2 hydrogeologic impact assessment components as they
3 relate to base-flow impacts to Blairmore and Gold
4 Creeks.

5 Each expert can speak to their respective reviews
6 as I've described.

7 I would like to thank the Joint Review Panel for
8 the opportunity to present our evidence, and we will be
9 happy to address any questions regarding the
10 information provided in our submission.

11 I would now like to turn to Margaret Fairbairn
12 with Environment and Climate Change Canada, who will
13 introduce her team. Thank you.

14 A MS. FAIRBAIRN: Thank you, Ms. Martens.

15 Good morning, Mr. Chairman, Mr. O'Gorman,
16 Mr. Matthews.

17 Again, Margaret Fairbairn, panel lead for the
18 environment, climate change, water session being --
19 panel, as well as joining me today is Jody Small, who
20 has been the lead coordinator for this project, her
21 team. But I have three subject-matter experts I would
22 like to introduce to the Panel.

23 First, we have Ms. Aimee Zweig, who is the
24 executive director of the mining and processing
25 division with ECCC. Ms. Zweig is here to speak to
26 questions related to the proposed coal mining effluent

1 regulations. As well, Ms. Zweig -- Zweig, excuse me,
2 has been with the department for over 18 years working
3 on policy and regulatory initiatives.

4 Next of our subject matter experts is
5 Ms. Anne Wilson, who is a senior water quality expert
6 with ECCC, and she will speak to questions related to
7 the water quality analysis conducted for the project
8 and to our recommendations contained in the aquatic
9 environment section of our submission. Ms. Wilson
10 holds a Master's of Science in zoology and focused on
11 aquatic ecosystems and ethology in her studies. She
12 has been providing water quality specialist advice on
13 major industrial projects for over 30 years within the
14 federal government. She has extensive experience with
15 the northern environmental assessment and water boards
16 within the Northwest Territories and Nunavut for large
17 diamond and metal-mining projects.

18 And our last expert, I would -- finally, we have
19 Ms. Marie-Claude Sauvé, who is a departmental expert in
20 the risk assessment of inorganic substances, including
21 selenium, who will speak to questions related to risk
22 assessment of selenium, more specifically, to its
23 behaviour in the environment and toxicity to aquatic
24 organisms, as per the aquatic section of our
25 submission. Ms. Sauvé studied biophysics,
26 biochemistry, and environmental toxicology, and holds a

1 Master of Science degree. Ms. Sauvé has been with the
2 department for 12 years, where she has worked as a
3 senior evaluation specialist and section head for the
4 ecological risk assessment under the Canadian
5 Environmental Protection Act. Mr. Chairman, Ms. Sauvé
6 will be speaking to the presentation titled "Selenium
7 in the Aquatic Environment". I think it's CIAR Number
8 857, and I'd appreciate if the Zoom host could bring up
9 that presentation, and Ms. Sauvé will speak to it.

10 Thank you.

11 A MS. SAUVÉ: Good morning. My name is
12 Marie-Claude Sauvé. I work for Environment and Climate
13 Change Canada.

14 Can you hear me well?

15 THE CHAIR: We can.

16 A MS. SAUVÉ: Okay. Cool. Thank you.

17 The purpose of this presentation on selenium in
18 the aquatic environment is not actually to present new
19 information. Rather, it is meant to expose some common
20 knowledge of selenium behaviour in the environment.
21 Following Mr. O'Gorman's questioning from last week,
22 the content of this presentation may be somewhat basic
23 information.

24 Next slide, please.

25 So selenium is a naturally occurring chemical
26 element that can be released into the aquatic

1 environment through the exposure to water and oxygen
2 [phonetic] of rock that contain high selenium. For
3 example, the large waste rock piles generated by
4 mountaintop coal mining can be a source of selenium.

5 Many of ECCC's recommendations concerning water
6 quality for this project is that there are the
7 potential for selenium to contaminate the environment.
8 Selenium toxicity is complex and is influenced by many
9 factor -- many factors, including selenium speciation,
10 the chemistry of the rest of the environment, selenium
11 bioavailability, and its uptake into food web.

12 Next slide, please.

13 So, indeed, selenium toxicity is a complex matter.
14 It depends on biotech and a biotech reaction. Selenium
15 exist in different states depending on oxidation and
16 reduction condition, and we refer to selenium's
17 compound as the "selenium species".

18 Selenate is the oxidized form of soluble selenium,
19 and selenite is the reduced form. Reduction is a gain
20 of electron, and the reduction reaction is what is
21 intended by Benga SBZ treatment why selenate may be
22 further reduced to elemental selenium.

23 Oxidation reaction adds oxygen to the substance,
24 and the oxidation reaction is what is intended by
25 Benga's advanced oxidation process.

26 Next slide, please.

1 Selenium is persistent in the environment. It can
2 transform into multiple forms of selenium. I spared
3 the Panel of the complete map of selenium species that
4 is quite complex in the previous slide, just noting
5 here there are a number of organo selenium species and
6 other inorganic species that can be formed. In the
7 environment, selenium speciation is dependent on
8 oxidation, on --

9 THE COURT REPORTER: I'm sorry. Could you repeat
10 that?

11 A MS. SAUVÉ: Sorry. In the environment,
12 selenium speciation is dependent on oxidation, on pH,
13 on the presence of major ions, and many other
14 conditions.

15 Oxidation saturation affects transformation
16 between selenate and selenite, but the transformation
17 is slow and highly dependent on other factors.

18 The oxygen saturation alone is not enough to drive
19 the process of transformation of selenite into
20 selenate.

21 The selenium transform in the environment but
22 cannot be eliminated from a watershed. It can change
23 speciation between the elemental form, various organic
24 forms, and various inorganic forms.

25 Next slide, please.

26 So why is the speciation matter so important for

1 selenium? It's because the speciation impacts the
2 pathway for the uptake of selenium. So unlike most
3 other elements, freshwater fish are exposed to selenium
4 through their diet and up through their gills.
5 Selenium accumulate in gonads, unlike metal cation that
6 typically accumulate in liver and kidneys.

7 Freshwater fish are the most sensitive taxa of
8 aquatic species to selenium, and fish are not really
9 exposed. First, they are exposed into -- after
10 incorporation in the food web. So there are some delay
11 there. And some adult are exposed to selenium are less
12 impacted than their offsprings, and, thus, the impact
13 is greater on the second generation. So selenium is
14 like a time bomb. It will have impact much later,
15 after contamination of the aquatic whole system.

16 Next slide, please.

17 So as knowledge of selenium increase, models of
18 selenium behaviour in the environment have been
19 proposed. There is the one that we are presenting
20 here, correspond to what I believe is the most accepted
21 model of accumulation of selenium through the food
22 chain, with some variation proposed here and there in
23 the literature, the same -- of the same model.

24 So the graph represent a simplified food chain
25 with four compartments. Note that we can add
26 additional step on this food chain, notably on the

1 right-hand piscivorous fish. The graph shows the
2 increase in selenium concentration at each step of the
3 aquatic food chain. The first jump in the food chain
4 between water and algae is neurally represented as the
5 enrichment factor. It is the limiting step and where
6 speciation of selenium matters.

7 The next step, which -- you can have as many steps
8 as needed, are represented by "TTF", standing for
9 trophic transfer factor, and are driven essentially by
10 the animal species' identity.

11 The uptake of selenium for primary producer,
12 hereby represented by algae, varies between selenium
13 species to which they are exposed to. Algae just takes
14 selenium from the water they are exposed to, and algae
15 transforms selenium into organoselenium. This
16 organoselenium forms are just selenium species that
17 other links of the food chain will intake.

18 Next slide, please.

19 So the uptake or bioavailability of selenate and
20 selenite varies for primary producer, so at the bottom
21 of the food chain. Selenite is more regularly taken
22 by -- taken up from water than selenate, as you can see
23 from this graph.

24 Following this first uptake, the first link of the
25 food chain, the uptake for higher-level organisms
26 follow the same slope for both species -- speciation.

1 In natural conditions, meaning without addition of any
2 anthropogenic input, the selenate species is favour in
3 lentic or fast-flowing ecosystems, such as rivers and
4 creek, and also under natural condition also for --
5 sorry, for lentic environments such as lakes and ponds,
6 typically, we will find a greater proportion of the
7 selenite form.

8 Of course, those are generalities that cannot be
9 demonstrated for any site-specific scenarios without
10 proper selenium speciation testing.

11 Next slide, please.

12 Now, in relation to sulphate mitigation effect
13 that was discussed previously in this hearing, sulphate
14 does compete with selenate for uptake at the basis of
15 the food web. On the molecular scale -- sorry, on the
16 molecular scale, sulphate and selenate are using the
17 same sulphate transporter to enter the (INDISCERNIBLE).

18 THE COURT REPORTER: I'm sorry. Could you repeat
19 that?

20 A MS. SAUVÉ: Yes. So starting, your
21 sulphate compete with selenate for uptake at the basis
22 of the food web. On the molecular scale, sulphate and
23 selenate are using the same sulphate transporters to
24 enter the cell. This is somewhat oversimplified, but
25 you can have a look at the structure of selenate and
26 sulphate on this slide to get a picture of competition

1 for entry into primary producers.

2 Sulphate does not compete with selenite for entry
3 into primary producer. Following the first step of
4 uptake in the food chain, the selenium uptake pattern
5 by upper-level organisms remain unchanged.

6 So with respect to the Grassy Mountain Project, --
7 which is unknown at the moment which of those three
8 curves that are represented on this graph here --
9 better reflect the bioaccumulation pattern of selenium
10 in the local environment. Could be anywhere between
11 the purple trend and the red curve. However, from what
12 we can see in the environmental impact assessment, only
13 the purple curve was estimated.

14 As you can see, this characterization of
15 speciation of selenium is essential to estimate the
16 final concentration of selenium in fish and, thereby,
17 impact on fish. Sorry.

18 Next slide, please.

19 That's -- conclude this presentation. I hope you
20 find this presentation informative, and I thank you for
21 your attention.

22 A MS. FAIRBAIRN: Thank you, Ms. Sauvé.

23 Mr. Chairman, I will now pass to
24 Ms. Jessica Coulson, the panel lead for Natural
25 Resources Canada.

26 A MS. COULSON: Good morning, Panel Chair,

1 Joint Review Panel Members, Elders, Chiefs, Métis
2 leaders, and participants of the hearings.

3 My name is Jessica Coulson, and I work in the
4 office of the chief scientist at Natural Resources
5 Canada. I am the team lead for our department for
6 these hearings.

7 I wanted to thank my Fisheries and Oceans
8 colleague for acknowledging that the proposed project
9 is located in the traditional territory of Treaty 7
10 nations and Métis people of Southern Alberta, and I'm
11 joining you virtually today from the unceded territory
12 of the Algonquin Anishinabeg Nation.

13 I'll be providing a brief statement to introduce
14 Natural Resources Canada's research scientist,
15 Dr. Miroslav Nastev, who provided hydrogeology in
16 groundwater expertise for this environmental
17 assessment.

18 Following this, Dr. Nastev will be providing a
19 brief statement summarizing his advice provided and
20 will be then available to answer questions related to
21 his review.

22 Dr. Nastev is a senior research scientist from the
23 Geological Survey of Canada of Natural Resources
24 Canada, and is an adjunct professor at five
25 universities. His experience extends over a unique
26 spectrum of competencies related to geology,

1 hydrogeology, earthquake engineering, and software
2 development. For this environmental assessment,
3 Dr. Nastev provided advice on baseline groundwater
4 quantity and potential impacts from project activities.
5 This included modelling of groundwater recharge,
6 steady-state and transient groundwater flows, impacts
7 of mine-pit dewatering, and review of the proponent's
8 approach to groundwater management, monitoring, and
9 mitigation.

10 NRCan does not have a regulatory role with respect
11 to the management of groundwater resources. It is our
12 understanding that this lies within provincial
13 jurisdiction. The expertise provided for this
14 environmental assessment originates from the Geological
15 Survey of Canada, which is a national organization for
16 geoscientific information and research.

17 I will now turn to NRCan's witness, Dr. Nastev, to
18 provide his brief statement. Thank you.

19 A DR. NASTEV: Good morning. Good morning,
20 Mr. Chair, Panel Members, and participants. And thank
21 you, Jessica, for this introduction.

22 So I -- I have evaluated the hydrogeology and
23 groundwater aspects of the proposed project and will
24 give a brief overview from my point of view using as
25 few words as possible.

26 So, first of all, I would like to emphasize that

1 the study area is very, very complex from a
2 hydrological point of view. First of all,
3 geologically, there are different -- different rock
4 surface -- surficial deposits, rock -- rock units, and
5 each -- each rock formations have -- each of rock
6 formation, they have own -- on rough units.

7 Then from the -- then, physically, they have very
8 variable hydrogeological properties. The -- what is
9 very important is the topography of the terrain, which
10 is mountainous, and then we have the -- the seasonal
11 climate -- the seasonal climate conditions. So all
12 these variable conditions, they contribute to the
13 complexity of the -- of the groundwater -- of the water
14 processes at large. And we have two interconnected
15 water processes, which are surface water and
16 groundwater. And in the case of surface water, the
17 flow occurs much, much faster, orders of magnitude
18 faster than in groundwater flow, which is much more
19 attenuated and delayed with respect to external
20 stresses.

21 So the project activities, basically, they will
22 affect the water quantity. They -- there will be
23 changes in water quantity, many due to the pit
24 dewatering, and then changes in the water -- in the
25 groundwater quality due to the combined dumping of
26 waste rock and deposition of waste rock and mined coal

1 processing waste, the pit lake itself, the other ponds
2 that will be -- that will be in the study -- within the
3 study area, and eventually the processing operations
4 themselves. There -- there can be some accidents.

5 So the proponent used the simple and complex
6 models to -- to approximate what is happening in the
7 field. These models were applied and calibrated in
8 steady state and transient conditions, and whilst
9 calibrated they were used -- they were used to predict
10 what changes might occur in the future we addressed to
11 the minus -- to the mining operations.

12 Any -- any model has own limits. Any modelling
13 activity has own limits, and the modelling results have
14 to be taken only as approximate. So in NRCan's -- in
15 our view -- point of view, the proponent has the -- the
16 modelling process and the prediction process based on
17 the available data are appropriate, and we have to
18 recognize there are certainties that have been outlined
19 by the proponent. And in NRCan's view, those
20 uncertainties and sensibilities of the results can be
21 effectively addressed through, first of all,
22 groundwater -- model design and groundwater monitoring
23 plan; and, second, through effective groundwater
24 management and mitigation strategies. And with this, I
25 am available to answer any questions that you have.

26 Thank you.

1 Q MR. DRUMMOND: Thank you, Dr. Nastev.

2 Mr. Chair, that's the direct evidence of the
3 Government of Canada panel. We are at approximately
4 10:10. I think it's too -- a bit too early to take a
5 morning break, so I'd suggest we begin with the
6 cross-examination. And in that respect, I'm just going
7 to ask the witnesses, because there are so many of
8 them, to identify themselves when they're responding to
9 a question for the benefit of the court reporter.

10 Just before I do that, Ms. Martens, Ms. Fairbairn,
11 and Ms. Coulson, is there anything you need to add
12 before we -- before you are open to cross-examine?

13 A MS. FAIRBAIRN: Margaret Fairbairn.

14 No. Thank you, Mr. Drummond.

15 A MS. COULSON: Jessica Coulson.

16 No.

17 A MS. MARTENS: We're good as well.

18 Thank you, Mr. Drummond.

19 DR. DRUMMOND: Thank you, Mr. Chair. The
20 Government of Canada witness panel is open for
21 cross-examination.

22 Thank you.

23 THE CHAIR: Okay. Thank you,
24 Mr. Drummond.

25 So I will just get a sense of who among the
26 participants has questions for Canada. I know that

1 Mr. Sawyer from Timberwolf does. Are there any
2 participants other than Benga that also have questions
3 for Canada?

4 MR. YEWCHUK: CPAWS anticipates a brief
5 cross.

6 THE CHAIR: Okay. Thank you, Mr. Yewchuk.
7 Anyone else?

8 Okay. Hearing none, Mr. Sawyer, I guess since you
9 spoke up first the other day, I will maybe let you go
10 first, and then CPAWS can follow, if that's agreeable.

11 MR. YEWCHUK: No objections.

12 MR. SAWYER: Mr. Chair, just give me one
13 moment. I was anticipating going after Benga, but
14 that's fine. I just need a moment to prepare.

15 THE CHAIR: Mr. Sawyer, maybe -- maybe
16 this would help. It is a bit early for a break, but if
17 you would like a few minutes to prepare, I think I
18 understood you had, you know, a fair bit of cross. So
19 if you want to take the break now, we can. Otherwise,
20 you might have to stop partway through.

21 MR. SAWYER: No. Mr. Chairman, I think I'm
22 good to go --

23 THE CHAIR: Okay.

24 MR. SAWYER: -- as long as the Chair and
25 DFO government panel accept my apologies for not having
26 my -- my jacket on and being properly dressed.

1 So if you are okay with that, I'll just proceed.

2 THE CHAIR: Okay. Good. Go ahead.

3 MR. DRUMMOND: I'm sorry to interrupt,
4 Mr. Sawyer, Mr. Chair. I should have added, I'm sure
5 everyone can appreciate that not only are there many
6 witnesses, but they're also in many different
7 locations. So I just ask for everyone's patience if
8 there's some delay as they confer with each other, if
9 they're caucusing on a question.

10 But thank you in advance.

11 MR. SAWYER: Thank you for that,
12 Mr. Drummond.

13 Mr. Sawyer Cross-examines Government of Canada

14 Q MR. SAWYER: Most of my questions will be
15 directed towards the DFO panel. In fact, I might say
16 all of my questions might be, so just put them on
17 notice.

18 Good morning, panel. I have a few questions.
19 You've already mentioned that -- the November 2016
20 Government of Canada Canadian Science Advisory
21 Secretariat Report, and you have already indicated that
22 you are familiar with that part.

23 MR. SAWYER: I am wondering, Zoom Host, if
24 you could bring up CIAR 847 and go to PDF page 7,
25 please.

26 Zoom Host, I want to apologize. I may have given

1 you the incorrect -- so let's just take that down for a
2 moment. I will proceed with my questions, and we'll
3 see if the panel needs us to bring it up.

4 Q MR. SAWYER: Panel, that report by the
5 Canadian Science Advisory Secretariat indicated that
6 the Gold Creek cutthroat trout -- westslope cutthroat
7 trout population is one of the few populations with
8 long-term -- potential for long-term viability but that
9 because of its current population size and current
10 range, that it's sort of towards the low end of
11 viability.

12 Do you agree that this report confirms that
13 maintaining Gold Creek and Blairmore Creek westslope
14 cutthroat trout populations and its habitat in its
15 current form is essential to recovery of the westslope
16 cutthroat trout in Alberta and achievement of the
17 recovery objectives set out in the 2019 recovery plan?

18 A MS. MARTENS: Thank you, Mr. Sawyer. One
19 moment, please.

20 A MS. PHALEN: Okay. Thank you for the
21 question, Mr. Sawyer.

22 Panel, DFO is of the opinion that because Gold
23 Creek is one of ten populations deemed to be viable in,
24 my understanding, a hundred-year period, per the
25 COSEWIC, that jeopardizing the population in that creek
26 would not be aligned with the recovery strategy action

1 plan population and distribution objectives for the
2 species.

3 Q So, then, I take it that you would agree that this
4 report confirms that the populations in Gold Creek and
5 Blairmore must be protected from any further
6 disturbances if the recovery plan objectives are to be
7 met?

8 A Thank you for the question. One moment.

9 Thank you, Mr. Sawyer.

10 Panel members, the population in Gold Creek is
11 protected under the Species at Risk Act. Therefore, we
12 do agree that it needs to be protected per the
13 conditions and goals of that act and the supporting
14 recovery strategy action plan.

15 Blairmore Creek has different protections, as
16 outlined in our opening statement.

17 Q Okay. Thank you for that.

18 MR. SAWYER: Zoom Host, if you could go to
19 page 10 of that document, please, that -- that's the
20 CIAR 847. And hopefully I've got the right reference
21 this time. And if you can go to the last paragraph in
22 that report -- in that page, sorry. You know, I
23 apologize. I'm not batting too well this morning, but
24 I can continue anyway. So maybe just pull that down,
25 please, Zoom Host.

26 Q MR. SAWYER: What I was going to do is

1 direct your attention to that report where -- where
2 it -- it summarizes the amount of habitat in --
3 critical habitat in metres squared that would be
4 destroyed or harmfully altered, and the numbers that
5 they had in there was that -- 442,433 metres in
6 Blairmore Creek and 141,830 metres in Gold Creek.

7 Do you agree that -- and these numbers were based
8 on -- on Hatfield's application. Do you agree that
9 this report confirms that the mine project will result
10 in destruction of critical habitat for westslope
11 cutthroat trout in -- in both Gold Creek and -- well,
12 sorry, not critical, for habitat for westslope critical
13 [sic] trout in both Gold Creek and Blairmore Creek? I
14 think you've already said that, but we'll just confirm
15 that.

16 A MS. MARTENS: Sure. One moment, please.

17 A MS. PHALEN: Thank you for the question,
18 Mr. Sawyer.

19 Panel Members, without the reference in front of
20 me, I -- okay, I -- okay. I see some numbers there.
21 So outlined in our submission, particularly in
22 Section 4.3.7, we do provide a summary of what we
23 understand to be the impacts to critical habitat in
24 Gold Creek as well as habitat impacts in Blairmore
25 Creek. I will comment that those numbers are not
26 identical to what they would be if the proponent did a

1 reanalysis now that the critical habitat has been
2 expanded because they used a different buffer. They
3 used 20, 30, and 50, depending on the -- on the
4 fish-bearing status of the tributary or the main stem.
5 So they're not -- they're not perfectly accurate.

6 However, we do acknowledge that -- or our
7 understanding of the proponent's submission is that
8 destruction of critical habitat in Gold Creek is
9 proposed and unavoidable based on the information in
10 front of us. And, similarly, in Blairmore Creek,
11 there -- there are full destruction -- there is full
12 destruction of habitat of riparian and, in some cases,
13 fish-bearing and non-fish-bearing tributaries.

14 Q Thank you for that.

15 I think you've partially answered my next set of
16 questions. So you are aware that the calculated
17 footprint of the proposed impacts prepared by Hatfield
18 which forms the basis of this application was done
19 predating the release of the 2019 recovery strategy?

20 A Yes, we are aware that the 2016 submission by the
21 proponent was issued before the 2019 recovery strategy
22 action plan was published.

23 Q Right.

24 MR. SAWYER: Zoom Master, if I can get you
25 to go to page 7 in that document. And hopefully I will
26 not be wrong this time. PDF page 7, sorry. There we

1 go.

2 Q MR. SAWYER: Panel, you're familiar with
3 this figure?

4 A MS. MARTENS: Yes, we are.

5 Q Thank you for that.

6 Can you confirm that this figure depicts the
7 current spatial extent of westslope cutthroat trout
8 critical habitat as defined by the 2019 recovery
9 strategy in Gold Creek?

10 A Thank you, Mr. Sawyer. One moment.

11 A MS. PHALEN: Thank you, Mr. Sawyer.

12 Can you clarify the question? We have multiple
13 colours on this graph. I want to make sure that I'm
14 agreeing to my full understanding of each colour.

15 Q Okay. If we look at the title to this figure, it says
16 "The Current Geographic Extent of Critical Habitat",
17 and it covers some other watersheds other than Gold
18 Creek, but Gold Creek is marked in the black hash line.
19 So I'm just -- I will just talk about the Gold Creek
20 extent.

21 And what we have here is the Gold Creek
22 tributaries marked in a single red line, and then what
23 we have is the main stem marked in a thicker yellow
24 line. The thicker yellow line, as I understood -- and
25 I'll get you to confirm this -- was actually the
26 critical habitat that was used in the Hatfield study to

1 support the application, and that the thin red lines
2 were the extension of critical habitat that came about
3 as a result of the 2019 recovery plan. And so I just
4 want you to confirm that -- that what's marked in red
5 line and in bold yellow line is the extent of -- the
6 spatial extent of critical habitat in Gold Creek
7 watershed as defined by the recovery plan.

8 A MS. MARTENS: One minute, Mr. Sawyer.

9 A MS. PHALEN: Thanks for the clarification,
10 Mr. Sawyer.

11 Panel members, that is correct. The yellow and
12 red in Gold Creek represents the current extent of
13 critical habitat. The yellow represents what was
14 defined at the time the EIS was originally submitted
15 and as defined in the 2016 RASP or the 2014.

16 Q Okay. Thank you for that.

17 And so would you confirm that the estimates of
18 calculated footprint of proposed impacts that form the
19 basis of Benga's application significantly
20 underestimates the destruction or harmful alteration of
21 critical habitat in Gold Creek based on the current
22 definition of "critical habitat"?

23 A Thank you, Mr. Sawyer.

24 Panel members, as described in our submission, we
25 acknowledge that the extent of habitat being impacted
26 as described in the 2016 EIS, is considerably lower

1 than what would be defined if the proponent were to do
2 the calculation based on the current defined extent of
3 critical habitat as defined in the 2019 RSAP.

4 Q Thank you for that.

5 I have a transcript reference.

6 MR. SAWYER: Zoom Host, I don't think we
7 need to pull it up, unless the DFO panel needs it.

8 Q MR. SAWYER: Benga has confirmed that they
9 have not updated their environmental assessment based
10 on the current and spatial extent of critical habitat
11 in Gold Creek. And is that your understanding as well?

12 A Thank you, Mr. Sawyer.

13 Panel members, yes, that is our understanding.

14 Q Thank you for that.

15 Then, following from that, would you agree that
16 there is currently no evidence contained in Benga's
17 environmental assessment and associated application
18 documents that accurately quantify the predicted
19 destruction of westslope cutthroat trout critical
20 habitat in the Gold Creek watershed?

21 A Thank you, Mr. Sawyer.

22 Panel members, I wouldn't say that there is no --
23 no information that supports an understanding of the
24 extent. It's just that an updated overlap of project
25 impacts with current extent of critical habitat is
26 required. So just -- the new information needs to be

1 added to generate that calculation as identified in our
2 submission.

3 Q Thank you for that.

4 Just to be clear, if we look at what -- the extent
5 of the critical habitat that Benga used in their
6 application documents and the current extent of the
7 critical habitat defined underneath the recovery plan,
8 I guess, to clarify, what I meant was that there's no
9 evidence in the Benga application that addresses the
10 impact to that incremental expansion of the critical
11 habitat. Am I not correct in that?

12 A Thank you, Mr. Sawyer.

13 If I understand correctly, Panel Members, I would
14 acknowledge that the environmental impact statement
15 does not contain a -- an approach or a -- kind of a
16 future contingency to pull in the extended critical
17 habitat, although it was -- it has been mentioned to
18 the proponent previously that -- that we were expecting
19 it.

20 So, no, the -- the EIS does not contain a -- a
21 path or a methodology for bringing in an understanding
22 of the full extent of critical habitat. I don't
23 believe that was addressed explicitly in the EIS
24 anywhere, to my knowledge.

25 Q Okay. And as the science secretariat report outlined,
26 would it also be DFO's conclusion that the -- Benga's

1 application has failed to sufficiently establish the
2 baseline conditions of westslope cutthroat trout to the
3 full extent of the impacts, including cumulative
4 effects, and how effective the mitigation offsetting
5 measures might be?

6 A MS. MARTENS: Thank you for the question,
7 Mr. Sawyer. One moment, please.

8 A MS. PHALEN: Thank you for the question,
9 Mr. Sawyer.

10 Panel Members, the question that Mr. Sawyer asked
11 had multiple parts. I guess I will provide an
12 overarching response by saying that our conclusions are
13 outlined in our submission, and our submission does
14 address a number of the topics that Mr. Sawyer brought
15 up in his question.

16 Q Thank you for that.

17 I want to turn briefly to the question of
18 offsetting -- the offsetting plan that is -- is
19 included in the Benga application. The science
20 report -- and I believe your evidence is fairly
21 clear -- let me just ask you the question to get
22 some -- some -- some response to that. And that is:
23 Is there any empirical basis to support Benga's
24 proposition that its offsetting plan will be effective?

25 A MS. MARTENS: Thank you for the question.
26 One moment.

1 A MS. PHALEN: Thank you, Mr. Sawyer.

2 Panel members, the offsetting plan has some -- has
3 made some effort to provide a numerical comparison
4 between impacts and the quantification of the offset.
5 I think where numerically or quantitatively we are
6 concerned is that there is a considerable amount of
7 non-fish-bearing tributary and low- and medium-value
8 riparian, as defined by the proponent, that has been
9 described as being impacted by the proponent in the EIS
10 that has not been accounted for in the current version
11 of the offsetting plan.

12 So I wouldn't say there's no empirical comparison
13 between the proposed impacts and the offset. However,
14 I would say that it's incomplete, and that is
15 particularly -- the need to update that is particularly
16 driven by the extended critical habitat as well as by
17 the recovery strategy action plan that identifies
18 riparian and headwaters as being important for the
19 downstream habitat.

20 Q Okay. Thank you for that answer.

21 Just to expand on this topic a little bit,
22 notwithstanding your response, do you think that
23 Benga's evidence is sufficient and sufficiently robust
24 to allow the Panel to make a determination about the
25 likelihood of offsetting success and the risks
26 associated with offsetting, and, in particular, whether

1 or not the offsetting plan would be sufficient to
2 compensate for the impacts on -- the known impacts --
3 the known, predicted impacts on westslope cutthroat
4 trout in the Gold Creek and Blairmore Creek watersheds?

5 A MS. MARTENS: Thank you, Mr. Sawyer. One
6 moment, please.

7 A MS. PHALEN: Thank you for the question,
8 Mr. Sawyer.

9 Panel members, DFO is of the opinion that -- well,
10 first of all, to say that it's up to the Panel to
11 determine how much information they need to make a
12 decision. I would add that DFO is of the opinion that
13 the offsetting -- the scale or scope of the offsetting,
14 as proposed to date, does not provide us with
15 competence that the impacts they are proposing from the
16 project will be covered and adequately offset by the
17 current proposal.

18 Q Thank you for that.

19 Would DFO agree with me that in these
20 circumstances, where we have a major industrial
21 development proposed that is -- is known to have an
22 impact on -- on critical habitat, that in these
23 particular circumstances, that the precautionary
24 principle should prevail in all of our decision-making?

25 A Thank you for the question, Mr. Sawyer.

26 DFO is of the opinion that, in -- in general, the

1 precautionary principle should apply, and particularly
2 as it pertains to species at risk, it needs to be front
3 and centre in the consideration of assessment of
4 impacts, potential offsets, and monitoring.

5 Q And so following from that response, you would agree
6 that in this particular situation, with this -- with
7 respect to this particular application, that we should
8 put the question or principle front and centre?

9 A As it relates to the protection of westslope cutthroat
10 trout, we are of the opinion that the precautionary
11 principle should be applied.

12 Q In the specific context of this project?

13 A Yes. And --

14 Q And --

15 A -- and in general.

16 Q Yes. I appreciate that. Thank you.

17 So following from that, would you agree with me,
18 in the absence of robust affirmative evidence that the
19 westslope cutthroat trout will not be impacted or is at
20 zero risk of being impacted, the conclusion must be
21 that Benga's proposed plan to offset damage to the
22 population of westslope cutthroat trout and their
23 habitat will not be effective?

24 A MS. MARTENS: Mr. Sawyer, can you repeat the
25 question, please?

26 Q Yes. In the context of the previous answers about the

1 precautionary principle, would DFO agree with me that
2 in the absence of robust affirmative evidence about the
3 effectiveness of the -- Benga's proposed offsetting
4 plan, that our conclusion must be that the proposed
5 plan to offset damage to the population of westslope
6 cutthroat trout and their habitat in Gold Creek and
7 Blairmore Creek will not be effective?

8 A Thank you. One moment, please.

9 A MS. MOGGE: Thanks, Mr. Sawyer. This is
10 Brandi Mogge.

11 So I -- your question is layered, so I'm going to
12 answer in a way that I think will help. So there's two
13 different phases here, right, and so there's the
14 decision that's before the Panel and the information
15 that they need to make that decision.

16 If the project is approved, it moves to a
17 regulatory phase where DFO would need all the
18 information in order to make a decision as to whether
19 the population would be jeopardised or not, which
20 includes that offsetting plan.

21 With the information that we have right now, as
22 outlined in our submission and as Laura also stated, is
23 we don't have enough information at this time. So,
24 yes, the offsetting plan at this point is uncertain and
25 preliminary.

26 Q Thank you for that -- that response.

1 But let me pose a predicament to you, and that is
2 that this Panel needs to make a decision about whether
3 to approve the proposed project underneath the
4 regulatory scheme they're working on, and they need to
5 do that based on the evidence that is in front of them.
6 And based on the evidence that's in front of them, do
7 we have any evidence on the record that you're aware of
8 that would indicate that their compensation plan has a
9 high probability of being successful?

10 A MS. MARTENS: Thanks, Mr. Sawyer. One
11 second, please.

12 A MS. PHALEN: Thank you for the question,
13 Mr. Sawyer. This is Laura Phalen.

14 Panel Members, as we've already identified, it's
15 up to the Panel to decide how much information they
16 need in order to support their recommendation.
17 However, we have it outlined in our submission that
18 there is a significant gap between the habitat area
19 that was identified as needing to be offset for and the
20 full quantification of critical habitat, in particular,
21 as well as habitat in Blairmore Creek.

22 So although there is information and evidence put
23 before us by the proponent, we do not believe that it
24 is fulsome enough to provide confidence that the
25 impacts will be offset for.

26 Q Okay. I'm going to move on to a slightly different

1 aspect of the offsetting question.

2 The actual implementation rates applied -- well, I
3 should say, the successful implementation rates applied
4 diversity [phonetic] offsets are relatively poor. In
5 Canada, DFO has found that only 30 percent --
6 37 percent of compensation projects achieve the
7 conservation policy of no net loss of habitat
8 productivity under the Fisheries Act.

9 Do you have any reason to believe that those
10 historical numbers are not applicable to the project
11 that's in front of us? And I guess, in other words,
12 that translates into a greater than 60 percent
13 probability that the compensation measures will fail.

14 A Thank you for the question, Mr. Sawyer. One moment.

15 Thanks again for the question. Sorry for the
16 delay.

17 Panel members, I would comment that the likely
18 success of offsetting is site-specific. We are
19 currently under a different regulatory requirement than
20 the implementation rates that Mr. Sawyer has
21 referenced.

22 In the context of this project, we do have a
23 legislative requirement for offsetting under the
24 Fisheries Act. And under the Species at Risk Act, we
25 also have a legislative requirement to ensure
26 offsetting as well as avoidance of jeopardizing the

1 survival or recovery of the species. And so there is a
2 different level of legislative onus on reducing
3 uncertainty and ensuring that there is an adequate
4 offset applied if DFO were to make a decision to allow
5 for the destruction of critical habitat.

6 I think I had an additional point, but I may have
7 lost it. Mr. Sawyer, please let me know if I've
8 answered your question.

9 Q I think you have, to some extent.

10 Are you familiar with the paper Favaro and
11 Olszynski, 2017, that specifically looked at at this
12 question? And I believe both those gentlemen are --
13 no, they're not DFO.

14 But is anyone on your panel familiar with that
15 paper, "Authorized Net Losses of Fish Habitat
16 Demonstrate Need For Improved Habitat Protection in
17 Canada"?

18 A Thank you for the question. One moment.

19 Thank you for the wait. Sorry about that.

20 So I just wanted to respond -- I wanted to add
21 my -- the point that I forgot to the previous question.
22 Because of the requirement to have high certainty when
23 it comes to permitting a destruction of critical
24 habitat under the Species at Risk Act, it is
25 recommended -- it is a possibility and a recommendation
26 that we're making in the context of this project that

1 the offset be achieved and demonstrated functioning
2 before the impact occurs.

3 My answer to your current question is that I have
4 read that paper. I -- I wouldn't be able to kind of
5 quote parts of it to you, but I -- I do -- I am
6 familiar with it, as are some of the other staff on the
7 panel.

8 Q Okay. And would you be able to confirm that that paper
9 is where I drew my 37 percent of compensation projects
10 had actually achieved the conservation policy of no net
11 loss?

12 A I don't know that number specifically. I -- I would
13 acknowledge, in relation to my previous answer, that
14 that -- if I -- if I remember the scope of that paper
15 correctly, it looked at offsetting plans and execution
16 that were implemented under the serious harm
17 prohibition as opposed to under the current harmful
18 alteration, disruption, and destruction prohibition.

19 Q Right. And --

20 A And I would add that I don't know that it reflects --
21 because, again, this is a relatively unprecedented
22 scope and scale for a species at risk, that that paper
23 would not speak to implementation of offsetting in a
24 species-at-risk context.

25 Q Okay. That's a good segue into my next question, which
26 is: With respect to a Species at Risk Act Section 73

1 authorization, does DFO have any examples of a
2 73 authorization being given for a coal-mining project?

3 A MS. MARTENS: Thanks for the question,
4 Mr. Sawyer. One moment.

5 A MS. PHALEN: Thank you, Mr. Sawyer.

6 Panel Members, we are not aware of any permits for
7 the destruction of critical habitat associated with the
8 coal mine. Within our regulatory scheme, what we are
9 aware of are permits that we have issued to allow for
10 the harm, harass, capture of -- of species-at-risk
11 individuals in order to allow -- or incidental to
12 baseline sampling associated with coal mines in our
13 region.

14 Q Thank you for that.

15 Now, following from that question, is DFO aware of
16 any Section 73 authorizations -- or permits, sorry,
17 that have been issued for large-scale industrial
18 projects that would be of the similar sort of scale and
19 scope? And I just want to be clear; I'm interested in
20 whether or not those 73 permits have been issued for
21 destruction of identified critical habitat under a
22 recovery plan. Are there any examples of a large-scale
23 industrial project that has been authorized to destroy
24 critical habitat that has been identified under a
25 recovery plan?

26 A MS. MARTENS: Thank you, Mr. Sawyer. One

1 moment.

2 MR. SAWYER: Mr. Chair, while they're
3 chatting with each other, I just want -- I only have a
4 few questions left, and I know we're approaching a time
5 where -- well, we're probably past the time where we
6 should have our mid-morning break, and I will leave it
7 to you and the Panel to decide. We can either go on
8 for another ten minutes and I'll wrap up, or we can
9 break as the Panel directs, and then come back. So
10 I'll leave it up to you.

11 THE CHAIR: Yeah. Mr. Sawyer, I would say
12 if you only have about ten more minutes, we might as
13 well allow you to finish up, and then we'll take our
14 break.

15 MR. SAWYER: Thank you, sir.

16 A MS. PHALEN: Thank you for the question.

17 Panel Members, we are not aware of a permit to
18 destroy critical habitat that equates to this scale as
19 it relates to aquatic habitat specifically, so as
20 identified in our submission. And I believe, actually,
21 Stephanie already identified this. We cover -- we only
22 cover aquatic species at risk. We don't cover any
23 terrestrial species. So, no, we are not aware. And I
24 believe Stephanie actually identified that in the
25 opening statement, that we -- this is -- this is new
26 for our region.

1 Q Thank you for that.

2 In the Government of Canada's September 21st,
3 2020, submission to this Panel, DFO used the term --
4 and, again, it was used this morning in your
5 submission -- of "overprint" or "overprinted". Can you
6 tell us in plain language what "overprinting" means in
7 the context of the proposed coal mine effects on
8 critical westslope cutthroat trout habitat?

9 A Thank you for the question. Just one sec.

10 Thank you, Mr. Sawyer.

11 Panel members, "overprinting" refers to the
12 complete removal of a habitat feature. So that is
13 contrasted by the -- an activity that has the potential
14 to impact the functions of habitat based on particular
15 activities. So "overprinting" means complete removal
16 in order to facilitate mine structures in this case.

17 Q So you would agree with me that the word "destroyed"
18 could be interchangeable with the Orwellian term
19 "overprinted"?

20 A Panel Members, I think that I will -- I would clarify.
21 The reason that we use the term "overprinted" -- and
22 forgive us for some of our day-to-day operations,
23 perhaps, applying jargon that doesn't necessarily apply
24 to kind of the average reader. There are multiple
25 ways -- there are multiple things you could do on a
26 landscape that could cause the destruction of critical

1 habitat. You don't have to fully overprint something
2 to destroy it. But overprinting or fully utilizing
3 that area for a different purpose is one of those ways.
4 So it's more of a descriptive term. To --

5 Q So --

6 A -- to clarify the -- the particular pathway or the
7 manner in which the habitat will be impacted.

8 Q Thank you for that.

9 And I saw you smile. You did catch the humour in
10 my question, so thank you for that.

11 But it would be fair, then, to say that anytime we
12 see the term "overprinted" or "overprinting" in the DFO
13 submissions, that it would be reasonable to conclude
14 that that means destroyed?

15 A That is accurate, yes.

16 Q Okay. Thank you for that.

17 As of today, has Benga applied for a Section 73
18 or 74 permit under the Species at Risk Act in relation
19 to this proposed coal mine?

20 A No, they have not.

21 Q Thank you.

22 On November 5th, 2020, the Government of Canada
23 informed the JRP and participants to this proceeding
24 that DFO representatives had met with Benga on
25 October 20th of 2020. Are you aware of that meeting?

26 A Yes, we are aware of that meeting.

1 Q Did anyone on the DFO panel participate in that
2 meeting?

3 A Yes, members of this panel participated in that
4 meeting.

5 Q And can you tell us what specifically was discussed at
6 that meeting that was relevant to these proceedings?

7 A That meeting was held without prejudice, so we are not
8 able to discuss its contents with this -- in this
9 forum.

10 Q Sorry. Did I hear you say it was held at your
11 prejudice?

12 A Held without prejudice.

13 Q Held without prejudice?

14 A And --

15 Q Okay.

16 A I am not a lawyer, so I can't fully describe the
17 definition or the scope of that term, but that's --
18 yeah.

19 Q Okay.

20 A And --

21 Q That's the advice from your legal counsel; right?

22 A Correct.

23 Q Were there minutes kept of that meeting?

24 A We are not aware of minutes that were kept. We can't
25 speak for Benga.

26 Q Okay. Thank you so much.

1 Does DFO and the Government of Canada believe that
2 it's appropriate to be meeting with the applicant in
3 these proceedings while these proceedings are ongoing?

4 A MS. MARTENS: Thank you for the question.
5 One moment.

6 MS. MCHUGH: Mr. Chair, this is
7 Sydney McHugh here. I'm sorry to interrupt.

8 I've just gotten a message from Mr. Drummond, and
9 it looks like he's having some Zoom issues, and it
10 looks like his video might be frozen right now. I am
11 wondering if it might be appropriate for us to take a
12 short break while he figures out what's going on with
13 his Zoom connection.

14 THE CHAIR: Okay. Yes, I do see he's not
15 moving.

16 So let's take a break. Let's take our morning
17 break. It's 5 after 11, and we will resume at 11:20.
18 And, Mr. Sawyer, you can kind of pick it up again when
19 we come back.

20 MR. SAWYER: And that would be fine. Thank
21 you, sir.

22 THE CHAIR: Okay. Thank you.

23 (ADJOURNMENT)

24 THE CHAIR: Do we have Mr. Drummond back
25 with us?

26 MR. DRUMMOND: I am back, sir. Thank you for

1 your patience.

2 THE CHAIR: Okay. Yeah. No worries.

3 Mr. Sawyer, you want to pick it up where we left
4 off?

5 MR. SAWYER: Thank you, sir.

6 Q MR. SAWYER: DFO panel, I believe I had
7 asked a question prior to the break that: Why does DFO
8 believe -- or does DFO believe that it's appropriate
9 that they should be holding private meetings with the
10 applicant during this proceeding? And I don't think
11 you had the chance to answer that question for me.

12 A MS. MARTENS: No, we haven't. Thanks for
13 being patient, Mr. Sawyer.

14 Panel Chair, Panel Members, let's just remember
15 DFO has a regulatory role to play here in these
16 proceedings, and we regularly meet with proponents to
17 continue on with an exchange of information to make
18 sure that we are receiving the best information we can
19 and applying it to the project moving forward. So we
20 do feel it is appropriate to meet with project
21 proponents.

22 Q Thank you for that.

23 Turning to your submission to these proceedings,
24 DFO had made 21 recommendations to the Panel and to
25 Benga with respect to their application; that is
26 correct?

1 A Yes, that is correct.

2 Q Okay. And as of now, as of today, has Benga confirmed
3 that they are prepared to accept any one of those 21
4 recommendations?

5 A One moment. One moment, Mr. Sawyer.

6 Thank you, Mr. Sawyer.

7 Panel Chair, DFO cannot confirm whether or not the
8 proponent has agreed to our recommendations, but that
9 information would be available in the hearing
10 transcripts that I believe are published daily on the
11 registry.

12 Q Thank you.

13 And with respect to those recommendations, do
14 those recommendations need to be met prior to DFO
15 agreeing to issue a Section 73 permit in -- in the
16 context of the regulatory role for this application?

17 A Thank you for the question. One moment.

18 A MS. PHALEN: Thank you for the question,
19 Mr. Sawyer. This is Laura Phalen.

20 Panel Members, DFO made those recommendations as a
21 way to support the Panel's review of the information
22 provided in the EIS. Those recommendations are not
23 requirements for permitting under the Species at Risk
24 Act. We'll highlight that we have not received a
25 Species at Risk Act application to date.

26 Q Thank you for that, Ms. Phalen.

1 Could you expand on that? You have made a number
2 of these recommendations, 21, that contain some fairly
3 explicit advice about what would have to be done in
4 order to meet or satisfy the requirements of the
5 Species at Risk Act. Can you tell us how -- what was
6 your intention in terms of how that would assist this
7 Panel?

8 A MS. MARTENS: Thank you. One moment.

9 Thank you, Mr. Sawyer. (UNREPORTABLE SOUND) There
10 we go.

11 In response to your question, I'm not sure if you
12 were able to listen this morning. In our opening
13 statement, when I spoke for about 40 minutes -- or felt
14 like 40 minutes -- what we said this morning was that
15 DFO's intention in making the 21 recommendations is to
16 provide the Panel with information on the
17 uncertainties, limitations, and gaps within the
18 proponent's assessment. Our intention with those
19 recommendations is also to guide the proponent in
20 addressing uncertainties if the project gets to that
21 approval stage.

22 So what we're doing with those recommendations is
23 providing them to the Panel for their information
24 because, as you're aware, the Panel themselves will
25 make a report and several recommendations that they
26 will then (UNREPORTABLE SOUND).

1 THE COURT REPORTER: Sorry. Could you repeat that
2 answer?

3 Q MR. SAWYER: Okay. Thank you for that,
4 Ms. Martens.

5 Would I be correct in -- well, let me ask you the
6 question: With respect to your 21 recommendations, is
7 there anything on the record of these proceedings that
8 DFO's aware of that would allow this Panel to believe
9 that those deficiencies or gaps or uncertainties will
10 be addressed or even can be addressed?

11 A Thank you. One moment.

12 Thanks for being patient there, Mr. Sawyer. Just
13 want to make sure we're understanding your question.

14 Panel Chair, as DFO identified in our submission
15 and in our evidence we've presented this morning, we
16 believe that there are several uncertainties,
17 limitations, and/or gaps in the proponent's assessment.
18 To date, they have not been addressed. And I'm hoping
19 that's what you're getting at, Mr. Sawyer.

20 Q Thank you for that.

21 I want to turn the discussion to the Species at
22 Risk Act and the provisions of the Species at Risk Act
23 that are central to this discussion, and specifically
24 to Section 73.

25 Now, earlier in your submission you did identify
26 Section 73(2) and the circumstances under which the

1 minister might issue a permit, and that scientific
2 research activities that benefit the species or -- that
3 the Act -- the incidental carrying out of the activity.
4 And so I just want to have a discussion about that.

5 You have indicated that it's 73(2)(c), affecting
6 the species is incidental to carrying out the activity,
7 that you're looking at this project in the context of
8 that provision in terms of if or whether you issue a
9 permit under Section 73; is that correct?

10 A MS. PHALEN: Thank you, Mr. Sawyer.

11 Panel Members, if a Species at Risk Act were to be
12 applied for, mining activities would fall under that
13 third category, an activity that is incidental --
14 sorry, impacts that are incidental to carrying out the
15 activity.

16 Just to confirm, we don't have that Species at
17 Risk Act permit, but we just wanted to provide that
18 regulatory framework for a fulsome understanding.

19 Q And thank you for that.

20 If we go to 73(3). And I'm just going to read it,
21 and I'll just get you to confirm that that's accurate.
22 It says: (as read)

23 The agreement may be entered into or the
24 permit issued only if the competent minister
25 is of the opinion that:

26 (a) all reasonable alternatives to the

1 activity that would reduce the impact on the
2 species have been considered and the best
3 solution has been adopted;

4 (b) all feasible measures will be taken to
5 minimize the impact of the activity on the
6 species or its critical habitat or the
7 residence of its individuals; and

8 (c) the activity will not jeopardize the
9 survival or recovery of the species.

10 Does that seem like a -- I mean, you're familiar with
11 that provision of the Species at Risk Act?

12 A MS. MARTENS: Yes, we are.

13 Q So, then, my understanding would be that you could only
14 issue -- or the minister could only issue a permit
15 under 73(2)(c) if all three of those conditions were
16 met; is that correct?

17 MR. DRUMMOND: Mr. Chair, it's Robert
18 Drummond. I have to raise concerns about these
19 questions which go -- which are going towards what
20 decision the minister is going to make. That's a
21 separate process, and I think it would be inappropriate
22 to make statements to fetter the minister's ultimate
23 decision.

24 MR. SAWYER: Mr. Chair, I -- I would accept
25 Mr. Drummond's submission on its face, but I'm not
26 trying to fetter the minister's decision. What I'm

1 trying to do is establish what -- DFO's understanding
2 of the regulatory framework in which they have
3 themselves said they're going to make a regulatory
4 decision, and so I'm not -- I'm not looking for any
5 information that would fetter the minister's
6 discretion. I simply want to establish the regulatory
7 framework in which DFO is operating under.

8 So those would be my submissions on the objection,
9 sir.

10 THE CHAIR: Mr. Drummond, anything
11 further?

12 MR. DRUMMOND: Subject to Mr. Sawyer's
13 clarification, I think it's a fair question. Thank
14 you.

15 THE CHAIR: Okay. Carry on, Mr. Sawyer.

16 Q MR. SAWYER: So I think -- I believe my
17 question to the DFO panel was: Do you agree that those
18 three subprovisions of 73(3) would have to be met in
19 order that a Section 73 permit would be issued?

20 A MS. PHALEN: Thank you, Mr. Sawyer.

21 Panel members, Mr. Sawyer is correct. The
22 minister would need to be of the opinion that those
23 three conditions were met before a permit could be
24 issued under Section 73.

25 Q Okay. Thank you for that.

26 Following along from that, I would like to know

1 what DFO's definition of the word "incidental" is as
2 it's applied in Section 73(2).

3 A MS. MARTENS: Thank you, Mr. Sawyer. One
4 moment.

5 A MS. TOYNE: Hi, Mr. Sawyer. Sorry for
6 that delay.

7 I'm Melanie Toyne. I'm the manager of the
8 species-at-risk program, and I can respond to that and
9 the Species at Risk Act permitting policy. There is a
10 subsection that speaks to how we interpret
11 "incidental". And incidental in -- in this regard is
12 not related to the size of the impact of the activity.
13 So that's not taken into consideration. What is taken
14 into account when the activity is likely to jeopardize
15 the survival or recovery of this species is the -- is
16 not the scale of that.

17 So industrial development projects usually are
18 satisfied under that as they are not usually directed
19 at a species itself; however, this does not mean that
20 they will satisfy other permitting provisions under
21 SARA.

22 Q Okay. Thank you for that.

23 In the context of the language of this -- the
24 Species at Risk Act, has DFO had a legal opinion about
25 what -- the meaning of "incidental"?

26 MR. DRUMMOND: Mr. Chair, the very words

1 about, Does DFO have a legal opinion, of course, raises
2 questions of solicitor-client privilege.

3 MR. SAWYER: So, Mr. Drummond, I'm not
4 going to ask what that opinion was. I'm just wondering
5 if -- if the permitting policy language which has just
6 been inferred in the answer -- is that -- is that based
7 on a -- a legal interpretation of the Act, or was it
8 something else? And I'm not asking for that legal
9 opinion, I'm just wondering if it was based on a legal
10 analysis of the language of the Act.

11 MR. DRUMMOND: Mr. Chair, I just have to add,
12 the law surrounding solicitor-client privilege goes
13 beyond just the contents of an opinion but also covers
14 whether opinions were actually sought, so I have to be
15 very cautious here.

16 THE CHAIR: Mr. Sawyer, I would agree with
17 Mr. Drummond. And it's not clear to me how just
18 knowing whether or not they had an opinion is going to
19 be helpful to the Panel in its decision-making.

20 MR. SAWYER: I accept that, sir, and I'll
21 move on.

22 Q MR. SAWYER: DFO panel, so if we accept the
23 language in the permitting policy document and we have
24 a situation where critical habitat of an endangered
25 species or a threatened species, a species that's
26 protected under the provisions of the Species at Risk

1 Act, could be destroyed by virtue of the fact that it
2 is considered to be incidental to a -- the main purpose
3 of the project, which in this case is coal mining. And
4 that -- that strikes me -- and it's of concern to my
5 clients because they look at DFO's history of -- under
6 the Fisheries Act of using the permitting provisions to
7 allow many of the activities that destroy fish habitat.
8 And, in fact, one could argue that many of these
9 activities have contributed to the fate of the
10 westslope cutthroat trout.

11 So I guess what I want you to answer for me is:
12 How does your interpretation of the word "incidental"
13 square with the purposes of the Species at Risk Act?
14 And I would draw your attention to Section 6 of the
15 Act, which defines the purposes as -- let me quote:
16 (as read)

17 The purpose of this Act are to provide
18 wildlife species from becoming extirpated or
19 becoming extinct; to provide for the recovery
20 of wildlife species that are extirpated,
21 endangered, or threatened as a result of
22 human activity; and to manage species of
23 special concern to prevent them from becoming
24 endangered or threatened.

25 So in the context of the purpose of the Act and in the
26 context of the precautionary principle that we've

1 discussed and as outlined in your permitting policy
2 document, how does your definition of -- of
3 "incidental" square with the purposes of legislation?

4 A MS. MARTENS: Thank you, Mr. Sawyer. One
5 moment.

6 A MS. PHALEN: Thank you for the question,
7 Mr. Sawyer.

8 Panel Members, I will provide two points in
9 response to this question. The first is that the
10 interpretation of "incidental" as stated in -- and I
11 think we're just pulling up a reference to the previous
12 question to be helpful here, is referenced in the
13 Species at Risk Act permitting policy, which is
14 available to the public, and it interprets incidental
15 as meaning that: (as read)

16 The effect that carrying out the activity has
17 upon the species must not be the purpose of
18 the activity.

19 So, essentially, the Species at Risk Act prohibits
20 people from intentionally targeting and harming a
21 species at risk.

22 So to answer the more recent question, I would
23 bring attention to the fact that that condition, that
24 the activity must be incidental to the activity, is not
25 the only condition that must be satisfied under the
26 Species at Risk Act. So it -- it's not an "or"

1 scenario. Each of the conditions -- the preconditions
2 of SARA must be met. So that includes that the
3 alternatives must have been considered, feasible
4 mitigation measures must have been incorporated, and
5 that the jeopardy of the -- the survival or recovery of
6 a species cannot be jeopardised.

7 So taken in whole, each of those conditions aligns
8 with the purpose of the Species at Risk Act that
9 Mr. Sawyer read out there.

10 Q Okay. Let me ask you: First of all, the permitting
11 policy is, in fact, a policy, not a legislative or
12 regulatory requirement; correct? It has no force of
13 law?

14 A That is correct.

15 Q Okay. And the basis of the permitting policy, in
16 addition to the Species at Risk Act, is the DFO's
17 long-standing assumption that it can issue compensation
18 or offsetting projects to -- to -- to mitigate any
19 projected impacts under the Fisheries Act; correct?

20 A Can I get you to restate the question, Mr. Sawyer?

21 Q Okay. Let me try to simplify this.

22 Under the Fisheries Act, DFO has a long-standing
23 practice of using mitigation or offsetting strategies
24 in order to authorize the destruction of fish habitat.
25 Is that not a correct statement?

26 A MS. MOGGE: This is Brandi Mogge again.

1 So, yes, mitigation and offsetting are actually
2 required as part of the regulation for authorizing
3 impacts. And it's also, I think, important to remember
4 that it's part of a hierarchy; right? So we're looking
5 at avoidance and mitigation first, and offsetting is
6 kind of the last option, and it is a requirement under
7 the regulation.

8 Q Okay. Would you agree with me, then, that that has
9 created a -- I'll call it an "institutional bias"
10 within DFO which you are now applying to the Species at
11 Risk Act circumstances?

12 A MS. MARTENS: One moment, please,
13 Mr. Sawyer.

14 Thank you, Mr. Sawyer.

15 No, we cannot agree with the statement that
16 there's an institutional bias and just that both --
17 that the Fisheries Act and Species at Risk Act have
18 their own regulatory requirements that must be met.

19 Q Okay. Thank you for that, Ms. Martens.

20 Can the DFO panel tell me: Where in the Species
21 at Risk Act does that Act provide the legislative
22 authority for offsetting?

23 A One moment, please.

24 A MS. PHALEN: Thank you for the question,
25 Mr. Sawyer. I'm just going to make sure that I have
26 kind of my points in mind here.

1 So the Species at Risk Act does not speak
2 explicitly to the use of offsetting. However, when we
3 are taking into consideration whether a project
4 proposal meets the conditions -- the preconditions
5 identified in the Species at Risk Act, the potential
6 for offsetting harm and the proposal put forth by a
7 proponent are considered on the whole. So if the
8 offsetting -- if it is demonstrated that the offsetting
9 can prevent, for example, creating jeopardy to the
10 survival or recovery of the species, then, per the
11 Species at Risk Act, we can enter into an agreement in
12 order to generate an exception to the prohibition that
13 says that you cannot destroy critical habitat.

14 I would add that, as we've identified previously,
15 in the case of this project, we have recommended that
16 offsetting be demonstrated functioning and, therefore,
17 the jeopardy -- it has been demonstrated that the
18 activity will not jeopardise the survival or recovery
19 of the species is recommended as occurring before the
20 impact.

21 So there's a lot of kind of lines of legislation
22 in there, but essentially because those preconditions
23 exist, we consider the project on a whole in order to
24 determine that those preconditions have been met, and
25 the project may include offsetting as part -- and that
26 would be something that we consider to try to determine

1 if those preconditions have been met.

2 Q Thank you for that answer, Ms. Phalen.

3 You would confirm for me: My understanding of
4 what you said was that there are no specific or
5 explicit provisions in the Species at Risk Act that
6 provide legislative authority for offsetting; is that
7 correct?

8 A The term "offsetting" or the concept of "offsetting" is
9 not explicitly acknowledged in the Act. However, there
10 is language in the Act that indicates exceptions to the
11 prohibitions can be made under certain conditions.

12 Q Right. Okay. Just sort of a final set of questions
13 for the DFO panel.

14 Two sides to this: One is I want to put it to you
15 that there is a disconnect between the environmental
16 assessment process and these Joint Review Panel
17 hearings that we're doing versus what DFO has
18 characterized as their regulatory role. Would you
19 agree that those are two different phases of this
20 project assessment?

21 A MS. MARTENS: Yes, they are two different
22 phases.

23 Q Okay. And would you agree with me that if the Panel
24 makes a decision to approve this application and, in
25 part, they're likely going to take into consideration
26 the recommendations that DFO has presented, would you

1 agree with me that all of those recommendations are
2 talking about things that might happen in the future?

3 A Sorry, Mr. Sawyer. Can you please clarify your
4 question?

5 Q Yes. What I'm trying to establish is that -- that the
6 Panel Members -- well, let me back up.

7 So your 21 recommendations are on the record in
8 this proceeding; correct?

9 A That is correct.

10 Q And if the Panel takes those into consideration in
11 arriving at its decisions, all of those recommendations
12 are about things that might happen in the future?

13 A Okay. Yes. They would have to happen in the future,
14 and the Panel themselves also make recommendations.
15 The Panel themselves will not formulate, necessarily, a
16 decision. They're going to prepare the report and make
17 recommendations, just --

18 Q Right. But my point is: Your evidence provides those
19 recommendations that, if they accept them, will be
20 about things that might happen in the future, and you
21 agree to that.

22 So the problem I'm having with the disconnect
23 between the environmental assessment part of this
24 proceeding and your regulatory role is once you're into
25 that regulatory phase, you will sit down with the
26 applicant on a regular basis and essentially negotiate

1 the terms to the -- whether or not they're going to get
2 a 73 application or not. Is that not -- is that an
3 unfair characterization about how this works?

4 A One moment, please.

5 A MS. PHALEN: Thank you for the question,
6 Mr. Sawyer. This is Laura Phalen.

7 Panel Members, as you are aware, the Panel doesn't
8 decide whether the project moves forward. If they were
9 to make a recommendation that it is in the public
10 interest, then there would be the potential for the
11 proponent to make an application to DFO. We would not
12 negotiate with the proponent at that stage. What would
13 occur at that stage would be for DFO to host
14 discussions with the proponent, to receive information,
15 and ensure that we have a very fulsome understanding of
16 the information that we've received, to allow us to
17 make an assessment as to whether conditions as defined
18 in the Species at Risk Act and/or the Fisheries Act
19 have been met.

20 I hope that answers your question, Mr. Sawyer.

21 Q It certainly does, in part. Thank you for that,
22 Ms. Phalen.

23 Those, what I characterize as "negotiations",
24 meetings, communications between DFO and the applicant,
25 are those held in private?

26 A Thank you, Mr. Sawyer. This is Laura Phalen again.

1 The -- any meetings or exchange of information,
2 particularly verbal exchanges of information between
3 the proponent and DFO, would be held in private. It's
4 not a public process the way that this hearing is
5 public. However, information submitted to DFO would be
6 recorded and would be part of our decision-making
7 process.

8 Q So when you say it "would be recorded", would there be
9 opportunities for public input or scrutiny on the
10 permitting decision?

11 A Thank you. One moment.

12 THE CHAIR: Mr. Sawyer, just a time check.
13 We didn't have kind of a firm timeline for this
14 cross-examination, but you did indicate before the
15 break you only had about ten more minutes, and since
16 the break, it's been about 40, so I'm just wondering
17 how much more you might have.

18 MR. SAWYER: Has it really been
19 40 minutes? I apologize, sir. I literally have two
20 questions, and I -- I think you can appreciate
21 sometimes you ask a question, and it ends up turning
22 into six or seven. But I think the next two are fairly
23 succinct. So I just have two questions, sir.

24 THE CHAIR: Okay. Thank you. Please --
25 please finish up, then.

26 MR. SAWYER: And, sir, if I take longer

1 than I say, I do want to apologize. I'm really trying
2 my best to be efficient in the use of my time.

3 THE CHAIR: Yeah. No. Understood. Thank
4 you, Mr. Sawyer.

5 A MS. PHALEN: Thank you for the question,
6 Mr. Sawyer.

7 The Species at Risk Act has a public registry, so
8 the decisions made under that Act are posted to the
9 public registry. In particular, I -- I believe the
10 pieces of information that are posted are specific to
11 how each of those criteria that we discussed earlier
12 are met. So the rationale is provided to the public on
13 the registry.

14 Q MR. SAWYER: Thank you for that.

15 You would confirm for me, though, that there is no
16 opportunity for public input or scrutiny prior to a
17 decision being made by DFO?

18 A Thank you. One moment.

19 Thank you, Mr. Sawyer.

20 To clarify, the Species at Risk Act and Fisheries
21 Act permitting processes do not have a formal public
22 participation component.

23 Q Thank you for that.

24 Now, to my second-last question: You can confirm
25 for me that when you get an application -- in this
26 case, the Benga application -- goes into a permit --

1 73 permit application and has those discussions with
2 DFO, which would lead to a DFO decision one way or the
3 other, can you confirm for me that the information
4 that's provided to DFO from Benga, and assuming at that
5 point you have a fulsome understanding of all of the
6 environmental impacts of the proposal, at that stage of
7 your regulatory process, there is no environmental
8 assessment of the Benga application, is there?

9 A MS. MOGGE: Thanks, Mr. Sawyer.

10 Yes. So, at that point, the EIA would have been
11 completed. There is no environmental assessment after
12 the Panel.

13 Q Okay. And you would agree that between the Panel
14 process and the regulatory process, that -- and this
15 is, of course, assuming that the Panel approves the
16 project and that Benga makes an application, that new
17 information will come in to DFO that will assist you in
18 making your decision, and that new information will not
19 have been subject to an environmental assessment;
20 correct?

21 A Yes, that is correct.

22 I'd also like to clarify that the Panel will make
23 a recommendation to the minister, who will then kind
24 of, for the federal side, make the -- the final
25 approval or not.

26 Q Okay. I just have one last set of questions.

1 In the hearing, there was some reference to the
2 Alberta Government's FIS, Fish Sustainability Index.
3 Is the panel familiar with that -- that sustainability
4 index?

5 A Yes. We did reference it in our submission.

6 Q Okay. And does the panel believe that that is an
7 important piece of the information puzzle in assessing
8 the status and vulnerabilities of westslope cutthroat
9 trout in Alberta?

10 A Yes. It is one of the tools that we use to consider --
11 different management tools looking at the status of the
12 species --

13 Q Okay.

14 A -- understanding that there are limitations with
15 multiple tools that we consider.

16 Q Sure. But it's one that should be considered in the --
17 in the suite of tools and information that we have
18 before us?

19 A Yes.

20 Q Thank you.

21 DFO panel, I appreciate your patience and time.

22 And, Mr. Chairman, I appreciate your patience.

23 And those are all my questions, sir.

24 THE CHAIR: Okay. Thank you, Mr. Sawyer.

25 Mr. Yewchuk, if you only have a few questions,

26 maybe we could deal with them before lunch, unless you

1 advise me otherwise.

2 MR. YEWCHUK: I expect to be about 10 to
3 15 minutes. Would you prefer for me to just go now?

4 THE CHAIR: Yes. Please, let's go.

5 MR. YEWCHUK: Perfect.

6 Mr. Yewchuk Cross-examines Government of Canada

7 Q MR. YEWCHUK: Hello, DFO panel. My name is
8 Drew Yewchuk. I'm counsel for the Canadian Parks and
9 Wilderness Society here.

10 Does DFO have timelines set by law for posting
11 Species at Risk Act documents to the public registry?

12 A MS. MARTENS: Thank you. One moment.

13 A MS. TOYNE: Hello, Mr. Yewchuk. This is
14 Melanie Toyne.

15 Yes, there are legislated timelines under the
16 Species at Risk Act.

17 Q Perfect.

18 Did DFO meet all of those timelines for the
19 westslope cutthroat trout?

20 A No, we have not.

21 Q How many of those timelines did DFO fail to meet?

22 A One moment, please.

23 Thank you, Mr. Yewchuk.

24 Within DFO, we do -- we make all efforts to meet
25 all of our legislated timelines, but we're here today
26 to discuss the Panel, and I'm not sure where your

1 question is applicable to that.

2 Q Does DFO consider gathering baseline data for the
3 purpose of seeking project approvals to be scientific
4 research relating to the conservation of the species?

5 A MS. PHALEN: Thank you for the question,
6 Mr. Yewchuk. This is Laura Phalen.

7 DFO considers the collection of baseline data to
8 support an environmental impact statement as being an
9 activity that is incidental -- I can't remember the
10 exact wording, but it's incidental to the -- to the
11 impact on the species.

12 Q So that was close to my question.

13 Does DFO not consider it to be scientific research
14 relating to the conservation of the species, then -- of
15 the species, then?

16 A That is correct.

17 Just one moment, though, Mr. -- Mr. Yewchuk.

18 MR. YEWCHUK: While they're getting that
19 together, Zoom Host, could you prepare my Aid to
20 Cross Number 16 and Document 555? I will call on them
21 in one moment.

22 A MS. PHALEN: Sorry. I just want to
23 confirm. We do not consider collection of baseline
24 data to support a project as being research that
25 benefits the species.

26 MR. YEWCHUK: And can I get Document

1 Number 555, PDF 355?

2 Q MR. YEWCHUK: And what this will be is one
3 of Benga's baseline research applications for a Species
4 at Risk Act permit. They've checking "scientific
5 research relating to the conservation of the species".
6 Did they check the wrong box?

7 A MS. PHALEN: Sorry, Mr. Yewchuk. Can you
8 confirm the -- can we figure out what the file number
9 is for this?

10 Q This is in Document Number 555. This is the CPAWS
11 hearing submission. This is a section of an access to
12 information request we received from DFO.

13 A Thank you, Mr. Yewchuk. Sorry. I was referring to the
14 DFO file, which I see further down.

15 So I -- I believe this may have been in error. If
16 you look at the public registry entry for this permit,
17 I believe it does identify that the purpose of the
18 activity is -- affecting the species is incidental to
19 the carrying out of that activity.

20 Q Is -- the activity is re -- baseline research on the
21 westslope cutthroat trout?

22 A Sorry. Was there a question there, Mr. Yewchuk?

23 Q Sure. The research activity that is the subject of
24 this application for a permit was baseline research on
25 the westslope cutthroat trout; right?

26 A It's based on data collection to support an EIS.

1 Q Okay. Has the Government of Canada placed their
2 permitting policy for Section 73 permits on the Species
3 at Risk Act public registry?

4 A MS. TOYNE: Hi, Mr. Yewchuk. It's
5 Melanie Toyne.

6 Yes, I can confirm that that document is available
7 on the species at risk public registry.

8 Q Is it marked "proposed"?

9 A Yes, it is.

10 Q And when was it placed up?

11 A 2016.

12 Q Does a final version exist?

13 A Not that I'm aware of.

14 Q Thank you.

15 Was Benga given a copy of the 2019 recovery
16 strategy and action plan for the westslope cutthroat
17 trout before it was placed on the public registry?

18 A MS. PHALEN: Thank you, Mr. Yewchuk.

19 Panel Members, we are not aware that the recovery
20 strategy action plan would have been provided to Benga
21 before its publication. If that occurred, we are not
22 aware of it, to confirm.

23 Q Under Section 46 of the Species at Risk Act, DFO must
24 issue a report on the implementation of the recovery
25 strategy within five years of the recovery strategy
26 being posted; correct?

1 A MS. TOYNE: Hi, Mr. Yewchuk. It's
2 Melanie Toyne.

3 Yes, that is correct. Yes.

4 Q When was that document, the report on implementation
5 and recovery strategy, due for the westslope cutthroat
6 trout?

7 A One moment, please.

8 Sorry for that delay. I was just confirming the
9 date.

10 Yes. That document was due in March 2019.

11 Q Was a draft version of that report circulated to
12 stakeholders?

13 A One moment, please.

14 Hi, Mr. Yewchuk. Sorry again.

15 That document was circulated to some stakeholders
16 but only if they had activities that were identified
17 within the progress report.

18 Q Did Benga or any of its representatives, agents, or
19 consultants get a copy?

20 A Thank you.

21 And, no, not to our knowledge, Panel.

22 Q Under the 2014 westslope cutthroat trout recovery
23 strategy, Blairmore Creek had a segment of critical
24 habitat; is that correct?

25 A MS. PHALEN: Thank you for the question,
26 Mr. Yewchuk. This is Laura Phalen.

1 Under the -- sorry, under the 2014, is that what
2 you're asking?

3 Q Yes.

4 A Yes. Under the 2014 recovery strategy action plan,
5 there was a segment of Blairmore Creek, particularly a
6 tributary, I understand, that was designated as
7 critical habitat for westslope cutthroat trout.

8 Q Did DFO warn Benga that Blairmore Creek and its
9 tributaries might be made into critical habitat in
10 October 2017?

11 A Just to clarify, you're asking if we indicated that
12 Blairmore Creek would be defined as critical habitat?

13 Q Yes. Was Benga warned that Blairmore Creek might be
14 made critical habitat in October 2017?

15 A I -- I was not present at the meetings. My
16 understanding from the record was that we indicated
17 that an expansion of critical habitat was likely. I'm
18 not sure that we were explicit that that might be in
19 Blairmore Creek. I think it was a more general
20 statement.

21 MR. YEWCHUK: Can I get PDF page 373 in this
22 document.

23 Q MR. YEWCHUK: Does that first bullet point
24 make it seem like Benga was told Blairmore Creek and --
25 Blairmore Creek would likely be made critical habitat?

26 A MS. PHALEN: Yes. Thank you, Mr. Yewchuk.

1 Panel members, I can confirm that the wording in
2 this -- in the meeting minutes identified here indicate
3 that there was a potential for Blairmore and Gold Creek
4 and their tributaries to be listed in a future recovery
5 plan.

6 Q Does Blairmore Creek still contain near pure westslope
7 cutthroat trout?

8 A Yes, I can confirm that Blairmore Creek contains near
9 pure westslope cutthroat trout.

10 MR. YEWCHUK: Can I get my Aid to Cross
11 Number 16? I'm looking for the bottom of page 2 and
12 the top of page 3.

13 Q MR. YEWCHUK: So can one of you confirm for
14 me that this email explains how you identified the
15 critical habitat in the 2019 RSAP?

16 A MS. PHALEN: Thank you for the question,
17 Mr. Yewchuk. We'll just take a moment to confer.

18 A MR. CURTIS: Good afternoon, Mr. Yewchuk,
19 and Panel. It is Martyn Curtis here.

20 So I just want to respond. So the email that is
21 up on the screen is a portion of a discussion between
22 myself -- and at the time, I was a regional manager of
23 our species-at-risk program -- and one of my team
24 leads. The discussion topic is around what criteria
25 would we use for the future critical habitat expansion
26 that's been referred to previously.

1 The criteria in this email is early on or in the
2 middle of that discussion. It is not the final
3 criteria that was used. It's part of a conversation
4 about what should we include.

5 Q Would Blairmore Creek have been critical habitat under
6 the last bullet on point -- on page 2?

7 A So in terms of the final criteria that led to the
8 critical habitat that we all see in the 2019 recovery
9 strategy action plan, our final criteria around this --
10 that bullet that states previous critical habitat now
11 designated as near pure.

12 In our final criteria, we went one step further.
13 We included previous critical habitat that had a high
14 confidence, whether it was assessed through our
15 microsatellite, the old technique for genetic analyses,
16 or through the SNP, or "SNP", genetics. So the
17 threshold for what we included in the current version
18 of the 2019 recovery strategy action plan only included
19 previous critical habitat that was designated as pure
20 under the old microsatellite technique. And under the
21 new SNP analysis, it came back as near pure or hybrid,
22 and our delineation of what was included was near pure
23 with high confidence. We included those from a
24 precautionary principle as critical habitat. And the
25 results for Blairmore Creek, in particular, they came
26 back -- they were near pure low confidence or lower,

1 which is the hybrid category, which I believe is 90 --
2 less than 95 percent pure.

3 So that segment originally in the 2014 strategy is
4 no longer critical habitat based on the science and
5 updated genetic analysis we did.

6 Q What is the genetic purity percentage for Blairmore
7 Creek?

8 A Just give me one second to chat with my colleagues.

9 Thank you for your question, Mr. Yewchuk, and for
10 the -- and for the Panel.

11 So based on the data analysis either through the
12 microsatellite technique or the new SNP, or "SNP",
13 techniques, the data that came back from Blairmore
14 Creek and its tributaries, dominantly included hybrid,
15 which is less than 95 percent purity. There are some
16 segments within the Blairmore Creek catchment that had
17 near pure designation.

18 Overall, when we're evaluating the purity for
19 population, we take an overall average of the samples.
20 So for Blairmore Creek, in the end, it came in as a
21 hybrid population, less than 95 percent.

22 Q It's not possible to give any greater clarity than
23 "less than 95 percent"?

24 A At this time it's not. So how we work the analysis as
25 it relates to westslope cutthroat trout recovery are
26 partners within Alberta Environment and Parks. They're

1 the ones that conducted and collected the data --
2 genetics materials. So we work from the results that
3 they provide.

4 So at this time I couldn't give you the exact
5 number.

6 Q When did AP do the genetic sampling?

7 A Just bear with me. I'm going to caucus for a minute.

8 All right. Thank you, Mr. Yewchuk.

9 And for the Panel.

10 Yeah. I don't have an exact date of when
11 Alberta Environment and Parks collected the specific
12 materials and did the analysis for Blairmore Creek, but
13 I can tell you, from our partnership with Alberta as it
14 relates to westslope cutthroat -- westslope cutthroat
15 trout recovery, we've been collecting genetic materials
16 since probably pre-2010, and we're still collecting
17 that data now as part of our ongoing process.

18 As scientific techniques change and they get more
19 accurate, we're always trying to increase our knowledge
20 of the species, and in this case that transition of
21 microsatellite and the SNP model is an example of that.

22 So the actual dates for Blairmore, I don't have
23 those up, offhand.

24 Q Did DFO remove Blairmore Creek as critical habitat --
25 as being considered for critical habitat status in
26 their internal drafts in February 2019?

1 A So DFO removed Blairmore Creek based on the results of
2 the genetic analysis. In this case we've mentioned it
3 came back as less than 95 percent pure or the category
4 of hybrid. That management decision, yes, was made by
5 DFO based upon the genetic results of all the
6 populations.

7 Q So can we go to the top of page 2. Higher.

8 I believe both Ashley Gillespie and Martyn Curtis
9 are on this panel. Right?

10 A That's correct.

11 Q Which pure section was asked to remain out from the
12 criteria agreed to?

13 A So the actual section that was removed -- I'll explain
14 why it was removed first, followed by my answers to
15 which section.

16 So as we move through and finalize our decisions
17 on what critical habitat would be included in the 2019
18 recovery action plan, we encountered one section of
19 critical habitat where the genetic purity met the pure
20 population criteria of 99 percent. The reason that was
21 excluded from the current 2019 recovery action plan is
22 for our need to complete our consultations with a
23 nearby Indigenous community. And so because of that,
24 the actual location I'm not going to share at this
25 time. It would be best if we were able to complete our
26 consultations with that Indigenous community.

1 And if I were to kind of move forward in time,
2 looking at the recovery of westslope cutthroat trout,
3 once that consultation was complete, we would be
4 including that section into the next iteration of the
5 recovery action plan.

6 Q Are you able to confirm whether it was part of
7 Blairmore Creek?

8 A I can confirm that it's more than 200 kilometres away
9 from the mine site and Blairmore Creek.

10 Q That is good enough for this purpose.

11 Did DFO give critical habitat status to only
12 30 metres -- well, first, DFO gave critical habitat
13 status to 30 metres of riparian habitat around
14 westslope cutthroat trout aquatic critical habitat?

15 A Just going to caucus with my team. One second, please.

16 Thank you for your question, Mr. Yewchuk.

17 And for the Panel.

18 Yes, I can -- what I can confirm is that for all
19 of the westslope cutthroat trout recovery strategy --
20 or let me rephrase.

21 For all of the critical habitat identified in the
22 2019 recovery strategy action plan for westslope
23 cutthroat trout, all critical habitat was also granted
24 a 30-metre riparian buffer, identified as critical
25 habitat for -- as one of my staff had mentioned
26 earlier, the unique connection between, and the

1 importance of those upstream habitats, to the survival
2 and recovery of the species.

3 Q Did scientific review indicate a larger zone of
4 riparian habitat should have been included as critical
5 habitat?

6 A Just give me one moment to discuss.

7 MR. YEWCHUK: Mr. Chairman, you'll be happy
8 to know I only have two questions left, so we're almost
9 there.

10 THE CHAIR: Okay. Thank you, Mr. Yewchuk.

11 A MR. CURTIS: Thank you, Mr. Yewchuk and
12 Panel.

13 Can you identify -- or clarify which scientific
14 advice you are referring to?

15 Q MR. YEWCHUK: Internal science reviews of
16 the Department of Fisheries and Oceans. I can't be
17 clearer than that. I'm sorry.

18 A Okay. So nothing specific in terms of a published
19 report, but you're asking in general if science was
20 used in the delineation of that 30-metre buffer?

21 Q I'll break it down a little.

22 Did the Alberta Government produce a report
23 recommending a particular riparian zone?

24 A Okay. Just let me caucus. I'll be right back.

25 Again, thank you, Mr. Yewchuk, for the question.

26 We can confirm that the Alberta Government -- or

1 the Alberta Environment and Parks did produce a
2 document. It wasn't a science-based or published-based
3 document; it was a document that did -- took a snapshot
4 what riparian buffers are already in operation as per
5 the various criteria or legislation provincially in
6 Alberta, and that document was part of our
7 decision-making when we decided on a 30-metre riparian
8 buffer for critical habitat.

9 Q You said 30-year [sic]. You just meant 30-metre;
10 right?

11 A 30 metres, yes.

12 Q Correct.

13 Did DFO choose to identify a smaller amount of
14 critical habitat for the westslope cutthroat trout than
15 the westslope cutthroat trout recovery will need in
16 order to accommodate future development in the Eastern
17 Slopes?

18 A I'm just going to caucus. I'll be back in a moment.

19 A MS. TOYNE: Hello. Thank you, Mr. Yewchuk
20 and Panel. Melanie Toyne speaking. I'll answer that
21 question.

22 Absolutely not. Our critical habitat is based on
23 best available information and is not influenced by any
24 current or future development activities.

25 Q Did DFO get a science review and recommendation for the
26 riparian habitat length?

1 A Hello. Thank you, Mr. Yewchuk and Panel.

2 We were just clarifying. Yes, science information
3 was used in the evaluation and assessment and
4 determination of critical habitat.

5 Q Sorry. Was there a science report, like a written
6 report, about the -- with the critical habitat
7 recommended?

8 A Are you -- can I ask which -- which published report
9 you're referring to?

10 Q I'm not referring to a published report. I'm asking if
11 DFO, who has a science advisory group, as I understand,
12 got a science advisory on riparian habitat?

13 A Okay. One moment, please.

14 Okay. Thank you, Mr. Yewchuk and Panel.

15 We did discuss with our scientific team, but there
16 is no document published on science recommendations of
17 that critical habitat for westslope cutthroat trout.

18 Q Does that document exist, though, or are you just
19 saying it wasn't published?

20 A When we identified critical habitat, there was no
21 existing document.

22 MR. YEWCHUK: Okay. That's all my
23 questions. Thank you. Thank you to the DFO panel.

24 I apologize, Mr. Chairman. That ran much longer
25 than I had hoped it would. Sorry.

26 THE CHAIR: Okay. Thank you, Mr. Yewchuk.

1 It's 12:42, so we will take our lunch break now,
2 and we will resume at 1:30. Thank you.

3

4 PROCEEDINGS ADJOURNED UNTIL 1:30 PM

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1 Proceedings Taken via Remote Video

2

3 November 23, 2020 Afternoon Session

4

5 A. Bolton The Chair

6 D. O'Gorman Hearing Commissioner

7 H. Matthews Hearing Commissioner

8

9 M. LaCasse AER Counsel

10 B. Kapel Holden AER Counsel

11

12 K. Lambrecht, QC Joint Review Panel Secretariat
13 Counsel

14

15 T. Utting IAAC Staff

16 E. Arruda AER Staff

17 D. Campbell AER Staff

18 T. Turner AER Staff

19 T. Wheaton AER Staff

20 A. Shukalkina AER Staff

21

22 M. Ignasiak For Benga Mining Limited

23 C. Brinker

24

25 R. Warden For Ktunaxa Nation

26 T. Howard

1	K. Poitras	For Métis Nation of Alberta
2		Region 3
3		
4	Chief B. Cote	For Shuswap Indian Band
5		
6	B. Snow	For Stoney Nakoda Nations
7		
8	R. Drummond	For Government of Canada
9	S. McHugh	
10		
11	A. Gulamhusein	For Municipality of Crowsnest
12		Pass
13		
14	M. Niven, QC	For MD of Ranchland No. 66
15	R. Barata	
16	J. Nijjer (Student-at-Law)	
17		
18	B. McGillivray	For Town of Pincher Creek
19		
20	D. Yewchuk	For Canadian Parks and
21		Wilderness Society, Southern
22		Alberta Chapter
23		
24	R. Secord	For Coalition of Alberta
25	I. Okoye	Wilderness Association, Grassy
26		Mountain Group, Berdina Farms

1		Ltd., Donkersgoed Feeder
2		Limited, Sun Cured Alfalfa
3		Cubes Inc., and Vern Emard
4		
5	R. Cooke	For Crowsnest Conservation
6		Society
7		
8	G. Fitch, QC	For Livingstone Landowners
9	C. Agudelo	Group
10		
11	M. Sawyer	For Timberwolf Wilderness
12		Society and Mike Judd
13		
14	(No Counsel)	For Barbara Janusz
15		
16	(No Counsel)	For Jim Rennie
17		
18	S. Elmeligi	For Alberta Chapter of the
19	A. Morehouse	Wildlife Society and the
20	S. Milligan	Canadian Section of the
21	M. Boyce	Wilderness Society
22		
23	J. Gourlay-Vallance	For Eco-Elders for Climate
24		Action
25		
26	L. Peterson	For Trout Unlimited Canada

1 R. Campbell For Coal Association of Canada
2
3 (No Counsel) For Alistair Des Moulins
4
5 (No Counsel) For David McIntyre
6
7 (No Counsel) For Fred Bradley
8
9 (No Counsel) For Gail Des Moulins
10
11 (No Counsel) For Ken Allred
12 (Not Present)
13
14 (No Counsel) For Monica Field
15
16 S. Frank For Oldman Watershed Council
17 A. Hurly
18
19 C. Forster, CSR(A) Official Court Reporter
20 _____
21 (PROCEEDINGS COMMENCED AT 1:04 PM)
22 STEPHANIE MARTENS, TOM HOGGARTH, MARTYN CURTIS,
23 MELANIE TOYNE, EVA ENDERS, JODY SMALL, AIMEE ZWEIG,
24 BRANDI MOGGE, LAURA PHALEN, ROBYN KUTZ, KEN GLASBERGEN,
25 PETER JOHN THOMPSON, BEN PLUMB, MARIE-CLAUDE SAUVÉ,
26 JESSICA COULSON, ASHLEY GILLESPIE, MIROSLAV NASTEV,

1 MICHAEL TAKEDA, Previously Affirmed

2 MARGARET FAIRBAIRN, ANNE WILSON, Previously Sworn

3 THE CHAIR: Mr. Secord, did I understand
4 you had something you wanted to raise?

5 MR. SECORD: I did, sir. Thank you.

6 As it turns out, I have one question for DFO, and
7 with your permission, I'd like to ask it.

8 THE CHAIR: Okay. Sure. You can go now,
9 and then we'll turn to Benga.

10 MR. SECORD: Thank you very much, sir.

11 Mr. Secord Cross-examines Government of Canada

12 MR. SECORD: Zoom Host, if you could please
13 pull up Registry Document 553, PDF page 173. 173.
14 That's 173. And if you could reduce it. Thank you
15 very much.

16 And then if you could scroll down to the bottom.
17 Perfect.

18 Q MR. SECORD: So my name is Richard Secord.
19 I'm counsel for the Coalition, and this is a question
20 for DFO and, perhaps, Eva Enders, who I understand is
21 on the DFO panel.

22 And Mr. Yewchuk, just before the break, had asked
23 DFO what science-based advice it had received for the
24 buffer zone around Gold Creek, and I'm referring to you
25 a -- the expert report of Lorne Fitch, and he refers to
26 a paper of Caskenette, Durhack, and Enders, 2020.

1 And if we could turn over to PDF page 174. And it
2 reads in the first full paragraph: (as read)

3 Lastly, the authors' review of westslope
4 cutthroat trout habitat concludes that "this
5 suggests that the width of the meander belt
6 should be considered as critical habitat".

7 So my question is to DFO: Can you confirm that
8 Eva Enders was one of the authors of this report, and
9 can you confirm that in the area of Gold Creek, the
10 width of the meander belt in some places would be a
11 hundred metres in width and perhaps even greater than a
12 hundred metres in width?

13 A MS. MARTENS: Thank you for the question,
14 Mr. Secord. Let us just caucus. Thank you.

15 A MS. MOGGE: Sorry for the delay.
16 (UNREPORTABLE SOUND) is that okay? Okay.

17 Yes. Dr. Enders was an author on that
18 publication, and our understanding is that Benga did
19 not perform a meander belt width analysis in the EIS,
20 so we can't confirm whether it was a hundred metres or
21 any other measurement.

22 Q I guess my question for Dr. Enders is: Would she agree
23 that it is quite likely that for Gold Creek, the area
24 of the meander belt could be in excess of 100 metres?
25 That would not be -- in other words, that would not be
26 a surprising finding? Maybe we should hear from her.

1 A DR. ENDERS: Hello. Thank you for that
2 question, Mr. Secord.

3 Mr. Chair, I must admit that I have never been on
4 that creek, so it's really difficult for me to evaluate
5 if the meander belt in certain regions in the creek is
6 a hundred-metre wide or not. And our -- that report
7 Mr. Secord is referring to really also states that you
8 need to really look among that to -- for the -- for the
9 width of the creek. Thank you.

10 Q And, Dr. Enders, what is the widest meander belt you've
11 seen in the mountains?

12 A In the mountains. So I live here in the Prairies, and
13 meander belts can be very wide.

14 Q Sure.

15 A In the Rockies, I really would refer to somebody who
16 has local knowledge.

17 Q All right. Thank you very much, Dr. Enders.

18 And I guess, Ms. Martens, was there some reason
19 that this paper -- this science-based information that
20 you got from Dr. Enders -- that you didn't refer that
21 information to Mr. Yewchuk in response to his questions
22 earlier?

23 A MS. MARTENS: Yeah. Thank you, Mr. Secord.

24 Panel Chair, it's because the information
25 contained within that paper was published after the
26 RSAP was released.

1 Q Okay. Thank you, Ms. Martens.

2 MR. SECORD: Those are all my questions.

3 Thank you, Chair.

4 THE CHAIR: Okay. Thank you, Mr. Secord.

5 Zoom Host, we can take that exhibit down.

6 And, Mr. Ignasiak, does Benga have questions for
7 this panel?

8 MR. IGNASIAK: We do, Mr. Chair. Thank you.

9 Mr. Ignasiak Cross-examines Government of Canada.

10 MR. IGNASIAK: Maybe we could start with the
11 Zoom Host bringing up CIAR 101.

12 Q MR. IGNASIAK: In the meantime, good
13 afternoon, I guess, now, panel. My name is
14 Martin Ignasiak. I know many of you, not all of you.
15 I've just got some questions for Benga today.

16 If we can start, Mr. Hoggarth -- I hope I said
17 that right -- Mr. Hoggarth, I saw you signed DFO's
18 submission, and I hadn't seen your name in this
19 proceeding previously on very many documents. But I
20 did -- and I've asked the Zoom host to pull it up --
21 see your name on CIAR 101. That's a letter to the JRP
22 dated November 21, 2018. I was wondering if we could
23 just pull that up, take a quick look at it.

24 THE CHAIR: It should be up momentarily,
25 Mr. Ignasiak.

26 MR. IGNASIAK: Yeah.

1 Q MR. IGNASIAK: All right. So I guess,
2 Mr. Hoggarth, as I understand, when this JRP was formed
3 or established in August of 2018, the Panel requested
4 information of species at risk. And I understand this
5 was your response to the Panel; is that right?

6 A MR. HOGGARTH: Yeah. I'd have to see the
7 whole letter. But, yes, my assumption is you're
8 correct.

9 Q Okay. And just so I understand, Mr. Hoggarth, given --
10 I looked at your CV. And so I take it when it comes to
11 this project, you're not doing -- you're not issuing
12 IRs or doing a technical review of Benga's materials;
13 your role is more -- a higher policy role related to
14 species at risk, generally; is that right?

15 A Well, my role as the regional director for this area --
16 or for Ontario Prairies is reviewing the documentary --
17 well, getting the advice from my biologists and then
18 signing off on that. So my experts have provided me
19 advice on this, and I sign off on it before going to
20 the Panel.

21 Q Okay. Perfect.

22 And so you have never been to the project site?

23 A No, I have not.

24 Q Okay. And so this letter, you refer -- in the last bit
25 of it, you refer to: (as read)

26 Previous request to Benga regarding potential

1 additions to critical habitat.

2 And you refer to Document 60 and 75, and those are
3 Benga's IR -- or, sorry, DFO's IRs to Benga from
4 February 2018 and June 2018. And we'll go to those
5 later.

6 But those IRs, I noticed, were issued by Bev Ross
7 with DFO, and I see you've copied her with this letter.
8 Can you tell me who Bev Ross is?

9 A Bev Ross at the time was the acting manager for oil and
10 gas, so the manager for Steph and Brandi and Laura.

11 Q Okay. And then all of these documents -- or this
12 document from you as well as the two from Bev Ross that
13 you referred to, they all say to contact Jason Shpeley.
14 Can you tell me who that is?

15 A Jason was the assessor at the time that these documents
16 were put together. So he's -- he would be similar to
17 Laura and Brandi's position right now.

18 Q Okay. And the other name -- I think we saw it when
19 Mr. Yewchuk was asking questions -- was Ernest Watson,
20 who I noticed comes up in a lot of these earlier
21 documents. Can you tell me who that is?

22 A Yeah. Ernest Watson used to work within our
23 species-at-risk program. He's no longer there.

24 Q Okay. And then so I think, Dr. Enders, I heard your
25 answers to Mr. Secord. Has anyone else on this
26 panel -- on the DFO panel been to the Grassy Mountain

1 Project site?

2 A Staff, did you want to take ...

3 A MS. MARTENS: Good afternoon, Mr. Ignasiak.

4 At this -- on this current DFO panel, Martyn Curtis has
5 been to the project site, and he is the only one.

6 Q Okay. Thank you.

7 And, Mr. Curtis, can you tell me when you were at
8 the site?

9 A MR. CURTIS: Good afternoon, Mr. Ignasiak.

10 I'm pulling from memory, but I was on-site and
11 immediately downstream as part of one of our
12 occurrences, a response to a material moving from Benga
13 or the uphill coal mine site while it was being -- it
14 was in a stage of pause or exploration, and, yes, we
15 were notified of an event that led to sediment-laden
16 water moving downslope towards Gold Creek and Blairmore
17 Creek.

18 Q Okay.

19 A 2015, 2016.

20 Q Right. So you weren't there with respect to evaluating
21 the project or anything. You were there because of a
22 report of some sort of sediment deposit; is that right?

23 A That's correct.

24 Q Okay. All right. So switching gears -- and
25 Mr. Yewchuk's already brought you there, and you have
26 also read, I think, Benga's response, and there's a

1 long communication log that Benga filed. There's
2 reference to Bev Ross and Mr. Shpeley and a number of
3 meetings and site visit.

4 There's a reference to a Marek Janowicz. Can
5 someone, just for the record, tell me who that is?

6 A MS. MARTENS: Sure. Marek is currently
7 working on the TMX file. He used to be our acting
8 manager as well in the office, in Edmonton, sorry.

9 Q Okay. Thanks.

10 Now, looking at the --

11 MR. IGNASIAK: And maybe, Zoom Host, the best
12 would be to bring it up. It's the CPAWS submission,
13 Document 555. And I'll be going to PDF 289. And,
14 actually, I think it's PDF 384 I want. Sorry.

15 Q MR. IGNASIAK: So while that's being pulled
16 up, this is the -- that Mr. Yewchuk referred you to, I
17 think, DFO's response to -- I'm sure you all enjoy
18 receiving those ATIP requests when you get them, but
19 this is the response to Mr. Yewchuk's ATIP request.
20 And what I really want to talk about -- and Mr. Sawyer
21 touched on it, but there's reference at 384 to a
22 meeting of June -- that took place in June of 2018 to
23 discuss offsetting, and I don't think anyone on this
24 panel was at that meeting, based on the notes.

25 But at PDF 385, and --

26 THE CHAIR: I don't think that was the

1 correct document, Mr. Ignasiak.

2 MR. IGNASIAK: No. I think that's right.
3 I've been told that.

4 Q MR. IGNASIAK: While that's being pulled up,
5 there's a reference at the end of the meeting minutes
6 from that June 2018 meeting -- there's a reference to
7 once the JRP's established, there'll have to be more
8 formal communications between DFO and -- and Benga to
9 discuss the project.

10 So I just wanted to clarify -- and I think
11 Mr. Sawyer was touching on it --

12 MR. IGNASIAK: 385, Zoom Host.

13 Q MR. IGNASIAK: So you'll see -- you'll see
14 there's reference: (as read)

15 Continued dialogue between the proponent and
16 DFO can occur after the Panel has been struck
17 but would require formal documentation of
18 engagement.

19 So is that an official DFO policy, I guess is what I'm
20 wondering? Like, does that apply to all review panels,
21 or is it on a case-by-case basis?

22 A MS. MARTENS: Thank you for the question,
23 Mr. Ignasiak.

24 Not being at the meeting myself, I'm going to
25 speak to what I think we're talking about here. And
26 once the Panel's been struck and as part of the Panel

1 process, any documentation related to the file,
2 discussions between DFO and the proponent need to be
3 published on the registry, and that would be what I'm
4 assuming is the "formal documentation" mentioned.

5 Q Okay. So in this case, then, for this proceeding, any
6 communication since -- since 2018 -- August 2018, when
7 this JRP was struck, they would be reflected on the
8 record; right? For instance, the DFO letter of a few
9 weeks ago advising of a meeting and IR request. That
10 would be the extent of it; right?

11 A Yeah. Thank you.

12 All communication we've had with Benga has been
13 reflected on the registry.

14 Q Okay. And that meeting that took place on
15 October 20th -- and your counsel, as you know, posted a
16 letter to the registry advising parties of that
17 meeting -- that meeting, just to be clear, that was
18 initiated at Benga's request?

19 A Yes. We can confirm that was initiated by Benga.

20 Q Okay. DFO's never asked Benga for a meeting, right,
21 since the JRP was formed?

22 A That is also correct.

23 Q Okay. So I want to get into the IR process a bit.

24 MR. IGNASIAK: And if we could just pull up,
25 Zoom Host, CIAR 167.

26 Q MR. IGNASIAK: And so, as you're aware, in

1 October of 2018, Benga filed its 8th Addendum,
2 including a 3D leapfrog model. And then as we pull
3 this up, Document 167, you'll see there's -- there's
4 about 20 pages of IRs from ECCC and then 12 pages from
5 Health Canada. So I think that brings us to -- PDF 35
6 is where the DFO submissions start. And there's four
7 IRs attached to Ms. Ross's letter.

8 So I take it as of January 2019, Ms. Ross was
9 still -- still responsible for this file, if that's the
10 proper way to say it; is that right?

11 A MS. MARTENS: Yes, that's correct.

12 Q Okay. And I see if we -- if we look at this first
13 page, she's included the standard language regarding
14 critical habitat that we've seen in Mr. Hoggarth's
15 previous letter as well.

16 Can we go to the next page? Thank you.

17 And so I see again we've got Jason Shpeley and
18 Ernest Watson being copied. So I assume they were all
19 still involved with this file as of January 2019; is
20 that right?

21 A Yes, that's right.

22 Q And I understand shortly after this, all three of them
23 were transferred to the Trans Mountain file; is that
24 right?

25 A Not quite right. Ernie works for the Trans Mountain
26 file. Both Jason and Bev took different roles within

1 the department still but not on Trans Mountain.

2 Q Okay. But they were moved off this file?

3 A That's right.

4 Q Okay. All right. And so switching gears to -- I
5 understand we have four witnesses from GeoProcess
6 Research Associates; right? Mr. Glasbergen, Dr. Plumb,
7 Mr. Takeda -- hope I said that right -- Mr. Thompson;
8 is that right?

9 A That's correct, yeah.

10 Q Okay. And so I just looked at all of those CVs, and so
11 it's a little unclear to me. I just want to get some
12 clarity.

13 I'm assuming, given the IRs I saw from DFO in
14 February of 2018 -- there was about 41 of them; many
15 related to hydrogeologic modelling and so forth. So I
16 understand GeoProcess was retained in November of 2017
17 to help with those IRs, is that right, help prepare
18 them?

19 A One moment. I'm just going to confirm. Thank you.

20 Mr. Ignasiak, that's correct, November of 2017.

21 Q Okay. And then I would take it that GeoProcess did
22 further work in support of DFO's IRs to Benga in June
23 of 2018. That's CIAR document 75. There's IRs
24 regarding offsetting plan, the monitoring plan, and
25 then a number of questions on fluvial geomorphology,
26 hydrology, and hydrogeology. So is it fair that

1 GeoProcess assisted with the preparation of those
2 June 2018 IRs as well?

3 A Yes, Mr. Ignasiak, we can confirm that we had GRA on
4 contract as well in June of 2018.

5 Q Okay. And so one of their roles would have been to
6 help with the preparation of those IRs; is that right?

7 A That is correct, yes.

8 Q Okay. And then looking at this -- this document that's
9 still up, the January 21, 2019, IRs, did GeoProcess
10 assist Ms. Ross and her team with the preparation of
11 these IRs? And we can scroll to the next page if -- if
12 you want to refresh your memory what they're on.

13 A Sure. Thank you. I'll also take a minute just to
14 confirm, Mr. Ignasiak.

15 Sorry for the delay there. Yes, we did have
16 GeoProcess contribute to this round of IRs.

17 Q I muted myself. Thanks. Thanks for that.

18 MR. IGNASIAK: Can we pull up, Zoom Host,
19 Document 283? And if it helps, these are IRs to Benga
20 from Canada on October 24, 2019. Sorry.

21 Thank you, Zoom Master.

22 Q MR. IGNASIAK: Yes. So the first 30 pages
23 are IRs from Health Canada and ECCC and then DFO, I
24 think, starts at PDF 31.

25 All right. So if we go to the next page -- so I
26 take it, Ms. Martens, this is the first time I see your

1 name on here, and we see Ms. Phalen, Ms. Mogge. I hope
2 I said that right.

3 So you would have -- you would have taken over
4 this file sometime, I guess, between January of 2019 --
5 the end of January and October; is that right? Do you
6 know? Can you put some more definition around that?

7 A MS. MARTENS: We're just reaching back in
8 our memory. We think it would be closer to around the
9 spring of 2019 when we began taking over the file
10 from -- from the previous assessor.

11 Q Okay. And if we go to the next page, which is the
12 beginning of the IRs, there's four IRs.

13 Ms. Phalen, you would have prepared these IRs, I
14 take it, from your name being there?

15 A MS. PHALEN: Yes, that's correct. I would
16 have been the technical assessor contributing to these
17 IRs, and there is an internal review process as well.
18 So others would have reviewed them.

19 Q Okay. And I didn't see anything specific to modelling
20 here. Did GeoProcess assist these IRs?

21 A No, GeoProcess did not contribute to these IRs. They
22 were not on contract at the time.

23 Q Okay. And so when I look at these IRs, these were
24 issued just shortly before the recovery strategy and
25 action plan was finally issued; right? The final
26 version? So that was December?

1 A Yes, based on your timeline, that is correct. Although
2 I should -- and just one moment. Let me just caucus
3 for a moment here.

4 Thank you for the question.

5 So the final version of the recovery strategy
6 action plan was not posted at this time; however,
7 the -- I believe the draft version was posted for
8 public comment.

9 Q I did it again. Sorry.

10 So I notice, unlike the previous IRs, this one did
11 not tell Benga to update the critical habitat. Is
12 there a reason that that request wasn't included in
13 here?

14 A Thank you for the question.

15 I can't say that there was a very particular
16 reason at this time. I would have reviewed the
17 previous letters posted to the public registry, and it
18 would have -- it was clear to me at the time that
19 the -- that there was likely to be expanded critical
20 habitat posted had already been made quite clear both
21 to the Panel as well as to Benga. I think the -- if
22 I'm remembering my time -- my timeline properly, when I
23 took over the file in the spring, I had posted to the
24 public registry for the Panel to be aware that the RSAP
25 had been posted for public comment. So that's --
26 that's a previous record.

1 MR. IGNASIAK: Yeah. Okay. And then can we
2 go to Document 347, please, Zoom Host? This would be
3 the Government of Canada's comments on the
4 11th Addendum dated May 4, 2020. All right. If we can
5 go to PDF 13 and scroll down, please, and onto the next
6 page, please -- next two pages, sorry. That's great.
7 Thanks.

8 Q MR. IGNASIAK: So, Ms. Phalen, you would have
9 prepared these IRs as well?

10 A MS. PHALEN: That's correct, again, as the
11 technical assessor, and they would have been reviewed
12 by others.

13 Q Okay. So the general comments that -- the second
14 sentence says: (as read)

15 DFO cannot comment on the sufficiency and
16 technical merit of the modelling.

17 So I take it, again, you didn't have GeoProcess provide
18 any advice in connection with these IRs; is that right?

19 A That's correct. They did not review these specific
20 IRs.

21 Q Okay. And, again, in these IRs, you didn't ask -- even
22 though the recovery strategy was now final, you didn't
23 ask Benga to do an update of critical habitat; is that
24 right?

25 A Not explicitly in this communication, as I understand,
26 although I'll -- I'll trust your -- your review of them

1 without fully reading them myself in this moment.

2 Q And so I take it one of the reasons you wouldn't need
3 it at that time is to the extent Benga moves forward
4 and applies for Section 73, as I understand the
5 recovery strategy and its -- its reference to a
6 bounding box, that's 'cause there's going to have to be
7 a lot of site-specific work to define that critical
8 habitat and detail, isn't there, before you would ever
9 consider issuing a Section 73 permit?

10 A Mr. Ignasiak, I just want to make sure I understand
11 fully your question. I feel it started one place and
12 ended somewhere else.

13 Q Sure.

14 A So, yeah, maybe just restating it would be the easiest.

15 Q All right. So the recovery strategy finalized in
16 December of 2019 contains discussion regarding a
17 bounding box; correct? And it identifies what it
18 thinks may be critical habitat but then sets out a
19 number of things that have to be confirmed to finally
20 define that critical habitat. You're aware of that
21 part of the strategy?

22 A Yes, I am familiar with that -- that description.

23 Q Okay. And I take it as part of a Section 73 permitting
24 process, that detailed level of work would be expected
25 by DFO?

26 A That's correct. A detailed assessment of the habitat

1 that is being impacted would need to be provided.

2 Q Okay. Thank you.

3 So I wanted to switch to SARA permits.

4 I provided your counsel with some aids to cross.
5 You have those, or you're aware of those?

6 A Yes, we are.

7 Q Okay. So I'd like to pull up one of them, and that is
8 the AQ -- AQ Number 3. This would be an example of a
9 Species at Risk Act permit issued by DFO in connection
10 with the Trans Mountain Pipeline, right, if we go on to
11 the following pages?

12 A Yes, that's correct. And I'll clarify that this is --
13 this would have been reviewed by DFO Pacific, so it --
14 the adjacent region.

15 Q Okay. Thank you.

16 MR. IGNASIAK: Mr. Chair, can we mark that
17 as the next exhibit?

18 THE CHAIR: Any concerns, Mr. Drummond?

19 MR. DRUMMOND: None, sir. Thank you.

20 THE CHAIR: Thank you.

21 Can we get a number for that?

22 MS. ARRUDA: Yes, Mr. Chair. The next CIAR
23 Number is 886.

24 THE CHAIR: Thank you.

25 EXHIBIT CIAR 886 - AQ#3 - BENGA - C07943 - 1

26 CONDITION 110_AUTHORIZATION(S)_FISHERIES

1 _ACT_AND_SPECIES_AT_RISK_PERMIT(S) -
2 SWIFT_CREEK_BC32_BRUNETTE_RIVER_BC783A2AND783
3 A4AUG18,2020-A7H9U7

4 MR. IGNASIAK: Then, Zoom Host -- I don't
5 know if you like "Zoom Host" or "Zoom Master" more, but
6 I like "Zoom Master", so I'll go with that. So AQ
7 Number 4, please. Thank you.

8 Q MR. IGNASIAK: And if I'm not
9 misunderstanding, I think -- Mr. Curtis, I think you
10 were involved with the issuance of this Section 73
11 permit; is that right?

12 A MR. CURTIS: Just -- apologies. Can you
13 just bear with me one second?

14 Q Yeah.

15 A MS. PHALEN: Thanks for the question. So
16 just to clarify, Martyn's name is on this public
17 posting as kind of the senior manager, but, to be
18 helpful -- (UNREPORTABLE SOUND). I'm going to try
19 again, no echoing.

20 Just to be helpful, I would have been the senior
21 biologist on this, upon review, of the kind of deeper
22 records.

23 Q Okay. Great. So this one struck me as odd. Just
24 wondering if you could just maybe -- I'm going to ask
25 for this to be marked as an exhibit, but if you could
26 just give some colour to it. It says it's being issued

1 because it's beneficial to the species, but when I read
2 it, it's to restore a creek that I think was affected
3 to facilitate mining.

4 Can you just tell me how this one arose? It's a
5 bit unique.

6 A Sure. So as I understand -- and I'm basing this partly
7 off memory and partly from my understanding of the
8 wording that's directly in this exhibit -- this would
9 have been issued to -- this would have been issued
10 in -- upon request from the proponent in order for them
11 to carry out baseline -- or, rather, monitoring data,
12 to collect monitoring data that was required under our
13 previous authorization.

14 So, historically, an authorization was issued.
15 That authorization required ongoing monitoring.
16 Sometime after that monitoring was required, the
17 species became listed as threatened.

18 Q Okay.

19 A And, therefore, for them to be able to undertake their
20 monitoring, in order to harm, harass, capture the
21 species, they needed to go in -- they needed a permit
22 in order to be able to undertake that activity. So,
23 yeah, I'll leave it there.

24 Q That's perfect. Thanks.

25 MR. IGNASIAK: Mr. Chair, if we could mark
26 this as the next exhibit?

1 THE CHAIR: Okay. Any concerns,
2 Mr. Drummond?

3 MR. DRUMMOND: No, sir. Thank you.

4 THE CHAIR: Thank you.

5 A number, please?

6 MS. ARRUDA: Mr. Chair, that would be
7 CIAR 887.

8 THE CHAIR: Thank you.

9 EXHIBIT CIAR 887 - AQ#4 - BENGA - EXPLANATION
10 FOR ISSUING PERMIT (19-HCAA-01173) PURSUANT
11 TO THE PROVISIONS OF S - WATER TOPICS

12 MR. IGNASIAK: All right. Mr. Chair, I'm
13 just about done. There's just two more documents I'd
14 like to get on the record.

15 Q MR. IGNASIAK: I think this is for you,
16 Ms. Phalen. I'm not sure, though. But Mr. Sawyer
17 brought up the Fish Sustainability Index used by
18 Alberta.

19 MR. IGNASIAK: Could we please pull up AQ
20 Number 2?

21 Q MR. IGNASIAK: I think it was you,
22 Ms. Phalen. I apologize if I'm incorrect. I think it
23 was you talking about this. You would be familiar with
24 these limitations and caveats of the FSI that are set
25 out by Alberta? You're aware of this?

26 A MS. MOGGE: That was actually me who was

1 talking about it.

2 Q Oh, sorry.

3 A No worries.

4 And, yes, I am aware of them.

5 Q Okay. Thank you.

6 MR. IGNASIAK: Mr. Chair, can we mark that as
7 the next exhibit?

8 THE CHAIR: Any concerns, Mr. Drummond?

9 MR. DRUMMOND: No concerns. Thank you.

10 THE CHAIR: Okay. Staff, a number,
11 please?

12 MS. ARRUDA: Mr. Chair, that will be
13 CIAR 888.

14 THE CHAIR: Thank you.

15 EXHIBIT CIAR 888 - AQ#4 - BENGA - 2014-
16 LIMITATIONSCAVEATSFISHSUSTAINABILITYINDEX-MAY
17 2014B - WATER TOPICS

18 MR. IGNASIAK: We might stay under a
19 thousand, Mr. Chair. That's pretty good.

20 Q MR. IGNASIAK: The next document I'd like to
21 pull up is AQ Number 1.

22 And, Ms. Martens, in the DFO submission, there's
23 reference to the Alberta coal policy from 1976 that I
24 understand has been reviewed -- been rescinded.

25 I assume someone from DFO has reviewed that
26 policy?

1 A MS. MARTENS: Yes. One of us has reviewed
2 it.

3 Q Okay. And this is a 1976 coal development policy for
4 Alberta that you refer to in your submission; is that
5 right?

6 A Yes, I believe so.

7 Q It actually looks like it's from 1976. Okay. So thank
8 you for that.

9 MR. IGNASIAK: Mr. Chair, if we could mark
10 that as the next exhibit. And then if I could just get
11 a minute to confer with my client, that would be great.

12 THE CHAIR: Sure.

13 Mr. Drummond, any concerns?

14 MR. DRUMMOND: Again, no concerns. Thank
15 you.

16 THE CHAIR: Okay. Staff, a number,
17 please?

18 MS. ARRUDA: Mr. Chair, that will be
19 CIAR 889.

20 THE CHAIR: Thank you.

21 EXHIBIT CIAR 889 - AQ#1 - BENGA -
22 1114651976COAL-DEVELOPMENT-POLICY-FOR-ALBERTA
23 1976-06 - WATER TOPICS

24 THE CHAIR: And go ahead, Mr. Ignasiak, if
25 you need a minute.

26 MR. IGNASIAK: No. I think we're good.

1 No further questions. Thank you very much, panel.

2 MR. DRUMMOND: Mr. Chair, not to speak out of
3 turn, but before the Panel counsel proceeds, a small
4 matter. I don't recall Mr. Yewchuk looking to have his
5 aids to cross entered as exhibits. And, of course,
6 it's his choice, but I'm wondering if he might want to
7 do that at this time.

8 THE CHAIR: Mr. Yewchuk?

9 MR. YEWCHUK: I didn't think it was
10 particularly important. If you'd like it marked on the
11 record, I could do so.

12 MR. DRUMMOND: I'm not concerned myself.

13 MR. YEWCHUK: I'm not worried about it
14 either, then.

15 THE CHAIR: Okay. Then we'll just leave
16 it as is, I think.

17 Okay, Ms. LaCasse or Ms. Kapel Holden?

18 MS. LACASSE: Mr. Chair, I'd like to ask you
19 if we could please have a ten-minute break so I can
20 confer with my staff.

21 THE CHAIR: Sure. It's 2:15, so we will
22 resume at about 2:25.

23 MS. LACASSE: Thank you.

24 (ADJOURNMENT)

25 THE CHAIR: Okay. Go ahead, Ms. LaCasse,
26 or Ms. Kapel Holden.

1 MS. LACASSE: Thank you, Mr. Chair.
2 Alberta Energy Regulator Staff Questions Government of
3 Canada

4 Q MS. LACASSE: Panel, my name is
5 Meighan LaCasse. I'm AER counsel to the Joint Review
6 Panel, and I'm going to ask you some questions prepared
7 by AER staff.

8 My questions will just be for the ECCC witnesses.
9 My colleague, Ms. Kapel Holden, will follow me with
10 questions for DFO.

11 So this morning you referred to in your
12 presentation Section 36(3) of the Fisheries Act, and
13 there's also reference to that section in your
14 submission, which indicates that that section prohibits
15 the deposit of deleterious substances into
16 fish-frequented waters.

17 So my first question is whether selenium,
18 sulphate, and other constituents of potential concern
19 at the concentrations predicted by Benga at final
20 discharge points to Blairmore Creek would be considered
21 deleterious substances under Section 36(3) of the
22 Fisheries Act?

23 A MS. FAIRBAIRN: Thank you for that question.
24 I will just take one minute to talk to my team.

25 Q Thank you.

26 A Ms. LaCasse -- oh dear, sorry. Sorry.

1 We have Ms. Aimee Zweig on -- as well on our
2 panel. I'll ask her to answer that part about
3 deleterious. It's kind of a -- it's a little bit of a
4 complicated answer to that question.

5 Aimee?

6 THE CHAIR: Ms. Fairbairn, just a reminder
7 that ECCC witnesses should probably turn on their
8 cameras just so we can see them.

9 A MS. ZWEIG: Hi, there. It's Aimee Zweig
10 here.

11 So I can say -- so a deleterious substance can be
12 any substance that, when it's added to water, can
13 degrade or alter the water quality such that it can
14 directly or indirectly harm fish, fish habitat, or the
15 use of fish by humans.

16 So when we develop regulations under the Fisheries
17 Act, we specify certain deleterious substances in the
18 effluent from the regulated facilities, and then we
19 authorize the deposit of --

20 THE COURT REPORTER: Sorry?

21 A MS. ZWEIG: -- limited quantities of
22 (INDISCERNIBLE) concentrations of those substances in
23 certain --

24 THE COURT REPORTER: Excuse me. Excuse me. I'm
25 having a hard time. Can you repeat that? Your audio
26 is crackling.

1 A MS. ZWEIG: Sorry. Let me see if I can
2 turn it up. Is that a little bit better?

3 THE COURT REPORTER: Maybe.

4 A MS. ZWEIG: Okay. So I was just saying
5 that a deleterious substance can be any substance that,
6 when added to any water, would degrade or alter the
7 water quality so that it could directly or indirectly
8 harm fish, fish habitat, or the use of fish by humans.

9 So when we develop regulations under the Fisheries
10 Act, such as what we're developing for coal mining
11 effluent regulations, we typically specify deleterious
12 substances that can be authorized for deposit in
13 limited quantities or concentrations. So -- and under
14 very specific circumstances.

15 So I hope that gets at your question.

16 Q MS. LACASSE: It'll just be one moment,
17 please.

18 So would the chemicals that I listed in my
19 question be considered deleterious?

20 A MS. FAIRBAIRN: I'll start, Aimee.

21 Margaret Fairbairn, Mr. Chairman.

22 So it's -- for a chemical to be deleterious, a
23 sample -- we look at it as pipe discharges, so where
24 it's being discharged. So that's just based on space
25 in the pipe. It's not -- is not based on entering the
26 watercourse and samples taken there. It's taken at the

1 actual source of the -- at what the effluent is.

2 So in the case of this project, if there's no
3 regulation, you know, that we'd have to sample. It's
4 based on a sample, and it's based on a laboratory
5 analysis, and they determine what level of that
6 chemical is deleterious, if it's deleterious, through a
7 different series of tests: A bioassay tests, you know,
8 acute lethality.

9 THE COURT REPORTER: I'm sorry, that last part?

10 A MS. FAIRBAIRN: Acute lethality. Sorry.

11 Q MS. LACASSE: All right. Thank you.

12 So my next set of questions relate to the coal
13 mining effluent regulations which are referred to in
14 your submission, and this doesn't need to be pulled up,
15 but in CIAR 542, on pages PDF 24 and 25, there --
16 there's a high-level overview of the draft of that
17 regulation, and it indicates on PDF 24 that the
18 regulations are being developed under the Fisheries
19 Act, and any permitted project conditions regarding
20 end-of-pipe discharge limits may be regulated under
21 future Fisheries Act regulations.

22 Is ECCC able to provide details on what parameters
23 are being considered for end-of-pipe limits under the
24 draft coal mining effluent regulations, or I believe
25 they're referred to as "CMERs"?

26 A Aimee, can you take that question, please?

1 A MS. ZWEIG: Sure.

2 Thanks for the question.

3 Yeah. So we've been consulting on the
4 regulations. We've been out four times, and the latest
5 consultation was in February 2020 where we -- we
6 published some material that included proposed limits
7 at end of pipe for total suspended solids, selenium,
8 and nitrate, as well as pH and acute lethality testing
9 at end of pipe. And so those limits are -- are in
10 publicly available documents. And I thought that we
11 submitted that last document as part of this
12 submission; but if not, I can -- we can certainly share
13 that with the Panel.

14 Q If you can just give me one moment.

15 Okay. I'm advised that we don't need you to
16 provide the document. Thank you.

17 So limits would be applied to the end of pipe --
18 or at the end of pipe, not after a mixing zone; is that
19 correct?

20 A MS. FAIRBAIRN: That's correct.

21 Q Okay. And how did the CMERs define "end of pipe"?

22 A MS. ZWEIG: Well, it's at the point of
23 deposit, I guess I would say, the best way to state it.

24 Q Okay. And focusing on selenium, can you provide some
25 insight for my staff into what the proposed limits are?

26 A Sure. So for total selenium for existing mines, we

1 have a maximum monthly mean of 10 micrograms and a
2 maximum grab sample of 20 micrograms per litre.

3 For a new mine, so a mine that starts operating
4 three years after the coming into force of the
5 regulations, it's 5 micrograms per litre, the maximum
6 monthly mean, and 10 micrograms per litre, a maximum
7 grab sample.

8 Q Okay. So would the Grassy Mountain Project be
9 considered a new or existing mine?

10 A That -- so that depends on when it starts operating and
11 when the final regulation is -- comes into force. So
12 if the regulation came into force in 2022 and the mine
13 started operating before 2025, within that three-year
14 period, it would be considered an existing mine; and
15 after 2025, given that scenario, it would be -- it
16 would be a new mine.

17 Q Okay. What fraction of selenium would this limit apply
18 to? What -- total dissolved selenate?

19 A It -- it's based on total selenium.

20 Q Okay. So staff noted what you said in your submission
21 about pre-publication being targeted for 2021 and
22 publication a year later. Is there any reason to
23 believe that these regulations won't come into force or
24 that they won't be published?

25 A MS. FAIRBAIRN: Well, I guess as -- that's a
26 good question. We are working on them. Under the

1 circumstances with the pandemic, it has, you know,
2 caused us to re -- readjust our priorities in trying to
3 get this out, also, at the same time, ensure that we
4 have proper consultation. So -- and maybe Aimee could
5 add to it, but that's our -- that's our proposed
6 timeline, and we're trying to work towards that under
7 these circumstances. So that's the plan.

8 A MS. ZWEIG: I don't think I have anything
9 to add to that. Thanks.

10 Q If the project were to exceed the end-of-pipe limits in
11 the finalized CMERs, what would be the implications,
12 from ECCC's perspective?

13 A MS. FAIRBAIRN: Margaret Fairbairn,
14 Mr. Chairman. I can start.

15 But under the regulations, there will be a list of
16 reporting requirements for that regulation, whatever --
17 whatever the end result is of that regulation, but
18 there are reporting. If there's already compliance,
19 then it goes into our enforcement side to look at
20 inspections and possibly investigations. We work with
21 the Province as well on these things, but ...

22 Aimee, do you have anything to add to that?

23 A MS. ZWEIG: I -- I guess I would just add
24 that our enforcement branch has a compliance and
25 enforcement policy that they use to enforce all -- all
26 of the regulations of the department, and that is a

1 publicly available document as well.

2 Q On PDF 44 of your submission -- and, again, I don't
3 think we need this pulled up, but, of course, you're
4 welcome to look at it -- the first recommendations are
5 to exclude application of a mitigation factor for
6 sulphate and to reflect exposure scenarios based on
7 operational selenate-to-selenite ratio.

8 So the question I have for you from staff is: If
9 in the absence of a sulphate-mitigated selenium
10 guideline, what would ECCC's recommendation be for
11 setting an end-of-pipe limit for the project?

12 A MS. FAIRBAIRN: Ms. LaCasse, just one minute
13 just to confer. Thank you.

14 A MS. WILSON: Thank you for that question.

15 It's Anne Wilson here. (UNREPORTABLE SOUND) And
16 I'm just going to start by commenting that the
17 guideline set in the receiving environment would be
18 independent of the end-of-pipe number that would be set
19 for the effluent in that we wouldn't really have exact
20 ideas of what the loadings and the concentrations and
21 the volumes being discharged were going to be. And all
22 those would inform a back calculation of an end-of-pipe
23 number.

24 So I think -- was Marie-Claude or Aimee going to
25 add to that?

26 A MS. ZWEIG: It's Aimee Zweig here.

1 I would just add that the coal mining effluent
2 regulations are designed as a national baseline
3 standard and are not site-specific. They're meant to
4 be a minimum baseline standard such that the provinces
5 or other regulators can set site-specific requirements
6 as required.

7 Q Thank you.

8 Would it be possible to resolve some of the
9 concerns ECCC has highlighted around sulphate
10 mitigation of selenium uptake by ensuring any selenium
11 released is in the form of selenate?

12 A MS. SAUVÉ: All right. So this is
13 Marie-Claude Sauvé.

14 So we take, like, a -- ECCC concerns relate to the
15 development of site-specific selenium objective in
16 surface water to account for the likely presence of
17 selenite in the well course but also in the effluent of
18 the -- of the mine. So unless it can be -- it can --
19 there would be some evidence of selenium speciation
20 within the watercourse under natural condition and
21 following the different treatment that Benga is
22 proposing to -- to put in place, then we will still
23 have that concern about -- about selenite not being
24 actually mitigated by the effect of sulphate in the
25 well -- in the watercourse.

26 Q Thank you.

1 If you were left with only selenate, would this
2 alleviate concerns with the sulphate-mitigated
3 objective?

4 A MS. FAIRBAIRN: One moment, please.

5 A MS. SAUVÉ: Sorry, I got disconnected from
6 the -- from the phone, so it took a little while.
7 Sorry for the delay. This is Marie-Claude Sauvé.

8 So that will -- that will alleviate our concern up
9 to the -- up to the point that it can also be put in
10 evidence that the natural condition in the watershed --
11 in the watercourse in Blairmore and Crowsnest River are
12 also all in the selenate -- selenate form.

13 Q Just give me one moment, please. Sorry.

14 So would this require analysis of selenium species
15 in a lab?

16 A Yes, it would.

17 Q Does ECCC know if this is feasible in a timely manner
18 needed for regulating a discharge?

19 A I think that in one of the cross-examination, Benga
20 said that it would not be able to do that on-site.
21 However, this is quite common lab test, and we think
22 that it should be available within a few weeks to
23 analyze selenium speciation in water.

24 Q Just one moment, please.

25 And are you speaking of all selenium species:
26 selenate, selenite, and organoselenium?

1 A Well, it would certainly be interesting to get the full
2 speciation spectrum. However, I don't think that we
3 will recommend the Panel to ask for so much. I think
4 that if we already had a better picture of selenite
5 versus selenate, that will already be something very
6 useful.

7 Q Thank you, panel. Those are my questions. I'm going
8 to ask you to now answer my colleague Barbara
9 Kapel Holden's questions.

10 Q MS. KAPEL HOLDEN: (AUDIO FEED LOST) counsel to
11 the Joint Review Panel, and I will be asking some AER
12 staff questions of Fisheries and Oceans Canada. And I
13 will direct my questions first to Ms. Martens.
14 However, anyone on the panel can actually answer those
15 questions.

16 And my first set of questions are in regards to
17 the use of explosives.

18 MS. KAPEL HOLDEN: Can I please, Zoom Host, pull
19 up Reference Number CIAR 542, which is part of DFO's
20 submission, PDF page 245. Page 245, and it's
21 section 4.3.2, "Blasting Activities Potentially
22 Affecting Westslope Cutthroat".

23 So here DFO refers to Consultant Report Number 6
24 filed by Benga, which states: (as read)

25 The project requires the use of explosives
26 and that without mitigation there is the

1 potential to cause overpressures greater than
2 100 kPa and vibrations that may cause damage
3 to incubating fish eggs. The proponent has
4 identified they will employ mitigation
5 measures including applying blast delays to
6 ensure that they meet guidelines outlined in
7 "Guidelines for the Use of Explosives in
8 Canadian Fisheries Waters" (Wright and Hopky,
9 1998).

10 DFO on this page also goes on to say that: (as read)

11 It should be noted that these guidelines are
12 not currently accepted as a code of practice
13 by DFO and that additional research has
14 occurred since the publication of this
15 document.

16 And, Ms. Martens, you made reference to that this
17 morning as well. (as read)

18 In the context of habitat conditions at the
19 proposed mine site and the presence of fish
20 with small body size, the mitigation measures
21 proposed by the proponent are not
22 sufficiently protective.

23 Ms. Martens, just to clarify, what are the current
24 blasting guidelines that proponents should be utilizing
25 when conducting blasting activities on-site to ensure
26 the protection of all life stages of resident fish

1 species?

2 A MS. MARTENS: Thank you for the question.

3 Just give us one moment.

4 A MS. PHALEN: Thank you for the question.

5 This is Laura Phalen.

6 The short answer is that there is not a single
7 guideline that the proponent should be using. The --
8 I'll add a little bit of layers there.

9 So the 1998 guideline was a DFO standard at the
10 time. Under the current regulatory framework, it's not
11 a -- an established code of practice.

12 The other thing that I would add is that there is
13 a difference between the Fisheries Act and Species at
14 Risk Act, and the prohibition in the Species at Risk
15 Act includes a prohibition against the harm, harass, or
16 capture. So it's possible that blasting has the
17 potential to be considered harm, harass.

18 I would advise that a proponent would be required
19 in the context of a species at risk or in any context
20 to undertake a site-specific assessment as to whether
21 any of the published guidelines that are in the
22 literature, including the -- the now historical
23 guideline by DFO, is appropriate.

24 So to summarize again, the short answer is: There
25 is not one clear guideline they should be using.
26 Rather, they should be doing a site-specific assessment

1 and understanding the two pieces of legislation that
2 apply here before they determine an appropriate level
3 that they need to mitigate to.

4 Q Okay. Thank you.

5 And just to follow up on that, are you able to
6 speak to the criteria that a proponent needs to achieve
7 during blasting activities that will ensure the
8 destruction of habitat, mortality, harm, and
9 behavioural changes are avoided to protect westslope
10 cutthroat trout in Gold and Blairmore Creek?

11 A Thanks for the question. One moment.

12 Thank you for the question.

13 The criteria -- so typically the criteria that are
14 defined is in terms of kilopascal, and the reason for
15 that is because it's at the body of the fish. So there
16 are a lot of variables associated with blasting that
17 can be adjusted in order to achieve that number, that
18 overpressure, at the site of the fish. We do not
19 dictate what the criteria or the way the proponent
20 meets that overpressure would be, and it would be up to
21 the proponent to perform a fulsome literature review
22 of -- of the information and make an assessment as to
23 how all of that information applies to this site to
24 propose a final overpressure. And that would be part
25 of an application to DFO, and we would review their
26 rationale at that time.

1 So we wouldn't dictate the way that they meet
2 that, and -- although we would need to -- before
3 regulatory decision could be issued, we would need to
4 fully understand the rationale and how protective
5 that -- that final criteria would be that they -- that
6 they would put forward.

7 I hope that answers your question.

8 Q Yes, it does. Thank you very much.

9 Moving on to my next question. And this might be
10 a little bit repetitive in my preamble. But in your
11 submissions you state that the "Guidelines for the Use
12 of Explosives in Canadian Fisheries Waters" -- these
13 are the Wright and Hopky guidelines -- are: (as read)

14 ... insufficient to adequately predict and
15 mitigate effects to westslope cutthroat
16 [given] blasting activities that occur near
17 fish-frequented water bodies have the
18 potential to impact fish by causing
19 behavioural changes, injury, or death,
20 including potential impacts to fish eggs.

21 So my question is: Given the potential impacts
22 discussed in the literature, can explosives be used in
23 the proximity of critical habitat and still achieve the
24 objectives set out in the recovery strategy and action
25 plan for the westslope cutthroat trout Alberta
26 population in Canada?

1 A Thank you for the question.

2 I would -- I suspect that it is conceptually
3 possible. I can't say whether it's possible at this
4 site because of all of those variables that go into
5 understanding how the blasting protocol could be
6 altered in order to achieve the on-site overpressure
7 that would be protective of the species. That would be
8 an assessment that the proponent would be required to
9 undertake.

10 Q Okay. Just one moment.

11 Will DFO be reviewing the blasting protocols
12 submitted by Benga in their consideration of an
13 authorization under the Fisheries Act and the Species
14 at Risk Act?

15 A If an application for authorization or a permit under
16 Species at Risk Act were applied for, yes, that would
17 be one pathway of effect that we would review for
18 avoidance and mitigation, as well as residual effect.

19 Q Thank you.

20 And moving on to my next set of questions.

21 MS. KAPEL HOLDEN: Zoom Host, if I could ask to
22 please pull up CIAR 42, Section C, and it's PDF
23 page 113.

24 Perfect. Thank you.

25 Q MS. KAPEL HOLDEN: So in CIAR 42, Section C, PDF
26 pages 113 as well as 116, Benga provided preliminary

1 dam classification with inflow design flood for the
2 sedimentation ponds and surge ponds in Tables C.5.5-2
3 at the bottom there of the page and also C.5.5-6, which
4 is on PDF page 116.

5 On Friday, Benga explained that it used the
6 Canadian Dam Association consequence classification
7 rating system for this table.

8 The overall classification in the table appears to
9 be primarily driven by the environmental and cultural
10 classification.

11 And also on Friday, Benga stated that it would
12 update and revisit its classification for its dams
13 using the Alberta Dam and Canal Safety Directive in its
14 final design.

15 MS. KAPEL HOLDEN: Zoom Host, if I can get you to
16 please pull up Aid to Questioning AER Q1. And I
17 believe Mr. O'Gorman had used that on Friday, if I'm
18 not mistaken.

19 And while we're waiting for that to come up, that
20 is the Alberta Dam and Canal Safety Directive,
21 specifically Schedule 1, which is found on pages 48
22 and 50.

23 Q MS. KAPEL HOLDEN: And I had provided a copy of
24 this directive to your counsel last week. Who on the
25 panel reviewed the directive and could answer my next
26 set of questions in regards to pages 48 to 50?

1 A MS. MOGGE: Hi. This is Brandi Mogge. I
2 can answer your questions.

3 Q Perfect. Thank you.

4 MS. KAPEL HOLDEN: And, Zoom Host, if you could
5 put it on page 49 to -- yeah, 49 is perfect.

6 Q MS. KAPEL HOLDEN: So in Schedule 1 of the
7 Alberta Dam and Canal Safety Directive, which is found
8 on PDF pages 48 to 50, the defining criteria between an
9 overall "high", "very high", and "extreme" consequence
10 classification considering environmental and cultural
11 values is the: (as read)

12 Significant loss or damage to (a) critical
13 fisheries; (b) critical wildlife habitats;
14 (c) rare or endangered species; or (d) unique
15 landscapes; (e) sites of cultural
16 significance,

17 and a determination of the potential for restoration or
18 compensation for loss or damages resulting from a dam
19 or pond failure.

20 My questions to you are related to the fourth
21 column on incremental consequence of failure,
22 specifically on environmental and culture values. That
23 is Column 4 in that table.

24 As you see in the consequence classification of
25 "high", in Column Number 4, at the bottom, it says:
26 (as read)

1 Restoration or compensation in kind for
2 losses and damages highly possible.

3 Do you see that?

4 A Yes, I do.

5 Q Okay. And then in the next row, where the consequence
6 classification is "very high", in the fourth column we
7 have: (as read)

8 Restoration or compensation in kind for
9 losses and damages possible but impractical.

10 And then the next row at the bottom there, where it
11 says: (as read)

12 The consequence classification is extreme --

13 MS. KAPEL HOLDEN: And, Zoom Host, if we just
14 move down to the next page, which is page 50.

15 Q MS. KAPEL HOLDEN: In Column 4 there it says
16 that: (as read)

17 Restoration or compensation in kind for
18 losses and damages is impossible.

19 So, Ms. Mogge, my question to you is: Given the status
20 of westslope cutthroat populations in Gold Creek, the
21 goal of maintaining genetic integrity, and the presence
22 of critical habitat, does DFO consider the restoration
23 or compensation in kind for losses and damages
24 resulting from a dam or pond failure into Gold Creek to
25 be highly possible, possible but impractical, or
26 impossible? And, again, I'm referring to the

1 restoration or compensation in kind for losses and
2 damages.

3 A Thanks. I'll need a moment.

4 Sorry for the delay. So I -- it's really
5 dependent on the scale of -- of the impact and how
6 significant the dam failure would be. I think that
7 would be the deciding factor on how possible or
8 feasible it would be to restore the habitat and also
9 depending on the actual impacts to fish. Like, if
10 there was a mortality -- like, if it was large enough,
11 then that would also kind of tip the scales as to what
12 is possible and -- and feasible. So really dependent
13 on the scale.

14 Q Thank you. Just one moment, please.

15 My next question is: Can pure-strain population
16 of westslope cutthroat in Gold Creek be replaced if the
17 scale of the incident removes a significant portion of
18 the population?

19 A Just one moment. Thanks.

20 Sorry for the delays. As you can tell, it's, I
21 guess, a bit challenging for us to answer because it is
22 very hypothetical.

23 A failure like that would leave a lot of
24 uncertainty. So I think if we go back to what we've
25 said in our submission, the genetics are important.
26 This is one of ten populations that is within the range

1 of having a minimum viable population size. So there
2 would be a lot of uncertainty as -- as to whether it
3 would be feasible or not because of the importance
4 of -- of the population.

5 Q Thank you for that answer. And just one moment.

6 Earlier today the Panel mentioned that there was a
7 width that was optimal for meander width. Does DFO
8 have a standard for optimal fish habitat for meander
9 width?

10 A MS. MARTENS: Thanks for the question. Just
11 give us a second here.

12 Q Will do. Thank you.

13 A MS. PHALEN: Thank you for the question.
14 This is Laura Phalen.

15 So do you have a -- wouldn't -- state an ideal
16 meander width? Because the meander width would be
17 heavily dependent on the site-specific characteristics.

18 I would add to that that in a long-term project
19 and when the proponent predicts effects into the
20 future, they should take into consideration an
21 understanding of the potential area within which this
22 stream may naturally occupy in order to be able to
23 predict the way that a project could interact with that
24 into the future. So it's very site-specific, but
25 there -- there should be -- or there -- there is the
26 possibility to look at that particular site and

1 understand what would be ideal for that particular
2 system.

3 Q Okay. And so you mentioned "site-specific". So there
4 could be a variance between what is ideal in the
5 mountains versus what's ideal in the Prairies?

6 A Thanks. One sec.

7 Thanks for the question. We're just going to have
8 one of our colleagues, Ben Plumb, respond to that.

9 Q Thank you.

10 A DR. PLUMB: Hi. Can you repeat the
11 question just one more time, please?

12 Q So there was mention that the width varies depending on
13 the specific site, and so my question was: So I
14 assumed that this varies between mountainous areas
15 versus the prairie areas?

16 A Yes, it -- it certainly would. I mean, the meander
17 belt width is a -- is a geomorphological metric that
18 essentially relates to the width that a stream occupies
19 on -- perpendicular to -- to the valley direction.
20 Depends on things like underlying geology, flow regime,
21 valley setting, slope, sediment type. So, yes, it
22 would be very site-specific and short.

23 Q Okay. Thank you.

24 Just one moment.

25 Thank you very much, panel. Those are all of AER
26 staff questions.

1 THE CHAIR: Thank you, Ms. Kapel Holden.

2 Mr. Lambrecht?

3 Alberta Energy Regulator Secretariat Questions

4 Government of Canada

5 MR. LAMBRECHT: Zoom Host, you can take this
6 document down now. Thank you.

7 Q MR. LAMBRECHT: Panel, my name is
8 Kirk Lambrecht. I am one of the counsel to the panel,
9 and I will be asking you questions prepared by the
10 federal analysts here.

11 In some cases, I will direct my questions to a
12 particular department, and in other cases, I'll leave
13 it to the panel to determine who is in the best
14 position to respond.

15 MR. LAMBRECHT: My first question -- for my
16 first question I would ask the Zoom Host, please, to
17 pull up CIAR 357. And if we can go -- at the bottom
18 paragraph of this letter from DFO.

19 Q MR. LAMBRECHT: I believe, panel, I'll direct
20 this to DFO, but if there's another department that
21 needs to answer, please do so.

22 In this paragraph, this letter from the department
23 of Fisheries and Oceans, or DFO, indicates that:
24 (as read)

25 DFO received an application for a Species at
26 Risk Act permit on March 12th, 2020, on

1 behalf of Elan Coal Ltd. in relation to the
2 potential advancement of a coal mining
3 project in two distinct areas, Isolation
4 South and Elan South.

5 Panel members, you're able to see that? And I take it
6 you are familiar with this?

7 A MS. MARTENS: Yes and yes. Thank you.

8 MR. LAMBRECHT: Zoom Host, you can take that
9 down.

10 Q MR. LAMBRECHT: Can DFO provide an update,
11 please, on the nature and status of this application
12 from Elan Coal? And without limiting the scope of the
13 response which DFO may wish to provide, can DFO please
14 comment on three matters: what the permitted activity
15 is; over what time frame the permitted activity is to
16 occur and where; and the species at risk potentially
17 affected by the activity?

18 A MS. MARTENS: Thank you, Mr. Lambrecht.
19 Just give us a second. We're compiling that
20 information for you.

21 Q Of course. Thank you.

22 A Thank you.

23 A MS. PHALEN: Thank you for the question. I
24 will -- I have the permit in front of me so I will
25 provide a response. It may feel a bit segmented as I
26 make sure I hit the right points.

1 So the first request was about the activity. I
2 will add that this is available on the SAR public
3 registry, just for reference.

4 So the activity relates to the collection of
5 baseline fish population -- or, sorry, the conducting
6 baseline fish population assessments and nonlegal
7 tissue sampling of westslope cutthroat trout and bull
8 trout.

9 One moment. Both of those species are considered
10 species at risk. I believe they're both -- both of
11 their status is threatened in this particular location.

12 The time frame for the permit, it -- it -- the
13 activity would have ceased by, sorry, October 31st.
14 The permit itself was issued in July, so that would
15 have been the time frame that it started.

16 And as far as the location, I do have a summary,
17 although for -- for a lot of the locations, they're
18 unnamed creeks, and they have UTMs. So I can provide a
19 summary but I would suggest that a very fulsome
20 understanding of the exact locations would need to be
21 referenced -- you'd need to reference the UTMs. But
22 just one moment. I'll give you a summary.

23 Sorry, I'm on mute.

24 So there was -- the proposal included sampling in
25 the Daisy Creek watershed, including Daisy Creek and
26 Fools Creek, as well as in the upper Oldman River

1 watershed, including Manystick Creek, Shale Creek,
2 Livingstone River. Spears and Hidden Creek were
3 originally proposed, but I believe they did not find
4 fish there. And then I have three -- sorry, four
5 unnamed creeks with UTMs defined that would be within
6 those watersheds as well.

7 Q Do you know if any of these are within the main stem or
8 tributaries of Blairmore or Gold Creeks?

9 A I can confirm that they were not.

10 Q All right. Thank you.

11 I have a question about selenium, which I think I
12 would direct to DFO and the Department of Environment
13 and Climate Change Canada.

14 And do you think that the selenium objectives
15 proposed by Benga would adequately protect aquatic
16 life, in particular westslope cutthroat trout?

17 A MS. MARTENS: Thank you for the question.
18 Just give us a moment, please.

19 A MS. SMALL: Hello, Mr. Chair and Panel
20 Members. It's Jody Small with ECCC. Sorry. We're
21 having some technical issues on our end when we're
22 trying to -- (INDISCERNIBLE).

23 THE COURT REPORTER: I'm sorry. I can't understand
24 you. Sorry. I can't hear what you are saying.

25 MS. SMALL: Okay, Claire. I'm going to
26 try (INDISCERNIBLE).

1 Q MR. LAMBRECHT: Ms. Small, thank you. I
2 understand you're having some technical problems, and
3 perhaps headphones would work. Let's see if they do.
4 I see you have them on now.

5 A MS. SMALL: Yes. I hope you can hear me
6 more clearly now.

7 Q Are you able to adjust your volume on that? If you
8 look in the bottom corner of your Zoom page, you might
9 see a little up arrow beside the microphone, and
10 that under "audio settings" may assist you in
11 increasing the volume in the drop-down menu there.

12 MS. SMALL: Are you able to hear me more
13 clearly now?

14 THE CHAIR: Yes.

15 MR. LAMBRECHT: Thank you.

16 A MS. SMALL: Okay. Thank you.

17 Apologies for that.

18 So, Mr. Lambrecht, it's Jody Small with ECCC. I
19 will attempt to answer your question, and then I may
20 also defer to my colleague Marie-Claude Sauvé to speak
21 to the effects that we understand may happen to fish
22 generally.

23 The reason that it's not a very straightforward
24 answer is that we looked at the proposed objective and
25 the limit that Benga had provided in terms of their
26 water quality objectives, and we had raised some issues

1 with how those models were undertaken and how that
2 objective was derived, and so we were unable to
3 determine what effects specifically might happen to the
4 westslope cutthroat trout in Blairmore and possibly, as
5 well, Gold Creek because our -- our concerns were with
6 the models of how the objective was established.

7 And so I can refer to my colleague as well to
8 speak to, as I said, the effects of selenium on fish
9 generally.

10 A MS. SAUVÉ: Okay. Thank you, Jody.

11 This is Marie-Claude Sauvé.

12 So, yes, indeed, the concentration of selenium in
13 the receiving watercourse as proposed by the proponent
14 may result in concentration of selenium in receiving
15 water body that are -- are higher than water quality
16 guidelines for selenium, and that's of certain concern
17 for ECCC. The main issue of the effect cannot be
18 estimated without -- (AUDIO FEED LOST) --

19 THE COURT REPORTER: I'm sorry. I'm sorry.

20 MS. SAUVÉ: -- and, indeed I cannot
21 speak --

22 THE COURT REPORTER: I'm sorry. Can repeat that
23 last part? You cut out.

24 A MS. SAUVÉ: Yes. Apologies.

25 THE COURT REPORTER: Sorry. I don't see you on the
26 screen, either.

1 A MS. SAUVÉ: I'm not appearing on the
2 screen.

3 THE COURT REPORTER: You are now.

4 A MS. SAUVÉ: Okay. So -- basically, so
5 that the magnitude of the effects cannot be estimated
6 without a reliable and robust risk assessment. I can't
7 speak -- I cannot speak for the westslope cutthroat
8 trout in particular but can describe some of the
9 effects that are observed in fish in general, and the
10 most sensitive and more common effect -- this is -- is
11 very particular to selenium observed on fish exposed to
12 excessive selenium concentration -- are
13 second-generation effects.

14 So that include a lot -- effects that are observed
15 on the larval stage principally through maternal
16 transfer to the eggs, then reduce hatching,
17 teratogenicity, which means deformities, and edema are
18 amongst the most common effect observed in early life
19 stage of fish, wild bird, and possibly amphibians.

20 MR. LAMBRECHT: Zoom Host, can I ask you,
21 please, to pull up CIAR 571.

22 Panel, this would be Benga's hearing response
23 submission.

24 And I'm going to ask the Zoom Host to turn in this
25 document to PDF page 21 specifically.

26 All right. And could you please, Zoom Host,

1 increase the magnification of this? I'm looking at the
2 paragraph above the blue line that is the header of
3 that chart.

4 Q MR. LAMBRECHT: Panel, are you able now to see
5 this on your screens?

6 A MS. FAIRBAIRN: Yes, we are.

7 Q All right. I want to draw your attention, please, to I
8 think what is the third paragraph -- or third sentence
9 in that paragraph where Benga refers to site-specific
10 water quality objectives for coal and metal mines in
11 British Columbia. And it says "these are generally" --
12 do you see that sentence there?

13 A Yes, we do.

14 MR. LAMBRECHT: All right. You can take this
15 down, Zoom Host.

16 Q MR. LAMBRECHT: Is DFO or ECCC in a position
17 to comment on the effectiveness of the selenium
18 objectives downstream of coal or metal mines in
19 British Columbia?

20 A MS. MARTENS: Thank you, Kirk. Just give us
21 one second, please.

22 Q Okay.

23 A MS. FAIRBAIRN: Mr. Chairman, ECCC, we know
24 there's downstream effects, and there is a lot of work
25 being done in the Elk Valley, but our submission today
26 here is all about the Grassy Mountain coal, so we

1 really didn't incorporate any information on that.
2 There's a lot of publicly available information. The
3 site-specific water quality objectives is from -- would
4 be BC, so it's kind of -- it's basically -- can't be
5 comparable, so -- and for this submission, for this
6 panel, we just reviewed the Grassy, and we did not
7 incorporate anything for the Elk Valley.

8 Q DFO, do you wish to add anything to that?

9 A MS. MARTENS: No, we do not have anything
10 further to add to that.

11 Q All right.

12 MR. LAMBRECHT: Zoom Host, I'm going to --
13 panel, I'm going to move on to water temperature now,
14 and, Zoom Host, I'm going to ask you to pull up
15 CIAR 571 and PDF page 33. And, Zoom Host, the passage
16 in this document that I want to refer to is in the
17 middle of the document. It's the indented paragraph
18 there that is indented after the sentence which begins
19 "Benga notes that in Addendum 11 to the EIA". Thank
20 you.

21 Q MR. LAMBRECHT: Panel members, are you able to
22 see this on your screen?

23 A MS. FAIRBAIRN: Yes, we are.

24 Q All right. Here Benga is explaining its conclusions
25 and stating that: (as read)

26 The worst-case temperature increases

1 highlighted above occur in Blairmore Creek,
2 where the effluent discharges relative to
3 current creek discharges are far higher than
4 any sediment pond releases anywhere on Gold
5 and/or Blairmore Creek. The modelled
6 effluent discharges will raise water
7 temperatures by up to 3.3 degrees centigrade,
8 which is well within the natural variation of
9 temperatures already experienced from season
10 to season and year to year. Therefore, the
11 temperature change caused by the project
12 discharges is not expected to adversely
13 influence key westslope cutthroat trout
14 bioperiods in either Blairmore or Gold Creeks
15 and, therefore, do not pose a significant
16 risk.

17 MR. LAMBRECHT: Zoom Host, you can take that
18 down.

19 Q MR. LAMBRECHT: My question is directed to
20 DFO, and it is: Do you agree that the temperature
21 change caused by the project would not adversely
22 influence key westslope cutthroat trout life processes
23 in either Blairmore or Gold Creeks even if changes in
24 temperature may be within the range of natural
25 variation?

26 A MS. MARTENS: Thank you for the question.

1 Just give us a moment, please.

2 A MS. PHALEN: Thank you for the question.
3 This is Laura Phalen. I'll provide you with a two-part
4 answer.

5 First, I would like to identify that I don't --
6 sorry, DFO does not have confidence in the predicted
7 temperature changes that the proponent has put forth
8 primarily because we don't have confidence that all of
9 the variables were included in the modelling. As I
10 understand, the modelling was primarily based on flow,
11 and because the majority of flow won't be affected by
12 the project, I think that's where they're deriving
13 their -- kind of the mixing and trying to understand
14 temperature changes after mixture.

15 The challenge with that is that it doesn't fully
16 account for kind of broader changes on the landscape
17 that don't relate to flow, such as the loss of
18 vegetation and the change in where the water sits on
19 the landscape before it gets to the creek.

20 So I can't say with confidence that their
21 predicted changes -- sorry, DFO can't say with
22 confidence that the predicted changes are accurate.

23 I would add also, in the second part of my
24 response, to say just because a temperature change
25 remains within natural variation does not mean that it
26 will not affect fish.

1 So, for example, in the recovery strategy action
2 plan, there are a list of attributes defined as ideal
3 habitat conditions for westslope cutthroat trout, and
4 that temperature range may be exceeded by natural
5 conditions. If the project were to then have an
6 additive effect to that, you may -- you may be within
7 the natural variation, but that doesn't mean it's ideal
8 for the species or that it won't impact the species.

9 Q I have a question for Environment and Climate Change
10 Canada.

11 Can you advise, please, if the -- Benga's proposed
12 SSWQO methodology was conducted in accordance with the
13 ECCC guidance for development of site-specific
14 guidelines for water quality objectives?

15 A MS. FAIRBAIRN: Just one second. We're just
16 going to converse for a few minutes. Thank you.

17 Q Thank you.

18 A MS. WILSON: Thank you for that question.
19 It's Anne Wilson with Environment and Climate Change
20 Canada.

21 In general, for their evaluation objectives for
22 contaminants, Benga did use the CCME protocol from 2007
23 in which you would develop a species sensitivity
24 distribution and then use that to determine a level at
25 which the objective could be set. However, the
26 application of a sulphate toxicity modifying factor

1 went well beyond what the CCME guidance provided.

2 Q MR. LAMBRECHT: Thank you, Ms. Wilson.

3 I'm just going to confer with federal staff to see
4 if I have anything to follow up with.

5 Panel members, during my questioning of Benga's
6 panel on water topics, I went over the offsetting plan
7 that they had prepared. Were you observing that
8 questioning?

9 A MS. MARTENS: Yes, we were.

10 Q All right. I won't repeat the display of the
11 references. I'm simply then going to proceed to ask my
12 questions on offsetting. I think you will be familiar
13 with the topic.

14 First, DFO, do you have any recommendations for
15 additional aquatic and riparian restoration and
16 improvements to westslope cutthroat trout habitat in
17 Gold Creek which might not be harmful to the species?

18 A Just one second, please. Thank you.

19 A MS. PHALEN: Thank you for the question.
20 This is Laura Phalen.

21 DFO has not performed the detailed assessment of
22 potential recovery or rehabilitation actions that could
23 be taken on Gold Creek, and, further, we have not done
24 an assessment as to whether any -- any potential
25 restoration efforts may impact the species in their
26 execution beyond what the proponent themselves proposed

1 in the EIS.

2 Q Does DFO agree that providing detailed plans for
3 offsetting during a Section 35(2) authorization permit
4 application is the standard approach for offsetting in
5 mining projects like this? And does DFO agree that
6 following this approach is appropriate in the context
7 of this specific project and its circumstances?

8 A MS. MARTENS: Thank you. Just give us one
9 moment.

10 A MS. PHALEN: Thank you for the question.

11 So it is typical for a project that undergoes both
12 an EA and then a regulatory phase for there to be
13 additional information provided in order to support the
14 regulatory phase. The -- so that's my answer to the
15 first part of your question.

16 In response to the second part, I would say
17 that -- I'm trying to make sure that I remember what
18 the second part of the question was. I would say that
19 the -- whether or not that's appropriate here would be
20 up for the Panel to decide. The level of information
21 that they want in order to understand the potential for
22 offsetting to be applied as a mitigation measure is up
23 to the Panel.

24 Q DFO, are you aware of examples of monitoring that could
25 successfully verify predictions respecting
26 effectiveness of mitigation of the offsetting proposed

1 in this situation while also not impacting the
2 population of westslope cutthroat trout?

3 A Thanks for the question. One moment, please.

4 Thank you for the question.

5 So, Panel Members, I will reiterate a point that
6 Stephanie made during our opening remarks, which is to
7 say that this project application is unique to DFO,
8 particularly in our region, in that the scale of the
9 proposed or possible critical habitat destruction is
10 not something that we have seen before. So it would
11 not be -- we would not be able to provide an example of
12 where monitoring for this type of project indicated
13 effectiveness; and, further, we would not be able to
14 say whether the monitoring program could effectively
15 avoid impacts to the population itself.

16 Q One moment, please. I'm just checking with staff.

17 All right. Thank you.

18 I need to return to Environment and Climate Change
19 Canada. My understanding is that this department has
20 stated that Benga's derivation of a sulphate-based
21 selenium, SSWQG, went well beyond the 2007 ECCC
22 guidance for derivation of site-specific guidelines.
23 Is that a correct understanding?

24 A MS. FAIRBAIRN: One moment, please.

25 MR. LAMBRECHT: While you're doing that, let
26 me say for the court reporter that when I use the

1 acronym "SSWQG", I mean site-specific water quality
2 guideline.

3 A MS. WILSON: Thank you. It's Anne Wilson
4 here.

5 I just wanted to clarify, Mr. Lambrecht, that the
6 guideline in question was not Environment and Climate
7 Change Canada's; it's actually the Canadian Council of
8 Ministers of the Environment 2007 protocol that we had
9 referenced earlier.

10 Q Thank you, Ms. Wilson. My apologies for the error in
11 attribution.

12 A Marie-Claude, did you wish to pick it up from there?

13 A MS. SAUVÉ: Sure. So I am not aware of
14 any site-specific water quality objective derivation
15 guidance from Environment and Climate Change Canada.
16 I'm not sure which document you were referring to. I'm
17 sorry.

18 Q Ms. Wilson was suggesting it was the Council of
19 Canadian Ministers of the Environment, she indicated a
20 moment ago.

21 A Okay, so that's the one. Apologies.

22 So in the site-specific water quality objective
23 for selenium, it was not derived accordingly to -- to
24 CCME protocol from 2007. And it was a complete
25 different method -- methodology.

26 Q Can I ask Environment and Climate Change, please, to

1 comment on risk for -- from selenium to westslope
2 cutthroat trout given that predicted selenium
3 concentrations in Blairmore and Gold Creeks during
4 operations and post closure did not appear to decrease
5 insofar as the modelling extends in that period of
6 time -- or projected period of time?

7 A MS. FAIRBAIRN: One moment. Thank you.

8 A MS. SAUVÉ: This is Marie-Claude Sauvé.

9 So as said earlier, we cannot really speak
10 about -- we did not perform a complete risk assessment
11 of effect of selenium on westslope cutthroat trout in
12 particular. I can describe a bit more the effect
13 observed in fish in general if -- if you want to.

14 However, I can note that -- from the various
15 species sensitivity distribution that my colleague
16 Ms. Wilson was referring to earlier, will plot the
17 various fish species in -- in function of their -- of
18 their toxicity. Westslope cutthroat trout stand pretty
19 much in the middle and acts as a typical fish in term
20 of concentration of selenium cause and effect. I'm not
21 sure that helps.

22 Q Thank you, Ms. Wilson [sic].

23 I would like to move on to calcite precipitation.

24 MR. LAMBRECHT: And I would ask the Zoom Host
25 to pull up CIAR 313 at PDF 1075. This is Benga's
26 response package to JRP Information Request Package 6,

1 Addendum 11. Thank you.

2 Q MR. LAMBRECHT: Now, Benga proposes to develop
3 calcite precipitation monitoring based upon some of
4 what Teck is doing in the Elk Valley, and Benga has
5 attached here a definition from Teck about what calcite
6 precipitation is and an illustration of a fully
7 cemented stream in Porter Creek with a calcite index
8 of 3.

9 MR. LAMBRECHT: Zoom Host, you can take this
10 down.

11 Q MR. LAMBRECHT: Anyone on the federal panel
12 familiar with the calcite monitoring program used by
13 Teck in British Columbia? And if so, can you comment
14 on this program's effectiveness and relevance for the
15 Grassy Mountain Project?

16 A MS. FAIRBAIRN: One moment, Mr. Lambrecht.

17 A MS. MOGGE: Sorry, Mr. Lambrecht, can you
18 restate the question?

19 Q Yes. Are you familiar with the calcite monitoring
20 program used by Teck in British Columbia? And can you
21 comment on the program's effectiveness and relevance to
22 the Grassy Mountain Project before us?

23 A Sure. So from DFO's perspective, we did comment
24 generally on calcite in our submission. I think, in
25 general, we are familiar with the monitoring program in
26 the Elk Valley. We don't necessarily have expertise to

1 speak to its effectiveness. We identified it as a
2 pathway with the Grassy Mountain Project that has a lot
3 of uncertainty with the effects. And generally looking
4 at the monitoring that happens in the Elk Valley, there
5 is the potential that -- you know, once calcite has
6 deposited, that removing it is very challenging, if not
7 impossible. So that was kind of the extent to which we
8 spoke to it in our submission.

9 Q Are you aware of any other specific mitigation measures
10 that have been shown to be effective in similar
11 situations beyond monitoring and, perhaps, the
12 development of a -- I believe Benga's mentioned a lime
13 sludge plant, should monitoring for calcite
14 precipitation demonstrate that calcite precipitation is
15 occurring. Are you aware of any other specific
16 mitigation measures beyond monitoring and, perhaps,
17 this lime plant that had been shown to be effective in
18 similar situations of potential for calcite
19 precipitation?

20 A MS. MARTENS: Thanks for the question. Just
21 give us a minute.

22 A MS. PHALEN: Thanks for the question,
23 Mr. Lambrecht. This is Laura Phalen.

24 I'll give a general -- I'm going to give a broad
25 answer here to say that the Canada panel does not have
26 expertise to understand how the water chemistry or the

1 effluent chemistry could be altered in order to prevent
2 calcite from forming in the -- in the creek.

3 Q Are you confident that a robust monitoring and
4 mitigation strategy would be capable of detecting
5 changes in calcite precipitation levels before
6 population levels in the westslope cutthroat trout had
7 taken place -- or before impacts on westslope have
8 occurred?

9 A Thanks. Just one sec.

10 Thank you for the question, Mr. Lambrecht.

11 DFO is of the opinion that -- and based on our
12 understanding, again, we are not experts in the
13 chemistry here, but we are of the opinion that
14 monitoring and mitigation would not be an appropriate
15 way to break this particular pathway of effect.
16 Avoidance would be the necessary approach.

17 Q Panel, I'd like to thank you for fulfilling your
18 statutory obligations and coming before the Panel to
19 provide some of your specialist knowledge to assist the
20 Panel in its task. I have no further questions for
21 you.

22 THE CHAIR: Thank you, Mr. Lambrecht.

23 Just before turning to panel questions,
24 Mr. Secord, are you there?

25 MR. SECORD: I'm here.

26 THE CHAIR: Yes. I wanted to discuss

1 Mr. Locke. We had hoped to get him in today, but it is
2 quite late. I know he has limited availability. So I
3 know that he's not available tomorrow. Is he not
4 available at all after today?

5 MR. SECORD: Before -- before I answer that
6 question, can I tell you that he will be five to ten
7 minutes in his direct evidence, if that's of any
8 assistance. Of course, the great unknown is how many
9 questions there are for him, which, of course, I don't
10 know.

11 But I don't have that information about his
12 availability later in the week. I could find that out.
13 If we wanted to break now, I'll give him a call and --

14 THE CHAIR: I think -- I think if he is
15 going to be that short, on the order of ten minutes, I
16 think then we would probably just try and get him in
17 today to finish up. I had him on the scheduling for an
18 hour, and so I was concerned about how late we might
19 go.

20 So I don't think the Panel will have many
21 questions, so we should be able to get to him fairly
22 soon.

23 MR. SECORD: Okay.

24 THE CHAIR: Thank you.

25 Mr. O'Gorman, questions.

26 Alberta Energy Regulator Panel Questions Government of

1 Canada

2 MR. O'GORMAN: Thank you, Mr. Chair. I do
3 have a few. I'm hoping they should take on the order
4 of 15 minutes if we -- if we can be pretty efficient in
5 our time.

6 Q MR. O'GORMAN: So I have some questions both
7 for ECCC and for DFO. Good afternoon to all of you.

8 A MS. FAIRBAIRN: Good afternoon.

9 Q Thank you, Ms. Fairbairn.

10 I'm going to knock these off fairly quickly. I
11 have notes scribbled all over my page, but the short
12 form is: I do want to explore a few things that I've
13 heard from you folks that mostly touch on the potential
14 interaction between things that ECCC and DFO might be
15 responsible for in the future compared to
16 recommendations and decisions that this Panel has to
17 make and things that we are responsible for. So that
18 should become -- I want to explore how those two
19 intersect.

20 So I will start with my ECCC questions. And, of
21 course, a potentially important piece of proposed
22 regulation is the coal mining effluent regulation. It
23 was spoken about earlier. Ms. Zweig or Ms. Fairbairn,
24 this would be for you. I know you were asked about
25 this, and I heard your answer, but I want to reconfirm
26 or ask the question in a different way.

1 It's possible that that regulation never comes
2 into force. Do you agree with that?

3 A MS. FAIRBAIRN: There -- there's always a
4 potential of a regulation not coming into force in a
5 timely manner, yes.

6 Q Right. So we can't count on the fact of it kicking in
7 at some point and regulating selenium releases from
8 this project, were it to proceed and be built?

9 A I think the time -- Aimee can speak to it in a minute,
10 but I think that the goal is for 2021/2022 for a
11 regulation, but I'll let Aimee -- we know regulations
12 do take time. But I'll let Aimee finish off on the
13 timeline, whether a regulation would be in effect when
14 this mine is being built or approved.

15 A MS. ZWEIG: Yeah. Thanks for the
16 question, Mr. O'Gorman.

17 I would -- I would just add to that that the
18 government has signalled its intent to regulate. We
19 have been consulting for -- for a few years on this,
20 and in the absence of a regulation, the sector is under
21 the auspices of the general prohibition against the
22 deposit of deleterious substances. So -- so there is
23 a -- there is a regime in place in the absence of the
24 regulation at the federal level.

25 Q Okay. Thanks, Ms. Zweig. And hopefully I pronounced
26 that correctly.

1 And I think this question is explicitly for you:
2 My colleague Ms. LaCasse asked you about the
3 distinction between whether this mine would likely be a
4 new or an existing mine in your regulations. And
5 it's -- it -- you know, it is striking that the
6 regulation would likely come into effect, if all things
7 proceed as currently planned, in 2022, but as long as a
8 mine -- there's a three-year lag after that before a
9 mine would be considered new.

10 Can you shed any insight? You know, what -- do
11 you have formal rationale for why this three-year lag
12 exists, why a mine would not suddenly be a new mine if
13 it came into -- if it started operating after 2022
14 instead of 2025?

15 A So I think -- you know, it's a good -- this is a good
16 question, and it's -- it -- there's a number of factors
17 that we take into consideration when we're thinking
18 through these kinds of provisions.

19 So new mine provisions are often proposed because
20 you have the benefit of designing a mine from scratch
21 to try and achieve better environmental outcomes than
22 an existing operation. So that -- that's the first
23 thing that I would say.

24 The second thing that I would say about the
25 provisions is that there is a -- there is a period of
26 time that's required to come into compliance often with

1 these types of regulations, so whether it's building a
2 treatment facility or whatever kind of technology is
3 required, building diversions, et cetera, there's --
4 there's a ramp-up time in order to get to a place where
5 you can come into compliance as an operator. So -- so
6 that's some of the thinking behind -- behind the limits
7 and -- and how we draw that or propose to draw that
8 line. I would add, they are proposed regulations, and
9 they are subject to change, so another thing to keep in
10 mind.

11 Q Okay. Those are both useful answers. Thanks.

12 It helps us understand the potential regulation a
13 bit more.

14 Just a -- so there's one puzzling thing to me, as
15 I think about it. So the regulation is defined in
16 terms of the limit at the point of discharge. We
17 typically think of -- I can't remember the exact word
18 used. I think you said "point of discharge". Was that
19 right?

20 A (NO VERBAL RESPONSE)

21 MR. O'GORMAN: She nodded "yes", Ms. Court
22 Reporter.

23 A MS. ZWEIG: Yes. Thank you.

24 Q MR. O'GORMAN: So how would that -- so we
25 understand what that means for, let's say, a project
26 like this, where they have effluent come in from their

1 saturated backfill zone, treated, and then at some
2 point released into Blairmore Creek. Can you tell me
3 how the regulation applies, if it does, to seepage?

4 And I -- while you think about that, of course,
5 the point is we have heard that several different
6 structures on the mine site might, through seepage,
7 through groundwater, release selenium into Gold Creek
8 over the lifetime of the mine and beyond. And it
9 doesn't occur to me how we think about your regulation
10 in a world where -- would it apply to, perhaps, more
11 slowly increasing levels of selenium in Gold Creek due
12 to seepage through groundwater?

13 A Thanks for the question.

14 So -- so the way the current proposal works is
15 that the only -- the only authorization is for the
16 release of effluent through a final discharge point.
17 Diffused effluent containing the deleterious substance
18 that's deposited to water frequented by fish, such as
19 seepage, could be a violation of the general
20 prohibition; therefore, it -- ergo, it is not
21 authorized under the regulation.

22 Q Okay. Interesting. I mean, to test if that was the
23 case, would you need to do some sort of groundwater
24 flow test to determine if it was that project that was
25 the source, to know if the general prohibition was
26 invoked? I realize I'm pitching a hypothetical to you

1 that you might not have thought about, but I'm curious
2 how that might work.

3 A So the design of the coal effluent -- the coal mining
4 effluent regulations is -- is reasonably similar to
5 what we have under the metal and diamond mining
6 effluent regulations, for example. And in a case -- in
7 a hypothetical case such as you just posited, our
8 enforcement colleagues would -- would implement their
9 compliance and enforcement policy, and they may -- they
10 may come and take samples to try and determine whether
11 there's a deleterious substance being deposited --

12 Q Okay. That's --

13 A -- not authorized by the regulation.

14 Q Okay. That's a good example. So thanks for that
15 comparison.

16 A Yeah.

17 Q Okay. Another hypothetical situation.

18 A M-hm.

19 Q Let's assume this Panel decides to accept Benga's
20 proposed site-specific water quality objective in some
21 form which is tied to the eventual concentrations of
22 selenium in Blairmore Creek mitigated by sulphates,
23 concentrations that presumably are measured after some
24 mixing zone, however -- whatever that mixing zone looks
25 like, so not measured at end of pipe but tied to the
26 eventual concentrations at Blairmore Creek. A

1 fundamentally different structure, I would suggest, and
2 potentially you agree, then what the CNAR would propose
3 in terms of a structure of where they would have to
4 meet a certain level; right?

5 A Sorry. I'm not sure I understood you.

6 Q I'm saying: Let's say we assume -- let's say we agree
7 with Benga's proposal. We allow for a site-specific
8 objective, which is not measured at the pipe but is --
9 in terms of concentrations in Blairmore Creek, which
10 allow for some mixing and at the concentrations after
11 some mixing stabilize at -- well, we've seen some of
12 the numbers in this hearing that they have projected we
13 might see in concentrations for selenium. Your
14 regulation would be sort of a measurement at the pipe
15 and not allow for any mixing.

16 So I first wanted you to confirm: Those would be
17 two different kinds of -- of limits that they would
18 have to consider; correct?

19 A That's correct.

20 Q Right. So what happens if we do approve that, your
21 regulation comes into effect, and gives them something
22 different? Is it your understanding that -- I say
23 "your regulation". You know what I mean. Is it your
24 understanding they would have to comply independently
25 with both regulations, or, as sometimes happens with
26 federal, provincial legislating issues of common

1 concern, would there be the potential for one or the
2 other rule or requirement to stand down and allow the
3 other to do all the work? What are your thoughts on
4 that?

5 A So I can -- I think you've asked me two questions
6 there, Mr. O'Gorman.

7 The first -- the first question about whether
8 Fisheries Act regulations can apply at the same time, I
9 think, as a provincial regime, and the answer is yes.
10 The proponent would be required to -- to comply with
11 both regimes, certainly.

12 The second question about whether a regime can be
13 stood down, I think, one or the other, whether it's
14 provincial or federal, so the Fisheries Act does allow
15 for equivalency agreements. You need to have a
16 regulation in force in order to consider equivalency
17 and then -- and then a discussion and an analysis can
18 happen between the regulators to determine whether the
19 regimes can be considered equivalent in effect. And
20 that -- that has been done in the Fisheries Act -- in
21 the context of Fisheries Act regulations in the past.
22 Wastewater system effluent regulations, there is --
23 there is equivalency agreement in place for that
24 regulation --

25 Q Okay. Thank you.

26 A -- with one of the -- with one of the territories.

1 Q So I do wonder -- and I recognize in asking you these
2 questions you certainly can't speak to whether that
3 might take place in the future. Some future minister
4 would ultimately decide such things. And we wanted to
5 understand the scope of things that might happen.

6 Okay. Those are all really useful answers. Thank
7 you.

8 One more. And I think this is probably -- I think
9 this is for Ms. Sauvé, actually.

10 Ms. Sauvé, I want to see if I remember. We don't
11 have the transcript because the conversation only took
12 place 45 minutes or so ago. But my friend Ms. LaCasse
13 was asking you questions.

14 Are you up, Ms. Sauvé? Oh, there you are.

15 A MS. SAUVÉ: Yes.

16 Q Okay. My friend Ms. LaCasse was asking you a few
17 questions, and let me paraphrase something that I think
18 I heard. Tell me if you agree that this is sort of
19 what you said.

20 I think that she asked you about your
21 recommendation five one, which I -- well, Environment
22 Canada's recommendation, which was the one about
23 recommending we drop the sulphate-adjusted element of a
24 selenium guideline for the project. You can look that
25 up on your own. I'm sure you probably remember that
26 one.

1 And I -- I think there was a question that you
2 basically indicated you would need to be comfortable
3 with the projected selenite versus selenate and there
4 being information on the record about the selenite
5 versus the selenate that is coming out in effluent from
6 this project.

7 Did you -- do you remember that conversation?

8 A Yes, I do.

9 Q Great. So is it right for me to say that what I
10 understood you to say was: If there was -- I want to
11 make sure I get this straight because I only asked if
12 you remember the conversation. So now that you
13 remember it, are you saying that ECCC could
14 potentially -- recognizing you can't speak on -- at
15 levels higher -- for your minister, but ECCC could
16 potentially be comfortable with allowing a sulphate
17 adjustment to a site-specific selenium guideline if, in
18 this process, there was adequate information on the
19 record to convince you that your concerns about the
20 release of selenite versus selenate were addressed, and
21 you -- I assume by that you mean there wasn't much
22 selenite, but you can tell me what you meant by that.

23 A Yes. So I cannot really speak about the regulation or
24 anything like that. I should not have used the word
25 like "recommending". I take that -- rather express
26 some concern about the methodology that -- that was

1 used to derive that site-specific objective, notably,
2 the development of the enrichment factor that was based
3 on tests done only on selenate. So, basically, they
4 exposed the algae to selenate only and not to a mixture
5 of selenate and selenite that will correspond to the
6 speciation in naturally occurring environment. And as
7 a result of the anthropogenic activity, in that case,
8 the coal mine.

9 So our concerns will sure be -- which should be
10 much less if the water quality -- if a certain
11 site-specific water quality objective would -- would
12 take that into account, will have the correct selenium
13 speciation ratio used to -- to produce a risk
14 assessment and objective that really takes that into
15 account.

16 Of course, I cannot really speak about the exact
17 concentration of selenium that will -- that will be
18 released, given the treatment. We are not expert --
19 I'm not an expert in those treatment.

20 However, I can say that there seem to be still a
21 bit of uncertainty there. So I'm -- if we had the
22 correct speciation ratio, that will sure be reassuring.

23 Q Okay. Thanks, Ms. Sauvé.

24 So I think you agreed with me that I sort of -- at
25 least sort of captured what you had said earlier,
26 because it leads me to sort of this point: You made

1 reference earlier to you could have more comfort if you
2 had seen the information on the record about what the
3 actual speciation would be. You've -- can I ask: Have
4 you taken a good look at the record related to the
5 subject area for what we have right now and listened to
6 this hearing? Have you examined the record on this
7 topic about the potential speciation?

8 A What record? Sorry.

9 Q The record of the hearing. Sorry. The registry
10 documents that relate to potential speciation at the
11 end of -- or during the project.

12 A Yes, I think I've seen them all --

13 Q Okay.

14 A -- or almost all. I may have --

15 Q So I just --

16 A I don't know.

17 Q So I just wanted to ask that to confirm: Have you seen
18 that information that you think you would need to
19 increase your comfort level or not?

20 A No, no. I've seen only one place where it has a
21 certain mention of speciation, and it's in the CIAR 555
22 from CPAWS that shows the result of the current test,
23 which I understand is similar to the gravel bed reactor
24 that may be added in replacement or -- or subsequent to
25 the SBZ.

26 So that's the only place where I saw something

1 that -- that really speciation -- selenium speciation
2 testing.

3 Q Okay. Okay. Thanks, Ms. Sauvé.

4 That's it for my Environment Canada questions.
5 And I will wrap up with two for DFO, please.

6 I don't think -- well, maybe we should haul it up.
7 I'm interested in -- well, why don't I -- why don't I
8 not haul it up to save a bit of time, and I'll ask you
9 folks to look it up from DFO, please. In your hearing
10 submission on PDF --

11 MR. O'GORMAN: Zoom Host, let's haul it up,
12 please.

13 So it was Registry Document 542, which is the
14 submission by the Government of Canada. We've had it
15 up several times today, that -- that document. We're
16 looking at PDF 261, please. And then let's blow it up
17 so we can actually read it and look at the very bottom
18 of the page. A little bit bigger, please, Zoom Host.
19 My eyes are not what they once were. Is that PDF 261?
20 2 -- is this the right -- is this your hearing
21 submission? CIAR 542?

22 Can someone tell me if I have the wrong registry
23 number for the Government of Canada hearing submission?
24 I thought it was 542.

25 A MS. MOGGE: This is correct.

26 Q MR. O'GORMAN: Okay. I'm looking for DFO

1 Recommendation 4, the one to do -- to do with
2 offsetting being verified. Does anyone know what page
3 that's on?

4 A MS. PHALEN: It should be Document page 19.
5 It's not PDF page, but document. See how it's 33 right
6 here?

7 Q Okay.

8 A 247. Sorry. I just have the printout in front of me,
9 not the PDF.

10 Q There's Recommendation 4. Okay. I apologize for my
11 notes getting -- the wrong thing written down.

12 And then model (INDISCERNIBLE) water temperature.
13 No. Which was -- okay. Let's forget this.

14 I'm going to ask you folks -- Ms. Martens, from
15 DFO, you had a recommendation to us which had to do
16 with proposed offsetting measures being verified before
17 the project moved forward. Do you remember that?

18 A MS. MARTENS: Yes, I do.

19 Q Do you remember which recommendation that was? Because
20 it doesn't look like it was Number 4, based on what we
21 just read.

22 A Sure. Let me just have a look here. I don't remember
23 off the top of my head, either. Okay. I think it's
24 Recommendation 15, Mr. O'Gorman.

25 Q Okay. And do you have the PDF page number that you
26 could tell our Zoom Host to show us?

1 A MS. PHALEN: It's Document page 39. I
2 don't have the page -- the PDF page number.

3 Q It's going to be in the 200s because the DFO section
4 was much later.

5 A We have it. We do have it open. Just give us a sec.
6 267.

7 Q Oh, I wrote 7, and it's a -- it's crossed over by a
8 line above that.

9 MR. O'GORMAN: PDF 267 in that document, Zoom
10 Host. I was so good in calling up the right documents
11 for days in a row, and I blow it today. My apologies.

12 Q MR. O'GORMAN: But there we go. So
13 Recommendation 15 is that -- this is the one which says
14 we need to verify it before it goes forward, update the
15 quantification.

16 MR. O'GORMAN: Can you scan down on the page,
17 Zoom Host? Oh, oh, oh. That's why I said "Number 4".
18 It was Point 4 in Recommendation 15. My bad.

19 Q MR. O'GORMAN: Point 4 says: (as read)
20 Offsetting measures should be implemented and
21 verified as functional before any impact
22 occurs to pure WCT subpopulations.
23 You agree that that's what you proposed to us?

24 A MS. MARTENS: Yes, that's --

25 Q Thank you, Ms. Martens.

26 All right. Can you tell us how that would work in

1 real life? I can make a proposal to you and you can
2 agree with it or not, if you'd like, or you can do it
3 in your own words.

4 A Okay. Just give us a sec.

5 Q Great.

6 A Hey, there, Mr. O'Gorman.

7 We've elected to let you put it to us such that we
8 reduce our speculation at this point.

9 Q Okay. So it's late in the day. But in really
10 abbreviated terms, I think that you are saying to us
11 that following potential approval of this project, were
12 that to happen, Benga would have to -- whether they be
13 the currently proposed offsetting measures or some new
14 ones that you would resolve through a future regulatory
15 process, that Benga would need to go out -- get out in
16 the creeks and in the riparian habitat, implement those
17 measures, monitor them for some period of time, which
18 would likely be measured in years, plural, and
19 demonstrate effectiveness before they would be allowed
20 to proceed with constructing their project. Is that
21 what this is saying to us as your recommendation?

22 A MS. MOGGE: Okay. This is Brandi Mogge.
23 I will take a crack at it. So generally, yes, we would
24 agree with, I guess, the caveat that it wouldn't be the
25 project moving forward but from the point of impact.
26 So the offsetting -- construction of offsetting and

1 proving it effective would be required prior to impacts
2 to critical habitat that might not exactly coincide
3 with, you know, other construction activities that
4 the -- the mine has.

5 Q Okay. That's actually a really important clarification
6 and -- and, yes, turns what I said on its head, because
7 they could proceed potentially with construction if
8 they were, at the same time, monitoring critical
9 habitat in Gold Creek and being careful not to
10 potentially impact that habitat and the fishes that
11 live in there until they could demonstrate to you that
12 the offset measures weren't; right? Potentially? To
13 satisfy -- to satisfy this recommendation. Right.

14 Okay, that's useful to understand.

15 Last question, and then I'll be done: My friends
16 from DFO, you heard me describe to -- just a few
17 minutes ago to your colleagues from Environment and
18 Climate Change Canada my concern or questions around
19 the potential for seepage of selenium from some of the
20 waste rock dump areas and end-pit lake potentially,
21 surge pond. You know, a number of different structures
22 on the east side of the project might seep selenium
23 into Gold Creek, which is where the critical habitat
24 is.

25 I've read -- and I've read through twice to make
26 sure I did -- I -- I -- whether it was there or not,

1 but I have read DFO's proposed policy on allowing for
2 offsetting for SARA. You know the document I'm
3 referring to; right? It was discussed earlier today.

4 A MS. MARTENS: Just to be clear, that's the
5 2016 proposed policy document?

6 Q That's the document, yes.

7 A Okay.

8 Q So I read through that carefully, and it -- tell me if
9 you agree with this: As I read it, it entirely focused
10 on impacts -- allowing for offsetting of impacts to
11 habitat through things like changes in flows, changes
12 in temperatures, other sorts of -- digging new pools,
13 the whole -- that sort of suite of potential impacts to
14 habitat are the sorts of things that that policy
15 measure is meant to allow offsetting for. Does that
16 sound right to you?

17 A MS. PHALEN: Thank you, Mr. O'Gorman. This
18 is Laura Phalen.

19 The DFO network is being cranky at this particular
20 moment, and the beginning of your preamble cut out for
21 us. So I just want to clarify that the question was --
22 and I'll provide a summary; you can tell me if you
23 agree -- that the 2016 policy and the framework for
24 offsetting is more applicable to a physical habitat
25 offset rather than changes caused by chemical
26 alterations?

1 Q Well, you actually presupposed the next thing I was
2 going to ask, but you do see where I'm going with this.

3 So essentially -- essentially, with what I said
4 before and what I'm about to say, yes, that's what I'm
5 asking you. And what I'm about to say is: I didn't
6 see anything in there that talked about allowing for
7 things like extra contamination into critical habitat
8 where the critically protected fishes are swimming
9 around and laying eggs and living their lives as being
10 the sort of thing your offset policy proposed -- offset
11 policy under SARA would allow for. I wonder if you
12 agree with that?

13 A Thank you, Mr. O'Gorman.

14 You are correct. Our permitting policy -- we
15 don't have the ability to permit the deposition of
16 deleterious substance. So as we've described before,
17 it's Environment Canada that's responsible for that
18 prohibition. There's no way to say, Under certain
19 circumstances, you are exempt from this with -- in the
20 absence of a regulation. So the regulation that Aimee
21 was discussing earlier is the only way that you can
22 deposit a deleterious substance.

23 So unlike with the physical habitat destruction,
24 we can't permit that harm and then ask for offsetting
25 for it. There's no framework for that.

26 Q Okay. I think that about answers my questions. Yeah.

1 I mean, I recognize it's a bit -- maybe something a
2 little unexpected, actually, but I appreciate everyone
3 digging in and trying to come up with answers to my
4 late-in-the-day questions.

5 Panel, we really -- you know, the whole panel, we
6 really appreciate all of you taking the time, the long
7 hours, especially those of you in time zones not in
8 Alberta, to stay late for this process, so thanks for
9 all of your work.

10 MR. O'GORMAN: I don't have any more
11 questions, Mr. Chair.

12 THE CHAIR: Thank you, Mr. O'Gorman.

13 Zoom Host, yeah, you can take that down.

14 Mr. Matthews, any questions?

15 MR. MATTHEWS: Good afternoon or evening,
16 wherever you are, but I'd like to echo Mr. O'Gorman's
17 comments that you guys have done a great job today, and
18 I want to thank you for your contribution. Thank you.
19 I have no other questions.

20 THE CHAIR: Okay. Thank you,
21 Mr. Matthews.

22 I have no questions for you, either, so, again,
23 appreciation to the federal panel, Ms. Martens,
24 Ms. Fairbairn, and everyone else, for your written
25 submissions and your time here today.

26 Mr. Drummond, any re-direct?

1 MR. DRUMMOND: No, sir. Thank you.

2 THE CHAIR: Okay. Thank you.

3 (WITNESSES STAND DOWN)

4 THE CHAIR: So we do still have the issue
5 of Mr. Locke. I'm hoping, Mr. Secord, that I don't
6 regret this, that it's not a lot more than ten minutes,
7 because I will be very unpopular if that happens.

8 Madam Court Reporter, would you like a little
9 break? I'm thinking we probably have maybe 20 minutes
10 to a half an hour, but that's a little uncertain, so
11 perhaps we should take a bit of a break.

12 Yes, I'm getting a nod. Let's take ten minutes,
13 and then we'll hear from Mr. Locke. So it -- that will
14 be 10 after five.

15 MR. SECORD: Thank you.

16 (ADJOURNMENT)

17 THE CHAIR: Okay. Mr. Secord, please go
18 ahead.

19 Direct Evidence of Coalition of Alberta Wilderness
20 Association and Grassy Mountain Group

21 (Water, including surface and groundwater management,
22 quantity and quality, selenium management and aquatic
23 resources, including fish and fish habitat and fish
24 species at risk)

25 MR. SECORD: Thank you, sir. I would like
26 to introduce Mr. Locke to the Panel. He is a

1 registered professional biologist. He reviewed Benga's
2 environmental flows or instream flow needs assessment
3 and evaluated the potential for flow-related effects on
4 westslope cutthroat trout in Blairmore Creek and Gold
5 Creek.

6 Could we have the court reporter affirm
7 Allan Locke, please?

8 ALLAN LOCKE, Affirmed

9 Q MR. SECORD: Mr. Locke, I am referring you
10 to your curriculum vitae, which was filed as Appendix F
11 of CIAR 553 at PDF 147, and your report dated
12 September 20, 2020, filed as Appendix E of CIAR 553 at
13 PDF 134.

14 Were these documents prepared by you or under your
15 direction and control?

16 A MR. LOCKE: Yes.

17 Q Are there any changes that you would like to make to
18 these documents at this time?

19 A I do not wish to make any changes.

20 Q Are these documents accurate, to the best of your
21 knowledge and belief?

22 A Yes.

23 Q Do you adopt your report as part of your evidence in
24 these proceedings?

25 A (NO VERBAL RESPONSE)

26 Q Sorry, I didn't hear you.

1 MR. SECORD: He's frozen.

2 THE CHAIR: I think he might have froze.

3 Q MR. SECORD: Oh, you're back. I think you
4 just froze, Mr. Locke.

5 So my question was: Do you adopt your report as
6 part of your evidence in these proceedings?

7 A Yes.

8 Q Mr. Locke, do you acknowledge that you have a duty to
9 provide evidence to the Joint Review Panel that is
10 fair, objective, and non-partisan?

11 A Yes.

12 Q Mr. Locke, would you please provide the Panel with a
13 brief summary of your professional qualifications and
14 experience.

15 A I'm a member of the British Columbia College of Applied
16 Biology and the Alberta Society of Professional
17 Biologists. I belong to the Instream Flow Council,
18 which is an organization of provincial and state fish
19 and wildlife biologists who are dedicated to
20 protecting, maintaining, and restoring aquatic
21 ecosystems.

22 I have worked as a biologist since the late '70s.
23 I worked for two years in the fisheries branch of the
24 Ontario Government. I then worked for the -- a
25 conservation authority in Ontario for a couple of
26 years. After that, I was the provincial aquatic

1 habitat protection biologist in the Alberta Fish and
2 Wildlife division from 1981 to 2013. During that time,
3 I dealt with all aspects of aquatic habitat issues,
4 with my main focus being on instream flow needs. I
5 represented Fish and Wildlife interests in water
6 management planning processes in the province.

7 When I left the Alberta Fish and Wildlife
8 division, I started a consulting company. As a
9 consultant, I have worked on environmental flow-related
10 projects for the World Wildlife Fund, the Canadian
11 Council of Ministers of the Environment, the Department
12 of Fisheries and Oceans, the Texas Water Board -- or
13 Development Board -- Water Development Board, the
14 Northern Saskatchewan Watershed Alliance, and I've done
15 some water sourcing for oil and gas companies in
16 British Columbia and Alberta.

17 Q Mr. Locke, would you please provide the Panel with an
18 overview of your findings and analysis in this matter?

19 A As stated in my report, I believe the work done by the
20 proponent addressed much of the inherent uncertainty
21 when carrying out environmental flow studies. However,
22 I suggest further analysis be carried out that will
23 build on what the proponent has provided.

24 Specifically, I recommend the following:

25 First, develop more habitat evaluation metrics to
26 determine the habitat losses and gains beyond the ones

1 used by the proponent. Examples of habitat metrics
2 that can be considered are maximum weekly average,
3 weekly instantaneous, et cetera. Habitat evaluation
4 metrics need to capture the chronic, average, and acute
5 gains and losses of habitat.

6 Second, develop mesohabitat suitability criteria
7 curves to supplement the species-specific microhabitat
8 westslope cutthroat trout criteria curve analysis.

9 Mesohabitat types; for example, pools, deep pools,
10 riffles, step pools, et cetera, have already been
11 identified by the proponent. Mesohabitat suitability
12 curves for these habitat types will provide additional
13 information not only for the entire year but will
14 specifically be helpful for analyzing flow-related
15 changes to habitat during the winter or ice-covered
16 period. It is very challenging to develop
17 species-specific microhabitat suitability curves for
18 the ice-covered period. Using mesohabitat suitability
19 curves is a practical way of addressing this challenge.

20 Third, develop an ecosystem base-flow component.
21 The proponent provided a percent of flow reduction
22 criterion that is reasonable and is expected for
23 streams of this size. The proponent, however, did not
24 provide any information on ecosystem base-flow
25 recommendations.

26 Given the widespread acceptance in the instream

1 flow community and the history in Alberta of
2 recommending both a percent of flow reduction criterion
3 and an ecosystem base-flow criterion, both should be
4 used to set an environmental flow recommendation for
5 both Blairmore and Gold Creeks.

6 Once a fully protected environmental flow
7 recommendation has been developed, it can then be
8 compared to the Alberta Surface Water Allocation
9 Directive, which I believe is the current water
10 allocation policy of Alberta Environment and Parks.

11 For all of the above recommended steps, they
12 should be carried out through collaborative discussion
13 with the proponent, the provincial and federal
14 regulators, the Coalition, and any other interested
15 party.

16 I wish to thank the Chairman and the other Panel
17 Members for the opportunity to participate.

18 Q Thank you, Mr. Locke.

19 MR. SECORD: And, Mr. Chairman, you will be
20 happy to know that was seven minutes. Mr. Locke is
21 available to answer any questions.

22 THE CHAIR: Thank you, Mr. Secord. You're
23 a man of your word.

24 MR. SECORD: Thank you.

25 THE CHAIR: Benga, any questions?

26 MR. BRINKER: Mr. Chair, if I could have

1 just one minute. It's Coleman Brinker speaking. I
2 will just confirm whether Benga has any questions for
3 Mr. Locke.

4 THE CHAIR: Yes. Go ahead.

5 MR. BRINKER: Thank you.

6 MR. YEWCHUK: Mr. Yewchuk for CPAWS. Just
7 using this minute while we wait.

8 My expert won't be available in the morning.
9 Would it be all right for CPAWS to be pushed to the
10 back of the list for direct evidence tomorrow?

11 Mr. Chairman, you're on mute. Sorry.

12 THE CHAIR: Sorry. Mr. Secord, you would
13 be next up after CPAWS in the schedule. Would you be
14 prepared to start 9:00 tomorrow morning?

15 MR. SECORD: I've already sent an email to
16 my three experts, and we'll be ready to go at 9, sir.

17 THE CHAIR: Okay. Thank you.

18 So, yes, we should be able to push you back in the
19 schedule, Mr. Yewchuk.

20 MR. YEWCHUK: Thank you.

21 THE CHAIR: Go ahead, Mr. Brinker.

22 MR. BRINKER: Thank you, Mr. Chair. I can
23 advise that Benga has no questions for Mr. Locke.
24 Thank you.

25 THE CHAIR: Okay. Thank you.

26 Ms. LaCasse or Ms. Kapel Holden?

1 MS. LACASSE: We don't have any questions,
2 Mr. Chair.

3 THE CHAIR: Okay. Mr. Lambrecht?

4 I think you're on mute, Mr. Lambrecht. Oh, you're
5 not on mute, but I cannot hear you.

6 Okay. Shaking his head. He has no questions.
7 Thank you.

8 Mr. O'Gorman?

9 MR. O'GORMAN: Thank you, Mr. Chair.

10 As shocking as it might be to some to have me have
11 an opportunity to ask questions related to water and
12 aquatic habitat, I will politely decline in this case.

13 Mr. Locke, I appreciate you appearing before us,
14 but I don't have any questions about your submission.
15 Thank you.

16 THE CHAIR: Okay. Thank you.

17 Mr. Matthews?

18 MR. MATTHEWS: Again, thank you, Mr. Locke,
19 and I have no questions.

20 THE CHAIR: Yeah. Mr. Locke, I have no
21 questions, either. I thought your submission was very
22 clear, and your evidence today was also very clear.

23 So thank you very much for your written submission
24 and for hanging in there today and ending the day with
25 us.

26 A Thank you.

1 THE CHAIR: Mr. Secord, anything arising?

2 I guess not; there were no questions.

3 MR. SECORD: No. Thank you very much. And
4 thank you for accommodating Mr. Locke this evening.
5 Thank you very much.

6 THE CHAIR: Okay. Thank you.

7 (WITNESS STANDS DOWN)

8 THE CHAIR: So tomorrow morning, the
9 Coalition will start, then. We'll hear from them.

10 And just with respect to the combining of the air
11 and the wildlife health risk assessment session, since
12 we didn't hear from anybody that had concerns about
13 that, we will proceed to draw up the schedule by
14 combining the times for those two sessions, and we'll
15 issue it as soon as it's available. But we expect that
16 tomorrow, we will continue through water, and it will
17 likely extend even into Wednesday morning unless things
18 go much quicker than planned.

19 So that combined session would start probably on
20 Wednesday sometime.

21 Any other business we need to take care of?
22 Hearing none, I thank you, everyone, and have a good
23 evening.

24 MR. SECORD: Thank you.

25 _____

26 PROCEEDINGS ADJOURNED UNTIL 9:00 AM, NOVEMBER 24, 2020

1 CERTIFICATE OF TRANSCRIPT:

2

3 I, Claire Forster, certify that the foregoing
4 pages are a complete and accurate transcript of the
5 proceedings, taken down by me in shorthand and
6 transcribed from my shorthand notes to the best of my
7 skill and ability.

8 Dated at the City of Calgary, Province of Alberta,
9 this 23rd day of November 2020.

10

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12 <Original signed by>

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15 Claire Forster, CSR(A)

16 Official Court Reporter

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