



ENVIRONMENTAL IMPACT

REVIEW BOARD

FOR THE REVIEW OF THE PROPOSED
INUVIK TO TUKTOYAKTUK HIGHWAY PROJECT
TECHNICAL SESSIONS

Facilitator

John Donihee

HELD AT:

Friendship Centre, Ingamo Hall

Inuvik, NT

August 23, 2012

Day 2 of 2

1 APPEARANCES

2

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13 Marcel Gahbauer)

14 Doug Chipertzak)

15 Michael Fabijan)

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17 Richard Hoos)Kiggiak-EBA

18 Robyn McGregor)

19 Tara Schmidt)

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21 Amanda Joynt)Department of Fisheries

22 Sarah Olivier)and Oceans

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24 Doug Soloway)Transport Canada

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1 APPEARANCES (Con't)

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3 Kate Witherly)Northern Projects

4)Management Office

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6 Derek Parks)Fisheries Joint

7 Brian Zytaruk)Management Committee

8 Kayla Hansen-Craik)

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10 Rod Smith)Natural Resources Canada

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12 Gavin More)GNWT

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14 Jim Stevens)Department of

15 Gurdev Jagpal)Transportation

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17 James Hodson)Environment Canada-

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22 Conrad Baetz)AANDC

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3 Frank Pokiak) Inuvialuit Game Council

4 Jen Lam)

5 Steven Baryluk)

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7 Lisa Rogers) Inuvik Hunters and

8) Trappers Committee

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10 Richard Binder) Community Support Unit-

11) Joint Secretariat

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13 Russell Newmark) E. Gruben's Transport

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15 Nelson Perry) Parks Canada

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17 Mervyn Gruben) Mayor of Tuktoyaktuk

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19 Shawna Wilson) Inuvialuit Land

20) Administration

21

22 Denny Rodgers) Mayor of Inuvik

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24 Jan Davies) NWT Water Board

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1 --- Upon commencing at 9:11 a.m.

2

3 THE FACILITATOR: Okay, good morning.

4 Thank you all very much for -- for coming back. We're

5 -- we still have an ambitious agenda to -- to get

6 through today, but we will do that. Before I begin, I

7 do want to recognize the fact that we have Mayors

8 Rodger -- Rodgers and Gruben here from Tuk and Inuvik

9 to listen to the proceedings. So welcome, Your

10 Worships.

11 We also have today a representative

12 from the Inuvialuit Lands Administration, Shawna

13 Wilson. So she'll be listening in. And if there any

14 questions that ILA can help with, we're going to

15 arrange to get them answered and get that back to us.

16 The transcripts for yesterday's

17 session, I'm told, should literally be up on the

18 website within about fifteen (15) minutes. I -- I

19 don't believe -- other than that, we're -- we're

20 joined by Dr. Chris Burn, who's advisor to the EIRB on

21 gravel and geotechnical ice -- ice questions, I guess.

22 And Chris will -- he'll correct me later, I'm sure, if

23 I've mis -- misrepresented his expertise.

24 What I want to do today is just to

25 continue the way we were yesterday, working our way

1 through the agenda pretty much in the order that it's
2 laid out. We have made arrangements for the
3 geotechnical engineer from Stantec to join us by phone
4 when we get to that section in the -- in the agenda.
5 So if we have to do some last minute juggling we'll
6 take a ten (10) minute break to allow Stantec folks to
7 give him a heads-up and get him by his telephone.

8 Are there any other housekeeping or
9 administrative matters from any of the parties here
10 that we need to deal with? I'm -- I was informed by
11 Tara that the list of deliverables that we requested
12 yesterday was sent to Eli electronically and that it
13 will be available -- I think it's actually being
14 printed as well, but it'll be available to everybody
15 at the -- the break this morning.

16 I think that's my list. Is there
17 anything else that I -- I should deal with on anyone's
18 behalf before we get into talking about the
19 substantive matters?

20 MR. JIM STEVENS: John, from the
21 developer's perspective, we have no additional items
22 to discuss at this point.

23

24 (BRIEF PAUSE)

25

1 THE FACILITATOR: Well, John Donihee
2 again, thanks. From everybody else then silence. So
3 I'll assume that means we can push forward. Yesterday
4 we left off -- we hadn't quite finished the discussion
5 of wildlife issues. So I -- I do want to come back to
6 that to see if a little bit of downtime and
7 opportunity for thought has resulted in anything else
8 that any of those Intervenors had raised, wildlife
9 questions or concerns.

10 You know, do you want -- do you want to
11 bring anything back up? I guess the floor's open now
12 if there are any more wildlife issues.

13

14 (BRIEF PAUSE)

15

16 MR. BRUCE HANBIDGE: Bruce Hanbidge.
17 Nothing at this time, John, but maybe more later.

18 THE FACILITATOR: John Donihee. Okay.
19 I guess, as they say, going once, going twice. So
20 we're through with -- with wildlife for the moment.

21 MR. GORDON STEWART: Gordon -- Gordon
22 Stewart, EIRB. Rick and Jim, the question about
23 consultation yesterday that you were going to confer,
24 did we get an answer from you? I don't recall.

25 MR. JIM STEVENS: Jim Stevens,

1 Department of Transportation. No, Gordon, I didn't
2 reply at that point, but I can confirm this morning
3 that prior -- once we have basically the conceptual
4 designs for all structures, those consultations will
5 be done.

6 They will be done sometime after the
7 public hearings, because there's still about three (3)
8 works of engineering that has to be done, and we are
9 anticipating sometime later after the public hearings.

10 MR. GORDON STEWART: Gordon Stewart.
11 Thank you.

12 THE FACILITATOR: John Donihee.
13 Thanks. All right. We'll move on then to item number
14 16 on the agenda. It addresses climate change
15 questions, and there was an issue raised by NRCan.

16 So perhaps you'd like to deal with
17 that, Mr. Snow (sic).

18

19 CLIMATE CHANGE DISCUSSION:

20 DR. ROD SMITH: Rod Smith, NRCan.
21 Good morning. Thanks. I was speaking with Sharon
22 this morning. We were going through some of these
23 questions and notes. And as she's indicated, a lot of
24 what was previously asked has been answered in the
25 various IRs and response to them.

1 I guess in regards to the climate
2 change issue the main question arising out of this is
3 the whole essence of uncertainty and the ability of
4 the models being used to handle uncertainty.

5 And specifically in this case, we're
6 trying to think of how the models you're going to be
7 using, such as your -- doing your flood forecast, can
8 handle perturbations in frequency, magnitude, and
9 particularly seasonality of events that may occur.

10 I wonder if you can just simply address
11 that first, and then we'll move on.

12 MR. WALTER ORR: Walter Orr, from
13 Kavik-Stantec for the Developer. The -- I guess the
14 short answer is, of course, climate change is unknown,
15 as we're all aware. The -- the implications of it are
16 -- are not fully understood by anyone. What the
17 approach of the -- the -- of the design team in
18 looking at this is to assume a reasonable likelihood
19 of effect scenario.

20 And I will use an ex -- example of a --
21 a foundation, the bridge piers that we're -- for the
22 bridge foundations, there is a -- the strength of
23 those piers to resist -- resist lateral/vertical
24 movement is a certain amount -- a certain value based
25 on today's ground temperature regime. As that ground

1 temperature regime is anticipated to warm with time,
2 the ability, the strength, the resistance of those
3 piles to resist deformation dur -- will -- will
4 reduce.

5 And so given the lifespan of the
6 project, the design team will have -- in terms of the
7 structural team, will have a -- a value to design to
8 which is significantly lower than the current
9 accessible strengths.

10 And that means the piles, for instance,
11 will be longer and bigger diameter than they would be
12 just for today's events. And so the analysis in that
13 is used best -- best available information and best
14 available anticipated effects is looked at.

15 The -- of course the crossing -- the
16 other side of the crossings that you mentioned is the
17 precipitation issues, the changes due to that, and
18 particularly extreme -- extreme events.

19 And, you know, I don't mind saying that
20 that's not well understood either, but -- the impact
21 of it. The -- there's certainly some indication that
22 we're going to see possibly greater snowfalls, which
23 will increase the -- the runoff event.

24 Now, having said that, in this region
25 for all of the -- the work that we have done in the

1 past, we found that the -- the actual sizing criteria
2 for our crossings is in fact not the snow melt event.
3 It is the -- the peak rainfall event.

4 And so given that -- if that's still
5 the case -- and these have not all been completed, but
6 we have a preliminary design, which indicates that as
7 well -- then we would anticipate that an increased
8 snowfall runoff and a peak event would -- that would -
9 - would also -- would not serve to overtop or -- or --
10 or invalidate our designs that we'd be looking at.

11 However, we will be using a greater
12 factor of safety and a greater -- just because of the
13 unknowns, that we are looking at that. So really,
14 that's about what we can do at a design stage. We
15 take the best available information. We project that
16 into a reasonable likelihood. This is not the -- a
17 worst-case scenario, this is a -- or a catastrophic
18 scenario. We take what reasonable likelihood of
19 effect and then apply that with a larger factor of
20 safety for design than we would in other
21 circumstances.

22 DR. ROD SMITH: Rod Smith, NRCan.
23 Thanks for that. I -- I guess the only question I
24 have then is from -- extending from that -- there's
25 two (2), but let's deal with the first. Is -- will

1 you provide any guidance within your model to indicate
2 the relative sensitivity of it to changes in different
3 parameters? So I mean, do -- do you provide tweaks of
4 the models?

5 So if you say, all right if we -- if we
6 increase the temperature by this, this is how
7 sensitive the model is to the temperature of factor,
8 this is how sensitive it is to precipitation factors,
9 just as -- as simply as a guidance mechanism.

10 MR. WALTER ORR: Walter Orr, with
11 Kavik-Stantec. In the course of these design -- the
12 design process, we do provide a design rationale
13 report for each of these situations, and that will be
14 defined in the design parameters report.

15 DR. ROD SMITH: Okay. Thanks. Rod
16 Smith, NRCan. Following up on actually what you said,
17 and -- and part of the issue -- in terms of the
18 extreme events is -- I think that if we can draw
19 analogies to the Pangnirtung example in 2006, there
20 was a -- a rain on snow event, so this is an extreme
21 event. It certainly could qualify perhaps as their
22 one (1) in one hundred (100) or -- or -- greater
23 event.

24 And the engineering failure of that was
25 probably not in the design for the one (1) to one

1 hundred (100). The engineering failure was the in --
2 inability to accommodate the exposure of ice-rich
3 terrain adjacent to that. So when we're factoring in
4 the -- the climate change issues, I'm wondering to
5 what degree the engineering design standards are
6 accommodated or take into account uncertainties beyond
7 the actual engineering structure itself. So you can
8 design for an erosion and anticipated flow, everything
9 else.

10 Is -- at the same time, are the
11 investigations being undertaken to ensure that -- say
12 issues -- say like ground ice in the surrounding
13 terrain do not overwhelm what would otherwise
14 occurred?

15

16 (BRIEF PAUSE)

17

18 MR. WALTER ORR: Walter Orr here,
19 Kavik-Stantec. What you've described is, of course, a
20 challenging situation. There's a -- one (1) of the
21 things that, a -- as an engineer we understand, is
22 that you cannot design for every circumstance. You
23 design for the most probable, and in fact, as we -- as
24 you pointed out the one (1) the one hundred (100) year
25 flood event is not a probable event at -- at any one

1 (1) -- any particular year, but it could be tomorrow.

2 So the -- the short answer is that
3 we're using the best available knowledge and we are
4 applying greater factors of safety, in terms of
5 culverts; specifically that would be a larger size,
6 and otherwise the numbers would be accommodated. And
7 -- and if we are working in a place where we are on
8 known ice-rich, and particularly a unstable ice-rich
9 terrain, obviously that imp -- impacts the design of
10 the enti -- the embankment as well as the -- the
11 crossing structure at that point.

12 DR. ROD SMITH: So if I understand
13 that correctly, you're just saying that that would be
14 taken into account. There -- there would be an
15 assessment at all the -- the major crossings, so
16 bridges, the me -- the moderate, probably not the
17 culvert stage, of what the condi -- ground ice
18 conditions would be in the adjoining embankment slopes
19 surrounding hill slope material.

20 MS. ROBYN MCGREGOR: It's Robyn
21 Mcgregor from Kiggiak-EBA. Maybe I can add to that as
22 well. As Walter said, and -- and as -- as you agreed,
23 Rod, the uncertainties are really the challenge. And
24 in the design process, both for the structures, the
25 foundations, and for the embankment itself, we -- we

1 do take into consideration what -- what our -- our
2 understanding is of what the challenges and the
3 changes are going to be with respect to the historical
4 precipitation and temperature conditions when we're
5 looking at thermal modelling for the embankment cross-
6 section and those kinds of things.

7 When we get through that, we still
8 don't know if we've -- if we've hit a home run. And -
9 - and I see you're shaking your head "yes", so you --
10 you agree. So one (1) of the things that -- that has
11 been adopted, particularly for transportation
12 infrastructure, in the last few years in permafrost
13 regions, in cold regions relative to the impact in
14 climate change, is an ongoing process in the design in
15 development of projects and into the future operation
16 of -- of adaptation and risk management.

17 So the processes and the design
18 processes and the modelling and the consideration of
19 the uncertainty that both you and -- and Walter have
20 been discussing just now, that's an adaptation
21 process, where we're looking at moving away from
22 traditional engineering and design approaches, and
23 understanding that we have to do things differently in
24 the design process and in the construction process to
25 try to manage some of those challenges and

1 uncertainties of climate change into the future.

2 At the same time, we have to manage the
3 risk going forward into the future. And what that
4 means is that there needs -- there will be, as there
5 is on the highway and transportation systems now in
6 the Northwest Territories, an increased diligence for
7 monitoring, an increased diligence of understanding
8 what the subsurface conditions might be at a culvert
9 or at a bridge foundation or at particular sensitive
10 spots on the embankment so that -- that the -- the
11 challenges and uncertainties of -- of climate change,
12 increased precipitation and climatic warming can --
13 can be managed per -- perhaps in a more proactive way
14 with respect to the impact to the infrastructure,
15 rather than waiting for a catastrophic failure to
16 happen.

17 DR. ROD SMITH: Rod Smith, NRCan.

18 Thanks. That's -- that's sufficient. That's all I've
19 got for the climate change.

20 THE FACILITATOR: Thank you, Dr.
21 Smith. And I think Dr. Burn has some questions.

22 DR. CHRIS BURN: Chris Burn, helping
23 the EIRB. You've mentioned -- Mr. Orr, you mentioned
24 the lifespan of the project in your remarks, and I
25 wondered if you could just define for me what you

1 consider to be the lifespan of the project.

2

3 (BRIEF PAUSE)

4

5 MS. ROBYN MCGREGOR: Robyn McGregor.

6 The lifespan of the -- the lifespan of a project is

7 depend -- of -- of a highway project is dependent on

8 which component of the infrastructure you look at.

9 Bridges are designed for a fifty (50) year lifespan.

10 And in the Northwest Territories, we have seen that

11 most of the bridge installations that have been in

12 place for longer than fifty (50) years are in good

13 shape and well standing. An example would be Frank

14 Channel's bridge on the way to Yellowknife.

15 The -- the roadway embankment itself,

16 we never anticipate that we would ever be done with

17 the road, or the road would be finished, or the road

18 would need to be replaced in its entirety. And the

19 roadway embankment generally has -- has annual

20 resurfacing activities on certain sections, three (3)

21 year resurfacing activities on other sections. And

22 perhaps every twenty (20) years there is likely to

23 have been a component of rehabilitation and

24 reconstruction on the embankment structure itself and

25 culverts themselves that take place over the course of

1 time, in that twenty (20) year period, such that maybe
2 50 percent or three-quarters (3/4s) of the
3 infrastructure is replaced on an ongoing basis over
4 that twenty (20) year period, as reconstruction and
5 rehabilitation takes place.

6 Base coarse and granular surfacing
7 material, that would be the portion that you drive on,
8 the smaller-sized aggregate, the -- the part that's
9 compacted tighter. That gets renewed as -- as it's --
10 as -- as a -- it's almost a consumable on the roadway.
11 Like you bring it up from the shoulders, you put it
12 back on, you replace some of the material because some
13 of the fines are lost as time goes by.

14 So, really, that's a long answer to a
15 very good question. But again, it's -- it's a matter
16 of which component of the roadway you're looking at,
17 the infrastructure you're looking at, and whether you
18 view that it needs to be replaced in its lifespan in
19 its entirety or whether rehabilitation and -- and
20 reconstruction can accommodate the ongoing life of --
21 of the infrastructure.

22 DR. CHRIS BURN: Yes, that's a -- this
23 is Chris Burn again. That's a very helpful response.
24 I do appreciate the distinction between an individual
25 structure, such as a bridge or a culvert, and the

1 overall project.

2 And so I wondered if you could give
3 some discussion, particularly when you're considering
4 things like thermal modelling of climate change into
5 the future, what is the lifespan that you feel that
6 your models and your projections are capable of
7 handling in a way that will be of benefit. Or, not of
8 benefit, of utility to the developer. Because the
9 developer is the government and the -- the villages,
10 or the towns and hamlets. But -- but the -- your --
11 and you're helping them to do that.

12 So I -- I'd like to know what is the
13 length of time for things like your thermal modelling
14 that -- that you feel your work can be of assistance
15 for?

16 MR. WALTER ORR: Walter Orr, for
17 Kavik-Stantec for the developer team. The -- your
18 question is a good question. And it's unfortunately
19 one (1) that, because neither Robyn nor I are -- are
20 part of the -- are the -- the team that will be doing
21 the thermal modelling, we're -- we certainly were
22 working with -- anticipate working with Don Hayley,
23 Kiggiak-EBA, and -- on that process.

24 For us to speak and give you a -- a
25 number answer would be inappropriate. As Robyn has

1 said, of course, the -- the anticipated performance of
2 the road -- and -- and really when we're talking about
3 the life span as -- life span at acceptable
4 performance before significant rehabilitation is
5 required, that -- we are -- the design is intended to
6 have a reasonable maximum life span. And -- and the
7 reason I use the "reasonable" term is that there's
8 noth -- you -- we cannot design anything that will
9 last forever in this case.

10 In this -- we -- we know the ground
11 conditions. Some places are going to perform well,
12 some places are going to perform less well. And so we
13 pro -- we designed to per -- provide a reasonable
14 performance over the duration of the life of the road.

15 And then part of the -- what we are
16 doing for the developer, we are providing an
17 anticipated maintenance budget, maintenance
18 requirement for that extending into the future. And
19 that's largely in terms of granular resource
20 requirements. Because, in fact, in a project like
21 this the largest part of the budget for con -- of the
22 road is the sourcing, placing, compacting of -- of
23 borrow materials.

24 And so in terms of the -- the work we
25 are doing in term -- projecting ahead in -- in

1 maintenance requirements, maintenance granular, which
2 we will be talking about later this -- today, that is,
3 in fact, our direction to the -- to our clients for
4 the -- the maintenance requirements over the life of
5 this -- this project. Does that help for --

6 DR. CHRIS BURN: This is Chris Burn.
7 That -- that is very helpful, because as you can
8 anticipate, it is the aggregate resources that are one
9 (1) of the concerns of the Board. And -- and so what
10 I'm trying to assess from the Board's perspective is
11 whether the projections of the maintenance
12 requirements that you provide are projections that
13 have -- are valid for fifty (50) years, twenty (20)
14 years, five (5) years, two (2) years.

15 And -- and if -- if, in fact, the --
16 the long -- the projections are based on something
17 that you don't feel secure on, then the -- the est --
18 the projections then become genuine estimates, and it
19 becomes difficult to bound the estimates with some
20 degree of security.

21 So it may be that the -- the assessment
22 then is that the estimate of the aggregate requirement
23 for fifty (50) years, let's say fifty (50) years, is
24 plus or minus 5 percent of what has been estimated.
25 But if, in fact, the -- the rationale for the -- for

1 the fifty (50) years security of -- of estimate, is --
2 is less secure than it would be for two (2) years,
3 then that may be plus or minus 50 percent.

4 And one (1) of the questions that we
5 posed was, what is the degree of security for the
6 estimate. And for the -- for the construction we were
7 told 20 percent. For the rehabilitation and the
8 maintenance, we haven't yet -- unless it's the same
9 number, we haven't yet been given an estimate of -- of
10 how much that projected requirement is -- how secure
11 it is.

12 So that's what I'm trying to get at.
13 And I'm trying to get at it by understanding how
14 confident you are about the ability to forecast those
15 requirements.

16 I don't know if -- that's not really a
17 question. So if I could ask my next question, because
18 it's an explanation as to why I'm asking the question.

19 So my next question goes -- goes back
20 again to the climate change question. And -- and you
21 mentioned when you were building the -- designing the
22 bridge that you would need to forecast the change in
23 ground temperature. And I wondered if you could just
24 walk me through how you would do that for fifty (50)
25 years. If -- if you take fifty (50) -- twenty (20)

1 years, fifty (50) years, but into the future rather
2 than the past.

3

4 (BRIEF PAUSE)

5

6 MR. WALTER ORR: Walter Orr speaking
7 for the developer. As a -- as a design engineer, in
8 fact, I'd ask my geotechnical advisor what number to
9 use and he tells me and I go, Are you kidding me. And
10 then -- then we continue on and -- and work with that.

11 So I can't speak to the -- the process
12 for that. I speak to the end result. And I will
13 speak, you know, briefly as a design engineer and that
14 I know that the -- the design values that we are using
15 now for the construction of add free piles in this
16 region are approaching a third of the design values we
17 were using five (5) years ago.

18 So there has been an aggressive
19 reduction in strength forecasts in the geotechnical
20 community. And so that -- we are certainly not
21 discounting in any way the potential warming over the
22 -- the life span of the project.

23 DR. CHRIS BURN: Yes, Chris Burn,
24 again. Could you just clarify what "a third" means in
25 terms of temperature?

1 MR. WALTER ORR: I can't -- I don't
2 have that information at my fingertips. I apologize.
3 We can address that -- and in -- in fact I may have
4 spoken a little -- in -- off the cuff in saying "a
5 third." I -- I know there's been a substantive
6 reduction in strength and we can document that if --
7 if requested.

8 DR. CHRIS BURN: Chris Burn, again.
9 The -- the last item is to do with rainfall, because
10 Dr. Smith was asking about rainfall. And I wondered
11 if you could just -- if you -- if you happen to know
12 what the peak rainfall event was for this region,
13 that's in the record?

14 MR. WALTER ORR: What I would suggest
15 is that we are in the process of completing the -- a
16 hydrotechnical study for this project. And in the
17 course of yesterday's proceedings we -- we noted seven
18 (7) gauging stations in the region that we are
19 utilizing to pro -- provide those estimates, and the -
20 - the study that is being finalized currently does
21 address that question.

22 DR. CHRIS BURN: And so then that --
23 that study is going to -- sorry, Chris Burn again.
24 That study will be available at the end of the month,
25 or -- or is that before the hearings, or when -- when

1 is that likely to be filed?

2

3 (BRIEF PAUSE)

4

5 MR. WALTER ORR: Walter Orr, Kavik-
6 Stantec. We have -- Kavik-Stantec have produced for
7 our -- our client an interim version of the
8 hydrotechnical report, which includes the information
9 you're requesting. And we have committed to provide
10 that by August 24th to the Board. That is, the
11 interim report is specifically -- it's a -- an
12 incomplete version of the final. It is not a complete
13 draft, but is an interim report. However, the
14 question you asked is addressed fully in the interim
15 report.

16 DR. CHRIS BURN: Okay. And finally --
17 Chris Burn again. I have a -- a -- a question
18 regarding that report, which I haven't seen yet. And
19 -- and it's to do with the design basis. The -- the
20 peak rainfall event that did the most work in the last
21 fifty (50) years in this region took place after six
22 (6) weeks of heavy rain.

23 So there was a very, very wet August,
24 and then a deluge in towards the third week of
25 September, end of the third week of September. And in

1 terms of conditioning in your design, to what extent
2 do models deal -- the models that are being used, deal
3 with antecedent conditions, or do they consider events
4 effectively in isolation?

5 MR. WALTER ORR: The models do
6 consider the event of a -- of a saturated ground
7 condition and -- and work from that. And, in fact,
8 the information that we will -- we utilize to
9 establish these is in fact the -- the real-world
10 measurements of the stream conditions, which do
11 obviously include those type of precur -- precursor
12 conditions.

13 DR. CHRIS BURN: Thank you.

14 THE FACILITATOR: Thank you very much,
15 Mr. Orr. Are there any other questions from any of
16 the other Intervenors about this climate change issue
17 before we go on with the -- with the -- onto another
18 topic of the agenda?

19 Okay. We'll move on then to the topic
20 number 17 which deals with terrain, geology, soils,
21 and permafrost. Dr. Smith, if you want to -- there
22 were a couple of issues raised by NRCan. Perhaps you
23 could explore them.

24

25 TERRAIN, GEOLOGY, SOILS, AND PERMAFROST DISCUSSION:

1 DR. ROD SMITH: Okay, thank you.
2 We'll -- we'll try and follow through the order
3 they've got here. So why don't we start off with the
4 -- the curious one which was posed more on curiosity
5 than anything else. But the issue is -- and Walter
6 Orr addressed this, is that the largest cost of this
7 road is the sourcing, excavating, hauling, placement
8 and compaction of the granular material base within
9 that.

10 To that end, anything that would
11 actually reduce that could be seen as advantageous to
12 the project, more sustainability of the project. And
13 so the sourcing the aggregate is -- is an issue of
14 density and how far afield would it have to travel to
15 bring in these materials.

16 And -- and the question I raised in
17 this is, was there any consideration given to using
18 clay-rich over compacted till as a base material
19 within the embankment design, not as a surfacing
20 material, clearly it can't be, but even as a core
21 structure within an embankment. If you can address
22 that. Thanks.

23

24 (BRIEF PAUSE)

25

1 MS. ROBYN MCGREGOR: We're -- we're
2 more -- I'm sorry, we were having a bit of -- Robyn
3 McGregor. We're having a bit of a sidebar here. We
4 do have a presentation that is directed largely --
5 mostly to your questions from NRCan as well as the
6 items raised in the July 31st directive.

7 And although the presentation is
8 slightly out of order from the items that are
9 presented in topic 17 on the agenda, I'm wondering if
10 it would be appropriate for us to go to the
11 presentation now. And then that might answer all of
12 your specific questions and engage discussion.

13 THE FACILITATOR: It's John Donihee.
14 Which -- are you going to show us both of those
15 presentations or...?

16 MS. ROBYN MCGREGOR: No, my intention
17 at this time would be to start with the granular
18 presentation. And then the second presentation is on
19 the lessons learned, which addresses topic 17(b). So
20 perhaps we could put those in in that order.

21 THE FACILITATOR: John Donihee again.
22 That -- that's fine. Just one (1) comment I guess, I
23 -- I reviewed the presentations last night. They're
24 long and fairly wordy. I'm -- I'm sure you'll move us
25 through them. But I just want to remind you that we

1 hadn't anticipated a couple of hours of additional
2 presentation when we set the agenda up.

3 So let's -- let's get the information
4 out there so that the other Intervenor's can have their
5 time to ask questions. So I'd just ask you to keep
6 the, you know, the timelines in mind and let's --
7 let's have your first presentation.

8 MS. ROBYN MCGREGOR: Robyn McGregor.
9 Thank you. I will keep the presentation brief, so the
10 questions can be asked then and answered.

11

12 (BRIEF PAUSE)

13

14 PRESENTATION BY KAVIK-STANTEC:

15 MS. ROBYN MCGREGOR: Okay, the -- the
16 few slides I'm going to show you, it is correct that
17 they -- the slides that we provided yesterday do --
18 Robyn McGregor speaking -- it does contain a lot of
19 words. But I -- I will be brief and then you can
20 refer to the text in the slides as -- as additional
21 information.

22 Perhaps I can first deal with the
23 question that -- that Dr. Smith raised about using
24 tills. You -- you are correct, the -- our intention
25 is to use materials that are of the best quality we

1 can find within economic and efficient distance from
2 the roadway alignment to -- to reduce the haul.

3 Having said that, when we look at the
4 material sources that are available to us and the
5 information that is in the literature, including the
6 investigation that was underway this winter, we have
7 honed in and narrowed into sources that have -- are --
8 both balance the best and greatest volume of available
9 material and the prox -- proximity to -- to the
10 alignment, so that those two (2) factors are balanced
11 as opposed to just only focussing on the distance from
12 the alignment.

13 One (1) of the challenges in using
14 materials that contain tills in -- in road
15 construction is -- is the question of moisture
16 content. They can be used in road construction.
17 There's no question about that, and there are many
18 examples where they are used, and -- and Dr. Smith has
19 provided a number of examples as -- as well, where
20 they are used.

21 But -- but the challenge in using those
22 materials over better-quality materials, granular --
23 more granular-like materials, is the issue of moisture
24 content, in that they are difficult to work with.
25 When they begin to thaw, they don't hold their shape

1 in the roadway. And they become challenging, in terms
2 of -- of building the road and maintaining the road
3 into the future.

4 We do have one (1) source, a -- a
5 Public Work Source number 2, which I will show you a
6 map in short order so you can see where that is
7 located, near the south end of the project. And we
8 have some challenges in the south end of the project
9 for available material sources.

10 That -- that source is reported to be
11 containing tills and materials. And when we use that
12 material, there may be challenges in -- in building
13 with it, and it may require spreading it on -- along
14 the alignment in the embankment such that it could dry
15 or -- over the season and then building it in -- in
16 shorter lifts.

17 What I want to show you in this slide,
18 though, is this is directly at a -- a question that
19 was raised in the July 31st directive of specifically
20 which material sources would we be focussing on. What
21 is the volume of construction material that we would
22 be expecting to use for the roadway in removing from
23 those sources?

24 And what is the volume of material that
25 we would expect to be using in the fifty (50) year

1 time frame, divided out between the first twenty (20)
2 years, the second twenty (20) years, and the next ten
3 (10) years of operation of the roadway?

4 So this -- this table largely presents
5 that. And just because we are being recorded for the
6 record, I'll read out the -- the sources that we are
7 focussing on: Public Works 2 Source, which is near the
8 south end of the project, Source 325/314, 309, 174,
9 170, and 177, which is a well known source at the top
10 end of the project that was also used to construct the
11 Tukto source at 7 -- 177 Access Road.

12 The question was asked earlier today
13 about the certainty of the material quantity
14 estimates. It is correct, we -- we have reported that
15 -- that based on our -- our preliminary designs for
16 the roadway construction, and our estimates of the --
17 the quantity requirements moving forward for
18 rehabilitation and operations of the roadway in the
19 fifty (50) year time frame -- those estimates are
20 shown on this table.

21 And -- and you can see that we do say
22 that we -- we would expect that those estimates have a
23 certainty of plus or minus 20 percent. And it was
24 mentioned earlier, and I absolutely agree, that
25 definitely for construction we can confidently say

1 that our estimates are plus or minus 20 percent.

2 As we move forward into the future we -
3 - we want to say and stick to the fact that our
4 estimates are plus or minus 20 percent into the fifty
5 (50) year time frame, but we really think that -- that
6 we have a very large safety factor in those estimates
7 for operations and maintenance.

8 You can see by this table that for
9 construction of the embankment we have four (4) --
10 almost 4.5 million cubic metres of material required.
11 If you look at the total estimated requirement, which
12 is the second column from the right, which includes
13 the total of the construction surfacing and the
14 operation in the fifty (50) year time frame, we're
15 almost at \$8.3 million -- cubic metres, my apologies.

16 So by demonstration we've -- we've
17 built in this large volume of material, because we are
18 so uncertain of -- of what climate change will bring.
19 And, in fact, we've -- we've built in this factor of
20 essentially reconstructing the highway in the fifty
21 (50) year time frame.

22 Now, my -- my heart and my gut and my
23 instinct over twenty-five (25) years of roadway
24 construction and maintenance tells me that's just
25 crazy. We wouldn't really expect in a fifty (50) year

1 time frame to 100 percent reconstruct a roadway. We
2 probably would expect that we might reconstruct half
3 or three quarters (3/4) of it and use that volume of
4 material. But we're very uncertain moving forward of
5 what climate change will bring.

6 The real question though is, is do we
7 have enough material available in the area, based on
8 what we know about the material sources, to build the
9 road and to maintain the road in a fifty (50) year
10 time frame, even with the uncertainty of how much we
11 will have to reconstruct.

12 And the answer to that is, Yes. And I
13 can answer that based on the information that was
14 obtained in the material investigations this winter
15 and the information that is available in the
16 historical studies, the Shothole Report and -- and the
17 other available information and the visual
18 observations that we make when we're out in the field.

19 And the far right-hand column gives you
20 the estimated amount available in the sources that's
21 currently reported in the available literature and the
22 material investigation reports, which you have in
23 hand.

24 And you can see that just with those
25 six (6) sources alone, that we have more than enough

1 material available in the sources to -- to cover off
2 the construction and the operations, very conservative
3 amounts for the operations in the fifty (50) year time
4 frame.

5 What we also know is that we have other
6 sources that we have great information. And those are
7 the other sources that were identified and
8 investigated this winter.

9 They're sources such as 312, which is
10 near and around Hans Creek. The far west portion of
11 that source is reported to have very good material and
12 -- and a large amount of that material. Around and in
13 the vicinity of Hans Creek we know that it is
14 sensitive for hunting and fishing and other
15 activities. And right along the alignment near Hans
16 Creek we know from the winter field investigation that
17 -- that the materials were not really found to be that
18 favourable.

19 But there is material in that location,
20 and we just want to -- we haven't identified it as a
21 primary resource because of the sensitivities around
22 Hans Creek. So we balance our material use and our
23 choices of material sources in consideration of more
24 than just how close is it to the alignment.

25 We also know that Source 308, which is

1 just north of -- of the Pars -- northeast of the
2 Parson's Creek area, is likely to have a connection to
3 Source 309. The visual observations on the ground
4 show ridges of material that -- that could possibly be
5 connected. So Source 309 is a very -- is a very large
6 and -- and useful source, and there may be a
7 connection to Source 308.

8 But one (1) thing I want to remind you
9 of, though, is that the six (6) sources that I
10 identified in the first table are currently reported
11 as having sufficient amounts of material to handle the
12 roadway construction and the operations of the roadway
13 and other developments into the future.

14 I think that, with that, I will leave
15 the presentation and invite any other questions, and I
16 may refer to one (1) or two (2) of the other slides as
17 the questions arise.

18 THE FACILITATOR: Thank you very much,
19 Ms. McGregor. Dr. Smith, do you want to pick up where
20 you left off?

21 DR. ROD SMITH: Sure. Thank you. Rod
22 Smith, NRCan. Okay. I'm -- I'm unaware of studies
23 that have actually looked at the tills within the
24 area. I mean, the tills inherently are very variable.
25 I mean, if you look at Rampton's memoir report for the

1 Tuk peninsula -- even around Tuktoyaktuk town site
2 itself, there's enormous variability in the tills
3 itself.

4 So the question was asked, I mean, I'm
5 simply unaware of the studies that have done --
6 anything's actually looked at the tills as an
7 engineering property within the areas that can be
8 brought up.

9 I -- I accept your -- your statements
10 that you have enough material available. I guess the
11 question of the - of the tills goes back to, while you
12 may have enough material available, is the cost of
13 actually extended hauling to draw in from very
14 disparate sources, is that any way -- could that in
15 any way be offset by accessing the till issues as a
16 core material for the base?

17 MS. ROBYN MCGREGOR: Robyn McGregor
18 speaking. Your -- your observation is correct that --
19 that cost of construction can be offset by using
20 materials that are closer to the -- to the roadway.
21 And the example of that is -- is the necessity to look
22 at material sources from kilometre 0 to kilometre 40
23 that are in the proximity of that construction that
24 are reported to likely contain tills. Public Works 2
25 Source is the example. And -- and so where we need to

1 balance the construction costs with the efficiencies
2 of construction, the distance of haul, and the quality
3 of material, some of those -- some of those choices
4 may need to be made.

5 In the selection of the sources,
6 though, the -- the additional cost of hauling is
7 offset by the ability to more effectively utilize
8 higher-class materials in construction, more
9 efficiently utilize them in the construction process,
10 and to be able to maintain them in -- in their shape
11 and form when they're first placed in the roadway.

12 Also, the -- the approach is winter
13 construction, and so when -- when we -- when we want
14 to use materials in winter construction, we want to
15 use materials that -- that are of lower moisture
16 content than tills are likely to have, or materials
17 containing tills are likely to have, because when we
18 place them, they are in -- in a -- they are frozen
19 materials. They are likely to thaw over the season.

20 When we are looking to do the end
21 portion of our compaction on the embankment in the
22 summer season, we want to be working with a material
23 that has -- has, to the best of its ability, held its
24 shape and form in the embankment as it was placed, and
25 not -- not incredibly ice-rich or moisture-rich and --

1 and subject to thaw.

2 Again, where, though, we need to access
3 materials where other materials are not available, if
4 the material is -- is containing till, then -- then we
5 will -- it -- it will be used in the roadway
6 construction. And the example of that is in the
7 southern end of the project.

8 DR. ROD SMITH: Thank you. Rod Smith,
9 NRCan. I guess a couple things come out of that. I
10 mean, one (1) of the statements was appreciated, so
11 winter construction, you said, and the material will
12 thaw, you want to maintain its form. The -- the
13 thought though is that the embankment is sufficient
14 thickness that not -- the -- the entire embankment
15 will not thaw, correct?

16 MS. ROBYN MCGREGOR: I -- I believe
17 you're -- the question was, is do I agree that the
18 embankment will be constructed of sufficient thickness
19 so -- such that the entire embankment will not thaw.
20 Is that the question?

21 DR. ROD SMITH: Rod Smith, NRCan.
22 Yes, that would --

23 MS. ROBYN MCGREGOR: Yes. Robyn
24 McGregor. I -- I agree that that is definitely our
25 intent. We -- we want the embankment to maintain in -

1 - in its -- in its frozen state. But we also don't
2 want to have to be going back and -- and re-grating
3 side slopes, which are -- the surface material on the
4 side slope might thaw.

5 We want to -- we want to be able to be
6 traffickable on the road surface in the summertime
7 with a partial embankment constructed, and materials
8 that are of high moisture content and subject to thaw
9 on the surfaces in the slide slopes we might not be
10 easily able to do that.

11 DR. ROD SMITH: Right. Fair enough.
12 So, I mean, fully accepted -- sorry, Rod Smith, NRCan.
13 Fully accepted that neither the embankment slopes nor
14 the surface materials could be correctly or properly
15 built using till. It's an unsuitable material. You
16 clearly have better material.

17 The question then is why can the core,
18 the lowermost core, particularly in areas where you
19 have very thick embankments, upwards of 2 metres or
20 more, where you guarantee by design that the material
21 is not going to thaw, why could those not actually be
22 till, so the lower most portions in the thicker -- in
23 the thickestmost embankment areas?

24 MR. WALTER ORR: Walter Orr, with
25 Kavik-Stantec. I would like to speak to that. The --

1 the bottom line is they can be. And when we look at
2 the -- we -- we've discussed in -- in a number of
3 places the analysis, the cross-section analysis that's
4 going on, detailed design process. And I've -- I've
5 alluded to the fact yesterday that we're -- I would --
6 my estimate is about 30 percent into this detail
7 design process.

8 And certainly the -- the questions that
9 you're asking are -- have not been addressed and will
10 not be addressed through the de -- detailed design
11 process. The -- the -- a challenge with till here is
12 the -- the tills that we -- that I'm -- we are
13 familiar with in this area tend to be wet of optimum
14 when they dry, and -- and in fact what -- when they
15 melt they ten -- tend to turn quite soft, non-
16 structurally competent. And, as Robyn has said, the -
17 - the challenge is beyond that frozen core. Now, is
18 there -- is a construction methodology that would
19 allow us to place a frozen core, and then top that
20 with non-frost susceptible material, still in the
21 winter? That's certainly a possibility.

22 That's getting beyond where we're at.
23 And, in fact, as -- as Robyn has mentioned, we're
24 certainly looking at pulling -- using tills in the
25 southern part of the route. How to do that

1 successfully, that's part of the process that we're
2 going to be engaged in in design. But we're -- we're
3 not discounting the possibilities of using till. And
4 your point on the frozen core, larger embankments does
5 make sense.

6 DR. ROD SMITH: Rod Smith, NRCan.
7 Thanks. That's -- that's appreciated. That -- that
8 makes sense. I mean, the -- the only thing I would
9 caution is is that, you know, really I haven't seen a
10 systematic study of tills within the area,
11 particularly the engineering properties.

12 And I do appreciate what you're saying.
13 There are a lot of sandy tills in the area, and
14 they're completely unsuitable. We've seen examples in
15 the south Northwest Territories where there are two
16 (2) till facies. One is particularly clay rich. They
17 call it the "blue clay." And then there's a browner,
18 which is an englacial (phonetic), and it's got maybe 5
19 to 10 percent more sand. And it's completely
20 unsuitable. And you can tell instantly on the road
21 which one they've used to build.

22 So tills are potential but clearly
23 require some documentation and investigation to
24 determine their suitability. It was simply raised as
25 a -- as a po -- as a potential within area. It may

1 not -- it may not exist in all areas of the road. It
2 may not exist in any areas of the road. But I just --
3 the question was raised simply because it doesn't
4 appear to have been investigated. Thank you.

5 If I -- if I can, I'll move on to the
6 next component of this, which was the terrain
7 conditions along the -- the corridor itself. And I
8 think on that, the only one (1) I had which wasn't
9 addressed here yesterday is you -- you indicated in
10 the alignment sheets that are -- the revised alignment
11 sheets that you're going to release, you're going to
12 provide a topographic profile for the thing.

13 What will that topographic profile be
14 based off? Is that based off of the LiDAR, or is that
15 interpreted from the air photos?

16

17 (BRIEF PAUSE)

18

19 MS. ROBYN MCGREGOR: Robyn McGregor.
20 The -- the -- the plan profile sheets that we
21 discussed at the end of the day yesterday that we said
22 we would have available before the -- in time for the
23 public hearings, the existing ground topographic
24 profile, as you call it, will be based on the digital
25 elevation model that we used for the preliminary

1 design, which is an interpretation from the air
2 photos, not the currently available LiDAR data.

3 We just don't have time to process that
4 and create the existing ground profile in time for the
5 public hearings.

6 DR. ROD SMITH: Rod Smith, NRCan. Do
7 you have any -- do you have any sense or will there be
8 an undertaking to determine what the accuracy of that
9 profile is compared to the LiDAR?

10 MR. WALTER ORR: Walter Orr, Kavik-
11 Stantec. I can speak to that fairly directly, in
12 terms of the experience on the 177 Access Road. The
13 177 Access Road design was quite fast-tracked and was
14 carried out with the -- with the DEM data that Robyn
15 has mentioned.

16 And then in the course of construction
17 there was a survey ahead of construction and a re --
18 revisiting of the profiles during construction. And
19 what we've found was that in general, the DEM data was
20 very accurate, and very accurate as in plus or minus
21 10 centimetres, for the majority of the -- of the
22 project, surprisingly so.

23 And the tops of the hills specifically
24 were -- were as close. And in fact, as you know -- if
25 you know field surveying, plus or minus 10 centimetres

1 means that you're -- that's basically right on,
2 because where you put your rod is more important than
3 the other.

4 On the lower part, the valleys, in fact
5 they were -- they were not -- they were in fact
6 typically 60 centimetres higher than the actual ground
7 data shown. So the -- there was more elevation change
8 in -- in reality in the field than the DEM data
9 showed.

10 My sense of that was that the DEM data
11 was perfectly acceptable for what we're doing right
12 now. It's -- it's not grossly in error. And the --
13 in fact the -- over the course of a -- you know, a 20-
14 or 30-metre area, the difference through that area was
15 very reflective of the reality in the field.

16 It's certainly not adequate to perfor -
17 - perform detailed design through to the construction
18 process of this job. But for what we've done to date,
19 it's actually well-suited and -- and good data.

20 DR. ROD SMITH: Rod Smith, NRCan.
21 Thank you. That's sufficient. I'll move on to the
22 next. Surficial geology and ground ice conditions,
23 I've got this overwhelming question.

24 There's so much predicated on the
25 volume of materials required from the embankment

1 construction, so it's the cost is, the major cost, in
2 all of this. And the -- the embankment thickness is
3 predicated by the interpretation of what the ground
4 conditions are.

5 And so you've got a category of four
6 (4) materials, so -- and that's dependent on surficial
7 material type and then, inherently, an implied ground
8 ice content.

9 I wonder if you can just speak to that,
10 just the methodology and the verification of the
11 association between surficial geology and ground ice
12 that you're using to determine the embankment
13 thicknesses along the -- the length of the -- the
14 route.

15

16 (BRIEF PAUSE)

17

18 MS. ERICA BONHOMME: Erica Bonhomme.
19 It's a two (2) part question: part terrain, part
20 engineering. The terrain mapping has been completed,
21 as you know, at a one (1) to ten thousand (10,000)
22 scale. It has been field verified this summer.

23 The main purpose of that program was to
24 confirm the terrain units as they exist within the 1-
25 kilometre study corridor and to give some certainty to

1 the prediction of ice content and distribution within
2 those various general terrain units.

3 The -- as we found through the field
4 verification and confirmed by the drilling program
5 that was undertaken in certain terrain units this
6 winter during the investigation of borrow sources, is
7 that the -- the terrain mapping that was completed was
8 actually quite accurate in its identification of
9 terrain units and that there are certain techniques
10 that can be useful for identifying ice and moisture at
11 depth that we will report on in our final report and
12 some revised map books.

13 That information, that terrain
14 information, was discussed with the engineers. And as
15 a result, there have been areas that have been
16 identified where there may need to be some
17 consideration of engineered mitigations or an
18 optimization of the route alignment as a result of
19 certain specific terrain-related constraints that have
20 been -- been identified.

21 And it's that information that then --
22 that we have very good confidence in, that can be
23 utilized by the engineers to confirm the type of
24 embankment and other mitigations that are used through
25 those certain -- specific terrain units.

1 MS. ROBYN MCGREGOR: Robyn McGregor.

2 Thanks, Erica. That gives you the -- the information
3 about the terrain. And if I understand correctly, Dr.
4 Smith, your -- your question is: How did we decide
5 what embankment thickness to use on what terrain type?

6 And in the EIS, we have those four (4)
7 types of terrain type that we have classified along
8 the alignment. And in the preliminary design we
9 adopted a minimum embankment thickness for each of
10 those terrain types for the purpose of planning and --
11 and budgetary construction estimates, which -- which
12 are what we're working with, to get us a first-cut
13 sense of how much embankment material would be
14 required to build the roadway with the alignment we
15 have chosen.

16 I am neither a geotechnical engineer
17 nor a terrain specialist. On our team, we -- when we
18 developed those -- that information, we had a number
19 of geotechnical engineers and terrains specialists
20 working with us on the team. One (1) in particular,
21 Mr. Don Hayley, works with us on our team to do that
22 with over forty-five (45) plus years of experience in
23 construction and -- and design of this type.

24 To my understanding, as -- as a roadway
25 designer, that there is experience and knowledge base

1 that is understood of what, from a planning
2 perspective, really what we should start with, with
3 embankment thickness, in an effort to provide an
4 insulative layer for the -- the subsurface conditions
5 that -- that are presented. And those are the choices
6 that were made by our geotechnical and terrain
7 engineering staff at the time that we produced the
8 preliminary design.

9 Those -- that information is -- and
10 those guidelines are largely adopted in the 2010
11 publication by the Transportation Association of
12 Canada for development of management of transportation
13 infrastructure in permafrost regions. You can be
14 confident that I know every dotted 'I' and 'T' --
15 crossed 'T' in that document, having been one (1) of
16 the primary authors and a prominent editor on the
17 document itself.

18 So there is quite a -- a hefty chapter
19 in there that identifies choices for minimum
20 embankment thickness. It offers a flowchart and
21 provides a very excellent guideline.

22 Having -- having said that, that's --
23 that's a -- a suitable approach at -- at the
24 preliminary design stage, and that's -- that's what we
25 have done.

1 We've had discussions earlier today
2 about modelling and -- and thermal -- thermal analysis
3 and -- and 2D modelling. And that's what we have to
4 do, moving forward. We have a greater level of
5 information now on the terrain along the preferred
6 alignment. We have field validation and verification
7 engi -- information, including selected geophysics
8 data collection, particularly focussed on
9 understanding what the subsurface conditions are for
10 massive ice.

11 Where Erica identified that -- that
12 information has been shared and discussed at length
13 between the -- the terrain group and the engineering
14 group, Walter and myself, where we have been able to
15 make refinements and optimizations to the alignment
16 within a narrow corridor, we've done that to avoid
17 what we now know are -- are massive ice locations or
18 ice-rich locations.

19 Where we've not been able to do that,
20 we now have to enter into the detailed design phase,
21 particularly for the embankment cross-section, where
22 we test out those minimum embankment requirements, or
23 understand if there are other engineering solutions
24 that -- that we need to incorporate.

25 Some of those might include insulation

1 in the embankment. It might include even a greater
2 embankment thickness, although that throwing
3 embankment thickness at -- as a solution in there is -
4 - is something that is likely limited.

5 We know that geogrids and geotextiles
6 offer great strength in localized locations. We know
7 that modifying and flattening the side slope so that
8 the toe of the slope extends out further so that we
9 can push shoulder rotation out rather than have it
10 near or in the travel lane, those kinds of things can
11 be modelled, and that's the steps that we will be
12 undertaking.

13 We also are -- are eager to see the
14 results of Dr. Gahbauer's test results from the
15 Shakwak Highway, for the test section there, where we
16 had six (6) or seven (7) different installations for
17 engineered solutions to address exactly this problem
18 along -- along the Shakwak Highway. And those might
19 be some of the solutions that we could use in
20 localized situations along the roadway.

21 DR. ROD SMITH: Rod Smith, NRCan.
22 Thanks for that. If -- if I can go back to the
23 question about the field vericat -- verication
24 (phonetic). I noticed in the terrain assessment
25 report, which was released this spring, there was an

1 indication that logistics had prevented them from
2 getting out for field verification. You're indicating
3 that occurred this summer.

4 Can you give a sense of just how much
5 actually took place, over what areas, how many field
6 sites that may have been?

7 MS. ERICA BONHOMME: Erica Bonhomme.
8 The -- there were two (2) programs undertaken this
9 summer by terrain scientists and geophysicists. A
10 first program was undertaken over five (5) days in
11 July. And it was to specifically visit areas that
12 were identified within the preliminary -- or, it
13 wasn't a preliminary report, the March terrain report,
14 as areas where there may be terrain constraints -- so
15 areas where there are active geo processes,
16 thermokarst, seepage, solifluction -- and areas where
17 there would be -- we -- where the team would suspect
18 that there are -- are ice wedges and areas where, you
19 know, it was uncertain based on -- simply based on the
20 -- the desktop mapping what terrain unit you would
21 assign there. So that was the first program.

22 The second program was also undertaken
23 over a five (5) day period, end -- end of July. And
24 during that program, there were five (5) areas
25 selected for geophysical investigation. I hope I have

1 that number right. It's around about five (5), five
2 (5) or six (6). If that number matters, I can get you
3 the exact one (1).

4 Where specifically the team wanted to
5 test out whether ground-penetrating radar combined
6 with resistivity measurements would indicate whether -
7 - would be a -- would be an accurate method of
8 detecting massive ice at depth and within certain
9 terrain units.

10 So those geophysical and radar tran --
11 those geophysical and resistivity transects were
12 selected specifically to be representative of the
13 various terrain units that were identified during the
14 surficial mapping and where there may be transition
15 zones where you could clearly detect between areas
16 where you would expect to have ice and where you would
17 not expect to have ice.

18 Those -- we have had a preliminary
19 review of those results, and there are areas where
20 that program was successful and has utility,
21 particularly in transition zones. And we hope to have
22 those results -- well, we will have those results
23 provided to the Board by the end of this month.

24 And they will also be used to update,
25 in particular, Table 3.2 of the -- the March terrain

1 report, which identified areas of terrain, problematic
2 areas of terrain. Some areas were identi -- were --
3 were verified in the sense that there -- there's no
4 issue there. There may have been, you know, active
5 geoprocesses identified through desktop mapping but
6 are now confirmed to be stable, for example.

7 There are areas where those active
8 geoprocesses were confirmed, and there are areas -- so
9 as a result of that, there -- there may be some
10 modifications to the types of recommendations that
11 were made in that report, in terms of dealing with
12 those identified constraints.

13 DR. ROD SMITH: Rod Smith, NRCan.
14 Thanks for that. That's provides a little clarity.
15 It'll be good to see what those results have
16 generated.

17 I guess the only other question
18 stemming from this -- and there's -- there's other
19 issues, but in both the terrain mapping report in
20 March, they identified that there's a -- there's base
21 -- the previous existing mapping was Rampton's map
22 from 1987, which is largely the base of this. And
23 their -- Stantec's own mapping had indicated there was
24 an overestimation of outwash deposits and an
25 underestimation of till, as well as others, in there.

1 And, in fact, I -- I'm trying to complete a study
2 right now that suggested perhaps of upwards to 40, 50
3 percent overestimation.

4 I'm wondering if, based on Stantec's
5 new mapping, plus the -- the field assessments you're
6 doing now, does that affect the volumetrics of
7 material you required in a substantial manner, and
8 would that be required, then, as -- as an update?

9 MR. WALTER ORR: Walter Orr, Kavik-
10 Stantec, for the Developer. The short answer is it
11 does not impact in a substantial way the -- the
12 estimates of -- estimates of material required. The -
13 - the particular distinctions that you're describing
14 are typically not associated with the unstable, ice-
15 rich terrain which is the problematic area for the --
16 for the road. And so there's -- unlikely that there'd
17 be cha -- significant changes in cross-section with
18 that change in the terrain type.

19 MS. ROBYN MCGREGOR: It's Robyn
20 McGregor. If I might add something to the -- to do
21 that -- to that. Walter is correct. It does not
22 significantly change the volumes that we have
23 presented for the need for construction quantities.
24 And just -- just to be -- so that everybody
25 understands, in September of 2009 we did undertake a

1 field program to -- to start the process of developing
2 the preliminary design off in -- in preparations for
3 the submissions.

4 That field program did include a -- a
5 modified terrain assessment, because we had terrain
6 specialists accompanying the environmental,
7 archaeological, and road geometric staff on the field
8 program. We did hand-mapping with the -- the terrain
9 types that you have seen in -- in the project
10 description report and the EIS. And that was the
11 information that was built on and used to create the
12 preliminary design.

13 So the terrain -- the detailed terrain
14 mapping that has been undertaken in -- in the past
15 year is -- is a supplement to that information,
16 building on the work that was done in that, and it is
17 a natural step in the process of building the -- the
18 foundation in delivery of detailed design.

19 DR. ROD SMITH: Okay. Thank you. And
20 is that the level of attention that would be paid as
21 the highway would be developed out, that that -- that
22 level of analysis would occur over the entire length
23 of it?

24 Would you be running GPR resistivity
25 logging across the entire profile?

1 (BRIEF PAUSE)

2

3 MS. ROBYN MCGREGOR: Robyn McGregor.

4 To say that, yes, we will launch on a full geophysics
5 investigation along the alignment is -- is not
6 necessary and -- and not what is in the plan.

7 The work that has been undertaken this
8 year, this season, both with the -- the two (2) field
9 programs, including the geophysics, was to narrow in
10 and focus on very distinct areas of concern that --
11 that we were -- we were largely aware of and were
12 really the -- the highlight and the focus of the areas
13 of concern.

14 With that in hand, the -- the program
15 also now lends itself to show that the techniques and
16 -- and the technology is -- is reliable and -- and
17 reasonable for a future program, that we're working on
18 that, to refine the alignment further in other
19 sensitive -- areas that we would consider sensitive.

20 So there is likely to be continued and
21 additional geophysics works along the alignment, but
22 not a full dragging of the mate -- of the geophysics
23 material behind, fully walking the entire alignment.
24 There will be spots selected to collect additional
25 information on.

1 DR. ROD SMITH: Rod Smith, NRCan.

2 Thank you. I've got two (2) short ones left, if -- if
3 that's sufficient. I'm -- I am looking at my watch,
4 too. Okay, the -- two (2) of the questions -- and
5 this relates -- in regards to Sharon's inquiries, is
6 one (1) of the issues is slope stability, which you've
7 addressed in the various IRs and such.

8 I guess the only question that was left
9 unanswered to that is whether as part of your
10 monitoring and assessment activities you would include
11 inclinometers on the slopes to de -- to assess the
12 slow downslope movement and solifluction, gelifluction
13 activities. And the potential implications of these
14 for major structures, such as abutments and the like.

15 MS. ROBYN MCGREGOR: There is a plan
16 to develop a plan for monitoring. Robyn McGregor
17 speaking. I mean, that -- that is clear and that has
18 been committed to. The -- the nature of the
19 instrumentation that will be necessary to support that
20 future monitoring program is an outcome of -- of the
21 detailed design process as we confirm the, you know,
22 the within-metres locations of where those abutments
23 and foundations and crossings will be.

24 Where we refine the roadway alignment
25 to be within metres from where it is today to -- to

1 get that -- that better slope, that better geometric
2 perspective, and that better terrain perspective, we
3 might find that those -- those locations have been
4 avoided, if we can. If we can't, then we need to look
5 at some sort of instrumentation, be it slope
6 inclinometers or other to be able to move forward in
7 the monitoring program.

8 DR. ROD SMITH: Okay, and the last
9 question is in regards to -- sorry, Rod Smith, NRCan -
10 - was assessment in -- in the EIS and various other
11 documents, you indicate that development will occur
12 after the ground surface is frozen.

13 And simply, the question was will that
14 be based solely on your degree-day calculations, where
15 you will actually employ -- you have thermistors
16 installed in -- in various areas. Are you going to
17 use the data from the thermistors, or are you simply
18 going to rely on the degree-day calculation for when a
19 frozen state, or a sufficient frozen state, is
20 attained?

21 MR. WALTER ORR: Walter Orr, with
22 Kavik-Stantec. The -- the question is when do we
23 determine the ground is frozen sufficiently to allow
24 construction to proceed.

25 I -- I would note that the construction

1 winter roads on the -- in the area are -- is quite
2 established and well understood methodology, which
3 includes a ground frozen state analysis prior to
4 construction of these roads.

5 We will be constructing winter roads
6 throughout the -- the area and -- and particularly
7 adjacent to the embankment prior to the construction
8 of the road occurring. And so those -- that knowledge
9 base would be utilized to determine when it's
10 appropriate to -- to get on the road and place
11 material.

12 DR. ROD SMITH: Rod Smith, NRCan.
13 Thanks. That's sufficient. That's -- that's it.

14 THE FACILITATOR: Thank you, Dr.
15 Smith. We're going to take a ten (10) minute break.
16 I will simply advise everybody that we're getting
17 through this topic by lunch time. So, you know, short
18 answers are good. And let's -- let's just try to move
19 it if we can, please. So take ten (10), and we'll be
20 back at quarter to, please.

21

22 --- Upon recessing at 10:30 a.m.

23 --- Upon resuming at 10:48 a.m.

24

25 THE FACILITATOR: Finding their

1 chairs. I'd just point that apparently the --
2 yesterday's transcripts are up on the registry, so if
3 you want access to them, you can have them.

4 We're still working our way through
5 items number 17, and I think I'm going to ask Dr. Burn
6 to deal with paragraph D first, because, to me, you
7 know, the issues raised by DFO and WMAC, they're --
8 have more relationship to the way that activities
9 associated with gravel extraction are going to affect
10 wildlife or fish, and they -- they sort of fit
11 together. And I know Dr. Burn is more interested in
12 quantities and -- and things like that, but we are
13 going to finish this item before lunch.

14 So Dr. Burn, please...?

15 DR. CHRIS BURN: Thank you, Mr.
16 Chairman. This is Chris Burn. And the first question
17 I have is just a simple information question. And
18 that is that the identification of the six (6) or
19 seven (7) sources, depending on how you identify them,
20 on slide 2 of the presentation, have those -- those
21 sources been identified specifically before to the
22 Board as being the -- the target sources for this
23 project?

24 MS. ROBYN MCGREGOR: Those sources
25 have been -- Robyn McGregor speaking. Those and other

1 sources were identified in the EIS as target sources,
2 with the exception of PW-2. The narrowing of the
3 sources to the six (6) or seven (7) -- we -- we
4 combined 314 and 325, specifically from the -- the
5 thirteen (13) that were first identified in the EIS,
6 and the introduction of PWT, this is the first time
7 the Board has seen it.

8 DR. CHRIS BURN: Chris Burn. Thank
9 you very much. In order to expedite our assessment of
10 the materials before the public hearings, could you
11 confirm for me that these seven (7) are the only
12 sources we should be concentrating on for the purposes
13 of this project and the assessment of this project?

14 MS. ROBYN MCGREGOR: Robyn McGregor.
15 That is correct.

16 DR. CHRIS BURN: Thank you very much.
17 I noticed, in the second column of this table, that
18 the total aggregate required for construction was 4.45
19 million cubic metres. And the total estimated
20 requirement was 8.26 or 8.27 million cubic metres.

21 Previously, in filed documents, we were
22 told that the total construction would be --
23 requirement was 4.75 and the total estimated -- the --
24 the total estimated would be about 9.1 million. I can
25 see these have been reduced by approaching 10 percent,

1 and I wondered if you could tell me why that is the
2 case.

3 MS. ROBYN MCGREGOR: Robyn McGregor
4 speaking. The -- the total construction quantity that
5 you refer to of 4.7 is the addition of the
6 construction embankment and the construction surfacing
7 quantity. So you have to look at both numbers.

8 The estimated total requirement --
9 forgive me -- should be the same as previously
10 reported, and should not have changed. And I will
11 check my math in my spreadsheet.

12 DR. CHRIS BURN: Thank you very much.
13 Chris Burn again. I think it's the arithmetic rather
14 than the math that needs to be checked.

15 The -- the second question I had, which
16 was associated with the presentation and the comments
17 of the presentation, was the allusion that data from
18 Beaver Creek were going to be useful for the design of
19 this highway. And I wondered if you'd explain to me
20 how that would be the case.

21 MS. ROBYN MCGREGOR: Robyn McGregor
22 speaking. There is no doubt, Dr. Burn, that you are
23 more familiar with the Beaver Creek test section than
24 I am. I have visited there once. The -- the Beaver
25 Creek test section that I referred to, for -- for

1 explanation to the rest of the group, is on the Alaska
2 Highway, the Shakwak portion of the Alaska Highway in
3 Yukon, is -- is a test section of a number of
4 different applications such as a snow shed on the side
5 slope, a -- a heat drain, in -- indicates that's not
6 applicable to this highway, different coloured
7 aggregate in the servicing material, those kinds of
8 things.

9 To test out different applications in a
10 short section of permafrost terrain where the highway
11 has been built, to -- to monitor various things, the
12 one (1) of which I am most interested in, which is to
13 understand the -- if this can maintain the core
14 temperature in a cold state of the embankment.

15 The -- the terrain of the Shakwak
16 Highway is not the same as the terrain and ice
17 conditions that we are looking at on this highway.
18 The application of technologies in the highway
19 embankment is similar to what we are considering for
20 locations in this highway, and it will provide a
21 reasonable test bed of how simple construction of
22 technologies embedded in the roadway embankment will
23 allow us to see if they can be used to maintain cool
24 temperatures in the embankment.

25 DR. CHRIS BURN: Thank you very much.

1 Are you planning -- is -- in your design do you have
2 snow sheds for any proportion of the route and do you
3 have heat drains for any proportion of the route?

4 MS. ROBYN MCGREGOR: We have not
5 identified that in the design as yet, other than to
6 say that those are -- will be options that are
7 considered as technologies should we need them moving
8 forward. Those are things that are considered in
9 detailed design.

10

11 (BRIEF PAUSE)

12

13 DR. CHRIS BURN: The next question I
14 have concerns the -- this is Chris Burn again, the
15 third slide that you -- you had, which was the
16 information sources. And of these information sources
17 two (2) of them were filed with the Board recently in
18 the -- as a result of the investigations in the last
19 winter.

20 And four (4) of these sources are
21 publications from the 1970s. Could you confirm that
22 the four (4) publications from the 1970s have been
23 filed with the Board?

24

25 (BRIEF PAUSE)

1 MS. ROBYN MCGREGOR: The four (4)
2 publications that have been identified from the 1970s
3 in that slide we believe have not yet been filed with
4 the Board. It is our intention to do that.

5 DR. CHRIS BURN: Could you tell me the
6 date by which they will be filed with the Board?

7 MS. ROBYN MCGREGOR: We could do that
8 today or this week. We have them available
9 electronically on hand. Robyn McGregor speaking.

10 DR. CHRIS BURN: Chris Burn speaking.
11 Thank you very much. I now have a question for Bob
12 Gowan from Indian and North -- sorry, Aboriginal
13 Affairs and Northern Development.

14 And, Bob is -- in my view has -- is one
15 (1) of the few people who has a comprehensive history
16 of investigating aggregate resources in the Western
17 Arctic. And so my question to you, Bob, is whether
18 you could comment on the relative -- or -- or com --
19 or compare the information compare -- presented in the
20 1970 reports with the -- the sort of data that wa --
21 was presented to us in the last month in summary of
22 the 19 -- 2012 investigations.

23 MR. ROBERT GOWAN: Bob Gowan,
24 Aboriginal Affairs -- or -- Abo and Northern -- or
25 Aboriginal Affairs and Northern Development Canada,

1 sorry. It's a hard one (1) to get through isn't it.

2 I'd like to clarify that my -- my experience is not so
3 much in investigating granular sources.

4 I've certainly done some of that over
5 the years, but I think we're -- you know, the -- the
6 experience that you're asking me to answer on is
7 awareness of the -- of the historical record of -- of
8 granular investigation.

9 And many of the -- many of the reports
10 were done back in the -- for this region were done
11 back in the '70s, in the age of the first Mackenzie
12 gas pipeline proposals. And the -- the first one (1)
13 is a study by Ripley, Klohn & Leonoff International
14 that is dated 1972. And that -- there was six (6)
15 zones for the -- covering the Tuk Peninsula to the
16 Mackenzie Delta. And most of this project would be in
17 end zone 3.

18 That study was largely based on air
19 photo interpretation. Most of the sites where -- had
20 -- at least shallow test bedding. And some of the
21 sites had, you know, a few boreholes on them. So the
22 quantity estimates from those are -- you know, are
23 meant to be coarse, very coarse, potential-type
24 estimates for the deposit.

25 Subsequently, there was a study by Arem

1 Hardy (phonetic) and Associates in 1977 that -- that
2 was more on the Tuk peninsula area. And these would
3 be the -- the series 1 -- oh, sorry, for the -- for
4 zone 1 was -- was the Tuk part and then zone 3 is the
5 -- the southern part of this -- this study area.

6 And the -- the 170 series of -- of
7 borrow prospects were investigated by Hardys in -- in
8 -- or it was published in 1977 or released in 1977.
9 And those involved -- they obviously made use of the -
10 - the study areas identified in Ripley, Klohn &
11 Leonoff International. And -- and they included a
12 little more sub -- substantial drilling, a few extra
13 holes.

14 So, you know, all of these were -- were
15 meant to be preliminary numbers on them. And -- and
16 we expect that anybody who is going to use any of
17 these sources is going to need to do their own work on
18 them.

19 So, you know, as -- as the work that's
20 been done on those sources for this study is -- you
21 know, hopefully has taken into consideration the
22 findings of those earlier studies, has used those to
23 locate their holes, has used the -- the information in
24 them to -- to determine the appropriate technologies
25 to use for drilling and sampling, and -- and then is

1 usually far more dense spacing of holes.

2 So -- so for the most part, those --
3 you know, tho -- those site-specific ones should be
4 far better estimates of the -- of the quantity of
5 materials that's available than -- than the early
6 ones. They weren't -- they weren't meant for, you
7 know, development. They were meant for giving us a
8 ballpark of what -- you know, where the material is
9 and roughly, by comparison, how much between the
10 different deposits.

11 So, you know, that's I think a
12 different -- a different purpose than -- you know,
13 than investigating them for a project where you need
14 to know. So I hope that -- I hope that answers it.

15 DR. CHRIS BURN: This is Chris Burn.
16 Thank you very much, Bob. I guess my question now is
17 if you could look at that -- that slide number 2. I
18 don't know if you can. Maybe -- Eli, maybe you could
19 bring up the second slide on the -- in the
20 presentation.

21

22 (BRIEF PAUSE)

23

24 DR. CHRIS BURN: So the slide is
25 coming into focus. No, no, I've got it. But it's --

1 it's one (1) for everybody else. I'll pass it down.

2 I'll pass it down.

3

4 (BRIEF PAUSE)

5

6 DR. CHRIS BURN: So, Bob, I guess my
7 question is this. If you -- if you look at those four
8 (4) -- well, really it's the -- the PWT source is
9 reported as being unlimited, which is -- means
10 presumably that there's just lots and lots of
11 aggregate there.

12 But if you look at 309, the -- the
13 project plans effectively to exhaust 309. And in 174
14 and 177 -- in 174 it plans to use about two-thirds
15 (2/3s) of the deposit that's identified. And 177
16 it'll use around about 80 percent of the deposit
17 that's identified.

18 Do you -- do you believe from your
19 experience that if, for example, in 177, the 1977
20 studies indicated there was around about 2 million
21 cubic metres of aggregate, that it's reasonable to
22 expect there to be 1.5 million cubic metres actually
23 there?

24 MR. ROBERT GOWAN: Bob Gowan. In --
25 in the case of 177 it, I believe, is a -- a series of

1 -- a series of small areas that have been identified.
2 And I -- and I also believe that the Public Works
3 study from the mid '70s also identified some
4 overlapping areas, as -- as well, within that.

5 So in each of these cases of the
6 earlier studies, a lot of it is depending on a -- on
7 an air photo interpretation. And -- and they're not
8 consistent between studies sometimes. So there's --
9 so there is a question of -- of, you know, whose
10 interpretation is better, right?

11 Now in most cases I haven't tried to
12 pass judgment on that and so -- so generally when --
13 you know, I ask the person that's using the data to
14 take into consideration all of those.

15 I think over the -- this is a -- I'm
16 not sure whether it clouds the issue or not, but over
17 the whole corridor that we're looking at, we -- we had
18 identified something like eighty-five (85) potential
19 studies with -- or sites within the -- within that
20 corr -- within 5 kilometres either side of the -- of
21 the highway.

22 And that breaks down into about sixty-
23 six (66), you know, separate bodies that we would
24 account for. So the rest of them, there is that
25 overlap between the -- between the different studies.

1 So in the case of, like, 309 for
2 instance, it overlaps with a study by Klohn Leonoff
3 from 1974 that had a -- a number of very smaller
4 targeted ones. So sometimes these -- sometimes the
5 interpretations are based on a, you know, a different
6 concept of what material that you're using, or that
7 you need to use. In -- like in the pipeline studies,
8 they might have been for, you know, looking at bedding
9 material as opposed to general fill.

10 So -- so you, you know, it's -- I'm not
11 sure that I can, you know, can assess to say that, you
12 know, there -- there is -- of the type of material
13 that the -- this project needs that it's -- that those
14 estimates are directly applicable to it.

15 And again, I think that has to come to
16 the, you know, to the user of the -- of the data to,
17 you know, to make -- to pass those judgments on -- on
18 what the purpose of the study was and -- and whether
19 they believe those numbers, and -- and, obviously,
20 their own field work, because -- because a lot of the
21 early studies were, you know, trying to get through as
22 many sites as they could in a -- in a very limited
23 time.

24 DR. CHRIS BURN: This is Chris Burn.
25 I -- now I have a question for Robyn.

1 Having listened to Bob Gowan's comments
2 on the quality of the -- of the estimates of what is
3 available, and having obtai -- having written in this
4 table your -- your estimates of what you need; and
5 recognizing that these estimates, he described them as
6 coarse and based on a few ho -- boreholes or a few
7 extra holes, and these being preliminary estimates.

8 And in a way, trying to compare them
9 with the level of the data which has been presented
10 between the 170 and 325, 314 investigations. I -- I
11 wonder if you could comment on how secure you feel
12 that the -- these sources have in them what you need.

13 MS. ROBYN MCGREGOR: It's Robyn
14 McGregor here. I'm going to respond to that and then
15 I'm also going to ask Russell Newmark to respond to
16 that as well.

17 In reviewing the available information
18 in preparation of -- of the EIS and the additional
19 work that's gone into this presentation today, we
20 should understand that -- that this is not the first
21 time we had discussed these items with -- with Bob
22 Gowan.

23 Bob Gowan has been kind enough to
24 provide us input and information and assistance and
25 direction throughout the duration of -- of our work on

1 this project. I -- I can say from my perspective and
2 from the perspective of our team, we are confident,
3 based on the information, that there is sufficient
4 material in these sources to build and operate the
5 highway.

6 Having said that, we absolutely
7 understand and -- and agree with Bob Gowan that we
8 need to go out then and -- and prove these sources and
9 confirm for ourselves and through field investigation,
10 as we have done with 325, 314, and 170, what the
11 available materials are.

12 And if you've had a chance to look at
13 the slides that -- that were provided, for the full
14 presentation, there is a slide that discusses next
15 steps, that identifies that those are the steps that
16 have to be taken.

17 One (1) of the things that tells me
18 that we absolutely need to do this is -- is my
19 experience and my education from my mentors. The
20 other thing that tells me that we need to do this is
21 in particular to Source 177.

22 There's another report that -- that we
23 looked at, that we've not referenced in that table,
24 that is from 1991, which indicates in a table in the
25 back of it that there's 19 million cubic metres of

1 material in Source 177.

2 So -- so Mr. Gowan is -- Bob Gowan is
3 absolutely correct in saying that we need to go out
4 and prove these sources out for ourselves. To that
5 end, I -- I believe that answers your questions on our
6 certainty.

7 We think that in many of the locations
8 there is probably more material in perhaps different
9 areas in these sources than has been shown in the
10 reports and we need to go to confirm that.

11 And I'd ask if Russell Newmark has any
12 comments to add to that.

13 MR. RUSSELL NEWMARK: Russell Newmark.
14 One (1) of the things that you really need to take
15 into consideration is not only what you see in the
16 Hardy Report, but the features of the source and to
17 use the Hardy Report along with your own visual
18 observations.

19 So in the Tuk area for the last thirty
20 (30) years we've been using the Hardy Report and only
21 the Hardy Report on a whole series of those sources,
22 so 160, 161, 168, 177, all sources from the original
23 Hardy work we've been in with only the Hardy
24 information and have quarried there for some of those
25 sources for the last thirty (30) years.

1 The thing that you need to look at when
2 you look at the Hardy Report, if you deal with high
3 overboard burden sources that are somewhat disparate,
4 well then you've got to do some more work.

5 But there are certain sources in the
6 Hardy Report where you go to the source and you see a
7 -- a very little overburden, you see a -- a large -- a
8 large body, a large hill, and you can make some kind
9 of certainty looking at the holes that were drilled
10 where you see no overburden, for example, and you see
11 good material.

12 So when we went and did the Source 177
13 project we flew out, I took a look, we looked at what
14 was in the Hardy Report and we felt really confident
15 with the Source 177 hill, so we were able to go in
16 and, essentially, quarry 400,000 cubic metres, build
17 the Source 177 road based only on the Hardy
18 information.

19 So when I look at some of the other
20 sources I see in the Hardy Report, I was really
21 nervous about 170, because it's a high moisture
22 source, it's got lots of overburden.

23 So the drilling that Kavik-Stantec did,
24 I would not have been comfortable in going to that
25 source, but I've gone to like 174, 309, a bunch of

1 those other sources and I feel extremely confident in
2 the numbers that Hardy and others have come up with
3 and also that those numbers are very, very low.

4 So if you look at 309, which was
5 referenced before, the proved amount is only from the
6 small area in the subsource 2.028 that Conoco Gulf
7 (phonetic) had looked at and that's maybe only 15 or
8 20 percent of that source.

9 So the proven number comes only from
10 the -- that little section that was studied. But if
11 you go and look at the source there's 75 percent of it
12 that looks exactly the same. You can go there, dig
13 your own holes, and those numbers are not in there as
14 being proven already. So I have a fair degree of
15 confidence that 309 is, at minimum, four (4) or five
16 (5) times as large as what's been proven.

17 No overburden on any of the hills, you
18 can see the gravel on the surface. It's all exactly
19 the same as the two point o-two-eight (2.028) that
20 Conoco Gulf studied, and Gulf had studied before. So
21 I think -- th -- the comment is that in our -- in our
22 own sessions we have gone through each one (1) of
23 these sources and looked at not only what's been
24 proven by those studies, but also our own observations
25 and experience and then have come up with numbers that

1 we feel are more than supportable and are very, very
2 conservative.

3 DR. CHRIS BURN: Thank you very much
4 for that answer. In the directive that the Board
5 issued in July, before this hearing, there was a
6 request for aerial photographs with the outline of the
7 proposed pits to be marked upon them.

8 Could you confirm that those
9 photographs have been filed with the Board?

10 MS. ROBYN MCGREGOR: It's Robyn
11 McGregor here. Those aerial photographs have not been
12 filed with the Board. The ability to define
13 specifically the area and the footprint that we would
14 be looking at for pit development would -- is
15 something that needs to come at later stages in the
16 project when we're in the process of developing the
17 pit management plans and in discussion with the
18 regulators.

19 MS. ERICA BONHOMME: Erica -- Erica
20 Bonhomme. If I can just add to that. Th -- th --
21 there will be some outlines shown on environmental
22 related maps that will have the areas as depicted
23 through the various reports that are referenced there.

24 Those will be shown on updated wildlife
25 maps, terrain maps that -- and -- that we're providing

1 -- and vegetation maps that will be filed with the
2 Board as additional information.

3 DR. CHRIS BURN: Thank you. This is
4 Chris Burn. The -- there's two (2) things I want to
5 clarify then. In -- in the aggregate source reports
6 that you filed earlier this month, there -- there were
7 aerial photographs, in which there were delineations
8 of the source that was to be investigated and -- and
9 they sort of bounded the drilling area.

10 Now those, I -- I assume, and correct
11 me if I'm wrong, but I assume that those delineations
12 are not the proposed gravel pit footprints.

13 MS. ERICA BONHOMME: Erica Bonhomme,
14 Kavik-Stantec. That's correct. In most, if not all
15 cases, the -- the polygons that were investigated in
16 the drilling program are smaller than the source that
17 was reported in the associated Hardy -- in some cases
18 Hardy or other reports.

19 The further the -- the hole -- the
20 drill holes represent an area within those polygons
21 that respects environmental setbacks from streams and
22 water bodies and water courses and represents a grid
23 spacing within that polygon that could be accessed by
24 the drilling equipment appropriately.

25 DR. CHRIS BURN: Thank you. The

1 second thing I'd like to then have you confirm is that
2 the Board -- from what I can make out, you're --
3 you're telling the Board that the Board will not
4 receive the footprint of the gravel pits, the proposed
5 gravel pits.

6 MS. ROBYN MCGREGOR: It's Robyn
7 McGregor. That is correct. That information is not
8 available at this time.

9 DR. CHRIS BURN: Thank you. Chris
10 Burn again. Could you advise how the Board is then to
11 interpret how big your gravel pits will be?

12

13 (BRIEF PAUSE)

14

15 MS. ERICA BONHOMME: Er -- Erica
16 Bonhomme, Kavik-Stantec. As I indicated previously,
17 there will be footprint maps which show the extent of
18 the borrow sources as reported in previous studies and
19 as proposed to be investigated further by the
20 Developer prior to development shown in the additional
21 wildlife maps and terrain maps that are going to be
22 submitted.

23 So in the end, the polygons to be
24 investigated within those prospective borrow sources
25 are likely to be smaller than the ones that will be

1 depicted on those maps.

2 DR. CHRIS BURN: Thank you very much.

3 This is Chris Burn again. As you know, there's
4 usually two (2) or three (3) stages in the regulatory
5 approvals process for gravel or aggregate extraction
6 operation.

7 And there is -- after the environmental
8 assessment, then I presume there needs to be an
9 application made to AANDC or some other agency. The
10 Board is in a position where it needs to advise these
11 other agencies as to what size of pit can -- is a
12 significant impact or not; in other words, what size
13 of pit is tolerable.

14 And the difficulty that I see at the
15 moment is that the Board is actually not going to know
16 what the size of pits you're proposing are, or the
17 sizes of the pits that you're proposing are. And I
18 realize that you -- I mean, you may -- you may want to
19 present in these maps -- you may want to say, This is
20 the maximum size of pit that is -- that is required.

21 But I'm -- I'm -- I have a concern at
22 this point that the Board will not know the scale of
23 the project you're proposing.

24 MS. ERICA BONHOMME: Erica Bonhomme.
25 I -- I don't think that's entirely correct. We can

1 provide you with numbers that show you how large those
2 borrow sources are, in terms of hectares. That --
3 that is re -- readily available.

4 And furthermore, I would just remind
5 everyone that -- and -- and perhaps Russell can -- can
6 add to this, that the development of a pit does not
7 constitute strip mining, where you, you know, excavate
8 the entire pit at any one (1) time. Typically, that
9 would happen progressively.

10 So as I said earlier, it's highly
11 unlikely, first, that the entire pit that's been
12 depicted in that footprint would be developed, and,
13 second, that it would all be developed at any one (1)
14 time.

15 MR. RUSSELL NEWMARK: Russell Newmark.
16 Further to that -- and I -- I would think, Jim, we'll
17 -- we should have a -- all have a little discussion
18 about it, but certainly I think that we could make a
19 very good educated judgment by just taking the maps of
20 the six (6) gravel sources out and drawing some
21 preliminary ideas and judgments as to the size of each
22 quarry and where you would quarry based on what we
23 think we need for quantities.

24 I don't think that's a very difficult
25 exercise. And if it's something that the Board needs,

1 I don't see any reason why we couldn't provide that.

2 MS. ROBYN MCGREGOR: It's Robyn
3 McGregor speaking. I'd also like to add that on page
4 509 of the EIS we have indicated that -- and I'll read
5 directly from the EIS, although I need to put my
6 glasses on:

7 "Although not identified spatially,
8 approximately 50 hectares of area
9 will be disturbed as a result of
10 excavation of the borrow sources for
11 construction material."

12 DR. CHRIS BURN: Thank you. Chris
13 Burn again. I think the 50 hectares does not apply to
14 each individual pit.

15 MR. RICK HOOS: Rick Hoos, Developer
16 group. That's correct, Chris. That was an estimate -
17 - an educated estimate that we came up with for how
18 many hectares of borrow pit total that might be
19 developed for the -- the highway route or for the
20 highway itself.

21 We also indicated that, based on our
22 knowledge of the various borrow pits that were under
23 consideration at the time that the EIS was prepared,
24 that most of these areas were associated with certain
25 kinds of land cover. And therefore, when we made our

1 -- our predictions we -- we based our predictions on
2 that matter, on -- on those kinds of classifications.

3 We also point out -- where we say at
4 the beginning, for instance, the proposed Inuvik-to-
5 Tuk highway footprint, and that includes proposed
6 borrow sites, which at the time we didn't know exactly
7 where they would be, but we knew the -- the options
8 that were under consideration, would disturb
9 approximately 383 hectares in total - that's the road
10 and borrow pits, anticipated borrow pits - which we
11 determined was -- represented about 2.8 percent of the
12 total local study area, and about 0.1 percent of the
13 regional study area.

14 So although they are footprints, and
15 although they seem perhaps to some people to be some -
16 - large, if you will, they represent very small
17 percentages of -- of even the local study area, which
18 is a kilometre wide, and the regional study area,
19 which is about 15 kilometres wide. Thank you.

20 MR. RUSSELL NEWMARK: Can I add just
21 one (1) more? In terms of overall hectares, one (1)
22 of the things that -- one (1) of the things I think
23 you noticed from what's happened through this process
24 is we've gone to less number of sources, and
25 potentially some of the bigger sources.

1 And a lot of it is a tradeoff on some
2 of the things that Robyn and Dr. Smith said before,
3 and that is that if you go to fewer, better sources,
4 you're trading off maybe hauling a little further
5 distance against having a more efficient operation
6 with better quality material and less footprint, so
7 less hectares.

8 So you're -- you're going to maybe use
9 one (1) source that's larger and better instead of
10 five (5) smaller sources that are -- might be a little
11 closer, and when you do that, you'll limit your
12 footprint because you're going to get more depth on
13 your source, and you're going to also be only
14 operating in one (1) source versus operating in five
15 (5).

16 So I -- I suspect that when you
17 actually put the maps out and measure the hectares,
18 we're going to come out with a number that's much
19 lower than the one that Rick just noted.

20 MR. BRUCE HANBIDGE: John, Bruce
21 Hanbidge here. I've got a question that I'd like to
22 slip in here somewhere at the end.

23 MS. ROBYN MCGREGOR: Robyn McGregor
24 speaking. Perhaps we could follow along on Mr.
25 Newmark's previous suggestion, and then, if you would

1 give us an opportunity on the next break, the team can
2 put our heads together to figure out what we can
3 provide relative to footprint for the Board to review,
4 and we would be able to report back.

5 THE FACILITATOR: Yes, please do that,
6 and we can hear from you afterwards.

7 Bruce...?

8 MR. BRUCE HANBIDGE: Yeah. Bruce
9 Hanbidge. I just wanted to go back to a question I
10 asked yesterday for clarification on pits. This is
11 coming from the point of view of wildlife studies,
12 cumulative effects assessment. I asked yesterday, out
13 of the seven (7) that have been submitted and four (4)
14 are functional, my question yesterday was:

15 Are those four (4) sufficient to build
16 the road? And I believe I was told yes. Is that
17 still correct?

18 Are -- are there other pits coming?
19 And why I ask is, from the point of view of habitat
20 assessment, all of the other information that the
21 wildlife side would need to even comment on that, and
22 if there are more than those four (4) pits I asked
23 about yesterday, when's that information coming for
24 the wildlife side?

25 MS. ROBYN MCGREGOR: Robyn McGregor

1 speaking. Yesterday when you asked that question, you
2 asked relative to the seven (7) pits, and I believe
3 the seven (7) pits that you -- sources that you are
4 referring to are the ones that the -- the
5 investigation was conducted on this winter.

6 My response at the time was -- you
7 asked me if there were other sources forthcoming, and
8 I at the time recollect that I suggested -- said that
9 the identified sources that we were -- have now
10 narrowed into -- onto to construct and operate the
11 roadway will be made in the presentation.

12 So the table that you see on the screen
13 before you are the sources that we have identified.
14 Two (2) of those, if I am correct in understanding the
15 seven (7) that you are referring to, are among those
16 seven (7) that we did the investigation on this
17 winter.

18 And with respect to the wildlife
19 information, I'll ask Erica to comment on that.

20 MS. ERICA BONHOMME: Erica Bonhomme,
21 Kavik-Stantec. There -- Robyn's correct, the -- so
22 the wildlife maps that we've provided in terms of
23 habitat potential show that habitat potential for the
24 species at risk and grizzly bears within -- or that
25 information for seven (7) borrow sources that were

1 investigated this winter. There are new -- there --
2 the new borrow sources here that Robyn has presented
3 in the slide are now -- or that list of borrow sources
4 is now considered to be the primary source of borrow
5 material for the highway.

6 So, effectively, we've replaced four
7 (4) of those sources that were originally identified
8 in the wildlife maps with these ones here. What we
9 will be providing are additional maps that show
10 wildlife habitat potential for species at risk and
11 grizzly bear, for those four (4) sources that now
12 replace four (4) of those ones there.

13 Now proportionally, relatively, there
14 isn't going to be a substantial change in the type and
15 availability of habitat for those species by replacing
16 out the borrow sources. That -- the -- the relative
17 abundance of high, medium and low potential habitat
18 for some species, or suitable or unsuitable habitat
19 for other species, or higher or lower potential
20 habitat for some species, is not going to change
21 substantially by switching out four (4) borrow
22 sources.

23 MR. BRUCE HANBIDGE: Bruce Hanbidge.
24 Could you let us know when that information is going
25 to be available, and if it will be available early

1 enough in advance of the public hearing so that we can
2 actually look at it and do something with it?

3 MS. ERICA BONHOMME: The commitment we
4 made yesterday is to file it tomorrow, August 24th.

5 THE FACILITATOR: Thank you. It's
6 John Donihee. There are some issues related to this
7 topic that were raised by DFO as well. So, you know,
8 wake up. And let's move on to those -- those
9 particular issues if we may.

10 MS. AMANDA JOYNT: Amanda Joynt with --

11 MS. ERICA BONHOMME: Just before we --
12 sorry, just before we start, I did want to -- it's
13 Erica Bonhomme. Doug Chipertzak has joined our team
14 here today from Kavik-Stantec. So Doug is a senior
15 fisheries biologist and I invite you to tap into his
16 expertise as well during questions related to
17 fisheries.

18 MS. AMANDA JOYNT: Okay, Amanda Joynt
19 with DFO. I think a lot of this has been solved
20 offline, but I'm just going to put it on the record so
21 it's confirmed.

22 So with regards to using explosives
23 within the borrow sources, we just want to clarify
24 that there is Northwest Territories-specific levels
25 for pressure levels. So we have clarified with the

1 Proponent that it is 50 kilopascals and not a hundred
2 (100). And they've agreed to that. Does anyone want
3 to confirm that on the Proponent's side?

4 MR. DOUG CHIPERZAK: Yeah, Doug
5 Chiperzak, Kavik-Stantec. Yeah, we -- we understand
6 that it's going to be 50 kilopascals. And -- and
7 also, I guess one (1) of the other considerations is
8 that the -- the blasting will be done during the
9 winter time when most creeks are -- are frozen. So it
10 should be no problem.

11 MS. AMANDA JOYNT: And also to confirm
12 -- actually, Eli, can you put that up on the screen
13 again with the -- sorry. It's Amanda Joynt with DFO.
14 I just wanted to confirm, with regards to the
15 quantities that were listed for the borrow sources,
16 that that includes all of the exclusions. Like, for
17 example, the 1 kilometre zone around the Husky Lakes,
18 and also the 50-metre zone around any water bodies.
19 So the calculations for that has -- have been -- have
20 excluded those zones, basically.

21 MS. ROBYN MCGREGOR: Robyn McGregor
22 speaking. The answer is, Yes.

23 MS. AMANDA JOYNT: And I guess there's
24 a general que -- Amanda Joynt with DFO. There's a
25 general question about water management. DFO's

1 concern is mostly -- not necessarily with the -- the
2 point source, but with the concerns about any water
3 that are within the -- the quarrying areas, any of
4 that water getting into water bodies.

5 Can the Proponent speak to that,
6 please?

7 MR. RICK HOOS: Rick Hoos, developer
8 group here. Yes, this was the subject of an IR in the
9 past, or in the recent past. And what we indicated
10 there was obviously we will be taking steps to ensure
11 that no sediment-laden waters move from, let's say, a
12 borrow site into a nearby creek or lake.

13 Beyond that though, we did point out
14 that for many of these borrow sites they're rather
15 porous because they are -- they do consist of sands
16 and gravels. And -- and we actually provided some
17 photos of the Source 177 pit, which basically
18 indicated where -- where pools of water had existed,
19 that's simply, you know, percolated down into the
20 ground. And that's something we would expect to
21 happen quite a bit at -- at borrow sites.

22 MS. AMANDA JOYNT: Okay. Amanda
23 Joynt, with DFO. Can you give me an idea of what type
24 of management strategies you would be using?

25 MR. RICK HOOS: Rick Hoos, Developer

1 group. Well, basically, you know, the borrow sites
2 themselves are -- generally, they resemble pits, which
3 basically means they are -- they form natural
4 catchment areas in and of themselves. If necessary,
5 berms can be put around the outside of the low-lying -
6 - the low side of a pit or fencing can be -- silk
7 fencing can be put in, various -- there's various
8 strategies for dealing with that, if necessary.

9 And Doug has some more information, so
10 I'll pass the mic to him.

11 MR. DOUG CHIPERZAK: Yeah, Doug
12 Chipertzak. Yeah, before the -- the pits are quarried
13 they -- there'll be a management plan for them. And
14 within that management plan DFO will have an
15 opportunity to -- to look at it and -- and provide
16 comment. And within that management plan sediment and
17 erosion control measures will be put and -- put within
18 it.

19 MS. AMANDA JOYNT: Thank you.

20 THE FACILITATOR: It's John Donihee.
21 Is that -- that's the list? Okay. I think Dr. Burn
22 actually has a couple other questions. I pre-empted
23 him. So we'd like to get them dealt with.

24 DR. CHRIS BURN: Thank you, Mr.
25 Chairman. Chris Burn. I -- I would like to -- to go

1 to the report that we were presented with in final
2 form earlier this week regarding the Source 170 borrow
3 pit, or whatever kind of pit you want to call it
4 because I don't think the material will be replaced in
5 it.

6 So -- and I'm particularly interested
7 in -- perhaps, Erica, you could walk me through the
8 methodology that one would use to get from a borehole
9 log and a terrain map to an estimate of the quantity
10 of aggregate that is in the deposit.

11 But before we do that I'd -- I'd like
12 to ask a couple of specific questions about the
13 borehole logs that are presented in the Source 170
14 report. And I don't know if -- I presume you have
15 that electronically.

16 MS. ERICA BONHOMME: Erica Bonhomme.
17 We do have it electronically. However, I would just
18 like to indicate that I cannot respond to those
19 questions. We don't have our geotechnical team member
20 here. He will be available after lunchtime by
21 telephone if it would be agreeable to the Board to
22 have those questions answered after lunch.

23 THE FACILITATOR: It's John Donihee.
24 Yeah, we'll -- we can -- we can do that. I was hoping
25 to finish gravel this morning, but it sounds like

1 there's just no getting away from gravel.

2 MS. ERICA BONHOMME: Erica Bonhomme.

3 Alternatively, if you want to provide the question in
4 writing we could respond to it in -- in writing. We -
5 - we don't have the right team member here to respond
6 to that question.

7 THE FACILITATOR: It's John Donihee.

8 You know, my -- actually my preference is to get
9 somebody on the phone. Sending papers back and forth
10 and hoping that somebody's going to answer your
11 question is sometimes not the most efficient way to
12 solve problems.

13 So I -- I think what we'll do then is
14 we can defer the rest of Dr. Burn's -- no, do you have
15 more?

16 DR. CHRIS BURN: With -- with respect,
17 Mr. Chairman, maybe I could give you, Erica, an idea
18 of the question I would ask or questions I would ask
19 so that when your person comes on the phone they --
20 it's not a cold question.

21 MS. ERICA BONHOMME: Can -- Erica
22 Bonhomme. Yeah, I just want to bound that
23 clarification of his availability. So questions
24 related to the interpretation and the methodology in a
25 geotechnical report is -- is best responded to by the

1 engineer who authored that report. Questions that are
2 not related to the engineering interpretation of the
3 results I may be able to answer, or others on our team
4 may be able to answer.

5 DR. CHRIS BURN: Chris Burn. Thank
6 you very much. I'll try one, and if you decide that,
7 as a result, that it would be better for somebody else
8 to answer this who is not present, then we can go
9 straight to that process. But I'll try one.

10 The -- the question would relate to
11 Borehole 170-102, which is the second borehole in your
12 report on Source 170. If you've got that in front of
13 you, because you'll want to look at it.

14

15 (BRIEF PAUSE)

16

17 MS. ERICA BONHOMME: We have it.

18 DR. CHRIS BURN: So you'll notice in
19 this borehole that the borehole log begins at the
20 surface and then goes down for about 4 metres through
21 sand to ice. So my -- my question is: In -- in your
22 estimate of the aggregate resources in this deposit,
23 do you consider all of the material which is lying
24 above the ice?

25 MS. ERICA BONHOMME: I -- Erica

1 Bonhomme. I cannot answer that. There is a measure
2 of overburden in the -- in the results that we've
3 presented, but I can't comment on where the
4 distinction between overburden and granular material
5 is.

6 DR. CHRIS BURN: Thank you very much.
7 Mr. Chairman, I suggest we deal with the geotechnical
8 engineer after lunch.

9 THE FACILITATOR: Thank you, Dr. Burn.
10 Let's do that. If you could give your engineer notice
11 that we'll want him by the phone about 1:30, that
12 would be good.

13 I don't want to lose the few moments
14 that are remaining before lunch, because we're
15 slipping a little with the agenda.

16 MS. AMANDA JOYNT: John, sorry. It's
17 Amanda with DFO. Sorry, can I ask one (1) more
18 question?

19 THE FACILITATOR: Okay.

20 MS. AMANDA JOYNT: So Amanda Joynt
21 with DFO. I just wanted to confirm that, a couple of
22 weeks ago, with our meeting with DOT and consultants,
23 we had talked about any potential crossings related to
24 roads to the quarries. And I just wanted to confirm
25 that only ice roads are going to be used and that

1 there won't be any new construction with regards to
2 that.

3 MR. WALTER ORR: Mr. Chairman, Walter
4 Orr of Kavik-Stantec. The intention of the
5 construction methodology at this time is that all the
6 -- all of these sources would be accessed strictly by
7 winter road in the winter, and that there would be no
8 construction of permanent accesses to these sites
9 associated with this project.

10 MR. CONRAD BAETZ: It's Conrad Baetz
11 from Aboriginal Affairs. Just a point of
12 clarification. Does that include the sites that
13 you're going to continue to access for the maintenance
14 of the highway through the next bunch of years? I
15 noticed on the spreadsheet there's four (4) that are
16 going to continue to be accessed.

17 MR. WALTER ORR: Walter Orr here.
18 Yes.

19 MR. CONRAD BAETZ: Conrad Baetz,
20 Aboriginal Affairs. So the access to those sites
21 would be continuous through the winter months to
22 quarry, to stockpile closer to the right-of-way for
23 summer maintenance, those kinds of things?

24 MR. WALTER ORR: Walter Orr here.
25 Yes, that is correct.

1 THE FACILITATOR: Do we have any other
2 miscellaneous gravel questions? Okay. Well, I really
3 -- I absolutely want to get the Inuvik HTC on -- on.
4 You know, they've been waiting very patiently. Lisa's
5 been patient, and it's a quarter to. Let's break now
6 and come back at a quarter after 1:00.

7 We'll do Inuvik HTC's questions right
8 away. You can have your engineer standing by. It --
9 we -- we may run a few more minutes past 1:30 before
10 we get to him, but that way he can get his papers
11 spread out and hopefully be ready for us.

12 We haven't talked yet about the lessons
13 learned to -- and the road to 177. I -- I do want to
14 leave a little airtime for that, but I'm not sure -- I
15 -- I think what I'm going to do is -- is simply ask if
16 some of the parties that have raised that have
17 questions, we'll go right to the questions and if you
18 have to go to your presentation to answer the
19 questions that's okay.

20 But what I don't want is a half an hour
21 presentation and then the questions coming after that,
22 because otherwise we'll -- we'll be here -- yeah,
23 we'll be here later this evening and I'll be pretty
24 unpopular.

25 So -- okay, let's break; 1:15 back.

1 Inuvik HTC right away. Let's get theirs dealt with.

2 We'll -- we'll go back to some of these gravel

3 questions after that. Thank you.

4

5 --- Upon recessing at 11:44 a.m.

6 --- Upon resuming at 1:17 p.m.

7

8 THE FACILITATOR: We'll resume if we

9 can. There may be a few folks that join us as they

10 can, but the agenda rules. The -- our intention --

11 there were a series of twelve (12) questions provided

12 to us in writing yesterday by Lisa Rogers on behalf of

13 the Board of Directors of the Inuvik HTC.

14 And I -- I guess about all I will say

15 is this is a pretty intimidating forum for those who

16 have -- haven't done this very much. And so I think

17 what we're going to do here is Gordon Stewart will ask

18 the questions.

19 We can get responses from the Developer

20 or any other party that can help, and what we want to

21 try to do is to make sure that we get good answers for

22 Lisa to take back to her board of directors.

23 And so let -- let's try it that way.

24 If we need to put our heads together just to make sure

25 that she's comfortable with the answers we'll do that,

1 but I think we'll get through this fairly quickly. So
2 go ahead, Gordon, please.

3 MR. GORDON STEWART: Thank you, John.
4 Gordon Stewart. I'll ask the first question. Who
5 will monitor and how will the no-hunting zone be
6 monitored?

7

8 (BRIEF PAUSE)

9

10 MR. JIM STEVENS: From the Developer
11 perspective I guess we consider that outside of our
12 mandate relative to the monitoring of hunting. And I
13 was hoping Gavin More was going to be here to give an
14 ENR perspective on it, but I also believe some of the
15 co-management groups here and ILA may have a
16 perspective on that. And I would suggest we go to
17 them first and maybe Gavin will be back shortly.

18 THE FACILITATOR: I'm -- I'm just
19 thinking, Bruce, why -- you're -- you're rep --

20 MR. BRUCE HANBIDGE: Bruce Hanbidge.
21 I can give you a very short answer. It's not the role
22 of the co-management boards to monitor. Thank you.

23

24 (BRIEF PAUSE)

25

1 MS. SHAWNA WILSON: Hi there. Shawna
2 Wilson from the ILA. As we had mentioned previously,
3 we would like the opportunity to take these questions
4 back to the office and consider them and respond
5 shortly.

6 MR. GORDON STEWART: Thank you. And
7 when would you respond by?

8 MS. SHAWNA WILSON: We can -- okay.
9 We can discuss it tomorrow and hopefully have a
10 response to you tomorrow afternoon, if not, Monday.

11 MR. GORDON STEWART: Thank you.
12 Gordon. Second part of the first question was the --
13 will the road go through private lands IBC-07?

14 MR. RICK HOOS: Rick Hoos, on behalf
15 of the Developer group. I believe that -- that may be
16 in reference to one (1) of the zones on the -- between
17 Tuk and Inuvik that is -- currently has a ban on the
18 harvesting of caribou in it. And if that's the case,
19 yes, that -- that -- the road does travel through that
20 area.

21 MS. MEGHAN BIRNIE: Meghan Birnie.
22 Thanks, Jim and Rick. Just as follow -- Meghan
23 Birnie. Just as follow-up to the response to the
24 first question regarding who will monitor and how will
25 the no-hunting zone be monitored.

1 I note that in Table F of the
2 Developer's response to the Round 1 IRs, on page 142
3 of the submis -- submission, the last bullet item in
4 there says that:

5 "The Developer is working with
6 agencies such as the HTC's, WMAC, and
7 GNWT/ENR to develop guidelines and
8 conditions for highway usage and
9 follow-up with monitoring of
10 harvesting activities."

11 So I'm wondering if that -- who will
12 monitor and how will the no-hunting monitoring zone be
13 managed if thi -- this commitment seems to suggest
14 that some of those other parties will be involved. So
15 if WMAC and the HTC's and GNWT, ENR could comment on
16 that, whether they've been approached by the Developer
17 or those discussions have been initiated, and whether
18 they're prepared to do some of that implementation of
19 the guidelines and conditions.

20

21 (BRIEF PAUSE)

22

23 MR. RICK HOOS: Rick Hoos, from the
24 Developer group. We've just been looking at Exhibit
25 164, which is from the Inuvialuit Game Council. And

1 in that response they described their role in
2 monitoring and mitigation with respect to the highway
3 project. And they indicate that they would be working
4 with GNWT, Department of Environment and Natural
5 Resources, Fisheries and Oceans Canada, the Inuvialuit
6 Co-management Boards and the HTC's.

7 It goes on to say that:

8 "The IGC would work with these
9 departments and organizations on
10 determining if there are project-
11 related effects, and, if so, to work
12 through the integrated co-management
13 process established pursuant to the
14 IFA to recommend appropriate
15 mitigation measures."

16 MS. MEGHAN BIRNIE: Meghan Birnie. So
17 that's consistent, to some extent, with this. And I
18 think I'd like to hear from each of those other
19 parties that are here as to -- to whether they -- they
20 are prepared to do what the Developers suggest will be
21 -- will be done because...

22 Thank you.

23 MR. BRUCE HANBIDGE: Bruce Hanbidge.
24 And I can speak on the mandate and the role of the
25 WMAC; not their decisions, because I'm not a member of

1 the Board. But the WMAC's responsibility is to
2 devise. They're not a regulatory organization.
3 That's -- that's ENR and the various other government
4 regulators.

5 So for the WMAC to advise on things
6 such as monitoring, they're dependent upon the
7 information being brought to the table by ENR or by
8 proponents, government -- government proponents or
9 private. And all I can say is to advise on
10 monitoring, some of the information that we would have
11 to see would be baseline studies for habitat, for
12 wildlife, the results of accumulative impact
13 assessment.

14 Those are the things -- the information
15 we would need to be able to advise. And it's very
16 difficult to make those advice -- or, make that advice
17 on monitoring or other forms of regulation in the
18 absence of that information.

19 MS. MEGHAN BIRNIE: And GNWT/ENR isn't
20 here. Okay. So in terms of the guidelines and
21 conditions, is there something concrete that would be
22 submitted that does take into account these?

23 The -- the commitment says:
24 "To develop guidelines and
25 conditions for highway usage."

1 So I -- our follow-up question, I
2 guess, to that would be whether there is going to be
3 something concrete, in terms of guidelines and
4 conditions that would be submitted, and whether these
5 would reflect the involvement of those other parties
6 and who be charged, in a sense, responsible for
7 implementing them?

8 MR. RICK HOOS: Rick Hoos, Developer
9 group. When -- when we put those words in the EIS --
10 and they are put in the EIS a number of places -- we
11 were assuming that what we were referring to was
12 developing these kinds of policies and programs and
13 whatnot in connection with the operation of the road,
14 the long-term operation of the road as opposed to the
15 construction of the road, for instance, during which
16 time we don't expect a lot of public access, not to
17 the same extent as when it's actually open for
18 business.

19 And, therefore, we anticipated that we
20 had a several year -- several years of time to work
21 with these various organizations to come up with
22 approaches to policies and pro -- and -- and efforts
23 to protect the -- the resources of the road, and also
24 to help develop a monitoring program to be conducted
25 by other parties, not the DOT, to make sure that the

1 environment was in fact protected, and the resources
2 in it as well. Thank you.

3

4 (BRIEF PAUSE)

5

6 THE FACILITATOR: This is John
7 Donihee. I -- I appreciate the distinction you're
8 making, you know, in a -- in a sense that one (1)
9 department builds the road, but I -- I guess it's --
10 it's a little troubling, you know. And it's most
11 unfortunate that Derek isn't -- or, Gavin isn't here.
12 But, you know, the -- ENR and -- and DOT are part of
13 the same, you know, it's only one (1) government.

14 And, you know, when the developer's
15 answer is somebody else is going to take care of that,
16 and it's a -- and it's another part of the same
17 entity, it -- it doesn't really leave the Board, and I
18 suspect maybe other members of the public, feeling as
19 though, you know, when it's clear that, you know, the
20 -- Bruce asked the question yesterday about in --
21 induced effects on wildlife that result from
22 additional hunting. I know that DFO was asked some
23 questions about that in relation to fishing pressures
24 as well.

25 And I -- I guess, from the Board's

1 standpoint, we just want to see that the Developer is
2 going to deal with it. And -- and I'm just pointing
3 that it's unhelpful for one half (1/2) of the
4 Developer to say, We're not doing it the other half
5 will. Now that Gavin's here, I know you're -- just
6 ask him to help me with this. So, anyway.

7 MR. RICK HOOS: Rick Hoos. Before
8 Gavin enters the fray, I -- I might just say one (1)
9 thing. We certainly recognize that ENR have wildlife
10 officers and part of their duty is to make sure that
11 the -- the rules, the bans and -- and regulations
12 associated with protecting the environment are -- are
13 respected by people.

14 And, likewise, from a fisheries
15 perspective DFO also has DFO fisheries officers. They
16 will have a primary role in ensuring that their
17 resources that they are responsible for protecting
18 are, in fact, protected and that people are honouring
19 or obeying the rules and regulations that are out
20 there.

21 However, we -- we also recognize that,
22 in this part of the world, as was -- was stated
23 yesterday, there are a lot of other organizations that
24 can contribute to the solutions and can contribute in
25 a meaningful way to -- to helping to make sure that

1 things are done properly.

2 And that's why we usually made
3 reference to various co-management boards, the HTC's or
4 the IGC, as also being important parties whose views
5 should be considered and, where appropriate,
6 incorporated into whatever approaches are developed to
7 go forward with.

8 At the same time, we were very
9 reluctant as a Developer group to state what our
10 concrete opinion was on how things should be done,
11 because we felt this should be an integrated,
12 cooperative effort, not just the Developer's view
13 saying, It should be done this way.

14 THE FACILITATOR: John Donihee. Thank
15 you. And -- and I certainly understand that regime
16 and -- and have no doubt that, you know, co-management
17 takes time to work. And -- and that it -- and I have
18 no doubt that it will. I mean, we have the -- the
19 representatives of WMAC, you know, we had Frank Pokiak
20 here for most of the day yesterday. So obviously
21 these organizations are interested in -- in what's
22 going on and will play a role.

23 I guess the only other observation I
24 might make is that although the WMAC and Game Council
25 and HTC's do have a role to play, very often in new

1 incremental kinds of situations like this, they end up
2 being rather constrained by resourcing.

3 And, you know, it's fine to say that
4 they're going to play a role in all of this. But if
5 they simply don't have the resources to get together
6 and to help you, I guess my question is, you know, is
7 -- is the Developer open to providing some additional
8 assistance to these co-management organizations so
9 that they can do that job?

10 MR. JIM STEVENS: Jim Stevens. The
11 short answer is, Yes. Of course, there's limits on
12 what we can provide, but once we know what the
13 resource requirement is it would be partially or
14 wholly addressed.

15 MR. GORDON STEWART: Thank you.
16 Gordon Stewart. A second question, where will funding
17 come from to monitor the road? Just read it into the
18 record. Gordon Stewart. Number 3, what type of
19 policies and regulations will be put in place?

20 MR. JIM STEVENS: Jim Stevens. I'd
21 ask Gavin to provide -- maybe go back to a quick
22 overview of monitoring. And then potentially things
23 that the GNWT might do?

24 MR. GAVIN MORE: From monitoring in
25 our discussions with DOT we've been breaking it down

1 very distinctly into pre-construction activities and
2 construction activities and trying to come to grips
3 with what the wildlife monitors will do, what ENR
4 staff will do, versus the construction staff and DOT.

5 The important part, looking at that
6 concept of follow-up and the -- what we consider more
7 on the research end of effects monitoring, we've
8 determined a number of species that ENR is already
9 engaged in or concerned about. And the key there is
10 for the barren-ground caribou. And this is actually
11 in one of the IRs. I don't have the exact numbers to
12 update that, but we've already mentioned that we're
13 already starting to move into that area with changes
14 to our approach to caribou collaring on the two (2) of
15 the herds.

16 All of this fits in with the sort of
17 cross-NWT monitoring of barren-ground caribou and our
18 overall management for -- for herd population
19 management in conjunction with the co-management
20 groups. So that whole aspect of both herd monitoring
21 is taking place but, as I mentioned, we've expanded
22 and changed the -- the technical approach, or
23 technology approach, to see if we can start looking a
24 little more at behavioural effects of pre the road and
25 with the road. So it goes back a little to the

1 questions that were raised earlier on in IR requests
2 to us to -- to better explain how we will look at
3 effects.

4 Those are no atypical for ENR to do in
5 the sense that there's no proponent in the Territories
6 that gets into that end of collaring animals. That --
7 that end of research is -- is definitely within ENR's
8 mandate.

9 In terms of who's going to fund it, the
10 question has already gone now to FMB. We've put in a
11 request for funding. The caribou monitoring, by and
12 large, is already coming out of our Caribou Forever
13 strategy or from departmental funds. The big issue is
14 going to be over some of the other species and what is
15 funded for that.

16 And right now our direction is that
17 once there is an approved road then we -- the two (2)
18 departments can go back and request that additional
19 money for that kind of effects monitoring.

20 The more day to day, as part of the
21 regular routine that happens during operations, of
22 course, is ENR has staff that have a -- an enforcement
23 function. Our staff have agreed that it's their role
24 both during construction and operations to be the
25 group that would discuss with the HTC's ongoing issues

1 -- issues/ideas for advice to DOT. And DOT has
2 already fin -- put in on the record a couple of the
3 ideas of sort of that ongoing management that actually
4 happens in the Yukon.

5 And I guess the key here is to -- to
6 reflect on -- and I think it's been mentioned in the
7 IR responses -- is that there's a very elaborate
8 porcupine harvest management plan that's been
9 submitted to the Board. And if you look at the list
10 of the agreements of what people -- different groups
11 will work on, we see that much of the same roles of
12 the groups, minus the sort of Yukon folks for sure.
13 But the -- the kind of approach that's taken in that
14 harvest plan would likely be the kind of ideas that
15 would be put into place for this road if it's built.

16 And the key there is these are the same
17 groups that are signatories to that harvest plan. So
18 they've been through ten (10) years of discussion of
19 what are the ideas, what are the issues, what are --
20 who should do what. And I think that's very important
21 for people to particularly go to the appendices and
22 take a look at how people have defined the roles and
23 responsibilities.

24 So for much of that, we don't actually
25 see much difference other than for that linking back

1 to the HTC's and WMAC. The role really is ENR as part
2 of our overall management. Many of the ongoing daily
3 activities for construction will be the -- the
4 wildlife monitor. So things like reporting issues,
5 reporting accidental kills, reporting observations,
6 those are all things that we expect to be coming from
7 the -- the contractor for us.

8 And the -- the -- the specifics,
9 particularly during construction around grizzly dens
10 that may occur near borrow pits, that what would be
11 the known contingency responses that would be taken,
12 should a bear be disturbed, that sort of thing.

13 So those are all the aspects that --
14 that we're dealing with directly with -- with DOT to
15 try to firm up what would be our understanding of the
16 best ways to go through that. And again, the idea was
17 that the -- the biologists in Inuvik would take those
18 ideas also to the HTC's to discuss.

19 So that whole idea about co-management
20 and ongoing discussion, not only by DOT, but by our
21 department is a fundamental part of -- of what we've
22 been talking about. From our perspective the same
23 exists.

24 IFA sets out quite an array of
25 responsibilities and the whole aspect of co-management

1 built into that. So -- and I'll use an example, some
2 people have been asking what will we put into -- to
3 effect for regulations.

4 One (1) of the IR responses goes
5 through a very detailed discussion of what are our
6 options and what we've done elsewhere. So that --
7 that's -- that's fairly clear. But the key is is that
8 even though the GNWT has the ability to set
9 regulations under the Wildlife Act, those are pre-
10 discussed and usually pre-agreed to with the co-
11 management partners before we put them into place.

12 So the idea of -- of establishing what
13 would we do right now, right now we already have
14 certain things in place in terms of particular hunting
15 bans, quota systems, but what we put into place is
16 something that will be designed over time in reaction
17 to the issues, the changes in caribou populations,
18 that sort of thing.

19 So you won't get clarity at this stage;
20 that will be designed in as part of the co-management
21 process to make those decisions.

22 MR. GORDON STEWART: Thank you, Gavin.
23 Gordon Stewart. I'll just read the question into the
24 record, but I think you've already answered it, or
25 most of it anyway.

1 Which groups or -- or committees will
2 make up the policies and regulations, or will the
3 existing GNWT policies and regulations supercede all?

4 I -- I think you've answered most of
5 it. The only question I would have for my -- for
6 clarity would be, from what you said, it sounds like
7 there would be the GNWT policies and guidelines and --
8 and DFO and whoever else is involved in -- in kind of
9 regulating and -- and monitoring.

10 But if there is a -- some suggestions
11 from HTC for example for some new policy to be put --
12 put in place, would that be considered and what is the
13 mechanism for that?

14 MR. GAVIN MORE: Okay. The members
15 here might be a little better than me. We've
16 described the process, as I understand it. Basically
17 these -- as issues arise they're discussed with the
18 HTCs. And it'll depend on how broad -- how many HTCs
19 based on -- on what the issue is. So obviously
20 caribou would -- would -- would engage different
21 groups than -- than say pol -- polar bears.

22 So the key there is that those are
23 discussed and then for regulations, the HTCs can make
24 bylaws and then the recommendations of regulations are
25 brought to WMAC and discussed.

1 So if you look at the caribou hunting,
2 the regula -- the -- the proposal originally was to
3 allow some hunting of Cape Bathurst. The WMAC advised
4 against that and wanted a total ban. That ban was put
5 into -- placed in the regulations under the Wildlife
6 Act.

7 The -- the same -- and going back to
8 the Fisheries, the key is to remember in the NWT Sport
9 Fishing Regulations, for example, are made federally,
10 but then they're made by jurisdiction and then, of
11 course, we have responsibilities for enforcing those
12 fishing regulations.

13 But at the same time you also have to
14 bring in private lands and what's under the IFA in
15 terms of restrictions on sport fishing that can be put
16 into place on a -- sort of a request basis, that sort
17 of thing.

18 MS. MEGHAN BIRNIE: So, Gavin, from
19 your response, I understand that ENR would be taking
20 the lead on a number of these activities, working with
21 existing bodies. You may be just a placeholder for
22 when we get to the topic on follow-up and monitoring.

23 Is -- I would want some clarification
24 to take back to the Board on -- through what
25 mechanisms, project specific monitoring would be

1 conducted for some of those harvesting items and also
2 some confirmation that those other parties that are
3 going to be, or were said to be developing guidelines
4 and conditions, agreed to -- to that role and that
5 involvement through those -- those very mechanisms.
6 Meghan Birnie.

7 MR. GAVIN MORE: Gavin More, GNWT. I
8 think we can agree that the key there was we had
9 expected to be able to go to the -- to the HTC's before
10 this with the draft plans.

11 And the issue before us, of course, was
12 getting to FMB to see what would be approved
13 financially for our particular wildlife effects
14 monitoring. And we now have that answer finally at
15 last, but -- so it sort of slowed things down.

16 The other part for us was we -- we'll
17 be looking very carefully at the field work for --
18 from this summer, because we will now change some of
19 the species that we were thinking of doing effects
20 monitoring, largely because they do not occur in the
21 area.

22 So there's a few changes that we'll be
23 undergoing over the next week or two (2). So whether
24 we can get done before the public hearings or not may
25 be touch and go.

1 Plus, a couple of our keep people won't
2 -- will be on holidays until about September 7th.

3 MR. BRUCE HANBIDGE: Bruce Hanbidge,
4 for the WMAC. I -- I just had part of my question
5 answered. It's good to hear that we have some
6 information back from the Fi -- Financial Management
7 Board.

8 I just wanted to say one (1) thing
9 about question 2. Where's the funding coming from,
10 not just for monitoring, but for other necessary
11 follow-up research? The funding for wildlife research
12 in the Inuvialuit settlement region, which is where
13 the road falls, comes from two (2) parts.

14 It comes from 'A' base (phonetic)
15 funding, which is government funding. But a larger
16 chunk of it comes from something called Inuvialuit
17 implementation funding, which is an ongoing block of
18 money that's contributed through the land claim. And
19 it's specifically for the management of harvested
20 species. It's not for other things.

21 And that's a major role of the WMAC, is
22 the allocation of that money. And having been there
23 for a few years right now, I know that that
24 implementation funding is struggling to meet just the
25 existing requirements for research for harvested

1 species right now.

2 We're talking about quite a few more
3 incremental additions here. So I'd like to ask if
4 there's any assurance from GNWT that the funding
5 necessary for monitoring other research, is that
6 coming out of 'A' base or will you be looking at the
7 implementation funds, and -- and as a result of that
8 we're going to have to di -- divert those funds away
9 from other projects that in some cases have been
10 waiting ten (10) years to occur?

11 MR. GORDON STEWART: Gordon Stewart.
12 Thanks, Bruce. In the interests of moving through
13 this stuff fairly quickly, if I could just ask for
14 some brevity in the answers. Thank you.

15 MR. BRUCE HANBIDGE: Are we getting
16 incremental funds from other sources other than
17 implementation funds for these jobs?

18 MR. JIM STEVENS: Jim Stevens,
19 Transportation. Subject to legislative assembly
20 approval, there could be additional funding put
21 towards monitoring and also through the implementation
22 funding. We would probably ask our implementation
23 people to negotiate with the federal government the
24 possibility of increasing that source.

25 MR. GORDON STEWART: Thank you.

1 Gordon Stewart. The next question: How and who will
2 control access to Husky Lake?

3 MR. JIM STEVENS: Jim Stevens here. I
4 just want to clarify a point relative to Department of
5 Transportation's responsibilities. We control
6 activities within a 60-metre right of way, so 30
7 metres either side of the road right of way. We can
8 control parking. We can control access. So within
9 that right of way we can control things, but beyond
10 that right of way it's outside of our purview.

11 MR. GORDON STEWART: Gordon Stewart.
12 I believe that question probably may be better
13 directed to the ILA and AANDC.

14 MR. CONRAD BAETZ: Conrad Baetz, with
15 Aboriginal Affairs. In terms of access to say, for
16 example, Husky Lake, the only sort of place where
17 Aboriginal Affairs would have any jurisdiction would
18 be overland movement of larger equipment, larger
19 vehicles that would trigger the need for a land use
20 authorization, foot traffic, ATV traffic, snowmobile
21 traffic, even some other what I would consider non-
22 conventional tundra traffic, we don't have any
23 jurisdiction or mandate to -- to deal with that.
24 Thank you.

25 MR. RICK HOOS: Rick Hoos, on behalf

1 of the Developer. Conrad, I just have one (1) follow-
2 up question on that. Do you -- do -- does your
3 department control the establishment of cabins within
4 crown lands along the Husky Lakes in any way or -- or
5 not?

6 MR. CONRAD BAETZ: Conrad Baetz, with
7 Aboriginal Affairs. The entire shoreline of Husky
8 Lakes, to my knowledge, is Inuvialuit private land.
9 So that would be an ILA thing. Thanks.

10 MS. MEGHAN BIRNIE: I believe the
11 question of acc -- Meghan Birnie. I believe the
12 question of access, particularly with regard to Husky
13 Lakes, came up yesterday. And I understood the
14 response from the Developer to be that ILA manages
15 access to Husky Lakes.

16 So maybe one (1) of the questions we
17 could take away then if -- if ILA can't respond to it
18 today is whether that's their understanding and
19 they're prepared to manage that access in a manner
20 that addresses concerns raised about access.

21 MR. GORDON STEWART: Gordon Stewart.
22 Moving on, next question. How are they going to
23 monitor harvesting, i.e., fishing, caribou, hunting
24 for bears, et cetera, in the Husky Lakes area?

25 MR. RICK HOOS: Rick Hoos from the

1 Developer here. Just a general comment. This is a --
2 a question that's very comparable to -- to question 1.
3 It just happens to be more focussed on the Husky
4 Lakes. So I presume the same kind of arrangements,
5 perhaps even more refined and more qualified for Husky
6 Lakes would be implemented, but by the same basic
7 group of -- of bodies.

8 MR. GORDON STEWART: Gordon Stewart.
9 Thank you, Rick. Next question directed to, I
10 presume, the Department of Trans -- or, Transport
11 Canada. Is Husky Lakes area going to be treated the
12 same way as any navigable waterway?

13 MR. DOUG SOLOWAY: It's Doug Soloway,
14 Transport Canada. I'm with the environmental
15 division, but with confidence I can probably say that
16 if it's deemed a navigable water, it will follow under
17 the Navigable Waters Act, which will ensure safe
18 navigation.

19 As well, should there be impediments to
20 public or -- or traditional use, there are mechanisms
21 within the Act that allow them to -- to bring that to
22 the NW Navigable Water Protection Office's attention
23 to be investigated and rectified.

24 MR. JIM STEVENS: Gordon, can I ask a
25 question to Doug Soloway? Doug, I -- I believe there

1 are proposed changes to the Navigable Waters
2 Protection Act.

3 Do you envision those changes taking
4 place sooner than later?

5 MR. DOUG SOLOWAY: I -- I really can't
6 comment too much to the extent of that, but all I can
7 say is that they are in the works and I -- I'm not
8 sure when they'll be passed. I know there has been
9 some improvements that have been passed recently to
10 the Navigable Waters Protection Act.

11 They also have introduced a MITA Works
12 (phonetic) act -- or a, pardon me, policy. But there
13 are some improvements, but I really can't speak for
14 the speed of bureaucracy.

15 MR. JIM STEVENS: Just one (1) short -
16 - it's Jim Stevens -- one (1) short supplemental
17 question. I believe, under the proposed exemption
18 list with the proposed changes, Husky Lakes would not
19 be included.

20 MR. DOUG SOLOWAY: Sorry, I -- I can't
21 respond to that. And I can take an undertaking to --
22 to clarify with that.

23 MR. GORDON STEWART: Gordon Stewart.
24 The next question, I believe, might be directed at
25 DFO. Is the 100 foot or 100 metre from the high-water

1 mark in Husky Lakes going to be in effect?

2 MS. AMANDA JOYNT: Amanda Joynt with
3 DFO. I don't think that's directed at me. I think
4 that's more directed at the Proponent.

5 MR. RICK HOOS: Rick Hoos on behalf of
6 the Developer group. Nothing related to the
7 construction or operation of the Inuvik/Tuk Highway is
8 going to have any effect on the 100 foot or 100 metre
9 zone from the high-water mark in the Husky Lakes area.

10 MR. GORDON STEWART: Thank you. Next
11 question. How are they going to monitor access to
12 Husky Lakes by ATV, snowmobile, by everyone; for
13 example, tourists, beneficiaries, non-beneficiaries?

14 You go north of Tuk and you can see how
15 the -- the type of activity, mostly by locals, is --
16 is scarring the land. We certainly don't want to see
17 a similar thing happening here.

18 MR. RICK HOOS: Rick Hoos on behalf of
19 the Developer group. We certainly agree with those
20 sentiments, but it's our view that the ILA is in the
21 best position to respond to that question, as well as
22 the next one actually, nine (9) and ten (10) both.

23 MR. GORDON STEWART: Gordon Stewart.
24 Thank you. I'll just read the question into the
25 record.

1 "How are they going to monitor and
2 control the number of cabins that
3 will be built in the whole Husky
4 Lakes area?"

5 And we'll put that on the record for
6 ILA to respond to later. Thank you. The next
7 question:

8 "How are they going to control
9 industry from using Husky Lakes as
10 an access to other parts on the Tuk
11 Peninsula and Liverpool Bay when
12 they want to explore and develop in
13 the future? Industry will try to
14 use it year round: boats, barges in
15 the summer, winter roads in the
16 winter."

17 MR. RICK HOOS: Rick Hoos, Developer's
18 group. Again, this is the responsibility of the ILA
19 and the -- the screening process and the Review Board
20 process in the event industry -- and that would
21 primarily perhaps be the oil and gas industry if they
22 decided to start becoming active again.

23 I might, however, also say that, having
24 worked for the industry for a good part of my career,
25 we've never -- the industry had never considered doing

1 any activities that I can recall in the Husky Lakes
2 area.

3 MR. GORDON STEWART: Thank you.

4 Gordon Stewart. Next question.

5 "With -- with a road brings more
6 tourists and hikers. This will
7 result in more bear encounters and
8 possible defence kills. How and who
9 will compensate for something like
10 this?"

11 MR. JIM STEVENS: Jim Stevens. From
12 the Developer's perspective, we're willing to work
13 with the other parties to consider this, but beyond
14 our -- a direct mandate, we don't have it.

15 THE FACILITATOR: Thank you. It's
16 John Donihee. Gavin, can you help with the
17 compensation for -- for bear kills whenever they --
18 they come off quotas? Does the government still pay
19 for some kind of compensation for defence-killed
20 bears?

21 MR. GAVIN MORE: Gavin More, GNWT.
22 Actually, you probably need somebody local to answer
23 that. I don't think so. I'm pretty sure we have very
24 limited comp -- compensation policies nowadays, but I
25 -- I understood it just came off the quotas. I didn't

1 think there was any -- any compensation.

2 MS. AMANDA JOYNT: It's Amanda Joynt
3 with DFO. I just wanted to answer the majority of the
4 questions, and I think I can do so just by giving the
5 HTC an overview of what the DFO has done in the past
6 couple of years with regards to the road.

7 So we created something called the
8 Tuk/Inuvik working group, so both DFO and the FJMC sit
9 on that group as advisors and observers. And the two
10 HTCs have members, three (3) members each, sit on that
11 group. And that group exists solely to create a
12 management plan for the fisheries management of the
13 highway corridor.

14 So that's what we've been doing for the
15 past two (2) years. That involves things like doing
16 current work, like on fish presence along the
17 corridor. We've had a couple of fisheries assessments
18 on lakes where there's no TK and no science knowledge.
19 There's TK studies that have been in Tuk and in
20 Inuvik. We have plans for a workshop. And you don't
21 have to write all this down. I can write it to you if
22 you want.

23 And also we're starting to define what
24 type of voluntary management plan for subsistence
25 harvesting they would like along the road. And for --

1 in terms of policies and regulations, DFO has more
2 control over things like sport fishing and commercial
3 fishing, and then, for the Fisheries Management Plan,
4 we'd incorporate things like the ILA Husky Lakes
5 Management Plan, the Tuk Community Conservation Plans,
6 and we incorporate those into whatever we created for
7 that voluntary management plan. Okay?

8 MR. GORDON STEWART: Gordon Stewart.
9 Thank you. That brings to the end the questions. Is
10 there anything else anyone else would like to add to
11 what the HTC has been -- been asking, or any of the
12 responses?

13

14 (BRIEF PAUSE)

15

16 MR. GAVIN MORE: Gavin More, GNWT. I
17 just want to add the -- the concept of commitments to
18 money. People have to understand that both the
19 federal government and the GNWT have a Financial
20 Management Act, and nobody can commit to money past
21 one (1) year. And, of course, all the decisions go
22 through business planning, all that sort of thing.

23 And I think, on this particular
24 project, it'll be quite like the MGP for certain
25 things, until there's certainty of a project, we won't

1 be financed. So at this stage of the game, they're --
2 nobody can commit, it's just not possible. You likely
3 can get the concept of best efforts from people, but
4 not financial commitments, and definitely not at this
5 stage of the -- of the project.

6

7 (BRIEF PAUSE)

8

9 THE FACILITATOR: Well, thank -- I
10 want to thank Ms. Rogers and the HTC for those
11 questions. They're very interesting areas to explore.
12 Now we're back to gravel. I wouldn't want you to
13 think I'm not interested, but.

14 Now, we were informed that Mr. McArthur
15 (phonetic) is not available. And I asked Dr. Burn if
16 he would be able to prepare an IR, a written request,
17 which we can probably have in your hands or in your
18 email inbox by tomorrow.

19 So I'll stop talking about it because
20 I'll -- I'll let Dr. Burn explain it, but the -- the
21 next step obviously is to sort of say we'll get him to
22 give you an -- some indication of what he's looking
23 for. And then what we would like in return, I
24 suppose, is an indication of when you might be able to
25 actually provide that information.

1 MS. ERICA BONHOMME: Erica Bonhomme,
2 Kavik-Stantec. I am still trying to get our person
3 available -- Mr. McArthur available -- so I will --
4 I'm -- I will sto -- still anticipate that we don't
5 have to go the route of an IR.

6 THE FACILITATOR: Well, I think his
7 moment has passed. So, you know, we -- we really have
8 other things we need to move on to with the agenda.

9 DR. CHRIS BURN: Thank you, Mr.
10 Chairman, it's Chris Burn here. The -- the primary
11 objective is to be able to trace from the materials
12 that you have presented in your report, the drill logs
13 and the aerial photographs which indicate the
14 locations of the drill sites. From -- that's the raw
15 data. And then all of a sudden there's a table that
16 produces the estimate of the aggregate that is in the
17 pit. And I would like to be able to work through that
18 process.

19 So he need -- he or whoever is going to
20 produce this response to the IR needs to err on the
21 side of -- of -- of detail rather than to produce a
22 high-level response that indicates well, you know, we
23 do two (2) things and put it in a spreadsheet and out
24 comes the answer. So I -- I really want to know in
25 detail what are the steps that are followed so that

1 that can be checked.

2 MS. ERICA BONHOMME: Erica Bonhomme.
3 My understanding then is to provide that information
4 so that you may be able to verify the accuracy of the
5 information that's been presented, particularly the
6 volume estimates.

7 DR. CHRIS BURN: Chris Burn. That's
8 quite right. Included in that assessment I will be
9 interested in knowing whether if a drill log
10 terminates in what is described as "ice" that whether
11 all of the material above that boundary is considered
12 part of the deposit, whether some of the material is
13 considered part of the deposit.

14 I'm mindful in this case that your team
15 has told us that 1.8 metres of aggregate is required
16 in the road to prevent the degradation of permafrost
17 beneath the road. And, therefore, I assume that at
18 least 1.8 metres of aggregate is required above the
19 excess ice to prevent degradation of the excess ice?

20 If there is another value that you wish
21 to present as -- as preventing the degradation of the
22 excess ice then please indicate why that is the case.

23 In the case of the one point four (1.4)
24 and one point eight (1.8), that comes from the
25 Transport Association of Canada document that Ms.

1 McGregor earlier referred us to and is repeated within
2 your Environmental Impact Statement. But if -- if, in
3 fact, you're going to take everything off the top of
4 the mass of ice and then anticipate that somehow it
5 will remain in place, then I'd like to have a argument
6 as to why that was -- why that is the approach that is
7 being adopted.

8 So this is a long-winded way of saying
9 I want to know above an ice deposit how much of the
10 aggregate is available to you and how much is to be
11 used as protection for the ice in that deposit. I
12 assume in most of the cases that you have not
13 penetrated the ice and that the ice is actually quite
14 thick.

15 As you know, characteristically in this
16 region, the thickness of mass of ice -- icy bodies
17 that have been drilled in their entirety can range on
18 the order of 30 metres or more. Commonly, not more
19 than 30 metres but 20 to 30 metres. I assume that it
20 is not the Developer's intention to degrade those
21 extensive mass of ice. So I'd like to know how that
22 ice is to be protected.

23 That's a rather long-winded
24 presentation. But I hope that you -- that whoever
25 writes this response will be able to present something

1 that enables us to work with what is given and doesn't
2 require further IRs.

3 MR. WALTER ORR: Walter Orr, from
4 Kavik-Stantec. I can speak a little bit to this
5 because it's not directly related to your question of
6 where the cutoff on the analysis is. Pits that have
7 an overburden component on top of the granular or the
8 resource that we're dealing with, in -- in those
9 cases, the -- the methodology would be to -- to
10 continuously work the deposit while moving the
11 overburden into the previously excavated location, and
12 move along in that -- in that type of a manner. And
13 that's part of the -- the type of thing that for each
14 individual pit that would be included in a pit
15 management plan.

16 DR. CHRIS BURN: Chris Burn. Thank
17 you very much. I -- I did assume that when the pit
18 was developed that the -- that as soon as a
19 significant ice surface is exposed, that the intention
20 would be to cover it up at the end of that year's
21 operations.

22 But the -- the question really is, if
23 you have calculated an aggregate deposit total volume,
24 and if, as in the case of Pit 170, about three-
25 quarters (3/4s) of the boreholes terminated in mass of

1 ice -- at least the description is "ice," nothing
2 else. So if three-quarters (3/4s) of the boreholes
3 are terminating in that material, how much of the
4 material that is to be removed from the surface is to
5 be placed back on the surface at the end of operations
6 in that area?

7 Otherwi -- I mean, if -- if you're
8 intending to go to a peat bog somewhere else and dig
9 that peat bog up and we're going to stick it up on top
10 of the mass of ice, that's fine. But I'd like to --
11 we'd like to know that there are activities in areas
12 other places that are going to be used to -- to cover
13 that material up.

14 It may just be that the calculation --
15 and this was the question that was asked this morning.
16 It may just be that there is already an allowance.
17 But I don't think we'll get that answer today.

18 MR. WALTER ORR: Walter Orr. I -- as
19 you've just noted, we cannot address the specifics of
20 where the cutoff in terms of the volumetric
21 calculations are -- have been made.

22 THE FACILITATOR: It's John Donihee.
23 Ca -- can I just ask, maybe to shorten this one (1)
24 step, do you still want that question in writing from
25 Dr. Burn? Would it assist you if we did that?

1 Because if you have enough now, you could just get on
2 to answering it.

3 MS. ERICA BONHOMME: Erica Bonhomme.

4 Yes, we can answer that without having that question
5 in writing. I cannot give you a timeline at this -- I
6 -- I will give you a timeline. Would August 31st be
7 sufficient?

8 DR. CHRIS BURN: This is Chris Burn.

9 August 31st is -- is a convenient day because it also
10 is the date on which the terrain report is coming in,
11 I believe. So the more we can get before the long --
12 the longer before the hearings, the better. I would do
13 that. However, what I -- what I think I'll do offline
14 is to write down exactly what I hope that you'll be
15 able to provide because that, I think, might be the
16 best way of resolving this issue.

17 MS. ERICA BONHOMME: Erica Bonhomme.

18 So I -- I wasn't entirely clear. Was August 31st a
19 acceptable date for that response?

20 DR. CHRIS BURN: It's acceptable to
21 me, and maybe to the rest of the Board. Mr. Chairman,
22 I'd like to ask one (1) question to AANDC. And -- and
23 this is to -- directed to Mr. Baetz.

24 If -- in the case of pit management
25 operations that you have at the moment,

1 characteristically, how much material do you
2 anticipate to be deposited on top of a massive ice
3 deposit at closure?

4 MR. CONRAD BAETZ: It's Conrad Baetz,
5 with Aboriginal Affairs. We have no -- excuse me. We
6 have no set number.

7 DR. CHRIS BURN: In -- a supplementary
8 question to that then. When -- when you authorize the
9 development of a gravel pit, you receive a fair amount
10 of geotechnical information from whoever's intending
11 to develop the pit. And then you subject that to some
12 degree of examination and then you issue an
13 authorization. So within that -- within that
14 authorization process I assume there's a closure plan.

15 And how would you calculate -- not
16 necessr -- what is the process through which those --
17 these kind of considerations that I've been raising
18 would be addressed in that -- in -- in your assessment
19 of the Developer's closure plan?

20 MR. CONRAD BAETZ: It's Conrad Baetz,
21 with Aboriginal Affairs. Generally when there are new
22 quarries that are intended to be opened, yes, you're
23 correct that there's geo-technical information that we
24 request of the Developer and it's in the context of
25 viewing to see what the ice content is, as well as

1 what the quality and the quantity of the materials
2 are.

3 Upon the issuance of the quarry
4 authorization and through the -- the planning
5 processes, we do ask the Developer to ensure that they
6 remain clear of your massive ice lenses through the --
7 the quarry operations.

8 In terms of closure, it's generally a
9 case-by-case basis, because most of our experience is
10 on the Dempster Highway and the Dempster Highway has a
11 -- has a -- a variety of different sort of aspects not
12 only in terms of slow stability, but also the -- the
13 directions that the slopes face, whether they be north
14 facing south facing.

15 So it's pretty difficult to have a one
16 (1) set figure and we haven't approached it that way.
17 It's been on a -- more of a case-by-case basis. Thank
18 you.

19 DR. CHRIS BURN: Thank you. And then
20 finally the last question is:

21 After a pit has been officially closed,
22 for how many years is the -- is a developer normally
23 required to monitor the satisfactory reclamation of
24 that structure?

25 MR. CONRAD BAETZ: It's Conrad Baetz,

1 with Aboriginal Affairs.

2 Normally -- again, it depends on the --
3 the type of work that's gone on in the specific
4 quarry. If there's been issues with relation to --
5 actually come into contact with massive ice lenses and
6 those kinds of things, and how comfortable the
7 inspector is at closing out the -- the land use
8 permit.

9 We have the ability within our
10 legislation to -- to -- even though a -- a project is
11 complete, even with a final plan and -- and the
12 closure and reclamation process is complete, being
13 submitted to our department it's not until the
14 inspector is satisfied that everything has been
15 adhered to, the reclamation has -- has worked, the
16 final clearance has been granted.

17 So theoretically we could hold a -- a
18 permit open for several years. And -- and again, I
19 mean, it's a case-by-case thing. There's no one (1)
20 set -- there's no one (1) set number. Does that help
21 answer your question?

22 DR. CHRIS BURN: Thank you very much.
23 I have no further questions.

24

25 (BRIEF PAUSE)

1 MS. MEGHAN BIRNIE: So just a point of
2 clarification with the TK -- Meghan Birnie. With the
3 TK Study that came in, the summary of the workshops,
4 two (2) of the bullets in the recommendation section
5 state that -- the first say:

6 "Sources of gravel close to the
7 community for community use."

8 And the second is:

9 "Do not take gravel close to Husky
10 Lakes."

11 I'm just wondering if in the course of
12 the TK studies the communities and the participants
13 were shown the maps, shown the seven (7) borrow
14 sources and asked to confirm if any of those were too
15 close to Husky Lakes or -- or should be those sources
16 that would be saved for community use.

17

18 (BRIEF PAUSE)

19

20 MR. DOUG CHIPERZAK: Doug Chiperzak,
21 Kavik-Stantec. During the workshops we did have maps
22 -- oh, we did have maps with -- with the burrow sites
23 on them and we may have had a -- a few additional ones
24 on there, not just the -- the seven (7).

25 But -- and they did discuss, you know,

1 which ones were -- were of concern. And so there was,
2 I think in that section there was a talk about a
3 couple different borrow sites that they had more
4 concerns. And then there was the general concerns and
5 the recommendations that you just -- just listed there
6 that came out. But they did, you know, see which
7 borrow sites were -- were being considered.

8 MS. MEGHAN BIRNIE: Okay. Thank you.
9 Meghan Birnie. Were any of those ones no go according
10 to the community? I notice there's one that's -- that
11 almost overlaps with Husky Lakes. Borrow source 320 -
12 - Meghan Birnie. Borrow source 325.

13 And I'm wondering if they actually did
14 state that any of the others were too close to the
15 community and should be saved.

16

17 (BRIEF PAUSE)

18

19 MR. MICHAEL FABIJAN: Michael Fabijan,
20 Kavik-Stantec. The -- the concern that they had with
21 one (1) of the sources was making sure that any -- any
22 gravel that was taken was well away from the boundary
23 for Husky Lakes. And that was already -- that was
24 just verified to them that that was, indeed, the case.

25 There wouldn't be any gravel sourcing

1 close to Husky Lakes, which was within 1 kilometre,
2 which is the standoff for the Husky Lakes plan. That
3 was the main concern.

4 And the one (1) for the gravel sources
5 for town, that's 177. So, there wasn't any plans to
6 do anything more for the highway. So basically it was
7 verification of their cons -- well, a verification.
8 Their concern was already being addressed.

9 THE FACILITATOR: Thank you. John
10 Donihee. I think there's just the one (1) issue left.
11 I guess it was raised by DFO, and that -- that relates
12 to the lessons learned question.

13 And I -- I guess my question is, if you
14 -- do you still want to explore that, and if so, let's
15 -- let's try to do it with just a couple of questions.
16 I -- I realize there's a presentation out there. But
17 we need -- we need -- we do need to move on.

18 MS. AMANDA JOYNT: It's Amanda Joynt,
19 with DFO. Yeah, I'd rather not rush through the
20 lessons learned. I think it's a really important
21 subject to -- to look at. So I'm going to try and
22 keep it short. But if they feel like they need to do
23 the presentation, then I think we should probably go
24 through that.

25 I've just got some -- some subjects

1 here that I think, from a DFO perspective, I'd like to
2 see in that -- that document or whatever it's going to
3 be, that report. So in lessons learned with regards
4 to culvert and bedding and fish passage lessons
5 learned with regards to riprap, with regards to
6 quantities and cleanliness, sediment and erosion
7 control fencing, overflow culverts and the placement
8 of them, and then planning is probably the most
9 important thing, so.

10 In the TK report, for example, I read
11 that the community had said that there was supposed to
12 be a bridge, and it was a culvert because we passed
13 the point of the time where we can put the bridge in.

14 And so that's something that I would
15 like to see in terms of planning because that culvert
16 that we've been speaking about for a long -- for a
17 couple days now, that was originally planned to be a
18 bridge and it was changed to a culvert, so. Okay, so
19 we'll figure that out in the report.

20 I'm not done yet though.

21 So the other thing with planning is
22 consultation and incorporating those -- those
23 decisions into crossing types and that selection
24 criteria for those crossing types, and also doing
25 consultation to establish your fisheries baseline and

1 your subsistence fisheries baseline, and, also,
2 planning to ensure that monitors who are out on the --
3 on the construction site understand what they are
4 monitoring for.

5 I think that was one (1) of the issues
6 as well. And, also, was there anything that surprised
7 them in terms of flows or embankments or anything that
8 they weren't expecting. That's also something I'd
9 like to see in the report, and how they plan on
10 incorporating that into the designs for the highway.

11 MR. WALTER ORR: Walter Orr, from
12 Kavik-Stantec.

13 The issues that DFO has raised on this
14 are exclusively with the -- with the crossings, so
15 I'll speak to -- to those. And, you know, to -- to be
16 as brief as possible, one (1) lesson learned on the
17 crossings is that there needs to be more work, more
18 planning, more technical rigour in the design of
19 crossings. And the -- it is absolutely anticipated
20 that that would be carried out. That's the first
21 lesson learned.

22 The -- the second lesson learned is
23 that...

24

25 (BRIEF PAUSE)

1
2 MR. WALTER ORR: Excuse me. Walter
3 Orr here again. The second lesson learned is that the
4 -- the installation of these will be challenging and,
5 in fact, the -- there will be -- while we say that
6 we're going to be using winter construction for
7 everything and -- and, indeed, a lot of these cro -- a
8 lot of these culverts will be placed in -- in the
9 winter, it may be appropriate to look at summer
10 installations and some of them -- the larger culverts
11 and indeed, of course, the -- the bridge installation.
12 So it will be largely done in the summer.

13 And the -- one (1) of the things that
14 we -- the -- that was mentioned prev -- was the issue
15 on riprap and cleanliness of riprap and supply. And -
16 - and a lesson learned were -- that were -- we were
17 quite aware of actually with 177 as well that armour
18 rock, whether riprap or other flow protection, is a
19 challenge in this entire region, how to do that
20 appropriately. And we -- we note that there may be
21 the use of manufactured products and that means
22 basically concrete artificial riprap or other type of
23 devices to protect the -- the flow embankments.

24 A lesson learned as well as that, in
25 fact, the end treatments for the culverts that were

1 installed on the 177 Road are, in fact, performing
2 well and the end treatments speak to that armour rock
3 riprap that we've just mentioned, together with the
4 erosion control and protection. And for the
5 crossings, those are largely the -- the lessons
6 learned. There's a number of broader issues in terms
7 of lesson learned from 177 which are applicable to the
8 project but I won't speak to those specifically in the
9 interest of time unless I'm questioned on them.

10 MS. AMANDA JOYNT: Amanda Joynt with
11 DFO. So can you confirm that there actually will be a
12 report or...?

13 MS. ROBYN MCGREGOR: Robyn McGregor.
14 That was the question I was going to raise or to point
15 out.

16 In the -- we have -- we do not have the
17 intention to produce a lessons learned report. On the
18 July 31st -- unless asked to do so. On the July 31st
19 direction to Developer, items 3 and 4, which are --
20 item 3 is lessons learned for -- from Tuk to Source
21 177 and the Dempster Highway with respect to the
22 aggregate use on the Dempster Highway.

23 And item 4 is information on the
24 quantity of -- of aggregate used in the recent
25 rehabilitation of the Dempster Highway and then bullet

1 number 1 in DFO's letter of August 13th to the Review
2 Board.

3 That information is in the lessons
4 learned presentation that is -- was provided to you.
5 It is actually in more than just presentation style
6 slides, it actually is quite of bit of text relative
7 to the lessons learned. In fact, there are sixteen
8 (16) points in paragraph form for the lessons learned
9 on Tuk to Source 177, and another seven (7) for the
10 Dempster Highway, and then a table of the granular
11 material usage to respond to item 4 in the directive.

12 So that should be sufficient to
13 document the lessons learned in respect to the
14 directive and bullet 1 of the August 13th letter from
15 DFO.

16 MS. AMANDA JOYNT: Amanda Joynt with
17 DFO. Just to clarify, that is something that was
18 promised at the meeting two (2) weeks ago with DOT, so
19 it would be nice to have.

20 We will review the slides, though, and
21 see if that's something that -- that we can -- we can
22 use instead. But, it would be nice to have something
23 that's in writing and can be used as a management
24 tool, just not for us to -- to make sure that that's
25 been done but for DOT to actually use in the future

1 when building their highway.

2

3 (BRIEF PAUSE)

4

5 MR. WALTER ORR: Walter Orr, Kavik-
6 Stantec. There's -- some of the things that DFO is
7 asking for -- for on this are in the -- and I -- I
8 speak specifically to culvert crossing and -- and
9 detailing, because that is largely the -- the issues
10 that we have found on 177 Road are largely as the
11 result of installation details and performance of
12 those particular installation details.

13 So as a -- what the Proponent commits
14 to is to review the -- all the available information
15 on this and we note inf -- review the information
16 available in the -- in the in the TAT (phonetic)
17 permafrost guidelines, review the most current DOT
18 guidelines for culvert installation and, in fact,
19 review the performance of -- of the 177 cross --
20 culvert crossings and -- and come up with the -- the
21 most appropriate details for the -- for the culvert
22 crossings on this -- on the proposed highway.

23 So -- and beyond saying that, really,
24 we don't have an answer for this is what we are going
25 to do, because that is part of the process.

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(BRIEF PAUSE)

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MR. DEREK PARKS: Derek Parks with the Tuktoyaktuk/Inuvik working group. I guess with the answers coming from Walter on the design and the protocols that we're using, as the community group, we want to make sure and ensure in this forum that what we saw on the 177 doesn't happen.

So I'm assuming that with the information gathered from the one (1) culvert that Frank was talking about yesterday, should be in a written form and provided to this group because we can't adequately assess the potential impacts if we're going to have culverts like this popping up for the next three (3) years.

That prevents movement of fish and the community has got a great concern and I thought it was relevant for the group here to see what comments are coming back from the community on the rush, apparently of the design, to see how this was going through.

Thank you.

MR. WALTER ORR: Walter Orr here from Kavik-Stantec. If -- seeing that this has been introduced, could I show two (2) pictures of the

1 current -- of this culvert currently? They were taken
2 in June of this year.

3 THE FACILITATOR: Are they in the
4 presentation, or --

5 MR. WALTER ORR: They're right here on
6 this stick.

7 THE FACILITATOR: Sure. Let's see
8 them.

9 MR. WALTER ORR: Thank you.

10

11 (BRIEF PAUSE)

12

13 THE FACILITATOR: It's John Donihee.
14 So, Mr. Orr, while we're getting those pictures loaded
15 up, can you tell us specifically what -- for those of
16 us that haven't been to Tuk to see this, what we were
17 looking at there and how that happened?

18 MR. WALTER ORR: Walter Orr, here. I
19 could make a bad joke, but I won't on the -- what's
20 happening there, but -- but what you see is this is --
21 this happened in the -- actually -- in fact, I maybe
22 should call Russell Newmark here to -- to address the
23 specifics of when.

24 But my understanding of -- of this is
25 that this was a result -- in the spring and we had a -

1 - ice under the culvert which came loose in the bottom
2 and lifted the culvert up. The -- and caused this
3 particular failure. This should be clarified. This
4 is a failure. This is not an intended outcome. And -
5 - and we've learned some things from that in -- that
6 are addressed in the -- in the presentation.

7 The things we've learned on, end
8 projection length. This is a -- the end projection on
9 this was beyond the tow of the embankment and that
10 allowed more leverage for ice to do that. We would
11 reduce and protect projection length.

12 We certainly have to evaluate location
13 of this. This was carefully installed to the bottom
14 of the existing channel as per -- as per consultation
15 with DFO at the time of installation.

16 And -- and in fact, if you look at the
17 two (2) pictures on that disk you see it's actually
18 performing quite well currently.

19

20 (BRIEF PAUSE)

21

22 MR. WALTER ORR: This is the exact
23 same thing we saw in the other picture. That's the
24 end that was sticking up in the ground in such a
25 manner -- in the air. And this has been cut back

1 approximately 20 feet from the -- the previous end of
2 the culvert. What that does, it limits the amount of
3 leverage that any ice under the pipe ha -- has on --
4 on it.

5 And, in fact, if you look at the --
6 open the second picture on the downstream end, you can
7 see they're both flowing quite well, performing just
8 as you would want a culvert installation to perform.

9 So while what we saw in the previous
10 picture was clearly a failure, and it's -- it's a
11 failure that is -- as a -- as a design team and a co -
12 - and a construction group, that both have learned
13 from that. And, you know, we'll make changes in the
14 upcoming project.

15 THE FACILITATOR: Thank you very much.
16 Anything -- I thought maybe for a minute there
17 operation Nanook had been established -- or setting up
18 heavy artillery in Tuk, but -- don't think so?

19 MR. RUSSELL NEWARK: Maybe I could ask
20 two (2) quick things. The first one (1) is that needs
21 to be kept in mind is that this didn't -- situation
22 didn't stay like that very long, throughout the whole
23 process that spring. We know that when you get your
24 spring melt is when you're likely going to have your
25 flows. You're going to have problems with culverts.

1 So, as soon as it came to the attention of ourselves
2 and DOT, it was addressed quickly.

3 The second point is, is that the road
4 was not officially open, so it's not as if it was an
5 open public road at the time that this occurred. So I
6 think Walter's comments were correct, that obviously
7 for this particular type of culvert installation they
8 have to do some things differently in the design. But
9 those two (2) things also need to be taken into
10 consideration when looking at the whole picture.

11 THE FACILITATOR: Yes. Thank you very
12 much.

13 MR. GORDON STEWART: Gordon Stewart.
14 I'll just ask the dumb question now. Obviously that
15 culvert length was there for a reason.

16 Was there some technical reason why
17 when it was first laid down that it was laid down that
18 way and, you know, by shortening it, are you causing
19 other issues potentially?

20 MR. WALTER ORR: Walter Orr, from
21 Kavik-Stantec. This speaks to one (1) of the -- the
22 differences between the process on the 177 road and on
23 this road. The -- the start of the approval to start
24 design to the installation of the first year's -- the
25 start of the first year's construction was three (3)

1 months for the 177 road, whereas we're taking that
2 much time just going through this -- this process this
3 summer.

4 So there was -- what that short period
5 of time led to was that we had to pre-order materials,
6 culverts and other things in a best -- not best guess
7 is the right -- that's not the right term, but a -- a
8 very early stage of a design process. And in that
9 case, the culvert was -- was brought in was longer
10 than would have been chosen at the final design.

11 However, it's -- it was there and it
12 was installed that way. So it's a combination of the
13 -- the short period of time for design and the -- and
14 the ordering requirements to -- in a timely manner to
15 make that work.

16 MR. GORDON STEWART: Thank you.
17 Gordon Stewart. Just one (1) follow-up question then.
18 I'm presuming experts were there that would understand
19 the hydrological implications of -- of an over -- of -
20 - of a longer pipe.

21 You know, were -- were there not -- I
22 mean, would -- would that not raise alarm bells that,
23 oh, we're putting too big a pipe in too small an area
24 and maybe it should have been rectified even then,
25 even when you had three (3) months?

1 MR. WALTER ORR: Walter Orr here. The
2 -- the pipe size was -- was verified. And
3 hydraulically both in terms of runoff flows and snow
4 melt flows and in terms of fisheries, fish passages
5 issues, was appropriately sized for those, as it
6 turned out, at -- at the original length.

7 Now, with a shorter length it actually
8 performs slightly better hydraulically. But it was
9 not inappropriately designed hydraulically at the
10 initial installation.

11 MR. GORDON STEWART: Thanks. And just
12 can you tell us what the diameter of -- of that pipe
13 is? Thanks.

14 MR. WALTER ORR: I believe it's 2.4
15 metres. It was -- we -- it was changed at one (1)
16 point. And -- and so I'm -- I did not look at that.
17 It was either 2 or 2.4 metres.

18 MR. GORDON STEWART: I think it's two
19 (2).

20 MS. AMANDA JOYNT: Amanda Joynt, with
21 DFO. I think we just very -- we've done a very good
22 job of explaining exactly what I was looking for in
23 the report. I want that discussion to occur and
24 basically be put into a report. And what I'm seeing
25 on the presentation doesn't include those types of

1 discussions. So I think that that was demonstrated
2 very well.

3 THE FACILITATOR: It's John Donihee.
4 We're going to move on to point number 18 on the
5 agenda, then. Sorry, we're having two (2) more
6 questions.

7 DR. CHRIS BURN: Sorry, I have one (1)
8 -- I have a couple of questions that relate to the --
9 the final slide in the less -- this is Chris Burn --
10 in the final slide of the Lessons Learned
11 presentation. And the final slide of that
12 presentation, I believe Gurdev very effectively
13 produced the list of the aggregate quantities for the
14 reconstruction or rehabilitation of the Dempster
15 Highway.

16 And the area I'm particularly concerned
17 with is what we call the Peel Plateau, which is ice-
18 rich terrain. It's probably the closest terrain in
19 this region to the area between Parsons Lake and Tuk.

20 Now, when I looked at this list of the
21 average granular quantities that were required for
22 each 10 kilometres of the reconstruction, in that --
23 in that location on the Peel Plateau, it varies from
24 about a 150 to about -- or to about 320,000 cubic
25 metres per 10 kilometres.

1 And if I estimate the averages, say,
2 225,000 per 10 kilometres. And this is a reconstruc -
3 - this is a rehabilitation exercise. I wonder how
4 these sorts of values mesh with the second slide of
5 the granular presentation from this morning where
6 there's an estimate for the rehabilitation proposed in
7 the first twenty-one (21) years of the project?

8 MR. GURDEV JAGPAL: Gurdev Jagpal,
9 Department of Transportation. I've been here probably
10 the last twenty-two (22) years, and I have designed
11 142 kilometres of the high -- Dempster Highway
12 reconstruction and constructed 122 kilometres. All is
13 behaving bell -- well so far.

14 On the quantities, comparing both
15 projects, in this area there are more mountains, so
16 the slopes are steeper, so the quantities here are
17 more than estimated for the Inuvik-Tuk -- Inuvik-Tuk
18 Highway rehabilitation. Operations quantities are
19 almost the same. Grade repairs are more on the Tuk
20 Highway than we are facing -- we are encountering on
21 the Dempster Highway.

22 So that's all -- recent gravel
23 resurfacing, also slightly more, because there will be
24 more grade repairs required here -- here and there on
25 the new Tuk Highway, that's what we're thinking. So

1 the quantities, as Robyn mentioned before, are
2 conservatively taken, but they're slightly lesser than
3 this area. That -- that would be the proportion.

4 DR. CHRIS BURN: Okay. Thank you very
5 much, Gurdev. That -- that is -- that's helpful. In
6 -- on the -- again, on the -- on the second slide of
7 the granular presentation, the -- the rehabilitation
8 in the first, or the operations and rehabilitation,
9 for the first period, from year 1 to 20, involves
10 about 2 million cubic metres, but from twenty (20) to
11 forty (40), that goes down to about 12 -- 1.2 million.

12 And in the context of climate change, I
13 wonder if you could explain why the second
14 rehabilitation would involve only 60 percent of the
15 requirement from the first rehabilitation?

16 MR. GURDEV JAGPAL: Our experience has
17 shown, you know, after about twenty (20) years the
18 stability comes to the highway. Like Airport Road,
19 Inuvik Airport Road, Gipsee Road (phonetic) was done
20 in '86; in September in '87, summer, it was already
21 gone. So we had to reconstruct this road at \$1
22 million dollars per kilometre. And that lasted over
23 twenty (20) years. It never did like that before.
24 See, if you notice culverts on the Airport Road,
25 they're stable after twenty (20) years.

1 Same way, we are expecting we'll reach
2 stability on the highway out of the twenty (20) years.
3 So the quantities will be over 66 percent or 65
4 percent. And after that next second (phonetic) we
5 have, they will come down. And partly -- partly we
6 have been expecting that. It will be quite normal.

7 Plus, there are two (2) things. One
8 (1) is the compaction of the fill, other is
9 consolidation. The whole thing going down,
10 compressing the tundra. It will go about, I would
11 say, about 7, 800 centimetres in twenty (20) years.

12 So that would have gone down,
13 compressed the tundra and it could leave in permafrost
14 -- it could leave in -- there, so after twenty (20)
15 years, next we have all the expenses will go down.

16 DR. CHRIS BURN: Chris Burn, again.
17 Gurdev, could you just confirm the amount of
18 subsidence you described? You said seven 7, 800
19 centimetres, I heard. But I don't think that's what
20 you meant.

21 MR. GURDEV JAGPAL: Seven (7), or no,
22 I -- sorry. This will be 500 mm. Five (5), 600 mm.
23 That we can see from the culverts, sinking all the
24 culverts and then all the permafrost.

25 DR. CHRIS BURN: Chris Burn again.

1 That's about half a -- half a metre. So my question
2 then is, if -- if we anticipate climate change will be
3 associated with the warming of the climate, do you
4 think the performance in the last twenty (20) years is
5 indicative of what will happen between year 20 and
6 year 40 of the project?

7 MR. GURDEV JAGPAL: If you look at the
8 past, how much difference it has made. And to prolong
9 it to the future. It doesn't look like -- like there
10 are three (3) to five (5) degrees difference between
11 the last thirty (30) years from now. In thirty (30)
12 years, how much did it sink?

13 So we're think -- thinking of
14 cumulative effect of everything, of -- of climate
15 change and as consolidation, compaction, and all those
16 things. So historically we think -- like we think
17 over the resurfacing, we will think we will be put a
18 few more grains of gravel for the permafrost -- just
19 likely change. Not -- not that drastically.

20 DR. CHRIS BURN: Chris Burn again. So
21 is the mitigation for climate change of the road then
22 to be fundamentally application of more, as you say a
23 few more millimetres or centimetres of gravel on the
24 surface?

25 MR. GURDEV JAGPAL: That will be for

1 the surface -- surface repairs. But if you go through
2 the quantities calculated for the ITH, they are quite
3 conservative, as I've often said. The factor of
4 safety is quite large there.

5 As a professional engineer, I can say
6 there -- there will be enough for the climate change.
7 If not, there are ways to -- to tackle with that. If
8 --

9 DR. CHRIS BURN: Chris Burn. I didn't
10 catch that last.

11 MR. GURDEV JAGPAL: If the quantities
12 are not enough, we have ways to do it. There may be
13 savings, there may be a little surplus. It's not
14 exactly where -- do you know, there's no exact science
15 here. Like for the -- you know, compliment (phonetic)
16 in structures, we used to use half a percentage in the
17 initial design.

18 It's the same way for climate change.
19 We use some percentage. Engineering use --
20 engineering judgment, when we calculate the quantities
21 and arrive at a -- a good estimate, best estimate.

22 MS. ROBYN MCGREGOR: It's Robyn
23 McGregor here. In addition to Gur -- Gurdev's comment
24 that the mitigation for the uncertainties of climate
25 change is not only additional materials required for

1 construction and operations. It also includes the
2 adaptive engineering techniques that are proactive
3 that we discussed this morning.

4 DR. CHRIS BURN: Chris Burn. Thank --
5 thank you. Are you suggesting that maybe in twenty
6 (20) years' time snow sheds would be put on the side
7 or -- or heat drains would -- would be installed in
8 locations?

9 In other words, significant lengths of
10 the road would be rebuilt to a new design, or -- or
11 are you -- or are you going to put -- you're not going
12 to put those in at the beginning?

13 MS. ROBYN MCGREGOR: Robyn McGregor
14 here. No, that's not what I'm saying. What I am
15 saying is that we are considering some of those
16 techniques in the detailed design stage to promote
17 keeping the embankment cold in -- into the future.

18 So we are -- we are looking at using
19 those now at the construction stage, and knowing that
20 there are uncertainties associated with the impacts of
21 climate change into the future, that even as we try to
22 model them and understand them today, we could be
23 wrong, we have built in conservativeness in our
24 estimated material quantities and will not close the
25 door to the additional future considerations in

1 reconstruction and rehabilitation for those engineered
2 techniques in the future.

3 DR. CHRIS BURN: Thank you. Chris
4 Burn again. If -- if you are to install things like
5 heat drains, or snow sheds, has there been any
6 assessment of how wildlife may interact with these new
7 structures, given the desire of things like foxes to
8 find burrows and holes and so forth?

9 I mean, it -- it's -- it sounds to me
10 as though that this question can't be answered because
11 this is a very preliminary stage of the engineering
12 design?

13 MS. ROBYN MCGREGOR: Your first
14 question is is have we done the assessments on those
15 and the -- I have not seen any available research on
16 that, and common sense would tell me that what you are
17 saying is possible.

18 What we need to understand here is that
19 we are focussing -- perhaps, Dr. Burn, you are
20 focussing your questions on snow sheds and heat
21 drains, because I mentioned those as two (2) of the
22 six (6) or seven (7) things that are being tested out
23 in the Beaver Creek test section.

24 There are many, many other options at
25 the design stage that we would consider for the -- the

1 design and construction of this roadway in the event
2 that we needed to put something in addition to
3 embankment thickness to ensure that the embankment
4 stayed cold and that the subsurface material stayed
5 cold and frozen, other than snow sheds and heat
6 drains. Those would be insulation in the embankment,
7 geo-grids in the embankment, short of moving the
8 highway, refining the alignment to move the highway a
9 few metres this way or that way to find a better
10 location.

11 So I think -- I think there are
12 examples of the engineering solutions that would be
13 considered in the design stage and even in the future
14 reconstruction stage that we're talking about. And
15 it's probably premature to focus on a physical piece
16 of infrastructure that will sit outside of the highway
17 such as a heat drain or a snow shed at this stage.

18 DR. CHRIS BURN: I respect that
19 answer. I guess my question comes from the -- this
20 slide, which suggests that the aggregate requirements
21 will be greater at the beginning than later on.

22 And I respect Gurdev's observation that
23 the consolidation slows down with time. I'm not
24 convinced that climate change will -- is -- is
25 something that we can assume will proceed in the same

1 way in the future as it has done in the past.

2 And so I -- what I'm -- what I'm
3 questioning is whether that forty (40) year out
4 rehabilitation is sufficiently conservative. And all
5 I can do is to go with your judge -- well, Gurdev's
6 judgment in particular, because of his experience with
7 operations in -- in this matter.

8 But I think this question might come up
9 again later. That's all I have to say.

10

11 (BRIEF PAUSE)

12

13 MR. JAN DAVIES: Jan Davies, Northwest
14 Territories Water Board. Not to belabour the point,
15 but what is a snow shed and a heat drain? Just so
16 it's on the record, because some of us might not know.

17 DR. CHRIS BURN: This is Chris Burn.
18 A snow shed is -- is a structure where there's a roof
19 placed on the edges of the embankment so that between
20 the snow roof and the embankment slope there is
21 possibly 50 to 80 centimetres.

22 This prevents the snow being in contact
23 with the ground and it allows cold air to circulate at
24 the ground surface. And therefore, the sides of the
25 embankment are frozen in a way that they -- they reach

1 -- their -- their temperature is reduced much more
2 than they would do if the snow was allowed to pile up
3 on the edge of the embankment.

4 So this has been found, at the Beaver
5 Creek test section, to be extremely effective in
6 facilitating the freezing of the sides of the
7 embankment.

8 The heat drain is -- is a pipe which
9 has -- which is sealed off usually in the summertime
10 and is open in the winter but is on a -- on a slight
11 gradient so that the co -- the warm air can escape out
12 of the one side and -- and cold air can come in the
13 other. And this cools off the centre of the -- it
14 facilitates the egress -- or, ingress of cold air into
15 the embankment.

16 It may be -- the snow shed can be
17 applied after construction because you just put it on
18 top, but the -- the heat drain needs to be
19 incorporated in the construction of the road because
20 it has to be embedded in the -- in the embankment. In
21 both cases the intention is to accelerate freezing of
22 the sides of the embankment in the -- in the fall and,
23 in the case of the -- the heat drain, also to lower
24 the temperature of the centre of the embankment on an
25 annual basis.

1 THE FACILITATOR: Thank you very much.
2 Let's take ten (10) minutes. We're -- we're going to
3 move on and talk about human environment and
4 cumulative effects.

5

6 --- Upon recessing at 2:49 p.m.

7 --- Upon resuming at 3:06 p.m.

8

9 THE FACILITATOR: All right. It's
10 John Donihee speaking. We're now at item number 18 on
11 the agenda, which deals with human environment
12 matters. And it will probably, I expect, grade right
13 into number 19, which simply looks at the same issues.
14 But we'll -- we'll go the extra step and talk about
15 linkages to biophysical impacts.

16 So the -- there was one (1) issue
17 raised by Transport Canada in re -- in relation to the
18 human environment. I'd like to give them the
19 opportunity to speak to it, or if there are any
20 questions related to that issue that they want to
21 address to the Developer, please feel free.

22

23 HUMAN ENVIRONMENT DISCUSSION:

24 MR. DOUG SOLOWAY: Doug Soloway,
25 Transport Canada. Thank you, Mr. Chairman. I think

1 we have submitted these questions, and probably the
2 sum of the questions that other groups have interest
3 in, basically to determine from our perspective with
4 regards to the Section 35 consultations.

5 It's -- it basically stems from our
6 initial inquiry with regards to location through the
7 course of -- of issues raised by these potential
8 Aboriginal groups that might generate us to determine
9 if a Section 35 may be applicable.

10 From what I understand, the -- the
11 Developer understands these questions and will be
12 providing the information to us.

13 MR. RICK HOOS: Rick Hoos, on behalf
14 of the Developer group. Doug, the answer is yes.

15 THE FACILITATOR: This is John
16 Donihee. Just -- just to be clear then, I -- I do
17 understand what you're talking about, but you're then
18 what, going to provide something like a consultation
19 log or some kind of documentation?

20 I think all I want to make sure is that
21 if you're going to provide some kind of information to
22 Transport Canada, that you also file that material on
23 the record.

24 MR. RICK HOOS: Rick Hoos, on behalf
25 of the Developer group. What we committed to do --

1 what the Developer committed to do is to have
2 consultations with the HTC's, Inuvialuit Game Council,
3 and other parties in relation to determining whether
4 there are any concerns with any other proposed
5 crossings, crossing methods, and any concerns that the
6 parties that are spoken to or consulted with may have
7 about how a particular crossing may affect their
8 ability to harvest primarily fish in this case, I
9 think we're talking about.

10 And it was the Developer's intention to
11 provide that kind of information as part of their
12 applications to DFO and/or Transport Canada for
13 permits approvals, authorizations, letters of advice,
14 whatever instrument may be required to allow a
15 particular crossing to be constructed.

16 MR. DOUG SOLOWAY: Doug Soloway,
17 Transport Canada. So I'm assuming this is all at the
18 regulatory phase then?

19 MR. RICK HOOS: Rick Hoos, on behalf
20 of the Developer. It -- it is material that will
21 certainly be provided during the regulatory phase.
22 However, I think as -- as Jim Stevens has also
23 indicated earlier this morning, it's the intention to
24 have these kind of -- these sorts of consultations
25 sometime after the public hearings are held, and

1 probably before Christmas, whatever determines -- is
2 determined to be acceptable to the -- to the parties
3 that the Developer group would be consulting with.

4 And a couple of thoughts come to mind.
5 One (1) is that, you know, DFO and Transport Canada
6 would both be welcome to participate in those
7 consultations if they wished. Alternatively, if the
8 information was summarized by the Developer group and
9 was available sooner, i.e., before -- well, before
10 applications were made, that in -- that information
11 could be provided. And certainly if the EIRB thought
12 that it would still be useful to them, it could be
13 provided to the Board as well.

14 THE FACILITATOR: It's John Donihee.
15 I -- I think that -- I'll step aside from the Chair.
16 You know what I do for a living. The -- the case law
17 related to Aboriginal consultation certainly indicates
18 that the environmental assessment process itself is --
19 is part of that and -- and can and should count for
20 that.

21 And so I -- I guess, you know, from the
22 standpoint certainly of the role that the -- the Board
23 and -- and panel will play in relation to CEA
24 approvals, you know, I -- I think that there are
25 obligations to ensure that -- that consultation takes

1 place even if that -- the context for -- for the use
2 of that terminology is broader than just people who
3 might hold Section 35 rights.

4 And so I -- all I'm suggesting is that,
5 you know, if -- if you have documented or could give
6 some kind of a summary of the kind of work that I --
7 that I know from the material you have filed on the
8 record that you have done, that could make it clear to
9 the Board just how much you've worked with communities
10 and the organizations and other things.

11 And again, I'm cognizant of the fact
12 that there's a lot of paper coming yet. And I'm not
13 trying to talk you into another major report. But I -
14 - I just am pointing out that some kind of a -- of a
15 summary perhaps of the work that you've done with
16 communities and consultations efforts, in particular
17 with HTC's and -- and communities, might very well
18 assist the Board as well.

19 MS. MEGHAN BIRNIE: Meghan Birnie. I
20 believe the terms of reference also asked for the
21 consultation record to explain how concerns were
22 responded to and to make the distinction between
23 addressing concerns and responding. Not all concerns
24 can necessarily be addressed.

25 But rather than an inventory of the

1 concerns that were raised, some -- some summary of how
2 they were responded to and when they were responded to
3 and whether there are outstanding issues on the public
4 record -- or -- or sorry, in the public arena would be
5 helpful.

6

7 (BRIEF PAUSE)

8

9 MR. RICK HOOS: Rick Hoos, Developer
10 group. The record of consultations, communications,
11 and whatnot that the Developer group has had in the
12 past with the communities, the HTC's, and other parties
13 was all provided in Appendix B of the EIS.

14 There are ongoing consultations either
15 planned -- well, that are planned, some as -- as soon
16 as next week, August 28th, with the ILA. And we've
17 already indicated there will be further consultations
18 related specifically to stream crossings and concerns
19 that people may have about either the crossings
20 themselves or their ability to harvest resources, et
21 cetera.

22 And we're going to be trying to have
23 that as soon as we possibly can. But we are presently
24 in these kinds of sessions. And it's only a few weeks
25 away before other sessions are held. And we know that

1 the IGC, for instance, only has meetings every -- is
2 it -- is it quarterly, Mike? Yes, quarterly, with
3 their next meeting being held, I think -- is it
4 September -- in September, which seems a bit too soon
5 to get on their agenda. Okay. Apparently we can get
6 on their agenda. So we'll see what we can do about
7 that.

8 But the fact is there are constraints
9 in terms of when things can get done. And -- and
10 whatever outcomes are -- are forthcoming from any
11 meetings that -- that can and will be held can
12 certainly be made available to the Board and other
13 parties.

14 I might also point out though that
15 these responsibilities for consultation are not only
16 limited to the Developer parties. The very
17 departments that demand consultation should really be
18 involved with those consultations themselves. And we
19 would still encourage them to participate,
20 particularly since they've shown so much interest in
21 that topic in relation to DFO and Transport Canada
22 matters when those consultations are convened. Thank
23 you.

24 MS. KATE WITHERLY: Sorry, Kate
25 Witherly, from Northern Projects Management Office. I

1 -- just earlier, Rick, you'd mentioned that you may do
2 some engagement between the hearings and the end of
3 the year, after the hearings are over. And, yes, the
4 federal departments would be interested in a report --
5 or a record of that, just to confirm that they would
6 like that, especially between the hearings and the
7 date when the report from the Board comes out...

8

9 (BRIEF PAUSE)

10

11 THE FACILITATOR: Transport Canada,
12 that covers that issue for you?

13 MR. DOUG SOLOWAY: Doug Soloway,
14 Transport Canada. Yes, and -- and as -- as most
15 federal departments know, and as well as other
16 organizations, we need some of this information to --
17 to assess the merit of doing Section 35 consultations.
18 So this is why some of that information is -- is
19 pertinent to our decision-making.

20 THE FACILITATOR: Thank you. It's
21 John Donihee again. Next and under 18(b), paragraph
22 18(b), raised by EIRB, I think Ms. Birnie has some
23 questions for the Developer.

24 MS. MEGHAN BIRNIE: Meghan Birnie. I
25 should note now that we can -- so I can look at my

1 parties -- we can take several of the components that
2 are listed under (b) and defer them to the follow-up
3 and monitoring discussion later this afternoon. But I
4 just ask that we're still able to treat those -- that
5 there's enough time to treat those individually. Is
6 that suitable to you? Demographics, infrastructure
7 and institutional capacity, human health and community
8 wellness.

9 MR. RICK HOOS: Rick Hoos, on behalf
10 of the Developer Group. That would be fine.

11 MS. MEGHAN BIRNIE: Okay.

12 MR. RICK HOOS: Thank you.

13 MS. MEGHAN BIRNIE: Meghan Birnie.
14 The discussion of follow-up and monitoring will also
15 include the other -- all of the rest of the
16 components, but I just don't have any specific items
17 that need to be raised with regard to those components
18 right now.

19 So my first question is on the regional
20 and local economies. And as I understand it, the
21 results of the biophysical assessment were the main
22 factor in determining the -- the impacts on
23 harvesting, and to predict the direct impacts on
24 harvesting, and that these in turn were used to
25 predict impacts on the traditional economy.

1 So kind of a three (3) part question
2 and maybe I'll start with the first part. We know
3 that impacts on the traditional economy can also be
4 influenced by other indirect factors, not just impacts
5 on harvesting and harvesting potential. I'm wondering
6 if any other impact pathways were considered that I
7 can -- haven't read a description of what other impact
8 pathways were considered in the prediction of impacts
9 on the traditional economy, other than harvesting,
10 which was dependent on the biophysical assessment.

11

12 (BRIEF PAUSE)

13

14 MR. RICK HOOS: Rick Hoos, Developer
15 Group. We certainly sensed, and Frank Pokiak can kind
16 of confirm that, that one (1) of the primary ways in
17 which the road itself can affect the environment of
18 the -- of the region and resource harvesting is the
19 access that the road provides. It is virtually
20 impossible for us to predict human behaviour; however,
21 we did and we have continuously in -- throughout the
22 EIS identified the fact that this is probably the most
23 significant potential effect related to the road, but
24 it's beyond the mandate or responsibility of the
25 Department of Transportation to manage that. But the

1 Department of Transportation is very keen to work with
2 all of the other parties that have been listed on
3 numerous occasions to try and come up with policies,
4 regulations, programs to help manage in an effective
5 manner, the harvesting of the natural resources of
6 this region by the local populations.

7 MS. MEGHAN BIRNIE: Meghan Birnie. So
8 I will defer the rest of my questions on that item
9 until we get to the followup in monitoring. I do want
10 to ask some questions about the relationship between
11 the -- the traditional knowledge studies, and the
12 traditional economy as well.

13 The questionnaire that was used for the
14 TK studies indicates that participants were asked to
15 identify whether the road would impact key species.
16 I'm just wondering if they also commented and, to what
17 extent they commented, on how that would impact their
18 harvested amounts and -- and whether there was any
19 discussion of how that might be -- be seen to impact
20 the traditional economy.

21 And -- and I -- I'll say upfront that,
22 in -- in some cases, as you've mentioned this morning,
23 they could -- they could be positive effects, right,
24 increased access to -- to berry picking areas. But
25 there's other places in the TK study where it says

1 that if the road also deposits dust on the berries
2 people might have to go further away from the road,
3 right, to -- to access those, so -- so some
4 relationship between that traditional economy piece
5 and the findings and results of the TK study.

6 MR. MICHAEL FABIJAN: Michael Fabijan.
7 Just from the perspective of the TK study, folks
8 thought that there would be increased access to not
9 just berry picking, but other things, like fishing and
10 caribou harvesting and other things in the -- in the
11 area.

12 Nobody actually mentioned quantities.
13 I suspect that there would be folks that would --
14 because they didn't have the equipment, would -- you
15 know, it'd be easier for them to get out to places.

16 Frank, as he mentioned yesterday, there
17 are polk -- folks that are accessing Husky Lakes now
18 from various points across the road there out to 177
19 simply because it's a shorter route and they can drop
20 their boats in the water. So I don't know that it
21 increases the amount of activity or just increases the
22 access to an area.

23 There were other things that they
24 commented on the road bringing into the communities
25 that they wouldn't get before, as you know, that there

1 -- one (1) of the comments was that there would be
2 more bootlegging year-round rather than just in the
3 wintertime when there was ice access on the road.

4 The communities would have easier
5 access just to getting to places to go camping and
6 that all you would need is a vehicle rather than a
7 snowmobile or skidoos and that there would be -- there
8 was discussions on the campsites that people would set
9 up. And there wouldn't necessarily be more cabins,
10 there could be more tenting. So places that they
11 didn't normally go to at various times of the year,
12 they would go to now that they hadn't to before, which
13 is why they didn't know about those areas or what they
14 would find there because they wouldn't access them
15 normally.

16 A lot of the places they would access
17 in the springtime when they were driving around on
18 skidoos and spring harvesting, but they don't know
19 where the nesting sites for the birds are because they
20 don't -- they're not there at those times of year. So
21 those places they would access then. I don't know if
22 this answers your question.

23 MS. MEGHAN BIRNIE: Yeah, it helps.
24 It... In looking at the information that's been
25 provided so far on the traditional economy and -- and

1 how heavily dependent it is on the biophysical
2 assessment, and then knowing that some of tha -- those
3 assessment results are still being questioned in -- in
4 terms of their -- their validity or -- or just the
5 interpretation of the results, I'm wanting to make --
6 use the -- the traditional knowledge studies to see if
7 there's anything in there that might have been
8 provided by community participants that would require
9 us to go back and look at those impacts on the
10 traditional economy to see if -- if some of those
11 impact pathways don't need to be reevaluated in light
12 of what community participants have said.

13 MR. MICHAEL FABIJAN: Michael Fabijan.
14 One (1) of the things that comes to mind right away is
15 that they mentioned that there may be increased
16 trapping for some of the fur bearers along the highway
17 corridor in the areas that people hadn't trapped
18 before or hadn't had access to.

19 There's a number of people around here
20 that have short little day lines, or in some of the
21 other communities, Zulahoctuk (phonetic). And folks
22 might do something like that, where it's -- all they
23 have to do is drive down the road and do something
24 like that. And they mentioned things like that.

25 MS. MEGHAN BIRNIE: Meghan Birnie.

1 Sorry, didn't say my name.

2 In -- without having then necessarily a
3 rigorous way of -- of taking some of those -- that
4 content from the TK study and going back and
5 reassessing the traditional economy components and
6 some of those impacts, the followup in monitoring,
7 particularly with harvesting, will become more
8 important, and the mechanisms through which that's
9 done. So I think my -- my questioning can probably --
10 on this component now, we can delay till we get there
11 to talk about the formal mechanisms where project-
12 specific monitoring would be done to prepare for both
13 anticipated and unanticipated impacts.

14 MR. RICK HOOS: Rick Hoos here on
15 behalf of the developer. I just wanted to make one
16 (1) other general comment, and that is: We are all
17 aware that the area between Inuvik and Tuktoyaktuk is
18 currently, and has been for a number of years, under -
19 - there's been a ban on the harvesting of caribou
20 between Inuvik and Tuk, and that ban is -- is
21 implemented by ENR with advice from the I -- the game
22 council and the HTCs, et cetera.

23 That is a very strong management tool.
24 We have inquired of a number of local folks who do go
25 out harvesting in areas where they're permitted to

1 harvest, and the general sense we get is that that ban
2 is being -- is being honoured.

3 Likewise, for grizzly bear in
4 particular, there are quotas, as we've discussed
5 before, and that also helps to -- to put a lid on, if
6 you will, the levels of harvesting of that particular
7 species.

8 Those are two (2) of the more critical
9 species in the area that people have an interest in,
10 and I just wanted to put that on the record.

11 MS. JULIE-ANNE MARCOUX: Julie-Anne
12 Marcoux from Infrastructure Canada. I just wanted to
13 come back to the point earlier that Mr. Chairman --
14 Sherman (phonetic) was making about the requirements
15 of CEA.

16 For the purposes of CEA, we need to
17 consider the traditional land use, and when I heard
18 that consultation will be starting between September
19 and December, I'm wondering whether, since this is a
20 substituted environmental assessment, whether this
21 information will be made available in time for the
22 process of, going forward, the government response
23 following the -- the tabling of the Board's report.

24 MR. RICK HOOS: Julie-Anne -- sorry,
25 it's Rick Hoos here on behalf of the developers. As

1 we've mentioned before, our complete record of
2 previous consultations over the last almost three (3)
3 years now were provided in -- as -- as -- in an
4 Appendix B of the EIS itself.

5 The consultations we're talking about -
6 - that we just talked about earlier, there were two
7 (2) of them that are currently being planned. One is
8 we were invited, I believe, to give a presentation on
9 the aggregate resources to the ILA in about a week's
10 time or two (2), and that will be done.

11 And then the other consultations that
12 we agreed would -- or committed to undertake was
13 consultations related to the proposed stream crossing,
14 stream-crossing methods, and a discussion of any
15 concerns that the communities and the individuals may
16 have with regard to how these kinds of proposed
17 crossings might or might not impact their ability to
18 harvest resources, fisheries resources in particular.

19 That information -- information from
20 both of those exercises is -- is going to be made
21 available to all parties as soon as -- as possible
22 following completion of those particular specific
23 consultation efforts.

24 MS. JULIE-ANNE MARCOUX: Thank you.
25 So just to clarify, there -- these two (2) areas right

1 now that are identified, the aggregate resources and
2 the -- the fisheries crossings, and that's it. Okay.

3 MS. MEGHAN BIRNIE: Meghan Birnie.

4 Michael, did you have anything that you wanted to - I
5 notice you and Doug were flipping through things - add
6 to that last point? No? Okay. Thank you.

7 MR. DOUG CHIPERZAK: Doug Chiperzak.
8 Just on the -- the -- some of the other TK work that
9 was done, and there was that summer report, and in
10 that, there was a number of instances where they --
11 they talk about an all-weather road. And -- and
12 there, they talked about other economic factors, such
13 as cheaper groceries to Tuk and other services to Tuk
14 that would -- would facilitate those services and
15 often be cheaper, so.

16 MS. MEGHAN BIRNIE: Meghan Birnie.
17 Thank you. Okay, my next question is on the
18 education, training and skills topic. In several of
19 the submissions the developer has committed to
20 education and training-related measures. For example:

21 "Working with local academic
22 institutions in the design of short
23 duration skill-based courses to
24 improve job readiness and expand the
25 labour pool and enhance local skill

1 capacity."

2 But to do these things, well, time is
3 ne -- of the essence. And I'm wondering to what
4 extent these discussions with those other parties have
5 started? And what would be the necessary timing of
6 implementation of those measures that the developer is
7 committed to in order to ensure their usefulness and
8 their success?

9 MR. JIM STEVENS: Jim Stevens,
10 Department of Transportation. I -- I can give you a
11 few comments on that. One (1) actually is, we are
12 meeting with Aurora College tomorrow, and it's
13 relative to training opportunities.

14 Second comment is, the procurement
15 process for this project hasn't been determined yet.
16 And one (1) of the requirements of any RFP or
17 negotiated contract will be a training component. I
18 don't know what that will look at -- look like at this
19 point, but it's being considered.

20 MS. MEGHAN BIRNIE: And does the
21 developer have any plans to develop, then, a
22 procurement and training plan? Or, would that just be
23 in the -- the RFP as a requirement for the contractor
24 to submit?

25 MR. JIM STEVENS: That would be a

1 contractor obligation. Sorry, Jim Stevens.

2 MS. MEGHAN BIRNIE: Meghan Birnie.

3 And if you had any criteria right now that you would
4 require them to include in the RFP, could that be
5 shared now if it's developed, or do you not?

6 MR. JIM STEVENS: We don't have that
7 criteria available.

8 MR. RICK HOOS: Meghan, Rick Hoos here
9 on behalf of the developer group. We were speaking
10 with Russell Newmark but he, unfortunately, had to
11 move on this afternoon. And he -- we discussed this
12 whole aspect of the kinds of training that the
13 contractor -- he is part of the contractor group,
14 undertook for the -- or provided to people in --
15 during the construction of the Tuk to Source 177
16 access road.

17 And one (1) of the most striking
18 comments that was made was that that kind of earth-
19 moving project, grading, you know, truck -- truck
20 hauling, et cetera, those kinds of activities are all
21 ideally suited to -- to many people in this region.

22 And, in fact, during the course of the
23 construction of Inuvik -- sorry, the Tuk access road,
24 more than a hundred and forty (140) residents of
25 either Tuk or Inuvik were employed in that program.

1 And they undertook numerous training activities, which
2 I can't recall all of them. And I'm not sure whether
3 Robyn remembers any of them, but there were a number
4 of programs undertaken for different parties in
5 relation to that -- that work.

6 MS. MEGHAN BIRNIE: Okay, thank you.
7 Okay, my next question relates to harvesting and,
8 again, the integration of the TK into the assessment,
9 particularly as this integration applies to either
10 influencing or -- or being used to corroborate the
11 results and the findings of the biophysical
12 assessment.

13 I briefly reviewed the response to dir
14 -- the directives that came in. And on page 19,
15 there's a statement that:

16 "The terms of reference suggest only
17 that the developer has a
18 responsibility for engaging with TK
19 holders."

20 And if I refer to the -- to the terms
21 of reference, Section 5.6.1, that there's four (4)
22 bullets there that are specific requests to the
23 developer. And the third one is:

24 "To indicate whether and how issues,
25 concerns and recommendations were

1 responded to."

2 So, again, this gets back to that point
3 about the distinction between addressing and
4 responding to concerns. There were throughout the --
5 the TK report, the summary report, there were several
6 cases where participants made comments, concerns, and
7 recommendations, and these are handily compiled in
8 Section 3.8 and 3.9 of the TK -- the summary report.

9 Were those step-by-step? Were they --
10 were they responded to one-by-one? Were responses
11 provided to each of those concerns and recommendations
12 that -- that community members raised?

13

14 (BRIEF PAUSE)

15

16 MR. MICHAEL FABIJAN: Michael Fabijan.
17 I just want to clarify. When we worked on the
18 questionnaire, when we went from the various
19 disciplines and asking questions that they wanted to
20 have and included those in the question -- the
21 questionnaire and then went to the folks in the
22 interviews and addressed those in there as much as we
23 could and then presented the reports that you see.

24 How they were integrated back into the
25 project, somebody else will need to speak to.

1 MS. MEGHAN BIRNIE: Before we get --
2 Meghan Birnie, sorry. Before we get into that
3 integration, I'm just -- I'm on the third bullet if --
4 if anyone wants to actually refer to the terms of
5 reference, where it says, "The Developer shall,"
6 there's four (4) bullets.

7 The third bullet actually says:
8 "Indicate whether and how issues,
9 concerns, and recommendations were
10 responded to."

11 So in 3.8 and 3.9 of the summary report
12 there are a whole -- depending on what your
13 interpretation of what a TK or TLU study should do,
14 there are -- are a whole list of recommendations that
15 some might consider to be outside of what the scope of
16 that study should -- should do or be, and some would
17 consider would be -- could be inside.

18 Regardless, there are things such as
19 upland route. We would like the upland route
20 selected. We -- you know, the gravel issue, that came
21 up this morning. We want to make sure that our
22 grandchildren can use Husky Lake as much in the same
23 manner that we do today.

24 So what I'd be looking for from that
25 third bullet is something that also said, Here's the

1 list of these issues and recommendations that came up.
2 Here's the response that was provided to each of
3 these.

4 And if that hasn't been done, I'm
5 wondering if that will be and when that would be.

6

7 (BRIEF PAUSE)

8

9 MR. RICK HOOS: Rick Hoos, Developer
10 Group. The kinds of points you raise, particularly
11 those related to consideration of an upland route as a
12 possibility to the proposed route that was initially
13 put forward, and any and all considerations related to
14 Husky Lake were taken incredibly seriously by the
15 developer group and that's reflected in an extensive
16 amount of additional work that was done to evaluate
17 the upland route as a possible viable option to the
18 other route, which simply did not turn out to be the
19 case.

20 It also is reflected in -- in the
21 respecting of the buffer area -- the Husky Lakes, 1
22 kilometre buffer area that is reflected in -- in the
23 current project design. As -- as you may recall, when
24 the project was originally conceived -- in fact, if
25 you go back to 1977, which is even more relevant,

1 there was a considerable length of the proposed route
2 at that time that was running much closer to Husky
3 Lakes and well within the 1 kilometre buffer zone.

4 One (1) of our assignments in going --
5 undertaking the work in 19 -- 2009, sorry, in
6 September of 2009 with the integrated archaeological
7 environmental engineering, et cetera, team, was to try
8 and not only investigate the 1977 route, but make
9 improvements to that route.

10 In particular, to try and avoid coming
11 too close to the Husky Lakes area. And at the time of
12 the project description preparation there were still a
13 couple of spots in -- along the route that fell within
14 that -- within that zone.

15 So the developer, amongst other things,
16 did a lot of additional work to adjust the alignment
17 such that that buffer zone -- the Husky Lakes buffer
18 zone was completely respected.

19 Those are two (2) examples -- the two
20 (2) most significant examples, I would suggest, of how
21 the Developer Group responded to -- to those kinds of
22 concerns.

23 MS. MEGHAN BIRNIE: Meghan Birnie.
24 And -- and maybe your -- a lot of your response was
25 behind the scenes and -- and I'm looking also too for

1 that report back, I guess, of -- okay, here where the
2 concerns were raised in the TK study, and now we're
3 going to do a report back on how we can respond to
4 these, and these ones we can respond to and how -- and
5 here's the ones that we can't, and whether that report
6 back was done. That's -- that was the -- the intent
7 of the bullet in the terms of reference.

8 MR. MICHAEL FABIJAN: Just to clarify,
9 Meghan, the -- the references that you're making to
10 the recommendations are in the workshop report, not in
11 the

12 MS. MEGHAN BIRNIE: Right.

13 MR. MICHAEL FABIJAN: -- in the
14 summary report? Okay.

15 MS. MEGHAN BIRNIE: Meghan Birnie.
16 Thank you.

17 MR. MICHAEL FABIJAN: Okay.

18 MS. TARA SCHMIDT: Tara Schmidt, for
19 the Developer. Section 161 of the EIS calls for
20 respect for and use of traditional knowledge. And
21 that does outline the process of -- of the ideas that
22 were -- that were considered during the preparation of
23 the EIS and how it was incorporated during the
24 assessment. Of course, that was based on the
25 traditional knowledge studies that were available in

1 the region, which there are several. And then
2 supplementary to that would be the recent TK studies
3 which Kavik-Stantec did.

4 MS. MEGHAN BIRNIE: Okay. Thank you,
5 Tara. So a last question then on this -- this item,
6 and pertaining to that fourth bullet in the terms of
7 reference, where it says:

8 "Explain how TK was incorporated
9 into the environmental assessment
10 development planning and provide
11 examples of how TK influenced
12 assessment results and overall
13 project design."

14 And the -- the integration of TK into
15 environmental assessments is something that I find
16 methodologically and academically very, very, very
17 interesting, but I respect that we have a time limit
18 and probably interest limit at this point that -- that
19 it doesn't -- doesn't respect that interest of mine.

20 Anyway, I am interested to know, when I
21 look through the summary report I see doc -- tho -- I
22 see those items documented. But to actually have
23 integrated them, and -- and I acknowledge too that in
24 the -- the Developer's response to the directives,
25 there again documented, but the integration would say,

1 Okay, we -- we now have some new findings from the TK
2 results and those would require us to actually go back
3 to the biophysical assessment, or to the socioeconomic
4 assessment and see whether or not we can take that
5 input that's been provided, and does that actually
6 cause us to re-evaluate our assessment. To what
7 extent -- I see Rick shaking his head, so I'm not sure
8 that that's been done, or if there's any intent that
9 something like that would be done.

10 MS. ERICA BONHOMME: Erica Bonhomme.
11 I will provide one (1) example of where we have used
12 information from the TK report in further what --
13 further environmental work. When -- the T -- the TK
14 report did identify areas where there was denning,
15 potential denning habitat for bears, for example, when
16 the -- the wildlife mapping was done we did take a
17 particular look at those areas to see if there was any
18 indication of that sort of habitat that would show up
19 on our wildlife potential mapping. Now none of it is
20 in -- within the project study area, so it's a -- it's
21 a bit outside, but it was a good check to see if our -
22 - any of our modelling would -- would be -- could be
23 validated by some of the input that we got from the TK
24 study.

25 So that was one (1) example of where we

1 used the information from the TK report to draw a
2 conclusion, for example, that we made in the -- in the
3 wildlife report that -- that generally the area has
4 low potential, or -- or not very good potential for --
5 for bear denning habitat.

6 MS. MEGHAN BIRNIE: Meghan Birnie.
7 Thank you.

8 MS. AMANDA JOYNT: It's Amanda Joynt,
9 from Fisheries and Oceans. Can I add to that quickly?

10 I just wanted to ask with this report,
11 for TK report that's come out in July, this is a good
12 example of something that should be included in the
13 decision-making for the -- the stream crossings and
14 the type of stream crossing, so I'm just asking is
15 this -- if the information in here with regards to
16 fish going to be included in the selection criteria
17 for what type of crossing will be put where?

18 MR. WALTER ORR: Walter Orr, from
19 Kavik-Stantec. Yes.

20 MS. MEGHAN BIRNIE: Okay, and my last
21 question, again, regarding the -- the traditional
22 knowledge studies and the topic of socio-cultural
23 patterns, the -- the socio-cultural patterns weren't
24 entirely treated in the -- in the impact assessment, I
25 think, to the level that -- that I would have hoped.

1 And I was wondering if there were some -- some
2 indication in the traditional knowledge studies?

3 Did people describe how the road might
4 impact their relationship to land, ten (10), twenty
5 (20), thirty (30), forty (40), for the life of the
6 project -- that -- that changed relationship to land,
7 particularly in -- in remote communities that are --
8 are dependent on -- on the land is often a driver for
9 social and health conditions and change in those?

10 MR. MICHAEL FABIJAN: Michael Fabijan.
11 Not directly, but they -- the, I mean, the one (1)
12 line in the report, it's just if you build it they
13 will use it. So people will access -- they'll access
14 the road and it'll bring in things that they didn't
15 have before more easily.

16 People -- they'll be able to travel
17 more, there will be greater increases in tourism,
18 because people will be able to drive there rather than
19 have to fly or take boats. The use of the land will
20 be increased, simply because they've got easier access
21 to it.

22 Is this the kinds of things you're
23 after?

24 MS. MEGHAN BIRNIE: Yeah, in part.
25 Yeah --

1 MR. MICHAEL FABIJAN: Yeah.

2 MS. MEGHAN BIRNIE: -- if that's the -
3 - if that's what you heard, then -- then that --

4 MR. MICHAEL FABIJAN: Yeah.

5 MS. MEGHAN BIRNIE: I -- there is some
6 literature that suggests that a changed relationship
7 to land can be a driver for other socioeconomic
8 impacts, and I'm wondering if that came out, some of
9 the more adverse ones? And I'm wondering if that came
10 out in the TK studies, but...?

11 MR. MICHAEL FABIJAN: People were --
12 one (1) of the concerns that they had in the study,
13 and this was both -- well, virtually everywhere and
14 has come up in a lot of other studies, is that they
15 want the road built so that they can still do the
16 things down the line.

17 And it -- I -- I believe in the report
18 there's a actual line that I've heard more than once.
19 People don't want to be, you know, the grandfather
20 somewhere down the line with their kids coming up to
21 them and saying, You screwed this up for us.

22 So they -- they're -- they're cognizant
23 that they'll get benefits from the road, or any
24 development for that matter. But they want to make
25 sure it's in a fashion so they can still access the

1 resources they have.

2 It doesn't necessarily mean that
3 they'll change the way they use those resources. They
4 still want -- but they want to have access to them, if
5 they want to.

6

7 (BRIEF PAUSE)

8

9 THE FACILITATOR: I think that's
10 questions for item number 18. We'll move on.

11 Nineteen (19), the first of the items
12 there was from WMAC. So, Bruce, I wonder if the --
13 you want to explore that particular issue any further?

14 MR. BRUCE HANBIDGE: John, I've just
15 got several questions for, actually nineteen (19) and
16 twenty (20). If you want, it'll probably address
17 both.

18 THE FACILITATOR: Please, do them --
19 do them both.

20 MR. BRUCE HANBIDGE: Okay. Okay, this
21 is Bruce Hanbridge, and my first question here, I just
22 wanted to reconfirm a statement from earlier, from the
23 development team. And, just to clarify, when we're
24 talking about going into cumulative effects
25 assessment, and we were talking about the VECs, VSCs.

1 I just wanted to make sure what I heard
2 was, if there was no significant impact on a VEC or --
3 then it wasn't carried on into the cumulative effects
4 assessment. Is that correct?

5 MR. RICK HOOS: Rick Hoos, developer
6 group. What we -- what we indicated what we did
7 through our assessment was, we evaluated initially the
8 anticipated effects of the road project on the various
9 VECs.

10 And we found that all of those effects,
11 if they were properly managed, in the case of the
12 developer, by the developer for construction of the
13 road; in the case of resource harvesting, properly
14 managed by other parties with, perhaps, assistance
15 from the developer, that -- that there would be no
16 significant environmental effects, but there would be
17 still some residual environment effects in some cases.

18 We also evaluated the effects of other
19 existing activities or projects that -- that are in
20 the area, and found that there were no significant
21 environmental effects and very, very minor localized
22 residual effects related to all of those projects.

23 And we also looked into the future at
24 other possible projects that might come about, in
25 particular, the Mackenzie Gas Project. And in looking

1 and considering the Mackenzie Gas Project, we did draw
2 heavily on the cumulative effects assessment that that
3 project did for the Mackenzie Gas Project, which
4 included consideration of all the same projects that
5 we had identified as being possible and -- well, more
6 -- more projects than we had even identified as being
7 possible in our assessment. And they had concluded
8 that there would be no significant cumulative effects
9 associated with their project in relation to other
10 past or anticipated future potential projects. And we
11 -- we basically supported that view, and that's what
12 you see in the cumulative effects assessment that we
13 have come up with.

14 We do not see any significant
15 opportunity for any of these other types of projects
16 and activities to operate in a cumulative manner with
17 the very few minor residual effects that we have
18 identified as being possible in relation to the actual
19 construction and operation of the road.

20 MR. BRUCE HANBIDGE: Bruce Hanbidge.
21 Can I -- I'm sorry, I'm not quite clear from that
22 answer. If -- I don't think you addressed my
23 question.

24 Did you do a cumulative effects
25 analysis on any or all of the VECs?

1 (BRIEF PAUSE)

2

3 MR. RICK HOOS: Okay. What we
4 indicated in Section 5.4 of the Cumulative Effects
5 Assessment, page 640, is that the cumulative effects
6 assessment focussed only on adverse effects of the
7 project remaining after the application of this -- of
8 mitigation measures.

9 MR. BRUCE HANBIDGE: Okay. So I take
10 that to be that, no, you did not do a cumulative
11 effects assessment on all the VECs?

12 MR. RICK HOOS: If -- well --

13 MR. BRUCE HANBIDGE: And I'm sorry,
14 I'm -- it's a very short --

15 MR. RICK HOOS: Yes.

16 MR. BRUCE HANBIDGE: -- question.

17 MR. RICK HOOS: Yes, I know it's a
18 short question. The one (1) thing we did not do,
19 because we didn't see any potentially cumulative
20 effects associated with SARA listed species, we did
21 not specifically examine them. However, that is
22 subsequently being done as a first cut, with the
23 assistance of ENR, and that was presented in that --
24 in responses to IRs 114 to 117.

25 And the initial judgment call of ENR on

1 behalf of the developer group was that none of the
2 SARA listed species would -- well, they -- in most
3 cases, they concluded that it wasn't even worth doing
4 a cumulative effects assessment on them, because there
5 were very few, if any, representatives of the SARA
6 listed species present in the project area, and
7 virtually no opportunity for significant interactions
8 to occur between them.

9 We've also -- we also discussed
10 yesterday the fact that Kavik-Stantec has gone out --
11 gone out and done further work on SARA listed species,
12 in particular in relation to proposed borrow sites.
13 And that information, once it becomes available, which
14 will be very soon, will be plugged into the
15 considerations that were previously represented in
16 responses to 114 to 117 Irs. And if we find any
17 surprises, or new information that somehow changes our
18 judgment on those particular SARA listed species, we
19 will present that at that time. We'd present those
20 view at that -- at that time. And I believe we even
21 gave a timeframe for when that might happen. Yes.

22 MR. BRUCE HANBIDGE: Sorry, is that
23 all, Rick?

24 MR. RICK HOOS: Okay. Sorry, I'm just
25 checking with Tara here. And we're apparently going

1 to be receiving those maps tomorrow. We're looking
2 forward to receiving them with great interest, as well
3 as Gavin, of course.

4 MR. BRUCE HANBIDGE: Okay, John, just
5 a couple more questions. So you haven't done a
6 cumulative impact assessment on all VECs. I'm clear
7 on that now. Thank you. For the VECs that you have
8 done a cumulative impact assessment, without going
9 into all the detail, because I'm conscious of the time
10 here, could you just tell me the analytical techniques
11 used?

12 Just their -- it's pretty
13 straightforward what you -- what techniques you use in
14 the cumulative impacts assessment -- sorry, cumulative
15 effects assessment. And if you could just even list
16 off by name what was your analytical technique without
17 going into the great details, just what was the
18 technique you used?

19 MR. RICK HOOS: Well, Rick Hoos,
20 Developer group. With respect, it wasn't rocket
21 science. If there is no significant effect, no
22 significant residual effect, and it can't cumulate
23 with no significant residual effect from other
24 existing or anticipated future projects, we judged
25 with our professional judgment that there would be no

1 opportunity for a potentially significant cumulative
2 effect to occur, and that's the methodology we used.

3

4 (BRIEF PAUSE)

5

6 MR. RICK HOOS: Also to the extent
7 appropriate, we followed Kavik-Stantec's guide for
8 conducting cumulative effects assessments within the
9 Inuvialuit settlement region.

10 MR. BRUCE HANBIDGE: Okay, thanks.

11 MR. RICK HOOS: That's an ES -- EISC
12 EIRB guideline.

13 MR. BRUCE HANBIDGE: Okay. Thank you.
14 Just one (1) other question for clarity then with
15 respects to your analytical techniques. And I'm --
16 actually, my reference -- I'm working off the
17 Cumulative Effects Assessment Practitioners' Guide
18 produced by Canadian Environmental Assessment Agency.
19 That's my reference.

20 In your cumulative effects assessment
21 that you have carried out, can you tell me if there's
22 been any analysis techniques of any sort used that are
23 quantitative in nature and, if so, could you identify
24 which ones and one which valued ecological components
25 they were applied?

1 MR. RICK HOOS: Rick Hoos, on behalf
2 of the Developer group. To the extent that we could,
3 we attempted to quantify effects related to VECs in
4 the context of the Inuvik-Tuk Highway. And they are
5 as spelled out in -- in another chapter of the EIS.

6 The conclusions from those assessments
7 were then subsequently plugged into our evaluation of
8 how -- whether or not or how those -- any residual
9 effects that we might have identified could somehow
10 interact with not-significant residual effects from
11 other existing or proposed projects. And that's how
12 we did our assessment.

13 MR. BRUCE HANBIDGE: Okay, John, not
14 to drag it out here, but it's still not clear to me.
15 I've looked through it. I can't find that. So if I
16 could ask for an undertaking here --

17 MR. RICK HOOS: Sure.

18 MR. BRUCE HANBIDGE: -- to identify
19 that.

20 MR. RICK HOOS: Actually -- Rick Hoos,
21 Developer group -- Table 5.4-1 summarizes the residual
22 effects for valued ecosystem components and valued
23 socioeconomic components as the result of undertaking
24 the environmental assessment. And it's all itemized
25 there.

1 I don't particularly want to read it
2 into the record, but it's Table 5.4-1.

3 MR. BRUCE HANBIDGE: Thank you. I --
4 I have seen that. But my question was the analytical
5 technique applied to get that. That's what I'm trying
6 to drive -- drill down to here, and I can't find that.

7

8 (BRIEF PAUSE)

9

10 MR. RICK HOOS: With respect, we used
11 whatever information was available. We used the
12 standard environmental assessment techniques that we
13 have been employing, some of us, for almost forty (40)
14 years.

15 We followed the procedures that are out
16 there. We did not do any comprehensive modelling of
17 the future or anything of that ilk. And that's the
18 basis for this work. But I must stress again that
19 even using this relatively simplistic approach, given
20 the simple nature of this project, the -- the
21 relatively harmless nature of this project, there was
22 no need to become more sophisticated in our analysis.

23 MR. BRUCE HANBIDGE: Bruce Hanbidge
24 again. Thank you for that. My interpretation then is
25 that your analysis for cumulative environmental

1 effects was qualitative?

2 MR. RICK HOOS: Rick Hoos, Developers
3 group. It was as quantitative as we could make it
4 with the available information. And in particular, in
5 relation to vegetation and wildlife habitat, we were
6 able to quantify habitat values down to the square
7 metre.

8 We were able to identify that in all
9 cases the footprint of the project was going to have
10 less than -- typically less than point -- .1 percent
11 impact on the area available within the local study
12 area and an -- an even lower number within the
13 regional study area. And that was fairly conclusive
14 and clear information that the project would not have
15 significant effects on wildlife habitat and, hence,
16 wildlife in that context.

17 We did also evaluate, to the extent
18 that we could, other factors that could impact
19 wildlife, such as behavioural changes, disturbance,
20 potential mortality due to conceivable and likely
21 incidents that could occur from time to time in
22 relation to vehicle/wildlife collisions and the like.

23 And because it's such a low-traffic
24 road, again, the conclusion was we did not anticipate
25 significant numbers of wildlife incidents to occur

1 along the highway, particularly if the general public
2 was encouraged to try and re -- you know, allow
3 wildlife to have the right of way if -- if at all
4 possible, which is what we typically find in -- in
5 other jurisdictions.

6 MR. BRUCE HANBIDGE: John, just one
7 (1) more question here.

8

9 (BRIEF PAUSE)

10

11 MR. BRUCE HANBIDGE: Okay. Just for
12 clarity for the panel here, the -- the various
13 analytical techniques I was asking about for
14 cumulative impact assessment, such things as impact
15 models, spatial analysis, landscape level indicators
16 for change, numerical modelling, anything in those
17 areas, but -- and I appreciate there's been an awful
18 lot of information produced, numerical in -- in man --
19 in manner, such as the habitat mapping.

20 But numerical production of information
21 is not an analysis. It is a production of numerical
22 information. And what I'm trying to get at here,
23 cumulative effects assessment is an analysis where you
24 take all those pieces that are perhaps very small or
25 negligible and you start looking at them in a

1 progressive manner.

2 And what I'm hearing is that that
3 analysis is qualitative. So I just -- I have one (1)
4 last question, and then I'll -- I've covered mine, is:
5 For the other information that we are seeing coming
6 up, such as detailed information on caribou collaring,
7 other bits and pieces such as dust avoidance for
8 feeding by caribou -- I know we've seen it with the
9 mines where it's 11 to 14 kilometre avoidance areas.
10 Whether that's applicable or not here is part of the
11 analysis.

12 But for this information that is coming
13 in, could you elaborate at all on what form of
14 accumulative impacts assessment -- effects assessment
15 you would be doing with this new information,
16 especially what's coming from ENR?

17 And the last -- sorry, with it --
18 that's -- clarify what you're going to do, but the
19 last one (1) is -- sorry, I'm slipping two (2)
20 questions in.

21 Disturbance. I've seen an awful lot of
22 anthropocentric, human evaluated what we think the
23 animals need. But I haven't seen anything anywhere on
24 disturbance levels and cumulative disturbance levels,
25 not just from traffic, but a -- a look at cumulative

1 from increased traffic off the road, increased human
2 movement everywhere, where you reduce it to common-
3 denominator disturbance and then you start tracking
4 forward from there.

5 And that's what you need to look at,
6 impacts with other projects coming up. Thank you.

7 THE FACILITATOR: Bruce, I assume
8 there was a question in there someplace, wasn't there?

9 MR. BRUCE HANBIDGE: The question was:
10 With the information that is coming in from ENR, is
11 there any more cumulative effects assessment,
12 quantitative or otherwise, but quantitative in
13 particular, is there any more going to be done?

14 MR. RICK HOOS: Rick Hoos, Developer
15 group. I'm sorry, I'm a little bit befuddled by
16 certain things here. But we -- we are aware that,
17 with the help of ENR, we are going to be re-evaluating
18 whether there might be some conceivable cumulative
19 effect associated with, particularly in this case, the
20 borrow sites in relation to SARA listed species. ENR
21 has also commented on the presence or, in fact, in
22 most cases, absence of most SARA listed species or
23 presence in -- in numbers, like one (1) to five (5)
24 throughout -- between Inuvik and Tuk for some SARA
25 listed species, based on many years of observations,

1 or attempted observations, by various parties.

2 So we don't -- we just don't see the
3 project having any kind of measurable effect on SARA
4 listed species, given that most of them aren't even in
5 the vicinity, or are there rarely -- only rarely
6 there. But we are seeking guidance and -- and input
7 from ENR on that assessment.

8 MR. BRUCE HANBIDGE: Sorry, I hadn't
9 really mentioned anything about SARA species; I was
10 focussing on caribou and grizzly bear, primarily
11 harvest species.

12 MR. RICK HOOS: Yeah. Well, on
13 caribou and grizzly bear, what we determined was that
14 there would be no significant effects on either
15 caribou or grizzly bear in relation to the road or
16 operation of the road.

17 What we have identified is that, if
18 there is a concern about caribou and grizzly, and we
19 do appreciate that there is, we recognize that the
20 greatest potential impact on those species, in
21 particular caribou, might be related to human
22 harvesting practices, which the developer has no
23 control over, but which the developer recognizes is an
24 important consideration in relation to this road. And
25 it's for that reason that the developer feels very

1 strongly the -- the need to have the various co-
2 management agencies and other agencies, the HTC's, the
3 Inuvialuit Game Council and other parties, to work
4 together to develop policies and procedures to ensure
5 that -- that the resources are adequately protected,
6 and that harvesting isn't carried out in -- in the
7 future in an -- some kind of an uncontrolled manner
8 that could cause poten -- could potentially cause an
9 impact on those resources. But we are not able to
10 predict, and do not want to assume, that the general
11 public will be completely irresponsible and not help
12 to manage and protect those resources.

13 MS. AMANDA JOYNT: John, it's Amanda
14 from DFO again. Hi.

15 Amanda Joynt, with DFO. I just had one
16 (1) general comment about the cumulative effects
17 section in the EIS, and I think this sort of gets to
18 the crux of what we were just all talking about. And
19 it -- really, I was looking for -- as an assessor, I'm
20 looking for something that tells me the cumulative
21 effects on the VECs. And I'm hearing that it was
22 done, but I don't see it here, and I think that's the
23 main issue; is that even though there are -- even
24 though it has been assessed that there are negligible
25 effects, I don't see it in the EIS. All I see is a

1 description of each of the projects that could happen.

2 And there are four (4) points on two
3 (2) of the pages, page 225 and 226, that say what the
4 C -- what the cumulative effects assessment is going
5 to do, but then it doesn't happen in the cumulative
6 effects assessment section. So, as an assessor, I
7 can't -- I just basically have to take it on faith
8 that that assessment was done, and I can't, as a
9 regulator.

10 So that's one (1) of the main issues,
11 is that that cumulative effects assessment, as I see
12 it, hasn't been done.

13 MR. BRUCE HANBIDGE: Bruce Hanbidge.
14 I'd just like to reiterate the same. I cannot find an
15 analysis of cumulative effects to assess in any way,
16 shape, or form here in a quantitative manner.
17 Qualitatively, there's some opinions here, that's all
18 I can see.

19 MR. RICK HOOS: Rick Hoos, the -- on
20 behalf of the developer group. I had previously
21 referred to Table 5.4-1, which identified the residual
22 effects for the valued ecosystem components, et
23 cetera.

24 Subsequently, we conducted a
25 significance determination in which we used a

1 screening matrix for cumulative effects. And it
2 outlined the anticipated potential project specific
3 effect, whether the activities, their spatial and
4 temporal nature, whether there was a potential for
5 cumulative effect, how any effect related to the
6 project could be dealt with, whether there was and --
7 and how an effect could be managed.

8 And then we identified probable trends,
9 effect type, magnitude of effect, class of effect, and
10 eventually the significance or anticipated
11 significance of the effect.

12 I will agree that a lot of this was
13 based on professional judgment, without a doubt. But
14 as I have previously indicated, our biologists and
15 scientists who worked on this used whatever
16 quantitative information they could. Both in the
17 initial environmental assessment that then resulted in
18 their determinations of significance of residual
19 effects, they were all considered to be highly
20 insignificant where a residual effect was even
21 identified.

22 And at the same time, there was a
23 fairly extensive discussion of the potential or lack
24 of potential for a cumulative effect to be manifested
25 from previous past activities, or proposed future

1 activities. And in all of those cases it was
2 identified that there was no opportunity -- no
3 reasonable opportunity for a potential cumulative
4 effect to occur. And it was on that basis that we
5 made the judgment summarized in Table 5.4.1-1.

6 THE FACILITATOR: All right. John
7 Donihee. Thank you.

8 There was one (1) point related to
9 cumulative effects raised by the Tuk/Inuvik working
10 group. I -- I don't know if it's been captured, I
11 suppose, or whether or not it's been captured in the -
12 - in the discussion then on cumulative effects up to
13 this point.

14 But I don't want to go by it if -- it's
15 number 20, paragraph B in the -- the agenda. So if --
16 if there is another point to -- to be raised on this
17 cumulative effects issue, certainly now would be the
18 time.

19 MR. DEREK PARKS: Derek Parks. No, I
20 think we've beaten the horse quite nicely. Thank you.

21 THE FACILITATOR: Thank you. I would
22 simply say, it's not that I want to necessarily
23 truncate the discussion. But, gentlemen, I think you
24 have each other's positions and I'm not sure that a
25 lot more discussion in this forum is -- is going to

1 really change very much.

2 So my preference is to -- to go on to

3 the next topic. Just we're -- we can go until 6:00.

4 I -- I realize that some of you who come from Inuvik

5 and have families or other commitments may not be able

6 to stay. You know, if that's the way it works out, I

7 understand. I -- I regret the agenda slipped a little

8 bit on us.

9 But my intention is to -- to finish

10 today by six o'clock. If you will have -- be a little

11 bit indulgent, let's -- let's try to do that. I think

12 there are still some -- some points that we can raise,

13 even if succinctly, but to try to get through the

14 rest.

15 For what it's worth, on the agenda that

16 big long paragraph, you can assume that anything below

17 number 24 is already taken care of. So you may

18 breathe a sigh of relief if we -- if we chop the

19 bottom of that page off.

20 And that leaves us, really, with

21 mitigation follow-up and monitoring to talk about.

22 So, really, those topics, I -- I think in some ways,

23 will probably blend into each other as well. So my --

24 my plan, really, is to move on to number 21, and drive

25 this thing through to completion by -- by six o'clock,

1 so --

2 MR. GORDON STEWART: Brevity of
3 answers, please.

4 THE FACILITATOR: Well, yeah, we'll
5 try -- try, if we can, you know, to listen to the
6 questions and -- and then -- and those of you that are
7 getting answers, listen to the answers, so that we
8 don't have to go back over what's been said.

9 So let -- let's move to item number 21.
10 And that brings us back to -- to Bruce, under
11 mitigation measures.

12

13 MITIGATION MEASURES (INCLUDES PLANS) DISCUSSION:

14 MR. BRUCE HANBIDGE: Bruce Hanbidge.
15 John, I don't think there's much to go into here. The
16 points I raised about -- just recently here in the
17 previous one, and mitigating -- the issue is
18 disturbance, cumulative disturbance.

19 It -- it hasn't been addressed in the
20 cumulative effects assessment, so I -- I don't really
21 have anything to add here in the mitigation area.

22 THE FACILITATOR: All right. Thank
23 you. Fisheries and Oceans then. Fisheries
24 authorizations and development plans to offset losses.
25 I guess there's a couple of points there. Please feel

1 free to address them.

2 MS. AMANDA JOYNT: Yeah, Amanda Joynt,
3 with DFO. I think we've already talked about the
4 increased access to Fisheries resources. So the --
5 the only thing that's left is the authorizations. So
6 this is something else though that we talked about I
7 that meeting a couple of weeks ago with DOT. And we
8 came to the understanding that -- phase, so it's
9 understood that -- that a compensation plan is not yet
10 required. But we did come to the understanding that
11 it is a good idea to start thinking about it.

12 So -- so the understanding has been --
13 well, it's understood that, you know, both parties
14 know that there will be authorizations for this
15 project. We don't know where or how much yet.

16 But the development of a plan to offset
17 the loss of fish habitat is going to be needed, so.
18 And, I mean, the faster we get through these types of
19 things that are in the regulatory phase and the more
20 we can do them within the EA phase, the faster the
21 regulatory phase moves.

22

23 (BRIEF PAUSE)

24

25 THE FACILITATOR: John Donihee. Wa --

1 was there something more?

2 MS. AMANDA JOYNT: Sorry, yes. Amanda
3 Joynt with DFO. So just to clarify, at that meeting
4 we did ask for a draft outline of a plan prior to the
5 hearings, so that's what we're asking for.

6 THE FACILITATOR: John Donihee. Just
7 to be clear then, this is a fisheries management plan
8 of some sort?

9 MS. AMANDA JOYNT: No, it's not a
10 fisheries management plan. It would be a plan -- a
11 compensation plan that offsets the losses of fish
12 habitat that are as a result of things like culverts
13 or fill within fish habitat.

14 THE FACILITATOR: And just so I'm
15 clear, in case I have to advise the Board,
16 compensation in that case would be paid to DFO. This
17 is no-net-loss policy stuff?

18 MS. AMANDA JOYNT: Yeah, you don't
19 have to pay DFO.

20 THE FACILITATOR: No? You don't get
21 to retire on it?

22 MS. AMANDA JOYNT: So it's fish
23 habitat for fish habitat is what we're asking for,
24 yeah.

25 MR. RICK HOOS: John, Rick Hoos here,

1 on behalf of the Developer group. Just to be clear,
2 the Developer group is committed and has always
3 committed to doing its best to minimize the
4 opportunity for a HADD (phonetic) to be created. In
5 that context, the developer has identified that for
6 all significant fish-bearing streams or the -- the
7 larger significant fish-bearing streams, that bridges
8 will be used. And I think we've heard that there
9 might now be about ten (10) of those.

10 At the same time, I think we indicated
11 yesterday that we have now decided that smaller
12 bridges could conceivably be used for some of the more
13 moderate or minor -- intermediate crossings. But I
14 notice that Walter, who has been most intimately
15 involved with this, is also wanting to jump in on
16 that, so I'll let him take over from here. Thank you.

17 MR. WALTER ORR: Walter Orr here. To,
18 you know, specifically put on the record what one (1)
19 of the things we promised to DFO is we have promised
20 to provide an order of magnitude, I will -- I will
21 say, assessment of the impacted -- impacted areas for
22 the crossings. And this is not -- recognizing this is
23 not in any way a detailed design component, but it's
24 to allow DFO to -- to view the -- as I said, an order
25 of magnitude estimate.

1 We'll provide that. And I believe I --
2 we had said that we'd provide that by the 31st.

3 Is that what I recall? Okay, that's --
4 that's what I recall. So we will put on the record
5 that by the 31st, we will provide a order of magnitude
6 impacted-area assessment to DFO.

7 MR. DOUG CHIPERZAK: Can I just make a
8 point? Doug -- Doug Chiperzak here. In that order of
9 magnitude, some care has to be taken, in that some of
10 this habitat is only temporary. And some of it may
11 not actually qualify as fish habitat.

12 And so, I mean, you're going to get a
13 very conservative estimate and probably the -- the --
14 you know, very much on the large side. And -- and so
15 just to appreciate that element.

16 MS. AMANDA JOYNT: Amanda Joynt with
17 DFO. That's understood. Yeah.

18 THE FACILITATOR: Good, I understand
19 it too. Okay, let's see, EIRB, do you guys have
20 things?

21 DR. PETR KOMERS: Petr Komers. Just
22 for a very quick foray back to cumulative effects, I
23 just note that -- and this relates to the discussion
24 that I would like to start about follow-up and
25 mitigation.

1 I note that DFO and WMAC both say that
2 they did not receive enough information regarding
3 cumulative effects. And this is a question to
4 Environment Canada. I believe it's on the record that
5 Environment Canada is not satisfied with the
6 cumulative effects assessment either.

7 Will you confirm that?

8 MR. JAMES HODSON: Yes, that's
9 correct. That's why -- that's what motivated our
10 letters to the Board originally. And we're waiting
11 for further information. And once we get it, then
12 we'll be able to -- to say further whether we have
13 enough to work with. But in general, I do agree with
14 their -- their positions on that.

15 DR. PETR KOMERS: Petr Komers. Thank
16 you. The mitigation measures and follow-up in
17 monitoring issues are all very closely related, of
18 course, because we need to monitor whether or not
19 mitigation is effective. So first we design
20 mitigation and then we monitor in follow-up programs
21 for their effectiveness.

22 I would like to start a discussion
23 regarding -- or, surrounding, Table F, which is in the
24 first round of IRs, number 55.1. And I know that
25 there's a number of comments again from DFO, WMAC, and

1 Environment Canada. There could be other parties that
2 commented on it I'm not currently aware of.

3 But I know that all these three (3)
4 agencies were -- had major comments and additions,
5 requests for further clarifications and details,
6 regarding that table, regarding the comments --
7 commitments that the Developer proposed.

8 And I would like to find out from each
9 of those agencies, and perhaps from other agencies
10 like in -- infrastructure or transportation or Abor --
11 Aboriginal Affairs, or the ITC for that matter, what
12 you think needs to be happ -- needs to happen, and
13 when it needs to happen, so that you folks are
14 satisfied.

15 By "you are satisfied," I mean, when do
16 you, in your professional opinion, believe that you
17 have enough information to do your respective jobs?

18 DFO said that, regarding that Table F,
19 that baselines and assessment needs to be still
20 happening so that approvals can be issued.
21 Environment Canada said that a wildlife management
22 plan needs to be provided and developed prior to
23 constructions. Those are the words from Environment
24 Canada. WMAC said that it needs baselines and
25 assessments to engage in its advisory roles.

1 Now, ENR -- Gavin, this aftern --
2 earlier this afternoon, explained to us that there is
3 a collaborative effort in developing these wildlife
4 management plans and other management and protection
5 plans.

6 We can also read on that in the
7 Developer's response to the directive, where -- and I
8 quote from page 11 of the document from July 13th:

9 "A wildlife protection plan should
10 be developed with, and approved by,
11 agencies that have responsibility
12 for management of wildlife and their
13 habitat, including the Inu --
14 Inuvialuit Game Council, the
15 Wildlife Management Advisory
16 Council, the GNWT/Environment and
17 Natural Resources, Fisheries and
18 Oceans Canada, and Environment
19 Canada."

20 Now, all of these -- well, a majority
21 of those anyway -- agencies seem to be thus far
22 dissatisfied with the information that they got. I
23 would like to know if any of those agencies would care
24 to comment on what information you received so far to
25 date, and whether or not you think that you have been

1 or will be satisfactorily involved in developing these
2 protection plans that are described here?

3 Can we start with DFO, perhaps?

4 MS. AMANDA JOYNT: Okay. I'm going to
5 do my best here. Amanda Joynt with DFO. From what I
6 understand, you're asking me if -- if I have enough
7 information to participate in creating a wildlife
8 management plan. Is that correct?

9 DR. PETR KOMERS: Petr Komers here.
10 Yes, that is correct. I would also like to know if --
11 if you -- if -- if not, if you did not have enough
12 information to date, if you can foresee when you would
13 have enough information to -- to be able to get on
14 with your job.

15 MS. AMANDA JOYNT: Amanda Joynt, DFO.
16 Are you talking about my job as an assessor or as a
17 Fisheries manager?

18 DR. PETR KOMERS: In terms of issuing
19 approvals.

20 MS. AMANDA JOYNT: Amanda Joynt with
21 DFO. I'm still a little confused, because our -- our
22 authorizations wouldn't necessarily be included in a
23 wildlife management plan. It would just be the
24 authorization for the crossing. So right now,
25 obviously, we don't have that infor -- enough

1 information for those specific authorizations. That
2 will be coming in the regulatory phase, so it's not
3 necessarily needed in the EA phase.

4 What is needed in the EA phase is what
5 we've asked for in the letter to the Board on August
6 13th, and also what we've asked for for outstanding
7 information here in this hearing. That's it.

8 DR. PETR KOMERS: Petr Komers. So
9 that means that you can receive sufficient information
10 to process your authorizations after the hearings at
11 some point, I imagine.

12 MS. AMANDA JOYNT: Sorry, repeat that?

13 DR. PETR KOMERS: Petr Komers. I
14 imagine that you -- you expect to receive sufficient
15 information post-hearings. Can you tell us -- give us
16 -- give us an indication of how long that usually
17 takes?

18 MS. AMANDA JOYNT: Amanda Joynt with
19 DFO. No, because I can't predict when the Proponent
20 will want to start construction or when they will --
21 but they do need to give us the compensa -- the --
22 they do need to have their authorizations before they
23 actually do any type of construction on stream
24 crossings, which includes the compensation plan.

25 DR. PETR KOMERS: Petr Komers. Thank

1 you. Would WMAC care to talk about when -- do you
2 have a sense -- I mean, getting through this process
3 so far and given your line of questioning that you had
4 before, do you think that you will get into the
5 position to be able to provide the advisory function
6 that -- that you said you do?

7 MR. BRUCE HANBIDGE: Okay. As much as
8 I'd like to be able to predict the future, I'm just
9 going to work on what we have, working backwards.
10 WMAC hasn't changed. They've identified the same
11 deficiencies we're speaking about now at the
12 conformity stage. Was that a year, a year and a half
13 ago?

14 WMAC's role is advisory. ENR brings
15 information to the table. Canadian Wildlife Service
16 brings information to the table. The other part of
17 the advisory function is Inuvialuit bring their
18 collective knowledge to the table.

19 In this case, if you -- you can't go
20 backwar -- you can't go backwards in time if you don't
21 have a cumulative effects assessment that says, Here
22 is a level. And then you put in -- if mitigation
23 isn't necessary, fine, but you know there's a certain
24 level.

25 If you put in monitoring, you have

1 information -- a baseline in time. We don't have
2 that. And at the moment, we're not going to have it.
3 So when you say, Does WMAC have enough information to
4 operate in an advisory function, the answer is the
5 same as it has been.

6 This is the information we need. And
7 until we get that, then we're -- we're not starting.
8 We're simply saying, Here's a set of opinions, here's
9 a set of opinions, and we don't have the baseline to
10 start from.

11 There's encouraging things coming from
12 ENR about collaring. There's been specific
13 quantitative points raised about other levels of
14 disturbance for grizzly bears, for caribou, that
15 hasn't been taken into account. They're --
16 disturbance has not been taken into account in the
17 cumulative effects assessment in any quantitative
18 manner. So we just don't have it. So until you have
19 that, then the advisory function is simply, We think
20 it's this. That's where it stays at until that
21 information is available.

22 And with respect to getting that
23 information, the only other thing I have to say is
24 that if you don't have it, how do you evaluate worst-
25 case scenario, which is a key component that the

1 Screening Committee has to do.

2 This is very difficult, worst-case
3 scenarios in a situation where you have a progressive
4 development and potentially the effects are
5 cumulative. To be able to assess worst-case scenario
6 you have the baseline data assessed to be able to go
7 forward, and that's what we don't have.

8 MR. RICK HOOS: Rick Hoos here, on
9 behalf of the Developer group. I just -- I noticed
10 we've drifted off into a worst-case scenario. And I
11 just wanted to point out, I guess it is another topic
12 here. The Developer group decided quite early on,
13 after asking -- or, communicating with a number of
14 agencies as to what they thought might be an
15 appropriate worst-case scenario -- to focus one (1) on
16 possible worst-case spill incident flowing towards the
17 Husky Lakes.

18 I do understand that WMAC may have a
19 different view on what a worst-case scenario might be,
20 but we were not tasked with evaluating a number of
21 different worst-case scenarios. And the one (1) that
22 we selected was one (1) that we felt the highway had
23 some relationship with.

24 We -- we did consider a possible worst-
25 case scenario associated with uncontrolled harvesting

1 and whatnot in relation to development of the highway
2 but really felt that that was not a direct effect
3 related to the development of the highway and that
4 this -- this -- and that management and control of
5 that kind of issue and concern was beyond the purview
6 of the Department of Transportation.

7 So the worst-case scenario that we
8 focussed on was one (1) that had some relationshi --
9 more direct relationship with the road: a truck going
10 off the road into a stream flowing towards the Husky
11 Lakes and impacting the aquatic resources of the Husky
12 Lakes area, which we know are of critical importance
13 also to the public of the area.

14 DR. PETR KOMERS: Petr Komers. If I
15 can continue with that just to -- for Environment
16 Canada. When you guys say you need the information
17 prior to construction, how do you work with the other
18 agency? What information do you need to -- I don't
19 know what you do prior to construction to -- to have
20 that.

21 You don't have any author --
22 authorizations to issue now, do you?

23 MR. JAMES HODSON: James Hodson, with
24 the Canadian Wildlife Service. That's true. We don't
25 have any authorizations to issue in this project. I

1 guess in the case of other environmental assessments,
2 what we usually hope for is to have a draft wildlife
3 management plan prior to the startup of the project
4 that we can review and provide feedback on so that
5 additional measures might be added if necessary, or
6 refined.

7 Where we're at with this EA is we're
8 still addressing deficiencies that we identified a
9 long time ago. We haven't even gotten into
10 discussions with the developer or any of the other
11 agencies about monitoring plans for the project.

12 The developer has provided their
13 wildlife management plan for the -- that they used for
14 the access route to the borrow Source 177. I think
15 that's a good starting point to start the discussions
16 with, but we're not -- we're not there yet.

17 So these are things that'll have to
18 take place probably after the -- the final hearings, I
19 would imagine.

20 DR. PETR KOMERS: Petr Komers, this is
21 useful. So that -- those meetings would probably
22 start after the -- the hearings. And this actually
23 leads me to a question for ENR.

24 Usually man -- management plans are
25 developed and ENR has the right to be asked for

1 monitoring details and -- and methodologies,
2 approaches, even behavioural studies to be developed
3 and identified in management and -- adaptive
4 management plans, not just wildlife management plans
5 usually prior to regulatory approvals.

6 Can you foresee -- can you comment on
7 the process of developing that management plan prior
8 to approvals, or at least construction in
9 collaboration with agencies that are listed here in
10 the developer's re -- report, responses to the
11 directive.

12 Did I explain myself?

13 MR. GAVIN MORE: So if I understand
14 you correct -- Gavin More, GNWT. You're wondering, or
15 wanting assurance that ENR will be leading the review
16 of the wildlife and habit -- wildlife habitat
17 protection plans that we're working on with DOT and,
18 of course, the WEMP is one (1) that we've taken on as
19 a department, so it's not as much with DOT, but the --
20 the rationale for that is to provide information
21 typically during the -- the life and operation of the
22 project.

23 But the key is yes, and the agreement
24 has been that the discussions locally will be done
25 through the biologists here in Inuvik. So we've

1 switched gears. Most of our attention over the last
2 while has been more on the WEMP, because it required
3 some accessing of money ahead of the construction
4 phase so we had something in addition to the other,
5 particularly caribou monitoring that we've been doing.

6 The key that we discovered for this
7 process is that we actually do, of course, an awful
8 lot of monitoring, but it's done for particular
9 reasons. We don't normally analyse the data the way
10 we've been trying to do for this project and project
11 effects. We -- we have different management interests
12 that -- that we do. But the key is it would be unfair
13 to say that we don't have baseline.

14 The other key issue for us here, and
15 this was something that we started in discussions with
16 all of the federal departments and the proponent back
17 in April of 2011 was the start of what we needed for
18 more specific studies.

19 And of course, unfortunately for the
20 wildlife and the vegetation part it came too late in
21 that particular study year. So I think for us we're
22 reasonably comfortable, in fact, even more comfortable
23 now that we've seen the material that's coming in so
24 we can better look at the project effects and start
25 doing the calculations that we can build in with the

1 approach that MGP took.

2 So, from my point of view, we're
3 reasonably comfortable. A lot of the commitments are
4 actually -- in terms of mitigations are already in the
5 documents that have been produced. For us the -- the
6 -- particularly the protection plan was more geared to
7 some of the more operational decisions of who would do
8 what on -- between DOT, resource officers, the
9 wildlife monitors, the contractor, that sort of thing.

10 So much of it has been more on the
11 implementation side. The commitments are -- are, from
12 our point of view, fairly much there, but we did have
13 some special interests in looking ahead at
14 particularly the -- the gravel pit locations as part
15 of the whole process.

16 So from my point of view, things are
17 rolling along quite nicely. It is, from our point of
18 view, unfortunate that it's taking to this point, but
19 really, for us the -- the important more detailed,
20 more accurate, more precise information is there for
21 us to use and apply.

22 So to tell you the honest truth, I'm --
23 I'm not that worried about where we go with the
24 process in terms of finishing.

25 DR. PETR KOMERS: Petr Komers. So

1 just to -- to clarify, you will produce in
2 collaboration with any interested and important party,
3 if I can say, the management plans prior to
4 construction, as Environment Canada noted?

5 MR. GAVIN MORE: Yeah. Gavin More,
6 GNWT. And I guess the key is you have to keep in mind
7 that even from our point of view the ultimate
8 responsibility for those plans is the developer. But
9 we have agreed that we will help work with the
10 developer in the review of them.

11 And then, of course, in those plans we
12 will have operational considerations that are our
13 responsibility. But by and large, the implementation
14 of much of what will be in those plans is up to the --
15 to -- to the developer.

16 DR. PETR KOMERS: Petr Komers. Yes,
17 thanks. That's -- that's enough for now.

18 MS. MEGHAN BIRNIE: Meghan Birnie.
19 And with regard to the socio-economic components
20 involved in monitoring, I had wanted to spend some
21 time getting into each of those components. But I
22 think I'll try to keep this actually a little more
23 rolled up.

24 For -- for many of the -- the -- well,
25 the developer made the distinction in the EIS between

1 valued socio-ec -- valued socioeconomic components and
2 other socio-economic components.

3 There was a table provided that -- that
4 indicated what the assessment results were for those.
5 But in the sections of the EIS, readers weren't
6 stepped through how they arrived at those results for
7 those other socio-economic components.

8 Those were ones relating to
9 demographics, human health, community wellness,
10 infrastructure and institutional capacity, some of
11 those other more -- more community-related items.

12 Given that we have to rely -- well,
13 another piece of background is that the only
14 mitigation measures that are specified in the EIS, and
15 in some of the subsequent filings, are those that the
16 developer themselves are responsible for implementing.

17 For any of the effects that aren't
18 under the direct control of the developer, there's no
19 mitigation measures that are provided or suggested.
20 But yet there's assessment results predicted.

21 So I don't know how we arrive at
22 assessment results if we haven't applied mitigation,
23 because that's not a -- the application of mitigation
24 is what allows us to determine what the effects will
25 be and what the -- the effects will be following

1 mitigation. So if we haven't suggested what some of
2 those mitigations are for the other parties to
3 develop, I don't know how we arrived there. We did do
4 some -- some back and forth in the IR process about
5 that.

6 And so now what I'm interested in
7 knowing is, if we don't have some of that -- those --
8 if we can't have as much confidence in the impact
9 predictions, because mitigation measures haven't been
10 provided, we need to have a lot of confidence in the
11 mechanisms for monitoring those impacts and managing
12 them.

13 In the EIS, the very first filing from
14 the developer, it's stated in Table 6-1 that:

15 "Upon approval of the project, a
16 detailed effects monitoring program
17 will be developed in consultation
18 with regulators and interested
19 programs."

20 So, again, that's -- that's after
21 approval. And we're not sure if -- if we have the
22 confidence, at this point anyway, in some of the --
23 the impact predictions.

24 When that's questioned further, in some
25 of the -- through the IR process, the developer did

1 provide much more detail on the parties that would be
2 -- be responsible for -- for some of the -- the
3 implementation of -- of mitigation. But, again, no
4 concrete commitments, project-specific commitments or
5 otherwise, to mitigate project-specific effects.

6 So we need to have confidence in the
7 mechanisms for project-specific effects to be
8 monitored and managed. And I'm wondering if the
9 developer can provide any more details on what those
10 are, both the developer and ENR?

11 MS. TARA SCHMIDT: This is Tara
12 Schmidt. Can you please repeat the -- your question
13 again at the very end?

14 MS. MEGHAN BIRNIE: Can you provide
15 any -- any details at all on how project -- how you
16 will work with other parties, all the other parties
17 that were in -- I think it was the developer's
18 response, a November 18th letter?

19 With all of the other agencies and
20 organizations provide in there and their descriptions,
21 how are you going to work with other parties to manage
22 and monitor project-specific effects, either to -- I
23 understand they're going to be -- they're going to be
24 managed through regular programming. That doesn't
25 leave a lot of time for preparing for unanticipated

1 effects.

2 Are there any plans -- my specific
3 question: Are there any plans to monitor project-
4 specific effects, to conduct project-specific
5 monitoring and management?

6 And the second part of that question
7 is: How and when will you work with these other
8 parties to develop a project-specific monitoring and
9 management plan?

10 MR. GAVIN MORE: Gavin More, GNWT. If
11 I can just add something to that. I think what you're
12 going to have to do is wait to see the twenty-five
13 (25) people I've got on the list to attend your public
14 hearings, but the GNWT's made it very clear,
15 particularly in our government response to the MGP, we
16 have a process of planning territory wide.

17 We do not make commitments related to
18 single projects other than certain ones that we've
19 done through socioeconomic agreements, and the reason
20 is, is that, in fact, if you look at the MGP even for
21 some local specific area planning that the JRP
22 recommended, we rejected those.

23 When it comes to future projects,
24 particularly the MGP, our response on that matter is
25 that that funding for that will come through the

1 Mackenzie Impact Fund, but at this stage of the game,
2 the departments and -- and one (1) of the documents
3 you do have is the -- a list of items that are
4 typically monitored as part of the socio-ec agreement
5 for the -- for the MGP, but at this stage, the
6 departments have made -- insist that they do not work
7 on a project-by-project basis to run their
8 programming. And you can -- you can get that message
9 from the people that come to those hearings.

10 But the other part that I keep trying
11 to mention to people is that this developer is part of
12 a government. The governments departments have their
13 responsibilities. In no other road project, including
14 ones that go through comprehensive studies, does the
15 developer, who is typically a provincial Department of
16 Transportation, take on socioeconomic aspects, but
17 what they do mention in their documents is that that
18 will then fall to the other government programs. In
19 fact, you'll even find, in the Saskatchewan ones, the
20 same answer for wildlife, that most wildlife will fall
21 to the wildlife manager.

22 So I think the key is, this is not a
23 normal developer; this is a road project by a
24 jurisdiction that is part of a large government, and
25 this is abnormal to require, insist on mitigation

1 commitments for socioeconomics from a Department of
2 Transportation.

3 MS. MEGHAN BERNIE: Meghan Bernie.

4 Thanks, Gavin. I'm -- I -- if we look then, at -- at
5 the role of ENR, and then at the commitment of the
6 developer to work with other parties to -- to manage -
7 - because that commitment's been made. There are
8 other parties there that already do their management.
9 We do management, we can talk. Even some information
10 or some details on how will those existing mechanisms
11 be used? How will project-specific effects -- even if
12 they aren't going to be identified and mitigated other
13 than through regular programming, how can we have
14 confidence that they will be managed?

15 And I note that in -- in sessions for
16 the development of the Tuk Harbour, one (1) of the
17 suggestions from a lot of people was: Why don't we
18 have an advisory group using all the existing bodies,
19 just so we can make sure that we're -- we're flagging
20 kind of the -- the canary in the coalmine, some of the
21 unanticipated effects, and managing them through our
22 regular management, regular programming, and -- and
23 monitoring?

24 And so, knowing also that ENR has
25 entered into such kind of advisory committees or -- or

1 monitoring forums for some of the diamond mines with
2 other parties, is there -- is there any -- is there
3 any intention to -- to at least formalize a mechanism
4 through which some of that would be done for this, if
5 it's not going to be project-specific, as such?

6 MR. GAVIN MORE: Gavin More, GNWT.

7 Just -- just to be sure, socioeconomic agreements are
8 negotiated by Industry, Tourism, and Investment. It
9 used to be us when we were all part of Resources,
10 Wildlife, and Economic Development. Some of the more
11 late -- recent ones have also had education, culture,
12 and employment as -- as sort of a co-signatory.

13 The -- the -- I guess you could save
14 that question for the -- for the public hearings, but
15 the -- the key for the -- these departments is that
16 there are many, many projects taking place, and, from
17 their point of view, they would hate to be forced into
18 a system where they don't use their normal
19 programming.

20 And then the second part that -- that I
21 think needs to be really understood is that,
22 typically, the more planning element is in Yellowknife
23 but the delivery is through the local authorities. So
24 from their point of view, we have substantial existing
25 discussion processes on education, health systems.

1 The -- the -- there is a rather massive
2 involvement of the various communities in those
3 systems. And then if you remember the input from the
4 IRC, they also added some additional items that
5 they've doing as well in conjunction with the health
6 authorities.

7 So the key is those processes, from our
8 point of view, do exist. But it wouldn't be the
9 developer that would be engaged with those authorities
10 to -- to do that. So I think that's the point that
11 the departments have been trying to make, is that they
12 have a way of looking and monitoring and reacting to
13 change and its their responsibility to do that. And
14 they do do it on an ongoing basis.

15 And it -- as I say, it is done with
16 direct involvement of people from the communities that
17 are engaged in the discussions of what needs to be
18 done. So I -- I think that's the -- the substantial
19 difference. And that's why I believe that other roads
20 in Canada do not take on socioeconomic impact
21 mitigation through a Department of Transportation.

22 MS. MEGHAN BIRNIE: Okay. Thanks,
23 Gavin. So that I understand a little bit better how
24 this would work, because I can -- I can accept that
25 the Department of Transportation is not in the job of

1 doing some of these other mitigations that are the
2 responsibility of other parties, but so that I can
3 understand how it would work, walk me through --
4 through this example.

5 I know in -- in one (1) of the terms of
6 -- or one (1) of the IRs we were -- we asked about
7 tourism-related effects. And the developer responded
8 back with, Some of the parties that are responsible
9 for -- for monitoring and managing tourism-related
10 effects.

11 In our second round of IRs we asked
12 some of those parties. The developer identified IDC,
13 Canore (phonetic), GNWT, IT&I (phonetic), Public Works
14 and Services, and IRC and said that those are some of
15 the other parties that are responsible for these item
16 -- or for -- for that mitigation and -- and monitoring
17 and that it would be conducted through their regular
18 programming.

19 IDC responded that it's not within
20 their mandate to undertake responsibilities with
21 respect to monitoring project-related tourism and that
22 they're not regard -- with regard to mitigation,
23 they're not involved in project-related tourism
24 either.

25 IRC responded the same. And Canore re

1 -- responded that they will not undertake project-
2 related monitoring or reporting or be involved in
3 mitigating any project-related effects.

4 So these parties do this through their
5 own regular programming. They've been identified as
6 being responsible. But with that response from those
7 other parties, and then knowing in the -- in the
8 traditional knowledge report, in this -- in the
9 summary from that, I think in the concerns there were
10 some -- some raised with regard to tourism and the
11 impacts of tourism and increased tour -- tourists, the
12 -- the influx of tourists in Tuk and some of the --
13 the more undesirable social effects that that might
14 bring.

15 So, how would I have confidence in how
16 those other parties have -- have responded? How would
17 I know that those concerns that were brought up in the
18 context of the TK study would be addressed through
19 that regular programming?

20 MR. GAVIN MORE: Gavin More, GNWT. I
21 think what you'll find is the departments, the way you
22 looked at it in terms of impacts of tourism, that
23 wouldn't be their mandates in terms of the GNWT
24 departments, at any rate.

25 What they would do is look at tourism.

1 The road monitoring and road use of course is done by
2 -- by DOT. But, basically, those departments would
3 likely focus on monitoring, recording how many, doing
4 estimates of how many. A lot of their job is actually
5 to promote tourism. And then some of them, their jobs
6 are to find ways to support the small business
7 development that might relate to tourism.

8 So more of the focus of the GNWT
9 departments is on assisting increased development.
10 But in terms of that concept of monitoring the -- the
11 effect of the impacts of tourism, that wouldn't be our
12 focus from any of the departments that I'm aware of.

13 MS. MEGHAN BIRNIE: Okay. Thank you.

14 THE FACILITATOR: John Donihee. So
15 there still were, I think, some issues here on
16 followup and monitoring NRCan and -- and DFO. So I --
17 I don't want to...

18 MS. AMANDA JOYNT: I think Julie-Anne
19 wanted to say something.

20 MS. JULIE-ANNE MARCOUX: Thank you,
21 Amanda. Julie-Anne Marcoux from Infrastructure
22 Canada. I just want to reiterate from a -- a CEA
23 point of view that we require an assessment of the
24 indirect socioeconomic effects as part of the
25 environmental assessment.

1 MR. GAVIN MORE: Gavin More. Can I
2 add to that? The difference between an assessment
3 versus the requirement for mitigations. And I think
4 that's the key. If you look at all of the documents
5 that have been turned in under comprehensive studies
6 for roads in Saskatchewan, where you'll see that at
7 the end of it everybody accepts that the Department of
8 -- of Saskatchewan Transportation is not responsible
9 for socioeconomic mitigations.

10 THE FACILITATOR: It's -- it's John
11 Donihee. I'm not sure you caught the point. You
12 know, the -- there are legal requirements for certain
13 things to be done to satisfy CEA. I -- I believe
14 that's what my colleague here, or friend, was saying.

15 And, you know, when -- well, you have
16 an impact assessment in front of the Board. So, you
17 know, if it satisfies the basic requirements of those
18 statutes, you know, certainly that's the way the Board
19 will treat it.

20 But, you know, if you -- if -- if the
21 evidence that comes to the Board is that there are
22 questions about the -- I don't know, how -- how good
23 it is, whether it's sufficient or not, the Board will
24 hear that in the hearing and it will have to decide.

25 So I think that's the point, and if you

1 fall short on something that's a legal requirement,
2 then it's a full stop.

3 MR. GAVIN MORE: Gavin More, GNWT.

4 And I guess that's the key for me -- me to want to
5 make very sure that there's a difference between
6 mitigations and the looking for mitigation
7 commitments, because the GNWT departments will not
8 move in that direction.

9 And I think that's the key. Yes, the
10 social context and the assessment is the
11 responsibility of the Developer, but not the
12 mitigation of the -- the assessment.

13 THE FACILITATOR: It's John Donihee.
14 Gavin, I understand your point and I -- I understand
15 your, you know, the way you're describing what GNWT
16 does as well. And I would just make a comment that,
17 you know, how -- how you package that for the Board
18 may make a lot of difference to the outcome.

19 And, you know, to be -- if you sat in
20 front of the Board, for example, and said, We will not
21 look for mitigation, for example, we -- we do not do
22 mitigation, I think you're going to get a lot of
23 questions from that panel.

24 So I'll -- I'll just leave it with you.
25 It needs to be on -- explained to the Board in a way -

1 - what I'm hearing you say is -- is that that's just
2 not the way we get from here to there. We have
3 another way to address these -- these issues and
4 problems and to respond to them.

5 And -- and that's -- that's entirely
6 okay. I don't -- you know, that's not for me to tell
7 the Government of Northwest Territories how to do it.
8 But it's very important for the Board to understand
9 that as you express those things what you're not
10 saying is, We're not going to do anything, because I -
11 - I think that that may not lead you to the outcome
12 that you're looking for.

13 MR. GAVIN MORE: Yeah, thank you. And
14 I think that's the point we'll make to -- to those
15 twenty-five (25) people we're bringing, but the key is
16 there's a -- we've tried to explain our programming.
17 And I guess if you really want it in depth, the people
18 who will be coming can explain it in much more depth.

19 But the key that we're trying to
20 desperately separate for people is what that typical
21 proponent has to do mitigation for everything. And
22 that's, from our point of view, not the way this
23 project needs to go. And I think people have to
24 really understand the -- the approach of the GNWT.
25 And what we've put on record as part of the -- the MGP

1 Government response, we're not likely to change.

2

3 (BRIEF PAUSE)

4

5 THE FACILITATOR: I -- I don't want to
6 leave off if -- you know, I -- I know we got -- the
7 agenda got a little crushed at the end here. That's,
8 unfortunately, the way these things go sometimes.

9 Are there still issues that any of the
10 other Intervenors really feel they want to bring up
11 and -- DFO. Oh, sorry, you'll know in a minute?
12 Actually, while you're having your conversation, I --
13 I do have one (1) -- sorry, one (1) matter that I -- I
14 need to raise.

15 I shouldn't do this from the Chair, so
16 while I'm talking, Gor -- Gordon is the Chair. And it
17 relates to the response from the Developer to
18 Directive number 7 of the Review Board.

19 The directive was issued in May. And
20 your responses were filed on July the 13th. Directive
21 7 was the one (1) where the -- the Board essentially
22 asked the developer to -- it relates to Category E
23 lands -- and asked the developer to provide evidence
24 and records of discussions with the community and
25 community organizations that show that you've gone

1 back and talked to them about the fact that a good
2 portion of the road, of the alignment, actually
3 crosses Category E lands.

4 And the response from the Developer was
5 that, first off, that, you know, that alternative
6 number 3, of course, is a -- a minor realignment of
7 the -- of -- of the road. And obviously, that was
8 specifically inserted into the way that the project
9 was defined or described because of the concerns of
10 the communities.

11 And, obviously -- obviously, that shows
12 that the Developer has been talking with the
13 communities about their intention or desires with
14 respect to the way that the Category E lands are used.
15 And -- and I accept that. So that's not an argument;
16 I'm simply saying we heard you on that point and I
17 accept it.

18 The rest of your response indicated
19 that there would be a letter coming from IRC. And, of
20 course, you know, we did get a letter on July the
21 19th, I believe it was, from the chair of the IRC.

22 And she pointed out, very clearly, you
23 know, that the designation of Category E lands, and
24 the -- and the rules, if you will, in relation to how
25 they can be used, that are set out in the community

1 conservation plans, are not legally binding.

2 And I -- I would confirm for the
3 Developer that that was our understanding all along.
4 And -- but it's -- it's very helpful to have that
5 confirmation on the record from the -- from the chair
6 of the IRC.

7 I -- I guess, though, the -- the point
8 that remains for -- for me -- and -- and that I'd --
9 I'd like to -- to be able to advise the Board about --
10 is that, you know, notwithstanding the lack of legal
11 st -- standing or -- or the fact that these lands are
12 not protected in -- in law by some kind of regulation
13 or -- or land-use plan that you can't violate, the --
14 the 2008 Community Conservation Plan nonetheless
15 represents a -- a fairly careful -- carefully
16 developed expression of the community's intentions
17 about these lands.

18 And, you know, it -- I mean, the -- it
19 -- it -- the plan itself goes back all the way to ni -
20 - the original one (1) was in 1993. And, you know,
21 they were developed by the HTC and Tuk, the community
22 corporation in an elders comm -- committee in -- in
23 the original one.

24 And then the 2008 plan is actually
25 signed off by a community working group. The vice

1 chair of -- of WMAC, who is now the chair of the
2 Inuvialuit Game Council, chair of the Game Council at
3 the time, and the chair of the FJMC.

4 And so, you know, again, I'm not trying
5 to argue about what the legal im -- import of doing
6 what you're proposing on those lands might be, but
7 rather saying that the Community Conservation Plan
8 does represent an expression of -- of the community's
9 intentions, I guess, with respect to the way those
10 lands would be handled.

11 And, you know, it seems to us that if
12 the community has now decided that it's a good idea to
13 build a road there, that's fine too. But I guess what
14 we're failing to see is, aside from the issue of that
15 one (1) jog -- that's the wrong terminology, right --
16 the alternative number 3, we -- we just don't see much
17 available on the record to indicate that the issue of
18 the use of -- of Category E lands for a road has been
19 discussed.

20 So I guess what I'd like to ask is, if
21 you have that information or you have had those
22 discussions, are you able to provide the Board with a
23 little bit of comfort about that? And if -- if you
24 don't have it, would you just confirm that you don't
25 have it?

1 (BRIEF PAUSE)

2

3 MR. JIM STEVENS: Jim Stevens,
4 Transportation. There have been some discussions
5 relative to Category E lands in our 2009/10 meetings,
6 and I believe, since those meetings, the aerial extent
7 of the Category E lands has expanded. But when --
8 during our initial discussions, there was no
9 opposition to the road going through what was
10 considered Category E lands at that time.

11 THE FACILITATOR: It's John Donihee.
12 Were those meetings minuted or -- I mean, I'm -- I'm
13 really looking really just to make sure that -- I
14 accept your -- your evidence or point, but, you know,
15 is there something that you could file with the Board,
16 just so that we can point to that when -- when the
17 time comes?

18 MS. TARA SCHMIDT: This is Tara
19 Schmidt with Kiggiak-EBA.

20 What Jim Stevens is referring to is
21 located in Appendix B of the EIS, where the comments
22 were made regarding the Category E lands. It's also -
23 - we'd provided a response to an Information Request
24 which also outlined a lot of the details where people
25 raised Category E.

1 THE FACILITATOR: All right. Thank
2 you. I'll -- I'll look for it there.

3 John Donihee again. Yeah, I'm back in
4 the chair. Any other issues? Everybody -- I know
5 Chris has one (1) -- one (1) point he wants to make
6 before we finish. Sorry, Petr.

7 DR. PETR KOMERS: Petr Komers here.
8 Just a request for clarification from Gavin.

9 In your response to some of Meghan's
10 questions, you said that ENR is only responsible for
11 regional-type monitoring, and that prompted the
12 question in my head is: Is that true for biophysical
13 monitoring as well?

14 MR. GAVIN MORE: Gavin More, GNWT.
15 I'm not quite sure what you mean by "biophysical." We
16 have in -- divisions of groups: so we have Forest
17 Management that does certain aspects related to
18 forest; we've had people working on ecological land
19 classification; we have people working on wildlife;
20 after an evolution, we'll have people working on
21 water, but -- it's -- it depends what you mean by
22 "biophysical."

23 So, we have certain people that work on
24 certain topics that we need to manage, but it's not
25 like a provincial system where you'll have people

1 going out and doing vegetation mapping, that sort of
2 thing. There is a relationship, of course, to the
3 federal government, and I think that's where you'll
4 have to find, from the other groups, what they do.

5 So the system up here, from my point of
6 view, started out as a federal system. They devolved
7 some aspects to the GNWT, but there's still a very
8 large component of federal involvement in much of what
9 goes on here in terms of that broader biophysical.

10 DR. PETR KOMERS: Petr Komers. I'm
11 not quite sure we got the question across.

12 Who will be doing the project-specific
13 monitoring for this project, if not ENR?

14 MR. GAVIN MORE: Gavin More, GNWT.
15 The proponent is responsible for coordinating. Some
16 will be done by environmental monitors, some by
17 wildlife monitors. It'll all be organized within
18 their -- their contracting system or in their
19 arrangements with -- with regulators. But for the --
20 there will be some aspects that we will engage with
21 the proponent and do certain kinds of inventories with
22 their support. So it's -- it's a -- it's, again, the
23 typical northern combined approach to doing that.

24 Our work will focus on the effects
25 monitoring, because that -- that -- and part of the

1 effects, when people keep talking about cumulative
2 effects, is the whole regional population-level
3 monitoring. Those are aspects that are still our
4 responsibility anyways, but, in this particular case,
5 we've decided to -- to take a look at, from a project
6 point of view, some very specific effects monitoring.

7 And so it's -- it's sort of a small
8 component that -- that covers some of the key species,
9 but in terms of the -- what I might call the
10 compliance and environmental level monitoring, that's
11 the proponent and who they organize it through.

12 DR. PETR KOMERS: Petr Komers here.
13 I'm not quite -- the -- the thing is confusing here,
14 because ENR is also part of the developer. And you
15 keep pointing to the developer will do that, but
16 you're EN -- ENR as well.

17 So if the developer does it, that by
18 implication should mean that ENR would do the project-
19 specific monitoring, including compliance monitoring
20 during construction.

21 MR. GAVIN MORE: Gavin More, GNWT.
22 Absolutely not. That's not our role.

23 The role is of many ways continuing our
24 normal wildlife manager role and -- and again, you
25 also have to -- to add into this that there are some

1 slight requirements or needs of Environment Canada for
2 migratory birds.

3 So the key here is the project needs to
4 be designed so that somebody's ensuring the compliance
5 with the mitigation commitments and the daily
6 monitoring, the water quality monitoring, the
7 relations -- the -- what's going on for the project is
8 the responsibility of the proponent, but we are making
9 some arrangements of something's that ENR will do with
10 them, for them, typically with their support.

11 But what we've hived off is the -- that
12 sort of what I call the follow-up effects monitoring;
13 that's coming to be an ENR responsibility to help
14 support this project, but also it helps support our
15 more general regional work.

16 MS. MEGHAN BIRNIE: Meghan Birnie.
17 Going back to the comments you made then with regards
18 to some of the socioeconomic monitoring, some of those
19 components by ENR or as they relate to socioeconomic
20 components such as harvesting, is -- is that position
21 the same then for those components?

22 The developer is going to be doing
23 their monitoring during construction just at the road
24 and that ENR will only do -- will be doing what it
25 does now and not altering any of their activities?

1 MR. GAVIN MORE: Gavin More, GNWT.

2 And I guess that's the key there is what are we doing
3 now. I actually can't tell you exactly what we do
4 with the hunters and trappers committees and that sort
5 of thing on some of the harvesting. I know there are
6 programs to take wolverine carcasses, that sort of
7 thing.

8 There's a number of things that -- that
9 happen over time with the groups based on interest.
10 In fact, Bruce might actually be able to better
11 understand how some of the system takes place up here,
12 but the key is -- is there are still -- will continue
13 to be programs that we do for wildlife management
14 that's under our authority.

15 But in terms of the effects of the
16 project, in terms of what's subscribed for the kind of
17 monitoring that they'll be doing, it's largely the
18 responsibility of the proponent.

19 Some of what we do will have influence
20 and be useful for discussion with them in terms of
21 their -- the management, but in terms of the daily
22 compliance monitoring, environmental monitoring it's -
23 - it's -- it is the DOTs responsibility to have that
24 put into place.

25

1 (BRIEF PAUSE)

2

3 MR. BRUCE HANBIDGE: Excuse me, Bruce
4 Hanbidge. Since I've been cited as having some
5 knowledge of process up here I just have one (1)
6 question on this monitoring and compliance.

7 Would the developer please tell me
8 who's doing it?

9 MR. JIM STEVENS: During construction
10 it would be the obligations of the Department of
11 Transportation and its contractor.

12 MR. BRUCE HANBIDGE: Thank you.

13 MR. RICK HOOS: Rick Hoos, also on
14 behalf of the developer. In the EIS there is a table
15 called table 6-1 which is the summary of mitigation
16 strategies for identified valued components.

17 It includes some of the socioeconomic
18 considerations as well related to harvesting and the
19 like and other things as well, land use, et cetera.
20 There's an indication of who the developer feels might
21 be responsible during the construction phase, as Jim
22 has mentioned, and during the longer term operations
23 phase, which goes in many -- in most cases beyond the
24 responsibility of the developer itself.

25 That's quite a lengthy summary table

1 covering all of the topics that have being ident --
2 that were discussed in the EIS and it might be
3 worthwhile for people to at least have a look at
4 suggested compliment of parties that would be involved
5 in either, particularly perhaps monitoring where it's
6 appropriate for some of these valued components.

7 And we do actually identify the FJMC
8 and WMAC and other parties as having some
9 responsibility in regard to these matters. Rightly or
10 wrongly we thought your parties -- your organizations
11 would have a role to play.

12 MR. GAVIN MORE: It's Gavin More. Can
13 I just add to that? Going back to your point of
14 harvesting, again, there are obviously systems from
15 the records I've been able to get where people report
16 on where they've killed grizzly bears.

17 So I assume that's built into the
18 quota, monitoring the quota, the annual kills, that
19 sort of thing. So that's one (1) aspect of
20 harvesting. Presumably that data will show a change
21 in patterns or locations.

22 That would then be discussed if it has
23 dire consequences. So one (1) of the things we've
24 highlighted is the potential issue of sub-population
25 change. So if you look at the new work that came out

1 of the University of Alberta, there -- there could be
2 a change where people will actually start and
3 harvesting more from particular sub-populations.

4 So that's the kind of thing that we
5 would take a look at over time. For other aspects
6 like general trapping, I don't think the system here
7 is based on designated trap lines, but I'm not
8 positive on that.

9 So the key there was, most of those
10 things in terms of the harvesting and discussions of -
11 - of levels and quotas would likely be more through
12 the hunters and trappers if -- and -- but at this
13 stage we have no plans to monitor sort of the regular
14 harvest of many of those -- those species, but there
15 would be particular items that obviously would be
16 discussed.

17 So if and when caribou hunting of the
18 Cape Bathurst takes place again, I would assume as an
19 outgrowth of that Harvest Management Plan that is
20 being actually done by Aboriginal governments with
21 support from ENR, that that would start to build in
22 procedures for monitoring and ensuring that the
23 harvest levels are adequately done.

24 So there will be a relationship with
25 the various co-management groups when it comes to

1 managing and -- and monitoring harvesting. But for
2 the daily activities of the proponent and the project,
3 that is up to the proponent to carry out.

4 MR. CONRAD BAETZ: Conrad Baetz, with
5 Aboriginal Affairs. I also wanted to just clarify
6 that there are some -- the -- the word "monitoring" is
7 being sort of used, I think, in a number of different
8 contexts, and -- and one (1) of them is the effects
9 monitoring, another one (1) is compliance monitoring
10 and I just wanted to make sure that we differentiate
11 the difference between.

12 Because when it comes to compliance
13 monitoring, yes, the proponent is responsible for
14 ensuring that they're complying with the
15 authorizations that are issued, but be rest assured,
16 at least my department and I'm sure Fisheries and --
17 and any others that are issuing authorizations will be
18 ensuring compliance with that.

19 Beyond that there's also environmental
20 monitoring that's supplied, to some degree, by the ILA
21 and their environmental monitors and then the longer
22 term stuff that sometimes is required by, say, a water
23 licence to monitor sort of effects later on.

24 So just -- I wanted to make that
25 distinction and that clarification.

1 (BRIEF PAUSE)

2

3 DR. CHRIS BURN: Thank you, Mr.
4 Chairman. The first point was just to reiterate that
5 at the public hearing, I'm hoping that the geo-
6 technical staff will be in full compliment, can be
7 able to answer questions on the core records and so
8 forth?

9 MS. ERICA BONHOMME: Erica Bonhomme,
10 yes.

11 DR. CHRIS BURN: And the second is to
12 do with climate change. And the point here is that
13 the climate change questions that have been posed in
14 the IRs and the climate change issue as discussed
15 today is one (1) that will require somebody in
16 attendance at the hearings who can address it in an
17 authoritative fashion.

18 And I -- personally, I'm not satisfied
19 with the approach that climate change could go in any
20 direction and so we don't -- we really don't know what
21 to do about it. There are ways that this has been
22 addressed. There are ways forward on this. There's
23 guidance that's been written by many people including
24 Don Hayley on this -- on this matter. And I would
25 hope that at the hearing there could be somebody who

1 could answer questions that are directed in that -- in
2 that way.

3 THE FACILITATOR: It's -- it's John
4 Donihee. There -- there's one (1) other request I'd
5 like to make of the developer's group and that is that
6 you have filed a -- a commitment's table with the
7 Board.

8 I'd like to ask if it's possible to
9 have that updated and have the updated commitments'
10 table filed, say August 31st, or something like that,
11 along with the rest of the documents so that the
12 Intervenors and others can look at that table as they
13 prepare their technical reports for the Board.

14 MR. JIM STEVENS: Jim Stevens.
15 Actually, the commitments' table is part of our
16 homework for tonight. And then to address Chris, his
17 comments about having additional expertise on climate
18 change, we will have people there.

19 MR. DOUG SOLOWAY: John, I have a
20 response to -- to the undertaking if we're go -- at
21 that stage now. I would like to respond basically to
22 two (2) questions that were posed to Transport Canada,
23 and -- and it won't take too long, I promise. I know
24 everybody's tired and -- and don't want to hear me
25 ramble.

1 But the -- the first question was from
2 the Inuvik Hunters and Trappers Association which is,
3 basically: Is the Husky Lakes area going to be treated
4 the same way as any navigable water body? And I just
5 wanted to compliment the answer I gave a little
6 earlier.

7 The -- the Navigable Waters Protection
8 Act applies to:

9 "Any works built or placed in, on,
10 over, under, through or across a
11 navigable waterway that may
12 interfere with navigation."

13 Any works proposed for the Husky Lake
14 area that require approval under the NWPA will be --
15 be reviewed as per standard Navigable Waters
16 Protection Program procedures in the same manner as
17 any other work to which the NWPA applies.

18 The second question I received was from
19 Jim Stevens, and -- and basically it's a two (2) part.
20 And I can give one (1) answer to -- to the two (2)
21 part questions. The -- basically, one (1) was with
22 regards to the amendment to the NWP -- PA development
23 of an exemption list. And the other was when will the
24 NWPA amendments be passed.

25 Well, as I was informed, currently,

1 Transport Canada's only considering amendments and
2 consulting with stakeholders. There is no timeframe,
3 no confirmation of amendments or even which areas are
4 being considered. This is all at a very preliminary
5 stage of discussions only at this time.

6
7 So in a nutshell, that's the answer for
8 those two (2). And I would just have one (1) closing
9 remark. We -- we were promoting the proponent to --
10 to provide application as early as possible. And --
11 and I -- I possibly maybe neglected to -- to give one
12 (1) reason why, is that since we have potentially
13 sixty-two (62) crossings, they will require a
14 navigability assessment, a part of that application.
15 And that navigability assessment can only do -- be
16 done in open water season.

17 So that was one (1) additional reason.
18 Certainly some of the other works can be done at the
19 post stage. Thank you.

20 MS. KATE WITHERLY: Sean --

21 THE FACILITATOR: Thank you very --

22 MS. KATE WITHERLY: Oh. Over here.

23 THE FACILITATOR: Thank you very much,
24 Mr. Soloway. Oh, you're --

25 MS. KATE WITHERLY: Sorry. It's Kate

1 Witherly, from NPMO. I just wanted to make one (1)
2 clarification from the commitment about the
3 commitments table.

4 It's a com -- it's a comprehensive
5 commitments' table you're going to provide, right, not
6 just from the technical sessions, but from the whole?
7 Okay, good. Thanks.

8 THE FACILITATOR: Sorry, as the day's
9 gone on my peripheral vision is starting to shrink. I
10 think it's too much coffee.

11 Anybody else with a last, last comment?
12 No. Okay. Well, I should speak just very briefly to
13 -- to next steps.

14 Obviously, there are materials to be
15 filed on the timetable set out by the developer in
16 their table -- table this morn -- that was circulated
17 this morning. And the technical reports then are due
18 on the 7th of September. There is a pre-hearing
19 conference on that day as well, and it's -- it can be
20 done by -- it's to be done by dial-in.

21 It -- these are short and sweet. The -
22 - the Board isn't there. It's primarily an
23 administrative step that we take to refine -- we'll
24 put a draft hearing agenda together. And we use that
25 pre-hearing conference to refine the draft hearing

1 agenda and to talk about timelines, you know, who
2 needs a lot of time to present and who doesn't,
3 understanding always that there's only two (2) days
4 set aside for technical hearings here in Inuvik. And
5 then there are two (2) days over in Tuktoyaktuk
6 primarily for community -- community hearings.

7 So those are 18th and 19th here in
8 Inuvik, and then 24/5 -- 24/5 in -- in Tuk. So that's
9 -- that's the future as we know it. And if anybody --
10 if there are any issues, you know, about procedure,
11 I'll -- I'll tell you right now what I will tell you
12 again in the pre-hearing conference and, that is, that
13 we want to hear about any of those kinds of concerns
14 as early as possible.

15 And by that, I mean if there were legal
16 issues or issues related to the way the Board has set
17 things up that are really causing you a problem in
18 terms of your capacity to participate, let us know
19 early, please, because as time goes forward, the
20 amount of flexibility that's available process wise
21 decreases exponentially as we approach the hearing
22 day.

23 The problem is that everybody locks in,
24 and making a change is very difficult. So that's it
25 for next steps. I guess, to conclude, I -- I just

1 want to thank the Intervenors and their
2 representatives and everyone for coming. I thank you
3 all very much for your patience. Sometimes these
4 sessions end up feeling like a marathon by the time
5 you're finished. But, you know, I think there's been
6 a -- a tremendous amount of information exchanged, and
7 I -- I couldn't imagine heading for the hearing room
8 without having done this and having had the
9 opportunity for this exchange.

10 It takes a tremendous amount of work
11 for the Developer and -- and their consultants to
12 prepare for these things as well. I want to thank Mr.
13 Stevens and Rick Hoos and Stantec folks for their
14 attention and their assistance, because you've been
15 very helpful to us. And thanks to Sean and Trevor,
16 who are in the background, but keep the microphones
17 working and will generate transcripts for us.

18 So with that --

19 MS. AMANDA JOYNT: John. Sorry.

20 THE FACILITATOR: Not again. All
21 right. What do you want?

22 MS. AMANDA JOYNT: Sorry. It's Amanda
23 Joynt with DFO. I just wanted -- there's a lot of
24 commitments due, I guess, on the 31st, and on -- then
25 that gives the -- myself, the assessors, and other

1 assessors until the 4th or 5th to actually give a
2 technical submission based on those reports.

3 So if those aren't met, like, for
4 example, if the 31st comes -- comes and goes, and if -
5 - or the 4th and 5th comes and goes and I just can't
6 get it to you, what's -- what's going to happen?

7 THE FACILITATOR: I'm not sure what --
8 John Donihee. One (1) -- one (1) thing I would ask
9 the -- the Developers is, I realize -- don't wait till
10 the end of business on the 31st to file. It would be
11 better if you did it in the morning, and -- because
12 what we want to do, from the -- the Board side, Eli
13 will be busy and Gordon, he has to get those -- that
14 information up on the website and -- and distribute it
15 to everybody as quickly as possible.

16 So we really want to have it in
17 people's hands before the end of business on the 31st,
18 and there's a little bit of transaction time involved
19 in that.

20 I don't know. Some of the Federal
21 departments, I know, are involved in other hearings
22 that are taking place in -- in Yellowknife, and it --
23 it's sort of crunch time. But I guess all I can say
24 is hope -- do the best you can, and, you know, if --
25 if we had to push something a day, one (1) way or the

1 other, I'm sure the Board -- you know, so I think the
2 7th is a Friday. If -- if we had to push it over till
3 the following Monday, I'm sure the Board could --
4 could find some -- find it in their hearts. But --
5 but it'll be the Board's decision, not mine.

6 I -- I do realize the volume of
7 material that's coming, and -- and the Board will see
8 this transcript and -- and see the list. And if -- if
9 you're going to have problems, please get in touch
10 with us sooner rather than later.

11 Tara...?

12 MS. TARA SCHMIDT: Just a question of
13 clarification for you. You were just referring to
14 September 7th in reference to the parties' submission.
15 I'm looking at your August 10th document, and it says
16 the parties' submission is due September 4th, and the
17 Developer's submission is due September 7th.

18 Are you -- is there a change of dates,
19 or are those still the correct dates?

20 THE FACILITATOR: Sorry. Yeah, you're
21 right. We've already had to kind of push back a bit
22 on the -- on the 4th for the simple reason that
23 several of the -- the participants here are -- are
24 tied up all week in Fortune Minerals hearings next
25 week. So what we'll do, we're going to be talking

1 with the Chair tomorrow, and we'll -- we'll issue
2 something on the record so that nobody's accused of
3 filing late. But we'll -- we'll have to push back a
4 bit on these things.

5 Yeah, I mean, it's obvious that, to be
6 fair, you've got to have a chance to absorb it as
7 well, so we'll -- we'll adjust it and, subject to my
8 instructions, we'll adjust it, and -- and then we'll -
9 - we'll get that back to you very quickly.

10 Any -- any -- anything else?

11 MR. GORDON STEWART: Don't ask.

12 THE FACILITATOR: Yeah, I really want
13 to go home. See, it's only -- it's only 5:30, you
14 know. We have another half hour here. All right.
15 Well, thank you all very, very much.

16

17 --- Upon adjourning at 5:30 p.m.

18

19

20 Certified correct,

21

22

23 _____

24 Mr. Sean Coleman

25

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