



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 22, 2012

Day 1 of 2

1 APPEARANCES

2

3 John Donihee)EIRB

4 Gordon Stewart)

5 Petr Komers)

6 Troy Whidden)

7 Abbie Stewart)

8 Eli Nasogaluak)

9 Meghan Birnie)

10

11 Walter Orr)Kavik-Stantec

12 Erica Bonhomme)

13 Marcel Gahbauer)

14 Doug Chiperzak)

15 Michael Fabijan)

16

17 Richard Hoos)Kiggiak-EBA

18 Robyn McGregor)

19 Tara Schmidt)

20

21 Amanda Joynt)Department of Fisheries

22 Sarah Olivier)and Oceans

23

24 Doug Soloway)Transport Canada

25

1 APPEARANCES (Con't)

2

3 Kate Witherly)Northern Projects

4)Management Office

5

6 Derek Parks)Fisheries Joint

7 Brian Zytaruk)Management Committee

8 Kayla Hansen-Craik)

9

10 Rod Smith)Natural Resources Canada

11

12 Gavin More)GNWT

13

14 Jim Stevens)Department of

15 Gurdev Jagpal)Transportation

16

17 James Hodson)Environment Canada-

18)Canadian Wildlife Service

19

20 Julie-Anne Marcoux)Infrastructure Canada

21

22 Conrad Baetz)AANDC

23 Bob Gowan)

24

25

1 APPEARANCES (Con't)

2

3 Frank Pokiak)Inuvialuit Game Council

4 Jen Lam)

5 Steven Baryluk)

6

7 Lisa Rogers)Inuvik Hunters and

8)Trappers Committee

9

10 Richard Binder)Community Support Unit-

11)Joint Secretariat

12

13 Russell Newmark)E. Gruben's Transport

14

15 Nelson Perry)Parks Canada

16

17 Merven Gruben)Mayor of Tuktoyaktuk

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1 --- Upon commencing at 9:05 a.m.

2

3 THE FACILITATOR: Good morning. I
4 think maybe we should get started if -- those of you
5 who don't have your coffee cups filled up just yet can
6 do so at your leisure. There's no reason why you
7 can't step away from the table if you need to.

8 First of all, I'd like to thank you all
9 for coming. My name is John Donihee. I'm counsel to
10 the Environmental Impact Review Board. And I'd like
11 to thank those of you who are from Inuvik for
12 welcoming us here and hosting us. And we're looking
13 forward to two (2) -- two (2) very productive days at
14 this technical session.

15 As you're probably aware, this -- this
16 technical session is organized on behalf of the
17 Environmental Impact Review Board in order to advance
18 the review of the Inuvik Tuktoyaktuk Highway Project.

19 It's scheduled for two (2) days, 9:00
20 to 5:00, today and tomorrow. And we'll break for
21 lunch at noon. We'll -- we'll probably take a
22 slightly longer break. We'll have some logistic
23 things to take care of, so we'll break from -- from
24 12:00 until 1:30. That'll give you time to get in and
25 out of restaurants if -- if you have to do that.

1 We'll take some -- we'll take a break at a convenient
2 time in the morning and afternoon as well so that
3 human needs can be seen to.

4 Agendas were distributed to the
5 parties. And there are more copies available here at
6 the front. If you don't have one (1), please feel
7 free to pick one (1) up. And if you're going to need
8 any assistance with getting something copied or
9 something of a logistic no -- nature, we have Eli
10 Nasogaluak, the resource person for the EIRB, is here
11 to help us. He's actually getting -- I think getting
12 something copied right now.

13 As you've noticed, all of the front
14 tables are mic'd. And we are making a transcript.
15 Sean is our court reporter at the back and
16 transcriber. We will have transcripts up within a day
17 of completion of the sessions, if -- if not each
18 evening, depending on how the internet performs from
19 Inuvik.

20 If you want to make arrangements to get
21 a copy sent to you, you can speak to Sean directly.
22 But as I ma -- I mentioned, it'll -- it'll go up on
23 the registry anyways and you'll be able to download it
24 from there if you want to -- to get access to a copy.

25 You have to speak into a mic and you

1 have to identify yourself when we speak so that we can
2 keep this -- this record straight. All of you, I'm
3 sure, have done this before, so there shouldn't be any
4 surprises there. If any of the folks sitting at
5 chairs at the back want to interject or ask a
6 question, we -- we can -- we have roaming mic here,
7 and we can either make arrangements to get that to
8 you, or if you want to come and park at the front and
9 -- and use the mic for a while, we'll -- we'll arrange
10 to have somebody move over for you.

11 This -- the panel is not here, and this
12 is not a hearing. So what this is, is it's the only
13 time before the hearings that representatives of the
14 parties will meet and will have the opportunity to
15 explore the evidence that's on the record already, to
16 ask questions, to clarify, to seek explanations,
17 hopefully to seek some comfort with the materials that
18 are already on the record in front of the panel, and -
19 - and perhaps to seek for some additional material if
20 -- if that's available and forthcoming.

21 So I -- I think that our intention is
22 to ensure that the discussion today and tomorrow is as
23 open and informal as possible. I -- I realize in this
24 kind of a se -- a setup, that's probably overstating
25 what we can really do.

1 But -- but the point is to encourage a
2 dialogue and -- and to encourage everybody to go away
3 understanding the evidence, understanding the task
4 that's in front of the panel, and understanding their
5 roles a little better.

6 So I hope you'll keep that in mind. We
7 indicated in the materials that were circulated in
8 advance that it was our intention that we'd have a
9 thorough and respectful exchange, and certainly our --
10 our role on behalf of the Board is to try to see to --
11 to the achieving of that goal.

12 To put it another way, if you'll excuse
13 the legal jargon, you know, this is what I would --
14 what I would call as a lawyer, a without-prejudice
15 meeting. So, you know, just because you said
16 something here doesn't mean that someone's going to
17 take an excerpt from the transcript and cross-examine
18 you until you cry at the hearing.

19 Okay. It's just not the way it works
20 and it's not the way it -- it's meant to work. So --
21 I -- I'm -- I say this simply to re-emphasize that,
22 you know, what we're looking for here is to try to
23 make sure that, you know, we -- we get it right and
24 everybody understands other people's positions, or
25 other party's positions, and to the extent that we

1 can, your evidence before we -- we head for the
2 hearing room.

3 Our -- our focus really is to try to
4 take issues off the list, not to add issues to the
5 list. Un -- unless for some reason there's something
6 that really warrants attention that -- that's --
7 that's not been given proper attention up to this
8 point.

9 Our goal, as I indicated, really is to
10 try to help the panel, you know, to get a -- a clean
11 transcript, a clean record, and a -- and a better
12 opportunity to understand the evidence before they go
13 into hearings in -- in mid-September.

14 The agenda was based on the list of
15 submitted issues that came from the parties, as well
16 as input from the tan -- the panel's technical
17 experts. It's long. It looks rather daunting, but
18 those of you that have done this before will realize
19 that sometimes the list of issues is longer than the
20 rist -- the list of problems.

21 But we wanted to be comprehensive and
22 systematic. So if you put your issue on a piece of
23 paper and sent it to us, somewhere or other it's on
24 this list or it can be addressed by one (1) of the
25 topics or headings that's on this list. And that was

1 the purpose of that agenda.

2 We don't necessarily have to speak to
3 every issue at -- at great length and we probably
4 won't. But again, if -- if it's on one (1) of the
5 party's lists or it's something that we feel that we
6 can clarify and -- and deal with then that's -- that's
7 what we want to do.

8 That said, you know, if at -- at some
9 point during the process you feel that there is
10 something important that's been missed that isn't on
11 the agenda, it's open. So I don't want anybody to
12 feel that they missed their chance because they didn't
13 get their favourite issue on the -- on the agenda.

14 I think what we will do is just work
15 through the agenda. It -- it's really there to shape
16 and focus the discussion. And, you know, if there's
17 anybody with particular expertise, we've already heard
18 about the proponent's geo -- geotechnical engineer,
19 we'll -- we'll see what we can do about getting a
20 phone line in here for him tomorrow.

21 But if there's anybody else here who --
22 who, you know, has another commitment that simply
23 can't be managed, let us know at the -- at the break
24 at 10:30 and we'll juggle the agenda to fit your
25 schedule to the best that we can so that we can take

1 advantage of your presence and your expertise.

2 Dr. Burn will only be here tomorrow, so
3 the gravel and ground ice and geotechnical kinds of
4 things are necessarily going to have to be discussed
5 tomorrow anyway.

6 Where there's more than one (1) party
7 that's addressed a -- a topic -- if you look at the
8 agenda you can look at number 8 on the agenda. I
9 think the heading is "Hydrology". And you'll see that
10 NRCan and DFO and -- and others, you know, they all --
11 we have issues from several different parties wrapped
12 up in that one (1) heading.

13 And so I think what we want to do is
14 we'll -- we'll open up with the heading, we'll let,
15 you know, the lead party get started, but I'd -- I'd
16 prefer to see a discussion rather than, you know, some
17 kind of a -- a step-by-step, rote, sort of, run
18 through, you know, the issues.

19 So I really want to encourage a
20 dialogue and -- and we will do that, subject, of
21 course, to the ultimate rule that Sean will start
22 screaming if people don't identify themselves and, you
23 know, we -- we don't want the record to end up in a
24 muddle.

25 So we're -- but I'm certainly open to

1 the idea that NRCan, DFO, and the proponents, and
2 anybody else with -- with that kind of expertise can
3 have an open discussion about matters related to
4 hydrology and water and fish and that sort of thing.

5 And I think that, that way, we'll get
6 the best advantage of the people who are here. And
7 I'd -- I'd very much prefer to do it that way. Where
8 there are Board questions on this list, we will --
9 we'll deal with them expeditiously as well.

10 Our intention -- and I think Gordon
11 rearranged the agenda that way -- is that Board
12 questions will always be last. And that means that if
13 matters have been dealt with before we get to the
14 Board folks, or else we'll -- they'll strike
15 questions. Or else, if there's a sort of roundtable
16 discussion going on, the Board people will -- will
17 jump in, and we'll try to do it all at once. So
18 hopefully that'll allow us to be efficient with the --
19 the agenda as well.

20 We are, as -- as always, going to keep
21 a list of any commitments and undertakings that are
22 made. Eli will be taking care of that for us. I will
23 alternate in the Chair off and on with Gordon Stewart.
24 So I'll take the first spell and see how we can get
25 this thing moving. But I guess if I start to get

1 cranky, I'll let Gordon take over to get a rest.

2 So I think that's it about process.

3 The other point I would make, I guess, is that, you
4 know, we don't anticipate that everybody will agree
5 about everything. Sometimes that's the way life is.

6 We'll let -- let a discussion go on to
7 the point where we're really not making any new
8 ground. And if we get to that point, we'll -- we'll
9 have to move on. And the Chair will have the
10 prerogative to make the call on that, subject to any
11 whimpering that may -- may occur when we -- we decide
12 that we want to move it.

13 But -- but we do need to try to make
14 sure that, you know, all of the items on the agenda
15 get at least some airtime, because they all
16 legitimately came from -- from parties that have a
17 right to -- to hear what -- what they want to hear.

18 Are there any -- any questions about
19 the way the process will work? I don't think it's
20 much different than technical sessions that you've
21 participated in elsewhere. But if there are any
22 burning issues about the way we're hoping to do this,
23 I'd like to know before I end up with some kind of a
24 procedural argument later on. Silence is consent.
25 Good. Thank you.

1 Well, I think the next step then is
2 we'd go around the table -- we can start with Conrad -
3 - and just get the names and affiliations of the
4 people who are here. We'd like to know which
5 departments and organiza -- or organizations you
6 represent.

7 And for parties with more than one (1)
8 person here, it would be ideal if you identified the
9 primary spokesperson. And then feel free to introduce
10 the rest of your team. If they're going to be at the
11 table at some point, it would be nice to know who they
12 are, to have the list.

13 But let's go around and do that. And
14 for -- well, we'll -- we'll deal with -- we can go
15 take the ba -- the mic over there if we need the folks
16 at the back. But let -- let's start with Conrad. And
17 we'll just -- we'll just get names and -- names and
18 numbers.

19 MR. CONRAD BAETZ: Conrad -- Conrad
20 Baetz, with Aboriginal Affairs and Northern
21 Development Canada here in Inuvik, also with my
22 colleague, Bob Gowan, with -- from Ottawa. I guess
23 neither of us will be the primary spokespeople, but
24 between the two (2) of us, I'm sure we'll manage.

25 MR. DOUG SOLOWAY: Good morning. I'm

1 -- I'm Doug Soloway, with Transport Canada. I'm here
2 to represent our -- basically, our NWP organization.
3 I manage the Environmental Impact Assessment Program
4 for Transport Canada in the North.

5 MS. JULIE-ANNE MARCOUX: Good morning.
6 I'm Julie-Anne Marcoux, from Infrastructure Canada.
7 My group is responsible for the environmental
8 assessment review that's being done for this project.

9 MR. JAMES HODSON: Hi. James Hodson,
10 with the Canadian Wildlife Service of Environment
11 Canada. I'm the only one (1) from Environment Canada
12 here today.

13 MR. GAVIN MORE: Gavin More,
14 Government of Northwest Territories from Yellowknife.

15 MR. ROD SMITH: Rod Smith, Natural
16 Resources Canada, the GSC Calgary office. I'm here
17 representing both myself and Sharon Smith.

18 MR. BRUCE HANBIDGE: Bruce Hanbidge,
19 and I'm here representing Wildlife Management Advisory
20 Council.

21 MS. KATE WITHERLY: Kate Witherly.
22 I'm with the Northern Projects Management Office of
23 the Federal Government.

24 MR. DEREK PARKS: My name's Derek
25 Parks. I'm with the FJMC. I'm an independent

1 fisheries consultant to the FJMC.

2 MS. SARAH OLIVIER: Hello. My name's
3 Sarah Olivier. I'm an environmental assessment
4 analyst with the Department of Fisheries and Oceans.

5 MS. AMANDA JOYNT: My name's Amanda
6 Joynt. I'm a habitat biologist with the Inuvik office
7 here for Fisheries and Oceans.

8 MR. BRIAN ZYTARUK: I'm Brian Zytaruk.
9 I'm a board member of the FJMC and representing
10 Inuvialuit here.

11 MR. RICK HOOS: Good morning. I'm
12 Rick Hoos with Kiggiak-EBA, one of many people to the
13 left of me here that are part of the developer group,
14 the developer group being GNWT Transportation, the
15 Hamlet of Tuktoyaktuk, and the Town of Inuvik. I drew
16 the short straw and will be the spokesperson, at least
17 for the morning part of the session.

18 Beyond that, I would like to point out
19 that we do actually have a representative of DOT with
20 us who I know will introduce himself again, but it's
21 Gurdev Jagpal. He's sitting directly behind me.

22 MS. TARA SCHMIDT: Good morning. I'm
23 Tara Schmidt with Kiggiak-EBA, part of the developer
24 team.

25 MR. WALTER ORR: I'm Walter Orr. I'm

1 with Kavik-Stantec, and I'm with the developer team
2 here.

3 MS. ROBYN MCGREGOR: Good morning.
4 I'm Robyn McGregor. I'm transportation engineer with
5 Kiggiak-EBA as part of the developers' team.

6 MS. ERICA BONHOMME: Erica Bonhomme.
7 I'm with Kavik-Stantec. I'm a -- a senior
8 environmental scientist. To my left is Dr. Marcel
9 Gahbauer, who's a senior wildlife biologist. Behind
10 me is Michael Fabijan. He's our Kavik-Stantec
11 representative here in Inuvik and works on community
12 consultation. Attending later this afternoon will be
13 Doug Chiperzak. Doug Chiperzak is a senior fisheries
14 biologist, and tomorrow, we hope to have available
15 Sean McArthur (phonetic), who's a geotechnical
16 engineer.

17 DR. PETR KOMERS: Good morning. I'm
18 Petr Komers with MSES, technical advisor to the
19 Environmental Impact Review Board.

20 DR. TROY WHIDDEN: Good morning. My
21 name's Troy Whidden. I'm with Petr Komers and MSES as
22 a technical advisor to the Review Board.

23 MS. ABBIE STEWART: Hello. I'm Abbie
24 Stewart with MSES, here on the team of technical
25 advisors to the Board.

1 MS. MEGHAN BIRNIE: And I'm Meghan
2 Birnie, also on the technical team, looking after the
3 socioeconomic components.

4 MR. GORDON STEWART: I'm Gordon
5 Stewart. I'm a consultant working for the
6 Environmental Impact Review Board with Eli on the
7 logistics and administrative side of things.

8 MS. LISA ROGERS: Lisa Rogers with the
9 Inuvik Hunters and Trappers Committee, resource
10 person.

11 MS. KAYLA HANSEN-CRAIK: My name is
12 Kayla Hansen-Craik. I'm the resource person for the
13 Fisheries Joint Management Committee here in Inuvik.

14 MS. JEN LAM: Good morning. I'm Jen
15 Lam. I'm the resource person for the Inuvialuit Game
16 Council.

17 MR. RICHARD BINDER: Richard Binder
18 with the Community Support Unit at the Joint
19 Secretariat.

20 MR. RUSSELL NEWMARK: Russell Newmark.
21 I'm with the GT and part of the developer team and,
22 most specifically, we were the contractor who did the
23 geotechnical study.

24 MR. NELSON PERRY: Nelson Perry with
25 Parks Canada. I'm the environmental assessment

1 coordinator for the western area field unit.

2 MR. GURDEV JAGPAL: Gurdev Jagpal,
3 Department of Transportation, Inuvik Region.

4 MR. STEVEN BARYLUK: I'm Steve
5 Baryluk. I'm the other resource staff person with the
6 Inuvialuit Game Council.

7 MR. MERVEN GRUBEN: Morning. Merven
8 Gruben, Mayor of Tuk, one of the proponents on the
9 highway.

10 THE FACILITATOR: Thank you all once
11 again for coming, and I think we'll move on into the
12 agenda. And the first issue then that we'll give some
13 -- I was going to say we'll give some airtime to, but
14 anyways, we're -- we're -- first issue is -- relates
15 to air quality, and I think that perhaps we can start
16 off. I think that issue came from the Board, so that
17 -- let's start off with -- with some comments or
18 discussion question from one (1) of the MSA -- MSES
19 folks.

20

21 AIR QUALITY DISCUSSION:

22 DR. PETR KOMERS: Good morning. I
23 should preface -- oh, sorry. Petr Komers. I should
24 preface several of our questions with the -- pointing
25 out that a lot of those issues that are highlighted as

1 coming from the Board are actually, we can say, a
2 joint question.

3 The question for dust has been raised
4 by AANDC, for one (1). And -- and we would like to
5 hear from AANDC if they are satisfied with the
6 information that they got so far. I believe DFO also
7 raised the question of dust in regarding of water
8 quality and fish habitat potentially.

9 Could you perhaps start there and
10 explore the issue of how dust relates to the concerns
11 raised by AANDC?

12 MR. CONRAD BAETZ: It's Conrad Baetz
13 with Aboriginal Affairs here in Inuvik. That -- that
14 concern was raised by one (1) of our folks in -- in
15 Yellowknife. And I haven't spoken specifically in
16 terms of -- with that individual in terms of whether
17 or not the response that they received from the
18 proponents is something that's -- that's adequate. So
19 I'll have to report back.

20 THE FACILITATOR: John Donihee. Then,
21 per -- perhaps what we can do is, ask D -- move on to
22 -- DFO has raised there as well, and see if there's
23 any further issues or any further concern based on
24 what we have on the record from DFO.

25 MS. AMANDA JOYNT: It's Amanda Joynt

1 from DFO. I don't recall, actually, bringing it up in
2 a written form. It might have been mentioned in
3 verbal form a -- a while ago. I'm not sure where that
4 came from.

5 DR. PETR KOMERS: That's fine. Thanks
6 for the clarification. If there is no -- no questions
7 from the other parties, I would like to, on behalf of
8 the Board, to ask -- this is Petr Komers. I would
9 like to ask the developer how dust will be integrated
10 into the wildlife management program.

11 It is stated that somehow it will
12 become part of the wildlife management program. And I
13 -- we are not totally clear on how that will look
14 like. Will dust be monitored as part of, let's say
15 habitat quality, for example? As effects on vegetation
16 and so on?

17 Could you elaborate on the relationship
18 between dust and the wildlife management program?

19 MR. RICK HOOS: Rick Hoos here, on
20 behalf of the developer group. Our -- our view on
21 dust in relation -- dust generation in relation to
22 both construction and operation of the highway is that
23 it will be a relatively minor issue, for -- for a
24 variety of reasons.

25 Most of the active construction of the

1 road activities, most of them will take place in the
2 wintertime when dust -- dust is not expected to be an
3 issue, by and large.

4 And during the operational period, as
5 we've indicated in the EIS and subsequent
6 documentation, we are -- we are anticipating that the
7 use of this highway will be in the order of a hundred
8 and fifty (150) to two hundred (200) vehicles a day.
9 I -- I guess that may be a running average. There
10 will be some days when it'll be a little bit more.
11 But there will probably be many days when it'll be
12 quite a bit less.

13 In any event, we call -- we -- we
14 consider this to be a low-traffic highway. The
15 sources of dust will be from, of course, moving
16 vehicles. They will be intermittent, perhaps one (1)
17 or two (2) an hour, on average. We don't see that
18 creating a significant dust issue. And as we've said,
19 we -- we basically feel that these kinds of emissions
20 are expected to be localized, transient, and of short-
21 term duration.

22 We do recognize that there will be some
23 dusting of local vegetation, typically in the order of
24 about a hundred metres from the road, perhaps as far
25 as three (3) or 400 metres, but probably not beyond

1 that point.

2 We do know that the summer period is
3 also the wetter period of the year where there's more
4 rainfall and more precipitation.

5 So, in general, we do not see dust
6 being an issue, and certainly not one (1) that
7 warrants substantive monitoring on the part of the
8 developer over time.

9 DR. PETR KOMERS: Petr Komers. So
10 when you say it's not going to be a substantive part
11 of the monitoring, it's not going to be integrated in
12 the wildlife management program?

13 MR. RICK HOOS: Rick Hoos, Developer
14 group. I think what we're saying is that -- that we -
15 - we have committed to following the GNWT Dust
16 Suppression Guidelines as may be needed.

17 We've identified water as one (1)
18 possible way of dealing with the dust issues. There
19 are other ways that are accepted under the GNWT Dust
20 Suppression Guidelines and, for instance, in the -- in
21 the event that DFO or someone else has a concern about
22 dust in the vicinity of a significant water body,
23 other options are available for ensuring that dust
24 generation is minimized in -- in -- can be minimized
25 in those sorts of areas if that is deemed to be an

1 appropriate thing to do.

2 And one (1) thing we will be -- be
3 harping on, I would say almost continuously throughout
4 these two (2) days, is that although this is a public
5 infrastructure project, we are very aware that in the
6 Inuvialuit Settlement Region, there are many other
7 organizations that have an interest in environmental
8 issues, whether they be the local HTCs, the game
9 councils, the joint management boards, et cetera, et
10 cetera, et cetera.

11 And we anticipate that whether it's
12 dust or some other issue, if someone has a problem or
13 a concern related to the way the highway is -- is
14 operated, I'm sure there will be ample opportunity for
15 those concerns to be aired and -- and addressed
16 cooperatively with -- with all interested parties at
17 any time. Thank you.

18 DR. PETR KOMERS: Petr Komers. Does
19 DFO have any questions in that regard?

20 MS. AMANDA JOYNT: Yes. Thanks. It's
21 Amanda Joynt with DFO. Rick, you were mentioning that
22 to follow the GNWT Dust Suppression Guidelines, you
23 would need to use water.

24 So can you clarify how you would be
25 withdrawing the water and what commitments you could

1 make to -- for that?

2 MR. RICK HOOS: Okay. Rick Hoos,
3 Developer group. As far as withdrawing water, water
4 would be withdrawn from local water sources, in the
5 summertime particularly, using water trucks that are -
6 - that -- that do that all the time.

7 In terms of -- of where water might be
8 withdrawn from, I would suggest that it could be
9 withdrawn from local streams with appropriate screen,
10 of course, attached to the intake pipe, or local water
11 bodies.

12 I don't be -- you know, we certainly
13 haven't, at this point in time, identified each and
14 every water body that water could be withdrawn from
15 for the purpose of -- of watering or -- or, watering
16 of the road, but...

17 Yeah, but -- but we certainly will be
18 following the winter water withdrawal guidelines of
19 DFO, which are probably more related to winter water
20 use for ice road construction that will support the
21 con -- the main road construction program.

22 And in that regard, I know we've done
23 bathymetric work on some of the -- the lakes that
24 might be considered for that purpose. But for
25 ordinary dewatering in the summertime, I would think

1 that with the appropriate screening device on the
2 system, particularly if we go to a small stream to
3 fill up a truck, that's the way it'll probably be
4 done. Thank you.

5 MS. AMANDA JOYNT: Okay. And it's
6 Amanda Joynt from DFO. If those -- if the DOT or the
7 proponent could make the best effort to identify those
8 water bodies and -- and inform DFO, that would be much
9 appreciated.

10 MR. DOUG SOLOWAY: Doug Soloway,
11 Transport Canada. So I'm assuming that you would not
12 have any permanent installations for water
13 withdrawals?

14

15 (BRIEF PAUSE)

16

17 MR. DOUG SOLOWAY: Doug Soloway.

18 MR. RICK HOOS: Rick Hoos, Developer
19 group. Yeah, that's correct, Doug.

20 DR. PETR KOMERS: Petr Komers. Just
21 one (1) more question regarding dust. It -- dust
22 relates to the dust suppression program, and there has
23 been questions raised also regarding the relationship
24 between the dust suppression programs with water
25 quality in surrounding bodies.

1 Will you be investigating, monitoring
2 the water quality regarding to the dust suppression?
3 What are the exact plans for the dust suppression
4 program? I know you -- you briefly mentioned that,
5 Rick, but can you elaborate on how that dust
6 suppression relates to water quality. And perhaps DFO
7 has some questions about that as well.

8 MR. RICK HOOS: Rick Hoos, Developer
9 group. As I've indicated before, we don't see the
10 need to do much monitoring in relation to actual dust
11 monitoring, other than to try and keep the dust down
12 to the extent it seems reasonable and possible.

13 Where we're more concerned, and I think
14 where DFO would be more concerned about sediments
15 entering, let's say, a water body, a stream, a lake,
16 would be through -- through things like erosion and
17 drainage off the roadway, or near a bridge or a
18 culvert location.

19 And in that context, we do anticipate
20 and have committed to -- to do upstream and downstream
21 monitoring in the spring in relation to some of the
22 more significant fish-bearing streams and crossings
23 that would be built from year to year.

24 We don't anticipate that sedimentation
25 will be a continuing problem at any stream crossing

1 beyond, perhaps, the first construction season and --
2 and during the course of the first spring.

3 We've had lots of experience in -- in
4 monitoring suspended solids or particulates in streams
5 in relation to new construction activities in streams,
6 such as diversion channels and what not, and which are
7 much larger, of course, than a stream crossing for --
8 for a two (2) lane road.

9 And it's -- it's -- in all cases, if
10 there was sedimentation in relation to the
11 construction, it was manifested primarily in the -- in
12 the first month or so, after which things tended to
13 settle down. And, in subsequent years, unless there
14 was a significant problem at a stream crossing there's
15 no -- we don't anticipate the need to continue to
16 monitor for water quality at stream crossings.

17 DR. PETR KOMERS: Thanks for that
18 clarification. Just -- I just want to verify quickly
19 because there's was a spe -- a specific question
20 regarding the dust suppression chemicals from AANDC.
21 And I wonder if you have something? I know you were
22 saying that the people weren't -- aren't here now,
23 but.

24 Petr Komers. AANDC asked about the
25 dust suppression chemicals, specifically, and how that

1 might affect water bodies and, yeah, you -- you
2 probably don't have the people here that you were
3 saying that -- that asked those questions?

4 MR. CONRAD BAETZ: Yeah, that --
5 that's correct. I -- like I said, I will go back and
6 -- and I'll have a look at the original Information
7 Request and see if I can come up with some kind of a
8 response.

9 MS. AMANDA JOYNT: It's Amanda Joynt
10 with DFO. Just to clarify a couple of things. So,
11 with regards to dust and water quality, DFO doesn't
12 usually comment. We'd rely on the proponent, as Rick
13 was saying, to mitigate at the source. And then we
14 also rely on our other federal departments, such as
15 AANDC and Environment Canada to -- who have more
16 mandate with regards to air quality.

17 The other thing I wanted to clarify,
18 and maybe this could be an action item, is that with
19 regards to water withdrawal we would be looking for
20 things like the quantities that you would want to take
21 out for dust suppression. Specifically, the locations
22 that you are going to take them out. And if you are
23 going to use those small streams, what the
24 instantaneous flow of those small streams are.

25 MR. RICK HOOS: Rick Hoos, on behalf

1 of the developer group. I am assuming, Amanda, that
2 you might be talking primarily during the operations
3 phase when -- when the road is actively being used by
4 -- by people?

5 So that's, like, three (3), four (4),
6 maybe five (5) years down the road before it gets
7 going. And certainly there will be lots of dialogue
8 between the developer group and DFO on -- on many
9 aspects of -- of activities that we would be reporting
10 to you on, including where we might be withdrawing
11 water from for -- for watering to -- for dust control.
12 Thank you.

13 MS. AMANDA JOYNT: Right. But for me
14 to assess impacts of the entire project, this is a
15 part of that project. So I would need to know -- it
16 doesn't have to be, certainly, very specific. But I
17 would need to know estimates.

18 MR. RICK HOOS: Sorry. Rick Hoos,
19 just a moment please. I'd just like to ask Russell a
20 question here.

21

22 (BRIEF PAUSE)

23

24 MR. GORDON STEWART: Gordon Stewart,
25 with the EIRB. I'd just like to remind people to

1 state their name before they start speaking again,
2 please. Thank you.

3 MR. RICK HOOS: Okay, Rick Hoos,
4 Developer group. I -- I know Amanda is aware -- DFO
5 is aware because they were involved with the work, I
6 think. But there has been quite a bit of hydrological
7 work done in the last year by the Kavik-Stantec folks.

8
9 And that's all going to be incorporated
10 into a report, which will provide a lot of the flow
11 information, at least for the more significant, if
12 that's the right word, streams that -- that will be
13 crossed by the road. And, undoubtedly, some of those
14 streams might well be used for the withdrawal of
15 water. And as we get closer to their construction pha
16 -- or to the operations phase we'll certainly be able
17 to clarify what streams might be used for water
18 withdrawal.

19 The one (1) point I do want to perhaps
20 make, if I didn't make it before, was because this is
21 such a low-traffic road, some people would suggest
22 that there isn't even a need to employ dust
23 suppression because there isn't going to be much dust
24 generated. It's going to be sporadic. It's going to
25 be localized. It's going to be whatever, whatever,

1 whatever.

2 We have indicated that water would be
3 used as appropriate. But it's also well-known that on
4 the Dempster and -- and other northern roads there
5 are areas where calcium chloride or mag chloride or
6 something like that is used. And if it seems
7 appropriate, that would also be considered for use,
8 particularly in the vicinity of say significant water
9 bodies that DFO may have a concern about in relation
10 to dust.

11 But -- but none of those decisions
12 would be made without consultation with DFO to ensure
13 that they would be satisfied with the methods being
14 employed to control dust in a particular area.

15 THE FACILITATOR: John Donihee. I'd
16 just like to ask our friends from DFO, is this an
17 issue that simply can be managed, or is it a hearing
18 issue for you? So, you know, the -- the question
19 really is -- it sounded to me as though you were
20 asking for something from the developer. And I think
21 what I'm hearing the developer saying is that they
22 don't think this is a significant concern.

23 So, you know, are -- are you going to
24 try and go any further with it or what shall we do?

25 MS. AMANDA JOYNT: Okay, Amanda Joynt,

1 with DFO. So my issue is not with the dust itself.
2 My issue is with the water withdrawal. So my question
3 was -- I just -- to assess the impacts, which is what
4 I'm trying to do right now, which is what we're all
5 trying to do right now, this is the first I've heard
6 of any type of water withdrawal for any type of dust
7 suppression.

8 So I'm asking what is the estimate of
9 the quantities of water you would take, where
10 approximately would you take them from, what types of
11 water bodies, how would you ensure that impacts to
12 downstream water bodies are mitigated. And then I can
13 assess the impacts.

14 MR. RICK HOOS: Rick Hoos, with the
15 developer group. Amanda, we -- we believe we may have
16 made mention of how much water we think we might to
17 withdraw for water withdrawal for -- for dust control.
18 And we're just trying to look it up now and provide
19 that to you.

20 It still won't tell us exactly where
21 we're getting it from though. It seems like between
22 500 and a thousand cubic metres a day, but that would
23 be very widespread across 140 kilometres and select
24 water bodies that have yet to be determined.

25 MS. AMANDA JOYNT: Amanda Joynt, with

1 DFO. As long as that commitment to what I asked for
2 can be brought to me within a reasonable amount of
3 time, it doesn't have to be answered right now.

4 THE FACILITATOR: John Donihee. Rick,
5 are you able to identify where that information is and
6 assist DFO with it? You know, it -- it seem -- it
7 seems to me that to blow a hundred cubic metres a day
8 you don't even need a 'B' water license, you know, so
9 we're really not talking large volumes spread over
10 that distance, but.

11 MR. RICK HOOS: No, you're -- you're
12 right. Sorry, Rick Hoos. I didn't --

13 THE FACILITATOR: Yeah.

14 MR. RICK HOOS: Okay, never mind.
15 Yeah, it's on page 91 is where we refer to the
16 anticipated volumes of water, of about 500 to a
17 thousand cubic metres a day. A typical water truck
18 holds about 10,000 litres. And there may be three (3)
19 or four (4) trucks dumping a few loads of water a day
20 over the course of 140 kilomet -- or whatever.

21 But, in reality, I don't think it's
22 going to be that much, because, really, we don't think
23 dust is a significant problem in relation to this road
24 because of the intermittent use of it and so on.

25 THE FACILITATOR: I think we've come

1 to closure on that point. Thank you. And I believe -
2 - and does anybody else have anything further then,
3 about air quality and dust? We seem to have drifted
4 into water, but that's what dust does, doesn't it?
5 Any other -- any other questions? Oh.

6 All right, then let's -- let's move on
7 to noise. And, again, we'll see if Dr. Komers can
8 stimulate that issue. I think the issue came from --
9 from the Board staff or Board consultants. And we do
10 point out that there are linkages among some of these
11 issues on the agenda. So, Petr...?

12

13 NOISE DISCUSSION:

14 DR. PETR KOMERS: Petr Komers. Yes,
15 we do have some of -- or, one (1) specific questions.
16 But this question has also been raised by at least one
17 (1) or two (2) other parties -- in particular,
18 Environment Canada -- regarding the noise effects and
19 the responses of wildlife, particularly species at
20 risk, to the road.

21 Does Environment Canada have any
22 particular questions on that?

23 MR. JAMES HODSON: James Hodson with
24 Environment Canada. I don't think I have any
25 questions at the moment about that. We had a response

1 to that question in one (1) of the -- one (1) of our
2 IRs, and I think the developer's conclusion was that
3 noise levels would return to ambient levels within 400
4 metres to 1.5 kilometres of the highway. So that's
5 probably what we'll be using in our assessment.

6 DR. PETR KOMERS: Petr Komers. Thank
7 you. That's useful. I know the WMAC had a number of
8 questions regarding zones of influence. The -- the
9 WMAC had a number of questions regarding the zone of
10 influence. And we just heard from Environment Canada
11 that some of the developer's responses were that noise
12 may be heard until, what was that 500 to about 1,000
13 metres?

14 Anyway, do you -- do you have any
15 questions regarding the relationship of noise and
16 zones of influence as potentially affecting wildlife?

17 MR. BRUCE HANBIDGE: Bruce Hanbidge,
18 WMAC. We have a question we've asked several times.
19 When the proponent determined what their zone of
20 influence was, we're still looking for the specifics
21 or references. How did you determine the zone of
22 influence on the highway? And that -- that applies to
23 noise; that applies to monitoring mitigation for a
24 number of different wildlife issues.

25 But from the beginning, we've always

1 asked: Could you please define the spatial and
2 temporal boundaries for your zones of influence. How
3 did you determine them and what are the references?

4 Bruce Hanbidge, as well. That -- that
5 thread goes all the way through other questions.
6 They're based essentially on the zone of impact, and
7 it -- it applies to many different questions.

8 DR. PETR KOMERS: Petr Komers. Does
9 the developer have any responses to WMAC?

10 MR. RICK HOOS: Rick -- Rick Hoos,
11 Developer group. I was just reviewing what we said in
12 the EIS about noise in relation to what -- what noises
13 were generated, how loud they were, how far they go,
14 and also the -- the literature that we reviewed on the
15 effects of wildlife related to noise.

16 And -- and I guess I might just read
17 some of the information that we provided in the EIS,
18 if that's okay with everyone here. Trucks are the
19 noisier vehicles on the road. And the literature on
20 truck noise, typical dump trucks, haul trucks and
21 whatnot, noise levels associated with such trucks are
22 typically within the range of 84 to 86 decibels at
23 about 15 metres from the truck.

24 These are considered to be fairly high
25 levels of magnitude, but we point out that they are of

1 short-term duration, intermittent in nature, and are
2 not expected to contribute excessive noise at
3 distances outside the immediate work area.

4 For regular vehicles, we identify
5 passenger vehicles travelling at the speed limit are
6 typically within -- the sound levels are about 72 to
7 74 decibels at 15 metres from the vehicle. Again --
8 so that's lower, of course, than trucks.

9 We also then recorded information on
10 how wildlife react to noise. A paper by Hansen indic
11 -- suggesting that barren carb -- ground caribou were
12 not greatly affected by diesel generators and vehicle
13 traffic at Prudhoe Bay.

14 Russell, 1977, noted that caribou have
15 shown either no response or is short run resu -- short
16 run prior to resuming feeding response to dynamite
17 blasts. He also observed that caribou located 1.2
18 kilometres from a series of seismic detonations looked
19 up after one (1) or eleven (11) -- after one (1) of
20 eleven (11) detonations, but otherwise continued to
21 feed or bed.

22 We've noted that grizzly bears have
23 been -- have shown avoidance on occasion and altered
24 behaviour response to road presence, seismic blasting,
25 and other industrial activities. We've noticed that

1 grizzlies typically select den sights about -- greater
2 than a kilometre from human activities, and presumably
3 that might be in relation to noise or other kinds of
4 activities that bother them.

5 But in general it doesn't seem like
6 noise, according to the literature that we've reviewed
7 and presented -- and we do feel that way as well
8 because we've actually seen personally, many of us --
9 all of us probably have seen how wildlife react to
10 roads and noise generated by vehicles. And we just
11 have not seen that it has caused a significant problem
12 anywhere that we know of.

13 DR. PETR KOMERS: Petr Komers. Thanks
14 for this clarification. Just one (1) last follow-up
15 on this. So given that the developer believes those
16 are relatively minor impacts, considerations to think
17 about, is there any planned mitigation for the
18 wildlife monitoring programs regarding noise
19 suppression and noise mitigation of any kind?

20 MR. RICK HOOS: Rick Hoos, Developer
21 group. We have indicated that during construction --
22 during the construction activities, most of which will
23 take place during the winter -- when fortunately a lot
24 of the wildlife species aren't present, but some are
25 still there -- that we will -- we will -- we've

1 committed to ensuring that the equipment that is used
2 is -- is well maintained and equipped with appropriate
3 mufflers -- with mufflers that -- that are in good
4 working order.

5 Yes. Okay. In terms of the vehicles
6 that are used during the construction operations, Tara
7 just pointed out that -- that there is a -- an aspect
8 related to blasting, which is another form of noise,
9 which is actually the loudest noise of them all,
10 although very short-term in nature.

11 And in the context of blasting -- I
12 know we discussed this extensively yesterday in
13 preparation for today's meeting -- one (1) should
14 recognize that blasting in a borrow site, for
15 instance, which is where blasting would take place, is
16 -- is only going to be done when needed.

17 And there may be a number of -- of
18 borrow sites we anticipate may not require any
19 blasting at all, but simply ripping of the -- of the
20 aggregate material in the borrow pit using bulldozers.

21 But where blasting might be done on
22 occasion, that would be done to avoid periods of
23 sensitive -- when -- when wildlife species may be
24 present, you know, sensitive periods of time.

25 In other words, in the wintertime, that

1 basically means in relation to perhaps a bear den that
2 could conceivable in -- be in the vicinity. But in
3 that context, the work that we've done to date
4 suggests that there's not very many bear dens in the
5 vicinity of the -- of the proposed alignment or -- or
6 the borrow sites that we've currently investigated.
7 But that kind of work will be done for any borrow site
8 that might be used for the road construction project.

9 MR. BRUCE HANBIDGE: Bruce Hanbidge
10 again. We're -- we're drifting into some of the WMAC
11 questions for later on. But since you're speaking of
12 borrow pits and grizzly bears and noise, we've
13 reviewed your granular reports and the habitat
14 assessment around them. And I'm curious, the -- the
15 grizzly bear habitat assessment in particular, you
16 have seven (7) borrow pit sites, and you've only
17 assessed the habitat in your report on one (1) of
18 them.

19 So I'm just wondering if there's going
20 to be any further assessment of denning areas for
21 grizzly bears. And why I ask about borrow pits is
22 your report specifically identifies that form of
23 habitat as the optimum for denning. And there's --
24 sorry, I'll throw out the other questions; you can
25 answer them in whatever order you want.

1 Concerning noise mitigation, you've
2 spoken a lot about surface noise. There's nothing in
3 your reports to do with conduction of noise through
4 the ground. And I believe in the Screening
5 Committee's submission you made for doing the explore
6 -- exploration of the borrow pits, the WMAC did send
7 in a letter. And they provided some references on
8 transmission of sound through the ground out of
9 Alaska. And it transmits far further than you can
10 imagine on the surface. And you can't detect it by
11 surface methods.

12 So have you looked at anything with
13 respect to transmission of noise, distances, in
14 relation to bear dens around borrow pits?

15 MS. ERICA BONHOMME: Erica Bonhomme.
16 There's a lot of questions in there. Forgive me if I
17 miss any pieces of it. I think I will answer the
18 pieces to which I can respond. Some of those may be
19 dir -- best directed to the developer.

20 With respect to the assessment of
21 grizzly bear den potential at the seven (7) borrow
22 sources, yes, we've not finished complete -- we've not
23 completed the processing the LiDAR imagery to address
24 all the borrow sources that are being considered for -
25 - as primary sources for development.

1 So we are working on that right now.
2 We hope to have some addendums to the maps to provide
3 to you as well as some numbers for potential bear den
4 habitat. So if all goes well, I can have that
5 submitted to the Board by this Friday. That should --
6 should help with providing a visual depiction of the
7 bear den potential at the borrow sources.

8 With respect to the investigative
9 drilling program that was conducted this winter in
10 relation to seven (7) borrow sources consider -- being
11 considered for development, the assessment was based
12 on noise at the -- that we would expect to be
13 transmitted through the air at the surface. And it
14 did not include what we would expect to be as ground
15 assessment -- or, ground transmission.

16 However, we should keep in mind that
17 that was for an exploratory drilling program. And the
18 technique that would be used in that program, which
19 was an exploratory drilling program, would be
20 different from what might be used to actually extract
21 gravel from borrow sources.

22 So I -- I -- there may be a need to
23 look at transmission through ground that would be
24 specific to the type of techniques that would be used
25 to extract gravel here. So it's kind of two (2)

1 different things that you'd be looking at.

2 Just for everyone's edification, the
3 investigative dri -- dao -- geotechnical investigative
4 drilling program used 6-inch augers and a larger-
5 diameter auger that was used for bulk sampling. And
6 that was a winter program.

7 That's -- as far as the noise
8 assessment that's been done for the -- in relation to
9 the project, I would transfer that over to Rick. But
10 before I do, anything else on the information I've
11 provided to you in -- for those first two (2)
12 questions?

13 MR. BRUCE HANBIDGE: Just -- Bruce
14 Hanbidge. Just going back to the issue of noise, the
15 references that we did find were specific to drilling.
16 We were looking for references to respond to your
17 submission to the Screening Committee. And, yeah, I
18 guess if -- if you don't look for it, you're not going
19 to find it.

20 So my question is: Is there any intent
21 to determine transmission of noise through ground as
22 it affects wildlife?

23 MS. ERICA BONHOMME: I would direct
24 that question to Rick.

25 MR. RICK HOOS: Rick Hoos, dev --

1 Developer group. We haven't ever tried to look at any
2 literature related to noise travelling through the
3 ground or under the ground from -- from, let's say, a
4 blasting activity.

5 However, we have made -- we -- we have
6 recognized that blasting could conceivably impact
7 active bear dens and -- and bears -- like -- and
8 similar issues like that. And therefore, in -- in the
9 EIS we have made a -- a commitment to not carry out
10 any blasting within 500 metres of an active bear den.

11 Beyond that, if it -- if it does seem
12 absolutely necessary for whatever reason, that's why
13 we have both environmental and wildlife monitors
14 associated with these kinds of operations. And we
15 would consult with them and other interested parties
16 if, in fact, we -- we knew that there was a bear den
17 perhaps closer than 500 metres away, although we don't
18 anticipate that would occur.

19 But if there was an absolute need to do
20 some blasting, we would consult with, and seek advice
21 from, agencies and -- and the -- the monitors at that
22 time. Where we have, though, also -- what -- what we
23 were more concerned with, with blasting, and I know
24 it's of great concern to DFO, is blasting in and near
25 waters frequented by fish.

1 And in that regard, and -- and I know
2 Erica didn't mention it, but even in their drilling
3 program, where they were trying to evaluate the
4 aggregate resource, they made a point of -- of staying
5 more than 50 metres away from a water body for their
6 drilling program. In fact, it was more like about 100
7 metres away.

8 What we have committed to do in the EIS
9 and -- and committed to do for the ope -- for the
10 construction operation, first of all, we would not be
11 ex -- doing any blasting in or near fish habitat that
12 produces or is likely to produce an instantaneous
13 pressure change greater than 100 kPa, which is 14.5
14 PSI, in the swim bladder of a fish.

15 This is in relation to the DFO
16 guidelines for the use of explosives in or near Can --
17 Canadian fisheries/waters. We have -- there are other
18 criteria in those guidelines that we would intend to
19 comply with, and I -- I -- we do even understand that
20 DFO may want us to -- to follow some even more
21 stringent guidelines and requirements than -- than
22 what is in the current explosives guidelines.

23 And if DFO would like to bring that to
24 everyone's attention here, I guess we could discuss
25 that also. Thanks.

1 MS. AMANDA JOYNT: Amanda Joynt with
2 DFO. I think that issue can be brought up when we hit
3 it in the agenda, but just to clarify that DFO doesn't
4 use those guidelines in the NWT. We have different
5 guidelines.

6 MR. BRUCE HANBIDGE: Sorry, Bruce Han
7 -- just one (1) last request concerning this issue on
8 subterranean noise. Okay, you've acknowledged you
9 don't have any guidelines or references for the
10 distance it travels.

11 Your submissions have also said that
12 borrow pit sites are optimum habitat for denning
13 bears. And I believe your submission to the Screening
14 Committee also was very specific. It said that a bear
15 pushed out of a den in the winter time is a dead bear.
16 That was pretty much what your report said to the
17 Screening Committee. So I'd like to request some form
18 of undertaking, any information to determine
19 boundaries.

20 Do you have any references or can you
21 produce any references for what is a safe distance to
22 a bear den?

23 MS. ERICA BONHOMME: Erica Bonhomme.
24 I just want to provide a point of clarification that
25 we did not, in the Kavik-Stantec wildlife report --

1 and I -- that was filed -- that was filed before the
2 Board here.

3 And we are referring now to -- if I can
4 find the exhibit number. Here it is. So the two (2)
5 reports that were filed, the wildlife report and the
6 maps, which are Exhibit 224-1 and 225-1, did not say
7 that borrow sources were optimal denning habitat. We
8 said that high qua -- that higher-quality habitat is
9 scattered throughout the study area. That does not
10 mean it's optimal bear denning habitat.

11 At the time that the borrow sources
12 investigations program was undertaken, which was a
13 program screened by the Environmental Impact Screening
14 Committee, which is separate to these proceedings
15 here, that was a winter program. It was not based on
16 field-verified evidence, which -- of bear -- field-
17 verified observation of bear denning habitat, which we
18 now have. And I would defer to the statements we've
19 made in the Kavik-Stantec wildlife report, which does
20 not say that there's optimal bear denning habitat at
21 the borrow sources.

22 THE FACILITATOR: It's John Donihee.
23 I think, rather than argue the whole -- I'll -- just a
24 sec and I'll let Gavin speak. But we really are just
25 talking about noise, and I want to get through that

1 topic. We've got half a day tomorrow to talk about
2 wildlife, so I guess you've sharpened your sabres.
3 We'll -- we'll see what comes up tomorrow. But, you
4 know, I -- at this point, I don't see a lot of benefit
5 in arguing about whether "optimal" means good, bad, or
6 indifferent, that -- that sort of thing.

7 So let's -- let's hear from Gavin, and
8 then we'll take a fifteen (15) minute break.

9 MR. GAVIN MORE: Okay. We'll get to
10 it later when we talk to wildlife more, but as part of
11 our GNWT technical report, we're actually going
12 through the literature more, because there actually is
13 more literature. The polar bear transmissions are
14 about one (1) of the few species where people have
15 done kind of acoustic- tests.

16 The -- the key for -- for the bear dens
17 -- it's been a very serious issue for ENR, so we're
18 going back through the literature. But there's a
19 couple of points I would want to make, because that --
20 it actual fact, up here, they're -- and -- and studies
21 in Sweden, the -- when bears are disturbed during the
22 winter, it's the females with cubs of the year that
23 might be affected, in terms of the cubs dying.

24 The incidents that have happened here
25 in the NWT in the '70s, the bears actually were

1 disturbed in January and were killed, but not till
2 April. So the key is bears can live through the
3 winter.

4 The other one is that the studies done
5 up here to tend show that the bears also will use snow
6 dens in a emergency basis. The issue we've been
7 working through -- we'll talk about it a little later
8 -- we're not talking in our wildlife monitoring plan
9 about the sort of acoustic testing. We're trying to
10 look for more practical ways to look at particular
11 gravel pits, because the -- the key issue is you're
12 looking at very limited pieces of land each year, and
13 the -- the probability of coming across a bear in a
14 den is -- is reasonably low in any particular area.

15 So part of our report, we're actually
16 going to show all of the den locations that we've had
17 since the 1970s in the NWT. And basically, the
18 pattern is reflected in and supported by the work that
19 Stantec did that -- that the area of the road is
20 actually fairly low probability.

21 The key is there -- there was always a
22 -- there is a -- a level of risk, and the whole point
23 of the process of putting together the predictive
24 work, the surveys, and then the role of the wildlife
25 monitor as part of the -- the activities when they

1 take place, is the way our focus is.

2 We've been desperately thinking it
3 would be so nice to do what the -- the real answer is,
4 is to be able to scare the den -- the bear early
5 enough in September/October to have them go elsewhere
6 to set up, because that's basically another option for
7 a bear.

8 The other thing that we have been doing
9 is taking a look and actually trying to find any
10 records of bears out of dens over the winter months,
11 and try to determine -- because there are so few
12 reports. Despite the level of industrial activity,
13 there are so few reports of bears that have actually
14 been moved out of dens by industrial activity. And
15 that seems to relate to -- to the fact that one has to
16 think of the sensitivity of the bear during the winter
17 months and what they're -- they're up to.

18 So the whole idea of noise equating to
19 bears popping out of the dens at the wrong times does
20 not appear to be justified, but that's part of why
21 we're going to go through an awful lot of the data and
22 discussion of it in our technical report.

23 THE FACILITATOR: Thanks very much. I
24 -- I -- let's take the fifteen (15) minute break, and
25 I -- we'll come back and we'll move on to the next

1 topic, please.

2

3 --- Upon recessing at 10:13 a.m.

4 --- Upon resuming at 10:30 a.m.

5

6 WATER QUALITY DISCUSSION:

7 THE FACILITATOR: It's John Donihee.

8 Thank you. We're going to reconvene and we're going

9 to move on. I think the next topic is number 7 and

10 that's water quality.

11

12 (BRIEF PAUSE)

13

14 THE FACILITATOR: Sorry, just a

15 housekeeping matter. We had passed out at the break a

16 series of twelve (12) questions that were brought to

17 us this morning from the Inuvik HTC and I've spoken

18 with them.

19 They're -- we're going to actually

20 address -- because it's your first chance to see them,

21 so we're going to address them during the -- the

22 wildlife discussion tomorrow morning.

23 So -- and I think that the other thing

24 I'm going to do -- I -- I've just spoken with my

25 friend from CWS here and we seem to have birds and

1 bird habitat separated from wildlife and wildlife
2 habitat.

3 I'm sure there's no hidden message
4 there, but we'll -- we'll put -- we'll -- we'll talk
5 about birds and bird habitat in with the -- the
6 wildlife session tomorrow and -- and try to get
7 everything -- compress it down a little bit.

8 And there'll -- there'll be synergies,
9 I'm sure, between the -- those discussions, so -- so
10 we'll -- we'll adjust the agenda that way. But in any
11 event, we're still going to address water quality
12 right now.

13 So, Petr, I don't know, do you have
14 anything to start us with that?

15 DR. PETR KOMERS: Petr Komers.
16 Regarding water quality, we have touched on some
17 issues. We don't particularly have anything now that
18 probably wouldn't be dealt with under fish and fish
19 habitat in DFO.

20 I do have one (1) question for our own
21 clarification, and I'm referring to a -- an IR
22 response from DFO that basically refers the
23 responsibility of the deposit of deleterious substance
24 -- substances into waters to Environment Canada.

25 And I wonder if you guys have talked,

1 if DFO and Environment Canada are okay with each
2 other, who's taking care of what. Just curious about
3 that. Thanks.

4 MS. SARAH OLIVIER: Sarah Olivier,
5 with Fisheries and Oceans. Maybe I can clarify a
6 little bit. DFO does look at impacts of sediment, so,
7 physical impacts of sediment on fish and fish habitat.

8 But when it comes to specifically
9 section 36 of the Fisheries Act, which deals with the
10 deposit of a deleterious substance, there is an MOU
11 between the Minister of Fisheries and Oceans and
12 Environment Canada that delegates the administrative
13 authority to Environment Canada.

14 So they deal with, again, determining
15 what is deleterious and then dealing with that -- that
16 section of the Act.

17 MR. JAMES HODSON: James Hodson, of
18 the Canadian Wildlife Service. That's my
19 understanding as well. I wasn't provided with any
20 questions specifically dealing with the positive
21 deleterious substances for today, so I won't be able
22 to speak to that subject.

23

24 WATER HYDROLOGY DISCUSSION:

25 THE FACILITATOR: Thank you then. I

1 think that -- let's move on to issue number 8. We'll
2 talk about hydrology. The first issues there I think
3 were raised by DFO and we'll give you the opportunity,
4 I guess, to speak to your issues and explore them with
5 the developer.

6 MS. AMANDA JOYNT: Just to clarify --
7 oh, it's Amanda Joynt with DFO. To clarify, DFO and
8 DOT and Associated Consultants had a meeting two (2)
9 weeks ago, I believe, in Yellowknife and we went over
10 a lot of these issues, so you'll find that, I think, a
11 lot of these issues have been clarified or -- or
12 solved.

13 I just want to reiterate. So with
14 regards to the crossings, we were requesting a final
15 list of all the crossings. A lot of the information
16 is -- is found in -- in different locations right now,
17 so we are requesting a final list of all of the
18 crossings; the type of the crossings that were going
19 to be used at those crossings; and inclusion of all
20 the latest Fisheries' information and -- that are
21 associated with those crossings as -- including the
22 latest freshette survey which occurred in June.

23 So if the -- if you guys can respond to
24 that.

25 MR. WALTER ORR: Walter Orr from

1 Kavik-Stantec. Yes, we've -- we have committed to --
2 as the developer to provide a compiled list fully
3 integrating the hydrotechnical surveys that have don -
4 - been done recently, the earlier work from -- from
5 the -- in the EIS and the -- the current and -- and
6 previous Fisheries work that will integrate all of
7 those into a master list of crossing names, location,
8 stationing, and Fisheries potentials.

9 MS. AMANDA JOYNT: And -- and that's
10 great. Thank you very much. It's Amanda Joynt with
11 DFO. And the other issue we wanted was a development
12 of -- of scenarios for each of the types of the
13 crossing that were going to be used.

14 So if it was a bridge, we were asking
15 for the type of -- how many of that type of bridge
16 would exist and the scenarios in terms of what
17 mitigations would be used for those bridges, what
18 impacts would be mitigated because of those
19 mitigations, and what are the remaining impacts.

20 MR. WALTER ORR: Walter Orr here.
21 Yeah, as -- as of the -- the present status of the
22 work -- and -- and I will say that the -- the hydro
23 technical work is currently ongoing. There's a field
24 program as we speak. Right now, we have a team in the
25 field doing some evaluation of the crossings. They

1 will be doing a survey and -- and gradients and things
2 on all the crossings in this -- in this area.

3 But as a current status of the -- the
4 process, there are twenty-five (25) minor crossings,
5 there are twenty-seven (27) medium crossings, and ten
6 (10) major crossings with bridges.

7 The -- actually, to -- just to gi --
8 give a little bit of background on those categories,
9 those are based on width of the -- the stream, the
10 amount of flow. And certainly the major crossings are
11 all crossings at -- the combination of the width and
12 the amount of hydraulic flow in those crossing
13 requires a bridge structure.

14 The -- the minor crossings are all
15 crossings where the -- the width and the -- the low
16 amount of flow makes them suitable for using a closed
17 bottom culvert. And the inter -- the medium are
18 intermediate. Some of those may in fact be crossed by
19 short span bridges, some with larger, say, multi-plate
20 culverts which -- with possible different bottom --
21 bottom treatments.

22 But it's -- it's, I guess, categories
23 are for convenience to -- to, you know, split the --
24 the crossings. Just there are sixty-two (62)
25 crossings that we identify currently, and they're

1 obviously different sizes and different re --
2 different requirements. So it's more a convenience
3 than -- than other things to split it -- break it into
4 these categories.

5 MS. AMANDA JOYNT: Okay. Amanda Joynt
6 with DFO. So I guess what DFO is asking as an action
7 item to be provided after the technical session is for
8 those scenarios, as -- as you were describing, so the
9 closed bottom culverts, the multi-plates, short span
10 bridge, and the larger types of crossings, for those
11 scenarios to -- to be -- to -- to be developed and to
12 provide DFO with the mitigations that would be used
13 for each of those scenarios, and then assess the
14 impacts that remain.

15 MR. WALTER ORR: The -- the outcome of
16 the current hydro technical work will be a final
17 report to be issued in September which will address
18 all of these. There is -- as a technical team, we
19 have provided to -- to DOT for review an interim
20 submission which is not currently -- Walter Orr,
21 pardon me, with Kavik.

22 And -- and that will incorporate the --
23 the findings of the freshette trip, the -- the hydro
24 technical desktop study, and the studies that have
25 been in place, and will incorporate your -- your

1 requests and concerns from DFO.

2 THE FACILITATOR: It's John Donihee.

3 I'm just curious, will these -- this additional
4 information be in the Intervenor's hands in advance of
5 the hearing?

6 MR. WALTER ORR: The -- at least the
7 interim support -- report will be -- will be
8 submitted. The final report will probably not be
9 complete prior to the hearing.

10 THE FACILITATOR: Excuse me. John
11 Donihee. So I take it there are a number of federal
12 agencies that get involved in this one (1) way or
13 another. Transport Canada -- this meeting that you
14 mentioned, did that -- I mean, are you speaking for
15 the -- the three (3) agencies then that -- no, just
16 for DFO?

17 MS. AMANDA JOYNT: It was just with
18 DFO, yeah.

19 THE FACILITATOR: Okay. So any -- any
20 issues then related to the water crossings from
21 Transport Canada?

22 MR. DOUG SOLOWAY: No, we're -- it's
23 Doug Soloway, Transport Canada. I'm sure GNWT is
24 aware of our -- our requirements. And we -- we do
25 require similar information that DFO does. In

1 addition, basically, that encompasses water course
2 with depth grade pictures upstream and downstream.
3 And that'll probably come with their application at
4 the regulatory phase. We understand that.

5 Considering we're at the preliminary
6 stage, we -- we do need to know the types of
7 structures. The -- the water course navigability
8 would have -- obviously have to be assessed by our NWP
9 offices in -- in due course.

10 So we would be willing to -- to
11 participate with DFO and the proponent in those
12 activities so we can get a clear idea of what they
13 intend to do as well as the types, length of
14 crossings, et cetera.

15 And to complement that, we would also
16 be interested in hearing the type of fish
17 compensation, obviously, as that would have an
18 implication on navigability as well.

19 MR. WALTER ORR: Walter Orr, Kavik-
20 Stantec. Yeah, the -- the report that I'm speaking
21 about is -- will include a -- a section on each of the
22 crossings in terms of widths, in terms of structures
23 proposed, in terms of size clear -- particularly with
24 the bridges over potentially navigable waters. They
25 will have clearances and -- and spans and -- and all

1 that necessary information for -- to make that
2 evaluation.

3 MR. DOUG SOLOWAY: Doug Soloway,
4 Transport Canada. We -- we would also need to know
5 within that, the -- the water body usage, the types of
6 vessels -- traditional, recreational, et cetera --
7 would -- would be required so that -- that can be
8 taken into account in the navigability assessment.

9 We would also, I -- I guess, promote
10 that the proponent, as early as possible, try and do
11 an application to NWP to engage them, as that is a
12 requirement under the NWPA.

13 MR. WALTER ORR: Yes, some of the
14 things that you're talking about are -- are -- I would
15 consider later in the process as we move further into
16 design. Certainly, we're -- what we're preparing I
17 would call a -- a schematic level approach for these
18 crossings to inform the next step of the work.

19 Some of it would be suitable to the --
20 for your considerations, that you need. And some of
21 it will, in fact, be at the next step of design.

22 MR. DOUG SOLOWAY: Understood.
23 Appreciate that, and we would just like to be privy to
24 what consultations go on and the outcomes with regards
25 to the DFO, et cetera. So thanks for that.

1 THE FACILITATOR: It's John Donihee.
2 We -- we had issues raised by NRCan as well, I guess.
3 Can we -- have they been addressed?

4 MR. ROD SMITH: Rod Smith, NRCan. I
5 raise these in response to questions posed by Sharon.
6 So I'll try and interpret through on her behalf.

7 The questions raised by her
8 specifically were concerns about design values that
9 were going to be used in the study. So are we -- is -
10 - is there a clarification of what actually is going
11 to be employed there?

12 Are we looking at a hundred (100) year
13 flood, two hundred (200) year flood? And then
14 specifically, what data that is actually going to be
15 based off of. There is -- there is very little data
16 within the actual development area itself.

17 Is this based off of Inuvik records,
18 Tuk records, and how applicable are those going to be?

19 MR. WALTER ORR: Walter Orr, Kavik-
20 Stantec. We've -- we have five (5) different hy --
21 hydrometric records that we are using for this data
22 including one (1) in the study area, the Trail Valley
23 Creek, north of Inuvik.

24 We're using Havikpak Creek, Boot Creek,
25 Trail Valley Creek, Rengleng River, and Caribou Creek

1 as our hydromet re -- record stations. Based on
2 those, we feel we have good coverage in the -- in the
3 study area. And, in fact, the Trail Valley Creek is
4 one (1) of the crossing creeks. It's the, I believe,
5 designated crossing 18, is on that particular creek
6 upstream of the -- the wa -- the station.

7 So we do have -- we consider we've got
8 reasonably good coverage in the area or -- or in the -
9 - in the region for -- in terms of rainfall analysis
10 and other things, flow analysis.

11 We are evaluating -- actually, our
12 report has a flood discharge analysis on two (2) year,
13 ten (10) year, twenty (20) year, fifty (50) year, and
14 a hundred (100) year out -- outfa -- outcomes. And we
15 are basing our crossing design on, I would say,
16 appropriate to highway design standards for -- for
17 culverts, in terms of typically the ten (10) year
18 analysis for -- for the top of the culvert flow, a
19 hundred (100) year for overtopping. And -- and
20 certainly also DFO requirements for fish -- fish
21 passage velocity which often -- I'd say in this area,
22 with the fish -- designed fish fisheries, in --
23 information was -- is often the constraining factor
24 for this.

25 Obvi -- and so we will -- we will meet

1 all requirements for DFO fish pass -- fis -- fish
2 passage for all of the crossings on fisheries,
3 designated crossings.

4 MR. ROD SMITH: Rod Smith, NRCan. I
5 guess the question then becomes the length of these
6 records and the reliability of those within contextual
7 parameters of assessing what the extreme events are
8 likely to be and what con -- consideration you've had
9 to modelling changes in extreme events over time.

10 MR. WALTER ORR: Walter Orr here.
11 See, I'm just looking at -- see our report says most -
12 - most of the stations do not necessarily have long-
13 term records, greater than ten (10) years. However, I
14 believe the -- as I recall, I don't have the
15 information right in front of me, the -- the stations
16 that we have designated and the -- the ones that I've
17 mentioned have, I believe, in the order of fifty (50)
18 years of records.

19 So I will -- I will get -- let me
20 respond. I will get -- we will get that information
21 to you in the -- the duration. It will be included in
22 the hydrotechnical report and addressed in that.
23 That's probably the most straightforward answer, okay.

24 MR. ROD SMITH: Okay. Thank you. And
25 -- and the issue of extremes, is that being considered

1 within your modelling parameters?

2 MR. WALTER ORR: Walter Orr. Can you
3 clarify that?

4 MR. ROD SMITH: Sorry. Rod Smith,
5 NRCan. In your modelling, the present con --
6 understanding about extreme events, so extreme
7 hydrological events, rain events, rain on snow events,
8 is there any consideration for changes in those over a
9 period of time, and is that factored into the
10 development?

11 MR. WALTER ORR: Walter Orr. Well, as
12 -- as you're aware, of course, the -- the modelling a
13 hundred (100) year flood is, by definition, an extreme
14 event. And -- and that is our design criteria for the
15 -- the larger structures.

16 So I would say yes. But if there's any
17 other particular extreme event analysis that you would
18 like to see, if you could let us know what that is,
19 then we would -- I'll be able to address it more
20 fully.

21 MR. ROD SMITH: Rod Smith, NRCan.
22 Certainly appreciate it. And I'll certainly talk to
23 Sharon about that. I guess the other consideration,
24 the extreme events, is the frequency of these and
25 whether there's changes in frequency, not simply just

1 a magnitude, but actually an occurrence frequency and
2 how that plays in.

3 The other question in regards to the
4 stream crossing is has any consideration been made in
5 regards -- you have LiDAR survey. You now know
6 potentially where diversions are going to occur.

7 Have you actually assessed what the
8 potential magnitude of diversion volumetrically is
9 going to be in relation to some of your culvert
10 systems for crossings?

11 MR. WALTER ORR: Walter Orr here.

12 Okay, the -- we do have the LiDAR data, and that is
13 certainly being incorporated into the hydrology --
14 hydrotechnical and the -- the flow breakdowns for our
15 crossings. And, in fact, it -- it will, of course, be
16 utilized to -- to finalize where these crossing
17 locations are.

18 In terms of diversions, could you
19 clarify what exactly you're meaning so we're talk --
20 I'm speaking the same thing you're questioning?

21 MR. ROD SMITH: Diversions not in the
22 sense of actually diverting a stream from -- from its
23 original course, but lateral diversions off slopes
24 towards a catchment; so creating accentuated
25 catchments, delivery of water along the linear path

1 along the edge of the highway. That would be that
2 consideration.

3 Sorry, Rod Smith, NRCan. When you're -
4 - when I'm speaking diversions, you're -- you're
5 shortening the flow route, potentially, so you're --
6 you're increasing the speed with which water -- mill
7 waters largely may be delivered to a collection point,
8 in this case, as I say, a culvert or a bridge.

9 MR. WALTER ORR: One (1) of the things
10 about this particular -- particular roadway is that it
11 is a fill-only structure. There is no ditching being
12 associated with it. So in terms of diversions of --
13 of flow from the natural drainage path, you know, that
14 largely, to me, is associated with where you have side
15 road ditching and -- and moving water from where it's
16 going now to someplace else.

17 The nature of this design means that if
18 we have a -- as we're filling through an area, if we
19 have a low point in that, we have a culvert right
20 there, and that addresses -- we're -- we're not ever
21 taking water from where it is right now to someplace
22 else. So we have to accommodate the specific existing
23 drainage patterns on the -- on the alignment, whether
24 it's at a crossing, per se, or whether it's at a --
25 just a drainage location at that location. So I don't

1 -- I can't think of anywhere in the alignment where we
2 would actually be diverting water from its existing
3 course.

4 MR. ROD SMITH: Rod Smith, NRCan.

5 Thank you. That makes certainly all the sense that
6 you're going. I guess the question then becomes in --
7 in these is that that information, in terms of where
8 you're predicting where your crossings -- particularly
9 the smaller, say, the culverts -- this is going to be
10 instructed through your LiDAR survey as well, so
11 you're also looking at issues of ponding. Is that
12 part of the report?

13 MR. WALTER ORR: In this case, the --
14 the report is dealing with specifically identified
15 crossings, and they're -- we have -- actually, in the
16 EIFs, we -- we anticipate approximately three (3)
17 crossings, three (3) other non-specified culvert
18 installations per kilometre, so some four hundred
19 (400) installations.

20 And those will be as -- as you say,
21 defined through the survey, the LiDAR survey, and --
22 and established at the detail design stage. It's
23 certainly not something we are doing at this level of
24 -- of effort, but it will be done as we move on
25 through the -- the -- the remainder of the design

1 phase of this project.

2 MR. ROD SMITH: Sorry. So that's
3 clearly still in the design phase, so that's not in --
4 in the post-development phase, identifying existing
5 problems and redressing them through drainage. So
6 this is --

7 MR. WALTER ORR: Walter Orr here
8 again. Yeah. No, this -- the -- we will certainly
9 identify every place where we have -- have a potential
10 ponding issue as with existing ground at the design
11 phase and mitigate it at the design phase. If -- if
12 they're -- anything happens subsequent to that, that's
13 a maintenance, which is a different issue entirely.

14 MR. ROD SMITH: Rod Smith, NRCan.
15 Thank you. Can you clarify what components are going
16 to be released in your interim publication before the
17 hearings, as opposed to what you would anticipate in
18 the final, if you've just got a sense?

19 MR. WALTER ORR: Walter Orr here.
20 Yeah, we've -- the interim report includes the full
21 desktop study, hydrotechnical study, of each of the
22 crossings, the sixty-two (62) crossings identified.
23 It includes flow volumes for those crossings, it
24 includes specific bridge designs for a number of
25 representative crossings in terms of sizing, and I

1 will -- for instance, it includes a specific schematic
2 design for -- for bridge alternatives for Hans Creek
3 and for Zed Creek and -- and a number of others.

4 The final will include all of the
5 designated major crossings, the -- the -- their
6 recommended bridge designs and things for those, but
7 at the interim is a -- is not a draft report. A draft
8 report is complete but needing review. This is an
9 interim. It's an incomplete version of the final
10 report, and the intention was -- in submitting it was
11 to have it available for this group to be able to --
12 to see where -- what the status of the work is.

13 It will include the freshette survey
14 report, which DFO has -- has been provided, I guess,
15 and it also includes -- so three (3) -- three (3)
16 basic components: hydrotechnical desktop study,
17 interim bridge study, and the freshette trip report.
18 And those will all be combined into a single report
19 for the final.

20 MR. ROB SMITH: Rob Smith, NRCan.
21 Thanks. That's great.

22 MR. DOUG SOLOWAY: Doug Soloway,
23 Transport Canada. We -- for your temporary crossings
24 as well as your crossings for the borrow area, we
25 would like to, I guess, remind you that you may be

1 able to apply the NWP mine and works order, which
2 would be applicable in those situations, which is sort
3 of a self-assessment.

4 MR. WALTER ORR: Walter Orr. One (1)
5 of the things, and this is -- actually, I could
6 probably let Robyn address this as well -- is that the
7 -- the winter construction bases mean that we -- we
8 will probably not -- we intend to not use any
9 temporary crossings.

10 However, the construction methodology
11 some -- there may be some temporary crossings on the -
12 - on the route, the alignment itself, as we build
13 through places where -- where we need to leave them to
14 summer. But on the access to borrow sources, the --
15 because of the choice to use winter access, winter
16 road access, there may be no temporary crossings on
17 those accesses.

18 MS. AMANDA JOYNT: Amanda -- oh,
19 sorry.

20 MR. WALTER ORR: That's fine. We're
21 just giving you that for your information should there
22 be something that also -- even for minor works, where
23 you're going to have a permanent crossing. That can
24 be applied as well.

25 MS. AMANDA JOYNT: Amanda Joynt with

1 DFO. This is a nice segue into our second point, if I
2 can move on to that, with regards to the timing for
3 the construction of the crossings.

4 So we had asked that the proponent
5 provide clarification on -- within the scenarios, I
6 guess, is the best place to do so, of when the
7 crossings would be created. I'm assuming mostly in
8 winter, but as we've just heard, there is potential
9 for summer crossing construction as well.

10 So I would expect that that outline and
11 the mitigations for such would be outlined in the
12 scenarios that DFO will -- will receive?

13 MR. WALTER ORR: Walter Orr here.
14 Yeah, the -- in general, most of these crossings will
15 be largely placed in winter. Now that -- that has
16 some challenges, as -- as we're -- I think everyone
17 who is involved in the process is aware.

18 And the -- the challenges are to things
19 like ensure that we are placing the -- the culverts at
20 the appropriate elevation to avoid -- and avoid
21 problems with perched culverts for instance. There is
22 a -- it requires the use of -- of placement of dry,
23 frozen -- but dry granular material around the culvert
24 for proper bedding.

25 It includes -- there's a number of

1 detailing issues. We are aware, as a design team, and
2 I believe the -- the proponent is fully aware of the
3 challenges of that and -- and is quite convinced,
4 based on past experience. For instance, the Tuk 177
5 Road, some of the good experiences, and those have
6 worked well. We've learned from that.

7 The -- the bridges themselves, there
8 will be a substantive amount of work done in the -- in
9 the winter, including the piling, for instance. There
10 will be, on the bridges themselves, a -- a large part
11 of that work that will have to be done in the summer.

12 And so in terms of your -- Transport
13 Canada's question on the temporary crossings, there
14 will be temporary crossings required on some of the
15 bridge sites because of the necessity to have summer
16 construction to allow the -- the placement of the --
17 the girders and -- and the concreting works that are
18 required with that.

19 The intention is to -- to do as much as
20 possible that we can do well in the winter. We will
21 do it in the winter, but there will be summer work on
22 -- on all of these crossings in terms of -- in terms
23 of end treatments and things like that.

24 MS. AMANDA JOYNT: Okay, it's good to
25 hear some of the specifics and -- so I guess my

1 request for an action item is to have those specifics,
2 along with the mitigations for, say, the temporary
3 crossings and those scenarios to be included in the
4 submission to DFO.

5 THE FACILITATOR: It's John Donihee.
6 Is that -- that's your intention?

7 MR. WALTER ORR: Walter Orr here.
8 Yeah, we will -- I would say we will have broad level
9 -- this is what we intend to do for a typical culvert
10 installation and how we plan to do that. It will not
11 be a -- for crossing 18, we plan to do this, for
12 crossing 19 we plan to do that, level of -- of detail.

13 MS. AMANDA JOYNT: Yeah, and we've
14 discussed that. And as long as the -- the scenario is
15 there and it's something that I can assess impacts to,
16 then -- and we can discuss specifics for -- for
17 specific crossings as needed.

18 THE FACILITATOR: That's it from --
19 it's John Donihee. That's it from DFO? Yeah?

20 We had questions as well from the -- or
21 issues from the Tuk-Inuvik working group. Can we move
22 on to them?

23 MR. DEREK PARKS: Derek Parks, FJMC,
24 the Tuk working group. We appreciate the acceptance
25 of some of our questions. And the -- the talk around

1 the -- the room today, it seems like we're getting
2 there, we're just not seeing the reports that we need
3 to fully look at and do our comparisons.

4 We've got some questions that we've
5 been asked to raise. And it sounds like with Walter
6 in the group they -- they're coming up with it. But
7 we'd -- we'd like to see what some of the selection
8 criteria was used to select the crossing types at the
9 locations with an initial review.

10 I mean, now we're getting down to the
11 details of the type of structures and what the
12 anticipated construction is looking like. Basically,
13 what we're learning on the 177 Road, we want to make
14 sure isn't repeated and that's why we want to just
15 double-check with what's being proposed.

16 One (1) of the concerns raised was we
17 were -- we wanted to know if the road alignment will
18 require adjustment in the field, most likely. We feel
19 that the assessment is pretty specific to a centre
20 line of road that if you get off a couple hundred
21 metres either way changes what the impacts are to that
22 area and we really can't fully assess what the
23 potential impacts will be at that crossing location
24 and what the implications are to the community.

25 Similar questions to DFO, we are

1 requesting the detailed bridge construction so we can
2 figure out what the mitigation measures are going to
3 be implemented to ensure minimal impacts to the
4 crossings during construction and operation.

5 One (1) question we'd like to see is
6 that as we go on this process, there'll be a need to
7 develop an emergency response plan where -- what
8 happens if fuel tanker trucks go into -- off the road,
9 or creeks and stuff like that. We'd like to see how
10 that's being addressed, or what safety factors are
11 being included in the design at these crossings to
12 prevent such potential occurrences.

13 When we get into route selection we'd
14 like -- what kind of criteria was used in the route
15 selection. We've got a lot of community members who
16 are -- who would like the upland route looked at from
17 a Fisheries' safety type perspective and along with
18 some of the technical reports on the ERIB website that
19 the train model even says, you know, we should be
20 looking at the upland route to try to increase the
21 concerns from the community about access to Fisheries'
22 resources.

23 And one (1) of the other things we'd
24 like to know is, if it's available, or we suspect it
25 should be available shortly, would be centerline

1 profiles of the route alignments.

2 This comes into the assessment of the
3 hundred (100) year flood designs and stuff like that
4 that allow us to just have a peek and see what that's
5 going to do. And we'd also like to see what the cut-
6 and-fill calculations were used for the routes to be
7 selected.

8 Yeah. We understand that to be coming.
9 I mean, you'll be doing that for the cost assessment
10 anyway, but we'd -- we'd like to have a look at that.

11 THE FACILITATOR: Excuse me, it's John
12 Donihee. And I -- that's a lot of issues.

13 MR. DEREK PARKS: Oh, sorry.

14 THE FACILITATOR: Sometimes it's
15 better to ask one (1) and then --

16 MR. DEREK PARKS: Yeah.

17 THE FACILITATOR: -- get an answer
18 and, you know, and -- and I'd -- I'd just point out
19 that if you check the agenda, we've got route
20 selection set out for a separate topic --

21 MR. DEREK PARKS: Okay.

22 THE FACILITATOR: -- this afternoon.

23 MR. DEREK PARKS: Okay.

24 THE FACILITATOR: So if you -- if you
25 don't mind, I thought maybe we could go back to your -

1 - I'm just looking at your -- your document dated --

2 MR. DEREK PARKS: Yeah.

3 THE FACILITATOR: -- the 20th of

4 August and --

5 MR. DEREK PARKS: Yeah.

6 THE FACILITATOR: -- go back to the
7 stream crossing issues. And perhaps Rick -- I think
8 we've had all four (4) of those items put out there
9 now. I wonder if perhaps you might, or -- or someone
10 on your team might respond to point number A and then
11 we'll -- we'll see whether that stimulates any further
12 interaction and work our way through the stream-
13 crossing issues.

14 MR. WALTER ORR: Walter Orr here. In
15 the selection criteria for designation of crossing
16 type, as I said earlier, and I think it's -- it --
17 this is not a hard-and-fast rule. It's from one (1)
18 end -- certainly as an example, certainly Hans Creek
19 and Zed Creek are going to be bridges, no question.
20 Something very small, shallow, low-flow places that
21 may, in fact, be fisheries habitat are going to be
22 culverts.

23 In that continuum, at some point in the
24 middle there is a place where you could do either --
25 either one. And so the -- the designations were based

1 initially on field inspections, first in 2009 and then
2 recently confirmed via the Fisheries work that was
3 done by -- by Golder last year and -- and our -- the
4 freshette trip that we -- that I was involved with in
5 June of this year.

6 And then subsequent to those initial --
7 initial -- I -- largely visual, looking at visually
8 the flow depth, the width, the amount of flow you
9 could see, we have carried out the hydrotechnical.

10 And that hydrotechnical analysis, in
11 fact, will -- will result in probably a few things
12 shifting up or down. Practically speaking, it's a
13 width and flow and flow amounts are -- are really
14 where those designations are, and they are not a hard
15 and fast. They're a guideline so we can discuss
16 different categories, but they -- they are not a hard
17 and fast. This is -- at this number, we switch to a
18 different category.

19 THE FACILITATOR: It's John Donihee.
20 I believe the second point, then, is about road
21 alignment adjustments in the field and how -- how that
22 affects the work that's been done and, in particular,
23 how -- I suppose, the -- the impact assessment, if you
24 have to move the road to a different location.

25 MR. WALTER ORR: Walter Orr here. I

1 will address this with respect to crossings. The --
2 the crossings evaluation that we did in June of this
3 year that's incorporated the freshette review trip,
4 and in the -- in the tables that we are working to
5 compile for the master crossing list, does have some
6 slight adjustment for the crossings to -- to fit the
7 actual configurations of the -- the streams in the
8 field. So there is some adjustment of -- of the
9 alignment.

10 I would say that the -- those
11 adjustments in the field will feed back into the
12 design process when that design process moves ahead,
13 and there will be other things obviously to feed back
14 into it. But there has been feedback between the --
15 the crossing locations as -- as designated in the
16 field and the -- the final design process for the
17 road.

18 THE FACILITATOR: It's John Donihee
19 again. I really don't want to be taking over your
20 questioning, but if I'm doing all right, I'll keep
21 going, but --

22 UNIDENTIFIED SPEAKER: No, keep it
23 focussed.

24 THE FACILITATOR: All right. Well,
25 again, if something comes up with you, they're your

1 questions, but point C then if you might move on, if
2 you have anything to respond to -- to that point.

3 MR. WALTER ORR: Walter Orr here.

4 Detailed bridge construction plans are -- are not, to
5 me, appropriate for this level of consideration. What
6 we are providing is, as I said before, a schematic
7 level of detail to say we -- we anticipate a bridge of
8 27.5 metres span, single span, with this top-of-road
9 elevation, this clearance elevation, bounded on -- on
10 free piles, as an example, and then a detailed
11 construction.

12 Perhaps it's an issue on the word
13 "detailed". "Detailed," to me, is something that you
14 get into at the -- at or subsequent to the detailed
15 design phase, when you go into construction, and we
16 are a long ways away from that. And so, I would
17 submit that providing detailed bridge construction
18 plans is outside the scope of what we are able to do
19 or -- or should be required to do at this point.

20 MR. DEREK PARKS: Derek Parks. I'd be
21 interested to know -- I don't think it's too early to
22 request what type of environmental mitigations are
23 being proposed at these crossings so we can assess the
24 adequacy that's being proposed by the proponent.
25 Thanks.

1 MR. WALTER ORR: Walter Orr here. As
2 I said to -- to DFO earlier, we are certainly going to
3 provide, I would say, a generic level of: we
4 anticipate constructing in this season, we anticipate
5 constructing this particular methodology, we
6 anticipate constructing with this level of -- of
7 erosion protection, this, that. But -- and that would
8 be a -- an -- an approach-based submission that would
9 be applicable to all similar crossings.

10 And then, in fact, as a -- as an
11 engineer, I will mention that the specifics of that --
12 of any particular crossing, there's a lot of work
13 between that approach-based method and the final
14 detailed design of that crossing when -- when that is
15 completed.

16 MR. DEREK PARKS: Derek Parks. Yeah,
17 I think that's fair, but your comment before was you
18 thought we were too -- it was premature, and you
19 haven't -- I mean, talking with DFO, that's great, and
20 what you've said to me, that allows us to do what we
21 need to do moving forward. Thanks.

22 THE FACILITATOR: John Donihee. May I
23 just ask, more for my edification, I presume that some
24 form of -- where, you know, there's going to be
25 construction that involves the placement of piers or

1 things like that right into the streams, there --
2 there's got to be a Fisheries' authorization or -- or
3 something like that issued. And I guess -- if I'm
4 wrong, that's fine, just tell me. But -- and I'm --
5 I'm curious about Transport Canada as well, because it
6 see -- it seems to me -- it seems to me that there's a
7 -- there is a regulatory process that comes along
8 after this.

9 And I guess what I'm curious about is
10 whether DFO and -- and the developer, maybe Transport
11 Canada or other regulators here, you know, where it
12 involves effects on water, streams, and things that
13 are important to fish, whether in fact FJMC is -- is
14 regularly involved in -- in the consultation process,
15 I guess, it goes along before those sorts of permits
16 are issued?

17 MS. AMANDA JOYNT: Amanda Joynt with
18 DFO. Yes. That was a quick -- quick answer. And
19 that actually bodes well with my next question for the
20 selection criteria.

21 I had a question -- because you had
22 said it was mostly width and -- and flow, but I just
23 wanted to clarify, it's also based on the design fish
24 -- for fish passage as well?

25 And also, I would like to bring up

1 something that I'm sure will come up tomorrow when we
2 go over the Lessons Learned. But, with selection
3 criteria, I'd like to ensure that consultation with
4 the communities is included as a selection criteria as
5 well.

6 Because we do have one (1) issue with
7 177 Road, where the community isn't happy that there's
8 a culvert where there was supposed to be a bridge,
9 particularly with regards to their subsistence fishing
10 on that stream. So I'd like to have that included, as
11 well, for a selection criteria.

12 MR. WALTER ORR: Walter Orr. Thank
13 you, Amanda and -- and John. Yeah, I can speak to the
14 specific point you just mentioned in terms of piers
15 and -- and other things in a -- in a stream at -- at
16 this point, and I've -- I've seen all of the concept,
17 the schematic designs for all the bridge crossings.
18 There are no piers in any stream bed, active stream
19 bed in any of these crossings.

20 There is, in the case of one (1)
21 particular crossing, and I can talk quite a bit about
22 this. I don't know if -- if it's necessary. But
23 Hands Creek is a -- is a challenging crossing. And
24 however we do it, there will be piers or abutments in
25 the flood plain areas, not in the active channel.

1 So and that is as -- as close as we get
2 to any construction in the stream. There is no piers,
3 no constructions in any -- any of these streams at our
4 bridge locations.

5 MS. AMANDA JOYNT: Yeah, and to add on
6 to that, there will be authorizations. Because there
7 are impacts to fish habitat with -- especially with
8 respect to riparian areas, because there will be fill
9 within riparian areas on some of the streams. And
10 when we do authorizations, we will consult with the
11 FJMC and the communities as well.

12 Does that answer your question?

13 MR. CONRAD BAETZ: Conrad Baetz from
14 Aboriginal Affairs. There will also be water licence
15 authorizations issued for, I'm presuming, the medium
16 and -- and the large -- larger crossings that are
17 identified. So a lot of that, sort of, information
18 will come to fruition during that process.

19 The NW Water Board issues those
20 authorizations and I think they have a whole other
21 process themselves in terms of vetting what some of
22 the concerns may or may not be later on. Thank you.

23 THE FACILITATOR: This is John
24 Donihee. Thank -- and my thanks to both of you, all
25 of you. I guess -- I might as well do it. I'm just

1 curious, and -- I mean, one (1) -- one (1) of the
2 ongoing -- I know this -- I hear this discussion all
3 the time. It's an occupational hazard for me, you
4 know.

5 The difference between what, you know,
6 when an engineer hears the words "detailed design" and
7 -- and people who are primarily environmental use
8 those kind of words. And -- and you kind of go like
9 this, right?

10 So what level of information is -- is
11 possible at -- at what stage and -- and where are you
12 at? And -- and maybe you can just comment on this, or
13 -- or Rick. In terms of the level of analysis and
14 design that's being done for the impact assessment as
15 opposed to where -- where you go after the impact
16 assessment process is over, in terms of what engineers
17 call "detailed design." I assume that's someplace
18 perhaps even after you get your regulatory
19 authorizations.

20 Could you just kind of clarify that for
21 us a little bit? It would help the Board out. I -- I
22 know the regulators probably know these answers, but
23 it would help us.

24 MS. ROBYN MCGREGOR: Sure. It's Robyn
25 McGregor here, with the developer group. Walter

1 kindly pointed directly at me to answer this question.

2 The short answer to that is the -- the
3 work that has proceeded that's been undertaken to date
4 is -- or at the submission of the EIS is what we would
5 call Preliminary design or Concept design, and it --
6 and it is at a functional level.

7 So it gives us enough information, from
8 an engineering perspective and from -- from an
9 understanding of the environmental considerations and
10 the social considerations, it gives us enough
11 information to understand what the picture of the
12 highway will look like.

13 And I'm talking about the highway as a
14 whole, including material sources and bridge crossings
15 and -- and the roadway alignment itself and an
16 understanding of its future use, what it might cost,
17 where it might go and what it generally will look like
18 and what are the considerations going into detailed
19 design that we need to understand.

20 Since the EIS was submitted last year,
21 fourteen (14) months ago, there's been additional work
22 that's been undertaken to advance what we would refer
23 to as -- as the homework and the knowledge base that
24 needs to feed into the detailed design process.

25 So, all of the information that -- that

1 you have been receiving as it's been completed is
2 information that is necessary for -- for yourselves to
3 be -- to consider in your evaluation of the project,
4 but also for us to feed into design.

5

6 We would say though, from a design
7 perspective, that we're probably only 30 percent into
8 the deta -- the design process. So that can give you
9 an understanding of how much work and effort is left
10 to be completed between now and the time that we would
11 be able to put shovels to the ground and start
12 construction.

13 Having said that, though, we -- we're
14 at the stage in the development of a project -- pro --
15 process of development of a project where the non-
16 negotiables and the -- and the big decisions in terms
17 of design and where the highway goes, what the highway
18 needs to look like, what the major impacts are, what
19 the crossings are going to look like have -- have been
20 made with some confidence and mitigation measures
21 through design mitigation have -- have -- are in the
22 process of being developed.

23 So the refinements that we would see
24 going forward are not going to result in major changes
25 to the information and what you're seeing today or

1 what you will see between now and -- and the public
2 hearings.

3 So in terms of concepts of the bridges,
4 locations of the bridges, location of the highway,
5 selection of material sources, which is questions
6 we're going to answer tomorrow, those kinds of things,
7 there won't be substantial changes to that moving
8 forward between now and the time that we get to
9 construction.

10 What we have to do is make our best
11 efforts to revi -- refine things in the areas that --
12 that are a bit challenging right now. And we'll talk
13 a little bit about that tomorrow, particularly when we
14 talk about the material sources.

15 We'll talk about that this afternoon
16 when we talk about the -- the rest of the questions
17 that -- that the gentleman down at the end of the
18 table is asking about, the -- the criteria for the
19 route evaluation and the alignments.

20 But -- but I think for -- I can
21 confidently say that what -- what you are seeing now
22 and what you will see between now and -- and the
23 hearings is a very good solid understanding and -- of
24 -- of what the highway will look like and how we're
25 going to be managing and minimizing and mitigating

1 environmental and social considerations in that.

2 What you need to understand though is

3 it's not enough information to go to construction.

4 And for Walter and I, when we understand detailed

5 design, that means that we're ready to -- to get on

6 the back hoe and -- and the bulldozer with Russell

7 Newmark and go to construction. And we're quite a

8 ways away from that yet.

9 THE FACILITATOR: John Donihee.

10 Thanks. I just -- one (1) other point, I guess, for

11 the -- the regulators in the room, I suppose, and that

12 is that -- I mean, as -- as you're all aware, I'm

13 sure, you know, the Review Board gets called into

14 action rather rarely. And so, you know, the last

15 review I think was Kunek, a lease, right, for reindeer

16 or something like that, some other . . . Anyway, it

17 didn't involve bridges.

18 My -- my point is just this. That, you

19 know, it would help, you know, for those of you that

20 are anticipating the writing of technical submissions

21 to the Board, particularly for the regulators, DFO

22 being one (1), where, you know, there have been some

23 questions.

24 I mean, some -- the information is

25 coming in as we're going and it's difficult for

1 everyone, but it's difficult for the Board too to
2 actually see, you know, the trees emerge from this
3 forest and bad -- bad choice of terms given where we
4 are, but anyway, I'll -- I'll think of a better
5 metaphor for this afternoon.

6 But the, you know, the issue is that
7 the Board would benefit from some sense of the things
8 that you will, through your regulatory instruments
9 require be monitored, because if you're issuing a
10 Fisheries' authorization, or you're issuing a land use
11 permit or a water licence, you know, water licences
12 don't get issued without aquatic effects monitoring
13 programs. They usually don't, or at least, you know,
14 a -- an SMP attached to them.

15 And so, you know, there are some things
16 that are sort of standard practice from the regulatory
17 standpoint that you pretty much don't -- don't issue a
18 permit, licence, or authorization without having that
19 in it.

20 And it would help the Board quite a bit
21 to know what those things are and what those terms and
22 conditions will require. For the simple reason that
23 then the Board doesn't have to go there in terms of a
24 -- of a report.

25 So anyway, I -- I -- I didn't mean to

1 hijack this on you, but go back to it, Derek.

2 I think Amanda had her -- her fin --
3 her hand up.

4 MR. GORDON STEWART: Gordon Stewart.
5 I just had one (1) question for Robyn. You'd
6 mentioned designed mitigations that you're developing.
7 Are -- are those something that we would see before
8 the public hearings?

9 MS. ROBYN MCGREGOR: I think you can
10 understand -- it's Robyn McGregor here. I think you
11 can understand that you have seen design mitigations
12 all the way along through the process.

13 From an engineering perspective, design
14 mitigations are -- are things such as Walter presented
15 earlier in the day about which type of crossing to use
16 where, the discussion of -- of noise abatement, dust
17 control, all of those things built into the process
18 and the plans for construction that you have seen so
19 far, we would include as design mitigations.

20 The route alignment itself, the
21 decisions we have made in the placement of the
22 alignment to date, the decisions that -- that we will
23 be making in the future for the refinement and the
24 optimization of the alignment relative to the terrain
25 work that has been undertaken this summer, those would

1 be design mitigations.

2 So you are -- you are seeing them all
3 the way along.

4 MR. BRIAN ZYTARUK: Brian Zytaruk from
5 FJMC. This is more of an observation. Traditionally
6 when an EIS is filed, you have truly a conceptual
7 design, because changes do occur in these -- the --
8 particularly in -- in this type of a -- a project, but
9 normally you would file your mitigation measures, even
10 at a conceptual level.

11 We would normally, in this type of a
12 linear development, have at least the central line
13 survey. Much of the information the proponent is pro
14 -- promising to deliver to us is normally part of the
15 EIS.

16 So in my opinion, right now we've got a
17 lot of catching up to do.

18 MR. GAVIN MORE: I wouldn't mind
19 making a comment there. This is Gavin More. I've --
20 that's not actually quite right. The MGP, for
21 example, had no centre line. The legal definition of
22 environmental assessment is sufficient information to
23 make decisions before things are irreversible.

24 And that idea of having centre line
25 before going through the discussions about the issues

1 is actually not quite right. The typical, though, is
2 that the Board then takes a look at what the
3 commitments are for the processing, both through
4 regulatory and other stages.

5 But to have centre lines at this stage
6 is not necessarily absolute. The key here is you
7 have, just like MGP, a local study area that tells you
8 the most so you can see what's going on within that
9 area and then there will be some switching around of
10 the centre line as things progress.

11 MS. ROBYN MCGREGOR: Hi. It's Robyn
12 McGregor again. At the time that the Project
13 Description Report was filed and subsequently the
14 information that was utilized to create the
15 environmental impact statement, a preliminary design
16 was complete, even for the alternatives for the
17 alignment that were considered at the time.

18 A centre line was available. We did
19 not need to wait until the LiDAR survey was done to
20 have topographic information and a centre line
21 available. We used the available 2 metre contour data
22 that was available at the time to produce that.

23 The only thing that was not published
24 in the EIS was plan and profile sheets for 137 1/2
25 kilometres of highway. Had those been requested they

1 -- in the terms of reference, they would have been
2 included in the EIS. So the centre line for the
3 preliminary design for all of the alternatives
4 considered is available.

5 And there are some questions later on
6 today that ask specifically when the updated or the --
7 the existing ground will be -- the existing ground
8 profile, if -- available from the new LiDAR data, and
9 we'll be answering that in due course on the agenda.

10 THE FACILITATOR: It's John Donihee.
11 I think -- you know, there's -- again, we're back into
12 one of those discussions, I think, where engineers --
13 I accept what you say, but it does seem sim -- to me,
14 from my observation, that a lot of the environmental
15 information and the -- the issues -- questions that
16 are being raised about im -- impacts and mitigation
17 and plans and things like that are -- are catching up
18 to your engineering information.

19 But anyway, if you feel obliged to
20 respond, please do.

21 MR. DOUG SOLOWAY: It's -- it's Doug
22 Soloway, Transport Canada. With regards to any
23 environmental impact assessment -- it -- just an
24 observation and a comment, if you wish. But -- but to
25 complement Brian's note, any -- any potential

1 significant or adverse ep -- effects have to be
2 mitigated at the EIS stage, and that's one of the
3 principles through -- through the assessment process.

4 So if some issues are brought --
5 because nothing is saying that we can't apply a
6 mitigation that would address it, even though if it's
7 in a general sense. Just a comment.

8 MR. RICK HOOS: Rick Hoos here from
9 the developer's group. Just a general comment also;
10 that's what we have tried to do in the EIS and in the
11 subsequent information that's been collected.

12 A lot of this new information that is
13 being collected is just simply allowing us to refine
14 the design to make it a better design, both from a
15 safety point of view and, for that matter, from an
16 environmental point of view. All the -- any design
17 optimizations, improvements we're making achieve both
18 those objectives.

19 So it just makes for a better case than
20 what we've predicted in the EIS, which was very good.
21 Like, we don't see any significant environmental
22 issues that can't be managed as a result of this
23 project being implemented. But it is going to require
24 a lot of help from other people, as well as the
25 developer.

1 MR. DOUG SOLOWAY: Doug Soloway,
2 Transport Canada. True. And -- and we rel -- realize
3 you're working towards interim design drawings and
4 then after that stage, probably final design drawings.
5 And then through to the interim stage, this is where
6 we're working at to address those mitigation-type
7 issues. That's understood as standard construction
8 practice, and is also an environmental practice which
9 you're trying employ within that -- which is -- which
10 we have to address.

11 MR. WALTER ORR: Walter Orr here. And
12 I'd just like to clarify, Robyn and I are totally on
13 the same page. And in fact, her -- her 30 percent
14 number -- and I just wanted to clarify a little bit of
15 that, that doesn't mean we're only 30 percent sure,
16 okay.

17 What -- what that engineer design on --
18 on things like bridges and on roadways is a long, time
19 consuming process, and you -- you spend a lot of time
20 on things. The actual final elevation to -- to nail
21 it down is not plus or minus. Right now, it's plus or
22 minus here, we're trying to nail it down to that. Do
23 we need this elevation or -- or another one?

24 And to get to that, because it's
25 optimization to save cost to make -- improve safety,

1 to all -- do all of those things, there's a tremendous
2 amount of -- of manpower goes into all of that. And
3 the fact that where we're at right now, this road
4 could be built at -- with the design that's presented
5 in the EIS that -- the bridge designs are not
6 complete, but the roadway itself is complete.

7 The final design will be better because
8 of all this manpower, this en -- this time and energy
9 put into it. The same thing with the bridges; the
10 bridges, there's an enormous amount of detailing work
11 to establish sizes, to establish all of these items
12 that require to be a safe project.

13 The 30 percent is a level of the number
14 of man hours that have been expended to date versus
15 how many will totally be expended. It's not at all an
16 -- an indication that we're not sure what we're --
17 that what we're going to be doing is the appropriate
18 thing.

19 We are comfortable with the route we've
20 chosen. There will be fine-tuning adjustments. There
21 will be optimizations. And there will be just a lot
22 of energy that's going to be spent in -- in all of the
23 -- the studies that go on between now and the time we
24 put a -- a shovel into the pit to take the first
25 borrow sour -- borrow out.

1 So there is -- I want everyone to be
2 clear that we're not expressing a, Oh, we haven't done
3 the things we need to do to this point. Absolutely, I
4 believe we have. And we've -- and we're endeavouring
5 to allow you to -- to have -- share that same opinion.

6 MR. DOUG SOLOWAY: Doug Soloway,
7 Transport Canada. Yes, I think we -- we appreciate
8 that. And I think as a working group, that's what
9 we're working towards, to help you and assist you and
10 address the -- the regulatory concerns as well as the
11 technical concerns, the public concerns, the First
12 Nation concerns, which is an enormous task. Let's
13 face it.

14 It's something that's going to be, you
15 know, you can build it as big as you want. But yes,
16 we realize that and it -- all it is to -- for us to
17 work towards a -- a common understanding and agreement
18 towards the interim, with the intent of going to final
19 and -- and having something satisfactory that's going
20 to be serviceable to everybody. Thank you.

21 THE FACILITATOR: Frank Pokiak wanted
22 to say something.

23 MR. FRANK POKIAK: Yeah, thanks. My
24 name is Frank Pokiak. I'm -- I'm the chair for the
25 Inuvialuit Game Council. Since we're talking about

1 stream crossings and that, you know, we had a problem
2 with a stream crossing in Source 177, where a culvert
3 was put in. And that's our main source of where the
4 fish come out into the harbour.

5 And last year it was observed that the
6 culvert lifted up, so the fish couldn't actually go
7 back up the -- up the stream. And apparently -- I
8 think this -- this question is more to -- to DFO, I
9 guess, if they're here.

10 The issue was brought up with them, and
11 apparently they put a -- I think they thought that
12 maybe whitefishes like, what they call those strong
13 fish that go upstream with a fish ladder? So they
14 actually built a fish ladder to see if they can
15 actually go up. But I don't think that worked.

16 So how are they going to assure us that
17 this don't happen in between all the stream crossings
18 that are going to be built? You know, like, that's a
19 problem. That's a concern that we would have, because
20 we already see it as a concern with just one (1) tiny
21 stream. Like, not a stream crossing, but it's just
22 like a -- the main source of where all the fish come
23 out of, you know.

24 So how -- how will that, you know, if
25 it does happen, how will it be fixed? You know, I

1 think they never really dealt with that -- that
2 culvert in time, you know, for the fish to go back
3 into the lakes last year.

4 So if that continues, you know, it's
5 going to really affect us big time and for harvesting
6 whitefish. Thank you, John.

7 MS. AMANDA JOYNT: Amanda Joynt with
8 DFO. Okay, so that was a -- a few things to talk
9 about here. So with regards to that culvert, that was
10 the culvert I spoke about before.

11 And so one (1) of the solutions is
12 actually doing consultation with the communities and
13 allowing that consultation to be a part of the
14 selection criteria on what type of crossing is going
15 to be put in on those types of steams.

16 The second thing is that we have
17 already talked about and will be talking about
18 tomorrow, that Lessons Learned document that DFO has
19 asked for with regards to what lessons were learned
20 with the Tuk 177 Road, with regards to fish and fish
21 habitat and the crossings.

22 And the third thing is that we did
23 actually require fish passage and the fish last year
24 were -- they did get up, we did double-check that they
25 were through the -- through the culvert. And, yes, it

1 was a very temporary solution. It was a very -- it
2 was basically a long piece of -- of culvert that was
3 put into the water body into the pool so that they
4 could get up. But it was fixed this winter.

5 So when I get up to Tuk in September,
6 I'm going to go and -- and monitor that. So it was --
7 it was supposedly replaced.

8 MR. WALTER ORR: Walter Orr here, from
9 Kavik-Stantec for the developer team. The -- as
10 Amanda has alluded to, there is a -- a Lessons Learned
11 document that we'll be discussing. And that certainly
12 discusses some of these things.

13 And the -- any crossings, whether it's
14 utilizing culverts, whether it's using -- utilizing
15 short-span bridges or any -- they -- they have to be
16 done to best practice. And our intention for this
17 road is to be done to best practice. There are
18 specifics with the 177 Road that we address in the --
19 in the Lessons Learned document that will not be
20 applicable to this regardless, in terms of the -- the
21 timing, the -- the information available prior to the
22 start of construction, things like that.

23 And there -- and I would also note that
24 with any crossings, there are maintenance
25 requirements. And that will cause challenges as we

1 move along. So the -- the -- when -- if a -- if a
2 crossing settles, that has to be addressed. If it was
3 to jack up and perch something, that has to be
4 addressed.

5 You -- any design approach you do is --
6 is to do the -- the best possible mitigation be -- at
7 the design level and the construction level. And then
8 -- and then you work and maintain things to keep them
9 working properly, so.

10 MR. FRANK POKIAK: Thanks. Frank
11 Pokiak, with Inuvialuit Game Council. I know -- I
12 know it's a temporary fix but, you know, I think where
13 our concern is, if you're going to do the job, do it
14 properly so you don't have to continue going back and
15 forth to fix the problem, because it could affect us
16 big time, you know.

17 Like if we miss a year of fishing
18 because of fish that can't go back upstream, you know,
19 or down, you know, you have to understand that it just
20 takes one (1) time to -- you know, for fish not to
21 come, and we may lose a season for harvesting.

22 So all I'm trying to say, I guess, is
23 do it properly. I -- I don't want to see you go back
24 every year to go fix a culvert, or every second year.
25 So any stream crossings, you should make sure that --

1 that they're done properly. Thank you very much.

2 THE FACILITATOR: I think we've just
3 kind of automatically moved into fish and fish
4 habitat, which is the next issue on the agenda
5 anyways. Thank you, Frank. So we're back. I just
6 want to be clear then. With Transport Canada we had
7 an issue there about the timing of your applications.
8 I believe that's been dealt with. All right.

9 And I -- I think from the standpoint of
10 EIRB, we're probably satisfied with the discussion of
11 this water quantity/hydrology kind of thing. So let -
12 - let's move on in then and talk about the -- the fish
13 and fish habitat issues.

14 We've got some of the Tuk-Inuvik
15 working group's material on -- on the table, but,
16 please, if you have more that you want to add, why
17 don't you lead off for us, Derek.

18

19 FISH AND FISH HABITAT DISCUSSION:

20 MR. DEREK PARKS: Derek Parks. I
21 think most of the stuff -- I mean, we've addressed the
22 four (4) for our stream crossings. I think the other
23 items on this list will be addressed throughout the
24 day. So I'd ask DFO to run through with the fish
25 habitat stuff and we'll support where we can. Thanks.

1 MR. SARAH OLIVIER: Sarah Olivier with
2 DFO. Before we move into fish and fish habitat
3 questions I just wanted to, I guess, point out, since
4 it came up in Walter's last response, about the
5 Lessons Learned document.

6 And I guess we would be interested in
7 knowing what the time frame for submitting that would
8 be.

9 MR. WALTER ORR: Walter Orr here. The
10 -- there -- we have a document, a slide show, on
11 lessons learned from Tuk 177. And also, in fact,
12 lessons learned we're prepared to present tomorrow
13 when we discuss that. It's -- and so I think we'd
14 probably defer that to that point.

15 THE FACILITATOR: John Donihee. Just
16 -- just ha -- have we seen the material? I mean, I'm
17 -- I'm happy -- it's just that I -- I'm not sure I
18 want to -- I'd like to look at or know how much
19 material there is there before I say we're going to
20 find a slot in the agenda, because if it's an hour's
21 worth of presentation time, we probably don't have
22 that kind of time.

23 MR. RICK HOOS: Rick -- Rich Hoos
24 here, from the developer group. John, I'm sorry I
25 didn't pass it on to you. But I did talk to Eli

1 before the meeting started today just to indicate that
2 we had about four (4) little PowerPoint presentations
3 or -- or information bits, and -- and we're talking
4 four (4) to six (6) slides per. And they were just --
5 we -- we developed them in case it would seem to be
6 helpful to put some stuff on the screen to support
7 answering any number of questions related to a
8 particular topic.

9 And the Lessons Learned one (1) was one
10 (1) that we thought was rather important. And -- and
11 we're pleased to say that that little presentation
12 covers more than just the Tuk 177 road, yeah.

13 THE FACILITATOR: John Donihee. Tha -
14 - thanks, Rick. I -- is that the Lessons Learned
15 Report or is that --

16 MR. RICK HOOS: No.

17 THE FACILITATOR: -- a slide show that
18 gives us the nuggets?

19 MR. RICK HOOS: Rick Hoos, the
20 developer group. It -- it's the nuggets, it's the
21 latter. Yes, just the highlights of it.

22 THE FACILITATOR: Thank you. John
23 Donihee. Then just to go back to the question from
24 DFO then, I guess.

25 When -- can we anticipate that the

1 Lessons Learned Report will be filed in time for the
2 Intervenor to absorb what you have to say and reflect
3 that then in their submissions to the Board?

4 MR. WALTER ORR: Okay. Just -- the
5 reason I'm not answering -- this is Walter Orr here.

6 The reason I'm not answering quickly is
7 that when you say a "lesson learned report" that could
8 mean anything from -- from one (1) page of comments to
9 a hundred pages of -- of write-up. And I'm just --
10 I'm not sure what the directive -- that the directive
11 that we have -- we -- we've been directed to respond
12 with Lessons Learned.

13 And we put to -- put some points on
14 Lessons Learned and so just, I guess, the terminology
15 in the report -- term "report" is giving me a little
16 bit of a pause before I can say, Yes, in fact, this is
17 when we're going to file such a report.

18 THE FACILITATOR: John Donihee.

19 I understand your -- your concern and --
20 -- and it's a fair -- fair point to make. But I think
21 "Lessons Learned Report" is your language, not ours.
22 And regardless, I -- I'm quite open to the idea that,
23 you know, have a chat with DFO and any of the other
24 Intervenor here; FJMC, and Tuk-Inuvik working group,
25 you know, give them some sense of what you have.

1 And we certainly can talk this
2 afternoon about whether that makes people happy or
3 sad. And, you know, then let's -- let's -- and then
4 come back and we can put something on the record here
5 about what exactly it is that is fair and reasonable
6 for you to pro -- provide to all of us so that, you
7 know, we can be sure that the Board has the benefits
8 of this information when -- when it comes down -- time
9 to make a decision.

10 Does -- does that work for you? Is --
11 are we -- can we just put this question of what the
12 report is over until after the lunch hour? You chat
13 with DFO and -- and some of the other Intervenors and,
14 you know, the last person standing can tell us what
15 you're going to do.

16 MR. WALTER ORR: Walter Orr here.
17 Yeah, I would agree with that.

18 THE FACILITATOR: That still leaves us
19 with DFO, right? Fish and fish habitat.

20 MS. AMANDA JOYNT: Okay, Amanda Joynt
21 with DFO.

22 So it says:

23 "Issues raised by DFO..."

24 And it's pretty generic on fish and
25 fish habitats so I'll reiterate the need for the fish

1 habitat assessment to be done as soon as possible so
2 that we can -- we can do our assessment. And that is,
3 essentially, that that final list of all the crossings
4 and the inclusion of the latest Fisheries'
5 Information.

6 It also says, with regards to short and
7 long-term management of fisheries resources. And it
8 says:

9 "Within our submission to the ERIB
10 that DFO will provide information on
11 the initiatives that DFO is involved
12 in for fisheries management along
13 the corridor."

14 So I'll just review those. And -- but
15 before I do that, I'll clarify that there's this been
16 -- there's been this term called an "action plan"
17 that's been provided by the proponent in some of the
18 responses to the Information Requests.

19 And so we just wanted to clarify that
20 we talked in our meeting a couple of weeks ago and
21 it's not necessary for an action plan to be required
22 from the proponent. It's DFO's mandate to manage
23 fisheries resources and we're well aware of that and
24 quite willing to do that.

25 But what we are asking for from the

1 proponent is ways that they, as DOT, can participate
2 with our initiatives; so, it might be signage, it
3 might be other things that DOT does well.

4 So just to now go into what DFO has
5 been doing. For the past two (2) years now DFO has
6 been working with the HTC's of both Inuvik and Tuk and
7 called the Tuk-Inuvik working group to figure out how
8 to manage the Fisheries' resources along the corridor.
9 And that was brought about by a suggestion within
10 DFO's letter of advice for the Tuk-Inuvik -- or, the
11 Tuk 177 road to create a management initiative that's
12 community driven.

13 So that group was created, it's -- DFO
14 sits on it as an observer. And the two (2) HTC's are
15 the voting members and they also Chair it. So they
16 are the ones who are coming up with the ideas of how
17 the two (2) communities are going to manage the
18 fisheries resources along the corridor. And so that
19 is where the interface can be between DOT and that
20 group to participate as a component. Okay.

21 DR. PETR KOMERS: Petr Komers. Just -
22 - I wonder if I may ask for clarification from DFO.
23 You just mentioned that you need an assessment. Can
24 you give us a sense of how much work is needed, how
25 long that might take?

1 What -- how confident are you that you
2 will receive the required information by any given
3 time and milestone?

4 MS. AMANDA JOYNT: Well -- Amanda
5 Joynt, with DFO. That's the easy part. I'm -- I'm
6 confident I'm going to eventually get the information.
7 What's -- what the difficult part is, is being able to
8 put it all together.

9 So as I've said before, I've been
10 receiving information kind of piecemeal. And so what
11 I'm looking for is that one (1) table, that one (1)
12 report that says, Here is our fish habitat assessment
13 and these are the impacts.

14 And that's why we were asking for those
15 scenarios, because we -- we know that, okay, there
16 might be ten (10) bridges, there might be this many
17 medium crossing, this many minor crossings. But I
18 haven't yet received, With this many crossings here's
19 our impacts, here's how we're going to mitigate them,
20 here's our residual impacts.

21 And so that was my main message in that
22 meeting two (2) weeks ago of what I need. So does
23 that help?

24 DR. PETR KOMERS: Petr Komers. The --
25 could you give us a sense of how long you think that

1 might take until you get that information?

2 MS. AMANDA JOYNT: Maybe the proponent
3 can answer that question a little better than...

4 MR. WALTER ORR: Walter Orr here.
5 Now, a number of the things you're asking for are
6 going to be included in this hydrotechnical study that
7 we're completing right now. And as I said earlier,
8 the -- the combined master list incorporated in the
9 fisheries -- fisheries assessments as they currently
10 stand, together with the -- the hydrotechnical list,
11 the current -- the final naming convention and
12 locations as -- as we currently have them will be
13 provided shortly.

14 And in fact, I'm -- that will not wait
15 until the -- the publication of the final report.
16 That won't -- we will issue that separately as soon as
17 that is done, and -- and I would anticipate that
18 before the end of this month.

19 MS. AMANDA JOYNT: Sorry, when you --
20 Amanda Joynt, with DFO. When you say final report
21 versus the other data, can you clarify what that
22 means?

23 MR. WALTER ORR: Walter Orr here. The
24 -- we have committed to -- to a -- the final hydro --
25 hydrotechnical report to be issued to DOT by the end

1 of September of this -- this month.

2 MS. AMANDA JOYNT: Okay. So Amanda
3 Joynt, with DFO. It's -- I just want to clarify to
4 the Board that it's difficult for me to do a technical
5 assessment and to give that to the Board without that
6 information.

7 So it will likely have to wait until
8 after I get that information.

9 MR. WALTER ORR: Walter Orr here. The
10 intent of the submission -- of the provision of the
11 interim document was to allow the -- what information
12 there was available to be initiated and -- and get
13 into the hands of our -- your technical reviewers.

14 And -- and specifically the -- the
15 concern that DFO has re -- expressed with the -- the
16 master table of crossings fisheries information, we do
17 commit to providing that by the end of August.

18 MS. AMANDA JOYNT: Amanda Joynt with
19 DFO. Does that include the scenarios as well? The
20 crossing scenarios, sorry.

21 MR. WALTER ORR: That does include the
22 major -- the crossing -- major/minor bridge crossings
23 breakdown, yes.

24 MS. AMANDA JOYNT: And those scenarios
25 will include the mitigation measures too?

1 MR. WALTER ORR: Some of the -- some
2 of the things DFO is asking for in terms of the -- I
3 forget the term -- the proper term to use, but in
4 terms of the impacted areas and things is not going to
5 be available at this level of -- of assessment.

6 It's a -- that is a -- I would call it
7 a -- a step in the process of detailed design, that
8 we're beyond that -- we're not to that level of -- of
9 -- of design at this point.

10 MS. AMANDA JOYNT: Okay. So maybe --
11 it's Amanda Joynt with DFO. Maybe we're getting a
12 little confused about what level of information we're
13 asking for.

14 So when I talk about a scenario, I'm
15 talking about that specific scenario of, Here's the
16 type of crossing that we're going to be using.
17 There's going to be this many of those types of
18 crossings -- possibly, maybe ten (10) to twelve (12) -
19 - these are the types of mitigations we're going to be
20 using for those crossings, here's the residual
21 impacts.

22 MR. WALTER ORR: Walter Orr here.
23 Yes, that -- that information is available -- will be
24 available.

25 THE FACILITATOR: John Donihee. We're

1 having grins from DFO now, is that...

2 MS. AMANDA JOYNT: As long as it's
3 clear that until I get that information, I can't
4 provide you with a technical submission, because I
5 can't do the assessment, so.

6 THE FACILITATOR: That, we know.

7 DR. PETR KOMERS: Just -- sorry for
8 our confusion, but we're scratching our heads here.
9 Petr Komers. Will you be receiving, or maybe the
10 developer can answer that, the information that DFO
11 requires for their assessments and permitting by the
12 end of August or by the end of September?

13 MS. AMANDA JOYNT: Okay. So Amanda
14 Joynt with DFO. I will be re -- well, hoping to
15 receive the information for the assessment, not the
16 regulatory phase. Yeah.

17 MR. RICK HOOS: Rick Hoos here, from
18 the developer group. The one (1) point I simply
19 wanted to make is that a key consideration for what
20 kind of stream crossing will be employed at which
21 stream is in relation to the Fisheries values of the
22 stream.

23 And the bridges, whether they be longer
24 bridges -- we -- we've talked about ten (10) of them -
25 - or perhaps some shorter ones in some places, are

1 primarily intended to ensure that fish and fish
2 habitat are protected. And that is the basic
3 criterion, or one (1) of the key criteria, for making
4 those decisions.

5 So when we're proposing bridges,
6 whether they be longer or shorter, they are -- they
7 are to ensure that fish and fish habitat are
8 adequately protected.

9 MS. MEGHAN BIRNIE: Meghan Birnie.
10 Amanda, a question building on Frank's earlier
11 comments about harvesting. When you receive the fish
12 assessment, will you be evaluating that in your work
13 with the Tuk-Inuvik working group, in light of
14 harvesting potential? So weighing those significance
15 impacts against harvesting impacts?

16 MS. AMANDA JOYNT: And that was why I
17 asked the ques -- it's Amanda Joynt with DFO. That
18 was why I asked the question of whether or not the
19 selection criteria included Aboriginal consultation
20 with regards to subsistence harvesting.

21 Yeah, so I can only assess it from a --
22 a certain level and it really requires going outside
23 of DFO, going to the FJMC and going to the communities
24 to assess those impacts.

25 MS. MEGHAN BIRNIE: Will the developer

1 be doing any of that in its work in the fish
2 assessment that will be submitted? And -- or -- or is
3 that something that the Tuk-Inuvik working group --
4 well, can undertake?

5 MR. RICK HOOS: Rick Hoos, for the
6 developer. I'm not quite 100 percent clear on the
7 question you're asking.

8 MS. MEGHAN BIRNIE: The question -- my
9 question to Amanda was that, when she receives the
10 fish -- Meghan Birnie, sorry. When she receives the
11 fish assessment, in her work in -- in the work that
12 the Tuk-Inuvik working group does, will it look at the
13 impacts as you predicted them to be on fish and weigh
14 those against impacts on harvesting?

15 Because a -- an impact that may be
16 deemed to be insignificant to Fisheries could be
17 significant in -- in terms of harvesting potential.
18 So I was wondering if that work was going to be
19 undertaken in her review of it, with the Tuk-Inuvik
20 working group. But, if I understand correctly, she's
21 replied she can't really do that on her own. She
22 needs that community consultation work to be done in
23 order to weigh those.

24 So I'm wondering now if that's
25 something that will be done in your work with the --

1 in the fish assessment that you submit to her. Will
2 that include community -- some consultation with the
3 community on what you've predicted to be the impacts?

4 MR. RICK HOOS: Sorry, I -- I -- Rick
5 Hoos. I left my machine on, sorry. Anyway, I think
6 this is a question that we should hold off responding
7 to until Jim Stevens from DOT comes this afternoon,
8 because this is a -- a commitment related to DOT's
9 willingness and -- and commitment to consult on all
10 the -- the proposed stream crossings. I -- I'm -- I
11 suspect the answer will obviously, likely be yes, but
12 I -- I would be reluctant to assume that until we hear
13 from them.

14 But, you know, the stream crossings
15 themselves, they have been presented in the EIS,
16 they've been monitored. They're still the same
17 streams that are being crossed. Perhaps the
18 location's slightly different. The stream crossing --
19 crossing methods are being refined, and they'll be
20 presented in the -- in the list that's presented or
21 that's going to be provided shortly.

22 This information will be carried
23 forward into the hearings. Those are further
24 opportunities for dialogue between parties as to
25 whether a particular stream crossing is of particular

1 interest and concern from a harvesting perspective.

2 So there will be other opportunities to
3 -- you know, to discuss community concerns. Frank
4 mentioned that one (1) particular stream which clearly
5 was of great concern to the community of Tuk. We
6 would like to hear of any other streams that either
7 the community of Tuk or Inuvik have concerns about
8 that we can factor into what's currently going on.
9 Thank you.

10 THE FACILITATOR: Okay. John Donihee.
11 Thanks. Thank you, Rick. We can wait till Jim comes
12 back, and we'll raise that question again. That
13 leaves that one deferred, plus a question of what the
14 report, I guess, on the Lessons Learned Report really
15 is going to include that can be talked about at
16 lunchtime.

17 It's -- it's noon. I said we'd break
18 at noon, so let's do that. Back at 1:30 sharp,
19 please. I do want those of you that are interested in
20 wildlife that walks instead of swims to -- to be aware
21 that, if we can work our way through the agenda today
22 and it's not five o'clock, I'm just to keep on going.
23 So, you know, let's -- let's try to get through all
24 this as effectively as we can.

25 We'll see you at 1:30. Thank you.

1 --- Upon recessing at 12:01 p.m.

2 --- Upon resuming at 1:35 p.m.

3

4 THE FACILITATOR: Good afternoon.

5 We're going to resume where we left off. The one
6 thing that I -- I just want to be sure of though was
7 some thought that -- hope, I guess, that -- that
8 there'd be a conversation over lunchtime about this
9 report, 177 Lessons Learned.

10 I just want to know if -- if it took
11 place. And I guess if -- if there is going to be some
12 consensus on what the contents might be whether you
13 could just let us know, for the record, so that the
14 Board knows what to expect might be filed and -- and
15 when.

16 MS. AMANDA JOYNT: Amanda Joynt with
17 DFO. There was no formal meeting. There was a small
18 discussion just offline with regards to what we had
19 reiterated in the meeting two (2) weeks ago and -- and
20 had done so as well in our Information Requests.

21 We did bring up the idea that the Tuk
22 177 Lessons Learned document or report or whatever it
23 is, is a good idea in general. And that from DFO's
24 perspective we would like a Lessons Learned on the
25 crossing specifically. So I think it's something that

1 we should continue to talk about tomorrow on the
2 agenda.

3 THE FACILITATOR: John Donihee. Thank
4 you. Rick, there's a directive there, I guess, as
5 well that's -- we're anticipating some kind of filing.

6 Are we -- has it been clarified from
7 the standpoint of the developer's team, I guess, as to
8 -- as to what you might be producing?

9 MR. WALTER ORR: Walter Orr here.
10 I'll speak to the -- speak to that.

11 What -- we have a presentation to
12 respond to that now. And this -- that's -- the -- the
13 reason for the discomfort this morning was with the
14 term "report". And in fact, we are responding to the
15 -- the July 31st . -- .3.

16 "The Review Board is expecting a
17 presentation on the Lessons Learned
18 from experience on the Tuk -- Source
19 177 Road and the Dempster Highway with
20 respect to aggregate use and
21 construction rehabilitation.

22 The Lessons Learned have been mentioned
23 to the developer in response to several
24 IRs."

25 And then the Fisheries and Oceans

1 Lessons Learned from Tuk to granular Source 177:

2 "Further clarification regarding some
3 of the challenges and lessons learned
4 from the project and how it will be
5 applied for the construction of
6 crossings for this proposed project."

7 So we do have a presentation, it's
8 sixteen (16) points and we are -- we are prepared to
9 present that to the -- to the hear -- to this session
10 today or tomorrow, whenever makes sense. It is not a
11 report, and that's where the -- the challenge came
12 from.

13 THE FACILITATOR: John Donihee. Thank
14 -- thank you. Let -- let's hear it tomorrow. I think
15 we want Dr. Burn to be here as well, I think, when --
16 when you present it.

17 And at that point then, you know, the
18 parties -- the other Intervenor who hear it, if they
19 have questions they can -- we'll deal with the
20 questions at the time. And if there's a need for any
21 kind of follow-up beyond that, we'll see what happens
22 tomorrow, okay. Thank you.

23 So we were -- I'm not sure if we were
24 finished with fish and fish habitat. I don't want to
25 cut that conversation off if there's -- there's more

1 that can productively be said about it. So I -- I
2 just want to come back to that point on -- on the
3 agenda, that's number 9, and make sure that the people
4 may have had an opportunity to think about what they
5 didn't say, you know, this morning while they were
6 having lunch. If -- so if you want to -- if there's
7 anything more to be raised about that particular issue
8 now is the time.

9 MS. AMANDA JOYNT: Amanda Joynt with
10 DFO. I think most of our issues have been dealt with.
11 I just spoke to Rick offline with regards to
12 consultations. So I'll just say again, that I think
13 it's a good idea that the selection criteria for the
14 crossings include consultation with the communities
15 with regards to the crossings they find important for
16 subsistence harvesting, and that should be included
17 when the decision of what type of crossing to create.

18 MR. DOUG SOLOWAY: Doug -- Doug
19 Soloway, Transport Canada. We would also endorse that
20 and probably ask that to be included with regards to
21 the -- the uses of the water bodies, the type of
22 vessels, as well.

23 THE FACILITATOR: Anything further on
24 this particular issue from the Tuk-Inuvit -- Inuvik
25 working group? John Donihee, thank you.

1 Okay. I think we'll still deal with
2 the birds and habitat in the wildlife context, broader
3 wildlife context. Let's move on to vegetation then,
4 and we'll see if there's anything that needs to be
5 raised about vegetation. We -- as I said this
6 morning, I'm -- I think it's worth -- and we will get
7 to wildli -- start -- start the wildlife discussion
8 this afternoon. But vegetation first.

9

10 VEGETATION DISCUSSION:

11 DR. PETR KOMERS: Petr Komers. We do
12 have some somewhat specific questions regarding
13 vegetation. I don't recall any particular IRs from
14 any other parties, but feel free to remind us if you
15 do have any from the wildlife habitat point of view,
16 if you wish.

17 In particular, if I may raise this
18 issue, is -- is on the rare plants. And I wonder if
19 the developer can give us some new insights as to what
20 has happened with the plans for mitigating effects on
21 rare plants.

22 MS. ERICA BONHOMME: Erica Bonhomme,
23 Kavic-Stantec. I will just preface that question with
24 some information about work that's done this summer,
25 that was completed this summer, regarding rare plant

1 surveys.

2 So there were rare plant survey -- a
3 vegetation verification survey and rare plant surveys
4 completed this summer. And there was one occurrence
5 of -- one location where Yukon stitchwort was
6 identified at Borrow Source 173-305. The experience
7 of our biologist says one of the -- likely the best
8 mitigation for that particular species is avoidance
9 altogether. It does occur at the very edge of that
10 borrow source.

11 So in discussions with ENR, I would
12 suspect that that would be, probably, the preferred
13 mitigation that would be recommended, but we've not
14 had that discussion with ENR yet.

15 DR. PETR KOMERS: Petr Komers. Thanks
16 very much for the clarification. That's very helpful.

17 We were also talking about the dust
18 issue. And that's -- that's the sort of issue that
19 needs to be considered in terms of effects on
20 vegetation, because dust might affect vegetation
21 health, which in turn might affect habitat
22 effectiveness.

23 I wonder if the developer can clarify
24 some of the baselines they have and how that might
25 feed into future effects monitoring on the health of

1 vegetation in the vicinity of the road.

2 MR. RICK HOOS: Rick Hoos, part of the
3 developer group. We're just looking up some of that
4 information right now in the EIS.

5 THE FACILITATOR: John Donihee. Sure.
6 While -- while you're doing that, I -- I just would
7 make a point, Kayla spoke to me at lunchtime, and I --
8 I do want to make it clear that -- for the folks that,
9 you know, are kind of in the -- in the back row, not -
10 - not sort of at the front here, if you have questions
11 or if you want to say something, as Frank did earlier,
12 please feel free. We have a -- a mobile mic. Just
13 raise your hand, and we'll -- we'll make sure to bring
14 it around to you so that you can participate.

15 And if you really feel that you want to
16 participate in a -- in a major way, we'll make room
17 for you at the table. There's no particular hierarchy
18 going on here. It's just, you know, there's -- so
19 there's -- the -- the idea is that everybody that
20 wants to get some clarification from the developer
21 should -- can -- can do that.

22 John Donihee again. Rick, do you -- do
23 you need a little time to -- to look for that, because
24 we can come back to it. I don't know if there's
25 anything else from -- from Petr.

1 MR. RICK HOOS: Rick Hoos, the
2 developer Group. No, I think we're okay now.

3 I'm used to dealing with mining
4 projects where mining companies sometimes carry --
5 well, they do carry -- they transport either ore or
6 concentrate in trucks and there's always concerns
7 related to potential contamination with chemicals.

8 We do not have that issue here to speak
9 of with -- with the road, the Inuvik/Tuk road because
10 it's -- it's simply for public use and we're not
11 carrying any of those kinds of products on the road.
12 So the issues related to dust and vegetation relate
13 primarily to physical, I'll call it smothering, or
14 blocking off stomata and things like that in the
15 plants.

16 And what we've indicated in the EIS,
17 depending on what literature you look at, road dust
18 has been detected on vegetation by some people and by
19 -- yeah, by some studies in the order of a hundred
20 metres away, to perhaps two hundred (200) metres away,
21 or as far away as about four hundred (400) metres
22 away, depending on which reference you refer to.

23 And we did reference various studies on
24 the common effects of dust on vegetation, they are
25 primarily of a physical nature, although one could

1 conceivably alt -- there could be some alteration of
2 leaf physiology, which I guess goes beyond physical
3 smothering. But basically what we assessed was that
4 the -- the zone of influence, if you will, of dust on
5 vegetation beside the -- the highway was not very
6 large. And particularly recognizing that in the
7 summertime that's when most precipitation events
8 occur, we det -- we -- we assessed that any effects of
9 dust would be of a short-term nature, quite
10 reversible, and so on and so forth.

11 And so we just don't, again, see a
12 terribly significant effect related to dust on
13 vegetation and how it might affect vegetation.

14 MR. PETR KOMERS: Petr Komers. Thanks
15 for that clarification. So I think that what you're
16 saying in light of your assessment of this being
17 essentially a non-issue, is it fair to assume that
18 there will not be any components of vegetation health
19 tracking in the Wildlife Management Program?

20 MR. RICK HOOS: Rick Hoos, the
21 developer Group. We -- we know of no compelling
22 scientific or health related reason for doing any kind
23 of significant monitoring related to dust emissions on
24 -- and effects on vegetation adjacent to the road.

25 And we certainly haven't been asked to

1 do that for other normal road projects that don't have
2 -- that aren't transporting hazardous materials like
3 concentrates and ores and whatnot.

4 MR. PETR KOMERS: Petr Komers. Thanks
5 for that. Just two (2) more questions on vegetation;
6 one (1) related to reclamation.

7 Can you give us some clarification or
8 some indication of what reclamation monitoring plans
9 would look like? Is there any, let's say, targets for
10 reclamation, borrow sites? How do you -- or, how will
11 you evaluate the success of reclamation in the future?

12 MR. RICK HOOS: Rick Hoos, the
13 developer Group. We certainly indicated in the EIS
14 and in subsequent responses that there will be a need
15 to have pit management plans associated with the
16 development of each of the pits required for the
17 highway.

18 Those are specified either by AN --
19 what is now AANDC for Crown lands, and the ILA for
20 Inuvialuit lands. Each of those pit management plans
21 also has a requirement to look at future closure and
22 reclamation of the pits.

23 My recollection of the documentation
24 that we've provided has indicated that to the extent
25 that we can, we would practice progressive reclamation

1 of a -- of a pit. In other words, we're not going to
2 expose the entire pit in the first instance. We're
3 going to be starting at one end of a pit, probably in
4 the area with the greatest quantities of desirable
5 material and -- and work out from that.

6 As a particular part of the pit becomes
7 -- is expired, in terms of source material, that part
8 of the pit can be progressively reclaimed, initially
9 by contouring of the slopes and whatnot. We are
10 limited very much by the almost absence of -- of
11 organic soils, or anything that resembles that, for
12 reclamation.

13 We do also recognize that on the Tuk
14 Peninsula, where this material will come from, a lot
15 of the borrow sites are evident by the fact that they
16 are relatively high and dry areas, often fairly
17 limited in vegetation cover, because they are high and
18 dry. And they attract primarily xeric species of
19 plants that -- that can accommodate dry places.

20 We have indicated that, to some extent,
21 we would be relying on natural revegetation of -- of
22 these sites. But somewhat like growing plants on an
23 esker, it's not the easiest thing to do, because they
24 are very dry. But I believe we've also indicated that
25 if there are some ways of -- of reseeding or -- or

1 whatnot using, of course, indigenous species, if that
2 can at all be accommodated, we will be trying to do
3 that sort of thing.

4 I think the details of -- of future
5 revegetation definitely need more work. But there are
6 limits within which we'll be operating. And to -- to
7 the extent that we can identify measures for enhancing
8 vegetation recovery on progressively reclaimed areas,
9 that will be described in the pit development plans
10 that will be submitted and approved prior to
11 development of any of the pits.

12 DR. PETR KOMERS: Petr Komers. Just
13 one (1) quick follow-up on that -- on your
14 explanation. Can you give us an indication of what,
15 if any, targets for reclamation there are? You were
16 talking of natural revegetation. What do you envision
17 might be the definition of a successful reclamation?
18 Is it the pre-disturbance condition, or is it some
19 form of equivalent capability?

20 Can you give us some indication as to
21 where this might be heading?

22 MR. RICK HOOS: Rick Hoos, Developer
23 group. I am going to put Conrad on notice that I'm
24 going to be asking him for any thoughts that AANDC may
25 have on this, in terms of targets for vegetation

1 recover, if you will, of a -- of a reclaimed area.

2 But we certainly are familiar with
3 reclamation objectives for vegetation cover in -- in
4 oth -- in the same mining areas, again, as an example,
5 or the sides of highways in more southerly areas,
6 where we do try to define percent cover as a basis --
7 percent cover of certain kinds of local species as a -
8 - as a measure for how well the reclamation process is
9 -- is going.

10 But I think it's very premature and
11 difficult to establish those kinds of numbers at this
12 stage, because we do know how challenging it is to try
13 and grow vegetation on, essentially, sand and gravels.
14 And it's -- it's -- as I said before, that's the very
15 reason why, if you fly over the Tuk Peninsula, as we
16 have done and as is still being done, it's quite
17 obvious to see a number of the borrow -- potential
18 borrow sites, because they are fairly bare hills and
19 whatnot, or hillsides. And the reason for that is
20 that only certain kinds of plants can live there. And
21 it takes a long time for them to establish.

22 But I'm sure that we will have
23 considerable dialogue with both AANDC and the ILA as
24 to what can be done, what can be achieved, to try and
25 restore these areas to as close to a natural

1 productive situation as possible.

2 MR. CONRAD BAETZ: Conrad Baetz,
3 Aboriginal Affairs. Rick's correct in a sense that
4 one (1) of the things that we strive for during
5 reclamation of borrow sources, particularly borrow
6 sources that aren't going to be revisited, ones that
7 are a one (1) time use, is -- is to the pre -- to the
8 precursor to the -- to the development in terms of
9 what we strive for, recognizing as well, though, that
10 a lot of this -- the -- the sources that are
11 identified are -- are barren, to some degree.

12 That's one (1) of the reasons they're -
13 - in those instances we'd be, you know, probably
14 looking at slope stability, proper drainage, making
15 sure that, you know, there isn't going to be issues
16 with water ponding, water kwelis (phonetic) -- to some
17 degree aesthetics.

18 Borrow sources that are going to be
19 revisited from year after year shoot for, like I said,
20 some of the progressive reclamation kind of things.

21 DR. PETR KOMERS: Peter Komers.
22 Thanks very much for that clarification, it's very
23 useful. Just another topic on vegetation, and that's
24 the vegetation mapping that you recently sent out.

25 Just quickly, is there any field work

1 that confirms the vegetation mapping? Because you
2 just -- Erica, you talked about field work that has
3 happened this summer. Was -- or can that sort of
4 thing be used for an accuracy assessment of those
5 maps?

6 MS. ERICA BONHOMME: Erica Bonhomme.
7 Yes. So what you have received in the past is a
8 preliminary vegetation report that was accompanied by
9 a file, a data file that would have only been able to
10 be used by people who have GIS. So it was intended to
11 be filed for people who could use it with the
12 appropriate software.

13 We have completed vegetation surveys
14 over the project study area this summer. What the --
15 the purpose of those surveys was to confirm the
16 preliminary vegetation classification and to complete
17 the rare plant survey.

18 So the -- the team visited twenty-five
19 (25) sites where they confirmed the vegetation cover
20 at those locations in respect to the preliminary
21 vegetation that was completed. There were two (2) new
22 vegetation classes identified as a result of that
23 mapping.

24 They're in the forested areas, so the
25 very southern end of the project, very small, small

1 areas. So, substantively, it doesn't change the
2 vegetation, the preliminary vegetation, mapping that
3 was done, but it has eliminated what was previously an
4 unknown class of vegetation.

5 We are in the process of finalizing
6 that report. And the final vegetation maps which will
7 be presented at a 1 to 10,000 scale, so the same scale
8 as the train map was presented at, and we'll be filing
9 that by the 31st.

10 MR. PETR KOMERS: Petra Komers.
11 Thanks very much. That's -- that's it for my
12 questions.

13 THE FACILITATOR: It's John Donihee
14 again. Does anyone else end -- or anyone who isn't at
15 the front table have any -- any questions or concerns
16 that they want to explore with the developer in
17 relation to vegetation?

18 MR. BRUCE HANBIDGE: Don. Bruce
19 Hanbidge.

20 THE FACILITATOR: Sorry, Bruce. Go.

21 MR. BRUCE HANBIDGE: I've got some
22 questions concerning vegetation and dust, but it's not
23 directly relating to the vegetation, so I just wanted
24 -- perhaps I should wait until the -- the wildlife
25 section.

1 THE FACILITATOR: Sure. Let -- let's
2 do it when it makes more sense --

3 MR. BRUCE HANBIDGE: Okay.

4 THE FACILITATOR: -- to you. I don't
5 think Rick and his team are going anywhere. Okay,
6 that's it for vegetation then. We'll --

7 MR. JAMES HODSON: Excuse me. This is
8 --

9 THE FACILITATOR: Oh, I'm sorry.

10 MR. JAMES HODSON: -- James, with
11 Environment Canada. I guess I do have a question. I
12 could bring it up during the wildlife, but it's pretty
13 vegetation-specific. And I was wondering about the
14 studies that were done in Alaska that looked at soil
15 pH and changes to moss cover and lichen cover, those
16 kind of things.

17 Are they applicable to this situation
18 in the Tuk Peninsula? I was just wondering if you had
19 considered those studies and if you're going to look
20 at that in further detail and relate that back to --
21 to the wildlife -- potential impacts to wildlife
22 habitat and forage species and things like that.

23 So, we can bring that up again in the
24 wildlife session if you want, but that was my
25 question. MR. RICK HOOS: Rick Hoos, the

1 developer Group. We were at one (1) point -- we -- we
2 considered the nature of the material that -- the
3 physical characteristics of the material on the Tuk
4 peninsula, which is pri -- primarily till and
5 lacustrian and other sediments.

6 I'm not the geologist, so I better be
7 careful what I say there. But suffice to say, there
8 is -- there's no mineralization that would result in
9 contamination in -- along the route, nor is there any
10 possibility of acid rock drainage developing.

11 So in terms of those kinds of concerns
12 that sometimes arise in connection with some types of
13 road developments in some areas, that they do not
14 apply here. So we're, basically, dealing with very
15 inert dust generated from sands and gravels.

16 They'd like to have more rock than they
17 have for this road, but only a portion of the topping
18 I think might be crushed rock or something, but, yeah.

19 Sorry, and I could add one (1) other
20 thing, and that is that the -- the typical pH of -- of
21 all of the lakes on the Tuk peninsula, they're
22 slightly basic, or alkaline, slightly above 7 pH,
23 which again is a good sign that there's nothing to
24 worry about in the way of ARD or anything of the like.
25 It's alkaline.

1 THE FACILITATOR: It's John Donihee.

2 Does that cover that for you?

3 MR. JAMES HODSON: Yep, that helps.

4 Thanks.

5 THE FACILITATOR: I notice that Mr.

6 Stevens has arrived. Welcome, Jim. You could come up

7 to the front and share the pain with Rick if -- if you

8 want.

9 MR. JIM STEVENS: I was going to wait

10 for the break but...

11

12 (BRIEF PAUSE)

13

14 THE FACILITATOR: It's John -- John

15 Donihee again. Yes, thank you. Welcome. I think

16 there's one (1) more -- one (1) more question here

17 with -- with our group about vegetation matters.

18 MS. MEGHAN BIRNIE: Yeah, I'm just

19 noticing that in the -- Meghan Birnie, in the

20 Traditional Knowledge Report that was filed, the

21 section on vegetation is -- is fairly small, noting

22 that there actually isn't a lot of available

23 information on plants that are traditionally

24 harvested.

25 And I'm wondering if there's going to

1 be, or if there needs to be any follow-up done in
2 relation to that, just to confirm that the results of
3 the assessment actually don't pose a -- an impact on
4 the harvesting of traditional plants.

5 MS. ERICA BONHOMME: Erica Bonhomme.
6 I will start with that question and then I'll invite
7 Michael to fill in if required. So the trad --
8 Traditional Knowledge Traditional Land Use Study had
9 very specific questions that were asked in regards to
10 vegetation and those are included in, I believe it's
11 Appendix A of the report. And they -- they were
12 related to harvesting.

13 So the information in the TKTLU Report
14 does reflect what communities feel are important areas
15 for harvesting. That is a little bit different from
16 the vegetation report itself, which does not focus on
17 areas that are important from a subsistence
18 perspective, but rather important from a community --
19 a plant community perspective.

20 So the -- I would say that, no, there
21 is no further need to do -- collect information about
22 areas where certain plants are used for subsistence
23 and for medicinal purposes.

24 And my -- I'd like -- I'd like to ask
25 Michael to respond in terms of the kind of methodology

1 he used in terms of using maps and things like that to
2 gather the information that was from the TK holders
3 regarding those particular questions that were asked.

4 MR. MICHAEL FABIJAN: Yeah, we had a -
5 - a map that's similar to the one (1) you'd see in the
6 report that's got the -- sorry, Michael Fabijan,
7 that's got a -- the study area in it and the
8 topography of the region and that -- and those are the
9 maps that we used with that.

10 One (1) of the comments that came from
11 the study, I've noticed that people do a lot of
12 harvesting close to their communities and at places
13 that they have access to. And the community commented
14 that there's likely berries and things that they'll
15 collect if the road's open, because there's lots of
16 good places. They just don't know them and they don't
17 access them right now, so.

18 MS. MEGHAN BIRNIE: And because I
19 haven't actually read the vegetation assessment, were
20 there some of those species that -- that people
21 traditionally harvest, were those included in the
22 vegetation assessment? Or how many of those were?
23 Meghan Birnie, sorry.

24 MS. ERICA BONHOMME: Erica Bonhomme.
25 Yes.

1 MR. MICHAEL FABIJAN: Just -- Michael
2 Fabijan, just a comm -- to finish on the berry stuff.

3 The focus on the traditional knowledge
4 work was on edible plants and things that the people
5 were using, like the -- for tea or for actually
6 eating. There wasn't a focus on other plants.

7 MS. MEGHAN BIRNIE: No. Meghan
8 Birnie. In the Traditional Knowledge Assessment, but
9 how many of those, I think Erica just confirmed that
10 all of the ones that were in the traditional knowledge
11 were included in the vegetation assessment?

12 MS. ERICA BONHOMME: Eric Bonhomme. I
13 can't confirm that all of them are in there. So the
14 vegetation assessment, the classes presented in the
15 vegetation assessment are based on vegetation
16 communities. So, ultimately, all of the species that
17 you would expect to find in the tundra upland eco zone
18 are going to be included in one (1) vegetation class
19 or another.

20 They weren't specifically looked for in
21 these vegetation studies, but the classification
22 itself is based on the abundance of vegetation with
23 plant types within each of those communities. So,
24 ultimately, yes, they're all included.

25 So I guess I'm wondering, is there a --

1 something -- is there a specific distribution of
2 plants that you're looking for? Or, I -- I guess, I'm
3 trying to discern a little bit what information you're
4 after.

5 MS. MEGHAN BIRNIE: Meghan Birnie.
6 I'm interested in making sure that the link between
7 the biophysical effects and the impact on harvesting
8 is made. It -- it hasn't been made concretely in the
9 -- and -- and let me preface that by saying, it's --
10 it's not necessarily the job of the -- the traditional
11 knowledge study to go in and look at every single
12 predicted impact in the biophysical assessment and say
13 whether or not it -- it agrees with that -- that
14 aspect of the assessment.

15 But the link still needs to be made
16 between what is the impact on harvesters of those
17 species, and those -- the harvested amounts that
18 they'll have. So even if there isn't a -- an impact
19 predicted, or a -- a not significant impact predicted
20 on vegetation or vegetation communities, that could
21 still have an impact on harvesting of those plants and
22 on harvesters and the harvested amounts.

23 So I'm looking to see if that link has
24 been made and where it may have been made. Because I
25 -- I haven't found it.

1 MS. ERICA BONHOMME: Erica Bonhomme.
2 That's good context. And, actually, the -- what the -
3 - the linkage actually is important with its
4 traditional knowledge, traditional land use report,
5 which the -- the message we heard, very clearly, was
6 that it will increase access to plants that would be
7 harvested -- otherwise harvested closer to the
8 communities, as Michael mentioned.

9 MR. MICHAEL FABIJAN: Michael Fabijan.
10 People are an -- people were anticipating that they
11 would find more of the same along the highway.

12 MS. MEGHAN BIRNIE: Meghan Birnie. So
13 then a question, actually extending that further, and
14 relating to the questions that were passed out this
15 morning, I believe by IGC, does that access --
16 increased access to areas of vegetation need to be
17 managed so that non-beneficiaries aren't berry picking
18 and tourists aren't berry picking? And so that there
19 -- there isn't, kind of, an increased disturbance of
20 those vegetation communities through increased access
21 to those areas by a -- a number of different users,
22 not just harvesters, but recreational users as well?

23 MS. ERICA BONHOMME: Erica Bonhomme.
24 I would suspect that is not a developer's decision to
25 make. It was not something that was brought up during

1 the traditional knowledge workshops as a
2 recommendation to manage harvest, particularly of
3 plants by non-beneficiaries, although that concern was
4 raised with respect to other wildlife species.

5 MR. MICHAEL FABIJAN: Michael Fabijan.
6 There's currently no restrictions on anybody berry
7 picking.

8 MR. RICK HOOS: Rick Hoos here from
9 the developer. I would like to add one (1) other bit
10 of information, which I know we did present in the
11 EIS. Some of us have been going to Tuk since the
12 1970s and have come to know a lot of people in Tuk as
13 a result of that. And we are very aware that many
14 members of the community, if not the entire community,
15 are -- have been looking forward to the increased
16 access to berry-picking areas along the road that --
17 that the presence of the road would provide. And even
18 with the short access road the last couple of winters,
19 everyone's freezers in the community were quite full
20 of berries, as well as some other things.

21 But the importance there is there is
22 about nine hundred and seventy (970), give or take,
23 people living in Tuk. This is about 138-kilometre
24 long road. As Michael has indicated in the past, the
25 only way that people have been able to access the land

1 reasonably in the summertime, south of Tuk, is by boat
2 down -- down the Tuk Harbor to the end of the area
3 called the Gungee (phonetic) area, which happens to be
4 right next to where this road will go. That's where
5 they have traditionally gone for berry picking. In
6 the future, they will be able to pick berries further
7 afield, along the -- the road.

8 It could conceivably become a concern,
9 but unlikely, given the low population of people
10 living in both -- in -- in Tuk in particular, but for
11 that matter, even in In -- Inuvik, I don't think we
12 need to be worrying too much yet about tourists coming
13 up for the purpose of berry picking, but they might
14 choose to do some of that as well.

15 At the end of the day, ILA manages
16 access to the -- to the land. And if -- if a concern
17 does arise about over-picking of the berries that
18 occur in the summer, I guess there may come a time
19 when that needs to be managed. But we don't
20 anticipate that being an issue at the moment. The
21 people of the community view it as a benefit.

22 THE FACILITATOR: It's John Donihee.
23 Anything more on vegetation? Yes, DFO...?

24 MS. AMANDA JOYNT: Oddly enough.
25 Amanda Joynt with DFO. A couple of questions just on

1 -- on how much was vege -- revegetation incorporated
2 into the remediation strategy at water crossings.

3 So will it be active revegetation, or
4 will we rely on natural reve -- revegetation? Is it
5 included in the sediment and con -- erosion control
6 plan as a component of that? And will it be included
7 in the mitigation when you're creating your scenarios?

8 MR. WALTER ORR: Walter Orr here. Can
9 you give me a -- a clarification on that please?
10 Sorry.

11 MS. AMANDA JOYNT: Yeah. So the first
12 question was -- is: How much revegetation is
13 incorporated into the remediation plans for the
14 crossings?

15 So the sediment and erosion control, is
16 it going to be used, and how much has it been
17 considered?

18 MR. WALTER ORR: At the present time,
19 we were -- we have been anticipating doing a similar
20 type of end treatment erosion control as -- as we have
21 carried out previously for the Tuk 177 Road, with
22 erosion mat and together with the placement of -- of
23 riprap.

24 We're certainly open to discussions on
25 -- on specific details of that as we move in --

1 through the design process. But our current
2 anticipation is to be a similar approach to that,
3 which seems to have been working reasonably well.

4 THE FACILITATOR: John Donihee. I'm
5 not going to ask again. Can we move past vegetation?
6 Any more questions on vegetation? I'm -- I will ask
7 again. We're okay? Okay. We'll move on then to the
8 next topic, which is route selection. And our -- I
9 think a little bit of what the Tuk-Inuvik working
10 group has identified -- has talked about this morning,
11 but there's three (3) or four (4) issues there in item
12 number 12 on the agenda.

13 So why don't we move on to those
14 particular issues?

15

16 ROUTE SELECTION DISCUSSION:

17 MR. BRIAN ZYTARUK: Brian Zytaruk from
18 FJMC. I'd like to make a request before I get into
19 questions. This morning, we heard that the alignment
20 sheets are complete. I would like to request that the
21 alignment sheets be tabled for the review of both the
22 public and the committee.

23 MS. ROBYN MCGREGOR: Perhaps I'll just
24 make a correction on our discussion this morning. The
25 alignment, the preliminary alignment, is crafted in

1 its design file state at this point; 11 x 17 plan and
2 profile sheets of the alignments are not yet -- are
3 not done. We have the information in our design
4 files.

5 MR. BRIAN ZYTARUK: Can you clarify
6 when those might be available for public review?

7 MS. ROBYN MCGREGOR: Given direction
8 from DOT, we could process those in a matter of weeks,
9 create the 11 x 17 plan and profile sheets for -- for
10 viewing, but the question would be, so that we could
11 be clear on -- on what really is the -- the
12 information that needs to be presented, other than
13 from a design perspective, what would be the need for
14 those sheets and we can be sure that that information
15 is -- is clear in them.

16 MR. BRIAN ZYTARUK: Brian Zytaruk,
17 from FJMC. Really, I'd like to see an overlay with
18 the vegetation typing, the crossings identified, so
19 that the public, in particular, can visualize what's
20 being proposed here.

21 MS. ROBYN MCGREGOR: If you're looking
22 at it from a plan perspect --

23 THE FACILITATOR: Why don't you just
24 remember to give your name.

25 MS. ROBYN MCGREGOR: I'm sorry. It's

1 Robyn McGregor. If you're looking at it from a --
2 from a plan perspective and not a profile perspective
3 are -- is the mapping that has been provided with the
4 vegetation on a particular sufficient for your use?

5 MR. BRIAN ZYTARUK: I -- I do believe
6 we need the profiles as well for other evaluation
7 purposes. Brian Zytaruk, sorry, FJMC.

8 MS. ROBYN MCGREGOR: Robyn McGregor.
9 When we di -- when we discussed this -- let's -- let's
10 give a clarification on the deliverable.

11 A plan and profile sheet that simply
12 shows the current preliminary highway alignment in
13 plan view with the digital data of the aerial photo --
14 photographs behind it, plus a grid below it showing
15 the vertical alignment of the existing ground and the
16 vertical profile in the current preliminary design
17 could be created in a matter of weeks.

18 To take the drafting time to layer on
19 top of that the vegetation or any other detailed
20 information that you would be looking for, I would
21 need to take some time away for Walter and I, and --
22 and Jim and others to discuss how long that would
23 take.

24 MR. BRIAN ZYTARUK: That would be
25 fine. I'd -- but I would like to see those tables. I

1 think the public would -- Brian Zytaruk, from FJMC,
2 sorry. I think, in general, the public would have an
3 easier time visualizing the project if we had that
4 information available at this time.

5 I just think it would be much more
6 useful to -- for people to be able -- and I'm
7 surprised that -- that that kind of information wasn't
8 used during the public consultation phase.

9 But, in any event, I think it -- it's
10 timely that we get that information out in the public
11 and we're request that we do that as soon as it's
12 practical.

13 THE FACILITATOR: John Donihee. As
14 the non-engineer in this conversation, I -- I guess I
15 -- can -- can -- Mr. Zytaruk, can you ex -- just tell
16 me a little bit about what it is that this information
17 will enable the Tuk Working Group to -- to determine,
18 that will advance the -- the impact assessment,
19 because I'm -- I'm hearing the -- the developer's
20 Group say a couple of weeks and the difficulty that we
21 have time wis -- time wise is just that if -- and I
22 don't -- I'm not debating the question of, you know,
23 whether this would be very useful for the public and -
24 - and for the regulatory process which will follow,
25 but the problem that we fall -- fall -- run into on

1 our side of the table here is just that if we can't
2 get this information to you in a way that will help
3 you and allow your submissions to the Board to reflect
4 what you learn and -- and how you respond, it -- we
5 don't have a way to -- to make that make a difference
6 in -- in this process.

7 MR. BRIAN ZYTARUK: Brian Zytaruk,
8 from FJMC. Well, my understanding, based on our
9 discussions this morning was that the information had
10 been complied at this point.

11 I do believe that that sort of a
12 pictorial presentation is a lot more readily
13 understood, especially by the general public, but it
14 will provide details with regards to all the crossing
15 locations, give us a much better understanding of what
16 the project looks like, and I just think it'll make
17 the evaluation that much easier at this point.

18 THE FACILITATOR: John Donihee, then
19 back to the developers group, I guess. What -- what's
20 really possible? Because, you know, the -- in the
21 time lines that are available, I guess, that's --
22 that's the difficulty that we're wrestling with here.

23 MS. ROBYN MCGREGOR: Perhaps if we
24 have an opportunity to take a break this afternoon I
25 could discuss that with Jim Stevens and then we would

1 be able to give you an answer, specifically, as to
2 what's possible to deliver.

3 THE FACILITATOR: Sure. I -- I'm
4 getting nods from Mr. Zytaruk, so let's leave that to
5 the break and let's hear from you after we -- after we
6 come back from the break.

7 I guess with that said, was there
8 anything else then that -- I -- I take it that request
9 covers all four (4) -- all four (4) of those points?

10 MR. BRIAN ZYTARUK: Sorry, Brian
11 Zytaruk, FJMC. It -- it actually covers most of the
12 detail there, if we can pry that information loose.
13 We would like to see a little more information on life
14 cycle costs, with respect to the -- the road over
15 whatever period the developer deems necessary. A
16 twenty-five (25) year period would be nice.

17 It would be useful to see it for the
18 comparison of the upland route and the preferred
19 route. And I know that's difficult at this point,
20 based on the information they seem to have compiled.
21 But we would like to see what information is available
22 on that. Thanks.

23 MS. ROBYN MCGREGOR: Robyn McGregor.
24 I -- I have a -- a question of clarification. By
25 simply asking for readable alignment sheets that show

1 you the vertical profile, I -- I don't believe that's
2 going to answer the questions you have in your letter
3 under route selection.

4 I think you're -- because you're asking
5 specifically for the criteria used, you are asking
6 about life cycle costing and cut and fill
7 calculations. That's -- if you would like, I'm
8 prepared to respond to some of those questions right
9 now.

10 MR. JOHN DONIHUE: Well, let's do what
11 we can today, please.

12 MS. ROBYN MCGREGOR: All right. Maybe
13 -- maybe what I can do is -- you did specifically just
14 -- Robyn McGregor. You did specifically ask about
15 life cycle costs, but I -- I will refer to both the
16 items in the agenda and in your letter of -- of August
17 20th. And because they are in quite good order and
18 allow me to kind of stage the information that I'm
19 presenting.

20 The first thing that I think it's
21 important to understand, when we are looking at
22 alternatives and -- and even when we begin sketching
23 lines on the map and going out into the field, that
24 this isn't a process of which comes first, engineering
25 or environmental.

1 In the twenty (20) years I've been
2 working on this project, including the days back when
3 I worked with Gurdev, for DOT, we learned very quickly
4 that it wasn't a matter of the engineers sketching a
5 line on the map and getting close to construction and
6 then going to the environmental scientists and saying,
7 hey, what all we're doing. Nor could we go to the
8 environmental scientists and say, tell us where we can
9 or cannot build the road. That -- that it was an
10 integrative and interactive process.

11 And my colleagues here will tell you
12 that there was never anything more adventurous than in
13 September of 2009, when we went out first to do the
14 field program, building on the work that Public Works
15 had done in 1970s and I told the engineering team, the
16 environmental team, the archeological team and the
17 terrain team, Don't come back until you all have a
18 good common sense of where you're going to build the
19 roadway.

20 And -- and so I think it's important
21 for all of us to understand that in making route
22 selection, that the engineering considerations and the
23 environmental considerations go hand in hand. And
24 there is a -- a highly diversified team that works
25 closely together to -- to build the work that you've

1 seen today, in an integrative manner.

2 When you asked the question, What is
3 the detailed criteria under which we -- we choose the
4 route alignment and make comparison of route
5 alignments, I refer you to -- to two (2) places.

6 Section 2.2 of the EIS gives a very
7 detailed comparison of alignment options. And that
8 would include the consideration of the alignment for
9 the upland route, the original 2009 primary route that
10 we started with, and at the time, the alternative for
11 the 2009 minor realignment around Husky Lakes.

12 Those criteria in that comparison of
13 alignment options, which is truly a multi -- multiple
14 accounts analysis includes environmental factors,
15 economic factors, social factors, and technical
16 factors.

17 Technical factors, indeed, include the
18 life -- the -- the observations of maintenance and
19 operations into the futures and there's at least five
20 (5) or six (6) subfactors under each of those factors
21 that are considered and they're evaluated with
22 consideration and technical and specific measurable
23 items in there. So I -- I encourage you to take a
24 look at that section.

25 You can also, further to that go to our

1 response to Information Request Number 2. And that's
2 where we take the same approach to the evaluation.
3 And with the information we had on hand in February of
4 this year for -- this year? Sorry, February of this
5 year for Alternative 3, which is the 2010 minor
6 realignment that we are discussing now, we were able
7 to evaluate it under most of those same factors and
8 compare it to the other alignments we were
9 considering.

10 So with -- without going into too much
11 detail, I -- I encourage you to go and -- and look at
12 those sections to -- to see the results of the
13 evaluation, but to remember that the routes were built
14 on the consideration of environmental factors,
15 economic factors, social, and ultimately technical
16 factors together.

17 You ask about life cycle costing
18 analysis. It's a very good question. And in fact,
19 the idea of what -- how do we compare routes relative
20 to each other not just simply with construction costs
21 or the footprint we're going to take up, but what's
22 the level of effort and the quality of life that's
23 going to be delivered in the maintenance and
24 operations of the highway into the long-term, into the
25 future.

1 As roadway construction people we've
2 learned that you -- you cannot just simply build the
3 highway and leave it. I worked enough years in
4 highway operations that at the end of the day you end
5 up with the burden of what is going to be built and
6 you have to maintain it, so you hope you have a good
7 product.

8 In the comparison of these alignment
9 options we looked at maintenance and operations from a
10 qualitative perspective relative to the potential for
11 snow blowing and drifting snow, which would be the
12 consideration given the upland route and highway
13 closures due to poor weather.

14 We also looked at where the abo --
15 where that kind of thing is not really a
16 consideration, which is within the other alignments,
17 because they would all be equal relative to their --
18 the ability to -- to trap and collect drifting snow
19 and the effort that it would take to keep the road
20 maintained during winter operations.

21 We look at what it would take, really,
22 to keep the road maintained during other times of the
23 year in terms of length of highway. The longer the
24 highway is the greater the cost for operations and
25 maintenance. So we have compared them in that

1 perspective.

2 We have talked about the centre line
3 profiles. Just, again, to tell you the design files,
4 the -- the -- in their format that they've take, an
5 AutoCAD design file take that we used to -- to -- to -
6 - to develop the constraints and the factors in the
7 evaluations.

8 If you're a roadway designer, you can
9 look at those files and see them today. If we want to
10 present them such that they are in a usable format
11 such as 11 x 17 mapping sheets in PDF, they need time
12 to be processed so that they can be published. And
13 that's the time and the effort that Mr. Stevens and I
14 will discuss on the break and we will come back to
15 with an answer.

16 Your final question in this section was
17 regarding to seeing the cut/fill calculations. The
18 first thing I'd like to point -- remind us all to is
19 that this is a fill-only construction, fill-only
20 construction. Walter and I both, in our careers, have
21 made mistakes in the past of cutting into the
22 permafrost, not learning the lessons learned thirty
23 (30) or forty (40) or fifty (50) years ago and -- and
24 we know now. And the -- the -- all of the guidelines
25 now point us to those lessons learned.

1 And in an ice rich permafrost
2 environment, it's a fill-only consideration. The
3 quantities required for embankment construction and
4 surfacing material are all detailed in the EIS and in
5 the subsequent responses to Information Requests that
6 I mentioned before. Thank you.

7 THE FACILITATOR: And thank you.
8 You'll have that conversation then at the break and
9 perhaps we'll come to closure on the -- on these
10 points.

11 MR. BRUCE HANBIDGE: John, Bruce
12 Hanbidge.

13 THE FACILITATOR: Sorry. Yes, Bruce.

14 MR. BRUCE HANBIDGE: I've got a -- I'm
15 not an engineer. I didn't follow most of that, so if
16 I could just ask a couple simple questions here.

17 THE FACILITATOR: All right. Sure.

18 MR. BRUCE HANBIDGE: Real simple.
19 You've identified the borrow pits, you've got volumes
20 in them. Do you have enough road -- borrow pits?
21 That's a "yes" or "no."

22 MS. ROBYN MCGREGOR: Yes.

23 MR. BRUCE HANBIDGE: Okay. So in --

24 MS. ROBYN MCGREGOR: Robyn McGregor.
25 Yes.

1 MR. BRUCE HANBIDGE: Okay. Bruce
2 Hanbidge again. So you're not going to be looking at
3 other borrow pits, opening up other borrow pits, other
4 than what you've identified so far?

5 MS. ROBYN MCGREGOR: Robyn McGregor.
6 We have a presentation tomorrow when we come to
7 talking about granular resources that will answer
8 those questions specifically.

9 MR. BRUCE HANBIDGE: Could we get a
10 "yes" or "no" now on that?

11 MS. ROBYN MCGREGOR: In the
12 presentation tomorrow, you will see that we have seven
13 (7), six (6) -- seven (7) primary material sources
14 that we have now narrowed our focus to identify for --

15 MR. BRUCE HANBIDGE: Yeah.

16 MS. ROBYN MCGREGOR: -- constructing
17 the road. Those material sources, with the exception
18 of two (2), need to have a drilling program similar to
19 the one that we had this winter to prove the
20 resources, and then that will prove out the available
21 resources.

22 The literature and the previous
23 investigations that are available on all of these
24 sources tell us, with reasonable certainty, that there
25 is more than enough material to construct and operate

1 the highway.

2 MR. BRUCE HANBIDGE: Okay. I'll just
3 -- Bruce Hanbridge. I'll just clarify why I'm asking,
4 Would you be considering to open up more borrow pits
5 or not is for the habitat assessments and the wildlife
6 assessments. If we don't know there's a -- there's a
7 delay, I'm just looking at time for us to be able to
8 do our job if you're saying you need more.

9 MS. ROBYN MCGREGOR: In the
10 presentation tomorrow, you will see that we are
11 committing to certainty -- to primary sources that we
12 are expecting to use for construction of the highway.

13 MR. BRUCE HANBIDGE: Thank you.

14 MR. JOHN DONIHEE: And -- and just to
15 be clear that you understand in making those
16 commitments that the scope of the development will be
17 defined that way. And what that means, if you don't
18 play environmental assessment games all the time, is
19 that, in -- if -- it's outside the -- those -- if
20 other areas are outside the scope of the development,
21 if you need to go to those other areas, you'll have to
22 make application, and it'll go back into the screening
23 process, and we'll just see where it ends up.

24 MR. RICK HOOS: Rick Hoos, Developer
25 group. I -- I think what you'll see in tomorrow's

1 presentation is the preferred primary borrow sites
2 that we now know about, but a few others as well that
3 we might want to investigate, depending on the results
4 of completing -- of further investigations at the
5 existing sites. Is that correct? Are there some
6 other possible ones beyond the seven (7)?

7 MS. ROBYN MCGREGOR: No.

8 MR. RICK HOOS: Okay. Boss says
9 there's only seven (7). Yeah. See the presentation
10 tomorrow is the direction I'm being given. Thank you.

11 THE FACILITATOR: It's John Donihee.
12 I guess I'll have to settle for that direction as
13 well. Route selection. Anything else there?

14

15 (BRIEF PAUSE)

16

17 THE FACILITATOR: Well, it seems like
18 it's early. Maybe we -- I guess we can move on into
19 wildlife. I don't want to take a break this early for
20 fear of losing you.

21 MS. AMANDA JOYNT: I just have a
22 question. Amanda Joynt with DFO.

23 Are we going to address the Inuvik
24 Hunters and Trappers Committee questions as well, or
25 is that going to be worked into the agenda?

1 WILDLIFE AND WILDLIFE HABITAT DISCUSSION:

2 THE FACILITATOR: It is going to be
3 worked into the agenda. I spoke with a lady over here
4 this morning, and she wanted to kind of get a feel of
5 the flow of this meeting and everything, and felt
6 that, if she could have time tomorrow morning to -- to
7 deal with her -- her questions, that that would be
8 better. So that's where we came to on that.

9 Okay. Let's move on then to -- see,
10 this way, we can skip 13 and 14 on the agenda and move
11 on to wildlife and wildlife habitat. Let's -- yes.
12 We're going to do birds and -- and their habitat first
13 as -- as the items, because it was scheduled actually
14 to be done earlier. So perhaps I can go -- leave --
15 leave it over to my friend from CWS, and there are a
16 few questions there that may lead us off, please.

17 MR. JAMES HODSON: Thanks. James
18 Hodson with the Canadian Wildlife Service. My first
19 question's pretty general.

20 I'm just wondering, aside from the
21 activities associated with bridge and culvert
22 installation, what other activities do you foresee
23 occurring during the summer for this project?

24 MR. WALTER ORR: Walter Orr, Kavik-
25 Stantec for the developer. There -- when we say

1 "largely winter construction," what we're meaning is
2 the placement of the great majority of the embankment
3 material will be placed during the wintertime.

4 There will be summer construction on
5 the embankment itself that will include compaction of
6 the surfaces, it'll -- grading and compaction of the
7 surfaces, grading and the compaction of -- of the side
8 slopes of the road to minimize erosion potential, and
9 the placement of the surfacing material and compaction
10 of that material. In addition, we will com -- the
11 bridge installations will be completed during the
12 summertime.

13 MR. JAMES HODSON: James Hodson again
14 with the Wildlife Service.

15 Is there any work that will be taking
16 place in the borrow pits during the summer?

17 MR. WALTER ORR: Walter Orr. There is
18 -- we don't anticipate that at the present time. As
19 we -- as I noted earlier, the construction only borrow
20 sites we are anticipating to only access via winter
21 road and that would include, in fact, getting
22 equipment into them.

23 That -- so, we don't anticipate that.
24 I can't guarantee it because some of that work waits
25 to the further characterization of some of the sites

1 which we'll discuss tomorrow, but we don't anticipate
2 it.

3 MR. JAMES HODSON: This question is
4 related to the field work that was done this summer,
5 specifically TR (phonetic) results for short-eared owl
6 and some changes that you made to the habitat
7 suitability model for short-eared owl.

8 You identified -- you re-classified
9 cotton grass tox -- tusic (phonetic) habitat as kind
10 of the most suitable habitat type for short-eared owl
11 in your model. And I notice that Borrow Source
12 314/325 occurs within that habitat type. And the
13 footprint from that borrow source would remove about
14 one-third of that habitat type from within your --
15 that 1 kilometre corridor within you match vegetation.

16 So, have there any -- been any
17 discussions of either dropping that borrow source as
18 an option, or mitigations to minimize the amount of
19 loss of that habitat type which might be important for
20 short-eared owl?

21 MS. ERICA BONHOMME: I'll just start
22 out -- I think maybe a couple other people can jump in
23 here -- Erica Bonhomme, sorry.

24 Yes, you're correct. The borrow source
25 314/325 does -- based on revised modelling and field

1 verification or field -- revised modelling as a -- as
2 a result of field verification does show high
3 potential for short-eared owl habitat.

4 But to remind people that the mapping
5 was done within a 1 kilometre study corridor and at
6 the borrow sources doesn't mean that there isn't other
7 short-eared owl habitat nearby; there very likely is
8 because that habitat type is actually quite prevalent
9 in -- or, that vegetation type is actually quite
10 prevalent in -- in the area and may -- there may be
11 other occurrences of it.

12 314/325 I will let the developers --
13 or, the engineer speak to in terms of its importance
14 in the sequence -- or, in the -- as it -- its use as a
15 primary borrow source. It is being considered as a --
16 as a primary source for development. I don't think it
17 would be considered to be not included as a primary
18 source for development.

19 It is also expected to be used as a
20 source of development -- or, as a source for borrow
21 material throughout the operational phase of the
22 project, in addition to construction. So, I would
23 suspect that mitigation for short-eared owls -- for
24 short-eared owl habitat at 314/325 would be a
25 discussion we would have to have with CWS.

1 MR. JAMES HODSON: Maybe just to
2 follow-up on that. So we have the results from the
3 field surveys this -- this summer and we realize there
4 is more analysis to be done for the cumulative effects
5 assessment and impacts to the wildlife habitat.

6 So that's something that we would be
7 looking for, is just information on what is the
8 availability of that ha -- habitat type within the
9 cumulative effects region. How might it be affected
10 by other foreseeable projects, just to get a sense of
11 how much other habitat is remaining and what the
12 impact is on a broader scale.

13 MS. ERICA BONHOMME: Erica Bonhomme.
14 We have been working with our colleagues at ENR
15 regarding that. And I -- I wonder if Gavin might be
16 able to provide some insight on some of the available
17 data that we've obtained from both CWS and ENR on a
18 more regional scale in regards to short-eared owls.

19 MR. GAVIN MORE: Gavin More, GNWT. I
20 think the answer there is what we need to do is take a
21 look at the USD classification against the plant
22 community. There is a version of that in the EIS or
23 one (1) of the other documents.

24 But the key is, we have to make sure
25 that we come as close as possible to the key habitat

1 as assessed under the -- the 1 kilometre. So I think
2 it's possible. In fact, we may have already done it,
3 if we're really lucky, that is.

4 But that, I think, is the key. We have
5 to make sure that the USD classifications that we used
6 before for DOT's responses are as close as possible
7 matching the new approach to what we think the typing
8 is for short-eared owl best habitat. And basically,
9 the intent is -- is to do that.

10 So I don't -- it's not a wish list of -
11 - that we're going to be thinking about it. We will
12 do that. The -- the issue that will come to light
13 from this one, will be which species can we drop from
14 worrying about doing a cumulative effects assessment,
15 based on the either limited habitat, or no habitat in
16 the area based on the summer's work.

17 MR. JAMES HODSON: Thanks. James
18 Hodson, again, with the Canadian Wildlife Service.

19 In your habitat impact, in the tables
20 you provided which gives a breakdown of how much each
21 habitat type has contained within the footprint, I
22 guess there's no footprint within water bodies,
23 because the alignment generally avoids them.

24 But I'm just wondering how you're going
25 to deal with adjacency to the road, in terms of sort

1 of a zone of influence effect on water bodies, when
2 you're looking at potential habitat loss or habitat
3 degradation, just from being adjacent to the -- to the
4 highway.

5 So if, at this point, you have any idea
6 of what you'll be using for zones of influence for
7 that type of -- to answer that kind of question.

8 MS. ERICA BONHOMME: Erica Bonhomme.
9 We have, as we've discussed in previous meetings with
10 you and ENR, some zones of influence that would be
11 suitable for rusty blackbird, for horned grebe and for
12 short-eared owl, or did we -- did we do short-ear?

13 So we have done some preliminary
14 metrics on those zones of influence that we've
15 discussed as being potentially suitable for those
16 species. We are in the process of revising some of
17 those numbers to account for some gaps in data that we
18 had for some of the -- the primary borrow sources that
19 were -- we didn't originally have data for.

20 We will be providing those revised
21 metrics to ENR at their request. And I suspect those
22 will be useful in the proceedings.

23 MR. GAVIN MORE: Gavin More, GNWT. I
24 can read into the record the specifics. It's no
25 different than the contract specs that -- that CWS saw

1 a couple of weeks ago.

2 But basically, for grebe -- horned
3 grebe, it was 100 metres from the edge of the roadway,
4 100 to 250 metres. For rusty blackbird, it was 150
5 metres from the edge of the roadway, and one hundred
6 and fifty (150) to three hundred (300). And then none
7 for short-eared owl and none for peregrine. And then,
8 the one, of course, we're working on is grizzly bear.

9 MR. JAMES HODSON: James Hodson,
10 Canadian Wildlife Service.

11 Could you just clarify, maybe, your
12 rationale for not having a zone of influence for
13 short-eared owl?

14 MR. GAVIN MORE: I can't, because we
15 left that up to Marcel as the expert on short-eared
16 owl.

17 MR. BRUCE HANBIDGE: Zone of influence
18 for grizzly bear, you say you're working on it. When
19 might that be available?

20 MS. ERICA BONHOMME: Erica Bonhomme.
21 Sorry, I had two (2) questions there going at the same
22 time. So maybe we can just respond to Gavin's
23 question first.

24 For short-eared owl, we're using the
25 500 metres on either side of the alignment as the zone

1 of influence.

2 MR. GAVIN MORE: Gavin More, GNWT.

3 Could you also answer the grizzly bear one?

4 MS. ERICA BONHOMME: Sorry, maybe you
5 could repeat that one for me.

6 MR. BRUCE HANBIDGE: What -- Bruce
7 Hanbridge. What is your zone of influence along the
8 road for grizzly bear?

9 MS. ERICA BONHOMME: Erica Bonhomme.
10 Grizzly bear, we are doing the 1-kilometre study
11 corridor where -- for which we have very detailed
12 vegetation, slope, and aspect information out from one
13 (1) point -- from one (1) -- 500 metres from the
14 centre of the alignment to -- to 1.5 kilometres from
15 the alignment. We are doing grizzly bear den
16 potential -- we have -- we have done grizzly bear den
17 potential mapping using slope and aspect.

18 MR. BRUCE HANBIDGE: Bruce Hanbridge.
19 Yeah, I -- that's what I've read in the report. I was
20 just asking: What is the basis for that, your
21 reference, your source for selecting those distances?

22 What is your basis for a zone of
23 influence, is my question.

24 MS. ERICA BONHOMME: Those zones of
25 influence were based on conservative assumptions about

1 potential impacts to grizzly bears dens. Some of
2 those are in reference to information WMAC has filed.
3 So it's a general, conservative buffer on either side
4 of the alignment, and it's not based on any specific
5 literature.

6 MR. GAVIN MORE: Gavin More, GNWT.
7 The basis for the setbacks -- and we've been reviewing
8 the seismic guide that has a setback of a hundred and
9 -- 1.5 kilometres as sort of the maximum.

10 Basically, the way the literature goes,
11 if you go back to the work that John Nagy and Lee
12 Harding did in the '70s, particularly around Richards
13 Island, where there was fairly extensive oil and gas
14 activities going on, basically they found bears had
15 denned quite successfully within 1.4 and a few more
16 kilometres after that from those activities.

17 And the -- the key there was what
18 people then -- if you continue that to some of the
19 other literature from Alaska and places, people
20 basically found that it was known that within 1
21 kilometre or so, bears successfully denned within
22 close proximity to -- to, particularly, oil and gas
23 activity.

24 So the key there was nobody seems to
25 have pushed the limits down past that. So basically

1 it's what one would call a conservative estimate. So
2 in the seismic guideline, ENR put in one point five
3 (1.5) as the most conservative estimate possible. But
4 the truth of the matter is there's very, very little
5 information, other than direct disturbance of a den,
6 that would indicate that -- that even five hundred
7 (500) is not conservative.

8 The issue for this particular project,
9 for the mapping that Stantec was doing, is a bit
10 revolved around the limitations of the size of the
11 local study area. So the key there was -- the reason
12 why it's been pushed out a little more using pretty
13 well more topography, because those are key aspects to
14 -- to -- to denning habitat.

15 But the -- the key there, for us, was
16 to really try to use this exercise more to try to
17 figure out if there are some key possible areas that
18 the project would take place in, particularly the --
19 what people had always mentioned as being one of the
20 most likely areas gravel sources.

21 So the key for us was trying to come up
22 with more predictive mapping so that when the searches
23 are done for den activity in the fall months, that
24 we're very sure that we're actually searching in the
25 right areas.

1 And then the other -- other part of the
2 discussion -- and I'm not sure we've really landed on
3 something that would be possible -- is that whole
4 idea, is -- is there a way to prevent bears from
5 actually starting to den that early in the year, in
6 the areas in that the -- the primary winter
7 construction activities will take place in?

8 So from the point of view of
9 disturbance of bears, we think, from a zone of
10 influence after that -- once traffic is normalized on
11 the road and the sounds become sort of regular
12 routine, that we're actually anticipating a zone of
13 influence probably 500 metres or less.

14 But it really still depends on: Is
15 there habitat available to begin with? And that's the
16 other part of the exercise, is there's nothing that we
17 can monitor against and say that bears aren't denning
18 after the road's construction if, in actual fact, they
19 wouldn't have been there anyways because there wasn't
20 appropriate habitat available for them.

21 So it's that kind of balance act of
22 trying to get some information now that we can use for
23 the post, both the construction, but also the -- the
24 post-operations monitoring.

25 THE FACILITATOR: John Donihee. We

1 seem to have gotten away from the birds. I don't want
2 to -- I -- I don't want to lose the birds if -- if you
3 aren't finished, so let -- let's come back and make --
4 I just want to make sure that CWS has had its
5 opportunity to -- to have its issues dealt with,
6 because I'm sure we have much more to talk about in
7 terms of mammals.

8 MR. JAMES HODSON: Thanks. James
9 Hodson with the Canadian Wildlife Service.

10 Just wondering if I could get an idea,
11 then, of the timeline for the cumulative effects
12 assessment using the information that you're going to
13 provide to the ENR, when we could expect to see that
14 before -- I mean, relative to the final hearings that
15 are coming up?

16 THE FACILITATOR: John Donihee. I --
17 by all means, get the answer to that question, but I -
18 - I'd really, Gavin, maybe appreciate some
19 clarification.

20 What exactly is the role that ENR is
21 playing? You know, my understanding is you're -- I
22 mean, you're part of the Government of Northwest
23 Territories and part of the developer, but certainly -
24 - and I -- I'm -- I welcome it if that's what you're
25 doing, but the impression I have is that ENR is also

1 providing sort of independent kind of wildlife science
2 advice or some -- something along those lines.

3 And I -- I just -- it would help to
4 understand exactly what -- whether you're -- you're
5 telling us these things as part of the developer, or
6 whether you're in fact telling us as an independent
7 scientific advisor, which, as I said would welcome.
8 But I'd -- I'd just like to know the -- the
9 difference.

10 MR. GAVIN MORE: Gavin More, GNWT.
11 It's a bit of both. The commitment from our deputy
12 ministers, after the project description had been
13 filed, was for ENR to help the DOT. My normal role,
14 of course, is to coordinate all the GNWT departments,
15 so basically, that was -- sort of came in as a tail
16 part of it, although the -- the greatest emphasis
17 we've placed is working on the wildlife.

18 The other part of it is that -- and I
19 think there's been evidence filed -- is that nowhere
20 in Canada does a Department of Transportation take on
21 the roles of other government departments. Typically,
22 Departments of Transportation are part of a bigger
23 government system, and they have their limitations.

24 So the key on this one was always that
25 we knew that ENR would end up taking on a fair

1 responsibility, both in terms of some of the design of
2 some of the mitigations, some of the implementation
3 parts, providing expert advice during the development
4 of materials.

5 And, of course, my philosophy is always
6 try to get it done as part of the EIS rather than
7 having to debate in public over these things. So the
8 other -- the other part of it was to make sure that we
9 had a stronger role in making sure that our interests
10 were being met.

11 In terms of the expert advice, part of
12 it now is just that, particularly with the questions
13 that Petr's asked as part of the IRs. When I was on
14 holidays in Arizona, it put me onto track that -- that
15 people were still, in my mind, missing some of the
16 likely evidence that could be very useful for this
17 project.

18 And then the other part of it really
19 was, as I -- we were working through that, the idea
20 that, since we were doing this other vegetation and
21 habitat work, that adding the grizzly bear analysis
22 through Stantec became useful. So part of what we've
23 been doing is using -- putting requests in to -- to
24 DOT to have their consultants do some of the analysis
25 that -- that we think will be useful for our work.

1 The other part that we're, of course,
2 doing is the wildlife effects monitoring plan -- or
3 program, rather, and part of that then -- and you've
4 seen some of that in the IRs. We've actually started
5 to -- to move some of the work that we were doing for
6 Caribou Forever into starting special collar types and
7 more collars on two (2) of the herds so that we have
8 that information coming in as part of the effects
9 monitoring.

10 So the role we've been playing is that
11 combination of getting as much as we can in
12 appropriately to the Board through DOT, where
13 possible, but we're getting to the point now where the
14 independence of what our position is and our thoughts
15 is becoming more apparent. So the IR responses that -
16 - that you saw sort of lead into that, so --

17 And then the other part, of course, is
18 that a number of the species are under the management
19 of the GNWT, even though they're listed under SARA or
20 under federal legislation.

21 And one (1) of the final points always,
22 when there's no management plan, is the advice of the
23 jurisdiction, and so the key here is we have a big
24 interest in making sure that whatever is done in terms
25 of the -- the assessment and -- and the determination

1 of what we need to do for -- for monitoring
2 mitigation, since we will likely will have to
3 undertake a lot of it. We want to make sure that's
4 appropriate.

5 So we're basically -- the key for --
6 the bottom line for us is to try to get the best
7 information for the Board, but also to make sure that
8 the material that's developed since we have co-
9 management partners that will come into play in the
10 future, that that information also starts to look at
11 and answer some of the questions that they've been
12 raising through the process.

13 THE FACILITATOR: It's John Donihee
14 again. Thank -- thank you. I think that helps. I --
15 let me try to put it in more specific terms. A moment
16 ago there was a question about zones of influence for
17 short-eared owls. Ms. Bonhomme said that something in
18 addition was going to be worked on and she'd be
19 providing information to ENR.

20 The question came from CWS. And I
21 guess I'm wondering, you know, how this turns up on
22 the record, if it does, in a way that actually helps
23 the Board.

24 Because if all we have here is one (1)
25 part of the developer communicating with another part

1 of the developer, that's fine too, as long as the end
2 result is that there's going to be some change in the
3 materials that the developer's filed to reflect, you
4 know, the issues and concerns that have been raised by
5 the Intervenor.

6 Now, am I being clear? You know, I --
7 I guess I'm -- I'm having a little bit of difficulty
8 with this distinction, because I don't -- it doesn't
9 trouble me if ENR is -- is assisting the -- the
10 developer at all.

11 I mean, any party here can and should
12 work with the developer to help them put the best case
13 forward to the Board. But when changes to filed
14 materials or new monitoring plans or something like
15 that are -- are in the offing, or in the works, I
16 guess I'm just wanting to make sure that we're
17 actually going to see these things reflected in the
18 record at some point so that the -- the Board gets to
19 consider then when it has to decide what impacts are
20 significant and what measures to recommend.

21 So I don't know if I've helped either,
22 but if -- if she provides the information she
23 mentioned to you, I guess I'm just make -- I want to
24 make sure that CWS is going to see that at some point
25 so it affects what they tell the Board.

1 MR. GAVIN MORE: Yep. I think that's
2 the key, CWS has actually been involved. From my
3 point of view, the kind of letters that CWS has put on
4 the record aren't helpful to the Board because the
5 intent of the developer and the commitments were
6 always to work with CWS.

7 So, in this particular case, we made
8 sure that CWS was involved, they saw the contract
9 specs, they saw the drafts, they received a set of the
10 drafts of material that were issued to the Board on
11 Monday. They received it directly.

12 So they've been involved through this
13 process. They're not as interested, of course, in the
14 grizzly bears. That was an add-on that -- that we
15 developed over the last few months realizing the
16 advantages of the vegetation mapping and the LiDAR.

17 But basically CWS has been involved and
18 the key, based on the letters, was to make sure that
19 they also had input so that if they didn't like things
20 like the certain zones of influence that they had a
21 chance to do that so that the next assessments that
22 are done better meet the -- the concerns that they
23 raise with the Board.

24 MS. ERICA BONHOMME: Erica Bonhomme.
25 I'll just provide a -- a commitment on our part, which

1 is when those calculations are completed we will make
2 them available for all parties to see and comment on -
3 - Erica Bonhomme, and do as they wish with.

4 THE FACILITATOR: Thanks. It's John
5 Donihee. The obvious question is then: When will
6 they be done and will they be done in a way that they
7 can be available in order to influence what's told to
8 the Board at hearing time?

9 MS. ERICA BONHOMME: Erica Bonhomme,
10 yes, within a matter of days.

11 THE FACILITATOR: Thank you. I'm
12 sorry to hijack things on you, James, but are there --
13 any -- anything more from CWS?

14 MR. JAMES HODSON: Yeah, James Hodson,
15 with the CWS.

16 Maybe just to clarify what we are
17 expecting as an outcome of filing those letters with
18 the Board earlier was an additional report to be
19 submitted to the regis -- registry by the developer
20 with accumulative effects assessment for species at
21 risk, which was to be based on -- partly on the
22 outcome of the field surveys that were conducted this
23 summer.

24 So what we have now is a report from
25 the developer, which gives the results of their field

1 studies, but it's -- it still hasn't -- that
2 cumulative effects assessment still hasn't been
3 completed.

4 And my understanding from our meetings
5 with the developer and the ENR so far was that Kavik-
6 Stantec was going to supply the results to ENR and ENR
7 would be using those results to update the cumulative
8 effects assessment and submit something to the Board
9 so that it could be considered by everyone.

10 So I guess where that leaves us is,
11 we're still expecting a report to be submitted to the
12 Board at some time, hopefully before the final
13 hearings.

14 We probably won't be able to comment on
15 it in our technical submission, just given internal
16 deadlines and the deadlines for submitting the first
17 draft to the Board.

18 So, it could be that we have questions
19 at the final hearing, and then in our final submission
20 to the Board, we'll be able to put something together
21 more formally in writing, as a response to that
22 submission.

23 So, I hope that clarifies where we were
24 coming from with our letters to the Board.
25 Essentially, those letters were also just to give our

1 perspective on what our ob -- obligations were,
2 requirements were, under the environmental -- Canadian
3 Environmental Assessment Act for considering species
4 at risk and cumulative effects.

5 I have one (1) last question to do with
6 the field data. You considered water birds as one (1)
7 of the groups. And within water birds, you considered
8 water fowl and shore birds and you pre -- presented
9 the results of your aerial surveys.

10 But you also did point counts, which
11 were intended to detect whether rusty blackbird was
12 present or not. But I'm just wondering if you have
13 any additional observation of shore birds from those
14 surveys, because that might be more appropriate to
15 detect some species of shore birds than aerial
16 surveys. And if you would consider providing the
17 results of your point counts, in addition to your
18 aerial surveys.

19 DR. MARCEL GAHBAUER: Marcel Gahbauer,
20 Kavik-Stantec. Yes, we did, through the point counts,
21 observe a number of shore birds. We have the -- the
22 data compiled. We -- I believe in our last conference
23 call with Environment Canada we did talk about
24 submitting all of the point count data. And we're
25 just -- we were -- I think we agreed to wait until we

1 received instruction on what format you preferred it
2 in, but we have those data available.

3 We did certainly see a number of shore
4 birds there. For the most part, they were the same
5 species that we had from the air. There were a couple
6 of differences. I don't know if it's of any value to
7 go into those details now, but certainly we -- we can
8 provide that. We just need to discuss what -- what
9 format it's convenient for you to receive it in.

10 MR. JAMES HODSON: It's James Hodson
11 with the Canadian Wildlife Service. We can get back
12 to you on -- on the format. And maybe that's
13 something that can be submitted, just as an addendum
14 to that report that you submitted already.

15 MS. ERICA BONHOMME: Erica Bonhomme.
16 Just a question of clarification.

17 What -- the -- there is a table within
18 the report that documents the species that were
19 observed. So I'm not exactly -- we will provide the
20 data -- data to CWS once you tell us what format you
21 would like that in. But I'm confused as to what we
22 should submit to the -- the Board as a -- as a report.

23 MR. JAMES HODSON: James Hodson with
24 the Wildlife Service.

25 I guess we'll have to talk a bit about

1 -- more about it, but if there weren't any new species
2 detected in those surveys, then maybe the information
3 that's in that table is sufficient to tell us what
4 species were there.

5 But I'd like to kind of discuss further
6 whether -- if those point count survey observations
7 would have affected how you modified your habitat
8 suitability ratings at all. Because if they did, then
9 maybe it would be important to include -- include
10 those results. If not, then maybe it's not critical
11 at this point to include them.

12 DR. MARCEL GAHBAUER: Marcel Gahbauer,
13 Kavik-Stantec. Yeah, we did have a few -- so the --
14 the table that is in the document summarizes the
15 numbers from the aerial surveys. We have another,
16 just working table that summarizes the -- the
17 observations from the point count surveys on the
18 ground.

19 There were some species, Lee's
20 sandpiper (phonetic), for example, that we only
21 identified on the ground. No doubt we saw it from the
22 air, but we weren't able to conclusively identify them
23 there. So, we can submit a -- or compile a similar
24 table like that if that's of value.

25 With respect to your question about how

1 it influenced the habitat classifications, I would say
2 it didn't really, especially for the water bird group
3 being so diverse. There weren't sufficient numbers of
4 shore birds, or water fowl for that matter, at these
5 points on the ground to really swing that analysis one
6 (1) way or the other.

7 Our assessment of the habitat really
8 was more focussed on the -- the ground truthing of the
9 veg types and focussing mostly on the species at risk
10 and how they related to those vegetation types.

11 THE FACILITATOR: John Donihee. I
12 would just say that if you come to agreement with CWS
13 about the way to file an addendum to a report that's
14 been filed with the Board, then just -- the only other
15 point I would make is simply that I want to remind --
16 the Board's decision is required to meet the
17 requirement of Section 79 of SARA.

18 So, you know, this -- this --
19 standpoint it may not be that exciting to sit around
20 talking about rusty blackbirds. You know, they're --
21 they're -- and I don't know quite what the
22 classification is, but they're on -- they're on the
23 list and we have to be able to say that we've
24 considered them and either there won't be any effect
25 on them or that the mitigation is sufficient to cover

1 them off.

2 That's a legal requirement that comes
3 out of that legislation and discussion is ultimately
4 important to -- to the Board's finding.

5 MS. ERICA BONHOMME: Erica Bonhomme.

6 And, yeah, that's why we've been, since May, working
7 with CWS and ENR to design a summer study program that
8 was specific to those species at risk.

9 THE FACILITATOR: Thanks. Rick...?

10 MR. RICK HOOS: Rick Hoos, Developer
11 Team. Just to add to the confusion, but hopefully to
12 actually clarify where all this is fitting into things
13 -- I'm getting old.

14 On April the 27th, 2012, ER -- ERIB
15 file 0210-005, we submitted a response to the March
16 8th, 2012, Information Requests. One (1) of those
17 related to the preliminary work that the team had done
18 to evaluate possible cumulative implications related
19 to these various SARA listed species.

20 That document is part of the public
21 record. It describes the known information that was
22 available, including updated information that was
23 obtained by ENR from Environment Canada and other
24 sources for each of the species at risk.

25 It als -- and it -- it -- it came to

1 conclusions. And -- and just for -- as an example, in
2 the case of short-eared owls, the conclusion it came
3 to at that time was that -- bear with me. Sorry.

4 Given the prediction of no effects or
5 residual impacts on the short-eared owl, the developer
6 does not believe an accumulative effects assessment is
7 required for this particular species.

8 That was a conclusion that was drawn
9 based on the information that was available at the
10 time. It then goes on to say though:

11 "Depending on the habitat modelling
12 and wildlife field review in the
13 spring of 2012..."

14 Which Kavik-Stantec has been doing:

15 "...the developer will incorporate
16 relative mitigations if new
17 information and discussions with
18 GNWT and ENR indicates the need."

19 We did that for all the SARA listed
20 species and this is a follow-up to the responses that
21 we provided in April. And, as was mentioned, the work
22 began in earnest in May.

23 Just to provide some context for what
24 we've been talking about, which must be very confusing
25 to a lot of people here. Thank you.

1 THE FACILITATOR: John Donihee. Well,
2 back to CWS. Are -- are -- have -- have you worked
3 through your list?

4 MR. JAMES HODSON: Yes. James Hodson
5 with the Wildlife Service. I think that takes care of
6 me for now. Thanks.

7 THE FACILITATOR: I -- I think we may
8 have some questions at this end of the table. So
9 let's -- let's do that and we'll -- we'll break at --
10 as soon as this next round of questions is over.

11 DR. PETR KOMERS: Petr Komers. Rick,
12 the information you just presented to us, is it fair
13 to say that that will be superceded by the report
14 that's coming out now, based on the habitat modelling
15 and field surveys?

16 MR. RICK HOOS: Rick Hoos. I -- what
17 we indicated is that if there's any new results that
18 come out as a result of the field work and modelling
19 done this summer, we will be discussing what that
20 means in terms of any further mitigation measures, if
21 necessary, that could perhaps be implements and we'll
22 be reporting that to the Board.

23 Yeah, I'll leave it at that.

24 DR. PETR KOMERS: Petr Komers. So I
25 take it that was a "yes". A question now for

1 clarification for Gavin. I -- I'm not -- I may have
2 totally misheard something, but I think you said that
3 there is no zones of influence assumed for the
4 Peregrine Falcon.

5 Is that -- did I hear that correct? I
6 -- I -- I hope I understood right, that you mentioned
7 earlier on that there was no zones of influence
8 assumed for the Peregrine Falcon.

9 Is that correct?

10 MR. GAVIN MORE: Gavin More, GNWT.
11 Yes, the key -- key prior to it -- and we originally
12 had wanted one of our biologists to do the Peregrine
13 survey. But when we talked to Suzanne (phonetic), she
14 indicated when we were getting ready to -- to roll,
15 that from her point of view, she did really not think
16 that there would be much likelihood of Peregrines
17 nesting. And nesting is basically the -- the key
18 items that we go after for Peregrine protection.

19 And instead, Stantec was asked to do
20 the work. And based on predictive mapping, Stantec
21 went and looked at the kind of sites that came out as
22 maybe being possible for Peregrines. The key is that
23 -- that we know Peregrines will do some funny stuff on
24 tundra.

25 But from our point of view, it was

1 extremely unlikely that there was any decent habitat
2 for nesting. So for us, it was -- it would just put
3 certainty, or the icing on the cake, that from our
4 point of view, Peregrine is not a species of concern
5 for this project.

6 And then from an accumulative point of
7 view, when it comes to the MGP -- and I'm not sure
8 everybody is aware of this, but there's a significant
9 set of terms and conditions that have to be done by
10 that proponent: one set for ConocoPhillips development
11 field, one set for the gathering system. But we will
12 be going through with that proponent for Peregrine
13 Falcon, reviewing their -- their exact alignment
14 against known nesting sites. So we already have a
15 process in place for future protection and making sure
16 that the MGP has no impact as well.

17 Most of our work though, we -- if you
18 think about this area, it could well be feeding area
19 for immatures, that sort thing. But from our point of
20 view, the item that we look at for protection is
21 virtually strictly the -- the known nest sites. And
22 then we have the setback of 1.5 kilometres that we
23 recommend for ground activities from that.

24 DR. PETR KOMERS: Petr Komers. Thanks
25 for that explanation. So I assume that it basically

1 means that if you find nests -- I think that's what
2 you were saying, if you -- if you do find nests, you
3 would have to follow that 1.5-kilometres setback and -
4 - which is basically a zone of influence.

5 MR. GAVIN MORE: Gavin More, GNWT.
6 Well, we agreed through the JRP process that if a
7 proponent had to be under one point five (1.5), we'd
8 discuss it with them, because, of course, it really
9 depends on their activities about how much disturbance
10 they might cause. So you can go under one point five
11 (1.5), but our preference is to discuss it so we can
12 figure out if -- if the circumstances weren't.

13 DR. PETR KOMERS: Petr Komers here.
14 So this goes back to John's question about your role.

15 So essentially, you were saying you
16 would be discussing it with yourself, since you're
17 both the expert and the developer. Is that -- is that
18 a fair assessment?

19 Or will there be other people involved?

20 MR. GAVIN MORE: Actually, that's a
21 bit of the point. You have to remember, there's the
22 Federal role under Federal SARA, and then there's our
23 role as the jurisdictional manager of those species.
24 So we don't have exactly the same requirements as
25 Environment Canada has to meet SARA, which means they

1 have to look and -- and look at adverse effects, not
2 significant effects.

3 From our point of view, our -- when we
4 look at this, we -- we would actually prefer
5 Environment Canada to do what they did for the two (2)
6 species that don't exist in the area, that they would
7 sign off and say, This doesn't need to be -- to be
8 assessed under -- under SARA because your study this
9 summer indicates that there's no good habitat and
10 definitely no nest sites.

11 So I think we'll have to discuss that
12 offline. If we're made to go through adding nothing to
13 nothing, we'll do that in order for them to -- to meet
14 their requirements. But the key there was they do
15 have steps that they're -- they're trying to go
16 through.

17 The key is, from our point of view, we
18 look at that concept of a project effect and then a
19 residual effect. If the project has no effect, there
20 -- from our point of view, you don't need to go
21 through that step of accumulative effects.

22 MS. ERICA BONHOMME: Erica Bonhomme
23 here. I just also want to point out again that
24 construction is predominantly during the winter. So
25 if there was a nest, it would likely not overlap with

1 the construction activities. And if a nest gets set
2 up while the highway is already there, well, that
3 would provide us some pretty useful information about
4 Peregrines and highways and how they get along.

5 DR. PETR KOMERS: Petr Komers. Thanks
6 for that. I -- I appreciate that, but the nests could
7 have been there before, too, and when the peregrine
8 comes back to its nest, so all of a sudden there's a
9 highway under its nest, it may be a surprise to him.

10 Can I just followup with some -- a
11 couple of questions to Environment Canada? Or is
12 there something that you would like, Rick, to --

13 MR. RICK HOOS: With respect, Rick
14 Hoos. I think it's very important that I read into
15 the record some of the information that we know about
16 peregrines in the area of the Inuvik-Tuk highway, if -
17 - if you will bear with me. And this is in the April
18 27th, 2012 response document that was submitted to the
19 EIRB:

20 "Most peregrine falcons nest on
21 cliff ledges or crevices next to
22 good feed -- foraging areas. Cliffs
23 ranging from 50 to 200 metres high
24 are preferred.
25 cited.] Other nest sites

1 potentially include the tops of
2 pingos. That's one (1) place where
3 it could occur in the delta."

4 That having been said, it goes on to
5 read:

6 "GNWT/ENR reviewed the proposed
7 highway alignment in 2011 and
8 indicated that there were no known
9 nest sites within 1.5 kilometres of
10 the alignment. Steve Matthews
11 (phonetic), personal communication,
12 2011.

13 The MGP proponents who studied the
14 whole delta, including the area
15 where the highway will be located,
16 did not observe peregrine falcons
17 during aerial or ground surveys in
18 the regional study area for the
19 Inuvik-Tuk highway. So at this
20 time, based on the trained analysis
21 conducted by us
22 developer], GNWT/ENR does not expect
23 that any suitable nesting habitat
24 occurs for peregrine falcon in the
25 project area. S. Carrier

1 (phonetic), personal communication,
2 2012."

3 So we can talk a lot about peregrine
4 falcons, but they actually don't seem to nest there,
5 and that's a very important consideration in trying --
6 in terms of trying to evaluate effects on -- possible
7 effects on peregrine falcon. Thank you.

8 THE FACILITATOR: Thanks very much,
9 Rick. Now, Petr, I think you had some questions for
10 CWS.

11 DR. PETR KOMERS: Petr Komers. The
12 question to CSW is: In -- in terms of species at --
13 at risk, we're not supposed to harm or remove habitat
14 and residences of species at risk. Is that a fair
15 summary?

16 MR. JAMES HODSON: No. There's a
17 slight precision there. Sorry, James Hodson with
18 Canadian Wildlife Service.

19 There are specific prohibitions under
20 the Species at Risk Act, and there's prohibitions
21 against damaging or destroying a residence of a
22 species at risk, which could be a den or a nest;
23 that's only for extirpated, endangered, or threatened
24 species, not species of special concern.

25 And then the prohibition against

1 destroying habitat only applies to critical habitat,
2 which again only applies to endangered, threatened,
3 extirpated species, and that critical habitat has to
4 be identified in a recovery -- final recovery
5 strategy.

6 So none of the species that occur
7 within this project area -- I guess for -- well, first
8 of all, rusty blackbird, short-eared owl, and now
9 peregrine falcon are species of special concern listed
10 on Schedule 1. I don't think there's any threatened
11 or endangered species that occur there, so the
12 critical habitat prohibition wouldn't apply.

13 So there technically is, in this
14 specific circumstance, nothing prohibiting habitat
15 destruction, per se.

16 I guess the other thing to keep in mind
17 is, for birds, migratory birds, they're protected
18 under both Species at Risk Act and Migratory Bird
19 Convention Act for the damage or destruction of nests.
20 So those two (2), those are covered off for those.

21 DR. PETR KOMERS: Just a follow-up
22 question on that. Thank you very much. Petr Komers.

23 The -- will Environment Canada be
24 making their own evaluations of the significance of
25 effects? And will they, based on its evaluations,

1 recommend possible offsets or mitigation measures to
2 the developer?

3 MR. JAMES HODSON: James Hodson, the
4 Wildlife Service.

5 Yes, we will be looking at the
6 information that the developer provides to us, I guess
7 specifically the -- the cumulative effects assessment
8 once that comes in.

9 I guess, in terms of significance, we
10 may not comment specifically on whether it's
11 significant or not, but whether it's adverse or not.
12 I guess that's the distinction under the Species at
13 Risk Act is that we don't make that distinction
14 between significant or not significant. It's either
15 adverse or not adverse.

16 So that's what we'll be looking at, and
17 we will probably be recommending, where we have
18 expertise relevant to that species, setbacks to
19 protect, for example, nests or things like that,
20 commenting on whether or not we agree with the -- the
21 conclusions of the developer. So I hope that helps to
22 clarify.

23 DR. PETR KOMERS: Petr Komers. Yes,
24 that's very useful. Thank you.

25 THE FACILITATOR: Okay. It's 3:30.

1 Fifteen (15) minutes. Let's come back and we'll
2 continue with the wildlife topic.

3

4 --- Upon recessing at 3:25 p.m.

5 --- Upon resuming at 3:49 p.m.

6

7 THE FACILITATOR: It's John Donihee
8 again for the Board. We're still, I think, talking
9 about wildlife. And I think we're -- if we haven't
10 already then we -- we can and should hear about some
11 of the terrestrial wildlife issues raised by -- by
12 WMAC.

13

14 (BRIEF PAUSE)

15

16 MR. BRUCE HANBIDGE: Bruce Hanbidge.
17 Now I guess we're talking about cumulative effects
18 assessment; that's been a major concern of the WMAC.
19 And we have noted a series of concerns since the
20 confirmation stage of this review. And it deals
21 primarily with temporal and spatial boundaries.

22 And I guess I've asked a few questions
23 here about zones of influence, but it -- it was good
24 to hear from, I think, Robyn, where you're saying that
25 environment and engineering, when you deal with these

1 sorts of processes, it's an iterative process and as
2 it progresses with more and more information on each
3 side, then you go back, you review and reassess as --
4 as required.

5 So I guess my first question is: Given
6 some of the information we have on caribou, in
7 particular, CWS asked a couple of questions about when
8 is the new information going to be put into a
9 cumulative assess -- effects assessment and when will
10 we get it?

11 But -- that's my same question, really.
12 Is -- is there any -- anything that the developer sees
13 specifically to change temporal or spatial boundaries
14 in the CEA that they've done so far, given any new
15 information you've received?

16 MR. RICK HOOS: Rick Hoos from the
17 developer group. What we've been discussing over the
18 last while as -- as you're aware is, enhancing, if you
19 will, the cumulative affects assessment for SARA
20 listed species.

21 In terms of caribou, and -- and other
22 species, with the possible exception of grizzly, we're
23 -- there is no plan at the moment to, let's say, redo
24 the cumulative effects assessment for those species.

25 In terms of the spatial boundary that

1 was assessed in the cumulative effects assessment, it
2 was clarified in one (1) of the more recent IRs that
3 we responded to. I don't have that information
4 directly in front of me.

5 But, basically, the area that we chose
6 was the area of the Tuk peninsula down to Inuvik,
7 bounded on the west by the Mackenzie River and the
8 east by, essentially, the Husky Lakes area and the
9 marine waters that separates the Tuk peninsula from
10 the rest of the mainland.

11 We felt that was most appropriate and
12 most relevant for evaluating the possible effects,
13 cumulative or otherwise, of this two-lane gravel road
14 between Inuvik and Tuk.

15 We do understand that caribou, in
16 particular, have a much larger range. We also
17 understand that there's virtually no activity ever
18 taking place in the rest of that range. And we saw no
19 point in trying to extend the evaluation beyond a more
20 immediate portion of the Delta that -- where -- within
21 which some effect of some kind might be measurable.

22 MR. BRUCE HANBIDGE: Sorry. Bruce
23 Hanbidge. Just two (2) more, I guess, very specific
24 questions.

25 When you're looking at disturbance or

1 avoidance, what -- whichever the proper term is, could
2 you just qualify what is the actual measurable
3 parameter; is it caribou avoidance, is it whether you
4 see them or not? Is it an anthropocentric assessment
5 or what? What exactly are you measuring?

6

7 (BRIEF PAUSE)

8

9 MR. RICK HOOS: Rick Hoos, Developer
10 Group. In the EIS we described what we meant by
11 "disturbance" and the kinds of activities that may
12 alter the behaviour or distribution of caribou, both
13 in the local study area and less likely in the
14 regional study area.

15 We identified that caribou can be
16 sensitive to sensory disturbance, which was described
17 as being noise from machines, human presence and
18 vehicles, and displacement from habitat adjacent to
19 roads.

20 And then we went on to say what would
21 happen if habitat displacement could occur, and that
22 could result in reductions to access to security areas
23 and the efficiency of foraging strategies, et cetera,
24 et cetera, et cetera.

25 So we provided a description of the

1 kinds of disturbances that could occur in relation to
2 -- in this case it was caribou, but same -- we did the
3 same thing for other VECs (phonetic).

4 MR. BRUCE HANBIDGE: Okay, yeah.
5 Thank you. I have read that. But -- so the gist of
6 my question was:

7 What exactly are you measuring to
8 determine that there is no disturbance? What is it
9 that caused you to eliminate impact on caribou?
10 That's what I'm not clear on. What was the
11 quantitative measurement that was done?

12 MR. RICK HOOS: Rick Hoos, developer
13 group. We were relying -- or, drawing heavily on the
14 existing available literature from various parts of
15 Northern Canada and elsewhere in order to carry out
16 the assessment, as we have done for other kinds of
17 projects in Northern Canada.

18 We have also drawn on experience from
19 other actual projects, like mining projects and the
20 like, where there may have been more quantitative
21 measurements taken from time to time that would allow
22 us to identify, for instance, a set of caribou may
23 move 20 metres as a result of a blast in a mine pit,
24 10 metres as the result of a siren, 30 metres as a
25 result of a truck moving by, and even 50 metres when a

1 person approaches a caribou on foot. We pro -- we
2 used that kind of information, as appropriate, in our
3 assessment.

4 MR. BRUCE HANBIDGE: Okay. Bruce
5 Hanbidge. Thanks very much.

6 And according to, I guess, the little
7 bit of reading I've done in, sort of, the -- the guide
8 for conducting environmental assessments, the
9 cumulative effects that is the first stage, is you set
10 the parameters and make your best educated judgment on
11 spacial and temporal boundaries.

12 Just -- in the event that there is more
13 specific information that comes up, you're saying that
14 -- will you consider that in any future -- or, the
15 need for that in any future cumulative effects
16 assessment?

17 MR. RICK HOOS: Sorry, I don't quite
18 understand that question. Rick Hoos.

19 MR. BRUCE HANBIDGE: What you've done
20 to set the spacial and temporal boundaries is very
21 consistent with the scoping aspect of an environmental
22 impact assessment. But the next stage is when new
23 information comes up, you reassess and redo the
24 cumulative effects assessment.

25 And I'm just asking if that's your

1 intent.

2 MR. RICK HOOS: Rick Hoos, developer
3 group.

4 Well, with any environmental
5 assessment, as new information becomes available that
6 may shed some further light on how animals react or
7 don't react to an activity, that information, to the
8 extent that it becomes known to us, is always used by
9 us to -- for -- for whatever next assessment we may
10 undertake.

11

12 (BRIEF PAUSE)

13

14 MR. BRUCE HANBIDGE: Bruce Hanbidge.
15 John, if I have any more information here today or
16 tomorrow, I can bring it up, so we're tabling.

17 THE FACILITATOR: Yes.

18 MR. BRUCE HANBIDGE: Okay, thank you.

19 THE FACILITATOR: We'll move on then.
20 I think where -- there were some questions from MSES?
21 No?

22 Rick, I -- I just have one (1) question
23 that and it came out of the exchange.

24 How many of the studies and things that
25 you looked at that measured disturbance effects on

1 caribou, how many of them are roads? How much of that
2 background literature was related to roads?

3

4 (BRIEF PAUSE)

5

6 MR. RICK HOOS: Rick Hoos, developer
7 group.

8 When we prepared the EIS initially, we
9 drew on whatever literature was available, whether it
10 was specific for roads or whether it was related to a
11 development that may have included roads. As you
12 know, a lot of northern resource infrastructure by
13 definition has roads associated with them.

14 We also drew on our experience as the
15 environmental managers for the -- the Tibbitt-to-
16 Contwoyto winter road for the last fifteen (15) years,
17 wherein we have been from time to time monitoring
18 wildlife behaviour in the context of the winter road.

19 More recently, as a result of inquiries
20 directed to us by the EIRB, we were asked to have a
21 look at what -- what happened at Meadowbank. And we -
22 - we drew on the experience and observations of
23 monitoring that has been conducted at the Meadowbank
24 gold project in Nunavut since the road has been
25 constructed. And we presented all of that information

1 to the Board.

2 We also reviewed all of the
3 documentation provided by WMAC, or that WMAC had
4 brought to the attention of the Board and ourselves.
5 And we examined all of that information and are still
6 comfortable with the predictions we've made in the
7 EIS.

8 THE FACILITATOR: Okay, thank you.
9 Just in terms of the agenda, I don't know whether --
10 it -- are there any other questions, first of all,
11 about -- from anybody about wildlife -- wildlife
12 issues? We --

13 MR. BRUCE HANBIDGE: John, Bruce
14 Hanbidge.

15 THE FACILITATOR: Oh, sorry.

16 MR. BRUCE HANBIDGE: Maybe a couple
17 more here.

18 THE FACILITATOR: Okay, sure.

19 MR. BRUCE HANBIDGE: Okay.
20 Specifically dealing with human -- human developments
21 and impact, we're looking at an increase --
22 substantial increase in the ability for -- for people
23 in skidoos to access the area, going out laterally
24 from the highway, and have been trying to find
25 information as to any quantification of that that you

1 have, either from your -- your consultations with the
2 community or other assessments, and I'm having trouble
3 locating that. And I'm looking there from the point
4 of view of increased human access for disturbance on
5 caribou, grizzly bear.

6 MR. RICK HOOS: Okay. Thank you.

7 Rick Hoos here. We -- we have in the EIS certainly
8 discussed the existing historic, traditional trails
9 that people have used for snow machines to get them to
10 -- primarily to the Husky Lakes area in the
11 wintertime, which is of great interest to the people
12 of Tuk and, to a lesser extent but still important
13 extent, Inuvik as well.

14 We are aware and we identified
15 snowmobile trails, snow machine trails, that actually
16 extend right from Tuk to Inuvik. We accept that,
17 having -- well, I'm not sure. I -- I guess, knowing
18 the people that I know and how they use snowmobiles up
19 here it's quite different than I'm used to. They
20 drive pretty well anywhere they want to under almost
21 amazing conditions.

22 So, I would expect that snowmobiles
23 would also probably use the -- the highway once it is
24 constructed. And if they are wanting to go south,
25 that's probably going to be a pretty effective way for

1 them to head south.

2 I also do know, though, that when we
3 built the access road, or when -- as we were going
4 through the project description stage of the -- of the
5 access road from Tuk to Source 177, the community of
6 Tuk wanted to make sure that our road-building
7 activities did not interfere with their traditional
8 trails to the Husky Lakes area, which were somewhat
9 adjacent, but far enough away from the road that we
10 could, in fact, effectively avoid them.

11 Initially, we had the access road for
12 construction equipment following a series of -- of
13 lakes heading south to be able to access that road.
14 The community was concerned with that, so when the
15 road actually got constructed, we -- we moved away
16 from the plan to use some of the existing lakes as --
17 as a -- as a base for the ice road and winter road
18 and, instead, constructed a -- a winter road directly
19 adjacent and parallel to the proposed alignment of the
20 Tuk to Source 177 road.

21 I'm not sure if I'm answering your
22 questions, but I think -- I think it's fair to say
23 that we could expect snow -- snow machines to be using
24 the road as well as vehicles, unless somebody tells
25 them they can't do that. Thank you.

1 Excuse me. Rick Hoos, developer. The
2 clarification I just got from Jim next to me was that
3 the snow machines would likely use the -- the general
4 right-of-way, but not necessarily the road surface,
5 probably for their own safety.

6 THE FACILITATOR: It's John Donihee.
7 I -- Frank, just one (1) sec, please.

8 I understood Bruce's questions to be
9 asking about increased access for hunting and
10 harvesting for people that are using the road that --
11 you know, from -- in the pre-road situation, they
12 would have had to skidoo all the way from Tuk. Now,
13 they'll drive out, drop the skidoo off, and -- and be
14 able to access a much larger area for harvesting
15 purposes, with potential and consequential effects on
16 wildlife populations. So, that -- that was my
17 understanding of the questions.

18 MR. BRUCE HANBIDGE: Thank you.
19 That's correct.

20 MS. ERICA BONHOMME: Erica Bonhomme.
21 I would also add there is information about some of
22 the concerns raised during the traditional knowledge,
23 traditional land use workshops that are documented in
24 that report that relate to having the road provide
25 access to hunting and fishing. That may -- may

1 provide some answers to your information and -- or
2 your request, and Michael Fabijan could provide you
3 some specifics if you have some specific questions
4 about that.

5 MR. JOHN DONIHEE: Bruce, it's John.
6 If I just let you think about that for a minute.
7 Maybe Frank -- Frank has something he wants to say,
8 and let's let him --

9 MR. FRANK POKIAK: Thank you, John.
10 Frank Pokiak, with Inuvik Game Council. You know, I
11 was wondering who is going to be responsible for mon -
12 - monitoring?

13 Like, you mentioned skidoos. Right
14 now, that -- that access road that we have -- if you
15 go to the end of it you see a lot skidoos right there
16 right now that -- that are being used to go -- to have
17 access to Husky Lake. And some people are actually
18 dragging boats over from that access road all the way
19 to Husky Lake.

20 And if you look at the road which is on
21 that map over there, there's some places even closer
22 to Husky Lake that -- that's going to be a problem
23 where people are able to drag equipment or their boats
24 into Husky Lake.

25 So I was just wondering who will be

1 monitoring that? Because you, once you disturb the
2 tundra it continues to melt, you know, and after a
3 while, you know, you can't even use that certain area;
4 you have to make another road, you know. So it's
5 already happening with just that -- that road that we
6 have, you know, where people are bringing their four-
7 wheelers and also their skidoos.

8 And right now, if you go across the
9 harbour there's probably about ten skidoos across the
10 harbour, you know, that go all over the tundra. They
11 -- they don't even wait for winter anymore. You know,
12 so -- and right now everybody is waiting for the
13 grizzly bear season to open because some of the
14 comments I heard from the young folks is once -- once
15 the grizzly bear season opens, they'll bring their
16 skidoos to the end of the access road and start
17 hunting.

18 You know, so that's the kind of
19 concerns that I have. You know, once you disturb the
20 tundra, you know, it -- it continues to erode. Thank
21 you.

22 MR. RICK HOOS: Frank, thanks very
23 much for the question. Rick Hoos, Developer Group
24 here.

25 I've just been provided with some text

1 that came out of the ILA response to the Board's
2 inquiries about how they see themselves becoming
3 involved in managing access and controlling some
4 activities that are beyond the road, but nevertheless,
5 very important.

6 They basically indicated that:

7 "While these activities will result
8 in land impacts, the impacts can, in
9 large part, be managed and the
10 resulting activities will be
11 beneficial to Inuvialuit residents,
12 businesses, and corporations.

13 However, it should be noted that
14 monitoring and responding to these
15 impacts over time will place
16 additional draws upon the time and
17 resources of the ILA."

18 I can also mention that the Fisheries'
19 joint management committee in -- again, in responding
20 to questions from the Board certainly indicated the
21 role that they see themselves playing in helping to
22 manage activities related to the road.

23 We have, in the EIS, made it quite
24 clear we have recognized that the road does indeed
25 provide access to areas that have not heretofore been

1 very easy to get to at certain times of the year,
2 particularly the summer months.

3 And we've identified and indicated that
4 in order to make sure that the environment of the area
5 remains protected, it's going to be very important for
6 the HTC's and the Game Council and the co-management
7 agencies, and for that matter, the resource management
8 bodies to all work together to develop some policies,
9 some rules of the road or rules of conduct, if you
10 will, to -- and -- and combined with an education
11 program to allow people to understand that they must
12 respect the environment while enjoying the benefits
13 that the road provides.

14 I think we've also indicated that the
15 developer would be happy to help to try and facilitate
16 that, but that it is really beyond their mandate to
17 try and manage those kinds of activities beyond
18 managing the -- the operation and maintenance of the
19 road itself.

20 MR. BRUCE HANBIDGE: John, just
21 another question. Bruce Hanbidge here.

22 Yes, there's limits to the mandate of
23 the developer to control disturbance, but within that
24 what we're starting to see more in cumulative effects
25 assessment is you've listed a host of different

1 possible things and groups having to work together.

2 And it gets very diffuse and very
3 difficult in a hurry. So what we're seeing when
4 you're looking at a cumulative effects assessment is
5 you're seeing a shift towards -- disturbance is
6 quantified to a common denominator so you can
7 determine threshold levels.

8 I'll give the example of the boreal
9 caribou study done by Environment Canada. What we're
10 seeing with the cumulative effect assessments you've
11 done, it's qualitative. It's best -- best efforts,
12 best -- best professional judgment of the moment.

13 But we're now looking sort of the next
14 iteration and there's nothing in it this morn --
15 observation -- I'm coming towards the question.
16 There's nothing in it that quantifies levels of
17 disturbance within an area of impact, or a zone of
18 influence.

19 And once again, when you constrain the
20 area and the time, it to -- it removes any ability to
21 determine what might be an impact, and it removes any
22 ability to say what do you monitor and what do you
23 mitigate.

24 It is within, I think, the
25 responsibility of the developer to quantify. With the

1 science that we have now you can quantify a level of
2 disturbance so that you can use that as a baseline to
3 look towards cumulative additive effects.

4 And I just turn towards the Review
5 Board here. You've asked for specific information
6 over a fifty (50) year time span related to borrow
7 pits. I'd like to hear how you're -- how you're
8 addressing that.

9 MR. RICK HOOS: Rick Hoos, developer.
10 I have a little bit of a problem here in that
11 cumulative effects is supposed to be discussed
12 tomorrow, but we seem to be discussing them quite
13 regularly today.

14 I guess that's okay. Just a general
15 comment, John. Is it -- is it all right to keep
16 talking about cumulative effects at this time when --

17 MR. BRUCE HANBIDGE: I can wait until
18 tomorrow.

19 THE FACILITATOR: Well, the -- the
20 question I think is -- are -- if you're not prepared,
21 because you don't have the right people here, then of
22 course we'll defer it until tomorrow. But if you have
23 the people here, we have the people here, you know, it
24 seems to me we should use the time productively. So
25 it's -- it's your call.

1 MR. RICK HOOS: Okay. Fine. Rick
2 Hoos, developer group. I was hoping to prepare myself
3 a bit better for this discussion for tomorrow, but
4 what the hell, we can do it today. Pardon my English.
5 That's -- that's off the record, wherever the record
6 is.

7 MR. JOHN DONIHEE: It's all without
8 prejudice, Rick. You can change your -- you can
9 change your mind tonight and tell us something
10 different tomorrow if you want.

11 MR. RICK HOOS: Sorry. No, I -- I
12 won't do that. In terms of the environmental
13 assessment, we have determined that there will be no
14 significant effects and minimal residual effects on
15 any and all environmental parameters related to the
16 development of this road.

17 We've also reviewed the past historical
18 projects that have taken place in the -- this part of
19 the world, and we explained why none of those projects
20 were having any sig -- any measurable effects on any
21 of the wildlife species removed from the road area
22 itself.

23 So we basically concluded there was no
24 way that there could be cumulative effects between the
25 road and these existing past historic projects. We

1 also looked at potential future projects, the largest
2 one (1) of being -- being the MGP, the Mackenzie Gas
3 Project.

4 We also reviewed their cumulative
5 effects assessment, which from their point of view
6 also considered the possible existence of a highway
7 between Inuvik and Tuk. And their cumulative effects
8 assessment concluded the in essence there were no
9 cumulative effects that they could perceive between
10 the Mackenzie Gas Project and other activ -- past or
11 future activities in the Mackenzie/Delta area.

12 So we did not choose to disagree with
13 their cumulative effects assessment. They spent a
14 whole lot more money on it and a whole lot more time
15 than we did for this project, which is considerable
16 smaller. I have more to say, but I'm just trying to
17 think of what it is.

18 In terms of other future developments,
19 part of cumulative effects assessment is that you
20 should really consider possible developments that are
21 either in the regulatory review phase or have some
22 reasonable potential to occur. And in that respect,
23 we -- we -- we identified only a limited number of
24 such projects as being possible.

25 Apart from the Mackenzie Gas Project --

1 and I should say, I was manager for the predecessor of
2 the Mackenzie Valley gas pipeline for almost ten (10)
3 years with TransCanada pipelines. So I have some
4 understanding of natural gas pipelines and -- and
5 whatnot. I was involved with the review of the
6 Mackenzie Gas Project on at least three (3) iterations
7 between the 1970s and the present time.

8 I have been following, as other people
9 have, with great interest, the possibility of this
10 Mackenzie Gas Project going forward in the next
11 conceivable few years. And I -- I personally -- this
12 is my own, personal feeling, but I don't see that
13 Mackenzie Gas Project moving forward for at least
14 another ten (10) years, if not considerably longer.

15 And if the Mackenzie Gas Project does
16 not go forward, not too much is going to happen at
17 Parsons Lake either, since it is one of the prime
18 fields feeding into the Mackenzie Gas Project.

19 We also looked at the Tuktoyaktuk
20 Harbor Project, which is still a bit of a dream, but
21 it's out there. And we looked at a possible future
22 Husky Lakes development. Husky Lakes area has been
23 developing, from -- from a Northern perspective, I
24 would say, quite quickly. There are more and more
25 cabins popping up at the Husky Lakes, even as we

1 speak.

2 Suffice to say, that kind of
3 development, any access trails or whatnot to the Husky
4 Lakes, any development of docks that might be
5 conceived of, all is within the purview of the ILA and
6 needs to be carefully managed. And, in fact, in the
7 scoping sessions -- or actually, not in the scoping
8 sessions but in the project description stage of this
9 project, the ILA representative of the day assured
10 people that were listening that it was the ILA's
11 responsibility to manage those kinds of act -- or,
12 help to manage those kinds of activities, and they
13 will do so.

14 Beyond ten (10) years -- and I know
15 people would like us to project fifty (50) years down
16 the road -- we don't see very many projects happening
17 in the Mackenzie Delta area of interest here for the
18 foreseeable future. Offshore oil and gas is still
19 possible, but it's very challenging. And frankly, gas
20 isn't going to happen in -- any gas-related
21 activities, whether onshore or offshore, are not going
22 to happen until the Mackenzie Gas Project is built and
23 shale gas is pushing Mackenzie further and further in
24 the background.

25 And oil in the offshore -- well, apart

1 from the fact that there was a moratorium put on by
2 the Gulf of Mexico blowout that has now been lifted, I
3 spoke with representatives of one of the companies
4 that is hoping to drill in the offshore Beaufort Sea.
5 And they have a few problems. One of them is drilling
6 a well in the deeper offshore Beaufort Sea is going to
7 cost them approximately \$1 billion, because it would
8 require three (3) complete drilling seasons at about
9 \$300-something million a year.

10 Beyond that, it requires a drilling
11 fleet, including a drill ship and support vessels,
12 none of which have actually been built yet. And the
13 companies are reluctant to build such expensive
14 equipment until such time as they have gone through an
15 environmental assessment process and received some
16 sort of a green light. And none of that has happened.

17 So even being an optimist, as I am, for
18 the oil industry, it doesn't seem that oil and gas
19 activities in the offshore area is even going to
20 happen in -- in the next, I'm going to suggest, ten
21 (10) years at least. But if it were to happen, I'm
22 not convinced that -- that that would have much impact
23 on the -- on the road itself, because most offshore
24 equipment will come in in a floating mode. They would
25 certainly benefit from having a support base at -- at

1 Tuk or elsewhere. And that's one (1) of the reasons
2 why Tuk is very keen on developing a -- a deeper water
3 harbour in relation to their community.

4 But apart from potential future oil and
5 gas development or oil exploration, and hopefully
6 development in the offshore Beaufort Sea, and a
7 possible Mackenzie gas project -- which, if it did
8 come about, would certainly mark the beginning of the
9 next hundred years of oil and gas activities in the
10 Mackenzie Delta, it certainly would, but it's not
11 really on the next ten (10) to fifteen (15) year radar
12 screen, as far as we're concerned.

13 And the problem with trying to make
14 predictions beyond even a ten (10) year time frame,
15 although people can always try to do it, the fact is,
16 the biology of the systems changes. Caribou
17 populations ebb and flow, increase and decrease. So
18 do populations of other animals. And it's very
19 difficult to predict how these VECs will change over
20 time such that you can do any kind of reasonable
21 assessment of cumulative effects looking beyond a
22 relatively short time frame.

23 We had defended the ten (10) year time
24 frame as being a time during which we could observe
25 and learn from the construction of the road. We could

1 observe and learn from the operation of the road. And
2 that information itself would help in judging the
3 future potential cumulative effects related to other
4 activities, should they come about.

5 Long story. I'm sorry. I've got too
6 much history with this part of the world, and I've had
7 too many experiences in the past where we've tried to
8 make extensive predictions about the future, and none
9 of that future ever transpired. And it's a little --
10 it's been a little discouraging. Thank you.

11 THE FACILITATOR: Thank you, Rick.
12 Bruce, I think I forgot what your question was. Did
13 you?

14 MR. BRUCE HANBIDGE: No. It was just
15 -- the specific question was on temporal boundaries,
16 and I think Rick got around to answering most of the
17 pieces somewhere in there.

18 THE FACILITATOR: Good. We're leaving
19 at that. We're not going back to that question. You
20 know -- it's John Donihee. I -- I think it's late.
21 We're probably a little ahead of schedule, and I think
22 my preference would be to let people rest and organize
23 for tomorrow rather than try to continue on.

24 I -- I do have one (1) request that I -
25 - I would like to make of the developer's group, if --

1 if you will consider it. And that's simply that, over
2 the course of the day, there's been a number of times
3 where, you know, reports being imminent and about to
4 be filed, some just August 31st, some soon, some
5 you're -- you're going to talk to other people.

6 And we could get that same information
7 simply by combing through the -- the transcripts, but
8 I'd like to offer you the opportunity to come back
9 tomorrow with a bit of a summary of what -- what's
10 coming our way before -- before -- well, I say "our,"
11 what's coming in the direction of the other
12 Intervenors before August 31st.

13 Because, you know, the -- the request
14 that we've made of them, although there's been a -- a
15 -- I think a little bit of flexibility with the --
16 with the timelines now because of other hearings
17 happening next week, the request we made was for them
18 to -- to file their technical submissions on the 4th
19 of September. And, of course, August 31st leaves them
20 working over the Labour Day weekend.

21 Now I think the deadline is the 7th of
22 September. And even then, I think they may be hard-
23 pressed. And so, you know, I think, from the
24 standpoint of what the -- the Board needs to do, we
25 are meeting with them on the 4th, and we -- we need to

1 look at how this is working to go forward so that we
2 make sure that all the parties can put their best foot
3 forward in front of the Board.

4 To help us do that, if you could give
5 us this summary of what is about to -- what's still on
6 the -- on the list to be filed or any addenda that
7 were talked about today and things like that, it would
8 be most helpful.

9 And nobody is going to be held to this,
10 we just -- we're just trying to sort of keep track and
11 strike some things off the list and -- and that sort
12 of thing. So if the developers group would do that
13 for us we can circulate it first thing in the morning
14 and make sure everybody is on the same song sheet with
15 that, I think it would be very helpful.

16 So, literally all I am asking for is
17 one (1) piece of paper with a couple of -- of reports
18 and -- and deadlines that are going to be filed on it,
19 nothing more than that. So it shouldn't keep you out
20 of the bar too long.

21 Yes...?

22 MS. ERICA BONHOMME: Erica Bonhomme.
23 I just have one (1) piece to add to that, if it's
24 useful to the Board and others, because I think many
25 of the reports you're referencing are Kavik-Stantec

1 reports.

2 We have filed preliminary versions of
3 all of those reports, they've been on the Board's
4 record for quite a while. And today we've provided
5 some clarification on what additional information has
6 been collected over the course of summer surveys and
7 how that information will be used to update those
8 reports, and in some cases the results of the studies
9 themselves.

10 So I would encourage people not to wait
11 until the final reports to ask us questions. I see
12 today as a really -- today and tomorrow as a really
13 good opportunity to ask us questions that you may
14 have. But those final reports are largely going to be
15 updates based on field verification of the preliminary
16 reports that have already been filed.

17 I have a second point, which is I have
18 some further information to provide regarding a
19 discussion we had earlier on species that are
20 harvested in the study area and how they relate to the
21 vegetation classes we have identified.

22 And those -- there is an important -- a
23 useful piece of information that I neglected to
24 mention, and that's that the species cover within each
25 of those vegetation classes is actually defined by the

1 studies that were done in support of the Mackenzie Gas
2 Project.

3 And I would refer you to Volume 3,
4 Section 9 of the Mackenzie Gas Project EIS, which has
5 a description of the species and percent cover for all
6 of the vegetation types within the tundra ecological
7 zone, and the two (2) that we have identified from the
8 forest -- transition forest ecological zone.

9 THE FACILITATOR: Thank you. The --
10 tomorrow we -- we still have a couple of little carry
11 over items related to -- to wildlife. Lisa, we'll --
12 we'll deal with the questions that were tabled by the
13 Inuvik HTC probably fairly early in the morning. So
14 hopefully we can -- we can get you up here with us.
15 And, you know, we can make sure that each of those
16 questions gets answered for you.

17 Other than that, we're -- you know, we
18 -- we've made some progress into what actually was
19 tomorrow's agenda already. And I suspect that -- you
20 know, we -- we'll put our heads together tonight as
21 well and -- I mean, I -- I think we probably have a
22 pretty good day's work to do tomorrow, but I don't
23 think it's going to be overwhelming.

24 I encourage you all to give thought to
25 the items that are left on the -- the agenda that

1 relate to your mandate, or you department's mandates,
2 or organization's responsibilities. Let's try to be
3 as focussed as we can and get the most that we can out
4 of the -- the session tomorrow.

5 I -- I didn't move on to climate change
6 because I -- I know NRCan had some issues there. But
7 I really -- I really was hoping to have Dr. Burn in
8 the -- in the room when that discussion happens, so
9 that's why I decided to -- to cut it off.

10 So with that said -- oh, Gordon has
11 some housekeeping matters and then we can adjourn for
12 the day.

13 MR. GORDON STEWART: Thanks, John,
14 Gordon Stewart here. I think there was one (1)
15 outstanding item from before lunch this morning that
16 you were waiting for Jim Stevens to come. We can
17 either answer it now or -- or you can discuss it and
18 you can ans -- tell us in the morning, regarding
19 consultation, I believe.

20 The other housekeeping item for
21 everybody is we've asked people to leave us with their
22 business cards. So those that have not provided a
23 business card if you could please do so, that would be
24 very helpful for us.

25

1 (BRIEF PAUSE)

2

3 THE FACILITATOR: Sorry, Ms. McGregor,
4 you were supposed to talk to Mr. Stevens at the break
5 and report back to us, and I wonder if you're ready to
6 do that. If not, we'd be happy to hear from you in
7 the morning.

8 MS. ROBYN MCGREGOR: Yes, I think I
9 can respond, Robyn McGregor here. We -- we had a --
10 we will be able to provide, in time for the public
11 hearings, eleven (11) by seventeen (17) plan and
12 profile sheets. And to be clear, so that -- so that
13 there's no expectations of more things to be shown on
14 those plan and profile sheets, the top half of the
15 sheet will show the highway alignment in -- in plan
16 and it will show what we are discussing now, which is
17 Alternative 3, the preferred alignment.

18 It will be the central line overlaying
19 on the air photo imagery in the background, similar to
20 the terrain maps that you have seen and the map books
21 that are included in the PDR -- and in the EIS. And
22 there will be kilometre posts shown on those and
23 stream-crossing locations.

24 So from the plan information you would
25 be able to relate that back to the other reports and

1 information that have been provided by the kilometre
2 post location.

3 In the profile it will be a simple
4 vertical grid that shows two (2) lines, the existing
5 ground based on the elevation data that we have used
6 in the past to produce the preliminary design and the
7 central line of grade line for Alternative 3.

8

9 (BRIEF PAUSE)

10

11 THE FACILITATOR: Now this arose
12 because of Mr. Zytaruk's question. It -- it sounds
13 like this is what's possible. I guess the question is
14 -- I -- I do apologize, I didn't hear you say when --
15 when that would be available.

16 MS. ROBYN MCGREGOR: It's Robyn
17 McGregor here. In time for the public hearings.

18 MR. BRIAN ZYTARUK: Brian Zytaruk from
19 FJMC. Yes, the best we can do in the time frame. So
20 it's useful information, so it's great to have it in
21 that time. Okay.

22 THE FACILITATOR: Rick, just one (1)
23 other point. You have several PowerPoints, I guess,
24 that you're going to show us tomorrow. I wonder if we
25 could get them either on -- give it to one (1) of our

1 folks on -- on a stick or something and we'll charge
2 back to the office and we can email it out to
3 everybody so that -- it -- it's good for them to have
4 a -- the opportunity to look at it. I'd -- I'd hate
5 for them not to have anything to do tonight, so.

6 MR. RICK HOOS: Rick Hoos, developer
7 group. We'd be very pleased to provide those to you.
8 That's kind of the reason why we introduced it as a
9 possibility at the beginning of the day, so we're more
10 than happy to do that.

11 THE FACILITATOR: Okay. Unless -- any
12 -- any -- anything from anybody else, otherwise the
13 gavel comes down. Okay. We'll see you at nine
14 o'clock sharp tomorrow, please.

15

16 --- Upon adjourning at 4:38 p.m.

17

18 Certified correct,

19

20

21

22 _____

23 Mr. Sean Coleman

24

25

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