MACKENZIE VALLEY HIGHWAY

Technical Session

November 21, 2024

Water Quality and Quantity
Fish and Fish Habitat
Terrain and Permafrost
Climate Change
Air Quality and Noise.
Vegetation

Hosted by Mackenzie Valley Environmental Impact Review Board

Tree of Peace
Yellowknife, Northwest Territories

1 ALAN EHRLICH: I thank you all for getting here on time. Our 2 schedules slipped a little bit because socio-economics is a very 3 important topic and there were more questions than we had a bit of 4 time. 5 So I want to start today -- and I'm not going to go over the 09:03AM 6 housekeeping because all of you have heard that presentation twice, 7 and you know where the washrooms are and that kind of stuff. You 8 also all know, and have been very good, about saying your name each 9 time you come up to the microphone. So there's that. 10 If you haven't been in the room for the last couple of days, when 09:03AM 11 you decide to speak, if you decide to speak, please say your name and 12 your organization so that everyone knows who you are. But other than 13 that, I won't do a full round of introductions now. I want to make sure 14 we have time to get into the substantive matters. 15 So we have some discussion of socio-economics. 09:03AM 16 Socio-economics is broad. Socio-economics, as well as the harvesting, 17 cultural and traditional land use topics, are all about impacts on people. 18 But because we know that the system of people and the land is one 19 system that interacts, we know that all of these things connect to people 20 and all of these things connect to ecosystems and the land as well. And 09:04AM 21 so even though we're setting our agenda in a way that might not look 22 like that, we get that that's how reality actually works which is why 23 people have comments even if they have [inaudible] stuff that we 24 covered earlier or stuff we're about to cover, you know, I'm going to 25 encourage you to say what you think even if it doesn't fit tightly within 09:04AM 26 the narrow topic that we're looking at. But I do want to make sure we 27 have time for everyone to say what they need to say, so if we could try

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	1	to be succinct. We just got one more day, and it would be very		
	2	complicated to extend the reservation or change everyone's air ticke		
	3	and everything else for another day, very expensive too. We just would		
	4	like to try do this in the time we've got.		
09:05AM	5	So to start off, we know that Todd, Délıne Got'ıne Government,		
	6	had more items than we had time to get to yesterday. You said you		
	7	have got a couple of other subject areas, is that still the case?		
	8	TODD SLACK: It's Todd with the DGG. I am going to sum it up		
	9	into one just for simplicity. But if anyone else can go first, that would		
09:05AM	10	give me a minute to pull all these items together.		
	11	ALAN EHRLICH: Okay, thanks. I don't wish to put you on the		
	12	spot. And Judith from make sure I get this right. Fort Norman Metis		
	13	Community. Did I get it right? You mentioned yesterday that you might		
	14	have some observations, thoughts and questions that you would like to		
09:05AM	15	share today, and I know that you have a meeting that you have to go to		
	16	at 10. Do you want to share that with us now?		
	17	Thank you, please go ahead. And don't forget to say your first		
	18	and last name for our transcriptionist who gets more and more		
	19	exhausted as each day rolls on. So if we could make her job easier,		
09:06AM	20	that's always a good thing. Thank you.		
	21	JUDITH WRIGHT-BIRD: Judith Wright-Bird for Fort Norman Metis		
	22	Community. I'm here representing the we've created a working		
	23	group, so the Tulita Mackenzie Valley Highway Working Group, and that		
	24	consists of the Fort Norman Metis Community, Tulita Dene Band,		
09:06AM	25	TRRC who Fred represents, and also Tulita Land Corporation. And we		
	26	have representatives that sit on that committee, and we participate in		
	27	community consultations and, you know, focus groups with DPRA when		

1 they come to the community, try to, you know, engage with all the 2 different groups in Tulita. So I want to say thank you. This is my first 3 time participating in a technical workshop. It's been very interesting to 4 hear all the comments and concerns. And I want to thank MVEIRB and 5 GNWT to coming to Tulita. You know, it was a great opportunity for 09:07AM 6 people to be able to express their concerns and ask questions, you 7 know, on different things that they were wanting to get more information 8 on, so hopefully that will continue in the future. 9 So the working group's been working on different issues and 10 concerns that the community wants to address, and I hear, you know, 09:08AM 11 other groups having similar concerns. And, you know, we hear PKFN's 12 concerns. You know, they're on the road route as well. You know, we 13 have some areas that we want to see, you know, the road alignment 14 changed as well so, hopefully, you know, we can all work on that 15 together. 09:08AM 16 And business opportunities, you know, we want to see our 17 community gain business opportunities as well, and training, 18 employment, you know, contracts, all of those things. 19 One of the biggest concerns that the community has had is with 20 drugs and alcohol and how do we address that, you know, so we really 09:09AM 21 want to be able to be part of the planning process for that and, you 22 know, not wait for, you know, the management committee and steering 23 committees before we start working on those issues. So we've been 24 talking to the consultants about that. They've heard that concern. So 25 we don't want to be waiting, as PKFN addressed, you know. We do not 09:09AM 26 want to wait until one year before the construction. That's too long, you 27 know, when we're looking at training and developing social programs.

09:10AM 09:10AM 09:11AM 09:11AM 09:12AM

So that needs to be done sooner than later.

And safety issues as well, you know, how are we going to build capacity in the community to address safety issues. Because right now, we do not have a social worker or a mental health worker. Those are services that are done from the region. So, you know, if we have any issues in the community, you know, it's -- the response is delayed. And so that's a real concern for people. So it's something that needs to be addressed.

The road alignment, we have, you know, different areas that we've talked with GNWT about changing the road alignment, and I hear that, you know, we should be getting that information soon. We have another community consultation meeting planned for Tulita on December 10th, so we're hoping to have that information for that meeting; if not, you know, before the January session that we're planning. So hopefully we'll get that information in time.

They've been working with the TRRC as well, you know, on the different changes with road alignment and, you know, construction of camps and stuff. They've been looking at different areas. So I'm glad they're already starting to address those issues.

And the timeline is a big concern for the community because we feel that a ten-year construction over 20 years is too long. We've been facing huge challenges in the Sahtu, you know, with no barging services. The winter road is shortened, you know, so we may get a good two months of winter road and then it starts to erode. So we don't have enough time to get, you know, all the supplies, the infrastructure materials, into the community, and fuel to delivery, before the road is closed. So it's a big concern for the community that they'd rather see

1 the timeline shortened; we cannot wait 20 years. And that's been raised 2 many of times and when MVEIRB was in Tulita as well. And so they 3 would rather see the construction start from Wrigley to Tulita and from 4 Wrigley to Tulita sooner than later. The Great Bear River Bridge is a 5 different project, so that's a separate issue, so even if we build the road 09:13AM 6 from Norman Wells to Tulita, we still have to wait for the bridge so, you 7 know, that's not a big priority right now. The priority is building the road 8 south. So that's something we would really like to have GNWT address 9 to see if that's something that's doable. 10 And then, you know, trying to use local contractors and training 09:13AM 11 people to do that work instead of looking at southern companies. 12 The other issue that we had is since we have a working group, 13 and the consultants have been talking about this wonderful model here, 14 you know, of how we're going to do this readiness strategy, but how 15 does our working group fit into this and how will the working group be 09:14AM 16 structured and who is going to be participating in that is a question that 17 we have, that we want to be at the table, you know, in this whole 18 process because we want to make sure that, you know, an action plan 19 for social issues is addressed and, you know, how do we guarantee that 20 with this model that they're proposing. 09:14AM 21 So I just want to say thank you, and it was a wonderful two days. I've learned a lot. Thank you. 22 23 ALAN EHRLICH: Thank you very much, Judith Wright-Bird, from 24 Fort Norman Metis Community. Our board learnt very much where we 25 were listening very deeply in Tulita, and in the other community 09:15AM 26 sessions that we went on, but I feel like you've just summarized a whole 27 world of thinking in a very concise package up here, and I really

1 appreciate that. I noticed over for the last two days you were taking 2 everything in; I could see the processing. And I'm grateful that you 3 were willing to share that with us. I know the developer has heard what 4 you had to say clearly, and it's on the public record again now too. 5 When I say road safety to a road engineer, they talk about 09:16AM 6 curves, slopes and speed -- when I say safety to a road engineer, they 7 talk about curve, slopes, speed and such. But when I hear about safety 8 issues from community members, it is is a range of different things 9 relating to missing and murdered Indigenous women and girls and 10 domestic violence and other stuff. When you mentioned that safety 09:16AM 11 issues are something that's very important to the people in Tulita, I was 12 just wondering if you could expand a little bit on that for the benefit of 13 the developer to help them see it through your eyes. Thank you. 14 JUDITH WRIGHT-BIRD: Judith Wright-Bird. When they were talking 15 about safety issues, it was, you know, looking at infrastructure, you 09:17AM 16 know, if it was any emergencies on the highway, you know, who would 17 deal with that? Would it be the fire department, would it be the health 18 centre, you know, is -- there's no one in the community trained to 19 address that issue, you know. So when we need to -- when we're 20 talking training, we're also including those type of people, you know, that 09:17AM 21 would be able to address those issues because we have two nurses at 22 the health centre. They cannot leave, you know, to go to the highway, 23 you know, if there was an emergency. And also, you know, domestic 24 violence, we don't have any social workers or mental health workers to 25 address those issues. 09:18AM 26 So looking at building capacity at the community level, you know, 27 even if there was a few cases where we've already experienced where

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	1	there's been, you know, bad accidents on the highway, you know, and	
	2	the response was delayed because they needed to get equipment from	
	Tulita or from Wrigley, depending where the accident is, or		
	4	Wells, between Norman Wells and Tulita, like who responds, you	
09:18AM	5	know? So it's already been an issue and, you know, so how do we put	
	6	that in the action plan to ensure that we're building that capacity to deal	
	7	with those types of issues.	
	8	ALAN EHRLICH: Thank you very much for clarifying that; I	
	9	appreciate that.	
09:19AM	10	Okay, so a very powerful statement, and it's on the record. I	
	11	didn't hear specific questions, which is okay. If you have them, just	
	12	catch my eye and you're welcome to it. And if not, then I'm going to ask	
	13	if Délįnę Got'įnę Government is ready to go.	
	14	Judith, do you have any particular questions that you want to	
09:19AM	15	ask?	
	16	JUDITH WRIGHT-BIRD: Yes, I had the question for GNWT about the	
	17	timeline and construction. You know, have they taken into	
	18	consideration the request that was made at the MVEIRB meeting, you	
	19	know, to consider reducing the timeline and construction of the	
09:20AM	20	Mackenzie Valley Highway between Tulita and Wrigley.	
	21	ALAN EHRLICH: Over to the GNWT.	
	22	SETH BOHNET: Morning, everybody. Seth Bohnet, GNWT.	
	23	First, thank you very much for your statements and questions. It's great	
	24	to see you here, and it was great to be in Tulita and hear from everyone	
09:20AM	25	while we were there.	
	26	With regards specifically to the timelines for constructions, again,	
	27	what we have proposed and assessed in the developer's assessment	
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1 report, of course, is for the project to advance in three sequential 2 segments in no particular order, with a ten-year construction period over 3 20 years. 4 We were asked by the board, and did respond in in the 5 information request received, on what an optimized schedule could look 09:20AM 6 like. The GNWT did outline that the project could be accelerated and 7 constructed in a window of three to four years; however, there's several 8 assumptions that would need to come to fruition to enable that. First 9 and foremost is construction design for the entire alignment would need 10 to be completed concurrent to the environmental assessment. That 09:21AM 11 work is starting but is not complete. 12 Land tenure for the entire alignment would need to be secured 13 prior to construction. 14 Funding to complete regulatory authorizations and advance 15 construction for the entire alignment would need to be secured, and we 09:21AM 16 haven't done that. 17 Regulatory authorizations for entire alignment would need to be 18 required. 19 And procurement for the entire alignment would need to be 20 completed. 09:21AM 21 The key thing to recall and remember too, though, that the 22 proposed schedule that we have in the developer's assessment report 23 was informed by engagement as well. We heard loud and clear that 24 there was a desire to maximize employment training and business 25 opportunities and by extending the construction window over a longer 09:22AM 26 period of time, and advancing the project in in smaller manageable 27 segments is intended to maximize those benefits. So while there is the

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	1	potential for the schedule to be optimized by advancing all three		
	2	segments concurrently and from multiple headings, that has been		
	3	elaborated on as a potential alternative construction option but is not		
	4	what we're currently advancing.		
09:22AM	5	ALAN EHRLICH: Okay, thank you. Judith, do you have any more		
	6	questions for the GNWT?		
	7	JUDITH WRIGHT-BIRD: I don't, but Fred wants to ask a question.		
	8	ALAN EHRLICH: So Fred Andrew from the Tulita Renewable		
	9	Resource Council, president of the renewable resource council.		
09:23AM	10	FREDERICK ANDREW, JR:: My name is Frederick Andrew Junior		
	11	from Tulita RRC. I just want to ask a question to GNWT over here.		
	12	You know, when I speak, I like to use my language too when I		
	13	translate it for myself. I listened to that same question that Judith just		
	14	asked GNWT about the timeline about Mackenzie Valley Highway		
09:23AM	15	because of, you know, I like to see it happening within five five years		
	16	or less than ten years, anytime there, because the longer you wait, the		
	17	climate change is really it's it's happening every summer, it's getting		
	18	worse and worse. I don't know if the highway's going to go through or		
	19	not because you have to look at the permafrost and all this issue in		
09:24AM	20	regards to heat and fire. But the reason I say this, because		
	21	[[Indigenous language spoken]]. What I said here is, you know, as the		
	22	Dene people, we live off the land, we grew up with that wildlife and we		
	23	depend on it. And this highway will give us to access to where we want		
	24	to go, build a cabin here and there, but also, you know, the longer we		
09:25AM	25	wait it's gonna be it's gonna be a lot of change in regards to climate		
	26	change. All this climate change was predicted back in the early late		
	27	'70 and early '80. When the Elders were all alive in Tulita, they told us		

the stories about it, all this happening. And all this sickness that we don't hear is all come -- everything's all coming from the south. With the weather warm climate change, climate change, global warming, all this coming to the North slowly, at the same time as things that animal or flies or insects that we don't see slowly coming up with it. This is what the Elder predicted and they told us story about it. And they told us to be prepared.

What they mean by being prepared, is I know my dad and uncle and all the Elder were saying when all this climate change is happening at the same time eventually, all this fire and everything, all impact, you won't see much animal. So when he said that be prepared, he meant -- they meant to us was to build a cabin near by fish lake. And maybe in my time I think it might be -- what they mean -- it's just like a drought for a long time. So we have cabin by fish lake, you got a chance to survive. The Creator will provide you one fish a day or rabbit or something.

You see right here, we have a technology. It's right at Tim of our finger right now. We got access to everything. But they also mentioned that all the war that's happening down south in the other side of the country there right now, but they mentioned most -- most important thing is satellite, one that crash, but then all -- they said those white people will go back to the native people to survive back then. Like go back like in 1920 or '30. It's coming up pretty soon. So I just wanted to let you guys know that this is what the Elder predicted. But what I was trying to say is about the timeline of the highway.

You know, I'll say it again because it's almost 70 years ago I slashed this winter road for highway to build. And I still waiting over half a century and I like to see it build while I'm still doing okay because I'm

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74 years old, and I'm still doing -- doing okay, hunting, but I had two great grand kids, 3 years old and 6 years old. I would like to have them with me driving down the highway while I'm not -- you know, just in the country and main places, that's what I wanted to see. But, you know, I really want to -- like Judith said, I don't know why I'm going to wait another 5 years or 10 years or 20 years. No.

Because when they mentioned over Whati to build a highway to Yellowknife, that was brought up and talk about it, within a couple of years they always build it. And then up before that, up in the Tuk, way up in the northern, right over us, up in Inuvik to Tuk, there was one quy started -- he started talking about building a highway. His name is Marvin Gruben. And within about a year and a half or two year, and the highway, they started building. They finished within two and a half years. I think it was two years.

You know, there's places way up there, climate change is really affecting their ground and highway, but they still did it. They don't have any no existing winter road for years and years. But in Sahtu we have because I was there when I was a young guy slashing, when I was 22 or 23 years old. Now I'm 74 years old, and I'm still waiting.

So this one guy there, within, what, two and a half years later and the highway was built, and here, how long it's going to take with us? Why are we -- I don't know. Why you trying to do technical stuff and all that when everything is all impact by fire, climate change. The longer you wait [[[Indigenous language spoken]]]. What I said here is that the longer you wait around, how long -- you know, how you going to deal with climate change and all that, so. Now is the time we sit around the table and we should really -- really push it and this -- let's do something

	1	about it and just build it. Mahsi.		
	2	ALAN EHRLICH: Mahsi cho, Fred Andrew.		
	3	Does the developer want to comment on why other highways,		
	4	like the Tuk Highway or the highway to Yellowknife, were built with such		
09:31AM	5	different schedules than the one that you've proposed for the		
	6	Mackenzie Valley Highway?		
	7	SETH BOHNET: Seth Bohnet, GNWT. I'm not in a position to		
	8	speak to why those projects advanced on the schedules that they did.		
	9	Again, the proposed plan for this road and the timeline and schedule		
09:31AM	10	that we have outlined was informed by several considerations, not the		
	11	least of which, again, was making sure that the project provided longer		
	12	term benefits from employment training and business opportunities,		
	13	maximizing those benefits for local communities, as well as, again, the		
	14	anticipated financial investment that's going to be required for the		
09:32AM	15	project. You know, this is going to be a significant financial investment.		
	16	It's a longer road. It's not as it's not the same distance, and it's not		
	17	the identical environment. So there are different factors that go into it.		
	18	If I could also add, though, there we have heard loud and clear,		
	19	through our engagements, that there's a desire for us to explore		
09:32AM	20	opportunities to establish that corridor working group sooner and try to		
	21	advance planning sooner. We are currently engaging on those plans.		
	22	We want to be prepared when funding is available to get those things		
	23	moving, and engagement is going ongoing right now.		
	24	ALAN EHRLICH: Thanks for that. And I think it it gets		
09:33AM	25	complicated where I hear what you're saying that you want to extend the		
	26	financial opportunities and the benefits in the region with construction		
	27	with a longer from construction with a longer construction schedule,		
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and at the same time you recognize what communities have said about the urgency of getting supplies, the current fuel costs related to river water levels, barging challenges, and the shortening of the winter road. So on the one side I've heard the GNWT point out there's an urgent need to do this to improve socio-economic issues, to respond to how climate change has changed since the project was originally proposed; and, on the other hand, you're pointing out that there might be more opportunities for employment construction -- in construction if that is done in a less urgent fashion and a more -- spread out over more time for more years of employment. So there's -- obviously, there's it's a complicated balance that you guys have to think through, and the board has heard both sides of that loud and clear, and we've heard different messages from communities. So thanks for that.

I appreciate that you're recognizing that you've heard that the working groups that -- that communities want the working groups set up early enough so they're more likely to be effective before construction starts. We also heard yesterday, you know, some fairly -- fairly widespread frustrations with rather than -- how someone worded it, rather than having plans for a plan or rather than having specific tangible mitigations for the socio-economic issues, it's a plan to make a working group to come up with mitigations for the socio-economic issues that could arise, such as the issues in communities we've just heard about.

And for the board to evaluate the acceptability of a proposed adaptive mitigation, it really needs to know what the actual actions that are going to be -- the mitigative actions that you're proposing are so that it can weigh for itself the evidence about how effective they're likely to

be as opposed to wait and see to see what the working groups come up with.

There's been some frustration amongst the parties voiced yet where they were asking for specific commitments, and the response from the GNWT has frequently -- I won't say consistently, but almost consistently been we won't commit to that but we'll talk more and decide later if we commit to that. And I think that's not really what a lot of the parties here were looking for in their comments yesterday.

We appreciate your openness to ongoing engagement. That is still important. But I think that there were very few commitments actually accepted by the GNWT yesterday, and a lot of it was deferred to 'we'll talk more about it, and we'll see'. And so I just wanted to note that trend that we heard from multiple parties yesterday when they were proposing specific commitments.

How many commitments did we wind up with yesterday, Catherine?

So we'll go through the final language of the commitments from yesterday today. There might be more -- we'll go through the final language of the commitments from yesterday later today, and there may be more. But I just want to encourage the GNWT to really try and be as open as you can be when you're hearing parties say these are commitments that would help make a lot of these issues fall off the table, that would resolve some of their concerns. You know, there's a real opportunity here, and I know that being part of a very large organization there's certain constraints on what you can agree to on the spot as well. I get that's a thing. But there are real advantages to trying to constructively be as open as you can to the commitment request and

try to resolve them as soon as you can because they're giving you flags of what issues really matter to them as they don't see as being resolved and that can really help with the design and management of a project that, in some ways, it can make for a smoother operation and less time, effort, and money spent reacting to problems if they're able to avoid them.

I'd also observe that the community working groups, it sounds like they have quite a focus on minimizing or avoiding social impacts in communities, but we haven't heard as much about preventative -- proactive preventative measures, to prevent these things from becoming increased problems in communities. Are there ways that you can operate a road to reduce the flow of drugs and alcohol, for example. That's part of why we asked that information request, to find out what alternatives RCMP have used effectively in similar situations in other places in the country. And the board are remains interested in seeing if there are ways to prevent many of these social issues from getting worse rather than just work with community groups to figure out how best respond to them when they happen.

But we have heard loud and clear that the responses are slower in communities that don't have the social infrastructure that don't have the medical help or the social work inside the communities, and that the time the community -- inside communities can respond to major crises like that is much slower than it would be down south. And that the time it would take to respond to something like a road accident could be slower and that could have ramifications on how severe the outcomes are.

So there's been a lot of discussion and it all kind of interrelates.

	1	Now I want to try and put it into high gear and get through the rest of our		
	2	socio-economic questions, because I don't want to cut short our		
	3	discussion on culture, harvesting, traditional land use. You know, these		
	4	are very important topics and we've got a set amount of time.		
09:39AM	5	So anyway, Fred and Judith, thank you again, for summarizing		
	6	so much and starting us off in a good way. Judith.		
	7	JUDITH WRIGHT-BIRD: Judith Wright, Fort Norman Metis Community. I		
	8	just have one more question from GNWT about there's going to be a		
	9	corridor working group created. Can you explain that, and who's going		
09:39AM	10	to be sitting on that committee and when will it be implemented.		
	11	SETH BOHNET: Seth Bohnet, GNWT. Thank you, Judith, for the		
	12	question. So, yes, the GNWT has committed to establishing a corridor		
	13	working group with representation on that group from the various		
	14	Indigenous government community organizations, GNWT departments,		
09:40AM	15	and anybody else I think we have a short list of proposed individuals		
	16	that could be on that group. It has not been finalized yet.		
	17	As part of the ongoing engagement that the GNWT is doing with		
	18	DPRA in the communities, we are working right now to identify who		
	19	should be on that working group. As well as the subgroups. So, again,		
09:41AM	20	there are subgroups, subcommittees, that will help develop the		
	21	management monitoring plans that we've got outlined. So that		
	22	engagement is still ongoing. We have proposed a development of a		
	23	working group, and we're still open to finalizing who would sit on it.		
	24	JUDITH WRIGHT-BIRD: Okay. I wasn't sure it if it was part of this		
09:41AM	25	process or if it was another working group that you were establishing.		
	26	Thank you.		
	27	SETH BOHNET: Thanks, Seth Bohnet, GNWT. Yes, the corridor		

working group is sort of the parent group with subgroups underneath it, subcommittees underneath it. ALAN EHRLICH: Thanks, Seth, that helps. So as I said, we're going to kick into high gear now just so we can get through the rest of our socio-economic before we hit the cultural topic that's the main part of the morning. Over to Todd for Déline. TODD SLACK: It's Todd on behalf of Déline Got'ine Government. And I do notice that you're looking directly at me every time you say "high gear". So, message received. ALAN EHRLICH: Not an accident. TODD SLACK: I'll just echo one of the things that Alan said a few seconds ago, and I will echo it very quickly. The point of engagement is an outcome. It's not engagement as a mitigation. The engagement is the mechanism by which you get to the outcome. So underline there. And then moving onto the other aspect, and it's a restatement of why we want to work together. You know, we want to make this project better. It's going to affect the communities. There's clearly a desire. And, you know, right from the start of Tuesday – sorry, we talking about working together on a measure that looks at preserving flexibility for the proponent, recognizing your funding constraints, things along those lines, your interest, but also some of the interests that we've heard today, or this week at least. You know, independence. It grants authority to the working group direction. It sets out resourcing that doesn't limit the operation and the implementation of their recommendations.	ĺ				
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	09:43AM	25	authority to the wor	rking group direction. It sets out resourcing that	
27 recommendations.		26	doesn't limit the op	eration and the implementation of their	
		27	recommendations.		

1 You know, we'll work out the -- and I heard that, you know, 2 there's a willingness to try to sort this out; that's great, let's do it. It 3 solves a lot of the data limitations. But, again, to restate why it's 4 important, in the absence of the details and in the absence of the 5 mitigation to lower impacts from significance, we don't have that and 09:43AM 6 we don't have an agreement on how we're going to work together, then 7 that data and those operations need to be made clear in the 8 assessment otherwise it's impossible to assess this project. 9 So just to restate that we don't need that as long as there's a 10 plan to do it afterwards. 09:44AM 11 And, you know, this isn't -- it shouldn't have been a surprise. 12 This is a key line of inquiry which I like -- I had my friend here look at the 13 definition. It's an area focused that is critical to understanding the 14 potential impacts. It addresses issues of public concerns. 15 When you look at the DAR, your community meetings, like you 09:44AM 16 guys have heard these things like time and time again. You know, that's 17 why it's a key line of inquiry from ten years ago, that's why it's a key line 18 now, and that's why it has to be addressed in a broad manner, to take 19 that off the table and to start to resolve the concerns. You know, this 20 whole process is about resolving things. 09:45AM 21 And so just to wrap up, you know, I was, perhaps not optimistic 22 yesterday but I'm trying to be optimistic today, I'm taking the project in 23 good faith. And I just want to say there's an opportunity to move quickly 24 here. This is not rocket science. Jointly proposed measures have 25 existed in this -- in the MVEIRB history. We have TASR's measure to 09:45AM 26 work from, to improve on. Like that narrow -- narrows the scope. But, 27 you know, I think there's a real opportunity to get a lot of the broad

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	1	concerns you know	w, there's always going to be small things below	
	2	that to get a lot of that done, and DGG is pretty optimistic about this.		
	3	So, thanks.		
	4	ALAN EHRLICH:	Thanks Todd. Is there a response or a question	
09:45AM	5	you're looking for?		
	6	TODD SLACK:	No.	
	7	ALAN EHRLICH:	Okay, no, thanks for the statement. There's a	
	8	lot in that, and we ap	ppreciate that there's obviously been a lot of	
	9	reflection over the la	st couple of days going into that too.	
09:46AM	10	Now we're go	ing over to Pehdzeh Ki First Nation. We very much	
	11	appreciate all the co	ntributions you've made to the discussion. Being	
	12	aware of our time co	nstraints, how many questions do you have?	
	13	JANE HENDERSON:	Jane Henderson for PKFN. I would say we	
	14	have roughly four qu	estions on socio-economic impacts before moving	
09:46AM	15	into the cultural and traditional land use section.		
	16	ALAN EHRLICH:	Like I said, I recognize there's some overlap,	
	17	and that's okay.		
	18	l also just war	nt to remind everyone in the room that we're going	
	19	to have a round of in	formation questions, written information requests,	
09:46AM	20	starting after the technical sessions. And so if people do have extra		
	21	questions don't forge	et that it doesn't mean that you can't ask them, right.	
	22	But there's an oppor	tunity to ask them in a systematic sort of written	
	23	manner in our inform	nation requests after this.	
	24	Okay, PKFN,	please go ahead	
09:47AM	25	JANE HENDERSON:	Thank you. Jane Henderson, Pehdzeh Ki First	
	26	Nation. So returning	to yesterday, as Elder Tim Lennie told you all	
	27	yesterday, and thank	c you, Tim, for your generosity in speaking, the	

proposed work risks the future survival of the community of Wrigley, which must be considered as a significant adverse effect. That is risk with the project. He described that when the highway first arrived -- can you hear me?

So Tim was describing that when the highway first arrived, members left. The developer only considers -- so I'm going to use the word "cumulative effects" here and please notice that we are not socio-economic analysts in the formal sense. We may be misusing the phrase "cumulative effects" by using it in an informal way, and I hope you can understand what we're getting at.

So, you know, the developer considers physical projects as part of a cumulative effects assessment, and to PKFN this -- using it just to talk about physical effects doesn't make sense because there are cumulative socio-economic effects in the picture. So for PKFN it means that the loss of members, members moving away from the combined effects of a highway extension and the regionalization of services that Tim described, right, the removal of services from Wrigley, this must be considered as part of the larger picture because these are, from their perspective, cumulative effects of government decisions here, right.

And so Tim spoke yesterday about the effects of people leaving after the first highway extension. And to add a further piece of history here, when Pehdzeh Ki First Nation was relocated from Old Town to what became Wrigley in the 1960s, at that time Canada made promises for housing as part of their relocation, which were not kept and have never been kept, and at that time members also had to make the difficult decision to leave because they were relocated but had no homes.

1 So we've got that piece in the '60s, and then as Tim described in 2 the '90s, members found they had to leave to access education and 3 health care. And so to Pehdzeh Ki First Nation, the proposed highway 4 is the latest in a much longer and broader series of projects by colonial 5 governments. And of course, not being able to live in the N'deh makes 09:49AM 6 it much harder to exercise Aboriginal and Treaty rights in N'deh or to 7 carry out Dene responsibilities toward the N'deh, including teaching the 8 next generations on the land. 9 So I put this out to you that PKFN, with the potential adverse 10 highway impacts are extremely significant and must be considered in 09:49AM 11 light of this history. So two questions on this, really, three. The 12 question is first, since there is no socio-economic analysis in the DAR 13 that considers PKFN, what timeline would be needed for any analysis to be included in the addendum? Is it even possible? 14 15 SETH BOHNET: Seth Bohnet, GNWT. Thanks for the question, 09:49AM 16 Jane. So as we've referenced already, there has been challenges 17 incorporating specific socio-economic information from Pehdzeh Ki over 18 the last few years and into what's currently in the DAR. But in the 19 current work plan, there is the opportunity to provide updates to the 20 DAR through a proposed addendum. That is a very tight timeline, so 09:50AM 21 we are open to and willing to come in and meet with the Pehdzeh Ki 22 First Nation to explore these types of issues specifically and, you know, 23 it would likely take a few days of one-on-one conversations with the 24 various organizations and individuals in the communities, similar to what 25 we have been doing in all the other communities, and we're open to 09:50AM 26 doing that as soon as possible with the thought of incorporating any 27 additional information in that DAR addendum.

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	1	JANE HENDERSON: Jane Henderson PKFN. Thanks, Seth. And
	2	what is the timeline? I understand that you're proposing a few days of
	3	your workers coming into the community. I don't know the timeline for
	4	when the DAR addendum needs to be written and how much time you
09:51AM	5	need to assess the information and meaningfully incorporate it.
	6	SETH BOHNET: Seth Bohnet, GNWT. Thanks again for the
	7	question. Right now we're looking at trying to maintain the tentative
	8	schedule and the work plan that the board has provided for the
	9	completion of the EA. There isn't a specific date, but there's a target for
09:51AM	10	it to be provided in the spring of 2025. And my understanding is that
	11	that work plan is here and will be updated shortly.
	12	MARK CLIFFE-PHILLIPS: Mark Cliffe-Phillips the Mackenzie Valley
	13	Review Board. So at the end of the technical sessions we'll need to
	14	evaluate the work plan, have discussions with parties as well as look at
09:52AM	15	the timelines for the next round of information requests, so looking at
	16	how many information requests, and the response timeline is going to
	17	be a little dependent on what that next step moving into the hearing
	18	phase.
	19	The idea around the DAR addendum is to have adequate time
09:52AM	20	for parties to formulate their interventions to hearings, so once we know
	21	a little bit more detail of when that IR phase will be completed, we'll
	22	have to calculate the timelines to get us to hearings. So I don't have a
	23	definitive timeline, but that general timeline of spring of 2025 is still with
	24	the board as looking to work towards. Seth.
09:53AM	25	SETH BOHNET: Thanks for that. Seth Bohnet, GNWT. In
	26	follow-up, again, what I would like to do and what I'm interested in from
	27	PKFN is when is a time available? We'd be happy to come in as soon

	1	as we can to start those conversation and continue the dialogue moving		
	2	forward.		
	3	JANE HENDERSON: Jane, PKFN. Thank you, Seth. We'll take it		
	4	away and get back to you.		
09:53AM	5	So the follow-up question is as I described, how is the context		
	6	that I described, where PKFN would consider cumulative effects		
	7	considered in socio-economic assessment.		
	8	SETH BOHNET: Thank for that, one Jane. Seth Bohnet, GNWT.		
	9	I'll ask Timm to maybe speak to that one.		
09:54AM	10	TIMM ROCHON: Timm Rochon, DPRA. Thanks, Jane, for the		
	11	question.		
	12	So the way we and it is discussed and referred to in the DAR is		
	13	the impacts of colonialism, residential schools, is discussed in terms of		
	14	the identification of vulnerable populations, and the fact that those		
09:54AM	15	impacts definitely do impact populations differently, like Indigenous		
	16	populations, obviously, and so there's a whole section on vulnerable		
	17	populations, and so that's more or less how it is discussed.		
	18	JANE HENDERSON: Jane, PKFN. Thank you, Tim. Moving on to		
	19	our next question. This question refers to three different impacts.		
09:54AM	20	Acknowledging that PKFN's assessment has not yet been done for		
	21	PKFN and Wrigley, we would like to flag certain kinds of impacts to see		
	22	if they're already considered in the DAR because they are relevant to		
	23	Wrigley.		
	24	So the first question is about the impact of community members		
09:55AM	25	leaving for work. There are three different impacts we'd like to discuss.		
	26	So it's predicted by the community that the population of Wrigley will		
	27	initially decline if PKFN members become workers who leave the		

1 community for training or to build the highway further north. And if. As 2 predicted, the highway makes resource development projects possible 3 in the region, then members would likely leave the community for 4 further training and employment as well. 5 Members have stated that in those situations, family care roles 09:55AM 6 would have to change if more young people enter the workforce 7 because young people have less time to care for the young and the 8 Elderly, and this observation is supported by studies on the effects of 9 work projects on Indigenous communities. I can provide citations, but 10 for the interest of time, I won't get it in here. But, typically, the partner 09:56AM 11 that stays at home must take on additional household responsibilities 12 both while their partner is away working or training and also when they 13 return home, as the worker is often recovering from difficult work. 14 So that's the first impact is the change in family care roles. And 15 secondly, as young men traditionally are the demographic that work in 09:56AM 16 both outside development jobs and hunt, this can lead to a breakdown 17 in knowledge transfer from Elders in the youth as the young men are 18 leaving for the work, which can lead to a decrease in hunting practices 19 for a community. 20 And then thirdly, being away from the community for work and 09:56AM 21 training can prevent workers from participating in community 22 gatherings, and this can lead to negative impacts on leadership, 23 recruitment, and training in the community. 24 All of these potential impacts have been flagged by PKFN 25 members as concerns. And I would like to ask, how has the developer 09:56AM 26 accounted with these impacts on the N'deh care of youth and Elders, 27 family dynamics, knowledge, transmission, and leadership

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	1	development? Thank you.
	2	TIMM ROCHON: Timm Rochon, DPRA. Thanks for the question,
	3	Jane, and a great question.
	4	I'll just start by saying, then I'll hand it off to my colleague Jen,
09:57AM	5	who is on the line who I know wants to get involved in this discussion,
	6	but
	7	So those issues that you've raised certainly were discussed in all
	8	the other communities, and so they are identified, actually, in the DAR,
	9	and they're discussed in the human health and wellness VC in terms of
09:57AM	10	the various effects, and there were nine potential effects in that VC.
	11	And so maybe what I'll do is, is I'll let Jen, kind of, give you more
	12	detail in terms of how we actually did that and how they are discussed,
	13	but they're great points, and, yes, they were they are discussed and
	14	addressed in the DAR. So, Jen, I'll hand it over to you.
09:58AM	15	JENNIFER HENEBERRY: Good morning. Can everybody hear
	16	me? Hoping I fixed my sound issues from yesterday.
	17	ALAN EHRLICH: You sound good, and we can see you just fine.
	18	JENNIFER HENEBERRY: Excellent. Jen Heneberry, DPRA
	19	Canada. Thanks for the question, Jane.
09:58AM	20	Yes, as Tim notes, these issues as you have expressed yourself
	21	and as we reflect in the DAR, many of these issues are connected
	22	together, many of the project effects, and so they are discussed in kind
	23	of a cross-sectional way. That being said, the DAR identifies what are
	24	called effects pathways, so how might the project affect socio-economic
09:58AM	25	conditions in communities. And so some of the things that you're
	26	describing around having less time to care for family, some of those
	27	family cohesion issues, there is a part of the health human health and

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	1	community wellness part of the DAR that speaks to community family		
	2	and social ties and what are some of the affected pathways that may		
	3	result in changes to those conditions in communities.		
	4	We also discuss as part of the employment and economy,		
09:59AM	5	changes that may result as a result of employment on the project to		
	6	traditional economy practices. So the ability for community members to		
	7	participate in the traditional economy as a result of employment on a		
	8	project.		
	9	I recognize this is not exactly some of the concerns that you're		
09:59AM	10	raising, but they are related, and certainly I think I'm just looking at		
	11	your list. I want to make sure that I'm getting them all.		
	12	You do talk about, in several places, how hunting practices we		
	13	don't cover the cultural impacts; that's a different part of the DAR, but		
	14	we do talk about how non-traditional resource use and impact by those		
10:00AM	15	coming outside may change land access and hunting access and what		
	16	issues that might have.		
	17	So while those are not some of those are not directly		
	18	connected to what you're speaking about, they do take into		
	19	ALAN EHRLICH: Hold on. Your sound cut out. We heard right		
10:00AM	20	up to "when people come from outside that may change land access",		
	21	and then your voice Petered out.		
	22	JENNIFER HENEBERRY: Am I better now? Am I back?		
	23	ALAN EHRLICH: No, I can't tell. Is it clear online? Is this a room		
	24	problem or a Zoom problem?		
10:00AM	25	UNIDENTIFIED SPEAKER: It's a Zoom problem, yeah.		
	26	ALAN EHRLICH: So we're having a problem with the Zoom at this		
	27	point. Why don't you try turning off your camera and no. Okay, so		

1	we've got people online saying they can still hear you loud and clear.		
2	We think it's a room problem.		
3	Other people online can hear her fine. We're working on it.		
4	Martin from PIDO is struggling nobly with the issue.		
5	JENNIFER HENEBERRY: Okay. I can hold for a minute while we		
6	get		
7	ALAN EHRLICH: No. You're back. You sound great. Go ahead.		
8	So you were saying, when people come from outside that may also		
9	reduce access to harvesting for community members, and right after		
10	that, we kind of didn't hear.		
11	JENNIFER HENEBERRY: Okay. Jen Heneberry, DPRA. Thank		
12	you.		
13	And so all of the DAR sections do reflect the engagement		
14	findings to inform the assessment. And I think all of these affects		
15	pathways that I described in the sections of the DAR are related, I think,		
16	Jane, to the issues that you have raised and are covered. And I think		
17	certainly as part of any engagement that we might do with PKFN in		
18	community, we would ensure that we would, you know, update the		
19	engagement findings or make sure that they are reflected as project		
20	effects in an update to the DAR if and as required. So if the existing		
21	effects pathways need to be broaden or other things need to be		
22	considered, we would obviously do that as part of the engagement on		
23	the assessment as part of our assessment of the potential project		
24	effects on socio-economic conditions.		
25	So I think I've addressed the three issues, but, please, let me		
26	know if there were any that I missed in the three issues that you wanted		
27	to discuss specifically.		
	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26		

	1	ALAN EHRLICH: No, that's good. And, again, I just want to	
	2	encourage everyone to try to be concise in your responses and	
	3 questions, if you can, just so that we have enough time to ge		
	4	what we want to get through and get into some of the cultural aspects	
10.00.014	5		
10:02AM		and harvesting aspects in more depth this morning, but we heard your	
	6	answer loud and clear. Back to you Jane.	
	7	JANE HENDERSON: Thank you, Alan, and thank you, Jen.	
	8	So in the interest of time, I will just ask that if specific mitigation	
	9	measures have already been proposed for those kinds of impacts,	
10:02AM	10	could you, please, direct us to them, and if they have not, then we'll just	
	11	assume that they have not at this time, but if they have been, please, let	
	12	us know.	
	13	Moving on to the next question. So the next question can bluntly	
	14	be summarized as, are there risks that the developer is repeating past	
10:03AM	15	mistakes? The GNWT proposed similar aspirational plans for	
	16	education and job training and employment in the 1992 implementation	
	17	plan for the Mackenzie Valley Highway extension; those plans included	
	18	training programs up to four years, kind of co-op education and work	
	19	setup, construction contracts tailored to the capacity of local businesses	
10:03AM	20	and business develop support that was customized for individual	
	21	communities. However, in 1995, the Barcon report I can provide	
	22	citations, I'm sure you're familiar with it, which was commissioned by	
	23	the GNWT, heavily criticized this plan as unlikely to bring significant	
	24	socio-economic benefits for Indigenous communities.	
10:03AM	25	The Barcon report also criticized project-related training	
	26	initiatives as poorly planned and being implemented too late to be	
	27	effective.	

	1	PKFN's question	on is how has the developer incorporated the	
	2	findings of the Barcon report into the DAR? Given that and also given		
	3	that many of the plans	s do not yet exist, how can the developer and	
	4	Pehdzeh Ki First Nation have confidence that they will not be poorly		
10:04AM	5	planned and too late?		
	6	ALAN EHRLICH:	GNWT.	
	7	SETH BOHNET:	Seth Bohnet, GNWT. Thanks for the question,	
	8	Jane. I don't have an	answer at the moment. We'll take that one away,	
	9	and well agree back to	o you on it.	
10:04AM	10	ALAN EHRLICH:	Thanks. PKFN.	
	11	JANE HENDERSON:	Thank you. And this is our last Jane for	
	12	PKFN. This is our las	t question on socio-economic impacts.	
	13	Just yesterday	it was discussed, I think many parties are in	
	14	agreement that it's ve	ry valuable to have the indicators for any future	
10:04AM	15	monitoring framework	to be developed in consultation with communities	
	16	so that relevant indica	ators can be used, and I PKFN requests a	
	17	timeline on when thos	e relevant indicators will be created so that	
	18	baseline can be estab	lished as soon as possible.	
	19	SETH BOHNET:	Seth Bohnet, GNWT. Thanks for the question,	
10:05AM	20	Jane.		
	21	So as we've cu	rrently got proposed, we've heard loud and clear	
	22	that communities wan	t to be involved in the development of those	
	23	indicators, which is re	flected in the idea of establishing the corridor	
10:05AM	24	working group and sul	b-working groups to do just that, and our goal is,	
	25	again, of course, to have that work done and completed prior to		
	26	construction.		
	27	MARK CLIFFE-PHILLIPS	S: Just a question to just, I guess, a question to	

1 GNWT around the indicator work that came out of the measures from 2 both Jay and Diavik that there was some community wellness or cultural 3 indicators and socio-economic indicators that were being done for 4 diamond mining communities, but just in terms of sharing some 5 information on what other communities have done as an example for 10:06AM 6 this project, if GNWT wants to share that with parties on the record. 7 **MORGAN MOFFITT:** Morgan Moffit, GNWT. So I'm actually going to 8 start with the Tłycho All-Season Road/Tłycho Highway because I think it's 9 a more relevant process to this one, but I'll talk as well about the Diavik 10 process, just -- they chose to go in a different method for doing their 10:06AM 11 indicator selection. 12 So with the Tłıcho Highway, I believe Pat spoke -- Patricia spoke 13 yesterday briefly about the timeline for the work when we started that. 14 So by January 2019, we had our first meeting about how are we going 15 to be tackling the measures that we've been jointly assigned as well as 10:07AM 16 independently assigned, and we continued those conversations into the 17 spring. At that point, we had already formed our sub-working group. 18 The first terms of reference we had drafted by the Tłycho Government, 19 and that was done in the earlier winter, around February. 20 So after that, we started our truly collaborative process, which 10:07AM 21 was really the GNWT departments and the Tłycho Government as well 22 as their consultant going through a vast list of data that we had available 23 to us in the GNWT, and asking what are the questions and what are the 24 areas and concern that we have. And then also asking about the data, 25 what does this actually tell us. Because sometimes you're provided an 10:08AM 26 indicator, like, say, teen pregnancy, and it's not really answering the 27 question that you're concerned about; so you want to find other areas of

information where you can complement it, like qualitative reports from the community. Same with some information on STIs.

So we started first by creating the questions on areas of concerns that we all had together, and then after we made our topic groupings, looking at each data set and bringing in the experts within each department that could speak to what that data set says, and this also included bringing in the nurses from the communities, talking to the RCMP and having both of them run different types of tests to look at what we had seen or what we had expected to see in the baseline data. So, for example, we talked about, in the Tłįchǫ Highway, the spike when the northern -- when the winter road was opened, and we wanted to look at that again, at the beginning of the working group. And we had an excellent analyst from the RCMP who came in and did that with us, and they would go through all of the different changes they see.

That went on for about a year, really, and we would meet monthly -- sometimes we'd miss a monthly meeting, and then we narrowed it down to -- I think, it's 36 different indicators that we're interested in. And it's been notes throughout that -- like, some data at the community level, especially due to privacy concerns, we can't share, but when we have agreements put into place, we can share them within the working group to discuss them and ensure that we're monitoring it. And so we identified those there, and we have those discussions in person.

I believe we finalized our indicators within the two-year period, and part of that timeline was pushed back, frankly, because I was on mat leave. Apologies. Thank you. Beautiful baby. And so we continue this monitoring group. It's now on the GNWT's side, led by Health and

1 Social Services with Melissa Pink, but on the Tłycho Government side, 2 we continue to meet, usually monthly, at least eight times a year for 3 [inaudible] monthly meetings, and we discuss issues in the community, 4 changes that we're seeing, questions that we have, and it's really, like, 5 driven by the interests of the communities in the Tłycho Government. 10:10AM 6 For the Diavik measure, the process was different, and I 7 probably shouldn't speak to it as the ECE employee because it's led by 8 ITI, but that work was done -- they can give you specifics through an 9 intergovernmental council sub-working group. And it was led by ITI and 10 a consultant and the IGs who were all at the table picking the indicators 10:11AM 11 and discussing their concerns together, but I wasn't in that table; I was 12 receiving information from that table. Thank you. 13 MARK CLIFFE-PHILLIPS: Just in -- Mark from the Mackenzie Valley 14 Review Board. If you wanted to see the outcomes of that, they're 15 available on the Review Board's website in the follow-up program 10:11AM 16 reports, the annual reports for the Diavik EA. 17 ALAN EHRLICH: And it's Alan again. Some of the outcomes, 18 we're not suggesting that the indicators that they wound up settling on 19 for wellbeing in communities that were affected by that development are 20 necessarily all going to be the same for those communities and those 10:11AM 21 projects as they would be for this, but they might be a useful frame of 22 reference to consider just to start instead of starting from scratch to 23 decide for yourselves if they apply to the communities that could be 24 affected by the Mackenzie Valley Highway or if there are changes that 25 would be useful, but a lot of work, as you're hearing, has gone into 10:12AM 26 them, and there's some useful models to work off of there, including 27 with the engagement.

	1	And I would point out that except for the Tłįchǫ Highway, the
	2	GNWT was not the developer for either the Diavik or the Jay Projects.
	3	They were doing that as part of health and social services and ITI. So,
	4	just so you get that that wasn't them in there as developer doing it, but
10:12AM	5	they had the same expertise and experience.
	6	Okay. So that's if for you question wise, PKFN? Thank you for
	7	that. Productive discussion. Morgan Moffit ,thank you very much for
	8	sharing your experience on this. It could be quite applicable. It was
	9	helpful. Thank you.
10:13AM	10	Now I'm going to go to Nina Barton who is a consultant for the
	11	Review Board.
	12	NINA BARTON: Hi, Nina Barton for Two Worlds Consulting on
	13	behalf of the Review Board.
	14	So I have a follow-up question further to what we've been
10:13AM	15	hearing this morning and yesterday and also what's also in the DAR.
	16	So the mitigation approach that's proposed specifically for the
	17	significant effect to the safety of women and girls and other vulnerable
	18	populations, that's what I'm talking about specifically. So in this I
	19	don't have the actual page in chapter 9, but the summary part of the
10:13AM	20	assessment, I think it's page I have 85 here; I don't know if that's
	21	correct, but it states and also we heard this yesterday that the
	22	effectiveness of the proposed mitigation measures, including the
	23	adaptive management plans would be limited. So this is in the DAR. It
	24	says that it's anticipated that the significant residual effects on public
10:14AM	25	safety will arise particularly on women and girls and other vulnerable
	26	groups or populations, sorry, due to the project even with the identified
	27	mitigations in place.

	1	And this was	also confirmed yesterday in this room. So further	
	2	to this, can the GNV	VT commit to providing further detail, specifically on	
	3 the safety and security plan for vulnerable community men			
	4	of the DAR addend	um, and to consider providing additional mitigation	
10:14AM	5	strategies to assess	s the significant adverse effect to the safety and	
	6	security of women a	and girls and other vulnerable populations.	
	7	ALAN EHRLICH:	Sorry, Nina, just to be clear, did you say provide	
	8	additional mitigation	ns s to assess or provide additional mitigations to	
	9	prevent		
10:15AM	10	NINA BARTON:	Thank you for to address.	
	11	ALAN EHRLICH:	To address?	
	12	NINA BARTON:	Yeah.	
	13	ALAN EHRLICH:	Okay. Thank you. GNWT.	
	14	SETH BOHNET:	Sorry. Can I have you just repeat that for me,	
10:15AM	15	please.		
	16	NINA BARTON:	Yeah, certainly. Nina Barton, Two Worlds	
	17	Consulting. So the	question is, can the GNWT commit to providing	
	18	further detail on the safety and security plan for vulnerable commun		
	19	members as part of	the DAR addendum and to consider providing	
10:15AM	20	additional mitigation	to address the significant adverse effect on the	
	21	safety and security	of women and girls and other vulnerable	
	22	populations?		
	23	SETH BOHNET:	Seth Bohnet, GNWT. So I would say that, yes,	
	24	the GNWT can prov	vide any additional information we have between	
10:16AM	25	now and the development of the DAR addendum that we receive		
	26	through ongoing en	gagement and collaboration with the community	
	27	organizations.		
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	1	ALAN EHRLICH: Seth, it's Alan here. I think what you're being
	2	asked to do is not just provide additional information you happen to
	3	have right now, but it's to search deeply for creative ways to mitigate
	4	potential impacts on women and safety coming from this project, in
10:16AM	5	addition to the mitigations that you've put forward so far.
	6	And I'd also note that the inquiry on missing and murdered
	7	Indigenous woman and girls specifically made a conclusion that groups
	8	like the Review Board that are doing assessments on projects like this
	9	need to do better with respect to preventing these kinds of problems.
10:17AM	10	The Board does take that quite seriously. The request isn't to take the
	11	information you have and package and then and see if there's
	12	something else in there that's helpful. It's to try hard to move in a
	13	direction that will better address this issue if the project goes ahead.
	14	SETH BOHNET: Seth Bohnet, GNWT. Thanks for the
10:17AM	15	clarification, Alan. So the I'm not saying that we're going to take the
	16	existing information and rehash it in some way, shape, or form. What
	17	I'm suggesting is that there's still the opportunity to have additional
	18	dialogue, add information to improve what's currently proposed, and
	19	anything that we can do to do that, to help inform and improve, we're
10:18AM	20	open to additional dialogue; and we will present anything new in the
	21	DAR addendum at that point in time.
	22	Again, reflecting that the development of that plan is intended to
	23	be a collaborative approach that is achieved through the I believe it's
10:18AM	24	a sub-working group of the overarching working group, which is not yet
	25	established and is not proposed to be established until post the DAR
	26	addendum submission.
	27	ALAN EHRLICH: Thanks, Seth. I appreciate that. And I also

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	1	consider the wealth o	f experience that the GNWT you know, the
	2	whole of government,	includes health and social services, and we know
	3	that GNWT has exten	sive experience understanding what these issues
	4	are in a variety of diffe	erent other communities that are already on the
10:18AM	5	road system and shou	uld be in a very good position to come up with
	6	progressive, innovativ	ve, and effective mitigations. And if you're able to
	7	produce them before	the DAR addendum, all the better because that
	8	way the scrutiny migh	t be able to happen prior to the public hearing
	9	instead of during the p	oublic hearing, which can be helpful in other ways.
10:19AM	10	So thank you for that.	
	11	Quick follow-up	o from Nina.
	12	NINA BARTON:	Nina Barton, Two Worlds Consulting for the
	13	Board.	
	14	Thanks for tha	t. I just wanted to add, if this could include
10:19AM	15	information specific to	both instruction anticipated effects and then also
	16	operation effects, so I	ooking at, you know, both the effects of incoming
	17	workers. Thanks. An	d then also operation and the use. Thanks.
	18	SETH BOHNET:	Seth Bohnet, GNWT. Yes, it would consider
	19	both.	
10:20AM	20	ALAN EHRLICH:	Thank you. I'm deliberately delaying our break
	21	just a little bit. We ha	ve one more question from Ruari Carthew who is
	22	online on behalf of Gv	vich'in Tribal Council, and then we're going to have
	23	a break, and we're go	ing to switch gears over to the cultural, harvesting,
	24	and traditional land us	se topic.
10:20AM	25	Ruari, it's your	opportunity.
	26	RUARI CARTHEW:	Ruari Carthew, R(E)C Consulting representing
	27	GTC. Thank you very	much. I have a question related to the

Mackenzie Valley fiber line. Before I do, I just want to quickly add a point related to talk on the Tłįchǫ community working group that comes up often as a good example of GNWT initiatives to work with Indigenous governments and communities to lessen the undesired effects of highways. This is a, I think, important to acknowledge that this reference to the TCWG involves the GNWT sharing power and authority with an Indigenous government to understand and resolve issues that are being observed and discovered, and it's a good example of why elements of shared agency and authority between government is so important as has been talked about yesterday and on day one.

So my question related to the MacKenzie fiber optic link is that, back when the Inuvik to Tuk Highway was being built -- and this is mentioned in the ER23 -- it was clearly stated that building the highway -- Mackenzie Valley Highway along the fiber corridor would be likely to damage the cable, and the conventional wisdom was to build the highway first and then add in the fiber afterwards. Obviously, you know, just the reality of the days and the situations, it's not how things went, and now we have a fiber line in and they're talking about building a road.

So there are potential risks to the Mackenzie Valley fiber optic line, and this is a great concern to GTC as Gwich'in members and businesses rely on this line as good cohesive infrastructure. So damage or delayed service would be disruptive to users in the GCA and ISR. Section 5.3.3 of the DAR provides a brief description of the MVFL and adds that GNWT will identify the location and work with the operator to implement appropriate precautions to prevent damage.

GTC believes it's important to understand the risk of the project to users

	1	of the fiber line and to	and ways GNWT will take to reduce or prevent
	2	accidents.	
	3	I've simplified in	n the interest of time the questions. Has the
	4	GNWT conducted a ris	sk assessment for direct and indirect risk to the
10:23AM	5	Mackenzie Valley fiber	r line?
	6	ALAN EHRLICH:	Thanks Ruari. GNWT.
	7	SETH BOHNET:	Seth Bohnet, GNWT. Thanks for the question.
	8	So the short answer to	that question is no, there has not been a risk
	9	assessment undertake	en specific to the Mackenzie Valley fiber line.
10:24AM	10	However, we have ide	ntified the need to work with the owners of all
	11	infrastructure in the req	gion to mitigate risks to existing infrastructure as
	12	part of the project mov	ring forward. So it is something that we have
	13	identified and need to	do.
	14	ALAN EHRLICH:	Thanks. Ruari.
10:24AM	15	RUARI CARTHEW:	Ruari Carthew with GTC. Can the updated
	16	economic business ca	se include scenarios that cost out the risk of a
	17	line break, including th	e cost to fix a generic break and the induced lost
	18	to businesses that ass	sessment to further factor in the anticipated
	19	frequency of those bre	eaks due to construction,activities, or breaks
10:24AM	20	occurring as a result o	f accidents or increased access along the road
	21	during operations. It w	vould also be good to have an associated
	22	assessment of risk to	critical services in the DAR addendum.
	23	ALAN EHRLICH:	Is there a question with, that Ruari?
	24	RUARI CARTHEW:	Can the DAR addendum also include an
10:25AM	25	assessment of risk to	critical services in the events of breaks to
	26	Mackenzie Valley fiber	r optic line?
	27	ALAN EHRLICH:	Thanks. GNWT.

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	1	SETH BOHNET: Seth Bohnet, GNWT. So what we proposed is
	2	that, again, if we're talking specifically about the Mackenzie Valley fiber
	3	line, that where there's interaction between the project and the fiber line,
	4	the GNWT will need to work with the owner of the fiber line to mitigate
10:26AM	5	any potential interactions and appropriately address, and that those
	6	mitigations would be sufficient through some sort of a formal agreement
	7	with the owner. So at this point in time, it's not going to be incorporated
	8	into the business case that we're updating, and there's not going to be
	9	anything new along that line provided in the DAR addendum.
10:26AM	10	ALAN EHRLICH: Thanks. Ruari.
	11	RUARI CARTHEW: Ruari Carthew, GTC. Can GNWT confirm that
	12	it remains a partner and joint venture with Ledcor and NorthwesTel to
	13	operate and maintain the Mackenzie Valley fiber optic line?
	14	SETH BOHNET: I'll have to come back on that. Sorry. Seth
10:27AM	15	Bohnet, GNWT. Sorry. I'll have to come back with that one, sorry.
	16	RUARI CARTHEW: Thanks. Ruari Carthew, GTC. That's it. Thank
	17	you for your time.
	18	ALAN EHRLICH: Thanks, Ruari.
	19	MARK CLIFFE-PHILLIPS:. Mark Cliffe-Phillips with the Review Board. We
10:27AM	20	just have one other question. Just regarding the action plan from
	21	GNWT to respond to the Calls for Justice on Missing and Murdered
	22	Indigenous Women and Girls and Two-Spirited LGBTQIA+ people,
	23	there's Action 68, which is a requirement for at the time GNWT lands
	24	through environmental assessment to consider actions that the GNWT
10:27AM	25	would take to address security and safety concerns of women and other
	26	vulnerable groups within the resource extraction industry, so that was a
	27	primary focus.

	1	Just a question to	GNWT on how or if you've considered that	
	2	same action within GNWT's planning for the infrastructure project for		
	3	3 Mackenzie Valley Highway.		
	4	SETH BOHNET:	Seth Bohnet, GNWT. Just give me a moment,	
10:28AM	5	please. We're going to r	need some time, and then we'll come back to	
	6	you what that one. Thar	nk you.	
	7	ALAN EHRLICH:	Okay. I'm going to ask you to ponder that over	
	8	the break because we're	e a little bit late for the break.	
	9	Let's start again a	at 10:35 sharp, so it's not really a long break; it's	
10:29AM	10	kind of super short. Lon	g enough to get to the coffee and the bathroom	
	11	and get back.		
	12	So thanks, every	one. And when we get back, we'll get the	
	13	GNWT's response, and	after the GNWT's response, we're getting into	
	14	culture, harvesting, tradi	tional land use. Thank you.	
10:29AM	15	- SHORT RECESS -		
	16	ALAN EHRLICH:	Please go ahead.	
	17	MELISSA PINK:	Melissa Pink, GNWT. And Alan, I think the	
	18	question was how were	the Calls to Justice and the actions considered	
	19	in developing the DAR.	So section 9.16.2.1.2 talks about the safety and	
10:43AM	20	security plan, and it mer	tions in there that we will be working with the	
	21	GNWT's MMIWG working	g group in the development of the plan and that	
	22	the Calls to Justice and	the action plans were actually considered when	
	23	we started to develop th	e community readiness strategy and the safety	
	24	and security plan, so we	will continue to include those actions and Calls	
10:43AM	25	to Justice. Thanks.		
	26	MARK CLIFFE-PHILLIPS: I	Mark Cliffe-Phillips with the Review Board.	
	27	Thanks for that response	e. So I guess the question originally related to	
	l .			

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	1	the specific action, which was 68, which was the extractive industry one,
	2	and this is more just in general the application. The action plan
	3	explicitly relates to extractive industries, and I guess the question is
	4	do we understand for this project, you're describing the approach that
10:44AM	5	you're using, but in general, would for infrastructure projects going
	6	forward, would GNWT be applying the similar action plan for all
	7	infrastructure projects. But, we'll just leave it at that. I appreciate the
	8	answer. We'll look at the sections, but the idea around the lens is
	9	always on the GNWT reviewing these actions through the lens of
10:44AM	10	reviewing other extractive industries, resource industries, but in the case
	11	where there's a whole of government approach and GNWT is the
	12	proponent, would that action still apply through a different lens. But
	13	thank you for that response.
	14	ALAN EHRLICH: Okay, thank you. Our next item is a
10:45AM	15	presentation a ten-minute presentation from the GNWT on their
	16	predictions about the potential impacts of the project on culture,
	17	traditional land use, and harvesting. To the GNWT.
	18	SETH BOHNET: Seth Bohnet, GNWT. Erica, I believe, is going
	19	to lead us through these slides.
10:45AM	20	ERICA BONHOMME: Erica Bonhomme, Kalo Stantec. I do also want
	21	to introduce Laura Nuttall, who was here yesterday, and has headed
	22	back home and is currently somewhere in a car, in a bomb cyclone on
	23	the West Coast, so we'll see how all that works for her to participate in
	24	this discussion.
10:46AM	25	Just two slides, they're short, which will hopefully give us time for
	26	questions.
	27	The assessment of potential effects I don't have the slide I

	1	just have two slides, so if you could run those for me, that would be
	2	great.
	3	The assessment of potential effects on culture and traditional
	4	land use, including harvesting is presented in chapter 11 including
10:46AM	5	Appendix 11A. The assessment concludes that the project will not
	6	result in long-term changes to the availability of traditional resources for
	7	cultural use or access to traditional use areas. The project will change
	8	the availability of harvested resources and cultural use areas on and
	9	adjacent to the PDA, which is the footprint, that are directly affected by
10:47AM	10	habitat loss; for example, vegetation clearing.
	11	Notably, the project will increase and improve access to
	12	traditional use areas, cultural resources, and harvested resources. This
	13	may result in both positive and adverse affects.
	14	During both construction and long-term operations and
10:47AM	15	maintenance, individuals may experience effects differently.
	16	The GNWT will continue engaging with Indigenous governments,
	17	organizations, and other affected parties on mitigations that may be
	18	needed to reduce the effects on culture and traditional use.
	19	Next slide, please. Land and resource information from studies
10:49AM	20	by Pehdzeh Ki First Nation and Łíídlįį Kų́ę́ First Nation that have been
	21	funded by the GNWT once those studies are available. And that's it for
	22	our presentation.
	23	ALAN EHRLICH: Thank you. Does anyone have any questions
	24	for the GNWT on culture, traditional land use, or harvesting?
10:50AM	25	PKFN, please go ahead.
	26	JANE HENDERSON: Jane Henderson for PKFN. Starting, a quick
	27	question, I understand, and correct me if I'm wrong, that all of the

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	1	information that's on	the walls is not yet shared or on the record; is that	
	2	correct? And if so, when will it be shared?		
	3	SETH BOHNET:	Seth Bohnet, GNWT. The maps and images	
	4	on the back wall are	part of our engagement record. They are on the	
10:50AM	5	public registry and a	vailable. These posters behind on this side are not	
	6	currently on the regi	stry but can be made available.	
	7	ALAN EHRLICH:	In that case, I don't think this grand enough for	
	8	a commitment, but o	can the GNWT please submit those posters to the	
	9	Review Board so we	e can put them on the record.	
10:51AM	10	SETH BOHNET:	I hear regularly that I never say yes, but yes.	
	11	ALAN EHRLICH:	Sounds like yes to me. Thank you. PKFN.	
	12	JANE HENDERSON:	Thank you. So I'll be blunt in this question. As	
	13	we know, Pehdzeh	Ki First Nation has been calling for a alternative	
	14	route about five kilo	metres east of the Deh Cho since the beginning of	
10:51AM	15	engagement on this	project application. GNWT provided funding to	
	16	PKFN for an engine	ering study about the viability of an alternate route	
	17	outside the one-kilor	metre corridor, a study which has just finished in the	
	18	last few weeks and	which has not yet been shared with Infrastructure.	
	19	But, in the last two o	days, we've heard, for a number of reasons, that	
10:51AM	20	GNWT is deeply cor	mmitted to the proposed route and we also know	
	21	that the design and	evaluation criteria for this project to prevent using	
	22	an alternative route	like the one Pehdzeh Ki First Nation has been	
	23	calling for.		
	24	So PKFN's q	uestion is, and here is where I'm being blunt, what is	
10:52AM	25	the point of the alter	native route study that the GNWT funded; how does	
	26	Infrastructure think i	t can possibly be used?	
	27	SETH BOHNET:	Seth Bohnet, GNWT. So, again, to be candid,	

	I	
	1	it's difficult for me to speculate on how that information can be
	2	incorporated until we see the information. But, again, there is an
	3	openness and a willingness to continue to make adjustments and
	4	refinements to project design and project plans where we can moving
10:52AM	5	forward. So once we have that information provided to us, we would
	6	envision working collaboratively with you to identify where
	7	improvements can be made and to particularly address concerns where
	8	we can.
	9	ALAN EHRLICH: Just to clarify something we heard yesterday. I
10:53AM	10	understand what you said, an openness to make adjustments and
	11	refinements to the route, but GNWT was very clear yesterday that is
	12	within the one-kilometre proposed corridor, and if I understand PKFN's
	13	point correctly, they're talking about something that is clearly an
	14	alternative to that identified corridor.
10:53AM	15	SETH BOHNET: Seth Bohnet, GNWT. So we have provided
	16	information already on where we're working with other Indigenous
	17	governments to make adjustments to the alignment outside of that
	18	one-kilometre corridor as well. Specifically, there's work underway
	19	around Bear Rock and around I believe, it's Big Smith Creek to adjust
10:53AM	20	that one-kilometre corridor to ensure that there's flexibility to alleviate
	21	concerns with sensitive areas. So that's something that we are doing
	22	and can continue to do to the extent that we can.
	23	ALAN EHRLICH: Thank you. PKFN.
	24	JANE HENDERSON: I think to PKFN that's still frustrating or
10:54AM	25	incomplete answer because the design and evaluation criteria of the
	26	project require using all existing watercourses. And so while you've
	27	given examples of places where there may be slight deviations from the

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	1	one-kilometre corridor, anything wildly beyond that is prevented by the		
	2	design of the project, so or the criteria of the project. So PKFN is still		
	3	left wondering how could this study possibly be used.		
	4	SETH BOHNET: Seth Bohnet, GNWT. So, again, once we		
10:55AM	5	receive the information from the PKFN that we anticipate is forthcoming		
	6	here very shortly, we're open to having dialogues to see where that		
	7	information can help influence the project. At this point in time, we don't		
	8	have any evidence to indicate that those water crossings aren't		
	9	appropriate.		
10:55AM	10	ALAN EHRLICH: Thanks. I'm just going to tag environmental		
	11	analyst advisor Clémentine Bouche as my stunt double when I step out		
	12	for a second here. She's going to facilitate the next part.		
	13	CLÉMENTINE BOUCHE: Thanks, Alan. PKFN, do you have more		
	14	questions, or did GNWT answer that?		
10:55AM	15	JANE HENDERSON: We have more questions, and I think they follow		
	16	on to that question, but we take that answer as your last.		
	17	CLÉMENTINE BOUCHE: Okay.		
	18	JANE HENDERSON: Jane Henderson, Pehdzeh Ki First Nation. So		
	19	the next question is and this follows directly on to what you just said,		
10:56AM	20	Seth. To date you have no evidence that the existing water crossings		
	21	are not appropriate to be used so you can't consider anything else until		
	22	you would see evidence that would suggest that.		
	23	We've seen in the project description that the main way to		
	24	reduce effects on cultural resources is to follow the winter road as much		
10:56AM	25	as possible. Of course, PKFN has been clear that that is not their		
	26	understanding at all, and that the winter road, including its water		
	27	crossings and all of the water crossings all of the water crossings		

1 upgrades completed to date were created without sufficient consultation 2 with PKFN. 3 We note that in the PDR and in the DAR, there's no traditional 4 knowledge about Ochre River or the water crossing there at all. And 5 PKFN has consistently expressed that the winter road route already has 10:56AM 6 negative impacts on cultural resources and traditional land use. So to 7 use the winter road will only deepen those negative impacts and open 8 them up to year-round negative impacts. So PKFN questions the 9 developer's basis for this conclusion that, again, the main way to reduce 10 effects on cultural resources is the winter road route. 10:57AM 11 SETH BOHNET: Seth Bohnet, GNWT. So to be certain again, I 12 don't think it is fair characterize that the existing route that is proposed 13 does not incorporate any traditional knowledge or doesn't factor in any 14 other considerations. The information that we have available to us right 15 now has been utilized, including information that has been shared by 10:57AM 16 PKFN in the past, particularly in the development of the project 17 description report, which included information on culturally sensitive 18 areas, areas of significance to the community. That has been factored 19 into the existing project plan and design. And, again, we're open to 20 collecting additional information and reviewing the additional information 10:58AM 21 that PKFN has committed to providing to us moving forward. 22 JANE HENDERSON: Jane Henderson for PKFN. I will note there is a 23 total absence of traditional knowledge on Ochre River, which is a major 24 gap in the DAR. 25 Moving on, our next question is about culturally important areas, 10:58AM 26 so we're speaking here about the area between Vermilion Creek and 27 Bob's Canyon Creek, and if anyone wants, I'm sure one of the members

1 could point on the wall to where we're talking about since we don't have 2 visuals here, but just for other folks in the room. 3 So the 2012 report, the PDR states at section 3.6.4.6 that 4 between Vermilion Creek and Bob's Canyon Creek, seasonal flooding 5 must be evaluated as there is a traditional hunting ground that cannot 10:59AM 6 be avoided by the proposed alignment. The report recommends the 7 study in this area to evaluate and validate traditional activities and 8 wildlife presence so that an appropriate alignment can be designed. 9 There is important further detail about the density of traditional 10 land use and PKFN's commitment to protecting it along the winter route 10:59AM 11 in same report at page 71. Again, in the PDR, the map in figure 6 12 shows where a high density area of traditional use and occupancy is 13 shown between Strawberry Creek and Dam Creek, which was provided 14 by the Deh Cho land use planning committee. I have all these maps if 15 anyone wants to see them. 10:59AM 16 And furthermore, PKFN has indicated that the corridor between 17 Vermilion Creek and west of Bob's Canyon Creek is a traditional hunting 18 that's in the public consultation inputs sheets 6 and 7 in the 2012 PDR. 19 How has the developer incorporated PKFN's specific concerns 20 and evidence about the important traditional land use area between 11:00AM 21 Strawberry Creek and Dam Creek in the design of the highway? 22 ERICA BONHOMME: Erica Bonhomme, Kalo Stantec. As Seth 23 mentioned, we do have the information that was provided from PKFN in 24 the 2012 project description report. There are many maps in that PDR 25 that were developed collaboratively between GNWT, its consultants at 11:00AM 26 the time, and PKFN. 27 I would point out that there were nine optimizations proposed of

1 the alignment and that the optimizations proposed to avoid 2 environmentally sensitive areas, areas of cultural importance. There 3 may be others that have since been identified, but certainly the GNWT's 4 collaboration with PKFN at the time was intended to address those 5 specific issues in those particular areas where they were identified. And 11:01AM 6 out of those nine optimized alignments -- optimizations of the alignment, 7 the GNWT has incorporated eight of those in the current project 8 alignment. The one exception is at White Sand Creek. 9 JANE HENDERSON: Thank you. Jane for PKFN. Our next question 10 is about Mount Gaudet. So in the DAR at section 2.1.6.3 footnote 6, the 11:02AM 11 developer states that the Mount Gaudet access road is now included in 12 the scope of the Mackenzie Valley Highway Project and that access 13 road is designed to reach a borrow source location. 14 This road was originally scoped separately because it was 15 intended as a capacity building project for PKFN. However, in 2020, 11:02AM 16 PKFN withdrew consent to that proposed separate project because it 17 would cause irreversible damage to a sacred location and significant 18 adverse spiritual effects. The First Nation and GNWT have been in 19 conversation over this. The First Nation has informed the developer 20 and the land and water board that, based on their Indigenous 11:02AM 21 knowledge, quarrying at Mount Gaudet any further would be 22 unacceptable. And after PKFN withdrew consent to that proposed 23 project, the developer told the First Nation that the work would not go 24 forward without their consent. 25 But the developer has not yet explained how this proposed work, 11:03AM 26 which they know PKFN does not consent to, has now been brought 27 back to life as part of the larger highway project. The GNWT has

1 known for years that PKFN cannot consent to the proposed quarrying at 2 Mount Gaudet which makes the access road unnecessary. 3 What alternatives have been investigated and where are they in 4 the DAR? 5 SETH BOHNET: Seth Bohnet, GNWT. So your characterization 11:03AM 6 of events today is accurate. So, again, the idea of the Mount Gaudet 7 access road was originally proposed as a standalone project to advance 8 independently of the Mackenzie Valley Highway environmental 9 assessment through its own regulatory process. That process was 10 launched and initiated and, again, we did hear considerable feedback 11:04AM 11 from the PKFN with concerns to the design and the plan for the 12 development of that project specifically, which did lead us to withdraw it 13 from its standalone process. So for the intents and purposes of 14 ensuring that that gap is still assessed, it has been incorporated as part 15 of the Mackenzie Valley Highway Project. However, the specific design 11:04AM 16 has not advanced. Again, it -- there's still opportunity to improve 17 design, and I can let Erica speak a little bit more, too, about the actual 18 project delivery piece. 19 ERICA BONHOMME: So table 5.4 of the DAR includes the proposed 20 primary material sources, and table 5.5 includes the alternate or 11:05AM 21 optional material sources. And throughout, I think, the GNWT has been 22 pretty transparent in the DAR that the -- through the ongoing evaluation 23 of those proposed quarry and borrow sources that if there -- for some 24 reason the primary material source is not able to be developed for any, 25 you know, for one of those reasons, that it would pivot to one of a 11:05AM 26 suitable alternate source to propose instead. And so if that applies to 27 the Mount Gaudet quarry, the GNWT would be interested in engaging

	1	with PKFN on what of a suitable alternate would be appropriate to
	2	propose going forward.
	3	JANE HENDERSON: Jane Henderson for PKFN. Thanks, Erica and
	4	Seth. Seth, I'll be frank. I don't understand when you say to make sure
11:06AM	5	the gap is still now assessed, it's now part of the scope. I just don't get
	6	what that means.
	7	And my question to you, Erica, does Mount Gaudet, is it
	8	considered a primary material source or an option or alternate source?
	9	And I understand you're saying that either can be removed. I'm just
11:06AM	10	curious where it's considered right now. That was a double-barrelled
	11	question.
	12	ERICA BONHOMME: Well, I probably have the easier one. Erica
	13	Bonhomme. It is identified as a primary material source currently.
	14	SETH BOHNET: Seth Bohnet, GNWT. Again specific to and I
11:06AM	15	apologize, my characterization is a little bit off.
	16	So that section of the proposed Mackenzie Valley Highway
	17	between Wrigley and what would have been Mount Gaudet, again, was
	18	originally proposed to advance outside of this environmental
	19	assessment through its own regulatory process. Now, with the
11:07AM	20	cancellation of that project as a standalone project, we do want to make
	21	sure that that 14 to 16 kilometre section does get included in the
	22	assessment for the entirety of the project. So through this
	23	environmental assessment, we have captured the need to explore
	24	impacts on that portion of the highway as well.
11:07AM	25	JANE HENDERSON: Jane Henderson for PKFN. Thank you, Seth.
	26	So just to make sure I am understanding correctly, when you're talking
	27	about "the gap", you're not meaning necessarily of that borrow source

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	1	site, but the gap of the highway that would exist if that borrow site is not
	2	used.
	3	SETH BOHNET: Seth Bohnet, GNWT. That's correct, yes.
	4	JANE HENDERSON: Thank you. I will need to confer with PKFN, but
11:08AM	5	based on all of the communications and engagements to date, I think
	6	that PKFN has been pretty transparent that that borrow source site
	7	should be taken off of your list and it I know that it's part of the
	8	proposed upcoming geotechnical work and I think PKFN has been
	9	pretty frank about that, that that borrow source should no longer be
11:08AM	10	considered one of your primary material sources.
	11	CLÉMENTINE BOUCHE: Thanks, Jane. Can I ask how many more
	12	questions do you have?
	13	JANE HENDERSON: We have a number of questions moving on to
	14	other aspects of cultural and traditional harvesting. So if you want to
11:08AM	15	switch to other people, it's [inaudible] Thank you.
	16	CLÉMENTINE BOUCHE: Great. We might let other parties ask a few
	17	questions and then we will come back to you.
	18	Fred from Tulita Renewable Resources Council, do you want to
	19	go ahead.
11:08AM	20	FREDERICK ANDREW, JR: Hello, náhkale. My name is can you hear
	21	me good?
	22	My name is Frederick Andrew. I'm with Tulita Renewable
	23	Resources Council . I had a question to GNWT over here regarding
	24	impact on culture, traditional land land use, harvesting. I'll just go
11:09AM	25	back in time, back in time, when there's no doctor or anything. So as
	26	Dene, we rely on our medicine on the land and medicine man. But now
	27	things change. We have a health centre, hospital, and all that. So the
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1 reason I say this is because I was raised on the land most of the time 2 before I went to residential school, and I was raised by my granny and 3 he taught me lot of medicine plants on the land, and so it's very 4 important to me to do with the heart condition. There's three -- let me 5 see, there's -- two different kind of plant use for heart condition. One for 11:10AM 6 [inaudible] worm and one for the -- I just got to mention it to you. And 7 one for diabetic. And when I travel on the winter road, I seen -- I 8 recognize some of the -- some of these plants that's really important to 9 Dene people along the winter road. Sometime I went down to 10 junction -- junction on the road, I've seen some. And sometime I go 11:10AM 11 past that close to friend Rose's cabin. . And I see some of this, that 12 plants that is really important to us, is a medicine plant, especially I 13 seen lots of the one with a heart condition plant, there's three of them 14 there. And the tea water and the secret diabetic. All these are very, 15 very important to Dene people that was passed on down by my granny. 11:11AM 16 Because back in early days, mom was always sick all the time. So he 17 was spending lot of time in the Charles Camsell Hospital. Some of the 18 patient didn't come back. But mom was lucky enough to come back. 19 So all this time, sometimes mom would be gone for, like, six, seven 20 years like that. So I was raised by my granny, and I was taught all this 11:11AM 21 traditional medicine plant. I know more than that. But I just wanted to 22 just mention this because just want to know if GNWT do a study along 23 the corridor of Mackenzie Valley pipeline because it's so important to us 24 because don't know where this is, ask people in Tulita, maybe ask me, 25 and I'll show you, because it's very important to us. Yeah, I just wanted 11:12AM 26 to bring that up. Mahsi. 27 CLÉMENTINE BOUCHE: Thank you. GNWT.

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	1	ERICA BONHOMME: I know there wasn't a question there Erica
	2	Bonhomme but I did want to just comment, if it's useful to other
	3	parties, that the GNWT has committed to offering opportunities to
	4	harvest traditional use plants from the footprint of the right of way prior
11:13AM	5	to clearing.
	6	CLÉMENTINE BOUCHE: Do you want to follow up, Fred? Did you want
	7	to follow up to that answer?
	8	FREDERICK ANDREW, JR: Yeah, I just wanted to follow up on that before
	9	the major take place because I think that it's very important to Dene
11:14AM	10	people that we need to [inaudible] before the highway go through.
	11	Mahsi.
	12	SETH BOHNET: Seth Bohnet, GNWT. I would also just add in
	13	response to the comment first of all, thanks, thanks, Fred, for your
	14	comments that we have been funding traditional land and resource
11:14AM	15	use studies in communities to gather that specific type of information
	16	and incorporate into the project.
	17	MARK CLIFFE-PHILLIPS: It's Mark Cliffe-Phillips with the Review Board.
	18	Thanks for the responses, Erica and Seth. Just this is for clarification,
	19	for myself; I maybe misunderstood. Erica, you were saying that there
11:14AM	20	would be opportunities to harvest traditional plants prior to the clearing
	21	of the right of way; is that what you're describing?
	22	ERICA BONHOMME: Yeah, if there is a Erica Bonhomme. If there
	23	is a concern about losing access to resources that, you know, can't
	24	otherwise be avoided, then yes, the opportunity would be provided for
11:15AM	25	Indigenous organizations to recover those resources before the clearing
	26	happens. If there's opportunity to, you know, avoid certain areas, that's
	27	part of that optimization of the route that will happen. But if those can't

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	1	be avoided, we certainly want to offer the opportunity for some of those		
	2	medicines. And there is a list in table 11.9 of the culturally no, those		
	3	are fish. Anyway, somewhere in chapter 11 is a list of culturally		
	4	important plant species, and those ones would be the kind of examples		
11:15AM	5	that maybe organizations are interested in harvesting before the		
	6	construction happens.		
	7	MARK CLIFFE-PHILLIPS: Thanks for that clarification. That seems to be		
	8	like a single-use opportunity if the optimization is not available. Is there		
	9	any programming that ENR or somebody or ECC is able to support		
11:16AM	10	for either transplanting or ability to relocate any of those plants to		
	11	another area, so harvesting could continue for longer than the one-off		
	12	harvest.		
	13	ERICA BONHOMME: Erica Bonhomme. I'm not a plant person, but		
	14	unless those communities are rare, there is an opportunity to those		
11:16AM	15	communities will continue to exist in other places. So I think what you're		
	16	speaking of is if there was anything that was, you know, an uncommon		
	17	plant community that couldn't be otherwise mitigated, that could		
	18	probably be considered but we're not aware of any of those.		
	19	MARK CLIFFE-PHILLIPS: Thanks for your response. Maybe I just to		
11:17AM	20	continue that dialogue with the communities who might know more. I		
	21	think the ability to harvest and the locations of that the harvesting and		
	22	the knowing where those locations are will be changed by this project,		
	23	potentially. So any way that you could work to try and mitigate that		
	24	going forward so that there's maintaining the abundance and the		
11:17AM	25	availability that exists prior to construction would be preferable.		
	26	ERICA BONHOMME: Erica Bonhomme. Just to be clear, the DAR		
	27	does predict that there will be long-term loss of vegetation in the right of		

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	1	way, and that's not likely to be mitigable. That is part of the effects		
	2	assessment. And that is not something that GNWT has proposed		
	3	you know, mitigate for specifically. But if there are things that come up		
	4	in our engagement between now and construction, that will all be you		
11:18AM	5	know, carefully considered.		
	6	CLÉMENTINE BOUCHE: Thank you, Erica. I think Dieter has a follow-up		
	7	on that and then we will go to Kanda from the GTC.		
	8	DIETER CAZON: Dieter Cazon, Łíídlįį Kų́ę́ First Nation. Just a		
	9	quick follow up on Fred's yeah, Fred did have a question. He asked if		
11:18AM	10	there's going to be studies with regards to the plants and what have you		
	11	that is going to be there, and I would expect the communities would be		
	12	appreciable if there was a study done because if there is plants that are		
	13	going to be there and displaced, they may not know where there are		
	14	other plants and if these plants are being depended on for traditional		
11:19AM	15	practices, now to displace that, what they could be using traditionally,		
	16	would be pretty offsetting for the community, and the communities may		
	17	not have the capacity to find more of these plants if these plants are not		
	18	in abundance. Thank you.		
	19	CLÉMENTINE BOUCHE: Thank you, Dieter. Fred, did you want to add		
11:19AM	20	anything to that?		
	21	FREDERICK ANDREW, JR: Yeah. I think GNWT really seriously I know		
	22	really seriously think about this what I just brought up because it's		
	23	lifesaving to us too, Dene people. If we could be anywhere on the land		
	24	and it might come in handy for us. So it's either relocated or just trying		
11:20AM	25	to reword, but I just wanted to mention that.		
	26	CLÉMENTINE BOUCHE: Thanks. GNWT, did you want to answer Dieter		
	27	and Fred's question?		

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	1	ERICA BONHOMME: Yeah, Erica Bonhomme. The GNWT will do		
	2	reconstruction, rare plants surveys, and bring you know, have		
	3	community members participate in that. I think part of that is first		
	4	narrowing down the area of the alignment and that is not, you know,		
11:20AM	5	where we're at just yet. So as the design progresses and we have a		
	6	more defined footprint for the project, we can certainly incorporate		
	7	there may be already existing programs, you know, that have		
	8	community interest or have a similar theme that we can leverage to		
	9	make those reconstruction surveys as meaningful as possible.		
11:21AM	10	CLÉMENTINE BOUCHE: Thank you, Erica. I think now we might change		
	11	topic and go to Kanda for the question.		
	12	KANDA KOLA GNAMA: Thank you. I am Kanda Kola Gnama working		
	13	for the Gwich'in Tribal Council.		
	14	The GNWT has committed to discuss monitoring opportunities		
11:21AM	15	with the Indigenous guardian programs and affected government. They		
	16	have also committed to work with other Indigenous government to		
	17	provide opportunities for local involvement in project-specific		
	18	monitoring. GTC should be part of these monitoring programs because		
	19	the Nation has valuable experience and know how from the ITH Project		
11:22AM	20	and stands to be affected by project-related effects.		
	21	So my question to the GNWT is that will GNWT update the		
	22	Indigenous and environmental monitoring commitment to include		
	23	engagement and participation of GTC and Gwich'in participants?		
	24	SETH BOHNET: Seth Bohnet, GNWT. Thank you for that		
11:22AM	25	question. We're going to consider that one, and we'll come back to you		
	26	with a response.		
	27	KANDA KOLA GNAMA: Kanda Kola Gnama. Thank you. I don't have		

1 any more questions. 2 CLÉMENTINE BOUCHE: Thank you, Kanda. Next we'll go to Lisa 3 McDonald online, I believe. 4 LISA McDONALD: Good morning, everyone. Lisa McDonald, 5 Norman Wells Renewal Resource Council. 11:23AM 6 I just wanted to reiterate what Fred Andrew was speaking about 7 in regards to medicine and the response from GNWT about people 8 being able to go and harvest before work begins. I guess in the real 9 world, that is not how it works. There is certain medicines that we use 10 and they're collected at different times of the year, not all in one place, 11:23AM 11 and I could tell you as of now, with the extension of the road from 12 Norman Wells to Canyon and now Prohibition, that nobody will be smart 13 enough to be picking anything off the sides of the road due to the dust 14 and other things that -- would be unhealthy, you know, for people to 15 consume, never mind picking the plants. 11:24AM 16 There were a couple of issues that I don't think people really 17 understand. I'm for the highway. You know, I live in Norman Wells. I've 18 seen the effects of industry, of tourism, you know. We deal with a lot. 19 We actually are having two environmental assessments in our small 20 community go on. And people talk about -- you know, I know that we 11:24AM 21 had done a study with the GNWT, and I find it really hard to have hope 22 sometimes that things will change. And by that, I mean the Aboriginal 23 people, my people, that they would be directly involved in all aspects of 24 the project and not be dictated, you know, from people that do not live 25 there. By that I mean, I grew up dealing with Imperial Oil, so I know 11:25AM 26 how that is. It's still like that to this day, and it is still very 27 uncomfortable, you know. We get bottom of the barrel, so to speak,

1 you know, very minimum, you know, at best, and I'm sure you guys 2 followed the process with Imperial Oil and, you know, even with the 3 GNWT with their hand in, if anybody sees, you know, what we're paying 4 for gas prices right now, you know, for food prices, and everything, so 5 it's very hard for me to find hope in believing that the GNWT is going to 11:26AM 6 step up to the plate. It is actually really frustrating, and I have some 7 younger people that are on my council that are [inaudible] in this, and I 8 encourage them to speak up. You know, we got to leave this -- I don't 9 know what we're going to be leaving behind for my grandchildren, but 10 sometimes the fight doesn't even seem worth it because once it gets on 11:26AM 11 paper and things start, you know, Aboriginal people never seem to 12 make headway. And it's always over the same things; you know, the 13 things that we love, the things that we use; you know, that are vital and 14 important in our life. And that's not to say that it's not important to 15 people that work for the GNWT or anything, but there's just so many 11:27AM 16 policies and guidelines that you -- that the GNWT is guided by, and 17 similarly you look at it, and people, you know [inaudible] we've lived the 18 same lives just in different scenarios, you know, so there's no trust I 19 don't believe. Like, if you look at these environmental assessments 20 right now and you think of the GNWT and you take Imperial Oil 11:27AM 21 Resources, and that's totally from Norman Wells, really, what are we 22 going to have? 23 I live in one of the most beautiful places in the NWT but actually 24 taking a look at it the last couple of years, I think we're one of the most 25 contaminated, you know. You look at the Canol Trail. I've worked on 11:28AM 26 the proposed Mackenzie [inaudible] years. 27 CLÉMENTINE BOUCHE: Sorry, Lisa. You're cutting on and off. Can you

1 repeat what you just said. 2 LISA McDONALD: You know, different routes and work on every 3 creek -- I said I've worked on every creek and river from Hana, Hana 4 River (ph) to Good Hope to Wrigley. You know, I've been involved 5 environmental field for over 20 years and I've have worked on a lot of 11:28AM 6 projects with the federal government, as well as GNWT. So living in 7 Norman Wells also for, like our traditional and cultural, we usually have 8 to fly out for that; you know, it's not really expressed in Norman Wells, 9 our traditions, I guess you could say, let alone because of town bylaws 10 and whatever else we are to deal with. So you add everything onto the 11:29AM 11 plate, and it just become -- it's just really distrustful, you know. I'm -- I 12 was never with for the highway. I am now due to the rising cost of 13 living. It's near impossible to live in Norman Wells now. 14 I just really hope the government takes into consideration what 15 the people have to go through. You know, I've seen the expansion in 11:29AM 16 the '80s. I've seen it when the pipeline went through; the aboriginal 17 people did not get anything. I've seen it when the fiber optic line went. 18 And, again, you know, the people got peanuts. We really didn't get 19 anything. And the speed of that project going through was amazing. 20 I just hope that, you know, when you guys are talking about 11:30AM 21 traditional and cultural, I hate to say it, but we're one of the very few 22 communities in the Sahtu region, I guess, that have to fight really hard 23 or make a really hard effort to practice our culture and to practice our 24 traditions. We're a transient work town, you know, an oil and gas town, 25 and that doesn't always align with the needs and wants of the higher 11:30AM 26 ups in Norman Wells. So when you're about, you know, you're going to 27 allow us to go and pick a road before, you know, they're mowed over, I

1 think is -- is disrespectful because there's a lot more that comes into 2 play than just picking them. There's the times of the year, the plants, 3 variety of them, and stuff, you know. So it's -- and from the dust control 4 that I've seen go on from the two extensions now, our -- I would not 5 advise anyone to pick them. 11:31AM 6 Just one quick other thing I just wanted to mention, too. I know 7 that when you guys -- the GNWT, they did the first section from Norman 8 Wells to Canyon Creek, they had a grading program. I think the 9 government would be very wise to look at other opportunities such as 10 that or with the contractor to have those opportunities for younger 11:31AM 11 people. I know of some people that took that training course that are off 12 in the world doing better and have steady jobs because of that training 13 that came out of that first segment of the road, but not only working, you 14 know, on a highway. I think what needs to happen time some time is 15 that, you know, tables need to turn as to where we're not being told 11:32AM 16 what we have to -- or what we need to do or have to do in order to gain 17 work, but for people that are coming into our communities and 18 suggesting change that they actually come and spend time with the 19 people, and I would suggest out on the land. You know, taken away 20 from everything that they know for one week, you know, and go just to 11:32AM 21 experience it. I believe that's the only way that some people's eyes 22 would be opened because everything that we've been through in 23 Norman Wells, it's still the same song and dance. You know, from no 24 barges, you know, now to no water. You know, how many outfitters we 25 have to deal with, I think there's like 7 [inaudible]. 11:33AM 26 CLÉMENTINE BOUCHE: Lisa. Sorry, you just cut --LISA McDONALD: 27 -- never mind the forest fires and changes.

	1	CLÉMENTINE BOUCHE: Sorry, Lisa, do you mind repeating the last		
	2	LISA McDONALD: I just said that it's just really hard living, you		
	3	know, with everything that we have had to deal with in Norman Wells,		
	4	never mind the Sahtu, from the outfitters, to tourism, to the highway,		
11:34AM	5	barging system, significant discovery licences, we've got Imperial Oil,		
	6	we've got the canal trail, you know, Tulita, Délınę, you know. All		
	7	contaminants that we have lived with and still are living with and we're		
	8	bringing in more work, so I just really hope everybody does their		
	9	homework and, you know, try to do the best that we can to see and		
11:34AM	10	understand how the Aboriginal people, you know, why people have		
	11	been fighting for years just for the basics. Mahsi.		
	12	CLÉMENTINE BOUCHE: Thank you, Lisa. GNWT, would you like to		
	13	respond to Lisa's comments?		
	14	SETH BOHNET: Seth Bohnet, GNWT. I appreciate all of the		
11:35AM	15	comments that have been provided, and, again, it's information that we		
	16	have been hearing through engagements in the past, and we are doing		
	17	our best to make sure that those concerns are reflected in the		
	18	mitigations that we're proposing for the project.		
	19	CLÉMENTINE BOUCHE: Thank you, Seth. Now I will go to John Nishi		
11:35AM	20	from the Review Board.		
	21	JOHN NISHI: Thank you. John Nishi for the Review Board.		
	22	Good morning. I just have a quick preamble and then some questions		
	23	for GNWT and for some of the IGOs that are represented here today on		
	24	a few themes. The themes are population, harvest monitoring, food		
11:35AM	25	security, and moose and caribou harvesting.		
	26	So one of the things we've seen is that over the long-term, new		
	27	all-season roads fundamentally and often irreversibly change people's		

land use patterns, and in particular, it changes wildlife harvesting access and hunting practices. In short, your great grand kids and their families will likely be hunting and accessing the land differently than you are today.

One of the key challenges or one of the key changes over the long term is that there's an incremental and cumulative increase in access and extent of areas that may be hunted more efficiently. For example, new cabins and new trails are often established along a new all-season road, and the increased access pertains to local communities and potentially to people outside the local area. Over the short term, you might see an increase in access, which may result in an increase in harvest, which has benefits such as increased access to country foods like moose and caribou. But to persist and be healthy over the long term, hunted populations such as moose and caribou need to adjust to an increase in levels of harvest and other sources of mortality that are associated with activity on the road such wildlife traffic collisions. To be sustainable, hunted populations respond or compensate to increased mortality rates through higher birth rates, better survival or recruitment of younger animals, and/or immigration of animals from other areas.

So the first questions I have with respect to population and harvest monitoring are directed to GNWT.

The first question is what specific population and health harvest caters are caribou and moose will be monitored through the WMMP, and I'm thinking about frequency and scale of the monitoring. And how will this data be used to assess whether total harvest of boreal caribou and moose may be becoming unsustainable? Thank you.

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	1	SETH BOHNET: Seth Bohnet, GNWT. Apologies. We're just		
	2	checking to make sure we have somebody available to respond to that.		
	3	I'm not sure if they're online or not. In the interest of time, we'll come		
	4	back to you on that one. I apologize.		
11:38AM	5	CLÉMENTINE BOUCHE: Thank you, is Seth. John, do you want to ask		
	6	another question to the GNWT, or do you want to wait until they have		
	7	their expert? Go ahead.		
	8	JOHN NISHI: John Nishi for the Review Board. I guess a bit		
	9	of a follow-up question which or in combination with the first question,		
11:39AM	10	with respect to harvest sustainability, has the Government of the		
	11	Northwest Territories conducted a power analysis of its proposed		
	12	program of caribou collaring and composition surveys and the periodic		
	13	moose aerial surveys that have been outlined in the DAR? And		
	14	specifically I'm interested in what rate of decline in boreal caribou and		
11:39AM	15	moose would the proposed survey and monitoring be able to detect		
	16	over 5 and 10 years respectively? Thank you.		
	17	SETH BOHNET: Seth Bohnet, GNWT. I do apologize, John. We		
	18	don't have our subject matter exert on the line right now, but we will		
	19	endeavor to get them here, since we can't		
11:40AM	20	CLÉMENTINE BOUCHE: Thanks, Seth. May I suggest that we break for		
	21	lunch. GNWT, would you be able to bring back your expert after lunch?		
	22	Hopefully? Great. Then we'll break from 11:45 to 12:45. Thank you.		
	23	- NOON ADJOURNMENT -		
	24	ALAN EHRLICH: We're going to go back to John Nishi from the		
12:47PM	25	Review Board.		
	26	When we last left at lunch, the GNWT had two questions that		
	27	had been asked that you weren't able to answer because you didn't		

	1	have the right people here. And at lunch time you had the opportunity to		
	2	get the right people here, and so are you guys able to answer those two		
	3	questions?		
	4	SETH BOHNET:	Seth at GNWT. Yes, I believe we have got the	
12:48PM	5	people in the room and/or online already. So maybe if you could just		
	6	repeat your first question, please.		
	7	ALAN EHRLICH:	Thanks. John.	
	8	JOHN NISHI:	Thank you. John Nishi for the Review Board.	
	9	So the first question w	as what specific population health and harvest	
12:48PM	10	indicators of caribou and moose will be monitored through the WMMP		
	11	and what I was thinkin	g there was sort of the frequency and scale of	
	12	monitoring, and how w	vill those data be used to asses whether total	
	13	harvests of boreal cari	bou and moose may be becoming unsustainable.	
	14	ALAN EHRLICH:	Thanks. GNWT, or Mike.	
12:48PM	15	SETH BOHNET:	Seth Bohnet, GNWT. Yes, I believe Mike's	
	16	online. Mike, are you there?		
	17	MIKE SETTERINGTON:	Yes, again this is Mike Setterington from	
	18 Environmental Dynamics. Hopefully I'm not coming thro		ics. Hopefully I'm not coming through broken up.	
	19	ALAN EHRLICH:	You sound great.	
12:49PM	20	MIKE SETTERINGTON:	Thank you very much. John, your question was	
	21	specifics on what on	what the GNWT will be monitoring for health,	
	22	and indicators of demo	ographics sorry, just give me the two things	
	23	you're asking for agair	n. I just wanted to be sure.	
	24	JOHN NISHI:	Hi, Mike, it's John Nishi for the Review Board.	
12:49PM	25	It's population health a	nd harvest indicators. Over.	
	26	ALAN EHRLICH:	John, we're just we're just amplifying your	
	27	microphone a little bett	ter. Do you want to try again, and just get right	

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	1	close to that.		
	2	JOHN NISHI: John Nishi for the Review Board. Hi Mike. The		
	3	two items were the specific population health and harvest indicators of		
	4	caribou and moose. Thank you		
12:49PM	5	MIKE SETTERINGTON: Roger. Yeah, no, I could hear you fine. I just		
	6	wanted to catch the Mike Setterington, Environmental Dynamics. So		
	7	health and harvest indicators.		
	8	So those aren't specifically identified in our wildlife and mitigation		
	9	monitoring plan for the GNWT. We did have specific responses as best		
12:50PM	10	was we could provide in MVEIRB response to MVEIRB questions		
	11	number 37, 38, and 39. I presume you're familiar with those responses,		
	12	and you did not find the indicators in those responses either? Or was		
	13	there something specific I'm looking specifically, perhaps at MVEIRB		
	14	39, about harvest levels well no, that's harvest levels.		
12:51PM	15	We're looking at cow/bull ratios, cow/calf ratios, typical		
	16	demographics that are monitored for caribou and moose populations.		
	17	ALAN EHRLICH: John.		
	18	JOHN NISHI: Right. So it's John Nishi for the Review Board.		
	19	Thanks, Mike. I was really trying to get an understanding of the		
12:51PM	20	intended frequency and scale of the monitoring. And it also ties in with		
	21	the question the second question that I asked before lunch as well,		
	22	which was with respect to harvest sustainability, has the GNWT		
	23	conducted a power analysis of its proposed program of caribou collars		
	24	and composition surveys and the periodic routes aerial surveys that it		
12:51PM	25	mentions in reference to the WMMP.		
	26	ALAN EHRLICH: Mike.		
	27	MIKE SETTERINGTON: It's Mike with Environmental Dynamics. Those		

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	1	are questions I'll have to confer with James Hodson to get those kind of		
	2	specific answers. About the power analysis on collars, it's a valid		
	3	question. And the frequency of the surveys, which part of that question		
	4	came up during the caribou discussions a few days ago.		
12:52PM	5	ALAN EHRLICH: GNWT.		
	6	HEATHER SAYINE-CRAWFORD: Heather Sayine-Crawford with GNWT		
	7	Environment and Climate Change. So, John, your specific questions,		
	8	have we done power analyses on moose surveys and detecting trends		
	9	for moose? No. We, and in terms of how often we will do moose		
12:52PM	10	surveys along this route, we just completed one sorry, I should have		
	11	had that in front of me. In 2020 and 2021. And so that was the first		
	12	moose survey done in the Sahtu in quite a long time. And we are		
	13	looking to repeat that type of survey regularly, four to five years, give or		
	14	take, and depending on community consultation and budgetary		
12:53PM	15	restraints.		
	16	For boreal caribou, the power analysis that we have done is that		
	17	basically we need at least 20 collars on female boreal caribou to give us		
	18	an idea of survival.		
	19	ALAN EHRLICH: John.		
12:53PM	20	JOHN NISHI: John Nishi for the Review Board. Thank you,		
	21	Heather and Mike for those responses; I appreciate that. You know,		
	22	and really it's kind of the context of the question is really to have a		
	23	good understanding of the ability of the monitoring to sort of provide		
	24	insight as to what's happening with the populations and whether they		
12:54PM	25	are actually declining. And the challenge and it's not a criticism, it's a		
	26	recognition that there's a challenge of surveys when populations are		
	27	declining over, you know, a 5, 10-year periods at, you know, relatively		

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	1	low rates and often these sorts of things are not detectible until there is			
	2	a problem. And I just wanted to highlight that in this line of questioning.			
	3	So I appreciate the answer. Or the responses.			
	4	And I guess I was hoping to ask, you know, just in addition to the			
12:55PM	5	rate of decline, what rate of decline that the survey monitoring methods			
	6	would be able to detect, just a bit more along the lines of would you be			
	7	able to share those analyses as you go forward in developing the			
	8	WMMP. Thank you.			
	9	HEATHER SAYINE-CRAWFORD: Maybe I'll speak generally to I think			
12:55PM	10	what your question is getting at. So I don't think that there's a specific			
	11	rate of decline or a specific threshold that we would be looking for when			
	12	assessing any sort of population across the NWT. What would happen,			
	13	I heard this morning talk from Alan about basing this in reality. In			
	14	reality, what we would do is if we had information coming from			
12:56PM	15	communities, along with scientific information that was showing that			
	16	there is declines, that we would go back to the communities and talk			
	17	about what to do next. So similar to what we have done for other			
	18	wildlife populations across the NWT, go back to communities and talk			
	19	about what to do next.			
12:56PM	20	In terms of the WMMP, I'm sure that INF would be happy to talk			
	21	to folks about analysis moving forward and any sort of discussions			
	22	about that the harvest thresholds.			
	23	ALAN EHRLICH: Thanks. John.			
	24	JOHN NISHI: Thank you, Alan. Thank you, Heather. John			
12:56PM	25	Nishi for the Review Board.			
	26	Just a bit of follow-up on this line of questioning. And the			
	27	question is, I guess back to the GNWT, it's what other data will be			

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	1	monitored to make sense and explain the likely factors that are driving		
	2	or affecting the main changes in caribou and moose population health,		
	3	distribution, or abundance. What I mean is, what I'm trying to		
	4	understand, is will there be specific monitoring of environmental		
12:57PM	5	co-variants like winter severity, drought. But also, probably more		
	6	importantly, is or as important is daily traffic volumes, actual activity		
	7	that's associated with the road. Harvest would be another. But to be		
	8	able to really understand, in addition to the monitoring of the		
	9	populations that's happening and if they're changing their distribution or		
12:57PM	10	abundance, what's actually contributing to that. And without having,		
	11	say, information on daily traffic volumes, it could be difficult to make any		
	12	conclusions or inferences on how the road is actually influencing		
	13	animals. Thank you.		
	14	ALAN EHRLICH: Thanks. Any response from the GNWT on		
12:58PM	15	that?		
	16	ERICA BONHOMME: Erica Bonhomme. In respect of monitoring		
	17	traffic, yes, the GNWT will continue to operate its traffic counters and		
	18	install new ones where needed along the all-season road.		
	19	ALAN EHRLICH: Thanks. John, back to you, John.		
12:58PM	20	JOHN NISHI: Thank you. John Nishi for the Review Board.		
	21	The next couple questions are along the theme of food security. I just		
	22	want to acknowledge that Heather Klein, before she left, kind of		
	23	highlighted these two questions for me.		
	24	The first one is has the GNWT done a baseline food study to		
12:59PM	25	identify the extent that country foods contribute to food security to		
	26	communities that are affected by the proposed Mackenzie Valley		
	27	Highway Project. So what sort of species what's the distribution of		

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	1	country food in these	communities? Is there a baseline that the GNWT	
	2	has to be able to compare future country food use? Thank you.		
	3	ALAN EHRLICH:	Thanks. GNWT.	
	4	SETH BOHNET:	Sorry, I'm just reading my note here. Give me	
12:59PM	5	one moment, please.		
	6	ALAN EHRLICH:	Okay. And I think that was in reference to Heidi	
	7	Klein's discussion ear	lier.	
	8	SETH BOHNET:	Seth Bohnet, GNWT. I'm going to apologize in	
	9	advance. Our consult	ants that helped us formulate these pieces on	
01:00PM	10	food security are currently unavailable. We have got one of them but		
	11	the one that was unfo	rtunately dialling virtually has had a medical	
	12	problem and our indiv	idual is not here at the moment. So I will commit	
	13	to take this away and	provide a response.	
	14	ALAN EHRLICH:	Thanks. Could you commit to provide the	
01:00PM	15	response for the public record, say, within the two weeks following the		
	16	technical sessions?		
	17	SETH BOHNET:	We will get you a response in that timeframe,	
	18	yeah.		
	19	ALAN EHRLICH:	Thank you. John.	
01:01PM	20	JOHN NISHI:	Just maybe a bit of a follow-up, Seth, to that	
	21	question. Kind of a secondary question and that would be will the		
	22	GNWT conduct a household harvester or traditional food study to		
	23	evaluate the importance of country food use in these communities and		
	24	to assess whether food security will meaningfully improve over the long		
01:01PM	25	term?		
	26	SETH BOHNET:	Thanks for the question. We'll take that back	
	27	and respond to you a	gain. I do apologize, sorry.	

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	1	ALAN EHRLICH:	Same timeframe, Seth?	
	2	SETH BOHNET:	Yes, thanks.	
	3	ALAN EHRLICH:	Thank you. And back to you, John.	
	4	JOHN NISHI:	Thank you, Alan. John Nishi for the Review	
01:02PM	5	Board. So I was going	to maybe invite a bit of conversation through a	
	6	line of questioning around moose and caribou harvesting with the		
	7	Indigenous governments and the renewable resource council		
	8	representatives. I recognize that there is sensitivities around discussing		
	9	specific areas of the D	enendeh, the land, but I would kind of like to,	
01:02PM	10	respectfully, ask the Pehdzeh Ki First Nation about moose pastures,		
	11	because this is something that is mentioned and it seems to be of		
	12	significant or it seem	ns very important. And so the question I was	
	13	hoping to get some insight on from PKFN would be whether they would		
	14	be able to describe the characteristics of moose pastures; what are		
01:02PM	15	they; where are they; how important are they for moose harvesters; and		
	16	then as part of that, do	you have any specific concerns of how the	
	17	proposed highway will affect moose pastures and moose harvesting		
18 access. And maybe		access. And maybe a	third part and I can repeat these again but it's	
	19	just trying to kind of get some perspective. But the other part of that		
01:03PM	20	question, or the third part of that question is, what are some		
	21	recommendations you might have that would address or mitigate those		
	22	concerns around harvesting and moose pastures. Thank you, and		
	23	mahsi.		
	24	ALAN EHRLICH:	Thanks. And we'll give PKFN a moment just to	
01:03PM	25	get sorted.		
	26	CHIEF JAMIE MOSES:	Good afternoon, there. So basically we're just	
	27	responding to John i	is it John? Oh sorry, Jamie Moses, Pehdzeh Ki	

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First Nation. Yeah, anyway, so the first part of your question there, is to us the moose pastures are in the low wetlands with lots of willows. And we have one right by Mount Gaudet. And we have one right by Mount Gaudet. We call Mount Gaudet [Indigenous language spoken]. It's a spiritual mountain for us. It basically translates to rock in the water, and that's what you see on the Mackenzie side there; it's the rock that goes right into the water. But right behind it, is there's lots of little lakes and it's willowy and grassy, and that's what the moose like. So we have a lot of that going down the Mackenzie River, because where the current winter road runs, it's low and lots of water. And moose like that, so. So to us, that's what prime moose habitat looks like. It's the willowy, grassy, watery areas. So that's some of the characteristics there.

And I think what the second part is the impacts that it will have on them there. I think if you put a road right through it there, it will obviously, you know, split their habitat right in half and they'll have to -- I think they'll just have to go elsewhere, or the hunting pressure on them will increase. You'll have easier access to them 24/7. Right now we go through them, what, three months. But 24 -- if we have an all-season road, then it will definitely -- all the traffic and it will be a definite destruction to them. So I see them, you know, moving or else just being shot, right. So that's another one of the things there.

And I don't know, in terms of recommendation, you know, just try to avoid it, right. I think they -- yeah, well, that's our main recommendation, is rerouting, is going a little bit higher. You can -because it's -- like I said, it's just down there by the river. So if you go up a little bit higher, you avoid those low wetlands that the moose like and the duck and geese also, like that -- the waterfowl like that. So

	1	that's our that's a simple solution for us, is just go a little bit higher		
	2	and just go around it there.		
	3	Yeah, that's really kind of about it. Hopefully that helps you a		
	4	little bit there.		
01:06PM	5	ALAN EHRLICH: Thank you very much, Chief Moses. Back to		
	6	you, John.		
	7	JOHN NISHI: I'm John Nishi for the Review Board. Thank		
	8	you, Chief Moses. That's very helpful. I think I understood well what		
	9	you what you're talking about when you say "moose pastures".		
01:06PM	10	I guess I was hoping to maybe reach out to or request		
	11	perspective from other First Nation representatives or renewable		
	12	resource council representatives. I know Frederick Andrew talked		
	13	earlier. But I was wondering if you folks would be able to talk and share		
01:07PM	14	your perspectives from your own community or traditional knowledge		
	15	sources. I recognize that that's, you know, confidential, and if there		
	16	may be some sensitivity around that. But maybe just a follow-up on		
	17	whether the concept of this, you know, important well, not concept		
	18	the moose habitat, the moose pastures, if they're also a concern for you		
	19	or your organizations as it relates to the proposed road and what you		
01:07PM	20	might think about what could be done to address those concerns that		
	21	you may have. Thank you.		
	22	ALAN EHRLICH: So, thanks. I guess that question was directed		
	23	partly to Fred Andrew of Tulita Renewable Resources Council. So		
01:08PM	24	would you care to respond about moose pastures and the potential		
	25	impacts related to the road routing and what you think could be done to		
	26	try and deal with those impacts.		
	27	FREDERICK ANDREW, JR: Yeah, my name is Frederick Andrew, Junior.		

1 Through the RRC, I hear clearly what Chief Moses said over here. Yes, 2 from Tulita to -- all the way to Blackwater, it's a really -- have a really 3 good moose habit. Not only moose habitat, also woodland caribou. 4 You hardly see them but they're in the -- we call them todzi. They're 5 also along the Mackenzie Valley corridor too. But what Chief 01:09PM 6 mentioned, we have done lots, especially around the creeks, like Big 7 Fish Creek, Little Fish Creek. Little Fish Creek is number one, over 8 there. We always see that moose under that bridge there. And all -- it's 9 all the way like that to Norman Wells because of the creeks and the 10 willows, probably burn but they grow fast, so they're a really good 01:09PM 11 habitat for moose. Along the way creek is the moose, their habitat is 12 willow. If there is a lichen -- not much lichen but there is a lichen but it's 13 all burned but it takes a while. Maybe 40 years or so, they grow again. 14 That's a favorite habitat for caribou. Todzi, woodland caribou. But there 15 is still some -- there is -- I know that woodland caribou from all the way, 01:10PM they hanging in the heavy, heavy trees along -- close to Délıne, on this 16 17 side. There was -- there's lots of todzi there too because it's hardly 18 burned there. But I don't know about -- this summer there was a big fire 19 over there, so I don't know about that right now. But I know that it is --20 you know, there's really good habitat from -- I know for sure that 01:10PM 21 Blackwater to Tulita, there's a lot of creeks and rivers. And during --22 that's where you have to -- it's a really sensitive area for Mackenzie 23 Valley Project to go through. It just have to be studied really good and 24 maybe study the whole baseline because -- the reason I say they study 25 the baseline because we have impact from fire too also, and the climate 01:11PM 26 change, permafrost, and [inaudible] All this, you know, it's -- you know, 27 all together so it's very -- it's kind of complicate too. But, yes, we still

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1 have a really good. To me, I'll find out by this winter road, v			
2	down there I can tell whether it's, you know, it's still a really good habitat		
3	for moose yet because I say it again because of there those creeks		
4	are well, right now, the creeks are pretty well dry. It's this summer I		
5	seen it going up to Wrigley for hand game around August, three was jet		
6	boat went to Wrigley and then to Hay River for hand game and I was		
7	watching on the right side going up, there's lots of landslide because of,		
8	you know, permafrost melting. And there's a lot of changes I see in		
9	every major creek that I look at, it's hardly nothing like it used to be.		
10	The whole, trickle. Like Slave River, Blackwater River, and and across		
11	from Blackwater River is this river called really good really good creek		
12	for that, it's called Johnson Creek. [Indigenous language spoken] they		
13	call it. You need to know all your traditional name. And I have that.		
14	And it's so important. But this climate change is really is really		
15	impact. But like I side, what Chief said is very true. There's a really		
16	good habitat all the way so far from here to Blackwater anyway, I know,		
17	because we have a lot of creeks. We had a lot of willows, like lowland		
18	is good habitat for moose. Caribou, yes, well, it depend where the area		
19	is burned, eh. So yeah, this I don't know what else to yeah, that's		
20	yeah, okay, that's all I wanted to say. Mahsi.		
21	ALAN EHRLICH: Mahsi cho. So Mr. Andrew, would you also		
22	agree that a higher route that was further from the lowland wet areas		
23	would have less of an impact on moose pasture and maybe less impact		
24	on wildlife; thinking about something closer to the route that was		
25	proposed for the pipeline instead of the winter road route.		
26	FREDERICK ANDREW, JR: Yeah, I think what Jamie said is right. You		
27	have to go higher for the Mackenzie Valley Highway route because the		
	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26		

1 lower, that's where all the habitat is. And also on the wetland area too, 2 where that's at. Especially when you -- moose are -- never ever seldom 3 feed on grass but especially on the willows, eh. Their favorite food is 4 willows so they're also around the muskeg area too. And I don't wanna 5 miss -- this is very important things that we're talking about. I don't want 01:15PM 6 to try and miss on anything, but I think -- yeah. Yeah, okay. Mahsi. 7 ALAN EHRLICH: Mahsi cho. And now I'll ask Łíídly Kýę 8 First Nation if they want to respond to John's guestion. 9 DIETER CAZON: Dieter Cazon. I'll try to encapsulate an answer 10 for you. It's under LKFN's understanding through our partnership and 01:15PM 11 is collaborations with western science that moose populations are 12 generally trending down in population numbers. This is exacerbated by 13 some of challenges through climate change, like the forest fires we had 14 there over the last couple of years, and the issues with transient 15 hunters, and the interaction between transient hunters and local 01:16PM 16 harvesters, be it if they're from other parts of the Northwest Territories. 17 They don't assert themselves in a way that's conducive to celebration of 18 traditional harvesting and then sharing through those various aspects. 19 There's -- we've had issues where our harvesters have had 20 confrontations with people under the influence of alcohol and drugs. 01:16PM 21 People have taken over other kills, and these are just people -- we're 22 just trying to harvest and get our foods, and these are the interactions 23 we have with these transient hunters, and we get the complaints and 24 conversations. I know there's even a lot of mention with the GNWT, 25 like, current programs should be covering a lot of these issues. The 01:17PM 26 current -- it's not happening. Like, some of the issues would be in 27 regards to, again, like the safety aspects. There's no wildlife officers.

1 Several years ago, LKFN partnered with then ENR, and we had 2 a very successful campaign where our LKFN guardians worked with 3 ENR officers to do a checkpoint program and just engage with people 4 harvesting. And it was very successful. There was no issues or any 5 problems with harvesters or what have you. But trying to redo that 01:17PM 6 program, hard to gain traction post Covid and all those things. That's 7 one of the issues that we've been having. 8 Other issues we have is they -- the transient hunters leave 9 messes, garbage, all over the place. Just less than a month ago, two 10 of our guardians were helping to put out a fire that was left by some 01:18PM 11 transient hunters on the river side that was, like, actually right around a 12 cabin. They actually did their little fire line around the cabin and 13 managed to get that sequestered and put out -- not put out, but just fire guard it. 14 15 So these are some of the trials and tribulations that local 01:18PM 16 harvesters and guardians, people in the smaller communities, have to 17 deal with when there's an increased demand for affordable healthy food 18 options. 19 Everybody's aware that we're paying some premium high prices 20 for food at the store. Dene have traditionally just leaned -- we harvest 01:18PM 21 moose, caribou, and other species for subsistence, and we've been 22 leaning hard into it. We understand this metrics through a program that 23 LKFN delivers where we accept donations of traditional foods, and we 24 get that food out to members that need and can't afford -- get these 25 themselves. And people have been leaning really hard into that 01:19PM 26 program for the last couple of years. 27 So those are some of the issues that we've been having,

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specifically with the transient hunters, and I said with the forest fires over the last couple of years there's been a lot more push going north. There's no benefits for the communities or the businesses in those communities. They just -- they bring, like, jerry cans and jerry cans of gas, and they just bypass the communities, set up shop.

One of the aspects of concern for LKFN is several years ago a harvester and myself, Edward Charlo, we participated in a working group here to talk about moose, and one of the concerns with the members that participated in that conversation were members from Sahtu and their concern -- they asked us directly is, like, should we be concerned if there is a road going north in regards to transient hunters, and there definitely will be. They'll go into every nook and cranny where there's a road. Every little borrow source, every gravel pit, they're going to set up a shop, set up a tent, set up cabins, leave a mess, leave fires, and they're going to harvest moose as they can. Because it's, like, readily available food. But it's an issue of concern because, like I said, the populations are trending down. What does that look like in respect to climate change? That's hard questions to answer.

Right now, LKFN is looking at ideas of ways to engage and to actually start up, like, a monitoring program to help bolster the work that was previously done with ENR and to work with the harvesters in the Deh Cho to see what we can do to manifest and understand these changing dynamics of climate change in moose population and trends.

Other aspects of this is there's going to be a lot more demand on highway hunting. Everybody knows that the water levels are so low right now. Fort Providence is trucking in water. Never mind trying to get on the river with a boat. I've had several friends and colleagues and

1 other guardians and other members from other community just 2 communicating that, boom, they hit rocks, reefs, rocks that no one's 3 ever seen before on the river before. You don't know to read for these 4 things because the water is just so crazy low. So there's going to be an 5 uptake in demand. We've seen an uptake in demand, the need to do a 01:21PM 6 little bit more highway because it's hard to navigate the rivers now. 7 I think that -- I think I got most of the issues and concerns. Like, 8 I haven't expressed to [inaudible] as a manager of lands and resources 9 from LKFN from harvesters and other community members. There is --10 it's hard to say, like -- everyone's freezers are full of moose meat, and 01:22PM 11 they depend on these as a stable of their traditional -- their diet. Not 12 even traditional diet, just their diet. So what's this going to look like as it 13 goes and the -- this whole thing migrates north as the highway gets 14 built? I don't know what that looks like. But it's definitely things to keep 15 paying attention to as these things evolve and work starts to happen. I 01:22PM 16 think that helps with your answer? Okay, thank you. 17 ALAN EHRLICH: Thank you very much for that informative 18 answer, Dieter. Sahtu Secretariat Incorporated is also indicating. SSI, 19 are you responding to John's question, or is this something separate? 20 TODD McCAULEY: Yeah, Todd McCauley, Sahtu Secretariat. I just 01:23PM 21 -- before I respond, I just want to clarify, is this general comments or 22 just specific to the moose pastures? 23 ALAN EHRLICH: Well, originally, the question had to do with 24 moose pastures and we heard what PKFN had to say about they're 25 often the low willow-rich areas and the higher route might avoid that, 01:23PM 26 and there was concerns about the impacts of following the winter road 27 route because it's good moose habitat and harvesting area. And we

I				
	1	heard Tulita weigh into that too. But it's okay if the subject goes a bit		
	2	broader. I mean, I feel like LKFN's points about transient harvesters		
	3	are extremely relevant to the impacts of the Mackenzie Valley Highway		
	4	on harvesting. It sounds like they have experience that certainly the		
01:24PM	5	board would take under consideration, and I'm sure the developer would		
	6	be well advised to take under consideration as well. So I'll get back to		
	7	John's question. Be you if it's a slight variation, that's okay.		
	8	TODD McCAULEY: Yeah, I have got general comments on the		
	9	whole project.		
01:24PM	10	ALAN EHRLICH: If it's all right, then, I'd like to continue with		
	11	John's questions that are specifically relating to moose harvesting and		
	12	the habitat. And then we'll get to you in just a couple more questions.		
	13	I've got a list, but I just put your name on it.		
	14	TODD McCAULEY: Perfect. Thank you.		
01:24PM	15	ALAN EHRLICH: Thank you. Does anyone else want to respond		
	16	to John's question? PKFN.		
	17	JANE HENDERSON: Jane Henderson for PKFN. Mahsi cho for		
	18	speaking to this. Lands director Sharon Pelissey has just suggested a		
	19	little more to add to your question. This afternoon, we're speaking in a		
01:25PM	20	general way, but please follow up with more questions if you have them.		
	21	Sharon asked me to add that along the winter route, PKFN sees		
	22	moose travelling up to between their different habitats they have in		
	23	winter and summer. They see moose travelling along the creeks and		
	24	gathering at the outflows where the creeks and rivers meet the Deh		
01:25PM	25	Cho. Of course, that is also where the bridges are which is one of		
	26	PKFN's fundamental concerns. And that's those are some immediate		
	27	comments that Sharon wanted to add.		

	,	We also have more mitigation measures suggested in some of		
	1	We also have more mitigation measures suggested in some of		
	3	our questions later. I don't know, it might be easier to leave them lik		
	that and John can listen there. Does that make sense?			
	4	ALAN EHRLICH: Sure.		
01:25PM	5	JANE HENDERSON: Okay. Or we could jump into them now but I		
	6	don't know how many questions John asked.		
	7	ALAN EHRLICH: Let's finish John's questions. We'll get your		
	8	there's a question from Malorey Nirlungayuk who is an environmental		
	9	assessment advisor to the board, and then we'll get your mitigation		
01:26PM	10	[inaudible], and then we'll keep moving through the list.		
	11	So John, go ahead, please. John doesn't have more questions,		
	12	or do you? He is indicating he is good for now. So Malorey, are you		
	13	online? This is		
	14	MALOREY NIRLUNGAYUK: Malorey with the Review Board, sorry. Can		
01:26PM	15	you		
	16	ALAN EHRLICH: Please go ahead.		
	17	MALOREY NIRLUNGAYUK: I do have a follow-up question after John.		
	18	The question is for the recipients of the traditional land and resource		
	19	use studies. Since the GNWT funded the TLRU studies in preparation		
01:26PM	20	for the DAR, the Review Board would appreciate being able to review		
	21	these documents to consider how it was incorporated into the project		
	22	planning and the DAR. The Review Board is able to keep these		
	23	documents confidential as well.		
	24	So our question is more towards the Tulita Renewable		
01:27PM	25	Resources Council, the Norman Wells Renewal Resources Council,		
	26	LKFN, and we do recognize that PKFN has answered our IR in the past.		
	27	So our question is can you please submit your TRLU or a		

	1	non-confidential summary of the TRLU to the Review Board.		
	2	ALAN EHRLICH: Thanks. So, first, you've mentioned that's to the		
	3	Tulita was that the Tulita RRC yeah, okay.		
	4	So starting with the Tulita Renewable Resource Council, would		
01:27PM	5	you be okay with submitting your traditional land and resource use study		
	6	to the Review Board either where we can work out a confidential		
	7	handling for it, in case there's private traditional knowledge in there that		
	8	you don't want to share publicly, or a summary of it, if you like, that		
	9	doesn't contain confidential information. Either one, your traditional		
01:28PM	10	lands and resource use study would probably be quite valuable for the		
	11	board to make a decision about this project. Did you have a question?		
	12	Sorry Malorey, they're just caucusing about the response.		
	13	FREDERICK ANDREW, JR: Hello, this is Frederick Andrew again,		
	14	RRC. Yeah, we do have traditional knowledge and we don't mind to		
01:29PM	15	share it with KFC I mean, [inaudible] yeah, we do, because we're		
	16	we need to share. We need to be together. We're just right next door.		
	17	So, yeah, we do have that study in that Tulita office, yeah.		
	18	Sorry about KFC.		
	19	MARK CLIFFE-PHILLIPS: Just after lunch. Everybody has got food on		
01:29PM	20	their mind. Mark from the Mackenzie Valley Review Board.		
	21	Just as a clarification, I think it's great that groups could share		
	22	traditional land use studies between each other to confirm or validate		
	23	some of the information that's in there. Just in terms of our board		
	24	making decisions on those same considerations within the traditional		
01:30PM	25	land use studies, if there is a way that we could receive that to our		
	26	board, we have ways to keep that confidential and not publicly available.		
	27	We could enter into an agreement with the RRCs or First Nations who		

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	1	hold that. I know that we're meeting with PKFN on Friday to discuss			
	2	getting that information to the board. But if we could maybe follow up			
	3	after this meeting with the other groups, just in terms of getting that			
	4	information if you're willing to share.			
01:30PM	5	The other option is if there is very sensitive information that you			
	6	don't want to share, a summary of that information with key points that			
	7	you want to bring forward to the board is another method to get that.			
	8	But we do, and have in times past, received those information			
	9	confidential in a confidential manner, and we store that and return all			
01:31PM	10	those materials back to the groups at the end of the EA.			
	11	FREDERICK ANDREW, JR: I just wanted to say one more thing. It's			
	12	to the IRC. Yes, we like to share with First Nation from Wrigley and			
	13	also as long as the copy as long as it's in the confidential, yeah. But			
	14	we definitely want work together on this one, yes. Mahsi.			
01:31PM	15	ALAN EHRLICH: Thank you very much. We'll work with you to			
	16	find out the kind of confidential handling that you're comfortable with,			
	17	and we'll stick to that. And, of course, those materials don't go on our			
18 website. Thank y		website. Thank you.			
	19	Okay. Next, I'd like to ask the Norman Wells Renewable			
01:32PM	20	Resource Council, Lisa or Rhea, I'm not sure who is online right now,			
	21	but would you be willing to share with the board your traditional land and			
	22	resource use study to help the board make a better decision, knowing			
	23	that we'd be happy to take it under a confidential cover and can			
	24	negotiate confidential handling that you'd be comfortable with.			
01:32PM	25	LISA McDONALD: Hi, it's Lisa McDonald. Absolutely. I guess			
	26	going into discussion further in regards to the confidentiality agreement			
	27	stuff. But I think the more important thing is, yeah, Tulita has agreed,			

	1	and we're pretty close we have a close working relationship. So, yes,		
	2	definitely, I think we would agree to that.		
	3	ALAN EHRLICH: Okay. I thank you both for your generosity with		
	4	your knowledge. And we know that ŁίίdlįĮ Kų́ę́ First Nation is, I believe		
01:33PM	5	in the process of completing if you could give us an update on where		
	6	you're at. I understand that there's traditional lands and resource use		
	7	study that's ongoing, but I don't know if it's complete yet. Can you let us		
	8	know where that is and if you'd be willing to submit it to the board for its		
	9	consideration under a confidential cover, if necessary.		
01:33PM	10	DIETER CAZON: My colleague, Trieneke Gastmeier, she is		
	11	online, she'll answer.		
	12	TRIENEKE GASTMEIER: Trieneke Gastmeier for the Łíídlįį Kų́ę́ First		
	13	Nation. The study is complete. We're just waiting for a confidentiality		
	14	sharing agreement to be signed and finalized between the proponent		
01:33PM	15	and LKFN. In terms of sharing it with the board, that's something that		
	16	we'll have to discuss internally and get back to you. We're not in a		
	17	position to make a decision on that right now.		
	18	ALAN EHRLICH: No, I appreciate that. Thank you, Trieneke, and		
	19	that sounds good. Sometimes the kinds of things the board might be		
01:34PM	20	looking at in terms of traditional knowledge might not be exactly the		
	21	same kinds of things that the developer is looking at in terms of		
	22	traditional knowledge because, of course, our mandates are a little bit		
	23	different. But we appreciate your openness and would love to continue		
	24	that conversation.		
01:34PM	25	Malorey Nirlungayuk, is there anything else? Any other		
	26	questions you have on this topic?		
	27	MALOREY NIRLUNGAYUK: There is not. Thank you all for your		

ALAN EHRLICH: And you guys all recognize Malorey because she's been in the room with us the last two days, but because of our schedule's little bit late now, she is asking the question remotely. No, we appreciate that. And we appreciate everyone's willingness to try to make sure that the board has the best information it can get for a decision. Our board takes traditional knowledge — traditional Indigenous knowledge extremely seriously and puts it on par with what's scientific knowledge and it is an influential force in the decisions the board makes. And so to make decisions, having good current knowledge, particularly about uses in the area, that's really valuable to us. So thank you for that. Okay. Now I'm going to go back to Pehdzeh Ki First Nation. They had some mitigations that they mentioned before they wanted to cite, and they patiently waited for us to wrap up that other discussion. So back to PKFN. And Todd McCauley, we haven't forgotten you. You're on the list right after. JANE HENDERSON: Jane Henderson for Pehdzeh Ki First Nation. So these topics we had framed as questions to the developer but they go to your questions. So engagement with participants other than PKFN in 2022 and 2023, participants repeatedly asked for a moratorium and/or buffer around the all-season road to reduce the impacts of nontraditional harvesting. Participants also recommended a five to ten-year moratorium on hunting to protect and monitor the baseline of caribou and moose. That's at page 10-8. In 2011, the Deh Cho First Nations recommended a five to ten-year moratorium on hunting along the					
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all-season road. In section 9.9.2.1.2, the developer states that the project may cause changes in patterns of nontraditional harvesting, but does not assess the impacts any further. The 2012 PDR provides a more in depth -- so to be clear, we're talking about nontraditional harvesting here. The PDR provides a more in depth understanding of the potential effects of nontraditional harvesting on PKFN specifically. And the report recommends regulation of this as a mitigation measure, but doesn't go into detail.

The PDR summarizes PKFN's great concern that increased access to the N'deh through the all-season road will put increased pressure on traditional wildlife and plant resources and cause the kinds of -- exactly the kind of situation that LKFN has described.

PKFN has expressed that moose habitat and calving takes place along the winter road in the Deh Cho, especially around the water crossing areas and at Gaudet. Caribou migration takes place along the water crossings, along the winter road, especially between Ochre and Blackwater. Human activity in those areas is a huge concern for PKFN. Both the increased road use and the land use that will be made possible by the all-season road, the increased access noted in the DAR.

At page 2-30 of the DAR, the developer summarizes the response to the consistent and repeated requests throughout the Sahtu and Deh Cho for a moratorium on non-traditional hunting along the all-season road but proposes only a wildlife management and monitoring plan. So PKFN's question is, why does the developer not provide a detailed rationale and explanation for rejecting the dozens requests for a moratorium on nontraditional hunting along the proposed all-season road.

1 JAMES HODSON: Yeah, James Hodson with the ECC. To answer 2 part of the question. So I think we responded to this question in one of 3 the information requests. For GNWT, our position was that we don't 4 feel there's any indication that a moratorium in advance of construction 5 and operation of the highway is necessary. We're proposing to 01:39PM 6 maintain the same limits on resident harvests for boreal caribou and 7 moose that are currently described in the big game hunting regulations. 8 If that monitoring indicated that there was an issue, that the populations 9 suddenly started to decline as a result of harvesting along the road, 10 then we would meet with our co-management partners and Indigenous 01:40PM 11 organizations to discuss what steps need to be taken. But we don't 12 think that conversion of the winter road to an all-season road will 13 automatically lead to an overharvesting issue in this case that would necessitate a moratorium. 14 15 ALAN EHRLICH: Thanks, James. You know, this is an issue that 01:40PM 16 the board had to consider when it was looking at the Tłycho All-Season 17 Road too. I hear your point, which is very similar to what the GNWT 18 said for the Tłycho Highway. I recall my comments earlier today and 19 yesterday were one of the big goals of environmental assessment is to 20 anticipate and avoid problems rather than wait for them to happen and 01:40PM 21 then react and cure. What you're suggesting is an adaptive approach, 22 wait to see if there is a problem and then start trying to change things at 23 that point. One of the issues with adaptive management is the timing of 24 that feedback loop needs to be fast enough to deal with the problem 25 before it becomes a big problem. And do we have reason to think that 01:41PM 26 the administrative and bureaucratic processes of the GNWT, if it 27 recognizes that there's an early indication that there might be a

1 population decline because of increased harvesting particularly from 2 hunters from other areas that the system would be nimble enough to 3 recognize the problem and then respond by then changing hunting 4 regulation before the population has taken a real hit? What I'm trying to 5 get at is is that an agile enough mitigation to deal with the potential 01:42PM 6 impact before it becomes a bigger potential impact? If you say yes, 7 please expand on why you think the government can move that quickly 8 and efficiently at the early stages of a potential problem that we've 9 heard clearly matters very much to Indigenous groups. Thank you. 10 JAMES HODSON: Yeah, James here with ECC again. So I guess 01:42PM 11 you would have to demonstrate that there is going to be a significant 12 impact because of this road on the population that necessitates this 13 measure being taken with regards to the nimbleness of our ability to do 14 something about that situation. If it observed to occur, I think we can 15 get kind of emergency measures in place fairly quickly when there is a 01:43PM 16 conservation concern like that. But from what we see currently in the 17 territory, resident harvest levels on boreal caribou are very low, and 18 resident harvest levels on moose are also pretty low. So in GNWT's 19 view, there isn't need for this drastic measure, to put a moratorium on 20 resident harvest on presupposing that the road is going to lead to this 01:43PM 21 drastic decline those species. 22 ALAN EHRLICH: Thanks, James. I hear what you're saying. The 23 board will certainly consider everything the GNWT has to say on this 24 topic and everything that the other parties, including Indigenous parties, 25 have to say when it makes its determination of the potential significance 01:44PM 26 of this impact and decides how precautionary an approach is 27 reasonable given what it's heard. So thank you for that. Over to John

1 Nishi. 2 JOHN NISHI: Thanks. John Nishi for the board, Review 3 Board. James, thanks for your insight. I think I understood your 4 rationale, or argument. I was hoping to get some clarification on what 5 you meant by "a sudden decline in a population". Could you expand	on / I		
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o1:44PM 5 you meant by "a sudden decline in a population". Could you expand	on / I		
	/ l		
6 that in terms of what does that mean? What rate of change are you	/ I		
7 thinking and other what timeframe are you thinking. Thank you.			
8 JAMES HODSON: Thanks. James Hodson, GNWT. So usually			
guess, at least with boreal caribou, you know, we monitor annual	the		
01:45PM 10 population trend within our study areas, and we will see years where			
11 population goes up, and years where the population is stable, years			
where it goes down. But I think you would have to look at somethin			
13 like over a five year period if we were just seeing a decline every ye	•		
over a five year period, that would be a cause for concern. Because	<u>)</u>		
01:45PM 15 that's not, you know, what we typically see if our monitoring study ar	eas		
to things bounce around and fluctuate from one year to the next.	But		
a consistent decline over a time period like that would be cause for	a consistent decline over a time period like that would be cause for a		
18 concern. And it would also depend I guess on the rate of change from	om		
one year to the next. You know, a 10 percent decline every year ov	er		
o1:45PM 20 five years, you lost half of your population, that's a big deal obviousl	у.		
But it's a one percent change per year for five years. So, again, we			
have to look at the monitoring data from our monitoring programs ar	nd		
discuss it with co-management partners and the communities along	the		
highway, and look at that information then try to come up with a cou	rse		
01:46PM 25 of action.			
26 MARK CLIFFE-PHILLIPS: Thank you, James. It's Mark Cliffe-Phillips w	ith		
the Review Board. And just to follow up, and the approach that it			

1 sounds like GNWT is proposing relates to sort of the aggregate 2 population-wide monitoring that would occur for todzi or boreal caribou, 3 along with moose. In terms of other metrics, I know that communities 4 have mentioned availability for harvesting is the major concern that 5 groups are expressing, so not just an ecological view but the harvesting 01:47PM 6 and location of the harvestable and available population. And I'm not 7 certain the GNWT's monitoring is able to capture that in the real time 8 that the effects of the road might play on the ability of communities to 9 harvest todzi and moose. 10 So is there any consideration on figuring out the baseline 01:47PM 11 harvestable available populations in advance of the road operating so 12 you can measure this more effectively? 13 JANE HENDERSON: Yeah, I think you brought up two points there. 14 So there is like what is the baseline population of caribou in the study 15 area that we're monitoring, and what's the baseline level of harvest 01:47PM 16 against which we're measuring whether or not there's a decline once the 17 road is built and open. So you need answers to both those questions. 18 So you have to monitor Indigenous and resident harvest and have an 19 idea of what are the numbers before the road open and then what 20 happens after the road opens, I think is what you're getting at. 01:48PM 21 MARK CLIFFE-PHILLIPS: Mark from the Review Board. Yes, that's what 22 we're inquiring. I guess is that the approach that GNWT is proposing 23 for their monitoring? 24 JAMES HODSON: Yeah, James Hodson here again. I think that is 25 what is proposed in the WMMP although not in detail yet, that we would 01:48PM 26 work with Indigenous organizations along the Mackenzie Valley 27 Highway to support them in developing their own harvest monitoring

1 program to measure that and then to be able to bring that information 2 back to GNWT to say, yeah, there is an issue here or no, things are still 3 okay. 4 MARK CLIFFE-PHILLIPS: Thanks, Mark from the Review Board. So I 5 guess going back to what Alan had originally asked around the ability to 01:49PM 6 mitigate or manage those effects in a timeframe where there won't 7 result in significant adverse impacts to the availability of harvestable 8 species, both moose and todzi. Are the predictions that GNWT had put 9 forward within the DAR, do you have confidence in that not occurring 10 with the additional increase to transient hunters into the new project 01:49PM 11 area? 12 JAMES HODSON: Yeah, I think the GNWT's predictions are 13 reasonable partly based on our experience with the Tłycho Highway. So 14 far we have not -- you know, we have been monitoring the boreal 15 caribou population in that area since the road opened, and it has 01:50PM 16 continued to increase. And we have not heard from working group 17 members in that corridor working groups that there is a sudden influx of 18 resident harvesters and a decline in boreal caribou or moose along that 19 road. And I mean, given that there's already a winter road connecting 20 Wrigley to Norman Wells, that area's already opened during the -- at 01:50PM 21 least for boreal caribou, it's open during the current hunting season for 22 boreal caribou, so making the switch from a winter road to an all-season 23 road doesn't necessarily change things very much in terms of resident 24 harvest on boreal caribou. So yeah, I guess it's not clear to me that the 25 road will suddenly increase a influx of resident harvesters into an area 01:51PM 26 that was already somewhat accessible to them before. ALAN EHRLICH: 27 Thanks, James. I'd just like to verify that

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	1	most many of the comments you just made you were specific about			
	2	caribou but what we've heard is that moose are an important			
	3	traditionally harvested increasingly important harvested species along			
	4	the route. So can I assume from your response that you assume the			
01:51PM	5	same things about moose?			
	6	JAMES HODSON: Yeah, I mean for moose, it does an			
	7	all-season road would expand the season a little bit for resident			
	8	harvesters, so resident harvesters can hunt moose from September 1st			
	9	to January 31st. So it does open up an area in the fall that would not be			
01:52PM	10	accessible currently with the winner road only being there. But, again,			
	11	are there enough resident hunters in the Northwest Territories that are			
	12	going to come into the region now to make a big difference to the level			
	13	of harvest in that region, it's, yeah, hard to say.			
	14	ALAN EHRLICH: Thanks, James, and in line with some of the			
01:52PM	15	comments I made earlier, my thinking is not just enough resident			
	16	harvesters to come into the region to make a dig difference, but from			
	17	the perspective of the moose there are issues that we've heard about			
	18	with disturbance of habitat, with disturbance of pastures, we're going to			
	19	get into noise and sensory stuff, I hope, this afternoon. And so there			
01:53PM	20	are a few different things that may be affecting them simultaneously			
	21	which could happen simultaneously, this being one of them. Of course,			
	22	the board will consider all of the combined impacts from this project, as			
	23	well as from other projects, on moose instead of just thinking about this			
01:53PM	24	one in isolation. But I hear your point, and I get it. I say thanks.			
	25	Now John, if I go back to you now, after a fairly wondering			
	26	discussion but a productive one, I think, we're going back to PKFN.			
	27	JANE HENDERSON: Jane Henderson for PKFN. Continuing on this			

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	1	topic. So to clarify, when PKFN is talking about considering a	
	2	moratorium as a mitigation measure, they are considering not just	
	3	impacts on the availability of moose for harvest but also the impacts of	
	4	hunters outside hunters' behaviours on the community and on N'deh.	
01:54PM	5	PKFN seeks a preventive and not a reactive approach and does not	
	6	have confidence in the GNWT's prediction of impacts of the highway on	
	7	the moose and does not have confidence in the process the	
	8	emergency measure process that is described by GNWT.	
	9	PKFN is concerned that if outside folks get access, they will feel	
01:54PM	10	entitled to it and may not respect its removal even if any emergency	
	11	measures were successfully put in place.	
	12	To PKFN, a perfect example and analogy to compare to is what	
	13	we see happening with folks coming in to harvest morels. They come in	
	14	and harvest the mushrooms, they take them away and sell them, and to	
01:54PM	15	PKFN, this kind of this increase in outside access and people profiting	
	16	and not contributing to the community and the conflicts that can happen	
	17	between those folks and the locals is exactly what PKFN expects to	
	18	have happen with the highway, and they're very concerned that there	
	19	are at this point there are no opportunities to educate outside folks on	
01:55PM	20	how to behave appropriately in N'deh and what protocols need to be	
	21	followed. That's a follow-up comment to the previous.	
	22	Here comes a further question on this topic to the developer.	
	23	Why has the developer not reviewed and considered the historic	
01:55PM	24	hunting restrictions along the Liard Highway, Highway No. 7, when it	
	25	was first constructed in the '80s?	
	26	SETH BOHNET: Seth Bohnet, GNWT. I'm going to have to take	
	27	that away right now. I don't have a response right now.	

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	1	ALAN EHRLICH:	Thanks, Seth. Is that something that you could	
	2	put on the record, say, a week after our technical sessions, just so the		
	3	have time to follow up with IRs if necessary.		
	4	SETH BOHNET:	Yeah, we'll endeavor to have that response in a	
01:56PM	5	week.		
	6	ALAN EHRLICH:	Thank you.	
	7	JANE HENDERSON:	Thank you, Seth. Jane Henderson for PKFN.	
	8	Alan, you mentioned	the Enbridge pipeline route as an example of	
	9	where a higher route	e was chosen. PKFN comments that this is a very	
01:56PM	10	apt example of a good higher alignment that protects the moose and		
	11	caribou, as well as of course harvesting and cultural use areas. That's		
	12	a comment.		
	13	Moving on to our next question.		
01:56PM	14	The developer has stated at section 10.7.2 that the impacts of		
	15	poaching on moose and caribou are unknown. The DAR does not		
	16	address other poaching impacts but reports that different communities		
	17	have repeatedly identified increased approaching as an important and		
	18	concerning impact.	PKFN members have observed and reported	
	19	increased illegal hunting, fishing, and harvesting in their territory in		
01:57PM	20	recent years. Members also recall illegal hunting by out of region		
	21	workers when the highway was built to Wrigley which caused conflict		
	22	and distrust and even protests.		
	23	PKFN of cour	rse notes that, you know, increasing access from	
	24	the winter road partial access to all year-round is a dramatic difference		
01:57PM	25	so it seems unlikely that access won't greatly increase for both		
	26	outsiders coming in t	to hunt legally and illegally. So the question to the	
	27	developer is what wi	ill be done to prevent increased poaching?	

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	1	Examples that PKFN sees are establishing and supporting guardian			
	2	programs, putting in Dene Zhatie signage, including information about			
	3	appropriate conduct in N'deh and how to conduct yourself if hunting in			
	4	the area.			
01:58PM	5	JAMES HODSON: James Hodson here with GNWT. I'll let my			
	6	other colleagues weigh in here too, but one of the measures that's			
	7	proposed in the WMMP is to hire additional renewable resource officers			
	8	in one of the communities along the Mackenzie Valley Highway to			
	9	increase patrols on the highway to get at just that issue of potential			
01:58PM	10	poaching or illegal harvesting.			
	11	JANE HENDERSON: Jane Henderson for PKFN. Thanks, James.			
	12	What's your prediction on how effective that will be?			
	13	JAMES HODSON: I can't answer that question. I don't actually			
	14	have the information at my fingertips about how much of an issue that is			
01:58PM	15	currently or have numbers around it.			
	16	ALAN EHRLICH: In that case, can we ask the GNWT to take			
	17	some time and provide a written answer to that one on the record.			
	18	PKFN, I have a feeling if you repeat the question, it might be helpful.			
	19	JANE HENDERSON: Thank you Alan. Jane Henderson for PKFN.			
01:59PM	20	So to repeat the question, the developer has stated at section 10.7.2			
	21	that the impacts of poaching on moose and caribou are unknown.			
	22	PKFN asks what will be done to prevent increased poaching, and I			
	23	understand that because the impacts of poaching are not known, the			
	24	impacts of the proposed mitigation increasing a presence of patrols			
02:00PM	25	is also unknown, so.			
	26	So to phrase that as a question, what will be done and how can			
	27	we have any confidence in it if you don't know what the poaching is and			

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	1	you don't know how the mitigation works; how does that work?			
	2	ALAN EHRLICH:	So in short, I think in light of that, it's what will		
	3	be done to prevent add	be done to prevent additional poaching and what is your confidence		
	4	or basis for confidence that it will be effective?			
02:00PM	5	SETH BOHNET:	Seth Bohnet, GNWT. So we have, I believe I		
	6	don't want to misspeak, so I'll take that away. Apologize. I don't want to			
	7	mischaracterize something.			
	8	ALAN EHRLICH:	No, appreciate that. Is two weeks enough time		
	9	for you to get something on the record, a response on the record?			
02:01PM	10	SETH BOHNET:	Absolutely, yeah.		
	11	ALAN EHRLICH:	Would that be okay to PKFN? PKFN is		
	12	indicating yes. Back to you how many more questions do you have in			
	13	this area, Jane?			
	14	JANE HENDERSON:	We have one specifically related. We have two		
02:01PM	15	on cultural impacts. One on cumulative impacts. And then we're			
	16	getting into fish, waters, other topics.			
	17	ALAN EHRLICH:	Okay. So let's do that. But I know that Fred		
	18	Andrew and Dieter both have points from the Tulita Renewable			
	19	Resource Council and Łíídlįį Kų́ę̇́ First Nation. So I'm just going to give			
02:01PM	20	them a chance now, just to mix it up a little bit. We won't lose your stuff,			
	21	and we'll try hard to get through everything we need to today, by the end			
	22	of the day. So I just encourage everyone to I know these are all			
02:02PM	23	issues that are close to	people's hearts, and it's hard to be concise with		
	24	this, but let's do the best we can to make progress this afternoon.			
	25	Thank you.			
	26	So, Fred, it's y	ou have a question. And Todd.		
	27	FREDERICK ANDREW, JI	R: My name is Frederick Andrew, RRC		

1 Tulita. I just wanted to -- in regards to James Hodson and John Nishi 2 regarding population of caribou and habitat, I just want to comment on 3 that. You know, the habitat is very, very important to the caribou. If it's 4 a good habitat, we have a really good population. It's all come down to 5 bull. You have to be a really healthy bull in order to create a population. 02:02PM 6 But the habitat is so important. So I just wanted to comment on that. 7 Also, I know with this Mackenzie Valley Project it's a major thing that 8 going through our territory down to Wrigley, and it's going to be maybe 9 lots of disturbance on habitat for sure. [Indigenous language spoken]. 10 Todzi habitat. And if you want to have a really, really good, a lot of 02:03PM 11 population, it all come down to good -- healthy habitat and a healthy 12 bull. That's the ones that create the herd. And so I had a question for 13 the GNWT. 14 Earlier in the future -- down the future study caribou -- that 15 habitat study, I think they should work with the First Nation -- local 02:04PM 16 people to work together this way, not just GNWT study only. It has to 17 go with Dene people too because they have that traditional knowledge 18 all the way up to -- all the way up to [inaudible]. So I just wanted to 19 mention that. So important that habitat has got to be really healthy. 20 You want to talk about caribou habitat, it all come down to bull. It's got 02:04PM 21 to be really healthy in order to create the herd, increase the herd. So I 22 just wanted to just to say that. Mahsi. 23 ALAN EHRLICH: Mahsi, Fred Andrew. I forgot to mention that 24 Todd from SSI is also in line. And so after LKFN on this topic, we'll go 25 to you, Todd. And then we'll go back to -- we'll go to SSI and then we'll 02:05PM 26 go the Norman Wells Renewal Resources Council online and then back to PKFN. So that's the lineup. Dieter, Łíídly Kýé First Nation. 27

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	1	DIETER CAZON: Yeah, Dieter Cazon, Łíídlįį Kų́ę́ First Nation.			
	2	Just following up on some of the conversations that PKFN in			
	3	questioning in regards to poaching. There is another issue of concern			
	4	for LKFN and harvesters across the Deh Cho, is people shooting			
02:05PM	5	moose and abandoning it. They won't go chase after their moose that			
	6	they shoot. And quite often, several times a year and in increasing			
	7	numbers every year, harvesters are finding moose that have been			
	8	abandoned. So that's a huge issue of concern. And it's yeah, it's			
	9	troubling, and it bothers a lot of people. That was it. Thank you.			
02:06PM	10	ALAN EHRLICH: So just for the context of the Mackenzie Valley			
	11	Highway, are you expecting more of that to happen as a result of the			
	12	highway, or how do you see that sort of fitting in with what the GNWT			
	13	proposes?			
	14	DIETER CAZON: Yeah, with the with the new work with the			
02:06PM	15	Mackenzie Valley Highway, it's just something that's going to have to be			
	16	expected. I don't want to say we're it's not something you want to			
	17	have to become accustomed to, but it's something that we're not as			
	18	surprised to see anymore. It bothers a lot of people to see. But once			
	19	this stuff starts happening and it starts going further north, then it's			
02:06PM	20	really going to start bothering people. Thank you.			
	21	ALAN EHRLICH: Thank you, Dieter. Now, Todd McCauley, I had			
	22	the pleasure of speaking with your late mother at length when we were			
	23	doing the scoping for this. You know, she was one of diehards who			
02:07PM	24	came out in Norman Wells. And her views on highways were very, very			
	25	well established in the paper and many other stuff. But she came into			
	26	the scoping that we did as an early part of this assessment, 2012, 2013,			
	27	and, again, shared her views and help shaped the terms of reference			

1 that this environmental assessment has been carried out under. And so 2 I just want to acknowledge that, you know, her -- she made a difference 3 to how this environmental assessment is framed and moving forward, 4 And that helps shape the process that we're sitting in today for this 5 assessment and for what kind of issues to focus on and how the board 02:07PM 6 should make its decision and consider it. So I just wanted to put that 7 out there, and now to give SSI, through you, your chance to speak. 8 TODD McCAULEY: Todd McCauley, Sahtu Secretariat. Thank you, 9 Alan. I just want to start by saying I hope, now that Fred is sharing is 10 traditional knowledge with KFC, I hope they don't start harvesting our 02:08PM 11 ptarmigans. 12 So as I said on Tuesday, in 2019, the Sahtu Secretariat signed 13 an MOU with the GNWT to promote the Mackenzie Valley Highway. 14 As a result of the MOU, a steering committee was formed and a 15 working group. The steering committee consists of the minister of 02:08PM 16 Infrastructure, our Sahtu MLA Danny McNeely, and representative from 17 the SSI. Additionally, the working group consists of staff from the 18 GNWT and the Mackenzie Valley Highway liaison officer, which is me. 19 When it comes to the business case that was submitted in 2023, 20 it was noted that the business case required an update. The SSI had 02:09PM 21 insisted that a new business case be developed. The SSI worked with 22 the GNWT to develop the RFP. Additionally, the SSI was part of the 23 evaluation. 24 The new business case in the RFP includes three important 25 sections. The first one is country, which is national defence, so our 02:09PM 26 GTC partners here mentioned yesterday that Sahtu Secretariat is 27 promoting the business case to go from Wrigley to Inuvik, and we've got

1 the -- securing Canada's link to the Arctic. So I've got a bunch of copies 2 here if anyone wants it. It's the national defence and security benefits 3 of the Mackenzie Valley Highway Project. 4 In addition, last winter, due to low water concerns in Fort Good 5 Hope, we had a 15-minute video produced, which is on YouTube, and 02:10PM 6 we've got QR codes if anyone wants to have access to the QR code. 7 Along with that, we've developed an app. We believe we're the first 8 Aboriginal group in North American to use apps to update our 9 membership. So click on the QR code here, and it takes you to the 10 app. Trying to move the ball forward here with technology. So that's 02:10PM 11 the national defence, which is our country portion. 12 We did presentations to the national defence senate committee 13 last year and also the Arctic security working group. The second tier of our program is climate change. What we're 14 15 dealing with is shorter winter roads and low water levels and no 02:10PM 16 intercommunity travel on the river. I don't know how many -- or where, 17 but this summer, we -- people couldn't drive a Lund from Norman Wells 18 to Fort Good Hope, the water was so low. 19 Additionally with climate change with low water, we've heard from 20 Wrigley the concern about fuel spills on the bridges but there's also the 02:11PM 21 concern with marine transportation. The fuel barges are all single 22 hulled barges, and last year, 2023, a barge got stuck by Fort 23 Providence and then when the coast guard went in to help them, the 24 first coast guard barge got stuck. Then the second coast guard had to 25 go in and get them. So there's a real issue here with the barging of fuel 02:11PM 26 up and down the Mackenzie River. The third tier is our community. It's the cost of living and, as well, 27

connecting communities. The Mackenzie Valley Highway's in competition with a couple of other national projects, but the Mackenzie Valley Highway is the only highway that's being proposed right now that connects communities. The Grace Bay Project doesn't connect communities, and neither does the road to Churchill. So we believe that's a huge impact.

We have residents at the Tulita health centre and the Elders' facility that are from the region and the cost of air travel to get from Fort Good Hope or Dél_lnę to Tulita to Norman Wells is huge. But if we had a road from Tulita to Norman Wells, it's 80 kilometres and you could be there in an hour. So it's one of our huge, huge issues.

As Timm mentioned of DPRA the other day, two big social economic issues came up. One was drug and alcohol use, and one was public safety on the proposed Mackenzie Valley Highway.

We all know there's drugs and alcohol issues affecting Sahtu and, for that matter, the Northwest Territories and Canada right now.

Last month, we had an overdose in Tulita and the young fellow died.

And I hate to bring it up because it's an emotional -- there's people here, family, and it's hard. As well on Monday, there was a drug bust in Tulita. So we're trying to work with -- right now we're working with the town of Norman Wells but we're trying to develop a program where we can monitor sewage lagoons in the communities and see if there's traces of opioids right now. Statistics Canada did something a couple years ago where they measured the opioids in 14 cities across Canada. So if we could have a baseline then theoretically when highway is built, we could see what the changes are. So I think it's a good baseline to have for future projects.

1 Also with the drug use, I don't know if everyone's aware that a 2 house got burnt down Norman Wells last month. A guy was shot in the 3 leg with a crossbow. Another person was stabbed in the neck and is 4 now paralyzed. So we have facing these issues as we speak. 5 The SSI met with Imperial Oil this week. Imperial Oil will be 02:14PM 6 mobilizing equipment on this year's winter road to prepare for shutting 7 down the field depending on what happens with the Review Board. 8 They can't -- they're not depending on barges because if they have to 9 bring barges in the summer, it's not possible so they're staging 10 everything this winter. 02:14PM 11 We also thought that when the fuel shuts down, remediation 12 would begin but we've now learned that it could five to ten years before 13 their plan is submitted. So there could be a 5- to 10-year gap between 14 shutting down and remediation starting in Norman Wells. 15 Additionally, with the Tulita health centre being constructed, right 02:14PM 16 now there's 90 DC3 loads of flights going in to bring in material for the 17 Tulita health centre that could have been brought up on a road. In 18 August of this year, Fort Good Hope, 64 plane loads, 400,000 litres of 19 gas. In addition, Imperial Oil is bringing in 1.3 million litres of gas and 20 home heating fuel as we speak into Norman Wells. For this year's 02:15PM 21 winter road traffic, there's expected to be over a thousand tractor trailers 22 coming up over probably a 60-day period, so we're hopeful that there's 23 no incidents on this year's trucking season. 24 One of the major things our position is is that the Sahtu needs to 25 be connected to the rest of Canada. And as I mentioned earlier, the 02:15PM 26 Mackenzie Valley Highway is the only highway proposed that connects 27 people. Last year, Elon Musk said he would have the space station

	1	operational in ten years. If we can build a space station in ten years,			
	2	why is taking half a century to build a highway? Sahtu might as well be			
	3	on Mars at this point. Mahsi.			
	4	ALAN EHRLICH: Mahsi cho, Todd. Those numbers really help			
02:16PM	5	clarify some of the urgency that we've heard about for some of the			
	6	pressures for people in the Sahtu. And, you know, also I just want to			
	7	reiterate that it's very rare that an environmental assessment results in			
	8	rejections, quite rare. What environmental assessments try to do is try			
	9	to make projects better and it sound like there's there are many folks			
02:16PM	10	who want to make sure that if a highway is built, it's the best highway			
	11	possible to maximize and make sure that it achieves the things that it's			
	12	intended to build and to avoid unintended harms along the way. And so			
	13	I take your comments well in that light, and I thank you for voicing			
	14	something that I know a lot of people in the Sahtu have felt strongly			
02:17PM	15	about for an awfully long time.			
	16	Now, I'm going to go to Rhea with the Norman Wells Renewable			
	17	Resource Council online.			
	18	RHEA McDONALD: Hello. Can everyone hear me?			
	19	ALAN EHRLICH: We can.			
02:17PM	20	RHEA McDONALD: Yeah, I'm just, I guess, going back to roads and			
	21	moose and caribou habitat and disturbances and resident hunters and			
	22	hunters from beyond. This has been a problem in the Sahtu region for			
	23	some time. We have an issue at Mile 222. We have hunters from all			
	24	over coming in, not only Yellowknife, but Yukon, BC; you name it,			
02:18PM	25	they're coming. They're coming in with and I've seen it myself, with			
	26	trailers, big campers, quads behind, freezers, da da da da. Some of			
	27	them practice practices are very well, and for a couple years there,			

1 we had -- we were -- our RRC was working with ECC, now it is, to try 2 and make a presence, I guess, out there and to inform people of private 3 lands and best practices and stuff like that. And I found that that really 4 helped. We started getting calls from hunters that wanted to come in 5 the area to hunt and where they wanted to hunt and what they wanted 02:19PM 6 to hunt, and when they were done their hunt, they gave kind of a report 7 to us, I guess, stating on what they -- what they hunted and where they 8 hunted and what they seen. And some of them went even as far as 9 cleaning up some of the -- some of the disturbances and messes they 10 seen left behind by other hunters. But nonetheless, where there's 02:19PM 11 access, more will come. 12 When we negotiated the Naats'ihcho'oh, there was that mining 13 road that goes through there and, no word of a lie, I think it was the first 14 year there was two hunters -- I think it was two hunters that was 15 charged that were going up there. And the only officers they got, I think, 02:20PM 16 are from Smith that go up that way, and that's once or twice a year. 17 That, to me, is not acceptable. 18 I think that the government, for best practices, need to really 19 work with First Nations and try and get, I guess, boots on the ground to 20 make sure stuff like this doesn't happen. Like, Mile 222, it's so -- the 02:20PM 21 caribou habitat is so torn up by ATVs, it's unbelievable. It looks like 22 city -- city roads in the city. Like, it's ridiculous. And that's going to 23 happen. 24 I mean, before the water started going low, we started getting 25 hunters coming up the river. Some of the Tulita hunters were 02:21PM 26 complaining about hunters coming up from the south up the Keel River. 27 So I mean, there's no stopping people coming up and hauling boats, if

1 there's even water for a boat, I guess, to do things like that. So I really 2 encourage the GNWT, ECC, to work with First Nations to mitigate these 3 issues before, so to get there -- whatever it may be, boots on the 4 ground, and ready to go before, not after, not when, not -- but before 5 this road goes through. I mean, like you already hear from the other 02:22PM 6 Indigenous groups, that it's already happening; it already happens. So 7 a road's only going to make it worse. And I'm not saying I'm against the 8 road. I'm just saying -- asking the government to make good on their 9 word and work with the Indigenous groups to get their monitoring and 10 their quardianships or work with the quardians, or whatever it may be, to 02:23PM 11 mediate a lot of these issues. Thank you. 12 ALAN EHRLICH: Thank you very much, Rhea. I really appreciate 13 it. You know, one of the things that the board heard quite a bit about 14 from different communities in October when we were in Wrigley, Tulita, 15 Norman Wells, and Déline was this point that, yeah, there's Indigenous 02:23PM 16 monitoring -- for example, Fred talked yesterday about monitoring 17 construction -- but there's also real opportunities with Indigenous 18 guardians, boots on the ground type programs. Some of what was 19 spoken about, some boots on the ground programs are more 20 researched based, but some of them are more keeping an eye on 02:24PM 21 what's going on. And people who know that they're being kept an eye 22 on, people from outside, often can behave differently. And so, you 23 know, I think one of the real opportunities here is through serious 24 empowerment of the individual Indigenous communities to have an 25 active role in this kind of guardianship, which we've only heard 02:24PM 26 consistently good results from, good reports from, and every community 27 has expressed an openness and a willingness to take part and to -- I

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	1	think there's some real mitigative potential in this, and I just want to		
	2	encourage the GNWT to take advantage of the communities that are		
	3	being extended by the Indigenous groups that all the Indigenous		
	4	groups who have suggested that they want this, and they want a greater		
02:25PM	5	role in this, and what can the GNWT do for this, because it may have		
	6	real potential for mitigating significant adverse and environmental		
	7	impact which we just heard about in a lot of detail. GNWT care to		
	8	comment?		
	9	SETH BOHNET: Seth Bohnet, GNWT. Yes, thanks very much.		
02:25PM	10	First, thank you to everybody, again, for your comments on the		
	11	importance, of course, of moose and caribou and habitat and		
	12	expressing the concerns, again, with regards to poaching, increased		
	13	access, and other activities that have the potential to be impacts.		
	14	I do believe, and I would reiterate that we have heard that		
02:25PM	15	regularly through our engagements. There's several different facets		
	16	there to touch on, not the least of which, again, is that several of those		
	17	activities that are being referenced are already being managed through		
	18	legislation and enforcement and education programs that the GNWT		
	19	has in place.		
02:26PM	20	There are certainly opportunities from a project-specific		
	21	perspective to work collaboratively with communities as proposed and		
	22	outlined in the DAR and the draft WMMP to define and better improve		
	23	how we can work collaboratively together on monitoring and		
02:26PM	24	management of those specific facets, and to collect better information		
	25	and fill in information naps, and we are, again, continuing to engage on		
	26	that specifically.		
	27	I do believe and I think we have Heather back online, and I		

	I				
	1	think she wanted to provide a little bit more context as well too on that			
	2	discussion, if I could. Heather, are you there?			
	3	HEATHER SAYINE-CRAWFORD: I'm here. Sorry, Hea	ather		
	4	Sayine-Crawford for GNWT Environment and Climate Change. My			
02:27PM	5	apologies for running away from the meeting; I got I had to attend			
	6	another meeting but I am back and listening.			
	7	ALAN EHRLICH: Heather, the sound is unfort	unate at the		
	8 moment. Do you want to try turning off your camera a				
	9	might improve it?			
02:27PM	10	HEATHER SAYINE-CRAWFORD: Sure. S	Sorry to hear that.		
	11	ALAN EHRLICH: This may be the microphone	e. Are you able to		
	12	switch to a different microphone?			
	13	HEATHER SAYINE-CRAWFORD: How ab	out that; does that		
	14	work?			
02:28PM	15	ALAN EHRLICH: Perfect, you can put your ca	mera on now too.		
	16	You sound great.			
	17	HEATHER SAYINE-CRAWFORD: You don	n't want to see a		
	18 little weasel. Okay, so again, apologies to folks for not being the				
	19	room. I got called to another meeting.			
02:28PM	20	So I hear I heard the concerns, I heard Dieter speak earlier			
	21	about the collaboration between ECC and LKFN. I understand that			
	22	Pehdzeh Ki First Nation also brought up concerns over illegal harvesting			
	23	and people harvesting or people coming into the Deh Cho from other			
	24	areas to harvest. I do want to reiterate that our illegal harvest rates are			
02:28PM	25	quite low across the NWT. For the most part, people, hunters are			
	26	following the laws; they're following the rules. I think	having more		
	27	opportunity to talk with folks about what those wha	at those laws entail		

1 is always a good thing, so having another renewable resource officer 2 out there on the ground will be great. And also having more of those 3 partnerships with Indigenous governments. So, you know, Norman 4 Wells, we had brought up the point that they went out to Mile 222, had a 5 lot of conversations with people out there, doing the same thing along 02:29PM 6 the road I think will go a long way to having more compliance. 7 I did want to just flag that there are folks who have rights in areas 8 that do come into hunt and harvest with those using their own rights, 9 and we have to recognize that, and they're not always from the 10 community. And at the same time, if people have concerns or see 02:29PM 11 things that they think may not be right, please, please, report to your 12 local ECC office with as much detail as you can, and we will follow up. 13 So there are -- as people know, there are only so many people 14 who can be part of -- or can be out on the land at any one time. But 15 each of your respective organizations have eyes and ears out there a lot 02:30PM 16 and having -- depending -- or if you're willing to give that information to 17 an ECC officer, that would go a long way. So mahsi. 18 ALAN EHRLICH: Thank you for that. We're going to switch to a 19 break. After the break, we'll take maybe one or two more comments on 20 this topic. We've got climate change and permafrost, an important 02:30PM 21 issue that we kind of hit on a little bit at the beginning but we have some 22 detail to get into. Fish, air, and noise. Again, we're exploring what 23 options we have schedule-wise with the time we've got left, and 24 exploring the ideas, you know, we can go a bit longer tonight to prevent 25 having to start up again tomorrow. 02:31PM 26 So I'm going to ask, can we all take a break and start at 2:40 27 sharp. We'll have more to report then. Thanks.

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	1	- SHORT RECESS -		
	2	ALAN EHRLICH:	So look, we're going to play around with the	
	3	schedule a little bit and we'd like to try, if necessary, going late tonight		
	4	rather than trying to	get things happening tomorrow as well because	
02:45PM	5	tomorrow is very diffi	cult. Late tonight will not be very late tonight, but it	
	6	might run a little bit p	east, and we'll do the best that we can.	
	7	We recognize	that there might still be other questions, but we do	
	8	have a round of infor	mation requests opening right after this technical	
	9	session. And so prio	ritize the questions you're asking here because	
02:46PM	10	your other questions	, you can always do in writing and they will still go	
	11	on the public record a	and be considered. And we know that's not always	
	12	exactly the same as	asking face to face, but we're going to do the best	
	13	we can with the time	we have.	
	14	So we also kn	ow that we know that ECCC's water specialist is	
02:46PM	15	only here until 3 o'clo	ock so with that, what I would like to do, if it's okay	
	16	with the GNWT, you	guys have presented your DAR and you've all had	
	17	a chance to read the	written materials on record, would it be okay with	
	18	you if we didn't do th	e development presentation on your predictions	
	19	just yet, but we start with questions on water while ECCC's water		
02:46PM	20	person is here, and then we give you ten minutes to run through your		
	21	predictions after that? In order words, right now you're scheduled to		
	22	make your presentat	ion first, but I'd rather start with some questions on	
	23	that, and then go to t	hem. All right?	
	24	SETH BOHNET:	Seth Bohnet, GNWT. So just to clarify, we're	
02:47PM	25	gonna switch gears and go to water right now, and you're asking us to		
	26	forego our slides?		
	27	ALAN EHRLICH:	I'm asking if we can have some questions	

	1	before your presentation instead of your presentation first because
	2	we're going to lose someone we need if we start with the presentation.
	3	SETH BOHNET: Yeah, absolutely Seth with the GNWT that's
	4	fine.
02:47PM	5	ALAN EHRLICH: Okay. We're going to start and we're not
	6	going to separate so much the water and permafrost and climate
	7	change items. If people want to ask questions of those, yes, there are
	8	relationships between them we also know there are also differences
	9	between them but we're going to try and sort of combine where we
02:47PM	10	can and see where we can go.
	11	So, first of all, questions related to water or permafrost, who's got
	12	questions they want to ask? Environment and Climate Change Canada
	13	has questions. Go ahead, please.
	14	MELISSA PINTO: Melissa Pinto, Environment and Climate
02:48PM	15	Change Canada. Hopefully it's a pretty quick question of clarification.
	16	I'm going to hand it over to Sarah Forté who is online.
	17	SARAH Forté: Good afternoon, Sarah Forté with Environment
	18	and Climate Change Canada. This is a clarification question regarding
	19	response number 172 that was provided to CanNor comment number
02:48PM	20	42. And this is about quarries and the potential for them to impact the
	21	aquatic environment through increased sedimentation and leaching of
	22	blast residue.
	23	In the GNWT's response, they stated they assumed hydraulic
	24	connections between these material sources and watercourses in their
02:49PM	25	assessment, so there is the direct effect pathway. They didn't explain
	26	how they reached the conclusion that residual and cumulative effects
	27	would be neutral in direction and low in magnitude. And so I would
'		

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	1	appreciate if they could confirm that they reached the conclusion		
	2	because they are confident in the effectiveness of the mitigation and		
	3	management approaches that will be included in the quarry		
	4	development plans. Thank you.		
02:50PM	5	ALAN EHRLICH: Thank you. GNWT. It's about the basis for		
	6	your conclusion of no significant effect of the runoff from the quarries		
	7	into I think it's surface waters and was that what's the basis for the		
	8	conclusion, and the basis for the determination that it's low magnitude		
	9	and low what was the second one? Second criteria for significance		
02:50PM	10	there?		
	11	SARAH Forté: Neutral direction.		
	12	ALAN EHRLICH: Right. And neutral direction. GNWT.		
	13	ERICA BONHOMME: Erica Bonhomme. Hi, Sarah, nice to see you		
	14	again. I that was not quite the question I had heard. I heard I		
02:50PM	15	heard a question that was more about the pathway of effects, and I just		
	16	wanted to ask Sarah if you could just maybe restate your question a		
	17	little bit. Is it specific to ground water or surface water?		
	18	SARAH Forté: It relates to both. They're connected. And, like,		
	19	the the response was that there was a direct effect pathway between		
02:51PM	20	to two watercourses, so that would be surface water, and it might be		
	21	through a segment of ground water to get there.		
	22	ERICA BONHOMME: Erica Bonhomme. I will do my best here. We		
	23	may have to take parts of this away if it doesn't fully answer your		
	24	question.		
02:51PM	25	So, first of all, the developer does not intend to develop quarry		
	26	sources where there is a high ground water table. So the intent is to		
	27	eliminate the inner potential interaction between quarry and ground		

	1	water, quarry activities and ground water.		
	2	In regards to surface water, yes, we would feel that mitigations		
	3	would be effective at reducing those effects below a significant		
	4	threshold.		
02:52PM	5	ALAN EHRLICH: Thanks. ECCC.		
	6	SARAH Forté: Sarah Forté with Environment and Climate		
	7	Change Canada. Thank you. That answers my question. And I have		
	8	no further questions.		
	9	ALAN EHRLICH: Thanks. Any other questions on water for the		
02:53PM	10	GNWT? PKFN.		
	11	JANE HENDERSON: Jane Henderson for PKFN. This is about spill		
	12	risk and water quality. PKFN notes that to protect water quality if the		
	13	route were moved east up to the foothills, spills could be mitigated		
	14	before they reach the Deh Cho. This is not possible where the current		
02:53PM	15	plan where the bridges where the yeah, with the current plan and		
	16	the bridges are so close to the Deh Cho, and PKFN would like to ask		
	17	the the significant risks like, can you explain how the spill risks and		
	18	how they can be mitigated in with the current plan since there's no plan		
	19	to move it inland		
02:53PM	20	ERICA BONHOMME: Erica Bonhomme. The developer spill		
	21	contingency plan in volume 5 describes the procedures to reduce the		
	22	likelihood that a spill would happen and also the effects of a spill, should		
	23	it happen. And I should clarify that that is specific to what the contractor		
	24	would need to implement during construction.		
02:54PM	25	JANE HENDERSON: Jane Henderson, PKFN. Thanks, Erica. Just to		
	26	make sure I'm understanding correctly, that means that there's currently		
	27	no plan for during the operation phase, it's been planned out for		

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	1	construction?		
	2	ERICA BONHOMME: Erica Bonhomme. There's no project specific		
	3	spill contingency plan that would be applicable to operations, correct. It		
	4	would, however, be applicable, I should qualify, to the contractor		
02:54PM	5	undertaking maintenance on the highway.		
	6	ALAN EHRLICH: Okay, thank you for that. I'm going to ask if		
	7	there are any other questions on water and questions on fish.		
	8	I see PKFN. I just want to know if there's anyone else too.		
	9	Okay. Department of Fisheries and Oceans, go ahead.		
02:55PM	10	TATIANA LECLERC: Tatiana Leclerc with DFO. It's not really a		
	11	question, more of a comment. I don't think we need any experts, so if		
	12	you want we can wait until later.		
	13	ALAN EHRLICH: Okay. In that case, I think I'd prefer to wait		
	14	because we are trying to hit certain topics while we still have expertise.		
02:55PM	15	Thank you for that. PKFN.		
	16	JANE HENDERSON: Jane Henderson for PKFN. The question is		
	17	about fish. Identified in the DAR, there is a significant negative effect.		
	18	As a significant negative effect, the project will make it easier to harvest		
	19	fish from some areas which may potentially impact fish stocks in the		
02:56PM	20	area. PKFN is deeply concerned about anglers and fishers coming in		
	21	from outside the territory and from the south once access is opened		
	22	year-round. PKFN asks you to consider how this situation has put		
	23	stress on fish populations around Providence. The winter road bridges		
	24	are so close to the outflows of creeks and rivers that PKFN anticipates		
02:56PM	25	overfishing from those sites and certainly, you know, an increased		
	26	fishing and that any yeah, and that human presence in those areas		
	27	will not only impact fish but also disrupt moose and caribou who graze		

	1	at those outflows to get relief from the bugs.		
	2	Why has the developer not considered the negative impact of		
	3	increased access to nontraditional fishing at the mouths and creeks and		
	4	rivers feeding into the Deh Cho?		
02:56PM	5	ALAN EHRLICH: GNWT.		
	6	ERICA BONHOMME: Erica Bonhomme. It is really difficult to jump		
	7	around on topics like this, so if we could maybe stick to a theme so we		
	8	can let everyone sort of get in the groove, if you will. That would be a		
	9	lot more helpful.		
02:57PM	10	There were I feel like there were a lot of questions in there,		
	11	so but a few that I picked up on. Yes, the GNWT recognizes that as		
	12	a potential effect that it because it's an unknown. It's an unknown		
	13	how much people will utilize the existing areas along the road that would		
	14	facilitate fishing.		
02:57PM	15	Second is we don't know how that would affect the fish		
	16	populations themselves. We have adopted a precautionary approach in		
	17	the DAR where, as a result of the uncertainty, we're recommending that		
	18	there be a program to address that uncertainty developed		
	19	collaboratively with the communities along the route.		
02:58PM	20	Some of the mitigation measures mitigations that GNWT can		
	21	implement are that they would not make those areas conducive to		
	22	vehicles stopping, so not having pull-outs. The GNWT will need to build		
	23	pull-outs periodically along the road but having them where they're not a		
	24	place where people would access areas for large bodied fish would be		
02:58PM	25	one way to do that; and, the second is that people working on the		
	26	project, though they may have fishing licences, wouldn't be allowed to		
	27	fish while they're working on the project, while they're, you know,		

	1	housed in a work camp for example.		
	2	Outside of that, the GNWT has its own licensing system for		
	3	fishing. And beyond that, the management responsibility lies with DFO.		
	4	ALAN EHRLICH: It's Alan here. Just to observe for the Tłįchǫ		
02:59PM	5	All-Season Road, one of the measures required the Department of		
	6	Fisheries and Oceans to work with the Tłįchǫ Government to develop a		
	7	fisheries management plan that specifically considered increased		
	8	fishing pressure from outside on certain creeks and rivers. This is a		
	9	different context because the Tłįchǫ Government has certain authorities		
03:00PM	10	in that project that, for example, Pehdzeh Ki doesn't have. But I would		
	11	encourage DFO to, please, go have a look at that measure, think about		
	12	what was done there, and if you have any suggestions or how		
	13	something like that might be created or applied for the different		
	14	communities in settled and unsettled land claims along this route, give		
03:00PM	15	us something in writing about that. We can wrap that as an information		
	16	request, but I'd prefer it if you could just take it from this and put		
	17	something on the record within a couple weeks?		
	18	TATIANA LECLERC: Tatiana Leclerc with DFO. We did respond to a		
	19	IR, like IR82 from MVEIRB, and it was on this. So I did discuss this		
03:00PM	20	fisheries management, with our team, and they wouldn't have the		
	21	capacity to do something similar to TASR to Tłįchǫ Highway on this		
	22	project. However, we did submit some recommendations in our IR		
	23	response. I'm not sure if you want something additional to that.		
	24	ALAN EHRLICH: No, I think it helps that parties can hear that		
03:01PM	25	there are some recommendations under IR82, hopefully creative		
	26	mitigations, that will help the address the problem that's being flagged		
	27	here. Thank you.		

	1	I'm concerned that I hear what Erica is saying about the
	2	difficulty about jumping between subjects. We're going to lose a
	3	permafrost expert very soon. I know the North is losing permafrost at
	4	an alarming rate, but we're losing our permafrost expert, and even more
03:01PM	5	short-term prospect. And so I want to quickly get into questions relating
	6	to permafrost, and then we'll go into climate change. But we're not
	7	done with fish and water either. And PKFN, I know you have more
	8	questions on this.
	9	So questions on permafrost. Dieter, you have a question on
03:02PM	10	permafrost?
	11	DIETER CAZON: Yeah, Dieter Cazon for Łíídlų Kų́ę́ First Nation.
	12	I have Trieneke Gastmeier and Elise Devoie, she is our permafrost
	13	expert. She is going to be having some questions on our behalf. Thank
	14	you.
03:02PM	15	ALAN EHRLICH: Marvelous. Can we go to your folks online,
	16	then. Thank you.
	17	TRIENEKE GASTMEIER: For sure. So Trieneke Gastmeier for ŁíídlįĮ Kų́ę́
	18	First Nation. Elise is in the waiting room on the Zoom. She's just
	19	waiting to be admitted.
03:03PM	20	ALAN EHRLICH: Okay, she should be in the room within
	21	seconds.
	22	TRIENEKE GASTMEIER: Okay, great. Thank you.
	23	ALAN EHRLICH: Trieneke, do you have anything you want to
	24	start with while we're waiting?
03:03PM	25	TRIENEKE GASTMEIER: I think, Elise, have you joined the Zoom
	26	conference call now?
	27	ELISE DEVOIE: Yes, I have just arrived, sorry. I was in the

1 waiting room. 2 TRIENEKE GASTMEIER: Thank you so much. No worries. 3 ALAN EHRLICH: Elise, please go ahead. 4 **ELISE DEVOIE:** All right. So I'm Elise, and I'm here on behalf of 5 LKFN who asked me to do a little bit of an assessment on the 03:03PM 6 permafrost processes. And so under this objective, there are four main 7 themes that we've raised some concerns around. 8 So looking at outdated and potentially sparse based land and 9 monitoring data and discontinued monitoring sites. Mitigation measures 10 for permafrost protection, looking at winter only operations and fill only 03:03PM 11 construction, and some concerns about that. The uncertainty and 12 reversibility in the timeframes of the project. So the use of the terms 13 "where possible", "no interaction" and "to the extent practical", there 14 were some questions about that; as well as the fourth being limited 15 flexibility in realignment and post investigation. And so looking at the 03:04PM 16 fact that realignment may actually be required after gathering some of 17 the additional data that we could requisite. So a lot -- there are quite a 18 few questions and direct comments summarized, and we hope that 19 these could be addressed. But in the interest of time, I'm just going to 20 pull out three main questions here. And I guess I wasn't here for the 03:04PM 21 beginning of this, so I'll ask the question do I wait for a response, or do I 22 just ask all three questions? 23 ALAN EHRLICH: If you could go one question at a time. Ask 24 your highest priority questions, but we don't want to lose the other 25 questions. This is an important subject area. Ask your highest priority 03:04PM 26 questions, and then if you're willing to save the others for information 27 requests, we could still get them asked in a systematic way and get

2 ELISE DEVOIE: Yeah, perfect. So I will ask those three top 3 priority questions. I'll start with the first one, and then we will submit an 4 information request with the other many questions that I won't go into in 5 the interest of time. 6 ALAN EHRLICH: No, that's good, and I'm sorry that this is the 7 time pressure we're under. I would much rather you had the time to get 8 into this in depth that we'd all like. But, please go ahead. 9 ELISE DEVOIE: No, that's totally understandable. And I 10 understand that it's been a long few days, and so I appreciate we need 11 to stay focused here. 12 So the first question is are there considerations for realignment 13 post geophysical site investigation and/or once baseline data has been 14 updated or augmented? 15 So in the way that it is proposed right now, it seems that this 16 alignment really follows that winter road that's pre-existing for some 17 good reasons, but it's unclear whether or not post site investigation 18 there will be an opportunity to reconsider this if the geotechnical data 19 provided kind of steer in that direction. 03.06PM 20 ALAN EHRLICH: Can I just ask you to clarify. There's been 21 some confusion with the term "realignment" and "alternative route" 22 where parties are often talking about a different corridor while the 23 GNWT is talking about adjustments within the existing corridor. So the 24 existing corridor is a kilometre wide. PKFN has described a route that is 25 more several kilometres upslope, so a different kind of a foundation and different a number of different characteristics. Which does your 27 question apply to?	ĺ				
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27 question apply to?		26	different a number of different characteristics. Which does your		
		27	question apply to?		

1 ELISE DEVOIE: That's an excellent distinction, and I think my 2 question likely applies to both though my understanding is that the site 3 investigation would extend throughout that kilometre. And our 4 understanding was that realignment within that kilometre would be 5 considered, and so the question is mostly focused on if site 03:07PM 6 investigation shows that that entire kilometre does not seem to be 7 particularly suitable, would realignment outside of there and further site 8 investigation outside of that corridor be considered? But I would also be 9 interested in knowing if our assumption that realignment within that 10 corridor would also be considered. So I guess both is my answer. 03:07PM 11 ALAN EHRLICH: Thank you very much, Elise. GNWT. 12 **ERICA BONHOMME:** Erica Bonhomme. I will start. I also wanted to 13 introduce a few people that are available online. 14 Ed Grozic from Tetra Tech, geotechnical engineer; Walter Orr, 15 Kalo Stantec, civil engineer; and, from GNWT, we have Tim Ensom. 03:07PM 16 And I may call on them as needed. 17 So in response to your question about realignment within the 18 corridor. Yes, in fact GNWT is proposing to do its first series of 19 geotechnical investigations this winter, and those are to look at, 20 specifically, the approaches to the watercourse crossings, to identify if 03:08PM 21 there are any constraints with conducting, you know, road cuts, or if 22 there are, you know, sensitive soils that need to be mitigated for that 23 may necessitate movement of that approach or a design that would 24 bring in a roadway somewhere different within that -- within that one 25 kilometre or, in case three-kilometre corridor, approaching up to the 03:08PM 26 bridges. And that would apply as the design advances. So in future 27 years, that geotechnical work will be focused on other areas of the

1 alignment. And similarly, if there are constraints identified there, then 2 the routing would be either moved or those issues would be mitigated 3 through the appropriate design where it currently is identified. 4 I just wanted to add that that is one of several considerations that 5 comes into play when -- I think Alan used the term "wiggling around", 03:09PM 6 but that's not quite the case. We do want a highway that's straight, for 7 the most part, and that engagement input would play a big part in 8 making those adjustments within that corridor as well. 9 As far as moving outside of the corridor, in places, yes, that 10 would also be an opportunity. We've already identified places where 03:09PM 11 that -- the GNWT has, or is, working on options where based on 12 engagement input that route has been moved. Probably less likely that 13 that would be the case due to permafrost considerations because as 14 has been mentioned several times before, permafrost in of itself is not a 15 constraint for the project; it is the types of soils that the road is going to 03:10PM 16 be built upon. 17 So with that, I'm just going to, I think, maybe offer if Ed would like 18 to add anything to that. And if not, that's okay too. But I just want to 19 give that opportunity. 20 ED GROZIC: Sure, hi. Ed Grozic with Tetra Tech, the Kalo 03:10PM 21 Stantec team. What Erica said is correct, but I'll just elaborate a little bit 22 on it. 23 Permafrost is a thermal condition. It's a thermal state. And so 24 where that thermal condition exists then, of course, a design needs to 25 accommodate that condition, no different than a design accommodates 03:11PM 26 the soil conditions or the topography that a route would cross. So there 27 is data that's out there that has identified the -- you know, thermal

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	1	conditions, the permafrost conditions along the alignment. There's	
	2	some more recent drilling that has been done in 2021. There is a plan	
	3	to do additional geotechi	nical drilling in 2025, and maybe beyond that,
	4	just depending on what's	being found. So, yeah, that's what I wanted to
03:11PM	5	add. Thank you.	
	6	ALAN EHRLICH:	Okay. Back to PKFN.
	7	JANE HENDERSON:	Jane Henderson for PKFN. Erica, you said
	8	today and yesterday that	t permafrost is not a design constraint. From
	9	PKFN's perspective, it is	very, very important to protect permafrost. So
03:12PM	10	could you say more beca	ause it doesn't make sense to PKFN.
	11	ERICA BONHOMME:	Erica Bonhomme. I'm going to pass that to
	12	Walter who is a road des	sign engineer, and I'm sure he will talk your ear
13		off not that we want to talk anyone's ear off on this, but it is something	
	14	that we have a lot of exp	erience in.
03:12PM	15	ALAN EHRLICH:	Okay, thanks for the clarification, PKFN. We're
	16	going back to LKFN's fol	lks. Is it still Trieneke and Elise online for more
	17	questions? Sorry. Go to	respond. Go ahead, please, Elise.
	18	ELISE DEVOIE: F	Respond or question
	19	ALAN EHRLICH: -	- you can tell it's late in the day. So Walter is
03:13PM	20	responding to PKFN's clarification before we go back to Elise.	
	21	WALTER ORR:	Walter Orr here with Kalo Stantec. Pardon me,
	22	my video is not working	but I'll briefly respond to that.
	23	Permafrost is cert	tainly a informs design, presence of
	24	permafrost, presence of	ice which permafrost informs design, informs
03:13PM	25	design in location, and it	also informs design in the embankment
	26	thickness and other thing	gs that do in the embankment design, but it's
	27	rarely a constraint to say	for goodness sakes, stay out of that location.

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other things than just location. ALAN EHRLICH: Thanks. Back to LKFN. ELISE DEVOIE: All right. Elise here with LKFN. So the second key question that we wanted to ask was clarification about the role of communities in the continued monitoring plan for permafrost and thermal ground conditions; can you elaborate on what that might look like? O3:14PM 10 ALAN EHRLICH: GNWT. 11 ERICA BONHOMME: Erica Bonhomme. The proposed monitoring programs are identified in the permafrost protection plan. That's volume 5, draft, and we look forward to comments on that plan as we look forward to comments on all the plans. O3:14PM 15 There have been options identified for community monitoring in that. What form that will take, we don't know yet. As with the other plans, we want to have those conversations engage with the different organizations on how they could be involved in the types of long-term monitoring that may be necessary for the project. O3:15PM 20 ALAN EHRLICH: Thanks. Elise. 21 ELISE DEVOIE: There's still one remaining question from LKFN. Should I ask that now or do we have to circle back? ALAN EHRLICH: No, you can ask that know. 24 ELISE DEVOIE: Okay, perfect. So the last question, thank you for that response. There was also the phrase "where possible", which appears in		1	We're not going to run across boggy wet things ground unnecessarily,		
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	03:15PM	25	for that response.		
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		27	the report. So, for exa	ample, following the existing winter road alignment	

	1	where possible, or using fill only construction where possible.		
	2	I'm hoping that you could speak to both how you would		
	3	determine if it is or is	not impossible to follow those constraints. I	
	4	understand this is a b	it of the design phase. We need a little bit more	
03:16PM	5	time to come up with a full proposal, but if you could just hint at what		
	6	that might look like. And then the second part of this, what measures		
	7	would be taken when it is deemed not possible to follow those initial		
	8	mitigation measures.		
	9	ALAN EHRLICH:	Thanks. GNWT.	
03:16PM	10	ERICA BONHOMME:	Yeah, I'm going to pass that to Walter again.	
	11	WALTER ORR:	Okay, thanks, Erica. Walter Orr here again.	
	12	When we use the terr	m "where possible" in this area is, for instance, we	
	13	would say we're using	g fill only construction where we have materials to	
	14	do that. There are pla	aces where we may choose to do a cut and fill	
03:16PM	15	design because mate	rials allow that, because material availability in a	
	16	cut section allows tha	t. For instance, coming down into a river crossing,	
	17	we will often have b	pe required to do a cut, and the question is can we	
	18	use that material we h	nave cut in the embankment and other places.	
	19	The geotechnical info	rmation that we're getting this upcoming year will	
03:17PM	20	inform that decision.		
	21	So a lot of the	terminology that we're using is because, as you	
	22	noted, the design has	not been carried out to an advanced level at this	
	23	point. So we're sayin	g this is the intention. As the design progresses,	
	24	we will be able to firm	those questions up to in this location we're	
03:17PM	25	planning to do this an	d such.	
	26	ALAN EHRLICH:	Okay, thanks. LKFN.	
	27	ELISE DEVOIE:	Elise here. Perfect, I appreciate that response.	

	I			
	1	And I guess we look forward to seeing exactly what those criteria might		
	2	be, just to make sure that that all makes sense. Looking at the fill only		
	3	construction in some areas, especially those with permafrost, it may		
	4	prove that geotechnically that's not as feasible as it might at first glance		
03:18PM	5	look, so I'm happy to hear that this will be reconsidered after that		
	6	geotechnical evaluation. And I am also happy to hear that there's that		
	7	open communication for that second question with LKFN. I think I'll just		
	8	highlight again that there was a long series of questions that we will		
	9	submit for further review. And by doing that, we hope we can build		
03:18PM	10	more confidence in the project.		
	11 Yeah, I think if Trieneke has more to add than that, I the			
	12	what I was hoping to ask in this section.		
	13	ALAN EHRLICH: Thanks. Trieneke.		
	14	TRIENEKE GASTMEIER: Sorry, Trieneke Gastmeier for Łíídlįį Kų́ę́ First		
03:19PM	15	Nation. No, I have nothing further to add. Thank you very much, Elise.		
	16	ELISE DEVOIE: Thanks for the responses.		
	17	ALAN EHRLICH: Thanks. And, you know, just connecting this		
	18	conversation with the one we had on day one, I think the Review Board		
	19	would remain interested in understanding the suitability of the terrain on		
03:19PM	20	an alternative route that is perhaps higher up from a permafrost		
	21	perspective in comparison to the proposed corridor along the winter		
	22	road. So any information you can give us on that would be helpful as		
	23	well.		
	24	ERICA BONHOMME: Erica Bonhomme. Again, the GNWT really		
03:19PM	25	looks forward to reviewing that information when it's in receipt of that		
	26	information. So if there's a line on a map somewhere that we can look		
	27	at, then we can start those conversations and determine more closely		

1	what we should do with that.		
2	ALAN EHRLICH: Okay, thanks. Anything else from LKFN on		
3	permafrost?		
4	DIETER CAZON: Dieter Cazon, Łíídlįį Kųę́ First Nation. Not		
5	at this moment. Thank you.		
6	ALAN EHRLICH: Thank you very much for that. The board really		
7	looks forward to seeing the information requests that come from LKFN		
8	on this subject. I am sure they are of interest to other parties as well.		
9	Back to PKFN.		
10	JOHN NISHI: Jane Henderson for PKFN. Alan, at this point		
11	we have a bit of a grab bag of questions, the kind that Erica is not		
12	excited to get. So if there's themes that you want to identify, we can		
13	jump in to where other peoples want to talk about. But we're coming to		
14	the end of the time but we're jumping around a lot, so if you'd like to		
15	conduct		
16	ALAN EHRLICH: Okay, before we dive into the grab bag, I just		
17	want to confirm if anyone else has any more permafrost questions.		
18	And I see Peter Unger from NRCan. Peter is just going to a		
19	mike.		
20	PETER UNGER: Thank you very much. Peter Unger, Natural		
21	Resources Canada. My question's related to excavations and		
22	specifically to LKFN IR22.		
23	NRCan understands that to facilitate drainage and limit ponding,		
24	it is mentioned that a mitigation technique is ditching where appropriate,		
25	with grading. Could the GNWT please clarify what conditions are		
26	appropriate for the use of these ditches. Thank you.		
27	ERICA BONHOMME: Erica Bonhomme. I'm going to pass that to		
	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26		

1 Walter. 2 WALTER ORR: Walter Orr, Kalo Stantec. The specifics of the 3 ditching locations has not been determined at this point. As I've said, 4 the status of the design is an early status which has not included the 5 evaluation of ditch grades, drainage culvert locations, and such like. 03:22PM 6 However, I can say that in comparison to a more southern area where, 7 for instances in the prairies in Alberta, you would have lengthy stretches 8 where you have a long ditch line graded to a drainage culvert, a through 9 culvert, this project will have a substantially higher number of drainage 10 culverts because effectively we don't really want to be doing very much 03:23PM 11 ditching, because of the issues of subsurface conditions, potential 12 permafrost. We do need to minimize ponding along the embankment, 13 and this would be in the uphill side of the embankment. So there will be 14 regular equalization/drainage culverts through the embankment along 15 the route to minimize the locations where ponding will be, and there will 03:23PM 16 be some ditching along the embankment on that uphill side to make 17 sure that the drainage will get to those culverts and not pond into other 18 locations. That's the locations of the -- the places that we would have 19 some ditching and some -- and culvert installation. We can't say where 20 that is specifically because, as I said, the design has not been 03:24PM 21 advanced to the level where you would have that decision made. 22 ALAN EHRLICH: Thank you, Walter. Back to you, Peter. 23 PETER UNGER: Thank you very much. Is this something that 24 we can get more detail on later, or is this coming way, way later, or is 25 there some set of conditions that will help you decide that that we can 03:24PM 26 know? I'm not the permafrost expert, or the drainage expert at all; I'm 27 just replacing him who's not online right now. But I was just curious if

1				
	1	there is an opportunity	to get more information a little bit later, or is this	
	2	coming right when it's construction. Thank you.		
	3	WALTER ORR:	The approximate time when you would see this	
	4	would be somewhere	in the 80 percent design where you've had	
03:25PM	5	we've established whe	ere our alignment is going to be and where the	
	6	route itself is going to	be within that one-kilometre corridor or the	
	7	widened corridor in the	ose other locations, and we've moved along. So	
	8	we're well before that.	This is basically an assessment of a road a	
	9	route within that corrid	lor that's established. And potentially, as Erica	
03:25PM	10	said, outside of that. But we're a ways away from that particular level of		
	11	design that we would be able to provide those drainage locations and		
	12	culvert locations.		
	13	ALAN EHRLICH:	Thank you, Walter. I presume 80 percent	
	14	design is likely after th	e environmental assessment. That would be my	
03:26PM	15	expectation. Peter.		
	16	WALTER ORR:	Well after the assessment, yeah.	
	17	PETER UNGER:	Peter Unger, Natural Resources Canada. No	
	18	further questions. That	ank you very much.	
	19	ALAN EHRLICH:	Thanks for that. Gwich'in Tribal Council.	
03:26PM	20	KANDA KOLA GNAMA:	Thank you, Alan. I have two questions	
	21	regarding permafrost to the GNWT, of course, yeah. Kanda Kola		
	22	Gnama for the GTC, s	sorry about that.	
	23	The climate cha	ange and [inaudible] assessment report, 232 on	
	24	page 50, mentioned th	nat permafrost warming is more at risk from	
03:26PM	25	shrubs and snow accu	imulation as compared to rising air temperatures.	
	26	The 60-metre wide rig	ht of way therefore stands to substantially	
	27	increase the risk of pe	rmafrost warming from snow accumulation and	

shrubs as the right of way transitions to forest. My first question, what is the likely shift in vegetation in the PD. and LLA towards shrub, and what are the anticipated changes to snow accumulation? ERICA BONHOMME: Erica Bonhomme. That's not a question we can answer today. There's probably a series of IRs that have responded information on level of changes to vegetation in the PDA. And there was also a question that IR that came in changes and response to fire. We could say that in response to MVEIRB's IR2, that prediction about how climate change would affect vegetation are highly uncertain and certainly wouldn't be useful in the context of environmental assessment. ALAN EHRLICH: Can the GNWT confirm that it will come back			
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and certainly wouldn't be useful in the context of environmental assessment.	IS		
13 assessment.	about how climate change would affect vegetation are highly uncertain		
14 ALAN EHRLICH: Can the GNWT confirm that it will come back			
03:28PM 15 with more information in response to this question, at least pointing to)		
where, if it's already answered this question on the public record, which	where, if it's already answered this question on the public record, which		
documents they can look at, preferably within the next two weeks?	documents they can look at, preferably within the next two weeks?		
18 ERICA BONHOMME: I would just like to confirm what the question is	3 .		
19 Is it changes to vegetation in the PDA and LAA due to climate change	?		
03:29PM 20 KANDA KOLA GNAMA: I will read it again so that you can get it. Wha	t		
21 is the likely shift in vegetation in the PDA and LAA towards shrubs, an	d		
what are the anticipated changes to snow accumulation?			
23 ALAN EHRLICH: So just for clarity, the board remains very			
interested in ensuring that this project is designed not only for the			
03:29PM 25 climate that we have today, but for the climate that will exist throughout	ıt		
26 its operating life. The impacts, the physical impacts from a project			
27 typically aren't just from the project; they're how the project interacts			

	1	with the surrounding environment and if the surrounding environment
	2	has changed over the 50, 100 year period, we want to be sure that the
	3	design, routing, construction, operation, of this project is suitable for the
	4	environment that exists at those points during operation and going
03:30PM	5	forward. So I just want to point out that this project needs to be
	6	designed for the future environment that it will be in, not just for what's
	7	on the ground today.
	8	ERICA BONHOMME: Erica Bonhomme. That is a different topic
	9	entirely, and if you want us to answer that, I know Walter Orr would be
03:30PM	10	prepared respond to how the design considers predictions and changes
	11	to climate.
	12	I would point out, just following up on the GTC question, the right
	13	of way is going to be cleared. So there won't be any shrubs in the right
	14	of way permanently because the right of way will be cleared. So and
03:31PM	15	will be regularly mowed. So just to help set the stage for that as well.
	16	ALAN EHRLICH: Okay. And so I'll point out that, no, this is a
	17	related topic, and I would like Walter to respond to it but only after GTC
	18	has finished its questions.
	19	KANDA KOLA GNAMA: Thank you, Alan. Kanda Kola Gnama for the
03:31PM	20	GTC. My second question is how will the permafrost protection plan
	21	address this acknowledged risk and residual effects within the right of
	22	way? But I believe your answer covers that, so I will be interested to
	23	hear what you have to say for Alan's question. Thanks.
	24	ALAN EHRLICH: Okay. Walter, please go ahead.
03:31PM	25	WALTER ORR: Walter Orr. Speaking from the standpoint of a
	26	designer and in the context of the permafrost protection plan, we have
	27	designed from the standpoint of climate change for things that are

	I	
	1	knowable or projectable in the road design. These things are such
	2	things like warmer climate causing warm ground warming. We
	3	project our embankment design is to address those particular things in
	4	drainage and runoff design, both for bridges, other crossing structures.
03:32PM	5	The design incorporates an increase in future rainfalls and runoff
	6	events, anticipating the increase in the peak flow events with time, so
	7	we incorporate that in the design process. So the design process as
	8	it and is open to in the permafrost protection plan and in the IR
	9	responses on this item, we utilized the best available projections to for
03:33PM	10	the geometric and the embankment geotechnical and the crossings for
	11	the road. So the although these are projections, none of us can say
	12	exactly what's going to happen in the future, we use the best available
	13	data and regulatory documents on that, and that's the process that's
	14	followed.
03:34PM	15	ALAN EHRLICH: Okay, thanks. Any more questions related to
	16	permafrost or climate change? PKFN.
	17	JOHN NISHI: Jane Henderson for PKFN. We're still wrapping
	18	our heads around the idea that permafrost is not a design constraint. I
	19	think we're watching up that I think what you're saying is that your
03:34PM	20	designers can design around any permafrost there; like, you can build a
	21	road with permafrost. But I guess where PKFN is looking at it is we've
	22	had many conversations about how critical it is to protect I mean,
	23	internally about how critical it is to members to protect permafrost from
	24	a climate change perspective.
03:34PM	25	So when could you clarify when you say that protecting perma
	26	like, permafrost is not a design constraint, is not protecting permafrost
	27	a goal to reduce climate change impacts, is that not a goal of the

1 project or an objective of the project such that avoiding -- like, protecting 2 permafrost becomes part of the design goals? Does my question make 3 sense? Thank you. 4 ERICA BONHOMME: Erica Bonhomme. I understand the conundrum 5 or maybe the -- how this is looked at from the designer's perspective or 03:35PM 6 the owner's perspective, which is -- and Ed said this prior in our -- one 7 of our exchanges, is that permafrost in and of itself is a temperature 8 condition. So we need to stop thinking of permafrost as something that 9 is bad or something that is good. It simply reflects the thermal condition 10 of the ground, the temperature of the ground. It's, you know, less than 03:35PM 11 zero degrees for two years or more. 12 We're more interested in the types of soil that exist in that frozen 13 ground. So if the ground is below zero, does it have ice in it? And 14 that's what we really want to mitigate for where it might protect -- where 15 it might influence the integrity of the highway. So the number one factor 03:36PM 16 for GNWT in designing a highway is public safety, number one. 17 So environmentalists -- I don't want to make it seem less, but 18 public safety, human safety, is the number one. The designers need to 19 design a safe highway. So protecting the ice and -- or soils that are 20 sensitive to thaw or erosion or other type of failure, let's say, is 03:36PM 21 important where it could affect the integrity of the highway. So 22 switching the thinking from we need to protect permafrost to we need to 23 protect the highway from the effects of soils that may be within 24 permafrost is, you know, the type of thinking we have to work around. 25 And that those conditions don't exist everywhere. We don't have a 03:37PM 26 continuous -- I mean, I know that I am paraphrasing from our design 27 team here, and the information that has been presented in the DAR -- is

1 2 3 4 be at certain locations. 5 03:38PM 6 7 those sensitive soils exist. 8 ALAN EHRLICH: Thanks, Erica. Actually it's another interrelated 9 10 03:38PM 11 12 13 14 15 03:38PM 16 17 18 19 20 03:39PM 21 22 23 24 25 03:39PM 26 27

that there isn't a continuous section of this highway where the team expects that there's going to be a need to, you know, implement considerable mitigations for that integrity to be maintained. It's going to

So I hope -- I wonder if that helps a little bit in just shifting the thinking from protecting the permafrost to protecting the highway where

suite of issues. I understand from the developer's perspective it's partly about protecting the highway and, yes, there's a terminology issue. When I've been referring to permafrost I've been implying ice-rich permafrost, so let me make that part clear. But if there are slumping issues that affect a highway, that not only makes a potential public safety hazard, that also can drastically increase the maintenance cost of the highway, and that same slumping can go into surface waters, which can affect fish which can also affect people who harvest downstream and who might have cabins and good harvesting areas downstream, who are the same people who are an increased safety risk from failures of the highway. In other words, this links many of the issues that we've talked about and in a climate that is warming, it is important that this is all considered in design. Because if we can avoid these problems, they're problems that everyone in the room would love to avoid partly, as people who have a close relationship to the land and who harvest and rely on it for their food, but also as people who have to maintain the highway and have to get money to maintain the highway and to -- you know, all the interests converge here. And so that's partly why we're trying to put some time, even though we're on a tight

	1	schedule, but this is more than just a highway maintenance issue from		
	2	the perspective, I think, of the board and the parties we've heard from.		
	3	But I don't deny that there is a highway maintenance aspect to it. But		
	4	there's a suite of interconnected impacts here that are of interest to		
03:40PM	5	many people. Back to PKFN.		
	6	JANE HENDERSON: I think for the moment Jane for PKFN. Alan, I		
	7	think that we're here for the moment [inaudible] to others is fine.		
	8	ALAN EHRLICH: Okay. I'm going to do a last call for permafrost		
	9	issues. But before that, Erica.		
03:40PM	10	ERICA BONHOMME: Erica Bonhomme. This is a really I echo that		
	11	this is a really important topic, and it's fundamental in the road design,		
	12	and if there's anything that, you know, would be helpful for GNWT to		
	13	during our engagement with any of the groups, if you would like to, you		
	14	know, hear more about this, discuss this topic specifically, we are happy		
03:40PM	15	to bring our road designers and experts along to help make that easier		
to understand and provide some comfort in the way that t		to understand and provide some comfort in the way that that work is		
	17	done.		
	18	ALAN EHRLICH: Thank you very much for that, Erica. We do		
	19	appreciate that.		
03:41PM	20	Any more questions on permafrost. All right, if there are		
	21	questions that occur after this, don't forget the information requests are		
	22	an open opportunity to ask stuff that's relevant to the impacts of the		
	23	proposed highway.		
	24	How about on climate change and the highway? All right, this		
03:41PM	25	is includes potential impacts of climate change on the highway, which		
	26	relates to failures and malfunctions which we talked about a bit in some		
	27	of the questions related to spills. We talked a bit about this on day one		

	1	as well. But there's an opportunity here, if anyone has anything else		
	2	they want to add on that. We've also heard how the highway is partly a		
	3	mitigation to some problems that are posed by climate change that, to		
	4	date, including some very urgent ones. Anything else on that topic		
03:42PM	5	people have questions of? Going, going, gone.		
	6	Okay, the board may have questions in IRs for that. Again, it's		
	7	late in the day; I can see people are prioritizing, that's okay.		
	8	Okay. So now I want to throw this open to the remaining topics		
	9	that we've got. We've started with some fish and fish habitat, and DFO		
03:42PM	10	graciously said we can hold off on that a little bit. And we know PKFN		
	11	has a grab bag of other questions they want to get to. Let's go to DFO.		
	12	TATIANA LECLERC: Tatiana Leclerc, DFO. Just confirming, we're		
	13	not doing the presentation for fish. There's not going to be a		
	14	presentation?		
03:43PM	15	ALAN EHRLICH: DFO, have you read the developer's		
	16	submissions and their predicted impacts on fish and fisheries?		
	17	TATIANA LECLERC: Tatiana Leclerc. Yes.		
	18	ALAN EHRLICH: Is there anyone in the room who would right		
	19	now who has not and would like to see the developer's presentation		
03:43PM	20	on their potential impacts on fish and fisheries? If so, that's okay, we		
	21	can ask them to do it. Just looking around the room. Anyone?		
	22	Okay. So what I'd request is that your presentation on this, if it's		
	23	not already on our public registry, please submit the presentations to		
	24	the public registry, because I'm sure they're going to helpful for parties		
03:43PM	25	to refer to, perhaps during the IR phase, but in the interest of time, if it's		
	26	all right with you, we would like to just keep on going with the		
	27	discussion.		
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	1	SETH BOHNET: Seth Bohnet, GNWT. That is certainly		
	2	something that I can do.		
	3	ALAN EHRLICH: Thank you very much. I appreciate you trying to		
	4	accommodate the time constraints. Okay, so DFO, over to you.		
03:44PM	5	TATIANA LECLERC: Tatiana Leclerc, DFO. Thank you. So my it's		
	6	more of a comment. It's more about engagement than actual technical		
	7	question about fish. So this proposal is probably going to require a		
	8	Fisheries Act authorization in the future because there is going to be		
	9	about 90 culverts installed, and there's some risks there is going to be		
03:44PM	10	some habitat fish habitat lost at that those culverts and also some		
	11	risks of the culverts preventing fish passage so that's risk. As part of the		
	12	authorization, we're going to be needing baseline data for which		
	13	crossings, final designs, monitoring plans, and offsetting. Some of that		
03:45PM	14	is already included in the DAR. But as for other IRs, we did request		
	15	some compiled baseline data for each of the crossings and some		
	16	additional monitoring. Right now, they have culvert inspections, and we		
	17	were kind of requiring more fish monitoring than velocity monitoring,		
	18	and to provide some ideas of offsetting for the Fisheries Act		
	19	authorization.		
03:45PM	20	The response we got was that that would be provided to us		
	21	during the Fisheries Act authorization process, which is fine, but all of		
	22	those components are going to be we're going to need to be		
	23	consulting on under the Fisheries Act and I think it would be beneficial		
	24	to discuss the subject to have those documents before and to for		
03:46PM	25	everyone to discuss those documents before they actually get to DFO.		
	26	So I don't really know when that would be. But that would increase		
	27	transparency, and it could prevent some surprises during oral		

1 consultation and then save on time, and then we could get involvement 2 from other groups at an earlier -- from impacted groups at an earlier 3 time. For example, if they would like to be involved in monitoring. 4 So I guess, if you wanted to make this a guestion it would be for 5 everyone to see if it's -- if there would be an interest to getting those 03:46PM 6 documents before they actually get to us for the Fisheries Act 7 authorization, like for engagement. And that could be, like, during a 8 working group or something. I don't know. And if GNWT would be 9 open to engaging on those documents before you actually submit it to 10 DFO as part of the FAA. So I'm talking like baseline compilation of 03:47PM 11 data, a more thorough monitoring, response plans for each culvert, a 12 conceptual offsetting plan. 13 CATHERINE FAIRBAIRN: GNWT, can you comment on when you plan to 14 get those documents out and then if other parties have comments on 15 when they would find that information I guess helpful to review, that 03:47PM 16 would be helpful as well. 17 SETH BOHNET: Seth Bohnet, GNWT. So the information that is 18 being specifically alluded to and requested is and will help form, of 19 course, the authorization application and submission. GNWT does 20 engage, and will continue to engage, to inform that application and will 03:47PM 21 involve communities, make sure that they have an opportunity to review 22 and inform. Just to be certain, though, the timing of that work, we do 23 not yet have design completed so we do have to have the design to a 24 point where we're ready to apply for that authorization, so that will be 25 forthcoming. 03:48PM Thanks. DFO. 26 ALAN EHRLICH: 27 TATIANA LECLERC: Tatiana Leclerc. So just to clarify, will you be

1 submitting your FAA package to the public for review before it comes to 2 us? 3 ERICA BONHOMME: Erica Bonhomme. So as was indicated in the 4 IR response, the GNWT needs to have an alignment confirmed before it can finish all of its fish -- fish and fish habitat assessments that inform 5 03:48PM 6 the hydrotechnical assessment that inform the hydrotechnical designs 7 of the crossings. And it's not until that point that we have the 8 information, the detail, the metrics, everything that's needed to go into 9 that application package. So we're nowhere close to that right now. I 10 mean, there is information that's been collected. It's all been submitted 03:49PM 11 already in terms of the habitat assessments that have been done, but 12 there's a lot more to do and it won't be completed until we have 13 confidence that the alignment is locked down, at least within a one-kilometre corridor. 14 15 So the GNWT would absolutely engage on the types of things 03:49PM 16 that are -- would be needed to support that application. So I don't think 17 it's a question of putting together an application package and dropping it 18 on Indigenous groups to review and provide comment. That wouldn't be 19 GNWT's intent. It would be to involve them as we have throughout this 20 process in developing those kinds of information. So we've talked 03:50PM 21 about monitoring, we've talked about -- certainly we've worked with 22 communities on doing those actuals, fish and fish habitat assessments, 23 and if there was -- once we have some sort of order of magnitude for 24 the offsetting, then that would be part of that engagement as well. But I 25 don't think we're there yet. 03:50PM ALAN EHRLICH: 26 DFO. DFO, is there a commitment you seek or 27 just more information you're looking for?

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	1	TATIANA LECLERC:	That's fine, I'm done. Thank you. Tatiana.	
	2	ALAN EHRLICH:	Okay, thanks very much. So I think what I'd like	
	3	to do, the topics that we haven't directly explored, although we have		
	4	indirectly explored sor	me of these, include air quality, noise, vegetation,	
03:51PM	5	and there's more on c	limate change. And, you know, I kind of like the	
	6	grab bag approach that at this point PKFN has said let you guys		
	7	prioritize which things you want to speak to. You know, we've got a bit		
	8	of time left, and so I ju	ust want to kind of open it up for those remaining	
	9	topics. PKFN, you've	indicated you have more, so please go ahead.	
03:51PM	10	JANE HENDERSON:	Jane Henderson for PKFN. Thanks, Alan.	
	11	So returning no	ow to two questions going back to the predicted	
	12	increase of well, who	at PKFN predicts as increased fishing at river and	
	13	creek mouths because of opening access.		
	14	So the first question is why has the developer not considered		
03:52PM	15	mitigation measures re	estricting access from the all-weather road to the	
	16	mouths and creeks in	rivers by, for example, implementing	
	17	nontraditional fishing ı	restrictions, avoiding boat launches, or building	
	18	gates.		
	19	I recognize that	t question was partially answered when you gave	
03:52PM	20	examples of, for example, not, you know, designing road design, like		
	21	not having permits near the water outflows. Have you considered		
	22	restrictions such as no	ontraditional fishing registrations, avoiding boat	
	23	launches, or building (gates?	
	24	ALAN EHRLICH:	GNWT.	
03:52PM	25	SETH BOHNET:	Seth Bohnet, GNWT. Sorry, Jane, can you	
	26	restate your question j	just so I understand perfectly well. I apologize.	
	27	JANE HENDERSON:	Jane Henderson, PKFN. So as we said before,	

1 PKFN is extremely concerned about increased fishing by out of area 2 users once the road goes through and there's access opened up 3 year-round. One of the main concerns about the route is, because the 4 existing bridges are so close to the outflows, they're great fish 5 harvesting sites and the bridges makes access -- makes angling 03:53PM 6 convenient. So there's concerns about increased fishing and other 7 impacts from increased human presence in those areas. You explained 8 that there's some mitigations suggested already considered by GNWT 9 such as not having pull-outs near those locations. Members have 10 suggested other measures like having restrictions, nontraditional fishing 03:53PM 11 restrictions, by not having boat launches, or even by building gates in 12 these areas. Have anything like that been considered or if not, what other things have been considered? Does that make sense? 13 14 SETH BOHNET: Seth Bohnet, GNWT. Thanks for the 15 clarification. So there's two different aspects there that I think we could 03:54PM 16 touch on. One is around, again, the actual design of the road. And as 17 stated, there are things that we can implement. So as Erica alluded to 18 earlier, there are needs for pull-outs and where we locate them, there's 19 opportunities to help inform that. I don't believe the project proposes 20 any boat launches or gates or restricting access to anything of that 03:54PM 21 nature. So I think that's already been addressed in the design. But if 22 there's areas of particular concern, we're happy to talk about that. 23 And then the second piece is around the recommendation to 24 restrict, I believe it's non-Indigenous fish harvesting. That's not 25 something that we have entertained. It's not something we're 03:55PM 26 proposing. Again, we don't, at this point in time, believe there's a need 27 to do that. But we're, again, happy to work with the local governments

	1	and organizations to identify whether or not there's additional monitoring	
	2	that needs to take place to inform changes over time.	
	3	ALAN EHRLICH: Thanks. Pehdzeh Ki.	
	4	JANE HENDERSON: Jane Henderson for Pehdzeh Ki First Nation.	
03:55PM	5	The next question is about dust and air quality. So Pehdzeh Ki First	
	6	Nation is very concerned about impacts on air quality because of the	
	7	dust of an all-season highway use. PKFN understands that the route	
	8	would not be chip sealed and part of the reason that PKFN suggests a	
	9	higher alignment is that it would be able to be chip sealed. So could	
03:56PM	10	you confirm that there will or will not will the alignment be chip sealed	
	11	and if not, how will dust be managed if it's left as a gravel surface?	
	12	ERICA BONHOMME: Erica Bonhomme. No, the highway is not	
	13	proposed to be chip sealed, and I think Walter can elaborate on why.	
	14	But the second is the GNWT will use dust control during operations. So	
03:56PM	15	it uses a calcium chloride application approximately every two years to	
	16	control dust, and that's consistent with the other nonchip sealed	
	17	highways in the NWT.	
	18	JANE HENDERSON: Thanks, Erica. Jane Henderson for PKFN.	
	19	What is the predictions for the impacts or the effectiveness of that dust	
03:57PM	20	control. A major issue for PKFN and concern is that increased dust will	
	21	be generated and go into the Deh Cho where there's already	
	22	sedimentation issues. So Erica, can you say a little bit more about how	
	23	the dust control measure that's recommended would affect that; how	
	24	effective you think it would be.	
03:57PM	25	ERICA BONHOMME: Yeah, I do recall we did provide a response to	
	26	this, to the MVEIRB, that very question about how is dust control	
	27	applied and what are how does it mitigate how is it done so it's	

1				
	1	protective of aquatic environments. And that was in response to		
	2	MVEIRB IR73. So maybe just if there's anything to follow up on that,		
	3	we'll be happy to do that.		
	4	ALAN EHRLICH:	Okay, thanks. PKFN again.	
03:58PM	5	JANE HENDERSON:	Jumping topics now. Jane for PKFN. So this is	
	6	a follow-up to what we	e discussed earlier today. We were talking about	
	7	PKFN's concerns that	t their particular hunting grounds near between	
	8	around Dam Creek	were not addressed, things that were raised in the	
	9	PDR were not addres	sed in the DAR.	
03:58PM	10	The response	from the developer was that there were nine	
	11	optimizations recommended and that eight of the nine optimizations		
	12	recommended in the	PDR were implemented. This is more of a	
	13	comment than a ques	stion.	
	14	PKFN wants to would like to knowledge that the changes that		
03:58PM	15	were made were still	within the one-kilometre corridor, and they all still	
	16	cross the hunting grou	und that was identified in the PDR as the concern	
	17	as identified in the I	PDR at page 71 and page 72. So while I	
	18	understand that, you	know, optimizations were made, from PKFN's	
	19	perspective is it is still crossing a sensitive area and a hunting ground		
03:59PM	20	and an insufficient accommodation.		
	21	ERICA BONHOMME:	Erica Bonhomme. Thank you. We do have	
	22	that information in the	PDR, and that's been noted. Thank you.	
	23	ALAN EHRLICH:	Sorry, Erica, unless I'm mistaken, I think there	
	24	was a question involve	ed in there. It's not just about information. It's that	
03:59PM	25	are you still planning on crossing those sensitive hunting grounds; is		
	26	that correct, PKFN?		
	27	JANE HENDERSON:	I guess it's a double-barrelled question, where,	
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	1	for one, is it still planned that that hunting ground will be crossed, and also, you know, it limits it doesn't inspire confidence for PKFN when		
	2			
	3	those recommendations were made 12 years ago and the adaptation		
	4	that was made you know, that came out of the PDR, the PDR itself		
03:59PM	5	chose eight out of nine optimizations but they still cross a hunting		
	6	ground. So in terms of improving you know, improving confidence		
	7	that the conversations do have conversations and the plans do have		
	8	plans will integrate the request that PKFN is making, how can PKFN		
	9	have greater confidence?		
04:00PM	10	ALAN EHRLICH: So PKFN, your question is how can you have		
	11	greater confidence?		
	12	JANE HENDERSON: I guess it's difficult to phrase that one as a		
	13	question. It's really more of a comment that, you know, 12 years ago		
04:00PM	14	the concern was raised and coming out of the DAR it was not met and		
	15	coming out of the PDR it was not particularly well met, going into the		
	16	DAR nothing has changed, and so when we receive, in these three		
	17	days, a lot of assurances that there will be future accommodations, you		
	18 know, I'm just noting that the baseline of accommodation is, s			
	19	PKFN's perspective, poor, and the so that was more of a comment.		
04:00PM	20	The question was, as you noted, is the intention still to cross that		
	21	hunting ground?		
	22	ALAN EHRLICH: Okay. Thanks. I see that, you know, GNWT is		
	23	listening carefully so I'm sure they received the message, but in terms		
04:01PM	24	of responding to the question, please go ahead, GNWT.		
	25	SETH BOHNET: Seth Bohnet, GNWT. So the corridor does still		
	26	traverse that area. I do want to point out, though, that the optimizations		
	27	that were incorporated at that time were fully informed by PKFN		

I				
	1	involvement and, at that time, PKFN did approve of those design		
	changes. And to the extent possible, again, moving forward,			
	3	to having continued discussions on where we can find some additional		
	4	areas to make those adjustments. So I think our work together over the		
04:01PM	5	last little while speaks volumes towards that and, again, looking forward		
	6	to follow-up conversations on it.		
	7	ALAN EHRLICH: T	hank you. PKFN.	
	8	JANE HENDERSON: J	ane Henderson for PKFN. Thank you.	
04:02PM	9	Jumping to another topic oh, forgive me.		
	10	It would be helpful for PKFN if you could clarify, we talk a lot		
	11	about the one-kilometre corridor, but what is the proposed width of the		
	12	footprint of the eventual h	nighway the right of way?	
04:02PM	13	SETH BOHNET:	Seth Bohnet, GNWT. So the right of way for	
	14	the highway, once completed, would be 60 meters.		
	15	ALAN EHRLICH: T	hanks. PKFN.	
	16	JANE HENDERSON: J	ane for PKFN. Alan, I am going to scan and	
	17	see if I have anything left in the grab bag and I request that you turn the		
	18	floor to other people at this time.		
04:02PM	19	ALAN EHRLICH:	actually what I would like to do is take a five	
	20	minute break. That is, indeed, a five minute break. We want to look at		
	21	the sort of undertaking type things and see which ones we've actually		
	22	made progress on, now which ones we can wait to follow up on		
	23	electronically, because if there's answers to stuff here that we've asked		
04:03PM	24	people to get answer for we while we're here, we want to be able to		
	25	figure that out. But I thank everyone for the efforts you're making to		
	26	prioritize and do our best with the time.		
	27	So five minute bre	ak. We'll see you again in five minutes.	
'				

	1	- SHORT BREAK -		
	2	ALAN EHRLICH:	All right. The next questions that we have	
	3	that break was tactica	II. We were trying to figure out which stuff we	
	4	have to address during the session and which were better in the record.		
04:13PM	5	We're going to go to Health Canada next, which has a few		
	6	questions related to air quality. Please go ahead.		
	7	AYESHA SOHAIL:	Hello. My name is Ayesha Sohail. I'm coming	
04:14PM	8	from Health Canada.	A few clarification questions, which hopefully	
	9	shouldn't take too, too long. So to begin with, as a part of air quality		
	10	mitigation measures in response to preliminary IR HC07, the proponent		
	11	indicated that the project will avoid or reduce dust-generating activities		
	12	when wind speeds an	d directions causes safety concerns due to	
04:14PM	13	reduced visibility.		
	14	Now, my question is: What are the thresholds that will trigger		
	15	these reduced activities?		
	16	So, for example, another mitigation measure in response to the		
	17	same IR HC07 is to reduce vehicle speed near sensitive receptors. So		
	18	what we're kind of trying to get at is how would those sensitive receptors		
04:14PM	19	be identified? Would there be postage, for example, for construction		
	20	vehicles and things like that		
	21	ALAN EHRLICH:	Thank you. GNWT.	
	22	SETH BOHNET:	Sorry. Seth Bohnet, GNWT. Can you confirm	
	23	which IR that was again, please.		
04:15PM	24	AYESHA SOHAIL:	Yeah, that was preliminary IRHC07.	
	25	SETH BOHNET:	Seth Bohnet, GNWT. Just to clarify, are you	
	26	speaking to the online review system comments or an actual FIR?		
	27	AYESHA SOHAIL:	No, I am referring to the review system	
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	1	comments.
	2	ERICA BONHOMME: So Erica Bonhomme. HC7 refers to the
	3	construction phase. That's one thing to just provide clarification on.
	4	And one the speed of construction vehicles, the GNWT's committed
04:15PM	5	to keeping vehicle speeds or restricting construction vehicle speeds
	6	to 50 kilometres per hour when travelling on project roads.
	7	And I think you maybe had a question about wind speeds and
	8	wind direction. My colleague Samuel Lacrampe is here, and maybe he
	9	has something more to offer on that.
04:16PM	10	SAMUEL LACRAMPE: Hello. Samuel Lacrampe with Kalo Stantec
	11	here. So part of the adaptive air quality management plan that will be
	12	part of the mitigation in addition to the preliminary mitigations already
	13	planned, it's part of the dust control plan will be a visual monitoring, so I
	14	believe it will be a bit of an interactive case basis, you know. It's due to
04:17PM	15	many factors, like as to wind speed, wind direction, and the type of
	16	mechanical impact that will affect it. It's going to be kind of on a
	17	case-by-case. If the visible dust plume gets reduced, then that would
	18	be sufficient; and if not, we'll have to react accordingly.
	19	ALAN EHRLICH: Thanks. Health Canada.
04:17PM	20	AYESHA SOHAIL: Yeah. Ayesha Sohail for Health Canada. So
	21	another part of that question was reducing speeds near sensitive
	22	receptors. My question was how would those sensitive receptors be
	23	identified? I'm looking specifically to see if there is signage and things
04:17PM	24	like that that you're planning on doing.
	25	ALAN EHRLICH: Thanks. GNWT.
	26	SAMUEL LACRAMPE: Samuel with Kalo Stantec as well. So one of
	27	them is, again, due to that visual monitoring that everybody can

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	1	participate in okay mostly, and we're considering mostly community
	2	receptors.
	3	Another one is we have identified sorry. Some of the most
	4	impacted receptors, one of them is located, like, 350 metres away at
04:18PM	5	the closest part of the construction site. That's somewhere in Wrigley,
	6	north of Wrigley, okay. So that would be an indication as well, very
	7	likely due to you know, distance is a large function of this. That
	8	nearest distance is very likely going to be one of those receptors if we
	9	were to predict where they would be.
04:18PM	10	ALAN EHRLICH: Thank you. Ayesha Sohail.
	11	AYESHA SOHAIL: Ayesha Sohail for Health Canada. I'll move on
	12	to a different question. So that was talking about the construction
	13	phase. Let's move on to after the construction phase.
	14	So in response to Health Canada IR number 8 during the, again,
04:19PM	15	the preliminary IR phase, the proponent has not discussed the residual
	16	effects to human health from changes to air quality over time. Could
	17	you describe monitoring once the construction phase of the highway is
	18	complete.
	19	ERICA BONHOMME: Erica Bonhomme. We had an IR responded
04:19PM	20	to an IR on this, so I think that that may have been a preliminary
	21	Health Canada 8. But there was an information request specific to what
	22	kind of monitoring GNWT would be doing for air quality. We're just
	23	tracking that information request response down, and maybe we'll
	24	provide you that and see if that works.
04:20PM	25	ALAN EHRLICH: Thank you. Health Canada.
	26	AYESHA SOHAIL: Okay. Continuing on with Ayesha Sohail
	27	for Health Canada. We'll wait for you guys to get back to us on that.

quality here. So for our IR round 1, Health Canada IR number 2, your response states that — and we note that there are limitations to air dispersion monitoring. The alternatives that you've proposed in response to Health Canada IR2 and the preliminary IRs is not recommended by Health Canada. So what I mean is that Health Canada does not support the use of the National Pollutant Release Inventory reporting thresholds as levels below which no health effects exist. The NPRI website itself confirms that its data is insufficient to assess potential environmental and health risks posed by air pollutants. So our question is around, you know, do you have some reasoning to provide, some scientific evidence, to support this method for assessing the effects on air quality and human health that is contrary to the perspectives of the NPRI. SAMUEL LACRAMPE: Hi, Samuel with Kalo Stantec here. So this has been addressed as part of the IRs. I can just list them out here, and then I will also summarize it after. So beyond the questions on why use the NPRI approach versus the Health Canada approach, the IR questions would have been CanNor 22, CanNor 24, CanNor 26, and HC2. You know, to some extent, all those were related. Now I will summarize our response right now. So the Health Canada approach, guidance approach is a receptor-based, whereas what we did is an NPRI approach which is emission-based. The reason that we believe that the receptor base was not really suitable, so there's a couple reasons. One is that the receptor-based is only suitable for large emitters, such as industrial facilities with exhaust		1	One more question, moving on to another sort of topic under air
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		27	only suitable for large emitters, such as industrial facilities with exhaust

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	1	stacks, which would be stationary you know, they're not moving
	2	around and long-term, right. It's based on statistics which can only be
	3	accurate in the long-term, whereas when it comes to highway
	4	construction projects, we're talking about those are relatively low
04:23PM	5	emissions, mobile, temporary, and transient.
	6	After that, the closest receptor is going to be at for the closest
	7	portion of the construction site would only be 350 metres away, which
	8	is, fair enough, within the one-kilometre dispersion part of our LAA. But
	9	that would only be for seven days or around seven days. After that, it
04:23PM	10	would be the construction site would be too far from the dispersion
	11	limit.
	12	And, finally, sure, there are a couple stationary sources, like at
	13	the quarries. But even those, these are low emitters as well compared
	14	to large industrial facilities.
04:24PM	15	And the only one that's located within the one-kilometre
	16	dispersion limit is the one south of Wrigley, and that one is still a
	17	temporary quarry anyways; it's not going to operate for too long. We're
	18	sort of anticipating it might operate up to perhaps 130 days. After that,
	19	it might not be as operational for the project.
04:24PM	20	ALAN EHRLICH: Okay. Thank you. Ayesha.
	21	AYESHA SOHAIL: Okay. Ayesha Sohail
	22	for Health Canada. I would just like to just restate that Health Canada
	23	does not support the use of the NPRI, the National Pollutant Release
	24	Inventory reporting thresholds, as levels below which no health effects
04:24PM	25	exist.
	26	And I will leave it at that. Thank you very much.
	27	ALAN EHRLICH: Okay. Thank you very much. And we thank

	1	Health Canada for taking part in the session and for the last three days
	2	having observed all of the discussions, many of which relate to health,
	3	some directly, some indirectly. So thank you for coming.
	4	Okay. Now we're going to go back to PKFN which still has a
04:25PM	5	couple more questions, and then the Gwich'in Tribal Council which has
	6	a question on invasive plants. PKFN.
	7	JANE HENDERSON: Jane Henderson for PKFN. We have three final
	8	questions unless there's additional follow-up. So starting with the first
	9	one, we are returning to what we returned to earlier this afternoon.
04:25PM	10	So, Seth, you described that the route through the habitat and
	11	hunting ground between Strawberry Creek and Dam Creek as
	12	described in the at the PDR at 71, 72 was optimized with PKFN's
	13	input and engagement.
	14	So this is what we talked about twice today. We were talking
04:25PM	15	about there's this there's the habitat and hunting ground; the route
	16	goes through it; there were nine optimizations suggested in the PDR,
	17	eight of which are adopted.
	18	Seth, when you responded to that to say that, you know, the
	19	optimizations as you responded, it sounded like you were saying that
04:26PM	20	those optimizations were all done with PKFN's input, and it really
	21	sounded like you were suggesting with PKFN's approval.
	22	PKFN disagrees and states that the First Nation has never
	23	agreed to the proposed one-kilometre corridor and consistently asked
	24	for the route to be moved farther away from the Deh Cho and including
04:26PM	25	outside that hunting ground.
	26	That's really actually not a question, I realize. That is a
	27	comment.

Moving on to number 2. Here I would like to talk about the failure to consider future development in the cumulative impacts assessment, jumping back to yesterday. We talked about this I believe the first day and definitely yesterday. PKFN echos the concerns that were shared by some others in the room, but we have a specific question on this.

So PKFN is concerned that the developer's criteria for reasonably foreseeable development is incorrect. As the DAR states and as GNWT confirmed yesterday, your perspective is that the only future developments that need to be considered in a cumulative effects assessment are developments that have authorizations that they need or in the process of getting them or projects that developers have publicly announced that they intend to pursue. The developer has stated that to consider anything else is unhelpful speculation; however, a plain reading of the Review Board's 2004 guidance does not necessarily match this interpretation. Looking at the guidelines, they say on page 81 and 82 that developments that have not been proposed or announced but can reasonably be foreseen should be included in the assessment. For example, it says:

A developer proposing a pipeline through a previously-inaccessible area with little existing development should consider reasonably foreseeable future developments which could be determined by looking at other comparable developments in areas with similar characteristics.

The guidance acknowledges that there are uncertainties and says those uncertainties should be made clear saying that developers are not expected to see the future but are expected to make the best reasonable predictions they can.

	1	So a plain reading of that guidance says that it is open wider than
	2	just projects that are in process or, you know, in the regular or have
	3	stated their intentions. It says you can look to analogous situations to
	4	consider reasonable predictions.
04:28PM	5	So the question is could we request your legal authorities for the
	6	standard of reasonable reasonably foreseeable induced effects that
	7	GNWT is applying. Obviously not at the moment.
	8	SETH BOHNET: Sorry. Just for clarification, I misheard the last
	9	little bit there. Can you just rephrase the actual question, please.
04:29PM	10	JANE HENDERSON: The question is we don't expect you to do this
	11	on the spot, so we're requesting your follow-up to provide the legal
	12	authorities for the standard of reasonably foreseeable induced effects
	13	that are being applied in the DAR.
	14	ERICA BONHOMME: Erica Bonhomme. I don't think it's the
04:29PM	15	developer's, you know, purview to interpret how the Review Board views
	16	its guidelines or any legal authority. It has defended its use of how it's
	17	selected its reasonably foreseeable activities. And how moreover,
	18	what's more important is how it selected the projects that are expected
	19	to have residual effects that will interact with those of the project. And
04:30PM	20	that's they key. If you have a project that interacts in space and time
	21	with those of the effects of the project, it's a reasonable candidate. And
	22	it's not helpful to speculate about all sorts of things that could happen
	23	maybe here, there, and in the future. And as I said previously, there
	24	have been lots of examples, even in the 2015 business case where it
04:30PM	25	was elaborated on all sorts of oil and gas scenarios that might happen
	26	and economic outputs of that that just simply did not materialize.
	27	So if there is information that we know and I'm sure we could

	1	talk all day about this, because I see Alan squirming. You know, it has
	2	to be something we can measure, right? Can we say something about
	3	it? It's not helpful to speculate about things that just won't happen.
	4	So GNWT's unlikely to get into a debate over interpretation of EA
04:31PM	5	practice. What the GNWT will do is stand behind the approach that it's
	6	used.
	7	ALAN EHRLICH: Thanks, Erica.
	8	Again, rather than get in depth on this, I point out that, one, the
	9	facilitator does not squirm. The facilitator communicates using body
04:31PM	10	language as well as words. Second, I can say with some confidence
	11	that the Board will follow its environmental impact assessment
	12	guidelines when making its decisions about environmental impact
	13	assessment.
	14	Next question, please.
04:31PM	15	JANE HENDERSON: I submit that as the GNWT is the developer it's
	16	more than appropriate to request the legal authorities that the
	17	government is using on its projects.
	18	The
	19	ALAN EHRLICH: sorry, just to clarify. I read you loud and
04:32PM	20	clear, and we consider parties' opinions and the developer's opinions,
	21	and the Board's guidelines describe the way that it tends to think about
	22	these things. As you've correctly pointed out, this is a subject that's
	23	included in the Review Board's EIA guidelines. So I just wanted the
	24	developer to understand that that is the approach that the Board has
04:32PM	25	said it will follow in its environmental assessments. Thank you.
	26	PKFN.
	27	JANE HENDERSON: Thank you. As a last comment, we would just

	1	note that there are projects mentioned in the business case which are		
	2	not included in the induced effects.		
	3	Third question: PKFN draws your attention to Smith Creek		
	4	where the slumping issues are significant. Of course, PKFN and		
04:32PM	5	Infrastructure are in active conversation about the slumping issues at		
	6	Smith Creek at this time. PKFN knows that the soil in that area near		
	7	Smith Creek is very similar to the north side of Blackwater River where		
	8	the winter road is currently located on the edge of a pretty high hill. And		
	9	PKFN asks: Have the ongoing slumping issues at Smith Creek		
04:33PM	10	informed any aspect of the project planning?		
	11	SETH BOHNET: Sorry, apologies, Seth Bohnet, GNWT. Jane, I		
	12	just want to make sure we're talking about Big Smith Creek south of		
	13	Wrigley?		
	14	JANE HENDERSON: Jane Henderson for PKFN		
04:33PM	15	SETH BOHNET: I believe there's multiple		
	16	JANE HENDERSON: correct. Oh, yeah, we're talking about the		
	17	one south of Wrigley; it's not part of the winter road alignment, but		
	18	PKFN's Indigenous knowledge shows that the soil there where we're		
	19	having major slipping issues is very similar to the soil north of		
04:33PM	20	Blackwater River where the winter road route is currently on the edge of		
	21	a very high hill. Meaning any slumping there could be extremely		
	22	dangerous.		
	23	And PKFN is asking if the ongoing slumping issues at		
	24	Smith Creek have informed any part of the consideration for the		
04:33PM	25	all-season road.		
	26	ERICA BONHOMME: Erica Bonhomme. This project has not done		
	27	any study related to that reference location south of Wrigley, which is		

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	1	outside of the project s	tudy area. The GNWT's work to date and the
	2	design going forward w	vill be applicable to the route being proposed.
	3	ALAN EHRLICH:	Okay, thank you for that. Our next question is
	4	going to be from Gwich	n'in Tribal Council. It's Ruari Carthew online.
04:34PM	5	Ruari, go ahead	, please.
	6	RUARI CARTHEW:	Ruari Carthew for GTC. Quick point on
	7	speculation before I as	k a question, and that's just that the design of the
	8	project thus far is at 25	percent completion. There are numerous cited
	9	gaps in the baseline da	ata valued components important to numerous
04:35PM	10	Indigenous governmer	nts here which make the impact predictions
	11	largely speculative. Mi	tigation plans are largely speculative. The
	12	approach to adaptive r	nanagement relies on uncertainty, which is
	13	largely speculative. Ar	nd the economic analysis is largely speculative.
	14	So there are con	mpeting views on speculation. When I'll go to
04:35PM	15	invasive species. Inva	sive species have the potential to spread
	16	northwards at a faster	rate with an all-season highway and road. This
	17	could accelerate how f	ast invasives come to Gwich'in territory and
	18	lands, and efforts taker	n or not taken to manage invasives will have a
	19	direct implication on the	e number of invasive species advancing towards
04:36PM	20	GSA and the extensive	e risk they pose to Gwich'in lands and resources.
	21	We have heard	about concerns on the loss of traditional plants
	22	along the corridor and	are also concerned that they may be replaced
	23	with invasives.	
	24	The question is	how will the invasive plant monitoring plan map
04:36PM	25	and record the location	and speed at which invasive plant species are
	26	observed along the roa	ad both during construction and operations
	27	ALAN EHRLICH:	GNWT.

	1	ERICA BONHOMME: Erica Bonhomme. The GNWT will conduct
	2	invasive plant surveys as it does throughout all of the Northwest
	3	Territories highways before and every five years after construction of
	4	the highway. There was an IR on that IR response on that too. I
04:37PM	5	don't have it at my fingertips.
	6	But I regards to Gwich'in settlement area, there's no vector for
	7	vegetation changes or invasive species that may be introduced on the
	8	project to travel to the Gwich'in settlement area because there isn't
	9	planned to be a connection to that area as part of the project.
04:37PM	10	So I think maybe just to answer that part of your question about
	11	the anticipated reach of those invasive species and the vectors in which
	12	they would happen, the vectors are equipment that would be brought to
	13	and vehicle travel that would happen within the project area, and the
	14	GNWT has identified the types of mitigations applicable to that.
04:38PM	15	ALAN EHRLICH: Ruari, would you like to respond?
	16	RUARI CARTHEW: Ruari Carthew for GTC. Thank you. I believe
	17	we did outline yesterday our GTC's views on reasonably foreseeable
	18	projects in that this could turn into induced development that extends
	19	the roads further north and therefore could create a more reasonable
04:38PM	20	vector for plants and invasive species to spread.
	21	Second question on invasives is we looked at the DAR and the
	22	information in there on invasives. Will the environmental monitoring
	23	and compliance monitoring plan for the project extend to include the
	24	observation detection and recording of invasive plants species
04:39PM	25	movement along the PDA?
	26	ALAN EHRLICH: While the GNWT is discussing their response,
	27	just because of the timing that we're at here, I'm going to ask if you

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	1	have other questions along this line, if we can get them in the form of
	2	information requests just because we're really running out of time here.
	3	GNWT's going to respond. But if you have further questions, do you
	4	mind saving them for IRs?
04:39PM	5	RUARI CARTHEW: Ruari Carthew. That is totally fine. Thanks.
	6	ALAN EHRLICH: Appreciate it. Thanks. GNWT.
	7	ERICA BONHOMME: Well, as regards to monitoring, the response is
	8	the same as the last one, which is that the GNWT will conduct invasive
	9	plant species surveys in along the right-of-way at one, five, and
04:40PM	10	ten-year intervals. And it will also monitor that data will be used by
	11	the GNWT with input from the appropriate affected parties to develop
	12	management actions if necessary.
	13	ALAN EHRLICH: Okay. Thank you very much, the GNWT.
	14	I'm now going to ask Catherine Fairbairn to go through some of
04:40PM	15	the undertakings where we asked people to come back with answers
	16	during the technical sessions, if possible, so that we can get those
	17	answers today.
	18	Catherine, you've discussed with the GNWT which ones those
	19	are. Do you want to lead the questions? Thanks.
04:41PM	20	CATHERINE FAIRBAIRN: Yeah, thanks, Alan. Catherine Fairbairn.
	21	So the first one that I believe the GNWT has some additional
	22	information for is related to some of the a series of the questions that
	23	Pehdzeh Ki First Nation sent in on Tuesday night. So if you could let us
	24	know some of the information that you have and maybe some of the
04:41PM	25	outstanding information that will come in later.
	26	ALAN EHRLICH: And for these, we'll hear the GNWT's response,
	27	but if there's any follow-up, let's do that in writing on the record in the

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	1	form of IRs or comments as necessary. But I don't want to have
	2	continued discussion about their answers. There's still a chance to
	3	response to that. I just don't think we're going to be able to follow up on
	4	their follow-up today.
04:41PM	5	Okay. GNWT, please go ahead.
	6	SETH BOHNET: Seth Bohnet, GNWT. I just want a point of
	7	clarification. So the specific questions that PKFN provided us to were
	8	provided in writing, so I don't think everybody has access to them. So is
	9	it preference that we read the question first and then the response?
04:42PM	10	CATHERINE FAIRBAIRN: Sure, or if you can summarize effectively, that
	11	works too. But if it's simpler to read both, that's fine.
	12	SETH BOHNET: Thanks for that. Yeah, so just to clarify, we
	13	don't have a response to all of the questions at this moment in time.
	14	The other ones, we will respond to in writing, but the ones that we can
04:42PM	15	respond to right now, we will do so.
	16	ALAN EHRLICH: Please only read the ones that you are able to
	17	respond to here. Thanks.
	18	ERICA BONHOMME: Erica Bonhomme. It's me on the hot seat
	19	again. So to summarize, number 4, PKFN number 4 has to do with
04:42PM	20	avoiding potential ice-rich and unstable terrain where practicable; how
	21	does the route achieve this when the chosen alignment travels through
	22	the highest concentration of permafrost in the Mackenzie Valley in the
	23	low areas close to the water source.
	24	And the response there was a preamble to the response which
04:43PM	25	is applicable to a few of the other responses, so this response may be
	26	just a little bit longer, which is those criteria that are provided in or the
	27	guidelines and objectives that are provided in section 5.2.2 are not

intended to be used in isolation. It's not likely that any road design in this area would meet all of these objectives, which is why terminology such as "where possible" and "where practicable" is used.

So "where practicable", for example, means if it can be done.

This means that there will be places where this is not possible. And we gave some examples of how, you know, that would apply to permafrost.

So to go on, then, the design parameters were selected to align with published standards, best practice, and the findings of the climate change and resilience assessment. The design parameters also state that using the existing winter road alignment, which is thermally disturbed terrain, to the extent possible to reduce the area of new disturbance is something that the -- will be applied and that's acceptable for the current design definition stage, which is, you know, if you want to give a number, about 25 percent that we're using in the environmental assessment.

But a notable point here is that the GNWT doesn't agree with the statement that the chosen alignment travels through the highest concentration of permafrost in the Mackenzie Valley in the low areas close to the water source. This is not supported by the information provided in appendix 14A. We refer you to Figure 4.2 of that appendix.

I already said this before; permafrost is a thermal state, so not -it doesn't refer to a specific material. It may or may not contain ice, and
therefore permafrost in and of itself is not a constraint.

In fact, near Wrigley, the permafrost is sporadic, discontinuous permafrost. The low-lying wet thermokarst conditions represent the degredation of permafrost due to warming -- due to thawing -- sorry -- resulting in surface subsidence. Permafrost degradation has occurred

1 naturally and will continue to occur in a warming climate. 2 Since the project is not aimed to preserve the permafrost, 3 utilizing already-disturbed terrain along the existing winter road 4 alignment is considered acceptable. 5 Question 6, again, another criteria -- another design objective, 04:46PM 6 which is use of natural topography to reduce material requirements. 7 And, again, the preamble that I provided previously applies to 8 this one as well is that you can't look at these in isolation. 9 The question is how is the use of natural topography achieved if 10 the alignment follows low-lying terrain and so requires a fill-only design. 04:46PM 11 Fill-only design requires frequent access to borrow sources for material. 12 A different alignment would make it possible to use a cut-and-fill design. 13 A cut-and-fill design would reduce material requirements and borrow 14 sources needed. 15 So the GNWT's response is that a fill-only design other than at 04:47PM 16 specific locations where geotechnical investigation has indicated the 17 suitability of the cut materials for reuse is the most suitable design for 18 this highway regardless of the location anywhere between the river and the mountains. 19 20 Points being: Minimizing the need for cuts reduces potential 04:47PM 21 impacts on and impacts from disturbance to unsuitable materials in situ 22 at any cut location. And so bullet 11 of section 5.2.2 states: 23 Optimizing use of natural topography to reduce material or 24 requirements such as avoiding the need for deep fills. As a general 25 principle, constructing a road on relatively level terrain requires less total 04:48PM 26 material volume compared to building on hilly terrain. In hilly areas, 27 additional fill is often needed at the bottoms of hills to maintain the

1 geometric design speed; therefore, increasing the overall material 2 requirements. 3 Question 7, again, another objective stated in section 5.2.2. The 4 developer states that highway must maintain cost effectiveness in 5 construction, operations, and maintenance. And then the question goes 04:48PM 6 on: It's useful to compare the costs of maintenance of -- so the 7 question asked to compare maintenance costs for Yellowknife to Frank 8 Channel Highway, Edzo to Fort Providence Highway, stating that the YK 9 Frank Channel section was constructed over low -- low-lying 10 topography, permafrost, and frost-susceptible soils. And the southern 04:49PM 11 section of Edzo was constructed over higher ground with less 12 permafrost, better drainage, which is similar to the route the Enbridge 13 pipeline selected. The comparison is direct. 14 And the question asked: Has the developer made this 15 comparison. And, you know, if so, yes; if not, why -- provide the results; 04:49PM 16 if not, why not. 17 So the response is: Yellowknife to Edzo highway -- so that's 18 highway 3 -- is constructed across completely different geological 19 terrain than the segment from Edzo to Fort Providence. The 20 differences are not related to high- or low-lying topography but rather to 04:49PM 21 the abrupt transitions in subgrade conditions ranging from thin 22 embankment fills on stable bedrock to thick or deep embankments over 23 soft subgrade conditions between bedrock exposures influenced by the 24 associated topographic relief. 25 Neither of these are very similar in topography to the Mackenzie 04:50PM 26 Valley. Any such comparison would not provide much useful 27 information to this design process. The GNWT's design principle to use

1 natural topography to reduce material requirements, for example, to 2 reduce the need for deep fills, is relevant and one way to maintain cost 3 effectiveness, which was the question. 4 Question 8, another -- so this one references section 5.2.2, 5 Table 5.1, page -- on page 512, where the GNWT states that climate 04:50PM 6 change and sustainability issues will be identified and addressed in the 7 design. The largest -- and that the largest concern of this project to 8 climate change is permafrost degradation, ice lands melting, and 9 sediment erosion concerns. 10 The question is: Why is the design not considering alternate 04:51PM 11 alignments where these concerns are reduced by selecting routes with 12 less permafrost and less runoff which are on higher ground. 13 I think we've covered this today a little bit. And we definitely look 14 forward to engaging further with PKFN on this topic. The GNWT notes 15 that whether or not the largest climate change concern is permafrost 04:51PM 16 degradation is debatable, and there's no data to indicate that such 17 issues would be less severe inland near the mountains. 18 It should be noted that erosion and sedimentation potential 19 concerns are greater in an area of higher slopes such as may be found 20 on the higher ground further from the river and nearer the mountains. 04:52PM 21 Again, we don't know which route we're actually looking at here, 22 so it's a general statement. 23 It goes on that -- again, to explain that permafrost is a thermal 24 condition not necessarily reflective of the soil conditions and that road 25 alignments on higher ground with significant elevational changes 04:52PM 26 present different design considerations and geohazards specific to hilly 27 terrain which differ from the challenges encountered in low-lying areas.

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	1	ALAN EHRLICH:	Erica, I'm just going to let Dieter has a
	2	particular point that I believe is related to what you just said. So I	
	3	ERICA BONHOMME:	Okay.
	4	ALAN EHRLICH:	don't want to wait until the end of your
04:52PM	5	answers because I know there's a lot of other	
	6	ERICA BONHOMME:	I can't finish the question and then stop?
	7	ALAN EHRLICH:	Do you have a bit more? Is it okay if
	8	Dieter, are you	okay waiting until the end of the question?
	9	Okay. Because	e right now I know there's a series of questions,
04:52PM	10	and I just figure if it re	lates to
	11	ERICA BONHOMME:	Yeah, maybe I could just finish this one
	12	response?	
	13	ALAN EHRLICH:	Sure, that would help. Thanks.
	14	ERICA BONHOMME:	Thanks. Yes, okay. So regarding the effects of
04:53PM	15	climate change on the project, the GNWT has stated that it can design	
	16	the highway in specific areas of sensitive soils where they cannot be	
	17	avoided. The GNWT cannot corroborate that there would be fewer	
	18	8 geotechnical constraints on an alternate alignment.	
	19	Though, again,	we look forward to engaging on that.
04:53PM	20	As stated previously, the design objectives need to be applied	
	21	together, not in isolation.	
	22	I'll pause.	
	23	ALAN EHRLICH:	End of that answer? Thanks.
	24	Dieter, you go ahead, please.	
04:53PM	25	DIETER CAZON:	Dieter Cazon, LKFN or Łíídlįį Kų́ę́ First
	26	Nation; I apologize.	
	27	Can LKFN get	a copy of that list and GNWT's responses for the

	1	forthcoming information requests so we can respond?	
	2	ALAN EHRLICH:	Yeah, the list, in addition to being read into the
	3	transcripts, can GNWT submit it; we'll post the responses on our pub	
	4	registry?	
04:54PM	5	ERICA BONHOMME:	No, the intent was to provide these verbally so
	6	that we wouldn't be providing written responses.	
	7	ALAN EHRLICH:	Okay. In that case, we are transcribing every
	8	word, so it should app	pear very soon on the public registry in the form of
	9	the transcript for this,	not as a standalone document. Is that
04:54PM	10	satisfactory.	
	11	DIETER CAZON:	Do you know 17. Dieter Cazon, LKFN. Do
	12	you know when?	
	13	ALAN EHRLICH:	We expect it to be online probably by tomorrow
	14	morning, maybe a little bit later.	
04:54PM	15	DIETER CAZON:	Okay, that works for me. Thank you.
	16	ALAN EHRLICH:	Okay. Thanks. Erica, please go ahead.
	17	ERICA BONHOMME:	Well, I don't know though, Jane, if these were
	18 if your questions were provided written because I am para		e provided written because I am paraphrasing a
	19	little bit, so like, jus	t to summarize.
04:54PM	20	JANE HENDERSON:	Our questions were provided in writing, and they
	21	were, you know, origi	inally intended to have been read aloud and so
	22	on the record, and so	we have no problem submitting them in any form
	23	to anyone else here.	
	24	ALAN EHRLICH:	So, Jane, we know that you've them in writing.
04:55PM	25	Is it okay if we post th	ne questions you provided as well? Because not all
	26	of them have been sp	ooken during the session.
	27	So with that, so	o all of Pehdzeh Ki's questions will be posted, and
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	1	all of the answers that you've heard will be on the transcript at this point.		
	2	Okay, thanks. Erica, please carry on.		
	3	ERICA BONHOMME: And, again, I should just reiterate that the		
	4	GNWT always looks forward to more opportunities for engagement. So		
04:55PM	5	if, you know, permafrost and sensitive soils and how we design in those		
	6	sensitive soil is a top topic, let's get together and chat.		
	7	Question 9: Areas of importance in considering areas of		
	8	importance, traditional, cultural, and ecological importance. Again, this		
	9	is another design objective.		
04:56PM	10	PKFN has consistently informed the developer that the proposed		
	11	route goes directly through areas of high traditional, cultural, and		
	12	ecological importance and that alternative routes to the east would		
	13	travel through areas of less significance. The GNWT has consistently		
	14	disregarded this information. PKFN asks what consideration was given		
04:56PM	15	to other alignments travelling through areas of lower importance.		
	16	The GNWT's response is that the GNWT has considered all		
	17	available information to date, including previous traditional knowledge or		
	18	traditional use information compiled and presented in the Deh Cho		
	19	PDR.		
04:56PM	20	And if you look at the many figures presented in the PDR,		
	21	you'll we can see the traditional use and occupancy, sensitive wildlife		
	22	environments, and location of sensitive features as identified by		
	23	PKFN and some were referenced today in relation to the project		
	24	route and existing bridges.		
04:57PM	25	It suggests that the routing currently before us that's been		
	26	proposed is not inappropriate or at least was not at the time.		
	27	And that's, you know, obviously something that, you know, the		

1 GNWT's heard and looks forward to engaging on further. 2 The GNWT looks forward to receiving additional information, 3 including information about its suggested alternative -- about PKFN's 4 suggested alternative route to the east. Once received, the GNWT will 5 review the information to confirm the suitability of the alternative and will 04:57PM 6 engage with PKFN on the next steps. As far as considering other 7 alignments, GNWT notes that the PDR identified nine optimizations of 8 the route. 9 We talked about those earlier today. And that included 10 consideration of water and wetlands and moose and moose pastures, 04:58PM 11 traditional human activities along the alignment, and the presence of 12 permafrost. 13 These optimizations, you know, as was mentioned, adopted -- so 14 there were eight of the nine proposed optimizations adopted in the 15 current routing. 04:58PM 16 As for permafrost, specific to permafrost, geotechnical data is 17 not available at this time, but such data will be available in the later 18 stages of the project once geotechnical studies have been completed. 19 The geotechnical studies will determine whether the proposed 20 alignment requires further optimization or rather the use of mitigation 04:59PM 21 techniques in problematic areas. 22 Question 10: Missing assessment of overflow and washouts 23 risks. And it references section 5.2.3, Table 5.2, which is titled 24 "Summary of Consideration of Engagement Input on Design". 25 There are numerous requests to consider the impacts of 04:59PM 26 overflow and washouts along the winter road alignment. The question 27 from PKFN: What has been done to assess if this concern is reduced

1 or eliminated on an alignment at a higher elevation or along a different 2 route. 3 GNWT's response points to the responses to MVEIRB 4 number 71, IR number 71, and CanNor number 5, which is NR can 5 number 1, which provide information on how icings will be considered in 05:00PM 6 culvert design and how engagement feedback regarding local 7 knowledge of overflow locations has been included in project design. 8 No design work has been done on an alternative route. The 9 GNWT looks forward to receiving additional information, including 10 information about its suggested -- about PKFN's suggested alternative 05:00PM 11 route to the east. 12 Question 12: In section 5.2.3, Table 5.2, again, consideration of 13 engagement and input on design. The developer states that the GNWT 14 is committed to ongoing engagement with Indigenous governments, 15 Indigenous organizations, and other affected parties during project 05:00PM 16 advancement and planning and that refers to a phrase "if practical and 17 reasonable" is used many times in the DAR, including whether it will use 18 that information. 19 Who decide -- PKFN asks who decides what is practical and 20 how. 05:01PM 21 The terminology being referred to in section 5.2 is practicable, which means if it can be done. And to use a few examples, the GNWT 22 23 has said it will, for example, avoid known and potential ice-rich and 24 unstable terrain where practicable. That means that as the project 25 design is advanced, there will be places where this won't be possible. 05:01PM 26 Likewise, the GNWT has said that it will reflect community engagement 27 to the extent that it is possible.

	1	And to this example, sometimes engagement and input, while
	2	thoughtful, isn't reasonable or helpful to reducing impacts of the project
	3	or may not even be within the GNWT's jurisdiction to implement.
	4	In this case, the GNWT uses the engagement opportunity to
05:02PM	5	explain its reasons and to, you know, follow up on the engagement
	6	comment the further.
	7	Regarding the consideration of PKFN's forthcoming traditional
	8	land and resource use study, the GNWT provided information in
	9	response to PKFN IR number 2.
05:02PM	10	Question 14: In section 7.1.3.2.2, the developer states:
	11	The inland route alternative may require fewer new culverts
	12	compared to the project route because the watercourses to be crossed
	13	at the inland route location may be better defined owing the to upland
	14	terrain location. A comparison of costs, however, is not possible without
05:03PM	15	a more detailed route evaluation.
	16	Question from PKFN: Why did the developer not provide any
	17	kind of quantitative cost comparison between the project route and the
	18	inland route alternative when the terms of reference stated, quote:
	19	The developer will identify and describe the alternative routes
05:03PM	20	considered for the development, including a description of each
	21	alternative considered, how and why they are not environmentally,
	22	technically, and/or economically feasible and the rationale for rejecting
	23	any alternatives that are excluded from further assessment."
	24	And "economically feasible" was underlined and emphasized.
05:03PM	25	The GNWT's response is that the comparison that's been
	26	provided in the developer's assessment report, section 7 chapter 7,
	27	does meet the requirements of the terms of reference. The economic

1 criteria that were considered were listed in table 7.1. And, specifically, 2 the GNWT has included criteria of maintaining cost effectiveness and 3 reducing material requirements, which are directly relevant economic 4 criteria. 5 And just to follow up again, no design work has been done on an 05:04PM 6 alternative alignment as it has not been provided. 7 Number 17, again, in the alternative assessment, it relates to the 8 availability of water sources needed for construction and operations and 9 maintenance. The preamble says: 10 Related to this, due to the need to construct new crossings over 05:05PM 11 major watercourses, there will be additional short- to medium-term 12 effects on water resources during construction of these structures. 13 PKFN says: 14 The winter road route also has challenges requirements for 15 water. In section 5.4.6.1, the developer states that in winter, portions of 05:05PM 16 the winter road will be used as a travel lane for equipment working to 17 construct new embankment with the shared right-of-way of the winter 18 road and the all-season road. Where the project right-of-way departs 19 from the winter road, a winter travel lane may be constructed for the 20 project along side the embankment to facilitate the movement of 05:05PM 21 equipment. Water for constructing the project winter travel lane, where 22 needed, will be sourced from the Mackenzie River and other sources as 23 authorized for water withdrawal. 24 PKFN says: 25 So the plan to build along the winter road has the same problem 05:06PM 26 with access to water only in the winter. The developer expects to haul

water from Mackenzie River. Can the developer provide a quantitative

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1 assessment of the availability of water sources needed for construction 2 and maintenance of the inland route alternative compared to the project 3 route. 4 Again, the information presented in chapter 7 does meet the 5 requirements of the terms of reference for the comparison of 05:06PM 6 alternatives. A detailed quantitative assessment was not completed 7 because it was not required. 8 The GNWT has identified potential water sources and quantified 9 potential water availability in chapter 15. Though the GNWT does not 10 have a specific route to compare, it can be noted that there are 05:07PM 11 generally fewer water bodies as you move east of the current route 12 towards the Franklin Mountains in the Deh Cho region, particularly 13 between White Sand Creek and Blackwater River. An inland alternative 14 also likely removes the Mackenzie River as a proximal water source. 15 18, this one's short: 05:07PM 16 Can the developer provide a quantitative assessment of the need 17 to construct new crossings of watercourses in the inland route 18 alternative compared to the project route? 19 And the GNWT's response is: No. The level of design is not 20 developed enough to allow for comparison and that the GNWT looks 05:07PM 21 forward to receiving additional information from PKFN, including 22 information about its suggested alternative route to the east. 23 Number 19: In section 7.2.3.2.3, the developer states, quote: 24 Generally, there may be fewer effects associated with 25 constructing new access roads to quarry sources for the inland route 05:08PM 26 alternative as there are likely to be more suitable material sources 27 available closer to the route than the project route.

1 Question for PKFN: Can the developer provide a quantitative 2 assessment of effects of constructing access roads to quarry sources 3 for the inland route compared to the project route. 4 And the response is the same as the previous: No. The level of 5 design is not developed enough to allow for this comparison, and the 05:08PM 6 GNWT looks forward to receiving additional information from PKFN, 7 including information about its suggested alternate route to the east. 8 I'm getting there. 9 Number 20, again, quoting section -- quoting from chapter 7. 10 The developer states, quote: 05:09PM 11 Following existing cleared right-of-way to limit clearing is 12 preferred to clearing the new right-of-way. This is a key mitigation 13 measure for reducing effects of the project on wildlife, including caribou 14 and moose. 15 Question from PKFN: How can the developer come to this 05:09PM 16 conclusion when they have not provided a quantitative assessment of 17 the impacts of the project route on wetlands and habitats used by 18 waterbirds and moose compared to the impacts on the annual range of 19 boreal caribou from the inland route to alternative. Further, most of the 20 inland alignment is alpine and has no clearing required. The winter road 21 route is in the treeline and requires more clearing. 22 How has the developer compared tree clearing requirements in 23 their impacts. 24 And GNWT's response is: If PKFN is referring to a specific 25 route, please provide to the GNWT, and the GNWT can run metrics on 26 that route. 27 The GNWT, though, is curious about the characterization of the

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	1	alternate route as alpine which may introduce environmental
	2	considerations that are not associated with the current route.
	3	Question 23, last one that we're providing today. Table 26.2 sets
	4	out the projects that were considered in the cummalitive effects
05:10PM	5	assessment. The table includes Activity 6, the Mackenzie Valley
	6	Highway from Alberta border to Wrigley, and Activity 7, the winter road
	7	from about Kilometre 794 to 1093.
	8	Question from PKFN: Where in the table is the winter road from
	9	Wrigley to Kilometre 794.
05:11PM	10	GNWT's response is that Table 4.2 identifies Mackenzie Valley
	11	winter road and Délıne winter road as existing infrastructures. And
	12	those are ID number 7, as was pointed out. The location in the table is
	13	incorrectly identified as being in the Sahtu region only. It is meant to
	14	refer to the winter road in the Sahtu and Deh Cho regions.
05:11PM	15	And the omission of the Deh Cho reference in the table will be
	16	corrected.
	17	The GNWT notes, however, that the full extent of the Mackenzie
	18	Valley winter road as an existing project is included in figure 4.1 and 4.2
	19	and in the cumulative effects assessments for value components as
05:11PM	20	presented in subsections 5 of each chapter. And it's labeled as
	21	"Mackenzie Valley Winter Road Including Bridges and Bridge-Sized
	22	Culverts".
	23	So Table 4.2 will be updated in the DAR addendum with that
	24	correction.
05:12PM	25	And I'm done.
	26	CATHERINE FAIRBAIRN: Thank you very much. That was a lot of
	27	reading.

	1	ERICA BONHOMME: I hope I didn't put anybody to sleep with that.
	2	CATHERINE FAIRBAIRN: Okay, that was our big one in terms of following
	3	up. We do have four more, but they aren't multipart, so hopefully it
	4	doesn't take quite so long. And then we'll spend some time looking
05:12PM	5	looking at the final wording of the commitments that the GNWT has
	6	made and very briefly talk about next steps, and then hand it back to
	7	Alan.
	8	I also wanted to just clarify that there's a whole bunch of other
	9	questions that people said they were going to, you know, bring
05:13PM	10	information back for that people can't answer during the technical
	11	session and, you know, the next however long we're going to spend
	12	here.
	13	And so those, we'll follow up with the individuals who are asking
	14	some of that information. And you could submit those and just kind of
05:13PM	15	have the details fleshed out in there if you want in writing to the Review
	16	Board, and we can enter those when we get the next round of IRs up
	17	and running.
	18	So the GNWT is kind of already aware of the topics, but we
	19	might also ask parties to submit kind of the just to make sure we've
05:13PM	20	got it all there, and then we can make sure that's posted as soon as that
	21	round is up and running.
	22	So just if you're wondering what's happening with the others,
	23	that's the plan.
	24	The next one that I wanted to go through I'm just going through
05:13PM	25	them in order. CanNor, you'll but up in two, like after this one.
	26	The next one was also for the GNWT, and this was about the
	27	employment level employment data available by year and where that

	1	information is available.	
	2	Do you want to skip that one after all?	
	3	SETH BOHNET: Seth Bohnet, GNWT. We're just confirming.	
	4	There is employment data in the DAR already. I just wanted to clarify	
05:14PM	5	where it's located.	
	6	CATHERINE FAIRBAIRN: While you clarify that, is it all right if I move on	
	7	to the one that was CanNor was going to come back to, which was in	
	8	response to what role does a highway to Inuvik or only to Norman Wells	
	9	serve in Canada's plan for Arctic sovereignty.	
05:14PM	10	So maybe, Shannon, if I can get you to respond to that, and that	
	11	gives GNWT a few minutes to look up the right section.	
	12	SHANNON ALLERSTON: Sure. Thank you, Catherine. And thanks for	
	13	the question, Kanda, and the time to put together a response.	
	14	So the question to CanNor that was posed yesterday was about	
05:15PM	15	the role in CanNor's perspective that the Mackenzie Valley Highway will	
	16	support Arctic security and sovereignty.	
	17	So in accordance with the Arctic and Northern Policy Framework,	
	18	there are goals for enhancing economic opportunity and prosperity for	
	19	northerners by closing transportation infrastructure gaps and	
05:15PM	20	strengthening the north's regional infrastructure to help exercise	
	21	Canadian sovereignty. The north's security depends in part on the	
	22	presence and ability of security providers to respond to emergencies,	
	23	including the Canadian Armed Forces, the RCMP, and the Canada	
	24	Border Services Agency, along with Territorial Emergency Management	
05:15PM	25	Services. The extension of the Mackenzie Valley Highway to Inuvik	
	26	would provide important redundancy in connective Canada's road	
	27	system to the Arctic ocean which has implications for sovereignty and	

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1	security given the geopolitical sensitivities of the Northwest Passage		
2	and heightened security threats within the region. It's important for		
3	Canadians within the region to meaningfully participate in and benefit		
4	from economic opportunities and to be connected with the rest of the		
5	country.		
6	In this sense, major infrastructure projects such as the		
7	Mackenzie Valley Highway reflect the character of our nation as one		
8	that stretches from coast to coast. The Mackenzie Valley		
9	Highway, as proposed, could serve dual purposes for both security		
10	related and civilian use; it provides access for residents, businesses,		
11	and emergency services, helping to unlock new economic opportunities,		
12	stimulate investment, and strengthen the regional economy and food		
13	security. This is particularly important given the recent challenges		
14	posed by low water levels which limit the ability of barges to resupply		
15	communities.		
16	This comment, as requested by GTC, reflect CanNor's		
17	perspective on the issue and the Mackenzie Valley Highway and its role		
18	in supporting Arctic security and sovereignty.		
19	And if more specific information is desired on the implications of		
20	the Mackenzie Valley Highway, we would be happy to reach out to our		
21	broader Government of Canada colleagues, including Global Affairs		
22	Canada and the Department of National Defence.		
23	CATHERINE FAIRBAIRN: Thank you, Shannon. Catherine Fairbairn.		
24	Over to the GNWT for the question about employment data.		
25	SETH BOHNET: Seth Bohnet, GNWT. Yeah, so just to		
26	reconfirm, the request was for I believe it was the specific request		
27	was to identify where the information was located in the DAR. And it is		
	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26		

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	1	section or chapter 54.14.1.	
	2	CATHERINE FAIRBAIRN: Thank you.	
	3	SETH BOHNET: Or something like that.	
	4	CATHERINE FAIRBAIRN: Okay. We've got two more here. The last two	
05:17PM	5	are both for the GNWT. This is the one in response to the Gwich'in	
	6	Tribal Council's question about confirming if the GNWT is a joint	
	7	venturer regarding the fiber line.	
	8	SETH BOHNET: Seth Bohnet, GNWT. Yeah, so just to clarify,	
	9	yeah, the GNWT is the owner of the Mackenzie Valley fiber line. But	
05:18PM	10	the I'll leave it at that for the moment.	
	11	CATHERINE FAIRBAIRN: Okay, thank you. And the last one of these	
	12	outstanding responses we're going to go through was from Pehdzeh Ki	
	13	First Nation asking about the consideration for or why GNWT didn't	
	14	consider the Liard Highway moratorium from the 70s.	
05:18PM	15	SETH BOHNET: Seth Bohnet, GNWT. I remembered yeah, so	
	16	again, specific to this project, that wasn't necessary at to be	
	17	incorporated into the assessment at this point in time. So the focus of	
	18	this project is on the current project, Mackenzie Valley Highway, as	
	19	proposed, not the Liard Highway.	
05:19PM	20	CATHERINE FAIRBAIRN: Okay, thank you.	
	21	So that's all the responses that we or that people were able to	
	22	come back to during the technical sessions. As I said, I will reach out	
	23	about any of the other responses. And, of course, there's a chance to	
	24	ask follow-up questions in the upcoming second round of information	
05:19PM	25	requests about other topics or other about anything that you heard just	
	26	now or other times during the technical sessions.	
	27	So one of the other things we need to do before we can wrap up	

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	1	today is go through the commitments and just confirm the final wording.
	2	There are nine that we've documented that the GNWT has made, and
	3	they've confirmed the wording for those.
	4	Number 1, we already talked about yesterday morning, I believe.
05:19PM	5	So that's that the GNWT will update the WMMP as part of the DAR
	6	addendum. And then 2 to 8, I think were yesterdays, and then there
	7	was one from today.
	8	So the second one is that the GNWT commits to further
	9	engagement and meaningful consultation to gather information from
05:20PM	10	PKFN to help inform and improve the socio-economic impact
	11	assessment. The third is
	12	Actually, maybe I'll let the GNWT read these. I was I started
	13	because I felt bad asking Erica to read again, but Seth and Patricia are
	14	both there too. So you guys can take over.
05:20PM	15	SETH BOHNET: Seth Bohnet, GNWT. Yes, thanks a lot,
	16	Catherine. Happy to do that.
	17	So commitment number 3 from yesterday, the GNWT will have
18 further discussion on capacity fu		further discussion on capacity funding and the need for capacity funding
	19	for the ongoing EA with PKFN.
05:20PM	20	Next slide, please. The GNWT has committed to ongoing
	21	discussion with PKFN for mitigation measures.
	22	Commitment number 5, the GNWT will help develop key
	23	indicators for wellbeing with communities to help inform monitoring
	24	plans.
05:20PM	25	Commitment number 6, the GNWT will reconsider the market
	26	basket measure and the details contained in Nutrition Canada, adjust
	27	the cost of living.
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	1	I think there i	might be a typo in that one. We'll have to get back	
	2	to you.		
	3	-	RN: Oh, sorry. Okay, we'll fix it.	
	4	SETH BOHNET:	Commitment number 7, the GNWT commits to	
05:21PM	5	a follow-up convers	ation with PKFN about scope of remaining field	
	6	studies once they get information from the PKFN.		
	7	Commitment number 8, the GNWT will commit to notify		
	8	communities a month in advance for monitoring opportunities related to		
	9	the project.		
05:21PM	10	ALAN EHRLICH:	Correction. I believe that was originally "at least	
	11	a month in advance". Is that still okay with you?		
	12	SETH BOHNET:	Yes.	
	13	ALAN EHRLICH:	Thank you.	
	14	SETH BOHNET:	And then commitment number 9 from today,	
05:21PM	15	boy, that's a long on	ne. The GNWT commits to providing further detail	
	16	specifically on the safety and security plan for vulnerable community		
	17	members as part of the DAR addendum and will consider providing		
	18	additional creative r	mitigation strategies to address the significant	
	19	adverse effect to the safety and security of women and girls. This		
05:22PM	20	would include information specific to both construction, anticipated		
	21	effects, and then also operation effects.		
	22	CATHERINE FAIRBAIRN: Thank you very much. That was all of the		
	23	commitments that w	ve've documented, and now they're read into the	
	24	transcript.		
05:22PM	25	Actually, if yo	ou could share there's one more slide that I was	
	26	just going to talk thr	rough before I hand it back to Alan.	
	27	We just want	ted to very quickly touch on the next steps for the	

environmental assessment. This is all based on the previous work plan that was released in August.

So the main next step is that in early December we'll release an updated draft work plan once we've touched base with our board following these tech sessions. The round 2 of information requests will open very soon, hopefully in early December as well on the online review system. And then those other three dates are from the existing work plan. So in early 2025, our goal will be to have responses from the developer to those round 2 information requests. We're still looking at -- or we're currently looking based on that work plan at spring for a revised DAR or DAR addendum. And then depending on when that DAR or DAR addendum comes in, we'd be entering the hearing phase with interventions and so on.

So more information in early December, so the main information from this slide.

ALAN EHRLICH: Thanks, Catherine. I feel like we're all leaving this session with quite a bit more knowledge about the project and the predictions of the impacts and the kinds of questions that are still outstanding that we had going in. I know that it's been quite helpful to me that way. We know there's still issues that need to be sorted out, but with any luck, this will help you zone in and focus on which ones you really want to pursue for the rest of the environmental assessment and bring forward in the interventions or at least in the information requests.

So I want to thank all of you. Your endurance is remarkable. But we also really appreciate the knowledge and the insights that you've brought into the room in your questions and in your answers. I feel like that's been a very impressive amount of depth on a number of different

1 subjects. I know they've been long days, and I appreciate everyone's 2 had some flexibility to try and make sure we can hear from everybody, 3 hit all the subjects we need to hit. 4 I also want to thank folks who have agreed to put some of their 5 questions into information requests. We know that that's not always the 05:24PM 6 first preference that people have. 7 I really want to recognize the folks who came from a long way to 8 take part in these sessions. It's meaningful. You made the sessions 9 better. We're grateful to you. Your information helps the Review Board 10 make a better decision, and that ultimately helps everyone in the long 05:25PM 11 term. We hope this session is part of building a better highway and a 12 better decision about the highway. So I want to say thanks on that. 13 Thanks to the developer. It's hard to be answering questions all 14 the time for this. The parties kind of get a break when other parties are 15 speaking, but the developer is always on the process of responding. 05:25PM 16 And they've gone to some lengths to make sure they have the right 17 people in the room to try to respond to these things. 18 Your openness to ongoing discussion is helpful. We would still 19 like to see more specific details on the kinds of mitigations, not the 20 frameworks for mitigations, but the actual mitigations for the kinds of 05:26PM 21 issues that have been raised. There's still room in the environmental 22 assessment to try and flag those well. But I think we're all 23 understanding each other much better now than even just a few days 24 ago. So I really appreciate that. 25 I want to express our thanks to Jenna, our transcriptionist, and 05:26PM 26 her counterpart online for making sure that our words last and resonate 27 on the public record.

And I would like to thank Martin for making sure from Pido Sound for making sure that we could all hear each other's words when we're doing this and making sure that this whole thing can chug ahead well. I'd like to wish everyone a safe trip home, whether that's near or far. And for our closing prayer -- before closer prayer, I would like to 05:26PM acknowledge the YKDFN Drummers for starring this the right way, and I would like to recognize Tim Lennie for the opening prayer which also helped get us started in the right way. For closing prayer, Frank Andrew -- sorry, Fred Andrew, Tim Lennie. Sorry, it's getting long, and my brain is slowly getting 05:27PM mushier. But long day, but we're at the very home stretch now. So if everyone could please stand for closing prayer from Tim Lennie. - PRAYER -SESSION CONCLUDED

Certified correct to the best of our skill and ability,

Lois Hewitt, CSR(A) Jenna Mearns, CSR(A) Court Reporter