APPEARANCES
CLEAN ENVIRONMENT COMMISSION
Terry Sargeant - Chairman
Pat MacKay - Member
Brian Kaplan - Member
Ken Gibbons

- Member

Michael Green - Counsel to the Board
Cathy Johnson - Commission Secretary
MANITOBA CONSERVATION AND WATER STEWARDSHIP
Bruce Webb
Elise Dagdick
MANITOBA HYDRO
Douglas Bedford - Counsel
Janet Mayor - Counsel
Shannon Johnson
BIPOLE III COALITION
Brian Meronek - Counsel
Karen Friesen
Garland Laliberte
CONSUMERS ASSOCIATION OF CANADA
Byron Williams - Counsel
Gloria Desorcey
Aimee Craft - Counsel

MANITOBA METIS FEDERATION
Jason Madden - Counsel

MANITOBA WILDLANDS
Gaile Whelan Enns
GREEN PARTY OF MANITOBA
James Beddome
PEGUIS FIRST NATION
Robert Dawson - Counsel
TATASKWEYAK CREE NATION
Ian Cluny
Shaun Keating
PINE CREEK FIRST NATION
Charlie Boucher
Warren Mills
John Stockwell

```
INDEX OF EXHIBITS
EXHIBIT NO. ..... PAGE
MMF 32 Mr. Madden's memo, March 6th ..... 6905
MMF 33 Canadian Taxpayers Federation ..... 6905 letter
MH 122 Record of meeting from Manitoba ..... 6905 Hydro at Minitonas Community Centre
MH 123 Mr . Hegmann's CV ..... 6905
MH 124 Mr. Hegmann's letter of February ..... 6905 18th
MH 125 Mr . Hegmann's testimony ..... 6905
MH 126 Response to the Clean Environment ..... 6905 Commission Hearings for Peguis First Nation rebuttal
127 Response to undertaking from Mr. ..... 6905Gibbons
BPC 18 Coalition report ..... 6905
CAC 12 Mr. Williams' supporting materials ..... 6905
```

INDEX OF PROCEEDINGS
Hydro Panel - Mr. P. McGarry, Mr. Tymofichuk, Mr.
Ortiz, Mr. Penner
Questions by the Panel 6782
Hydro Panel - Rebuttal - Mr. Neufeld, Mr.
Tymofichuk, Mr. Mazur, Mr. P. McGarry, 6820
Cross-examination by Mr. Meronek 6822
Questions by the Panel 6842
Hydro Panel - Presentation by Mr. G. Hegmann, Mr.
C. Osler,
Presentation6848
Cross-examination by Mr. Williams 6865
Questions by Panel 6879
Re-examination by
Tataskweyak Cree Nation - Closing argument
Mr. R. Lowe, Mr. C. Young
6 9 0 6
Pine Creek First Nation - Closing argument
Mr. W. Mills, Mr. J. Stockwell
6 9 1 4
Manitoba Wildlands - Closing agrument
Ms. G. Whelan Enns
6 9 2 7

```

Tuesday, March 12, 2013

Upon commencing at 9:00 a.m.

THE CHAIRMAN: Good morning. We'll reconvene.

Today on the agenda, \(I\) guess it's a bit of a potpourri. First up we have some clean-up questions from panel members, and believe me, they may be all over the place. Following that, probably following the morning break we'll have Manitoba Hydro's rebuttal, and into the afternoon some cross-examination on the rebuttal. And then following that, perhaps, as many as four participant groups will make their final arguments.

So turning to the clean-up questions, I think all of the panel members will have one or more questions. I'm going to start off with one that's a bit of a mystery arising from yesterday's testimony, and then I'll let my colleagues go.

Yesterday we heard from Wuskwi Sipihk about marten and fisher. I want to tell you, on Sunday I was out at my cottage near Gimli and I saw a fox go off. I was out walking and he was down the road a block or two. And probably when he saw me, he cut off the road and went through
the ditch and across a little bit of a field. And later on \(I\) drove by to see if I could see his tracks. And I was in my car, I was closer than that projector stand is from me before I could see the tracks. And by the time the tracks got as far away as perhaps Gerald or Shannon, I couldn't see them anymore. So I'm really wondering how you see marten tracks out of an airplane flying along at 120 miles an hour, or whatever airplanes do. Can somebody answer that one for me?

MR. McGARRY: Good morning,

Mr. Chairman, Commissioners, ladies and gentlemen. Not having done that particular exercise myself, what \(I\) do know about track observation is that a gait, the way the animal places its feet, there is a lot of indicators other than the track itself, how the prints are positioned and so on. There's more to it than just the observation of prints with toes and heel pads. So it is possible to identify quite a bit from aerial track surveys. The extent of that would have to be left to an expert, but that's what \(I\) can share with you now.

THE CHAIRMAN: Okay. I'm not sure that it fully satisfies, but I understand and I'll
accept that for today.
Mr. Gibbons, do you have some
questions?
MR. GIBBONS: Yes, I do. Good morning, panel.
And I think the questions that I have are largely, I would call them clarification questions, trying to bring together some of the things we have heard by way of responses over a period now of many weeks, but still seem to be a trifle unclear. And also in some cases, probably motivated in part by continuing concerns raised by some of the participants.
The first of these has to do with the use of herbicide. If I recall the testimony previously, I understand then through that that herbicide typically would not be used for clearing, but may be used for the maintenance of the ROW. And as you probably recall, we have had several First Nations, and I think the MMF both raised questions about herbicides in areas where they do harvesting. Can we get sort of an overall response to that as a kind of summing up of Hydro's policy in that regard?
MR. PENNER: Yes. Glenn Penner.

down. And with herbicide applications, you tend to promote the low growing and the shrubs and the grasses that choke out the larger trees, And eventually we are doing very minimal herbiciding application.

We have been talking with Pine Creek in the area around them and around their concerns about herbiciding, and we would have buffers around riparian zones. As well we would be engaging someone from the community to be involved in the observation, as well as we are discussing the opportunity that we could potentially use a contractor directly from the community and create an opportunity for the community to be involved in this work, and certainly something that they could build in their community to work on some of this herbiciding.

MR. GIBBONS: A subset of that
question relates I guess to a concern that was again raised within the last couple of days about the use of herbicides in harvesting areas. Is it possible, or is it practised by Hydro now to indicate, to have markers of some sort to indicate where that spot herbicide use might be used? Because one of the concerns that was raised was
that, if it's known that herbicides have been used, not knowing the full extent of that use, people may avoid that area completely. I'm thinking here in particular about berry harvesting, something which I spent a fair bit of my youth doing and I suppose I have an extra sensitivity to. But berry harvesters presumably would be concerned if they knew herbicides were used. Is there some provision for Hydro to indicate that there was a limited use here and that areas are relatively -- I shouldn't say relatively, but are free of herbicide use? In other words, where they weren't used in a spot fashion?
MR. PENNER: Yeah, I think that's something that could be done, certainly in areas where there's going to be blueberry patches, there's not typically going to be tall trees. So, in general, we typically won't be herbiciding anywhere near those open patches. But certainly if there was areas of sensitivity that we could identify and work together with the First Nation, or the concerned group, that we could create some sort of sensitive zone that we would mark out as being a non-herbiciding area.

MR. GIBBONS: Related to this, but distinct from the herbicide question is the pattern of regrowth and how that regrowth might enhance or detract from harvesting opportunities, not just in regards to berries, but in other cases.

As a general, if you were to summarize Hydro's sort of policy position on this, how would you describe the regrowth that is expected on the right-of-way and how that might affect, positively or negatively, harvesting opportunities, hunting opportunities, et cetera, for the First Nations and Metis that use these particular areas?

MR. PENNER: I'm sorry, I missed the first part of your question?

MR. GIBBONS: I'm saying, if we put aside for the moment the herbicide question, how would you summarize -- I'm even thinking that this could be the kind of thing that was presented at a meeting with First Nations or Metis groups -- how would you summarize Hydro's approach to the regrowth permitted in ROWs in terms of how it either positively or negatively affects harvesting, whether it's berry harvesting or hunting or what have you?

I think in our tour up north near Gillam, we had a sense that a certain amount of regrowth was permitted. Most recently there was an answer to a question which made reference to trees up to 17 metres in height. As a result of that, I'm not quite sure what the standard practice might be?

MR. McGARRY: Just the first part of that \(I\) can speak to. If you're referring to berry patches, for instance, in terms of regrowth, the berries need some regeneration as part of their natural cycle anyway, which traditionally fire used to take care of. But Manitoba Agriculture and Food has done some studies on using mowing for maintenance of a right-of-way, and it's showing that to be effective in creating the regrowth, if that's what you're referring to.

The second part of that I'll leave to Mr. Penner.

MR. PENNER: Yes, there is a fair amount of growth that happens, especially in the undergrowth on right-of-ways. As we have exposed and taken down the larger trees, a lot of the undergrowth comes back fairly thick. And where the trees are not a danger that will grow -- and
essentially we can't come back every year, we just have too many right-of-ways to clear. So when we're going down that right-of-way, if we know that there are trees that are going to become danger trees, they have to come out. But if we know that they are not, that there's adequate clearance, you know, in stream bank areas and places where there's significant clearance, we don't take out all of those trees.

So, year one, certainly after we have come through and cleared that right-of-way is certainly a worst case condition, that the right-of-ways do come back and become very -certainly lots of undergrowth, and typically brush and smaller trees are left in place.

MR. GIBBONS: I'm moving in a slightly different direction now, but you had made reference to it earlier when you mentioned the use of herbicides and using local communities, or contracting people from local communities to do some of that work. Can we get, perhaps, again at least a broad picture of Hydro's policy in regards to the employment of people in the areas where the construction is being done and so forth, beyond say mere clearing activities, which are presumably
low paid and intermittent kind of work. I know that some of this may be covered through the contracts that you have with individual First Nations, for example, but is there a general policy where you were trying to, if not certainly meet certain targets for local employment, make provision for local employment that may be of benefit to the communities through which or near which these ROWs are being brought forward?

MR. PENNER: Sure. There's kind of a three-pronged approach there. So on the clearing components of Bipole III, we are engaging directly with the First Nations. They are working with joint venture partners, and they are becoming the contractor that will do the work. So they will do the hiring and be running the equipment and do all of the clearing work. And it's now -- a majority of the Bipole III right-of-way that's been split into eight different segments, and I believe it's now five different segments that we now have joint venture contractors that will be doing that work.

In addition, during construction,
through our transmission line agreement, through the project agreement and our specifications, the contractors that hire for the project will have to
hire their employees through a hiring preference or a priority. And in the north, I think this is probably on the record, but the northern one, off the top of my head, it's northern Aboriginal, followed by northerners, followed by Manitobans. In the central sections, we define it as local Aboriginals. And the idea is that they have to go through and look at each one of those candidates that have applied. And the way that we ensure that there is opportunities is we will be talking with each First Nation group and getting contact names that will go into specifications when we bid these tenders. And from there, anybody interested in bidding on that work will have contact names to reach every community, to find out what kinds of local businesses are available to help with this, as well as local employment.

In addition, prior to starting the project, the plan right now is to have like hiring days in each community. So the contractor, Manitoba Hydro and the unions would be in each of these communities prior to the start of the project. And people interested in the work can come forward, bring their resumés, and even go through interviews on that day, but drop off their
resumés and get a sense of what kinds of work is available on the project.

So what kind of work is available on the project? It ranges from brush clearing, hand clearing for the clearing work, heavy equipment operators for clearing work. Certainly there's opportunities in fuel supply, in catering. On the construction side of things, again, there's tower assembly, tower erection. There will be opportunities for people to work on installing foundations and stringing wire.

When it gets to linemen type work, we certainly need to have people that are experienced in that work. And it takes more than a few months of training to be involved in stringing the work, but that's something that, if there is interest in the communities that some contractors may be willing to start training on the job for some of these types of opportunities.

So it's a gamut of work. And again, in the north it's short duration work. So we've got kind of January, February, March and into April, so it's kind of three and a half months of work, and then the contractors will have to wait for the following winter.

MR. GIBBONS: As a follow-up to that question, we had a brief introduction to some young people in Gillam who were part of the Red Seal program. Can you give me a sense of how extensive that program is? Is this something that is only applied to a handful of people each year? And also the duration, I'm presuming it's a long-term commitment from Hydro to continue this program. So is there anything you can tell us about the Red Seal program, which in contrast to some of the things that you just said, I think opens up opportunities for longer-term employment, and also perhaps not wanting anyone to leave the province necessarily, but does give them skills that are marketable beyond the duration and the location of say the Bipole development and so on. So is there anything you can add there?

MR. PENNER: Just one second.

I'm sorry, I didn't have the
opportunity to hear that in Gillam. My
understanding on the Red Seal program is that

Manitoba does not recognize Red Seal linemen at this point. And there is no training program for linemen, or construction linemen in the Province of Manitoba. That's different in other provinces.

So Manitoba Hydro trains linemen and would certainly be interested in having any First Nation communities that want to have their people trained to participate, and we have certainly extended that offer multiple times.

In Manitoba, I guess, I know that they are working towards accepting some sort of Red Seal program, but at this point I don't believe it's in place.

MR. GIBBONS: The Red Seal students then that we saw at Gillam, they are working in the area of station operation as opposed to line development and so forth?

MR. PENNER: Yes, correct.
MS. MAYOR: Mr. Gibbons, during the last round of collective bargaining with the International Brotherhood of Electrical Workers, there was also a provision negotiated so that the corporation, along with our union, are working towards certification of one of the apprenticeship programs into the Red Seal, and they are hoping to build upon that. So, as Mr. Penner indicated, with the apprenticeships and all of our pre-project and pre-placement apprenticeship programs with Aboriginals and other groups, we are
hoping that that will be something that will be addressed through that process.

MR. GIBBONS: Thank you.
Last question, again off in a different direction this time. But we have had raised at various times, \(I\) think most notably in Gillam, by residents of the Fox Lake First Nation, questions about the interaction between Hydro employees and First Nations. And of course in Gillam, the interest is there because of the camp that will be located in that area.

There's a lesser concern perhaps, but nonetheless a concern elsewhere along the line, but it's lesser because of the numbers of people and the duration of the work in each area.

One of the things that I am not clear on is whether or not Hydro has collected information about the experiences that they have had with, for example, Bipole I, Bipole II, or other -- more recently with the development at Wuskwatim -- experience in these areas of interactions, and how those informed the decisions that were made about how they were going to operate the camp at Keewatinoow, and more generally along the line? I take it there is no
\begin{tabular}{|c|c|c|}
\hline 1 & report that was ever done on Bipole I and II that & Page 6796 \\
\hline 2 & did a follow-up study or whatever, but presumably & \\
\hline 3 & there's some internal anecdotes or whatever that & \\
\hline 4 & informed that decision process that lead to some & \\
\hline 5 & of the rules that were put in place for & \\
\hline 6 & Keewatinoow camp? & \\
\hline 7 & MR. McGARRY: Just to clarify, & \\
\hline 8 & Mr. Gibbons, relating to Fox Lake in particular? & \\
\hline 9 & MR. GIBBONS: Sorry, Pat, I couldn't & \\
\hline 10 & hear your reply? & \\
\hline 11 & MR. McGARRY: Maybe if you could help & \\
\hline 12 & me a bit, clarify the specific you are looking & \\
\hline 13 & for? Is it employment interaction or -- & \\
\hline 14 & MR. GIBBONS: No, not in this case, & \\
\hline 15 & but the social interaction, there were some rules & \\
\hline 16 & that have been put in place for Keewatinoow, the & \\
\hline 17 & camp there, presumably some concerns along the & \\
\hline 18 & line as well as it moves south in its construction & \\
\hline 19 & phase, about the rules and so forth. How shall I & \\
\hline 20 & phrase this? There were concerns raised by the & \\
\hline 21 & community, particularly in Gillam, the number of & \\
\hline 22 & employees from Hydro that will be there that will & \\
\hline 23 & create certain social realities that may be & \\
\hline 24 & difficult for a town the size of Gillam to handle. & \\
\hline 25 & And I think that was the primary concern. So I & \\
\hline
\end{tabular}
1 guess what I'm asking is, in the course of previous Hydro developments, whether it's Bipole I and II, or more recently with Wuskwatim and so on, has there been some knowledge acquired about how to deal with these questions, and did that help inform some of the decisions made about the Keewatinoow camp?
MR. McGARRY: Well, certainly the recent experience with Wuskwatim has been informative on that type of thing, and how to manage workers coming and going from a facility. It's a little different because it's much more isolated development than we're looking at Keewatinoow, which would bring it much closer to a community on an existing road system. As you recall, for Wuskwatim there was a road especially constructed to get in there, so it was very easy to control access. The Keewatinoow development is on an existing road, although part of it's private, the Hydro, and part of it's Provincial. But in compiling the socioeconomic assessment, you'll note in the EIS there were a number of measures to try and ensure that workers generally stayed in camps and minimize their excursions into the community. I don't remember all the specifics
but they are listed in the EIS.

In addition to that, we recognize, in spite of all that attempt at reducing interaction with temporary workers and community, there's still that possibility there will be some worker interaction, and possibly negative. With that in mind, there is a committee, the Harmonized Gillam Development is working on developing specific measures to try and inform the community and deal with any potential negative interaction of temporary workers in particular in the area. So that's where we sit today in terms of the worker interaction aspect of those temporary workers.

MR. GIBBONS: And sorry, that is the kind of thing \(I\) was looking for. The committee, I don't know how much you can say about the committee at the moment, but in terms of its membership, people drawn from both Hydro and the community, or is this something that's strictly internal to Hydro?

MR. McGARRY: I believe the committee is inclusive of local communities, including Fox Lake as they are part of the -- they are part of the overall Harmonized Gillam Development, so it involves the First Nation in that planning. The
committee will obviously do the same because it's very germane to Fox Lake interests, so...

MR. GIBBONS: Okay. Thank you very much. That's it.

THE CHAIRMAN: Mr. Kaplan?
MR. KAPLAN: I just have one question, and it's a result of the presentation yesterday by Mr. Turenne on behalf of the outfitters, you may recall if you were here. And I never sought to hunt a bear, nor do \(I\) care to do that in the future. But on behalf of the outfitters, the question that Mr. Turenne posed, as you may recall, was an issue of compensation. And it was in furtherance of the background that he gave you, wondering the difference between what Hydro does vis-a-vis trappers and outfitters. And I don't think he quite understood what the difference was.

Now, I'm sure one of you can answer that with a little more clarity perhaps. I have read both responses given by the lawyers for Hydro, Ms. Mayor and Mr. Bedford, to the two outfitters as to their request for compensation. I think one being in the neighbourhood of \(\$ 21,000\), because of the line coming close to where their bait goes out and bears come, et cetera, et
\begin{tabular}{|c|c|c|}
\hline & & Page 6800 \\
\hline 1 & cetera. & \\
\hline 2 & So my question to you is, being & \\
\hline 3 & semi-retired, I have never dealt with millions and & \\
\hline 4 & billions of dollars like Hydro seems to be dealing & \\
\hline 5 & with, we are talking, for want of a better phrase, & \\
\hline 6 & spit in the ocean it seems to me, requested by the & \\
\hline 7 & outfitters. What is the difference between the & \\
\hline 8 & outfitters and trappers vis-a-vis compensation? & \\
\hline 9 & MR. McGARRY: Well, first of all, & \\
\hline 10 & there are slightly different ways of generating & \\
\hline 11 & income. The trapping program is long-established, & \\
\hline 12 & well-regulated, involves people for long-term & \\
\hline 13 & livelihoods. It's multi species, multi animals, & \\
\hline 14 & production changes from year to year. And so it's & \\
\hline 15 & a recognized area that there will be some & \\
\hline 16 & disturbance. Yeah, it could affect the trapline. & \\
\hline 17 & To deal with that, rather than go through a & \\
\hline 18 & process every time with every individual trapper, & \\
\hline 19 & a program was created to deal with that particular & \\
\hline 20 & instance. & \\
\hline 21 & In the case of outfitters, two have & \\
\hline 22 & come forward with some issue about the impact on & \\
\hline 23 & their businesses, which we recognize and have & \\
\hline & responded to them. Their business is slightly & \\
\hline 25 & different. It's mostly about the spring bear & \\
\hline
\end{tabular}
hunt. It's a fixed number of licences. There's a small number of business people. It really comes down to a case-by-case basis as to how Bipole III or any transmission project would actually affect that operation.

But I would say to Mr. Turenne, he came forward with quite a fear about the claims process. The process is legitimate and Hydro stands behind that. If you make a claim, it will be recognized on its merit. And I can see there are potential instances for an outfitter such as Mr. Grant and Adrenaline Outfitters where, for instance, the relocation and re-establishment of a bait station could incur cost as a result of Bipole III. To me that's a legitimate claim, and the process will accommodate. But we don't have all that information up front. There is a limited number of people that have come forward with an issue related to compensation. We have contacted all the trappers in our study area -- I mean, pardon me, all the outfitters in our study area. They have had a chance to respond, and we recognize that. But, I mean, the process to deal with that \(I\) think is appropriately the claims process, which is definitely different than the
trapper process.

MR. KAPLAN: But if I could go one step further and say to you that just as much as Hydro has to project \(15,20,25\) years into the future, as best they can, and sometimes they are right and \(I\) assume sometimes they are not right, so do outfitters with respect to the yearly amount of reservations taken and getting ready for the people who want to use outfitters. So they know in advance, based on prior involvement, what their losses could be because of this. What more do you want them to do? And I don't think that was as clearly put, with all due deference to both counsel, in counsel's response to the outfitters.

MR. McGARRY: Well, again, the process is not set up to pay up front in terms of disturbance. One thing, the whole basis of that business is you have non resident game licences for generally black bear for the people we are talking about. Very few hunters, as Mr. Turenne indicated, go home without a bear, and that drives the business. So in relation to Bipole III then, one has to ask oneself, what's the impact on black bear? There may be slight disturbance during construction. Mr. Grant has pointed out that
perhaps there will be some inadvertent uncovering of bear denning. Yes, that's possible. We have identified that as mitigable, in a sense if it's encountered, we will temporarily avoid that area until the den is vacated.

So there's potential for minor
disturbance, but overall in terms of habitat and use of bear population in the area of a Bipole III right-of-way, would be very small. And then it comes down to a case-by-case basis as to how that operation affects an outfitter.

MR. KAPLAN: Thank you.

THE CHAIRMAN: I'd just like to follow
on this line. Why not a compensation program similar to the trappers' program?

MR. McGARRY: Well, I guess the simple
fact today is there isn't one. Should Hydro establish one? I guess that's the debate we're having. And right now we are deferring to the claims process, which to me, especially with the small amounts of money -- I recognize, of course, we are talking about small amounts of money and he's made that comment as well, and which can be potentially significant to an outfitter.

Nevertheless, it doesn't seem to be large enough
from what we've seen to say that this is undue hardship, I think, in terms of going through a claims process. And again, we established programs for a broad need, a broader audience. The case of trappers, you know, there could be several hundred people involved. Lodge operators, smaller group, very legitimate business operation and a beneficial one. Right now we are addressing their issues related to compensation on an individual basis through claims.

MS. MacKAY: Can I just follow up with one more question on this?

One of the outfitters in his letter said that one of the important issues was to take their hunters into wilderness areas, and they did not see being beside or coming across a power line to be part of that experience. So his decision has been to cut his reservations, and he's making them up to two years ahead, cut his reservations from 16 a year to 9 a year.

Now, this is a loss he already knows about. How long does he have to wait to apply for compensation for that?

MR. McGARRY: I couldn't say. Again, that's an individual case. And he could make a
claim on that basis a year after construction, I would think, as soon as the effect is endured.

MS. MacKAY: Why not the year before construction?

MR. McGARRY: Well, as I pointed out, Ms. MacKay, we don't have a policy to that effect. I understand the panel is suggesting we do have one --

MS. MacKAY: Yes.

MR. McGARRY: -- but we don't have one right now to deal with that circumstance.

In the case of the outfitter you are referring to, Mr. McGraw provided us with bait station locations, and our proposed route does go very close to some of this bait stations.

However, the relocation of that and re-establishment may take a year or two, in his experience. And granted, he knows his business. That would be a legitimate claim. Also that may affect his bookings for that period of time, so it could be a cost as part of the claim.

MS. MacKAY: Okay. Well, maybe we'll just stay with the notion of compensation for a minute and switch to Crown lands. Can you tell us whether you have a policy and what that policy
\begin{tabular}{|c|c|c|}
\hline & might be of compensating people who have Crown & Page 6806 \\
\hline 2 & land leases? & \\
\hline 3 & MR. McGARRY: Most of the Crown land & \\
\hline 4 & leases are related to agriculture where we incur & \\
\hline 5 & them. So people rent Crown land for pasture, in & \\
\hline 6 & some cases forage, and maybe even occasionally & \\
\hline 7 & crop development. The compensation to a lessee in & \\
\hline 8 & that case, Provincial lessee, is based on & \\
\hline 9 & construction damage. If we damage a fence line or & \\
\hline 10 & temporarily affect a crop or interfere with the & \\
\hline 11 & movement of livestock or fencing or corrals, & \\
\hline 12 & anything like that, Hydro is on the hook for & \\
\hline 13 & compensating that, obviously, direct impact from & \\
\hline 14 & construction. & \\
\hline 15 & In terms of the lease, we would have & \\
\hline 16 & to acquire part of that lease to run the & \\
\hline 17 & right-of-way. The effect on the overall lease & \\
\hline 18 & would be up to Provincial Crown Lands as to how & \\
\hline 19 & that affected any aspects of their arrangement & \\
\hline 20 & between the lessee and the Province. But we & \\
\hline 21 & compensated for directly attributable construction & \\
\hline 22 & damage. & \\
\hline 23 & MS. MacKAY: Just one other question & \\
\hline 24 & about compensation, since we're on the topic. You & \\
\hline 25 & are compensating a lot of people for a lot of & \\
\hline
\end{tabular}
different things. Have you ever considered a need to compensate Aboriginal folk for their hunting, and particularly gathering activities? I mean, many of these, as we have been told recently, many of these groups sell their products. Blueberries are sold. There's a booth down at the forks selling some of these products. Have you ever considered compensating those people for the damage done?

MR. McGARRY: Not to my knowledge.
But then you've got to look at the potential effect of the project which, for instance on blueberries, which like nice sandy environments with good sun exposure, the construction aspect of building a transmission line would interfere with some of that. Although these mapped areas of blueberries in the Kettle Hills and Cowan and Briggs Spur area are quite large and there are a lot of them. The construction of the transmission line is relatively small in terms of that disturbance. What we know from our botanists is that the plants will regrow. Rights-of-way are reasonably good places to grow blueberries. I know that First Nations and Metis have pointed out other issues related to having a transmission line
in proximity to the berries, but at this point in time there's not direct compensation for that crop loss, that native natural crop loss.

MS. MacKAY: And no consideration of
developing one at this point?
MR. McGARRY: Not to my knowledge.
MS. MacKAY: Thank you. I'd like to just go back to the herbicide issue for a moment. One thing that has not been mentioned was an issue that came up yesterday, I think it was. The Wuskwi Sipihk folk, in their efforts to sort out their attitude towards Bipole III, went to Grand Rapids to look at Bipoles I and II. And yesterday they told us, and showed us a photograph of a view of Bipoles I and II that they said had been broadcast treated with herbicide and was now totally brown. Is it possible that in the last year or two, part of Bipoles I and II right-of-way would have been treated thus?

MR. PENNER: My understanding is that was not on Bipole I and II, it was on the Grand Rapids Ashern line. There was herbicide application, it was a selective application, but there was a significant amount of trees that were considered to be danger trees, and so are
\begin{tabular}{|c|c|c|}
\hline & considered to be trees that will grow into the & Page 6809 \\
\hline 2 & lines. And so there's a significant number of & \\
\hline 3 & trees that the herbicide was applied to. All of & \\
\hline 4 & the undergrowth is still green and is still & \\
\hline 5 & growing. & \\
\hline 6 & MS. MacKAY: Well, in fact, the & \\
\hline 7 & photograph showed only low shrubs, and they & \\
\hline 8 & indicated that you couldn't tell from the & \\
\hline 9 & photograph much about colour, but they indicated & \\
\hline 10 & that the entire area was brown. You're saying & \\
\hline 11 & that this was not the case? & \\
\hline 12 & MR. ORTIZ: Wayne Ortiz. I was up & \\
\hline 13 & there when that work was being done. It was a & \\
\hline 14 & selective application, close and handgun. The & \\
\hline 15 & herbicide was directed at -- the application was & \\
\hline 16 & directed at the individual plants. The trees are & \\
\hline 17 & small when they are treated, so it looks like they & \\
\hline 18 & are shrubs but they are tree species. We were & \\
\hline 19 & treating the Pine and the Poplar in particular. & \\
\hline 20 & MS. MacKAY: So, in fact, the very & \\
\hline 21 & reduced use of herbicides that you told us about a & \\
\hline 22 & few minutes ago, and which we heard about before, & \\
\hline 23 & is a procedure used on all of Hydro's & \\
\hline 24 & rights-of-way? & \\
\hline 25 & MR. ORTIZ: Yes, we do not do any & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline & broadcast application. & Page 6810 \\
\hline 2 & MS. MacKAY: Anywhere? & \\
\hline 3 & MR. ORTIZ: Anywhere. It's all & \\
\hline 4 & targeted application, single plant applications. & \\
\hline 5 & In a situation like that where it's the first & \\
\hline 6 & application after the right-of-way was & \\
\hline 7 & mechanically treated, there is a lot of trees & \\
\hline 8 & coming back. Five to 10 years from now, when we & \\
\hline 9 & go back to treat that, there will be half as many & \\
\hline 10 & plants to treat. And 10, 15 years after that when & \\
\hline 11 & we go back to treat again, there will be about & \\
\hline 12 & half of that number again. So it's a steadily & \\
\hline 13 & decreasing process. & \\
\hline 14 & MS. MacKAY: Just one more question, & \\
\hline 15 & off the herbicides, but around the same sort of & \\
\hline 16 & areas. We heard much earlier in the proceedings & \\
\hline 17 & some information about vegetation management, & \\
\hline 18 & particularly in \(B C\) where they use a remote sensing & \\
\hline 19 & program called Lidar. Are you using or planning & \\
\hline 20 & to use any sort of remote sensing in assessing & \\
\hline 21 & vegetation on the lines? & \\
\hline 22 & MR. ORTIZ: Yes, we use Lidar quite & \\
\hline 23 & extensively. & \\
\hline 24 & MS. MacKAY: You do. Okay, thank you. & \\
\hline 25 & THE CHAIRMAN: I have a few questions & \\
\hline
\end{tabular}
about access to the line. As we all know, that's been a major concern for any number of groups, including all of the Aboriginal groups we have heard from, but even the outfitters that we heard from yesterday, and others who are concerned that the route will become a super highway for hunters in particular, but also just for people who like to run about the wilderness on their skidoos or all-terrain vehicles, which would cause problems for the animals even if we're not hunting them.

I'd just like to get some more explanation, confirmation, or assurance about how you will limit access to the trails. You have talked about excavated trenches on the access roads into the right-of-way. But we also heard from one gentleman from around Swan River, I think, who said that all you need is a chain-saw and an ATV to get around those, the chain-saw to cut the trees that you might lay across the road.

Are you going to have fences at areas where the trail crosses road or trails? Are you going to have gates, and if so, how will they be monitored and controlled?

MR. McGARRY: A lot of the discussion on trenches and other measures such as fencing,
gate surveillance, was provided in a letter to Ms. Dagdick. And that was specific to game hunting area 19 where the possibility of the final preferred routes becoming the preferred route again, after reviewing the alternate in that area. Manitoba Conservation made it pretty clear that if that were the case, it was still a very important area in their mind for moose, and the issue has always been about access for increased hunting in that area, probably more so even than fragmentation.
So in that discussion, we tried to develop measures that might go beyond what we might normally do, in that specific instance, to include trenches, fencing, surveillance, gates. Those types of measures can be used elsewhere as needed, but that was a particular circumstance that was identified.
So, in general, we have an access management plan, it's in draft stage right now. We will be updating that plan based on what we have heard in terms of priority or important areas for access. The approach to access prevention on a right-of-way is not universal. Where there is a need, an identified need, then we'd look at a
normal suite of measures, which Mr. Penner might be able to describe to you in more detail, or Mr. Ortiz. But generally, there are ways to try and limit access to the right-of-way for general use, vehicle or ATV. And also for wildlife access as well, we have heard a lot about wolf predation of moose. There are a number of measures, including vegetation management, to restrict the line of sight, meanders in access trails, again, to prevent line of sight loss for hunting. For wolf predation, there's also the opportunity to schedule maintenance activities on the ground so that we don't create the trail that the wolf might use if we do it a different time of season. So there are a number of measures.

Now, they are all being laid out in access management plans that is in draft, which we are reviewing with First Nations and Metis
communities for input. So if there's additional specific circumstances, like occurred in GHA 19, additional measures might be looked at. But in general, we have a plan where certain measures will be used, like abandonment of access trails to prevent further access from an access trail on to a right-of-way and so on. So a lot of that is
already in the record, I believe.
THE CHAIRMAN: You have identified GHA 19, but can this be extended to other areas along the line where there are concerns, and if not, why not?

MR. McGARRY: I guess the approach is not universally to prevent access at all cost. Yes, it could be if there is an identified need that seemed reasonable. For instance, when we had the original final preferred route in the Wabowden area, there was specific access management identified for that area off of Highway 6 onto the right-of-way, because of the caribou issue. So as issues are identified, we can look at enhanced measures. Part of that will come through, in addition to the suite we have already put on the table, through a draft access management plan to look at specific circumstances as we consult on this, as we get closer to construction.

MR. PENNER: Just to add a little bit more there. The one thing that we certainly heard in The Pas was that, where Snowman packs trail and they get, I guess, licence from Manitoba Conservation to pack and maintain trail on our right-of-way, that's where a large number of
\begin{tabular}{|c|c|c|}
\hline & snowmobilers travel. And that may be one way to & Page 6815 \\
\hline 2 & limit access, is to not allow Snowman to maintain & \\
\hline 3 & snowmobile trails under these rights-of-ways. & \\
\hline 4 & THE CHAIRMAN: Good luck. I mean, & \\
\hline 5 & knowing snowmobilers, it's going to take a lot to & \\
\hline 6 & stop them, where they might want to go. & \\
\hline 7 & A few days ago, 1 think it was last & \\
\hline 8 & week, I asked a question about your comments of & \\
\hline 9 & enhanced mitigation. I don't think I got a full & \\
\hline 10 & answer, and I'm just wondering what and how much & \\
\hline 11 & the enhanced mitigation can and will be used, and & \\
\hline 12 & how much of the line it can be used on, or you & \\
\hline 13 & plan on using it on? & \\
\hline 14 & MR. PENNER: The enhanced mitigation & \\
\hline 15 & was described for an eight kilometre section where & \\
\hline 16 & there is currently limited access in G 19A, and & \\
\hline 17 & that was a discussion held with Manitoba & \\
\hline 18 & Conservation. So it was an eight kilometre & \\
\hline 19 & section that we talked about. In those enhanced & \\
\hline 20 & mitigations, we are still discussing those kind of & \\
\hline 21 & things, but what we're talking about is limited & \\
\hline 22 & access trails to the tower sites, minimal & \\
\hline & clearing, so that we would use our tallest towers & \\
\hline & closer together to allow for, I guess trees up to & \\
\hline 25 & 17 metres in height to remain in place. And this & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline & is because it's an especially sensitive zone for & Page 6816 \\
\hline 2 & these moose. It's certainly not something that we & \\
\hline 3 & would extend to everywhere throughout the & \\
\hline 4 & right-of-way. However, these are very similar & \\
\hline 5 & mitigation measures that we would use in riparian & \\
\hline 6 & zones to ensure that we are protecting the stream & \\
\hline 7 & crossings throughout the right-of-way. But we & \\
\hline 8 & certainly wouldn't be extending this to other & \\
\hline 9 & portions other than -- unless there was specific & \\
\hline 10 & concerns. I don't know if Pat has anything he can & \\
\hline 11 & add? & \\
\hline 12 & THE CHAIRMAN: How about in caribou & \\
\hline 13 & country, in areas where caribou might be using the & \\
\hline 14 & line? & \\
\hline 15 & MR. McGARRY: Well, the problem I & \\
\hline 16 & mentioned at Highway 6, for instance, with the & \\
\hline 17 & final preferred route of course is being altered & \\
\hline 18 & by -- hopefully that the AFPR in that area will be & \\
\hline 19 & adopted, which removes a lot of the access & \\
\hline 20 & problem, because the access already exists, since & \\
\hline 21 & we parallel a rail line, a transmission line and a & \\
\hline 22 & road. So if somebody wanted to get in there, they & \\
\hline 23 & could already. So we're not as concerned, neither & \\
\hline & is Wildlife Branch -- pardon me, the region on & \\
\hline 25 & that particular issue in that area. I think from & \\
\hline
\end{tabular}
our discussions they were -- that was the Wabowden herd -- from our discussions they seemed reasonably satisfied with the proposed alternative in that area, which should take care of the access problem for caribou for the Wabowden area.

THE CHAIRMAN: Switching gears, I have a question about agricultural land. It's not really a big deal but \(I\) am just curious. I understand that on Bipoles I and II, Hydro took title to the land on the right-of-way, is that correct, through agricultural country?

MR. McGARRY: Yes.

THE CHAIRMAN: Why don't you do that in this case, rather than just taking an easement? I mean, you are paying them 150 percent of market value, why don't you just take the title?

MR. TYMOFICHUK: Mr. Chairman, I guess there's a lot of history in right-of-ways. In congested areas we have, over time, taken title say in the City of Winnipeg. And in the rural
areas, it's felt that, you know, by taking easements, it eases the concern of the landowner to have a strip of land that may be on the edge, hence he no longer has a quarter section or half section or full section. So easements have worked
\begin{tabular}{|c|c|c|}
\hline & for us for many years and we'll continue to do & Page 6818 \\
\hline 2 & that. But I don't sense that there's a burning & \\
\hline 3 & desire to go for fee simple or title in the rural & \\
\hline 4 & areas. & \\
\hline 5 & THE CHAIRMAN: Now, as I said, it & \\
\hline 6 & wasn't a big deal to me, I was just curious. I & \\
\hline 7 & only heard recently that you had taken title to & \\
\hline 8 & the land underneath Bipoles I and II. & \\
\hline 9 & Another question that's probably a bit & \\
\hline 10 & offbeat, but we hear a lot in the media about a & \\
\hline 11 & nationwide, if not continent wide skill shortage. & \\
\hline 12 & Do you anticipate this will be a & \\
\hline 13 & problem for the construction of this project? & \\
\hline 14 & MR. TYMOFICHUK: Yes, Mr. Chairman, it & \\
\hline 15 & is an issue that's concerning not only the utility & \\
\hline 16 & industry, but the energy industry and other & \\
\hline 17 & industries. We have a good training program for & \\
\hline 18 & the kind of skilled workers we need for & \\
\hline 19 & constructing lines. We're not going to be using & \\
\hline 20 & our own linemen, they are dedicated mostly to the & \\
\hline 21 & sub transmission and distribution works, so the & \\
\hline 22 & contractors have to find the necessary skills. & \\
\hline 23 & And if there are multi projects going on at the & \\
\hline & same time, there's going to be competition for & \\
\hline 25 & those people. But we'll be having our contractors & \\
\hline
\end{tabular}
put their best foot forward to find them. Thank you.

THE CHAIRMAN: Thank you. Any other questions?

Tomorrow morning, or next Monday morning I'll wake up and say, darn, I should have asked that question.

I think that's brought us to the end of the questions that we have identified. So perhaps in a couple of minutes we'll take a short break and change the crew at the head table and move on.

Before I do that, I'd just like to respond. Yesterday we had a challenge to a document being filed by the Manitoba Metis Federation. It was one that we had previously ruled wouldn't be filed because it's not relevant. We recognize still that much of it is not relevant. However, this time we will allow it to be put on the record. I mean, in part, one of my colleagues this morning said, it's sort of the classic barn door and the horse getting out. It's on the public record. Many of the issues that are in that document got on our record yesterday through the evidence and cross-examination of
\begin{tabular}{|c|c|c|}
\hline & witnesses. It remains, of course, open to the & Page 6820 \\
\hline 2 & panel as to how much weight we give that document. & \\
\hline 3 & So we will register it for the record. & \\
\hline 4 & I think we'll take a very, perhaps ten & \\
\hline 5 & minute break and come back with the next group. & \\
\hline 6 & (Hearing recessed at 9:56 a.m. and & \\
\hline 7 & reconvened at 10:10 a.m.) & \\
\hline 8 & THE CHAIRMAN: It looks like we're all & \\
\hline 9 & ready to go. I understand that there's going to & \\
\hline 10 & be some short comment on the Grand Rapids & \\
\hline 11 & pictures. & \\
\hline 12 & Mr. Ortiz, are you doing that? & \\
\hline 13 & MR. ORTIZ: Yes. & \\
\hline 14 & THE CHAIRMAN: Go ahead, sir. & \\
\hline 15 & MR. ORTIZ: Yes. I was shown the & \\
\hline 16 & picture that you were shown yesterday, and what I & \\
\hline 17 & see here is a fall time picture. This is indeed & \\
\hline 18 & on G1A/G2A which runs parallel to Bipoles I and II & \\
\hline 19 & outside of Grand Rapids. It is a fall picture. & \\
\hline 20 & It is part of the area that was sprayed, but the & \\
\hline 21 & grass is brown because it's dead for the winter. & \\
\hline 22 & But the trees that are in that picture, indeed, & \\
\hline 23 & have been sprayed. You can see they are Poplar & \\
\hline & and they are Pines. But in amongst them, if this & \\
\hline 25 & had been a summer time picture when the leaves are & \\
\hline
\end{tabular}

1 on, or next year, you would see the green shrubs, like Rose bushes and the Hazel in amongst those dead trees that would also still be alive.

MS. MacKAY: Thanks very much.

THE CHAIRMAN: So you're telling us
that grass around Grand Rapids doesn't survive the winter?

MR. ORTIZ: It survives the winter, but not green.

THE CHAIRMAN: Thank you.

Now, I take it, I am sure one of you will explain, the first part of the rebuttal this morning is on transmission issues or -- I'll let you define it. Mr. Bedford.

MR. BEDFORD: You know, of course, we filed two written documents in rebuttal to the Coalition material, specifically the evidence that we heard from Dr. Lawson, Mr. Woodford and Mr. Derry. We have opted not to do a presentation, so to speak, on those two rebuttal documents. We are putting forward the individuals from Hydro who played a role in drafting the documents and who have to be expected to respond to questions on the rebuttal papers. But that's their purpose here, is for folks to ask them
questions arising out of the rebuttal documents. And when they are finished, and they can depart, then we will bring back Mr. Osler, and we are bringing forward Mr. Hegmann to deal with a completely different topic, which is cumulative effects.

THE CHAIRMAN: Thank you. And I'm not sure that \(I\) have these Hydro documents, what do they look like? We might need a short time out here to see if we can find them.

Well, \(I\) have managed to find one of them, but \(I\) don't have the other, but we'll carry on and I'll use Mr. Kaplan's, as I need.

So how are we doing this? You are presenting anything, or just available to answer questions?

MR. TYMOFICHUK: That's correct.

THE CHAIRMAN: Mr. Meronek, do you have questions for these gentlemen? Go ahead, sir.

MR. MERONEK: I'll let the record show, sir, that I've only poured half a glass of water because \(I\) won't be that long.

THE CHAIRMAN: You should have tipped us off to that months ago.

MR. MERONEK: Is a glass half full or half empty?

We visited a lot of the topics the last time we met, so \(I\) have only got a couple of areas. And one is related to the costs that are in the rebuttal. I was trying to get my head around some of the numbers. So whoever is in charge of that particular task, I'd like to discuss some of the numbers. And I'm referencing page 3 of the rebuttal.

Is that you, Mr. Mazur, that I should be talking to?

MR. MAZUR: That's right, Mr. Meronek, yes.

MR. MERONEK: Thank you. Now, there's been some attempt by Manitoba Hydro to identify the cost of relocation of Bipole II. And firstly, the first attempt was made I believe in July of 2012, in response to an information request at CEC/MH VII/428. And in that particular information request response, the estimated cost for relocation was \(\$ 1.78\) billion.

Do you recall that, Mr. Mazur?

MR. MAZUR: Yes, I do.

MR. MERONEK: And in that answer to
\begin{tabular}{|c|c|c|}
\hline & & Page 6824 \\
\hline 2 & kilometre 500 kV DC line between Dorsey and Riel; & \\
\hline 3 & correct? & \\
\hline 4 & MR. MAZUR: That is correct, yes. & \\
\hline 5 & MR. MERONEK: And that's the line that & \\
\hline 6 & we talked about recently that goes -- that feeds & \\
\hline 7 & off the corridor and north of Dorsey, correct? & \\
\hline 8 & MR. MAZUR: That would be for allowing & \\
\hline 9 & Bipole I and II paralleling, that's correct, sir. & \\
\hline 10 & I should also add that there was a & \\
\hline 11 & revision to the \$1.78 billion, it was, I'll call & \\
\hline 12 & it, a calculation error or a typo. I'm not quite & \\
\hline 13 & sure which at this point, but the cost that we had & \\
\hline 14 & revised was \$1.2 billion. & \\
\hline 15 & MR. MERONEK: You're going to take all & \\
\hline 16 & of my questions away, sir, if you keep on & \\
\hline 17 & volunteering. & \\
\hline 18 & MR. MAZUR: Sorry, I apologize. & \\
\hline 19 & MR. MERONEK: That was my next & \\
\hline 20 & question. It is scary how prescient you are. & \\
\hline 21 & The correction that was volunteered in & \\
\hline 22 & October, on the record, sir, was a reduction of & \\
\hline 23 & some \$580 million down to 1.2 billion? & \\
\hline 24 & MR. MAZUR: That's correct, yes. & \\
\hline 25 & MR. MERONEK: And you say that was an & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline & & Page 6825 \\
\hline 2 & MR. MAZUR: Yeah, I think we had & \\
\hline 3 & included some -- just give me a moment. Yeah, & \\
\hline 4 & when we were putting the numbers together, it was & \\
\hline 5 & just an adding error, if you will, where we & \\
\hline 6 & included an extra, some extra costs there from the & \\
\hline 7 & Bipole III components in error. & \\
\hline 8 & MR. MERONEK: It happens. Then the & \\
\hline 9 & next revision came as a result of this rebuttal on & \\
\hline 10 & March 4. And if you're looking at page 3 of the & \\
\hline 11 & rebuttal, it's up to \$1.631 billion; correct? & \\
\hline 12 & MR. MAZUR: That is correct. & \\
\hline 13 & MR. MERONEK: So it's gone up now some & \\
\hline 14 & \$430 million? & \\
\hline 15 & MR. MAZUR: That's correct. And the & \\
\hline 16 & reason for that, it wasn't clear in your client's & \\
\hline 17 & reports as to what the exact plan was. And I & \\
\hline 18 & think what we're pointing out for plan D is that & \\
\hline 19 & in the testimony, it was stated that the & \\
\hline 20 & underground cable should be used between Dorsey & \\
\hline 21 & and Riel, as opposed to an overhead paralleling & \\
\hline 22 & line. And so the 370 million in green on our & \\
\hline 23 & rebuttal page 3, I guess, if I've got it right, & \\
\hline & represents that cable cost which is missing in the & \\
\hline 25 & Coalition's report. & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline 1 & MR. MERONEK: So if you took, if the & Page 6826 \\
\hline 2 & decision was not to go underground cable, you & \\
\hline 3 & would take the 370 million off that number, & \\
\hline 4 & correct? & \\
\hline 5 & MR. MAZUR: We'd take the 370 million & \\
\hline 6 & Off and we'd add about 92 million for the overhead & \\
\hline 7 & line that was proposed in our response to the & \\
\hline 8 & Commission. And we would also add back the 70 & \\
\hline 9 & kilometre so-called paralleling line for & \\
\hline 10 & 167 million -- & \\
\hline 11 & MR. MERONEK: So if you -- & \\
\hline 12 & MR. MAZUR: -- I think total. & \\
\hline 13 & MR. MERONEK: If you took off the & \\
\hline 14 & 278 million, you're down to \$1.35 billion, & \\
\hline 15 & correct? & \\
\hline 16 & MR. MAZUR: I don't have the & \\
\hline 17 & calculator in front of me but -- & \\
\hline 18 & MR. MERONEK: Subject to check. & \\
\hline 19 & MR. MAZUR: -- it would be that, & \\
\hline 20 & that's correct. & \\
\hline 21 & MR. MERONEK: And you have gone from & \\
\hline 22 & 70 kilometres in your information request, for & \\
\hline 23 & that 500 kV DC line, up to a hundred kilometres in & \\
\hline 24 & this rebuttal, correct? & \\
\hline 25 & MR. MAZUR: No, that's not correct. & \\
\hline
\end{tabular}

There's two components. One is the line that taps Bipole II and goes eastward and then south to

Riel. We estimated that at a hundred kilometres. I believe the Coalition, your client's report had it at 70 kilometres. There was a difference in length there. So that's the one component. And the other one is the line between Dorsey and Riel. So one is a hundred kilometres in our estimate, or in our response to the questions the Commission posed on December 3rd, and the other is the 70 kilometre Dorsey/Riel paralleling line.

MR. MERONEK: I'm sorry, I'm not quite understanding. The hundred kilometres in the rebuttal is a tap off from Bipoles I and II into Riel?

MR. MAZUR: Yeah, from the Bipole II line, some 50 kilometres north of Dorsey near St. Ambroise, as I think we discussed last week, going eastward and south to the Riel station.

MR. MERONEK: All right. And where is the 70 kilometres of --

MR. MAZUR: Seventy kilometres is required, because now you have separated Bipole I and II. And order to parallel it and have comparable reliability to what we have today, you
would need to build this paralleling line which would be on this south corridor between Dorsey and Riel.

MR. MERONEK: Got you, okay. So with those changes, and if you go over to table 1 on the next page, you are roughly at an \(\$ 850\) million difference between the proposal of Bipole III as proposed by Manitoba Hydro and the Bipole Coalition estimated number if you took out the underground cable?

MR. MAZUR: If we took out the underground and replaced it with the overheads, as we just described, I believe that would be the correct addition, subject to the mathematics, but, yes.

MR. MERONEK: Now, when you're talking about the 70 kilometres of HVDC line on the south corridor, that's already in the capital budget for Manitoba Hydro, is it not?

MR. MAZUR: It is not. I might add we have had -- it was in the budget many years ago and, you know, with the change from east to west, it was removed. It's also subject of the discussion related to some of the questions in the evidence at this hearing regarding a future 500 kV
```

tie line. We have no committed plans in the budget at this point.
MR. MERONEK: Let me read to you page
18 of the consolidated capital expenditure forecast which was presented to the Public Utilities Board. And it's got the Dorsey U.S. border new 500 kV transmission line, and it includes a design and build, the building of a 60 kilometre 500 kV transmission line between Riel Station and Dorsey Station. Isn't that what we're talking about?
And in that capital forecast, for that particular transmission line plus the 123 kilometre kV line between Dorsey and the U.S. border, there's \$204 million in the forecast.
MR. MAZUR: The $\$ 204$ million is for a line from Dorsey, heading toward Riel and south to the border.
MR. MERONEK: But it also includes the 68 kilometres of 500 kV --
MR. MAZUR: Well --
MR. MERONEK: Can I just finish my question, sir? I'll give you an opportunity to respond.
MR. MAZUR: Sorry, sir.

```
\begin{tabular}{|c|c|c|}
\hline 1 & MR. MERONEK: It includes the design & Page 6830 \\
\hline 2 & and building of a 68 kilometre 500 kV transmission & \\
\hline 3 & line between the Riel Station and Dorsey Station? & \\
\hline 4 & MR. MAZUR: \(500 \mathrm{kV} \mathrm{AC} \mathrm{or} \mathrm{DC?}\) & \\
\hline 5 & MR. MERONEK: It doesn't say. & \\
\hline 6 & MR. MAZUR: I'll have to check, & \\
\hline 7 & because I think our current proposal, from my & \\
\hline 8 & recollection, is an AC line that is going between & \\
\hline 9 & Dorsey -- the one route we are examining is & \\
\hline 10 & running toward Riel on the south corridor and then & \\
\hline 11 & south to the U.S. with no termination at Dorsey. & \\
\hline 12 & MR. MERONEK: So you'll check that for & \\
\hline 13 & me? & \\
\hline 14 & MR. MAZUR: I'll check that. & \\
\hline 15 & MR. MERONEK: If in fact it is a 500 & \\
\hline 16 & kV transmission line, \(A C\) or DC, that's a cost that & \\
\hline 17 & would be incurred in any event if that plan goes & \\
\hline 18 & ahead. Correct? & \\
\hline 19 & MR. MAZUR: If that plan goes ahead, & \\
\hline 20 & it would be a cost. But as I say, it wouldn't be & \\
\hline 21 & a cost to the Bipole III project. I think what's & \\
\hline 22 & in the budget is predicated upon the future & \\
\hline 23 & northern generation development plan being & \\
\hline 24 & approved. & \\
\hline 25 & MR. MERONEK: I understand. So & \\
\hline
\end{tabular}
whatever that number is, whether it's an \$850 million increase, or a \(\$ 766\) million increase, if you credited that south 500 kV line, that still implies, and we're looking over at table 1, that you're going to have to do something in 2025. We've been over that. But whatever it is, you're not going to do nothing, correct?

MR. MAZUR: Only if the approval is obtained for northern generation and a new tie line, and that may not -- may or may not happen.

MR. MERONEK: If you did something, would it be fair to add in a cost in table 1 where you have none listed in green; correct?

MR. MAZUR: No, it wouldn't. And the reason it wouldn't is because when we assess the three plans that are being compared there, the Manitoba Hydro Bipole III plan provides for reliability to 2025, considering an outage of the corridor and considering an outage of the Dorsey Station. The risk of one in 20 years of the corridor outages essentially mandates that we address it. The Coalition proposed plans D and E do not address the corridor outage. And from a reliability perspective, the deficit in 2025 is identical in terms of supply. Because if you
\begin{tabular}{|c|c|c|}
\hline 1 & would -- give me a moment -- but if you had & Page 6832 \\
\hline 2 & followed and addressed the corridor and you took & \\
\hline 3 & the Coalition report, part 1, figure 1.3, the & \\
\hline 4 & supply deficit would follow the Riel & \\
\hline 5 & sectionalization line in that figure. And it may & \\
\hline 6 & be a bit difficult to visualize. So in 2017, when & \\
\hline 7 & part D is put in, there's no change in the supply & \\
\hline 8 & deficit. And we're in the order of 1500 megawatts & \\
\hline 9 & deficit. This would continue to grow to about & \\
\hline 10 & 2000 megawatts by 2025, at which time plan E, the & \\
\hline 11 & proposed Coalition report, plan E would go into & \\
\hline 12 & service. And that would raise the deficit to & \\
\hline 13 & zero. & \\
\hline 14 & Now, at this point, you still, in the & \\
\hline 15 & Coalition plan, as in Bipole I, need to do & \\
\hline 16 & something. And so anything that's done would & \\
\hline 17 & common to all plans. & \\
\hline 18 & MR. MERONEK: All right. That's a & \\
\hline 19 & matter of argument. But you disagree with the & \\
\hline 20 & suggestion that by 2025, the reliability of the & \\
\hline 21 & Coalition's suggestion is greater than the & \\
\hline 22 & reliability associated with Manitoba Hydro's & \\
\hline 23 & solution? & \\
\hline 24 & MR. MAZUR: Absolutely. It ignores & \\
\hline 25 & the corridor outage, which is a high risk outage & \\
\hline
\end{tabular}
of once in 20 years, and suggests that Manitoba Hydro use load shedding in the event that those types of disasters happen. And we would judge that this would be unacceptable, given the, you know, the extended duration of these outages. MR. MERONEK: Okay. Now, this particular tie line that is in the capital expenditure forecast is a line that's contemplated to go from Dorsey down to the States, just east of Gretna; is that correct?

MR. MAZUR: I don't think we have a specific route for the tie line. What I can say is that there has essentially been a couple of different options that have been evaluated over the last several years. And similar is the situation today, one option is to run something from Manitoba, Dorsey likely, to North Dakota, which would be more of a straight south line. The other option that is currently being looked at, jointly with the American utilities, is to run a line from Dorsey toward Minnesota, in sort of toward the Duluth area generally. And so there's no decision on exactly any kind of a preferred routing at this point.

MR. MERONEK: On page 4 you talk about
this existing, it's in the middle of the paragraph on that page, you talk about a new 500 kV export tie line, which will increase import capability by about 750 megawatts initially; correct? Do you see that, sir?

MR. MAZUR: That's correct. And we were just pointing out that in 2025 , I don't have an answer today as to what we're going to do, because there are several options. And there's the future generation development plan in Manitoba is uncertain at this point. As many of us might know, there's supposed to be a review of the future Manitoba Hydro preferred development plan sometime later this year. And until that's solidified, we really wouldn't be able to select what happens beyond that, because it bodes heavily, depend on the outcome.

MR. MERONEK: It came to our attention recently, and \(I\) have sent what I received, a 2010 environmental overview from MMM Group Limited, at or around the time that Bipole III was being, in terms of the preferred route was being disseminated. You have seen that particular overview, I take it?

MR. MAZUR: Yes, I have seen it. It
was a tabletop exercise looking at potential
impacts on costs of a line going to North Dakota.

MR. MERONEK: And that environmental
overview prepared by MMM Group Limited for

Manitoba Hydro indicated, as a preferred
preliminary route, the route that goes straight down from Dorsey to Gretna, just east of Gretna, with an in-service date of 2018. Do you recall that, sir?

MR. MAZUR: I don't have the report in front of me, but \(I\) believe that at that point in time, that was the thinking. But as I said, at this point today, we're looking at, actively looking at two different options. And certainly 2018, did you say, is certainly not doable. It's probably one to two years later.

MR. MERONEK: Right.

MR. NEUFELD: Mr. Meronek, if I might add, the routing of that line is largely dependant upon who the proponent in the area south of the border is for that line. And that keeps changing. And not only do we not know what voltage level the line will be, but we don't have, at this point in time, a confirmed proponent.

MR. MERONEK: Now, if this particular
\begin{tabular}{|c|c|c|}
\hline & line is the line that ends up being preferred, you & Page 6836 \\
\hline 2 & will agree it does cross or traverses prime & \\
\hline 3 & agricultural land; correct? & \\
\hline 4 & MR. NEUFELD: It's just too early to & \\
\hline 5 & tell. & \\
\hline 6 & MR. MERONEK: The question is, if this & \\
\hline 7 & line is the preferred line, it will traverse prime & \\
\hline 8 & agricultural land, correct? & \\
\hline 9 & MR. NEUFELD: Well, that may be, but & \\
\hline 10 & that's an obsolete report. & \\
\hline 11 & MR. MERONEK: 2010 is obsolete? & \\
\hline 12 & MR. NEUFELD: That's correct. & \\
\hline 13 & MR. MERONEK: Do you have a better & \\
\hline 14 & report for us, sir? & \\
\hline 15 & MR. NEUFELD: No, I don't believe we & \\
\hline 16 & have. This is in a state of flux. We have & \\
\hline 17 & different proponents, and we haven't nailed down & \\
\hline 18 & where the route will go, nor do we know what the & \\
\hline 19 & voltage level will be. & \\
\hline 20 & MR. MERONEK: So this is the most & \\
\hline 21 & updated report you have with respect to that & \\
\hline 22 & particular question, correct? & \\
\hline 23 & MR. TYMOFICHUK: Mr. Chairman, if I & \\
\hline 24 & may? At that time, I believe that Manitoba Hydro & \\
\hline 25 & and the utility in Minnesota had not signed a & \\
\hline
\end{tabular}
power purchase agreement. So this was very, very preliminary to look at the lay of the land from very high up. It really has no bearing now.

As Mr. Mazur and Mr. Neufeld have said, studies are going on everyday to try and determine, and it depends on more than one utility in the U.S., where the line is going to terminate. The line Mr. Meronek refers to in that document is a very broad general direction at that time that it might end up at Fargo.

Today it appears to be moving more eastward toward the Duluth area.

MR. MERONEK: As we sit here today, sir, do you have an updated study which would show Manitoba Hydro's thinking in terms of where this line will go?

MR. TYMOFICHUK: There is work going on, but it's not a study. There's data being collected, there's resources being put to it, but there's no study that reflects what you have in front of you.

MR. MERONEK: And if this line is chosen, as demonstrated in this particular --

THE CHAIRMAN: Mr. Meronek, how is this line relevant to the review before us?
\begin{tabular}{|c|c|c|}
\hline 1 & MR MFRONEK: It's tremendously & Page 6838 \\
\hline 2 & important, sir, from a cumulative effects & \\
\hline 3 & perspective. You're not seeing the whole picture. & \\
\hline 4 & THE CHAIRMAN: I'll let you proceed & \\
\hline 5 & for now. & \\
\hline 6 & MR. MERONEK: If this line gets & \\
\hline 7 & selected, sir, it will have to cross over or be & \\
\hline 8 & crossed over by Bipole III; is that not correct? & \\
\hline 9 & MR. TYMOFICHUK: If the termination & \\
\hline 10 & point is in Fargo, I think it's pretty clear that & \\
\hline 11 & we'd have to cross agricultural lands. & \\
\hline 12 & MR. MERONEK: No, no, you & \\
\hline 13 & misunderstood my question. & \\
\hline 14 & If this is the selected route, then at & \\
\hline 15 & some point it will cross over Bipole III, the & \\
\hline 16 & Bipole III line, cross over or cross under? & \\
\hline 17 & MR. TYMOFICHUK: That's correct. & \\
\hline 18 & MR. MERONEK: Is that something that & \\
\hline 19 & is appropriate? & \\
\hline 20 & MR. TYMOFICHUK: Yes. We have many & \\
\hline 21 & crossings, and we take great care to design the & \\
\hline 22 & crossovers to make sure they are safe in every & \\
\hline 23 & respect. That would not be unusual. & \\
\hline 24 & MR. MERONEK: And my understanding, & \\
\hline 25 & and I can't put a finger to the exact -- I can't & \\
\hline
\end{tabular}
put my finger on it. In the capital forecast that I referenced before, the in-service date has been moved to 2020?

MR. MAZUR: That's right. I have it in front of me, for the U.S. border Duluth line. And as you had pointed out earlier, Mr. Meronek, the line in this forecast is terminating at Dorsey. The current plan, or the next revision, we aren't terminating at Dorsey -- I'm sorry, at Riel. It will run by Riel, and that will be a measure to save costs. So the \(\$ 204\) million that will be Manitoba Hydro's cost to the border, it's our argument that it wouldn't be a cost that you would apply to the Coalition plan. In fact, there is some additional costs missed in the Coalition plan. Because it's not clear to us, but it appears that the Coalition plan E into Laverendrye assumes a 105 kilometre section of line from Portage to Laverendrye, 40 of it being cable and 65 being -- I'm sorry, 65 being cable and 40 overhead line. If you make that adjustment, there should be another 450 million in Manitoba Hydro's calculation to that plan E.

MR. MERONEK: If this line goes in as anticipated in 2020, if the in-service date is
\begin{tabular}{|c|c|c|}
\hline & 2020, then the lead time, according to this & Page 6840 \\
\hline 2 & particular document, is approximately 40 months, & \\
\hline 3 & correct? & \\
\hline 4 & MR. MAZUR: I'm sorry, I didn't & \\
\hline 5 & understand? & \\
\hline 6 & MR. MERONEK: The lead time required & \\
\hline 7 & to get approvals in construct is about 40 months, & \\
\hline 8 & 39 months? & \\
\hline 9 & MR. MAZUR: From today, seven years. & \\
\hline 10 & MR. MERONEK: No, from 2020 forward? & \\
\hline 11 & If you're going to construct in 2020, according to & \\
\hline 12 & this particular preliminary study, it says you & \\
\hline 13 & need 39 months of lead time, which would bring it & \\
\hline 14 & down -- & \\
\hline 15 & MR. MAZUR: You're referring to a & \\
\hline 16 & number in the study? & \\
\hline 17 & MR. MERONEK: Yes. & \\
\hline 18 & MR. MAZUR: I don't have it in front & \\
\hline 19 & of me, so I'll have to take your word for it. & \\
\hline 20 & MR. MERONEK: Okay. So, you'd be & \\
\hline 21 & bringing it down, you'd have to be before the & \\
\hline 22 & Commission in the next couple of years; is that & \\
\hline 23 & correct? & \\
\hline 24 & MR. MAZUR: I would say that's & \\
\hline 25 & correct. As I said earlier, I think the need for & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline & analysis for that line and the hydro generation, I & Page 6841 \\
\hline 2 & think I said earlier, was sometime this fall, and & \\
\hline 3 & Mr. Tymofichuk sent me a note here that said it is & \\
\hline 4 & next spring. So, yes, we'd have to be bringing & \\
\hline 5 & that before a Commission in that time frame. & \\
\hline 6 & MR. MERONEK: Thank you, sir. & \\
\hline 7 & MR. McGARRY: Could I just add to & \\
\hline 8 & that, Mr. Meronek? The planning process & \\
\hline 9 & regulatory wise is just being worked out now and & \\
\hline 10 & in the next few months. We're still very early in & \\
\hline 11 & the planning stages for environmental assessment & \\
\hline 12 & review. And as Mr. Mazur pointed out, there is no & \\
\hline 13 & routing, it is all conceptual at this point. And & \\
\hline 14 & as such, the planning framework is about to & \\
\hline 15 & advance quite a bit, and we will be looking at & \\
\hline 16 & beginning public consultation this year. When the & \\
\hline 17 & final EIS gets to regulators will probably be & \\
\hline 18 & about two years from now. & \\
\hline 19 & MR. MERONEK: Great, thank you, sir. & \\
\hline 20 & Thank you, Mr. Chairman. & \\
\hline 21 & THE CHAIRMAN: Thank you, Mr. Meronek. & \\
\hline 22 & Are there any other participants that & \\
\hline & have questions of these witnesses? Any panel & \\
\hline 24 & members? & \\
\hline 25 & MR. GIBBONS: I hope this leads to a & \\
\hline
\end{tabular}
brief answer, but who knows? What I'm still not quite clear on, after the discussion both today and earlier in the process regarding the Coalition's alternative plan, is whether the only technical, not financial, but technical difference of opinion is the need for, in the view of Manitoba Hydro, and correct me if I'm wrong, the need for Bipole III to be finished first before Bipole II is moved? And if so, does that -- from, again a technical perspective, putting aside the financial question -- suggest then that what could be done in a different world perhaps is the Bipole Coalition plan, with Bipole III going to LaVerendrye or thereabouts, Riel being the site of a diverted Bipole II, is that my understanding that it's not -- the only technical issue is the chronology that one needs to be done before the other, or am I missing other technical concerns?

MR. MAZUR: I would say yes, in the sense that at this point Manitoba Hydro sees Bipole III as being needed as soon as possible. The risks of even loss of the corridor are extremely high. We have made no commitment to move Bipole II at this time. It's not a given that we would move Bipole II. In fact, as
\begin{tabular}{|c|c|c|}
\hline & & Page 6843 \\
\hline 2 & options that Manitoba Hydro has that continue to & \\
\hline 3 & address not only, you know, the station, Dorsey & \\
\hline 4 & station loss, but the corridor. So, as said & \\
\hline 5 & earlier, that depends on the generation plan. If & \\
\hline 6 & the preferred plan is approved and goes ahead, we & \\
\hline 7 & will have an export line, and that will allow & \\
\hline 8 & import of 700 megawatts initially, growing to & \\
\hline 9 & 1100. And that import line then will solve the & \\
\hline 10 & reliability problem well into 2040 to 50 range, & \\
\hline 11 & depending on load growth. So the location or & \\
\hline 12 & relocation of Bipole II or Bipole I, for that & \\
\hline 13 & matter, at some point in time is really a future & \\
\hline 14 & option, a desirable option in terms of addressing & \\
\hline 15 & the station size, but it's not a given that it & \\
\hline 16 & should be done in the kind of time frame that the & \\
\hline 17 & Coalition plan has proposed. & \\
\hline 18 & MR. GIBBONS: Just as a follow-up to & \\
\hline 19 & that, my reading of the 2010 report, and I & \\
\hline 20 & understand Mr. Neufeld says that report is now & \\
\hline 21 & passe, but nonetheless, it seemed to me that the & \\
\hline 22 & argument of that report was that the most, the & \\
\hline 23 & optimal solution to the reliability issue was & \\
\hline 24 & essentially, Bipole I to remain where it's at, & \\
\hline 25 & Bipole II to be moved to Riel, and Bipole III & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline & going to LaVerendrye, or conversely -- that's my & Page 6844 \\
\hline 2 & interpretation of it -- or Bipole II to & \\
\hline 3 & LaVerendrye and Bipole III to Riel. & \\
\hline 4 & If in fact other future events, & \\
\hline 5 & putting aside, for example, the line to the United & \\
\hline 6 & States, a 500 kV AC line running north/south, from & \\
\hline 7 & a technical perspective is it not the case that -- & \\
\hline 8 & and technical in this context beaning reliability & \\
\hline 9 & I suppose -- that running Bipole III to & \\
\hline 10 & Laverendrye and Bipole II to Riel, putting aside & \\
\hline 11 & as well the financial costs, makes sense from that & \\
\hline 12 & perspective? Is that, in essence, the argument of & \\
\hline 13 & the 2010 report? & \\
\hline 14 & MR. MAZUR: I assume you are referring & \\
\hline 15 & to the ultimate DC report of 2010? & \\
\hline 16 & The primary purpose of that report was & \\
\hline 17 & to look at what type of north/south transmission & \\
\hline 18 & for generation, future generation, beyond Conawapa & \\
\hline 19 & even, should be AC or DC. In doing that, and & \\
\hline 20 & looking at the technical issues that have to be & \\
\hline 21 & addressed, it looked at several options, option 3 & \\
\hline 22 & being the relocation. It looked at option 5, & \\
\hline & where there would be four converters assuming a DC & \\
\hline & line. You know, from one perspective, that & \\
\hline & provides great reliability benefits as well. But & \\
\hline
\end{tabular}
the report in itself is looking at, do we build AC versus DC? It's not addressing -- it totally ignores the corridor outage. And so, taken in that context, the intent wasn't to say this is the next solution. The findings in the report are that the next line we build from the north should be AC, and it resolves a lot of technical issues. And the other finding is that it would be desirable at some point to move a converter out of Dorsey. It's also desirable to separate the Bipole I and II lines. But the end of life of those lines is probably in the \(20,40,50\) range. And until we do both, you really don't resolve the reliability issue, because of the high risk of corridor loss.

MR. GIBBONS: Thank you.

THE CHAIRMAN: I have only one
question, and it's a very small one I think. On page 3 of the location options rebuttal, the figure with all the numbers and different costs, in the middle of that figure you have the Dorsey Bipole II valve replacement smoothing reactors transformers at 272 million. Is that the entire cost for modernizing or refurbishing the Bipole II at Dorsey?

MR. MAZUR: That would be the cost for replacement of the valves, smoothing reactors.

And I might add maybe a little bit more explanation on the transformers. Manitoba Hydro keeps a spare transformer for each type of valve configuration, and there are two basic different types of valve configurations. So these transformers historically have been failing. So we have a spare. When the spare is used, we purchase another one.

So some of that money is, you know, slotted, assuming that we would need to continue doing that program at a rate that is historical, and that's kind of a place holder.

We're hoping and expecting that the newer transformers are designed a little more adequately and the failure rate would be less. But nonetheless, it would cover those costs, yes.

THE CHAIRMAN: I mean, we heard last week and earlier in this process about this so-called window of opportunity wherein Hydro has to refurbish Bipole II at both ends, but we're looking at the south end right now, and it might be opportune at this time to do the splitting of Bipole I and II. I mean, you have identified in
here that to build a new LaVerendrye station would be about 890, almost \(\$ 900\) million. Is that the comparison then, between the 272 and the 889?

MR. MAZUR: It is, but it's still not clear as to whether going into LaVerendrye there should be additional costs included for this cable of 65 kilometres that's missing. I think part of the point is, yes, even with that money for refurbishment in there. I mean, there's a clear advantage to proceeding with the Bipole III as planned.

THE CHAIRMAN: Thank you. I think that's all our questions then.

Mr. Bedford, do you have any further questions for these gentlemen?

MR. BEDFORD: No.

THE CHAIRMAN: Thank you. Then we'll switch teams and move on to the next.

MS. MAYOR: Mr. Chairman, as you may recall, a number of weeks ago we had heard much about the Cumulative Effects Assessment Practitioners Guide authored by Mr. George Hegmann. It was referenced a number of times during Gunn and Noble's presentations very favourably, and they indicated they had adopted it
as a standard for cumulative effects assessment. As a result, Manitoba Hydro decided to go directly to the source, and we are very pleased to have Mr. Hegmann with us today to share his expertise with the panel. He will, of course, have to be sworn in, and we will just turn over to him to provide his comments in keeping with the document that was filed earlier.

THE CHAIRMAN: Thank you.

George Hegmann: Sworn.

THE CHAIRMAN: Go ahead, sir.
MR. HEGMANN: Good morning.

Mr. Chairman, I wish this morning to
restate and expand on my main points further to my submission of February 18th, Bipole III cumulative effects assessment, rebuttal to Gunn and Noble critique. I wish to note as well that it's my understanding that hard copies of what I'm about to say have been distributed.

THE CHAIRMAN: That's correct.

MR. HEGMANN: I hope this will provide context for my comments and thereby assist the Manitoba Clean Environment Commission in its continued deliberation of the proposed Bipole III project.

The issue that has brought me here today, and the issue of interest to the Commission, is the adequacy of the cumulative effects assessment or CEA. Doubts have been raised as to its adequacy based on the Gunn and Noble critique, basing their views on what they consider is acceptable practice on various points of method. And it would appear that certainly a few major points in the critique are generic in nature. That is they apply to an assessment done anywhere in Canada.

As such, given the sweeping nature of the critique, bringing into question the very fundamentals by which assessments are done, notwithstanding a myriad of technical details within, I feel obliged to respond today by taking an equally broad view to establish what \(I\) believe is the appropriate perspective.

My previous written submission provided my point-by-point response on some of the matters raised in the critique.

For the record this morning, for the most important of these points, the Bipole III CEA does reflect current practice, does follow a method in alignment with the Cumulative Effects
Assessment Practitioners Guide, and is not deficient, as claimed, to the extent it be rejected and completely redone.
So where to begin? I believe an
examination of adequacy begs the question from where arises the standard by which such assessments should be conducted, both on the fundamentals and in the many technical details of method. Is it perhaps from a definitive source or sources of published government guidance; or perhaps from the precedents of years of assessments accumulated through many public reviews, some such as this; or perhaps is it from the postulations of advocates of good practice from academic research?
Stated differently and plainly, the question to be answered is, what makes a good environmental assessment, which includes cumulative effects assessments, and who says so?
My answer in the largest sense is all of the above. The history of assessment practice in Canada, indeed globally, has followed the same evolutionary path as other examples of public administrative process and applied science, namely we learn as we go, and whenever possible avail
\begin{tabular}{|c|c|c|}
\hline & Ourselves of the opportunity to improve over time & Page 6851 \\
\hline 2 & and hence advance the practice. & \\
\hline 3 & That said, there remains fundamentals & \\
\hline 4 & that have become well established and have served & \\
\hline 5 & their purpose well. Some of these fundamentals & \\
\hline 6 & serve us well, because they allow us to & \\
\hline 7 & pragmatically test the acceptability of project & \\
\hline 8 & applications subject to legislative provision, in & \\
\hline 9 & this case, Environmental Assessment Acts, all & \\
\hline 10 & within a process of public review. They also & \\
\hline 11 & serve us well because they provide a means by & \\
\hline 12 & which one may apply data, science and insight to & \\
\hline 13 & assessing the potential effects of proposed & \\
\hline 14 & projects interacting with complex natural and & \\
\hline 15 & human landscapes. & \\
\hline 16 & These fundamentals, therefore, help do & \\
\hline 17 & what all good assessments must do, which is to & \\
\hline 18 & provide meaningful information to decision makers & \\
\hline 19 & to help them render their decision on the fate of & \\
\hline 20 & the project application before them. & \\
\hline 21 & The fundamental critique which I now & \\
\hline 22 & specifically wish to address is the so-called use & \\
\hline 23 & in Bipole III of the project centric approach & \\
\hline 24 & within which also lies the concept of the residual & \\
\hline 25 & effects trigger, that term having arisen & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline & previously in this hearing. & Page 6852 \\
\hline 2 & I have this morning chosen to discuss & \\
\hline 3 & this point from all matters previously raised & \\
\hline 4 & regarding the Bipole CEA, as this one appears to & \\
\hline 5 & be the most fundamental and repeated topic of & \\
\hline 6 & discussion, a common thread, if you will, running & \\
\hline 7 & through it. & \\
\hline 8 & This approach is juxtaposed in the & \\
\hline 9 & critique against a preferred ecosystem based & \\
\hline 10 & approach reflecting ambitious scoping. I am & \\
\hline 11 & unfamiliar with the term ambitious scoping, am & \\
\hline 12 & unclear as to what it means, and no definition is & \\
\hline 13 & forthcoming from the critique. I am familiar with & \\
\hline 14 & the term ecosystem based scoping, although it too & \\
\hline 15 & in both the critique and the literature is poorly & \\
\hline 16 & defined. Generally, it advocates an expansive & \\
\hline 17 & approach to scope assessed valued ecosystem & \\
\hline 18 & components, or VECs, under the supposition that & \\
\hline 19 & some VECs deserve to be assessed even though there & \\
\hline 20 & is no, or a weak demonstrable effect by the & \\
\hline 21 & project. In other words, assessed simply because & \\
\hline 22 & it happens to reside in the region in which the & \\
\hline & project occurs, and because someone is concerned & \\
\hline & about the VEC's fate. For all its intuitive & \\
\hline 25 & meaning and potential, much needs however to & \\
\hline
\end{tabular}
clarify just what ecosystem based assessment really means when it comes to actually using it in an assessment.
The basics of the project centric concept are simple, with profound importance in project assessments. In its simplest sense, one assesses things that the project may affect. Technically, we pursue a cause/effect chain of effects on each selected VEC. But in all cases, the project is the starting point, hence the term project centric. The project is the centre of the assessed universe.
This is important because, as I previously alluded to, the purpose of the assessment is to test the merits of the project typically within a mandate subject to the public interest test. As such, our interest is then what effects that project may cause.
A corollary of this is the following: If the project under review does not affect something, I do not have to assess that thing.
When it then comes to cumulative effects, one pursues an effect on a cumulative basis only for effects on VECs caused by the project. We then look about to see if other human
\begin{tabular}{|ll|}
\hline 1 & actions may also cause effects on the same VECs, \\
2 & and if so, we now have the basis to explore that \\
3 & effect on a cumulative basis. \\
4 & Perhaps nowhere is the disparity more \\
5 & evident between those apparent contrasting points \\
6 & of view, than the dismissal in the critique of the \\
7 & value of concluding the significance of a \\
8 & project's incremental contribution to cumulative \\
9 & effects, in deference to making a conclusion on \\
10 & overall cumulative effects. Understanding that \\
11 & project contribution is critical to allow one to \\
12 & make judgment on the project's effects and hence \\
13 & its acceptability. \\
23 & cumulative basis. of so much which could be said \\
14 & what project effects merit attention on a je measurable, that is, in some way is \\
15 & as a concern by those advocating such expansive \\
16 & approaches as ecosystem based, are two things: \\
17 & one, did we miss including an effect? And two,
\end{tabular}
discernible amongst the endlessly complex natural and human ecology that surrounds us. And to lay a related matter to rest, it does not have to be considered significant to be passed on to the cumulative effects assessment. On this first point, the Bipole CEA follows current practice and follows the Cumulative Effects Assessment Practitioners Guide.

On the second point, did we get all
the affected VECs in our assessment, debate revolves around the possibility that things out there may have been missed that warrant assessment. This view argues that current practice too narrowly defines VECs, leaving open the possibility that the assessment paints an effects picture less than may otherwise be justified.

However, the assessment practitioner must, as every assessment must, make a choice of VECs based on clear, reasonable and defensible criteria, the resulting VECs, including those that are clearly affected. And some of those may in part be selected because they offer a window, offer insight into broader effects and other receptors. In short, the job of any assessment is
not to assess everything, but to assess everything that can be reasonably demonstrated to be affected and for which the results provide decision makers with useful information, with insight into the acceptability of the project. On this second point, the Bipole CEA follows current practice and follows the Cumulative Effects Assessment Practitioners Guide.

I now wish to move on, not by continuing to address each technical point, but to change direction and address what I feel are the two most important issues underlying the critique, issues which frame the context of such reviews. These points often get missed in such discussions, yet must be first understood, to understand the way assessments work and the legitimacy of such critiques. These issues have been alluded to so far by others. And so I wish here to make them plain.

The first is the difference between two types of CEA, one for project applications, and the other for research and study. The second is the difference between current practice as conducted by practitioners who do CEAs for regulatory applications, and the views espoused by
those who study the art of assessment and wish to improve it.
Regarding the first, a confusion due to lack of clarity has occurred over the years regarding what the words "cumulative effects assessment" are actually referring to at any given moment. The reason for the confusion, which is causing endless trouble for all involved, is that these words have often been used interchangeably to mean two things at the same time, and they cannot.
One of the two versions is CEA done in support of regulatory filing requirements for individual project applications. That is what has brought us here today and to which I have focused my discussion so far.
The other is the so-called regional or strategic environmental assessment or study. This latter version has nothing to do directly with any one project application for regulatory review, and instead examines some regional area within which many things by people may be happening, all to better understand what is happening now and what may be forecast to happen. These regional or strategic environmental assessments enjoy far
\begin{tabular}{|c|c|c|}
\hline & greater freeboard to examine effects in VECs and & Page 6858 \\
\hline 2 & many other things, unencumbered by the project & \\
\hline 3 & centric process of project assessments, and often & \\
\hline 4 & also enjoying the benefits of more time and a more & \\
\hline 5 & expansive pursuit of information, data and & \\
\hline 6 & analysis. & \\
\hline 7 & However, and as stated in my previous & \\
\hline 8 & submission, lack of such ostensible advancements & \\
\hline 9 & in assessing cumulative effects through such & \\
\hline 10 & regional studies does not in itself constitute & \\
\hline 11 & deficiency in a project assessment. And certainly & \\
\hline 12 & for such matters of method and analytical option, & \\
\hline 13 & not to the degree as claimed, so as to result in a & \\
\hline 14 & near complete failure of an assessment in meeting & \\
\hline 15 & regulatory filing information requirements. & \\
\hline 16 & There is great benefit to land and & \\
\hline 17 & resource use administrators and to regulators to & \\
\hline 18 & wherever possible have both, each approach serving & \\
\hline 19 & different ends through different means. Examples & \\
\hline 20 & of this can be found elsewhere in Canada, and as & \\
\hline 21 & discussed in considerable and useful detail in the & \\
\hline 22 & academic literature by researchers, including & \\
\hline 23 & Dr. Noble and Dr. Gunn. It is my long-standing & \\
\hline 24 & view, supported by a cast of many in that & \\
\hline 25 & literature, that the assessment of cumulative & \\
\hline
\end{tabular}
\begin{tabular}{|ll}
1 & effects on an individual project-by-project basis \\
2 & benefits both the practitioner and decision maker \\
3 & more if such studies are available and used as a \\
4 & backdrop of information onto which one may drape a \\
5 & project's effects in comparison. \\
6 & It is also important to point out that \\
7 & as of yet, no statutory trigger exists that \\
8 & defines when and where such studies are mandated. \\
10 & issue, that of current practice by practitioners \\
11 & and practice as envisioned by those who seek to \\
12 & improve that practice. In other words, both by \\
13 & practitioners and by theoreticians. What has \\
23 & hypothetical far futures are examples of this. \\
14 & emerged in Canada is an understandable frustration \\
15 & by the theoreticians, many, but not all by any \\
16 & stretch, working as researchers in academic \\
17 & institutions regarding how assessments are done. \\
19 & narrowly scoped, too weak in supporting data and \\
21 & analysis, and too much following simplistic
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline 1 & This situation has arisen for a & Page 6860 \\
\hline 2 & variety of reasons. However, I believe there is & \\
\hline 3 & one clear driver that emerges as a root cause, & \\
\hline 4 & reflecting an unresolved tension between the & \\
\hline 5 & implications of two definitions of purpose of & \\
\hline 6 & environmental assessments. & \\
\hline 7 & The first definition is to assess and & \\
\hline 8 & manage effects of regulated projects. The second & \\
\hline 9 & is to enable sustainable development. The view by & \\
\hline 10 & pundits of current practice is that practitioners & \\
\hline 11 & and proponents place too much emphasis on the & \\
\hline 12 & first to the minimization or exclusion of the & \\
\hline 13 & latter, with CEAs representing an opportunity, a & \\
\hline 14 & commonplace as the nexus of the two, to pursue & \\
\hline 15 & larger objectives in support of sustainable & \\
\hline 16 & development. & \\
\hline 17 & These definitions are explicitly & \\
\hline 18 & expressed in the Canadian Environmental Assessment & \\
\hline 19 & Act, but the notion broadly applies anywhere in & \\
\hline 20 & Canada, through Provincial and Territorial & \\
\hline 21 & equivalents, many of which were modelled after the & \\
\hline 22 & Federal Act. & \\
\hline 23 & This situation is unfortunate. The & \\
\hline & purpose at least of the Federal Act is clear, and & \\
\hline 25 & it appears first in a list of purposes, that the & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline & focus of the Act is to assess and manage effects & Page 6861 \\
\hline 2 & of individual projects subject to provisions of & \\
\hline 3 & the Act. I would argue that sustainable & \\
\hline 4 & development, a rather large and commendable & \\
\hline 5 & purpose, may, amongst many initiatives, be served & \\
\hline 6 & well by assessments done well. In any event, & \\
\hline 7 & those in pursuit of the larger ideals of & \\
\hline 8 & sustainability assume that assessments must & \\
\hline 9 & commensurately rise to the occasion by equally & \\
\hline 10 & pursuing ideals to match. & \\
\hline 11 & To such critiques, however, I, as both & \\
\hline 12 & a practitioner and theoretician, as to which, & \\
\hline 13 & depending on the job at hand, offer the following & \\
\hline 14 & to this: Current assessment practice, and to be & \\
\hline 15 & clear, that associated with project regulatory & \\
\hline 16 & applications, does what it does because it works & \\
\hline 17 & within what I refer to as the pragmatic limits of & \\
\hline 18 & the possible. Pragmatic speaks to, as all good & \\
\hline 19 & practitioners do, and are the virtues of good & \\
\hline 20 & assessment, doing everything possible with & \\
\hline 21 & available data and knowledge supplemented by new & \\
\hline 22 & observations within the time available, scoping as & \\
\hline 23 & broadly as possible, but always tied back to the & \\
\hline 24 & project under review, all the while fully & \\
\hline 25 & admitting gaps, uncertainties and assumptions. & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline 1 & The limits of the possible speaks to & Page 6862 \\
\hline 2 & just how far the science, the analytical & \\
\hline 3 & technology and the basic human insight and & \\
\hline 4 & experience can take us, which sometimes is simply & \\
\hline 5 & not as far as the theoreticians wish, their views, & \\
\hline 6 & based on assessments, taking on the vestments of & \\
\hline 7 & long-term studies more appropriate in the halls of & \\
\hline 8 & basic scientific research. Often these limits are & \\
\hline 9 & simply not recognized or accepted until one & \\
\hline 10 & actually is immersed into conducting a regulatory & \\
\hline 11 & application, which I can guarantee, once & \\
\hline 12 & experienced, will never leave you looking at & \\
\hline 13 & assessments the same way again. & \\
\hline 14 & The Cumulative Effects Assessment & \\
\hline 15 & Practitioners Guide was written specifically as & \\
\hline 16 & guidance for projects subject to regulatory & \\
\hline 17 & review, specifically under the provisions of the & \\
\hline 18 & Canadian Environmental Assessment Act, and with a & \\
\hline 19 & clear focus on a foundation of practice firmly in & \\
\hline 20 & recognition of the pragmatic limits of the & \\
\hline 21 & possible. & \\
\hline 22 & The limits of the possible must also, & \\
\hline & for regulatory applications, consider another & \\
\hline & basis of reasoning than the purely scientific or & \\
\hline 25 & technical. I refer to a standard of certainty as & \\
\hline
\end{tabular}
evidenced in support of an application before a regulator. Practitioners must always ensure a variety of qualities exist in this regard to their work, including defensibility, completeness, robustness and accuracy. Practitioners must always ensure that our data, analysis, conclusions reflects these qualities. This stands in contrast to where overly enthusiastic advocates advancing CEAs wish to go; namely, into the conceptual, the hypothetical, and what \(I\) refer to as fictionalizing.

Again, CEAs are viewed as fertile grounds to play in the past, present and future, while admirable in introducing notions and possibilities, represent at times too great a risk of not reflecting the very qualities of integrity, as a standard of certainty expected by the reviewing authorities themselves to assist them in making their conclusions and recommendations based on supportable evidence.

I also wish to make clear that in my view, insights from practitioners and theoreticians are both required for the practice of assessment to move ahead in the best way possible. What works and does not work, what is
possible and is not possible, what simply makes sense and does not, must benefit by the engagement of all involved parties in the place where practice meets theory.
I'm aware, for example, of the good work done by Dr. Gunn and Dr. Noble, and others in the academic literature on trying to move assessment practice ahead, and but for my one strong caveat that at times this must be tempered but not stalled by the pragmatic limits of the possible, the world of environmental assessment would be poorer without it.
In conclusion, environmental assessments being the larger term that includes looking at cumulative effects are not research studies, although, and they often do embed like-minded elements such as recommendations for monitoring. These do as much as can be expected, which is to offset uncertainties by learning more and adaptively evolving as time goes by. That approach follows the original and true definition of the precautionary principle which states that lack of information should not in and of itself be used as an excuse to not make decisions now. Instead, recognized lack of information should be
\begin{tabular}{|c|c|c|}
\hline & used as the basis to plan for addressing that lack & Page 6865 \\
\hline 2 & while proceeding with all the care and due & \\
\hline 3 & diligence the many mechanisms at play offer, many & \\
\hline 4 & which avail themselves in public review such as & \\
\hline 5 & the one we are in today. & \\
\hline 6 & Thank you. This concludes my & \\
\hline 7 & presentation. & \\
\hline 8 & THE CHAIRMAN: Thank you, sir. & \\
\hline 9 & Questions, Mr. Williams? & \\
\hline 10 & MR. WILLIAMS: Good morning, & \\
\hline 11 & Mr. Hegmann and Mr. Osler. & \\
\hline 12 & Mr. Hegmann, just to assist you, you & \\
\hline 13 & should probably have at hand the little report & \\
\hline 14 & that you prepared on February 18th, the written & \\
\hline 15 & report. Do you have that, sir? & \\
\hline 16 & MR. HEGMANN: Yes, I have that with & \\
\hline 17 & me. & \\
\hline 18 & MR. WILLIAMS: And as well it may & \\
\hline 19 & assist our discussion, there is some supporting & \\
\hline 20 & materials of CAC Manitoba that were provided to & \\
\hline 21 & you and to the board today. & \\
\hline 22 & Mr. Hegmann, when I go to your little & \\
\hline 23 & report of February 18th, 2013, I don't see a & \\
\hline 24 & letter of retainer attached. Agreed? & \\
\hline 25 & MR. HEGMANN: That's correct, and no & \\
\hline
\end{tabular}
such information is provided in that filing.
MR. WILLIAMS: And, sir, I take it you signed a letter of retainer with Manitoba Hydro, setting out the scope of your assignment, sir?
MS. MAYOR: We can advise, as we told Mr. Williams a number of weeks ago, there was no letter of retainer, and that's why it was not provided to him.
MR. WILLIAMS: Mr. Hegmann, when were you retained by Manitoba Hydro for the purposes of preparing rebuttal to the evidence of Drs. Gunn and Noble?
MS. MAYOR: Again, we have already spoken about this. I did it in my introductory comments to avoid any concerns you may have. It was subsequent to the Gunn and Noble presentation.
MR. WILLIAMS: The purpose is to understand when Mr. Hegmann was retained.
Mr. Hegmann, when were you retained?
MR. HEGMANN: To provide --
MR. WILLIAMS: Insight into, or
rebuttal to Drs. Gunn and Noble?
MR. HEGMANN: The period of time of my engagement would have extended approximately into early February.
MS. MAYOR: We can advise, as we told
\begin{tabular}{|c|c|c|}
\hline 1 & MR. WILLIAMS: So, sir, you were & \\
\hline 2 & retained in early February and you provided your & \\
\hline 3 & report on February 18th. Am I correct in that, & \\
\hline 4 & sir? & \\
\hline 5 & MR. HEGMANN: I did submit the & \\
\hline 6 & material that you have mentioned on February 18th, & \\
\hline 7 & yes. & \\
\hline 8 & MR. WILLIAMS: Just so I have the & \\
\hline 9 & chronology correct, sir, you were retained for the & \\
\hline 10 & purpose of rebuttal a couple of weeks before that, & \\
\hline 11 & agreed? & \\
\hline 12 & MS. MAYOR: For the Bipole project, & \\
\hline 13 & that's what you are asking for? Yes. & \\
\hline 14 & MR. WILLIAMS: Thank you. Now, & \\
\hline 15 & directing your attention to your little report of & \\
\hline 16 & February 18th, Mr. Hegmann, page 1. In the second & \\
\hline 17 & paragraph you identify a few documents that you & \\
\hline 18 & reviewed in preparing this report, agreed? & \\
\hline 19 & MR. HEGMANN: Excuse me? & \\
\hline 20 & MR. WILLIAMS: Sir, what I'm asking & \\
\hline 21 & you to agree is that on page 1 of your letter of & \\
\hline 22 & February 18th, 2013, you identify some of the & \\
\hline 23 & documents that you reviewed in preparing your & \\
\hline 24 & report, correct? & \\
\hline 25 & MR. HEGMANN: Yes, that is correct. & \\
\hline
\end{tabular}

MR. WILLIAMS: Sir, in preparing your report, did you have occasion -- and Mr. Hegmann, am I not speaking loud enough, is that the issue?

MR. HEGMANN: No, I hear you fine.
MR. WILLIAMS: Okay. Mr. Hegmann, in preparing your report of February 18th of 2013 , or 2013, did you have occasion to review the decision or the report of the Clean Environment Commission relating to the public hearings for the Wuskwatim generation and transmission project?

MR. HEGMANN: Could you clarify exactly the nature of the documents you are referring to?

MR. WILLIAMS: Sir, are you aware that in or around 2004, the Manitoba Clean Environment Commission prepared a report on the public hearings for the Wuskwatim generation and transmission project?

MR. HEGMANN: I am only aware of the existence of such documents. I did not review these documents.

MR. WILLIAMS: And sir, in preparing your report of February 18th, 2013, did you review the aquatic environment technical report prepared on behalf of Manitoba Hydro and dated
\begin{tabular}{|c|c|c|}
\hline 1 & November 2011? & Page 6869 \\
\hline 2 & MR. HEGMANN: No. The material which & \\
\hline 3 & I reviewed is as I have indicated here in the & \\
\hline 4 & February 18th submission. & \\
\hline 5 & MR. WILLIAMS: So, sir, would I be & \\
\hline 6 & correct in suggesting to you that any of the & \\
\hline 7 & technical reports filed by Manitoba Hydro in & \\
\hline 8 & November of 2011 were not reviewed by you in & \\
\hline 9 & preparation of your rebuttal to Drs. Gunn and & \\
\hline 10 & Noble? Would I be correct, sir? & \\
\hline 11 & MR. HEGMANN: That is correct, yes. & \\
\hline 12 & MR. WILLIAMS: And likewise, sir, & \\
\hline 13 & would I be correct in suggesting to you that you & \\
\hline 14 & did not review the supplemental material filed by & \\
\hline 15 & Manitoba Hydro in July of 2012, relating to the & \\
\hline 16 & Environmental Impact Statement, correct? & \\
\hline 17 & MR. HEGMANN: This is correct. I wish & \\
\hline 18 & to perhaps restate and remind Mr. Chairman that & \\
\hline 19 & the material which I reviewed is on the record. & \\
\hline 20 & It was focused on the cumulative effects & \\
\hline 21 & assessment, as filed. It was in regard to matters & \\
\hline 22 & raised by Gunn and Noble in regards to that & \\
\hline 23 & Cumulative Effects Assessment. & \\
\hline 24 & MR. WILLIAMS: And just to understand & \\
\hline & the nature of your review, sir, am I correct in & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline & suggesting to you that you did not review chapter & Page 6870 \\
\hline 2 & 6 of the Environmental Impact Statement relating & \\
\hline 3 & to the existing environment, correct? & \\
\hline 4 & MR. HEGMANN: I did not review that in & \\
\hline 5 & detail as part of the nature of my work. & \\
\hline 6 & MR. WILLIAMS: And again, sir, am I & \\
\hline 7 & correct in suggesting to you that you did not & \\
\hline 8 & review chapter 8 of the EIS, titled Effects & \\
\hline 9 & Assessment and Mitigation? & \\
\hline 10 & MR. HEGMANN: I examined chapter 8 to & \\
\hline 11 & the extent that information was useful and & \\
\hline 12 & applicable to the assessment of potential & \\
\hline 13 & cumulative effects. & \\
\hline 14 & MR. WILLIAMS: Okay. Now, sir, in & \\
\hline 15 & preparing your report, did you review the & \\
\hline 16 & transcript relating to the presentation by the Fox & \\
\hline 17 & Lake First Nation on or about November 8th, 2012? & \\
\hline 18 & MR. HEGMANN: No, I did not review & \\
\hline 19 & those transcripts. & \\
\hline 20 & MR. WILLIAMS: And sir, in preparing & \\
\hline 21 & your report, did you review the transcript & \\
\hline 22 & relating to the presentation of the Tataskweyak & \\
\hline 23 & Cree Nation on or about November 13th, 2012? & \\
\hline 24 & MR. HEGMANN: Mr. Chairman, again, I & \\
\hline 25 & have made it quite clear a few times at this point & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline & as to the extent of the nature of my review. I & Page 6871 \\
\hline 2 & believe that I have made my statement in that & \\
\hline 3 & regard. & \\
\hline 4 & MR. WILLIAMS: So the answer would be & \\
\hline 5 & no, sir? & \\
\hline 6 & MR. HEGMANN: In regard to your & \\
\hline 7 & current question, that's correct. & \\
\hline 8 & MR. WILLIAMS: Now, back in 2012, & \\
\hline 9 & Mr. Hegmann, I'd be correct in suggesting to you & \\
\hline 10 & that in February of 2012, you attended a CEA & \\
\hline 11 & workshop, February 23rd and 24th, am I correct, & \\
\hline 12 & sir? & \\
\hline 13 & MR. HEGMANN: Those are the & \\
\hline 14 & approximate dates, if memory serves me, yes. & \\
\hline 15 & MR. WILLIAMS: While most of the & \\
\hline 16 & persons at that workshop were government staff, it & \\
\hline 17 & would be fair to suggest that there were a few & \\
\hline 18 & leading experts in the field in attendance? & \\
\hline 19 & Agreed, sir? & \\
\hline 20 & MR. HEGMANN: The agency, at their & \\
\hline 21 & discretion, identified various individuals, & \\
\hline 22 & including myself, to attend that event, yes. & \\
\hline 23 & MR. WILLIAMS: And sitting right & \\
\hline 24 & beside you was Dr. Noble, correct? & \\
\hline 25 & MR. HEGMANN: He was in attendance, & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline & & Page 6872 \\
\hline 1 & yes. & \\
\hline 2 & MR. WILLIAMS: Also in attendance was & \\
\hline 3 & Dr. Dunker, agreed? & \\
\hline 4 & MR. HEGMANN: Yes, he was there. & \\
\hline 5 & MR. WILLIAMS: And you considered & \\
\hline 6 & Dr. Dunker an expert in the field of cumulative & \\
\hline 7 & effects assessment, sir? & \\
\hline 8 & MR. HEGMANN: I would consider that & \\
\hline 9 & Dr. Dunker is well published and has contributed & \\
\hline 10 & substantially to the practice of environmental & \\
\hline 11 & impact assessment in Canada over a number of & \\
\hline 12 & decade, yes. & \\
\hline 13 & MR. WILLIAMS: And also in attendance, & \\
\hline 14 & sir, was Dr. Bill Ross. & \\
\hline 15 & MR. HEGMANN: Yes, he was there. & \\
\hline 16 & MR. WILLIAMS: Now sir, Dr. Ross was & \\
\hline 17 & one of the members of the CEA working group & \\
\hline 18 & leading to the publication of the 1999 & \\
\hline 19 & Practitioners Guide, correct? & \\
\hline 20 & MR. HEGMANN: Yes, he was. & \\
\hline 21 & MR. WILLIAMS: And he is, of course, a & \\
\hline 22 & leading authority in the field, sir? & \\
\hline 23 & MR. HEGMANN: He is recognized as an & \\
\hline 24 & authority on environmental impact assessment in & \\
\hline 25 & Canada. & \\
\hline
\end{tabular}

MR. WILLIAMS: And sir, if we were to ask Dr. Ross what's the appropriate perspective in good practice in cumulative effects assessment, you'll agree with me that his widely expressed view is that a VEC based perspective in conducting CEA studies is considered best practice and recommended. Agreed?

MR. HEGMANN: I can't agree to a comment that I am not aware of or can recall. But what I can say, and I think it's important to remind ourselves that the guide which has been identified by Gunn and Noble as indeed a standard is a document which reflects at that time of its publication the views of a number of individuals, including some of the individuals whom you have named.

MR. WILLIAMS: And sir, we'll come back to Dr. Ross in just a second.

In the guide, we can agree that your advice is that the study area should be large enough to allow the assessment of VECs that may be affected by the action being assessed, and that this may result in an area that is considerably larger than the actions footprint. Agreed?

MR. HEGMANN: I agree with that, yes.
\begin{tabular}{|c|c|c|}
\hline 1 & THE CHAIRMAN: Can you give us the & Page 6874 \\
\hline 2 & page number? & \\
\hline 3 & MR. WILLIAMS: In the supporting & \\
\hline 4 & materials, Mr. Chair, it's page 11. & \\
\hline 5 & THE CHAIRMAN: Thank you. & \\
\hline 6 & MR. WILLIAMS: And indeed the advice & \\
\hline 7 & in the guide, sir, is that each VEC may indeed & \\
\hline 8 & have a different study area, correct? & \\
\hline 9 & MR. HEGMANN: There's always that & \\
\hline 10 & possibility in any assessment, yes. & \\
\hline 11 & MR. WILLIAMS: Now, sir, just in terms & \\
\hline 12 & of the position of Dr. Ross, I'm going to direct & \\
\hline 13 & you in the materials to a report titled "State of & \\
\hline 14 & Practice of Cumulative Effects Assessment and & \\
\hline 15 & Management, The Good, The Bad and The Ugly" from & \\
\hline 16 & 2010. Sir, do you have that report? & \\
\hline 17 & MR. HEGMANN: Yes, I do. Thank you & \\
\hline 18 & for providing that. & \\
\hline 19 & MR. WILLIAMS: And sir, is this a & \\
\hline 20 & report that you are familiar with? & \\
\hline 21 & MR. HEGMANN: It's been some time & \\
\hline 22 & since I have read it. There's much out there on & \\
\hline 23 & the subject. I had a quick reacquaintance with & \\
\hline 24 & the paper in the time that I had available this & \\
\hline 25 & morning, yes. & \\
\hline
\end{tabular}

MR. WILLIAMS: And if we went to page, marked in the top right-hand corner page 7?

MR. HEGMANN: Just a moment, please. Yes, go ahead.

MR. WILLIAMS: Just under the good lessons, potential best practice for CEAM, can we agree that under the first bullet, Dr. Ross is suggesting that a VEC based perspective should be used in planning and conducting a best practice cumulative effects assessment study?

MR. HEGMANN: The discussion at this point is introducing a number of semantics and meanings. And as always, it's important to be clear. I have not had the time this morning to reacquaint myself to the point where \(I\) believe, without further thought, I can best, by a complete read of the paper, understand the context that he is referring to.

So again, the practitioners guide in its guidance, in its fundamentals in regards to what one does, how one identifies and assesses VECs, the project centric approach is one which certainly takes into account the effect of project effects on valid ecosystem components.

You have put before me the words "VEC
based perspective." And I would have to read this paper again as to exactly what that means. I would suspect that that may be important for me to further comment.

MR. WILLIAMS: I appreciate that, Mr. Hegmann. Can we agree, and we have agreed previously, you had some fond words for Dr. Dunker. You think highly of him within the profession?

MR. HEGMANN: As I had stated a few moments ago, I believe that he has, yes, using my words, contributed substantially to the practice of environmental assessment in Canada.

MR. WILLIAMS: Is it your
understanding of Dr. Dunker's perspective that his view is that the total effect of the proposed action and other actions on the VECs should be assessed?

MR. HEGMANN: That is correct. And that is what is viewed as the good guidance as provided in the guide.

MR. WILLIAMS: Now, sir, just directing you to your little report on page 3 of 4 ?

MR. HEGMANN: When you say my little

sir; agreed?
MR. HEGMANN: Yes, I am familiar with
that document.
MR. WILLIAMS: And can we agree, sir,
that the advice of those parties in Alberta is
that while it might appear simpler to avoid
uncertainty by including only those projects and activities known with certainty, such seemingly more solid predictions almost certainly
underestimate cumulative effects by neglecting the current understanding of what is reasonably
foreseeable. Can we agree on that, sir?
MR. HEGMANN: Sorry, can you take me exactly to where that is in the document?
MR. WILLIAMS: Yes, page 21 in the top right-hand corner, sir.
MR. HEGMANN: Yes, I see the page number.
MR. WILLIAMS: And you will see the headline Identifying Projects and Activities, and the third paragraph under that headline, sir.
MR. HEGMANN: Yes, I am there.
MR. WILLIAMS: Can we agree that's the advice provided in the Alberta guidelines, sir?
MR. HEGMANN: It certainly is the
\begin{tabular}{|c|c|c|}
\hline & advice in the guideline, that's correct. & Page 6879 \\
\hline 2 & MR. WILLIAMS: Mr. Chair, I thank & \\
\hline 3 & Mr. Hegmann for his comments and I have no further & \\
\hline 4 & questions. & \\
\hline 5 & THE CHAIRMAN: Thank you, & \\
\hline 6 & Mr. Williams. & \\
\hline 7 & Are there any other participants who & \\
\hline 8 & have questions of this witness? & \\
\hline 9 & I have one or two questions. One & \\
\hline 10 & relates to the trigger. And on page 3 of your & \\
\hline 11 & presentation this morning, about halfway down the & \\
\hline 12 & paragraph that begins on the first point, you say & \\
\hline 13 & that the effect has to at least be measurable. & \\
\hline 14 & Then in the next sentence: & \\
\hline 15 & "And to lay the matter to rest, it & \\
\hline 16 & does not have to be considered & \\
\hline 17 & significant to be passed on to a & \\
\hline 18 & cumulative effects assessment." & \\
\hline 19 & Now, are you saying that matters that are not & \\
\hline 20 & significant could and should still be included in & \\
\hline 21 & a CEA? & \\
\hline 22 & MR. HEGMANN: That is correct, yes. & \\
\hline 23 & THE CHAIRMAN: You see, we had been & \\
\hline 24 & lead to believe that if there is no significant & \\
\hline 25 & residual effect, then there's no need to go the & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline & next step and do a cumulative effects assessment. & Page 6880 \\
\hline 2 & Would you agree with that approach? & \\
\hline 3 & MR. HEGMANN: No, I do not. & \\
\hline 4 & THE CHAIRMAN: Okay, thank you. The & \\
\hline 5 & CEA guidelines were initially drawn up in '94; is & \\
\hline 6 & that correct? & \\
\hline 7 & MR. HEGMANN: Just to be clear, & \\
\hline 8 & Mr. Chairman, are you referring to the & \\
\hline 9 & practitioners guide? & \\
\hline 10 & THE CHAIRMAN: The practitioners & \\
\hline 11 & guide, sorry. & \\
\hline 12 & MR. HEGMANN: It was published in 1999 & \\
\hline 13 & by the Canadian Environmental Assessment Agency. & \\
\hline 14 & THE CHAIRMAN: Wasn't there an earlier & \\
\hline 15 & version? It doesn't really matter but -- & \\
\hline 16 & MR. HEGMANN: Not of the practitioners & \\
\hline 17 & guide. However, there was a reference document & \\
\hline 18 & published around the time that you alluded to, & \\
\hline 19 & that shortly followed the promulgation of the & \\
\hline 20 & Canadian Environmental Assessment Act to provide & \\
\hline 21 & guidance at that time. & \\
\hline 22 & THE CHAIRMAN: Has the practitioners & \\
\hline 23 & guide been updated or amended since 1999? & \\
\hline 24 & MR. HEGMANN: No, I am not aware of an & \\
\hline 25 & update to that document. & \\
\hline
\end{tabular}

THE CHAIRMAN: Do you think it needs an update?

MR. HEGMANN: I think it would be fair to say that it would benefit by updating, and certainly enough time has elapsed and many things have happened. And when \(I\) say that, I mean in terms of what's happening in Canada with assessments and applications, that \(I\) think there would be some benefit to take some in hindsight lessons learned from that. And that could be one example of the basis of an update, yes.

THE CHAIRMAN: Thank you. You also talk about sustainable development. And I get the impression from what you said this morning that to incorporate, or to pursue sustainable development in this type of an assessment is a touch unrealistic, am \(I\) correct, or a touch too idealist?

MR. HEGMANN: I would agree generally with those words. And I would add to that that sustainability, a matter that when it comes to regulatory applications would need to, how shall I say, land with more clarity in terms of how that matter would be addressed. In no way it diminishes, of course, the importance of the
\begin{tabular}{|c|c|c|}
\hline & concept. Mind you, then it becomes, when it's & Page 6882 \\
\hline 2 & time now to do an assessment, subject to a & \\
\hline 3 & provisioning act, how does one best accomplish & \\
\hline 4 & that? I think certainly more needs to be done to & \\
\hline 5 & provide that clarity. And I would wish to, if I & \\
\hline 6 & may, just repeat that I do believe that good & \\
\hline 7 & assessments can, in their own way, contribute in & \\
\hline 8 & various respects to the notions of sustainability, & \\
\hline 9 & yes. & \\
\hline 10 & THE CHAIRMAN: Manitoba, like a number & \\
\hline 11 & of other provinces, does have a Sustainable & \\
\hline 12 & Development Act, and it includes a list of & \\
\hline 13 & principles and guidelines that various entities & \\
\hline 14 & are required to abide by, including Manitoba & \\
\hline 15 & Hydro. Also typically in terms of reference that & \\
\hline 16 & are referred to us, we're asked to take into & \\
\hline 17 & consideration those principles and guidelines. & \\
\hline 18 & MR. HEGMANN: Yes. & \\
\hline 19 & THE CHAIRMAN: Given that you think it & \\
\hline 20 & might be a little idealistic, how do we look at & \\
\hline 21 & cumulative effects assessment in light of the & \\
\hline 22 & sustainable development guidelines that we are & \\
\hline 23 & bound by, principles and guidelines? & \\
\hline 24 & MR. HEGMANN: I think cumulative & \\
\hline 25 & effects assessment provide a very good & \\
\hline
\end{tabular}
opportunity, again with the caveats that I have mentioned, but still much can be accomplished in that regards. Cumulative effects assessments provide an opportunity to examine possibilities of the future, and it is not that what perhaps is one way of looking at sustainability. The examination of what, in combination, human actions may have on a landscape can, for example -- and there are examples of this in other parts of Canada -- to reveal where there is a need to understand more, to manage better, to perhaps monitor, and gain the benefit what that may provide to even larger decision-making process and in land and resource administration.

THE CHAIRMAN: One thing I have discovered over the years is some interesting language around the subject of cumulative effects assessment. I'm still trying to wrestle with the concept of evolving baseline. I mean, I can understand sort of the new normal perhaps, but just the term evolving baseline strikes me as an oxymoron. Now you've got another phrase in here that \(I\) find intriguing, pragmatic limits of the possible. How would you define that?

MR. HEGMANN: In its most fundamental

1 way, environmental impact assessments are rooted in good information, good science, but also, and in some cases, more importantly, instrumentally the interpretation of professional judgment in consideration of all that evidence. The pragmatic limits of the possible, if \(I\) was to provide a definition further to the words that I have already provided today, would be that that data, that science, that interpretation, as in all matters of scientific investigation, at times may reach limits in terms of how far one may be able to, with a good degree of confidence, arrive at conclusions. What the intent of me mentioning that is that when one is doing environmental impact assessments, it is these matters which one must consider and, therefore, and now to the point, if there are considerations that, how shall I say, would exceed those bounds where we may indeed become what I would refer to as overly hypothetical or fictionalized. While on one hand I completely understand, within the discretion and mandate of a panel, they may wish to nonetheless explore certain matters, that's fine. But for the file material in support of a project application, one must take care to ensure that that
information, in the view of those preparing that work, have that clear defensibility. And the pragmatic limits of the possible is in recognition of that.

THE CHAIRMAN: One other concept around CEA that puzzles me, I guess, is how you define what's included within the parameters of past, present and future? I mean, to me it would seem pretty simple, that anything that's been built in the past, anything that's currently on site, and anything that's more or less planned into the near future would be included. But that's not always the case. How would you define what should be within those boundaries?

MR. HEGMANN: It's a very common question, and it's understandably very common, and it has been a very contentious issue over the years. It's one in which there are many views.

My view, if I may find a starting point -- again so much which could be said on this. My starting point -- and again under the idea of pragmatic, pragmatism -- is first of all, if I'm going to assess something, I have to be able to, in some fashion, have the ability that there is enough information that now I can
actually assess it. And what happens is on one hand, there is an understandable desire to take in the opportunity to do this thing called cumulative effects assessment, to look into the past and look into the future. Indeed, it's built into the fabric of how CEAs work. However, the desire often extends to creating pasts and creating futures where -- and I think this would be reasonable and understandable -- it becomes more difficult to start to actually describe what that past and future is. And so the bounds in answering your question, the first rule is you assess what is assessable.

Certainly in terms of what constitutes the future, things are fairly well established that way. For example, the practitioners guide and other guidance as well, such as the one that the gentleman had introduced from the Alberta Government, provide very clear bounds as to, if you will, what lands into our consideration for that future. And as such, those bounds mean by such guidance that types of human activities that extend beyond that, that move into the conjectural, hypothetical will not normally be included.
\begin{tabular}{|c|c|c|}
\hline 1 & In regards to the far past, there is & Page 6887 \\
\hline 2 & the current pragmatic use of including what I call & \\
\hline 3 & the echo of the past in what we commonly refer to & \\
\hline 4 & as our baseline, what the world is prior to our & \\
\hline 5 & project coming. And likewise, if I go back in & \\
\hline 6 & time, it certainly is challenging to reconstruct & \\
\hline 7 & that past as well. & \\
\hline 8 & And so to conclude for the moment to & \\
\hline 9 & your question, the bounds are, in my view, first & \\
\hline 10 & that which we believe provides us enough & \\
\hline 11 & information to assess with a good degree of & \\
\hline 12 & confidence. And if that is to be exceeded, & \\
\hline 13 & perhaps at times it may, if that then becomes & \\
\hline 14 & information requirement specifically for that & \\
\hline 15 & application, or as the review process proceeds. & \\
\hline 16 & THE CHAIRMAN: Thank you. Ms. MacKay, & \\
\hline 17 & any questions. & \\
\hline 18 & MS. MacKAY: I have one question. & \\
\hline 19 & On page 4 of your presentation today, & \\
\hline 20 & you refer to two versions of cumulative effects & \\
\hline 21 & assessments. One for a project for regulatory & \\
\hline 22 & purposes, and the other you refer to as regional & \\
\hline 23 & or strategetic assessment. What is it that would & \\
\hline 24 & trigger such a regional assessment, and of what & \\
\hline 25 & use is it if it's not feeding back into & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline & & Page 6888 \\
\hline 1 & regulation? & \\
\hline 2 & MR. HEGMANN: Two part question. When & \\
\hline 3 & do these things arise? And secondly, is it not & \\
\hline 4 & the case that when they do happen, that they would & \\
\hline 5 & then not be useful cumulative effects? Have I & \\
\hline 6 & characterized your question fairly? & \\
\hline 7 & MS. MacKAY: I think so. & \\
\hline 8 & MR. HEGMANN: Okay. I'll begin with & \\
\hline 9 & the first. I think the easiest, simplest answer, & \\
\hline 10 & and I can momentarily provide some examples, I & \\
\hline 11 & think perhaps the best way is actually by way of & \\
\hline 12 & example to illustrate, but generically. When & \\
\hline 13 & there is regional -- these regional strategic & \\
\hline 14 & studies have historically so far arisen when the & \\
\hline 15 & following conditions apply. And the simplest & \\
\hline 16 & fashion is that there's a -- typically it's a & \\
\hline 17 & single area of land or resource administration. & \\
\hline 18 & It might be provincial or territorial scale, or & \\
\hline 19 & such a regional scale within, but there's a & \\
\hline 20 & landscape. And there's a lot going on now, or we & \\
\hline 21 & can just see it coming on the horizon, it's going & \\
\hline 22 & to get busy, if it's not busy already. If it is & \\
\hline 23 & busy already, it's going to get busier. & \\
\hline 24 & Technically, there is, for example, a & \\
\hline 25 & large degree of anthropogenic change which has & \\
\hline
\end{tabular}
occurred. It has been recognized on the landscape and the future trajectory that we may see for this area is that this may keep on going, and in fact, new types of development may happen, resource development, various types. And so a moment in time happens, and this is the critical moment. This is the trigger. Someone finally raises the point, are we going to do something different about this situation, different than what already is available through the current regulatory permitting licensing processes, and other processes as well at various levels? Is there something more that we can do to help all parties, government, public, proponents, better understand what it is that's happening out there now, and perhaps to some degree into the past, but most importantly, to help us prepare for the future.

Now, for those examples which I promised, which I do think perhaps are more useful than the generic version. In the Northwest Territories there is initiative currently at the environmental sustainability framework, previously the cumulative effects assessment management framework and strategy.

And in the Northwest Territories, and
this goes back about 10 years, a very unusual thing happened. There was a diamond mine. And in quick order, as resource development often does, more came up to bat, so to speak. And some very forward-looking individuals thought, you know, maybe we should explore this better. And so the framework's intent, and in its absolute basics is, again, we're going to help us understand how we may look into the future.

Another example is at the oil sands, at the Athabasca oil sands in Alberta. Arguably right now representing some of the most advanced work done, not everything that one reads out there is necessarily the whole story. We have regional land use plans which are backed up by statutory provision, very unique, very important. And we have the continuation of an evolution of monitoring and regional study, an establishment of many mechanisms in order to allow one to stand back in a very large area, where much is happening, and prepare and plan and manage for that future.

The Province of British Columbia is currently considering, beyond already going back a couple of decades, the regional management plans,
the incorporation of a cumulative effects
framework, which would, if you will, move them
into the 21st century in terms of more advanced
insight, with good data and analysis and
information and process to manage certainly
northeast \(B C\) in that area. It was a project that

I was involved in, to assist the oil and gas
commission in a framework for that area.

So to conclude perhaps on your first question, a generic, a description of when these things happen and some examples.

Your second question, and the answer is yes. Where the question is, would these be useful? Absolutely. In fact, the Canadian Environmental Assessment Act, both the pre 2012 and the current 2012 version, they recognize the value of these studies. Although they are not mandated, we don't have a trigger, if you will, within those Acts. They recognize exactly what you're saying, which is if there's that information available and you, some proponent, is coming into an area in which such a study exists, what they are saying is use that study, use that information, take it as far as you can, use the benefit of what has been gained from that to help
\begin{tabular}{|c|c|c|}
\hline & & Page 6892 \\
\hline 1 & you. & \\
\hline 2 & Now, for your project application, do & \\
\hline 3 & the best job that you can in consideration of what & \\
\hline 4 & will be learned from that, yes. & \\
\hline 5 & MS. MacKAY: But if something useful & \\
\hline 6 & for regulation can be gained out of a regional & \\
\hline 7 & study, should we not be aiming at a cumulative & \\
\hline 8 & effects assessment procedure that would, on a & \\
\hline 9 & project level, draw those out? & \\
\hline 10 & MR. HEGMANN: Absolutely. The thing & \\
\hline 11 & is, unfortunately, we don't yet have studies, and & \\
\hline 12 & to the extent that would provide that benefit. I & \\
\hline 13 & think, again, an example works wonders in this & \\
\hline 14 & situation. In the Athabasca oil sands, fairly & \\
\hline 15 & recently, certainly started within -- it's been a & \\
\hline 16 & long process, many things have happened. But & \\
\hline 17 & right now we have, for example, air quality & \\
\hline 18 & thresholds on a regional basis. And this is a & \\
\hline 19 & direct result of what's coming out of the regional & \\
\hline 20 & studies, that regional view of that area. & \\
\hline 21 & So to the point. If I'm now coming in & \\
\hline 22 & and I wish to propose a new oil sands project, & \\
\hline 23 & whether it is in situ or a new mine, and I will & \\
\hline & have stacks, I will have air emissions, I now have & \\
\hline 25 & to consider the thresholds that, for certain & \\
\hline
\end{tabular}
constituents, have come out of that regional study. My assessment has now, in a sense, been affected, influenced by that study in a very real way, yes. And that's an example which could be replicated in many other ways as well.

The regional study is supported by the

Government of Alberta. THE CHAIRMAN: Mr. Kaplan?

Mr. Gibbons?

MR. GIBBONS: Yes, I do have several questions, but one is first a clarification of an answer that you gave to Mr. Sargeant earlier, and to some extent is covered by the last set of responses. But \(I\) want to see if \(I\) can be a bit more clear about your position.

When asked whether something that is designated as in and of itself not significant as an effect, should therefore not be studied further in the context of cumulative effects assessment, whether you agreed with that or not, you said -my sense of this is that you said no, that there presumably then is some reason why one might in fact still do a cumulative effects assessment if it showed up as not significant in and of itself. And you used a word "threshold" in this last
response. When you were responding to Mr.
Sargeant, I was thinking of the word "tipping point". I was also thinking of that cliche about the straw that broke the camel's back and so on. Could you very briefly indicate why, in and of itself, not significant may not be sufficient for -- an insufficient reason for continuing further with the cumulative effects assessment? Is it because of this threshold or tipping point idea? Is that what you had in mind? Because I'm not quite sure where that's coming from?
MR. HEGMANN: Perhaps I need to return and provide clarification on this important point, residual effects triggers and the word used before. Fundamentally, what is some of the nature of the effects that make it, if you will, into a cumulative effects assessment, and when the word significance is then introduced into this? So to be clear, \(A\), if I'm assessing a project and in the lingo, the parlance that one uses in an environmental impact assessments, I'm looking at a direct project effect. So I have a project and it causes various effects which are a direct consequence. I can clearly see that as a
result of my project. I manage, I mitigate to the extent possible. And if there is a measurable residual effect remaining still, commonly, off it goes and it's included to now be looked at cumulatively. The reason the word significant has come in this, because at times the view is, well, if you are going to pass on an effect to cumulative effects, it has to be a significant effect. And that's not what we're saying, and it's not what was done in Bipole.

At times that comes up. So to be clear, an effect does not have to be concluded as significant as a direct project residual effect to then be assessed for cumulative effects.

So it opens up the possibility to many effects being pursued cumulatively.

And then you introduce the idea of thresholds, suggesting that perhaps when one is making that decision, should an effect be looked at cumulatively, that we should take thresholds into consideration? I would say, yes, absolutely, if they are available. And there aren't too many which are available yet. I could rhyme off a few. And I believe that time has been spent on that already during this hearing. But certainly that
would be a very valid candidate to be considered.

In other words, I have residual effect from my project, let's go check and see. Where do we stand on that contribution to what may exist, if anything exists at all, as a threshold, a quantifiable threshold. And that would certainly be informative in regards to how that effect would then be used on, assessed on a cumulative basis, yes.

MR. GIBBONS: Second question.

Mr. Sargeant used the term evolving baseline, which \(I\) agree sounds like an oxymoron to me, but nonetheless, we have also have had, in the course of the hearings, references at times to the term "new normal." Putting aside whether these things are in fact the same thing, I don't know that that's important here, what \(I\) have in mind is guidance that might be given to proponents and those assessing a proponent's CEA as to how a good CEA might avoid the kinds of problems that are implied by those concepts, the new normal, evolving baseline, and so on, which in effect, if I can summarize them very succinctly, refer to the idea that we never fully come to grips with the residual effect of our new project on top of other
projects because we keep changing the goal posts, moving the goal posts. What advice would you have to proponents and participants in the process as to how they might deal with that issue?

MR. HEGMANN: My advice would be first to understand what we're talking about. And this, as with so many things, there are semantics, there is the meaning of words. And to be clear, evolving baseline, new normal, which you mentioned, these allude to very much reality which is that things change. And the thing we're talking about in this case is the world that would surround a project.

Now, environmental impact assessments do refer to a baseline, and it is convenient and it's useful and it's necessary to at least ensure that we have a point of comparison. And the relevant point of comparison so far by current practice is the conditions of the environment prior to, just prior to the initiation of any measurable change in the landscape to the project construction. But that can change. That is, the baseline can change. If you have given enough years, yes, of course there will be due to human caused and natural caused events things changing.
\begin{tabular}{|c|c|c|}
\hline & & Page 6898 \\
\hline 1 & But assessments out of necessity, of that & \\
\hline 2 & pragmatic necessity, provide a moment in time that & \\
\hline 3 & we just hold fast for a moment to allow us to & \\
\hline 4 & examine right now, in the best way possible, what & \\
\hline 5 & the effects may be. & \\
\hline 6 & All right. So with that context with & \\
\hline 7 & some semantics, returning to the heart of your & \\
\hline 8 & question on advice, my advice would be to admit & \\
\hline 9 & and recognize and address implications that are & \\
\hline 10 & possible as a result of possible changes, and into & \\
\hline 11 & the future. And we already have that right now & \\
\hline 12 & available to us through, for example, the effects & \\
\hline 13 & of the environment on the project. And indeed, it & \\
\hline 14 & is the changing natural environment which can & \\
\hline 15 & occur in various forms that may give us pause for & \\
\hline 16 & just a moment. That if we recognize that, for & \\
\hline 17 & example, there might be fear in the future, in & \\
\hline 18 & fact this very topic, this very matter is & \\
\hline 19 & represented in recent precedents in the oil sands. & \\
\hline 20 & We have projects there which now include looking & \\
\hline 21 & ahead, including fire modeling, for example. And & \\
\hline 22 & my point is, is that that is a reflection of how & \\
\hline 23 & that fixed baseline may change. & \\
\hline 24 & My second and final advice right now & \\
\hline 25 & is, it's fine to talk about all this, but then & \\
\hline
\end{tabular}
what really is important, what does it mean to the conclusions of your assessment as we conventionally now do them? So you will look ahead, you will look and see what possible changes may happen to the baseline. But the important thing then is, what if anything does that mean that's different to what you have concluded so far in your assessment?

In some cases it may not make much difference, in some cases it may be important.

MR. OSLER: Mr. Gibbons, just for the sake of this record, I think the word baseline, the way we have tried to use it in this assessment, and the way Mr. Hegmann is using it, is essentially the world without the project. And the concept that that world could change as time advances without the project is the concept that some people have used the language evolving baseline.

In the material that was given out today by Mr. Williams, and the Alberta guidelines for cumulative effects, page 21 of what he handed out, the third paragraph from the bottom, CEA predictions should take into account that baseline conditions, i.e. those without the project under
review are not static. And I think that's all that anybody is trying to get at in this concept. If you have a different concept of what the word baseline might mean, if somebody is using it to mean the world before the project started, for example, or the world a long time ago before anybody did any changes, then it would be inconsistent to use the concept of evolving or change. But \(I\) think just to try and get that one matter on the record.

MR. GIBBONS: Last question, and I'm referring here to the last paragraph of the handout from Mr. Hegmann, where he makes reference to the following, and I quote:
"The lack of information should not in and of itself be used as an excuse to not make decisions now."

It strikes me, and this is seen as falling out of the precautionary principle, it strikes me that there are two ways to look at that. One is that the lack of information in the view of some should not be seen as a reason for not proceeding with a project. The opposite reality is that there are others who will contend that the lack of that information is reason to not proceed with the project.
Can I get you to elaborate on that point briefly as to where you were going with that?
MR. HEGMANN: Yes. You are right. There is, as I have stated, the original concept which is used in science and is used -- it is recognized in administrative process often in regards to consideration of scientific information. But you are absolutely right, there is the other interpretation as well. And that is that in the absence of a high degree of certainty, the decision maker would pursue another course of action which is opposite to what is stated here.
The reason the precautionary principle came into existence in the first place is it's trying to grapple with something which has been a substantial challenge for a very long time. And that is, it's risk management and certainty. And science and environmental impact assessments which follow a similar method will at times admit indeed uncertainty, and on many matters 100 percent certainty is a rare thing. And the precautionary principle was developed in order to at least provide some advice or guidance on two steps. In
the absence of a high degree of uncertainty, if not a 100 percent certainty -- and again in many situations, and certainly many examples abound, whether it's in medical science or in ecological science, that will not necessarily exist but, and I think this is even more important, it doesn't leave it at that. It says, if you are going to work at this, you are going to continue the process of learning adaptively in order to ensure that if there is an unacceptable level of uncertainty, you will fill that gap with a planned intent.

And that's I believe, in full, the precautionary principle, as originally it was envisioned and as I had indicated.

MR. GIBBONS: Thank you. That's it for me.

THE CHAIRMAN: Thank you, Mr. Hegmann.
Manitoba Hydro have any further questioning of the witness?

MS. MAYOR: No.
THE CHAIRMAN: Thank you very much.
We'll take our lunch break in a moment or two.
Mr. Williams?
MR. WILLIAMS: Just very quickly, in
anticipation of closing argument, I'm seeking some guidance from the panel. We will have a legal brief relating to cumulative effects, and also kind of an overview of our response to Mr. Hegmann, and we have to incorporate a bit of the discussion from this morning, obviously. But I guess for the panel, we could have that available by the end of the day, if that would be of assistance. Otherwise, we'll just provide it with our materials tomorrow. We're just
indicating we could rush to get it done or we could provide it to you tomorrow.

THE CHAIRMAN: I think tomorrow would be reasonable, Mr. Williams. You'll, I'm sure, describe it in some detail.

Mr. Bedford or Ms. Mayor, do you have any further rebuttal evidence today?

MS. MAYOR: No.
THE CHAIRMAN: Okay. When we resume after lunch, we'll start with some of the closing arguments. We have people scheduled at 2:00 and 2:30. I would hope that some are ready to go earlier than that. We'll consult over noon. So let's come back at 1:15. And again Mr. Hegmann, thank you for your testimony here
this morning.
(Hearing recessed at 12:15 p.m. and reconvened at 1:15 p.m.)

THE CHAIRMAN: Okay. We will carry on with the day's proceedings. We have three final arguments being presented this afternoon. First up will be the Tataskweyak Cree Nation; following that will be Pine Creek First Nation; and then Manitoba Wildlands.

Before we move to that, though, we have a number of more documents to be placed on the record, so Madam secretary?

MS. JOHNSON: Yes, I found Mr.
Madden's memo from March 6th yesterday, so I will put that on the record, MMF 32. The Canadian Taxpayers Federation letter would be number 33. The record of meeting from Manitoba Hydro at the Minitonas community centre is MH 122.

Mr. Hegmann's CV is 123. Mr. Hegmann's letter of February 18th is 124. Mr. Hegmann's testimony is MH 125. Response to the Clean Environment Commission Hearings for Peguis First Nation rebuttal is MH 126. Response to an undertaking from Mr. Gibbons is MH 127. And the Coalition report that was tabled this morning is BPC 18.
\begin{tabular}{|c|c|c|}
\hline & And Mr. Williams' supporting materials, CAC number & Page 6905 \\
\hline 2 & 12. & \\
\hline 3 & (EXHIBIT MMF 32: Mr. Madden's memo, & \\
\hline 4 & March 6th) & \\
\hline 5 & (EXHIBIT MMF 33: Canadian Taxpayers & \\
\hline 6 & Federation letter) & \\
\hline 7 & (EXHIBIT MH 122: Record of meeting & \\
\hline 8 & from Manitoba Hydro at Minitonas & \\
\hline 9 & Community Centre) & \\
\hline 10 & (EXHIBIT MH 123: Mr. Hegmann's CV) & \\
\hline 11 & (EXHIBIT MH 124: Mr. Hegmann's letter & \\
\hline 12 & of February 18th) & \\
\hline 13 & (EXHIBIT MH 125: Mr. Hegmann's & \\
\hline 14 & testimony) & \\
\hline 15 & (EXHIBIT MH 126: Response to the & \\
\hline 16 & Clean Environment Commission Hearings & \\
\hline 17 & for Peguis First Nation rebuttal) & \\
\hline 18 & (EXHIBIT MH 127: Response to & \\
\hline 19 & undertaking from Mr. Gibbons) & \\
\hline 20 & (EXHIBIT BPC 18: Coalition report) & \\
\hline 21 & (EXHIBIT CAC 12: Mr. Williams' & \\
\hline 22 & supporting materials) & \\
\hline 23 & THE CHAIRMAN: Thank you. & \\
\hline 24 & We call the Tataskweyak Cree Nation & \\
\hline 25 & folks to come up to the front, please? You can go & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline & here or there, whichever you prefer. Go up over & Page 6906 \\
\hline 2 & there. & \\
\hline 3 & We will ask the Commission secretary & \\
\hline 4 & to swear you both in. I don't believe either of & \\
\hline & you have been before. Mr. Lowe, were you sworn in & \\
\hline 6 & November, or not? & \\
\hline 7 & MR. LOWE: Yes, I was. & \\
\hline 8 & THE CHAIRMAN: Okay. Then just your & \\
\hline 9 & colleague. & \\
\hline 10 & MS. JOHNSON: State your name for the & \\
\hline 11 & record? & \\
\hline 12 & Chris Young: Sworn. & \\
\hline 13 & MR. LOWE: Could I just begin by & \\
\hline 14 & introducing Councillor Chris Young, recently & \\
\hline 15 & elected to the Chief and Council of Tataskweyak & \\
\hline 16 & Cree Nation. And Mr. Young will be delivering the & \\
\hline 17 & presentation this afternoon. & \\
\hline 18 & MR. YOUNG: Good afternoon, members of & \\
\hline 19 & the Clean Environment Commission panel, Bipole III & \\
\hline 20 & proponent, Manitoba Hydro, and fellow & \\
\hline 21 & participants. & \\
\hline 22 & My name is Councillor Chris Young from & \\
\hline 23 & TCN, Tataskweyak Cree Nation. I would like to & \\
\hline & begin by thanking the Clean Environment Commission & \\
\hline 25 & for providing our nation the opportunity to hear & \\
\hline
\end{tabular}
our side of the story -- well, not story but -well, it is an opportunity to participate in the hearings.

Tataskweyak Cree Nation participated
in these hearings in order to comment on its assessment of the impacts of the project upon TCN, and to protect our constitutional rights, interests, and existing agreements negotiated with Manitoba Hydro. By participating in these hearings, Tataskweyak Cree Nation sought to ensure that any licence issued to Manitoba Hydro addresses these impacts, rights and interests.

Tataskweyak Cree Nation believes that the impacts of Bipole III project will be substantial and must be addressed. This conclusion is grounded upon TCN's decade long experience with substantial hydroelectric developments within our traditional territory, which experiences started in 1957.

And the unique Cree world view, which is expressed through the mother earth model, the mother earth model emphasizes harmony and balance, and it is the touchstone for TCN's evaluation of the impacts of the Bipole III project.

TCN has submitted evidence to the CEC
\begin{tabular}{|c|c|c|}
\hline & describing our concerns with respect to the & Page 6908 \\
\hline 2 & impacts of Bipole III. Our opening remark of & \\
\hline 3 & October 1st, 2012, and as elaborated on the & \\
\hline 4 & November 13th, 2012 presentation, we trust that & \\
\hline 5 & the CEC will give them due consideration. These & \\
\hline 6 & considerations are still alive today -- the & \\
\hline 7 & concerns, these concerns are still alive today, as & \\
\hline 8 & they were when the CEC hearings first began. & \\
\hline 9 & There is no need to restate in detail & \\
\hline 10 & our concerns. It is suffice to say that with the & \\
\hline 11 & fragmentation of approximately 437 kilometres of & \\
\hline 12 & our resource area by DC and AC transmission lines, & \\
\hline 13 & the presence of the Keewatinoow converter station & \\
\hline 14 & and the presence of hundreds of workers over many & \\
\hline 15 & years, there will be substantial, not & \\
\hline 16 & insignificant adverse impacts on our traditional & \\
\hline 17 & relationships with mother earth. This & \\
\hline 18 & relationship reflects constitutional protected & \\
\hline 19 & customs, practices and traditions. & \\
\hline 20 & The impacts of Bipole III are & \\
\hline 21 & cumulative to the adverse effects accumulated over & \\
\hline 22 & 55 years of 35 Hydro projects in our resource & \\
\hline 23 & area. While Manitoba Hydro may look on cumulative & \\
\hline 24 & effects in a particular way, we live with these & \\
\hline 25 & effects every day. The 35 Hydro projects that & \\
\hline
\end{tabular}
\begin{tabular}{|rl}
1 & have been constructed on our resource area over \\
2 & the last 55 years have transformed our lands and \\
3 & waters. Bipole III will substantially add to \\
4 & these effects. \\
5 & \multicolumn{1}{c}{ For us it is incomprehensible that } \\
6 & Hydro should be allowed to describe cumulative \\
7 & adverse effects as they do in such a narrow way, \\
8 & so constrained by the artificial time and space \\
10 & parameters that they use. Such constraints might \\
11 & if very few other projects have been impacted on \\
12 & people's homeland. But in our case, with 35 such \\
13 & projects of such a massive scale, strain on our \\
24 & mitigation, offsetting programs and compensation, \\
14 & eco-system is unbearable. \\
15 & development in our resource area. \\
16 & EIS adequately reflects these concerns. over \\
17 & impacts of hydroelectric development in our midst,
\end{tabular}

Our March 11th report attached to our November CEC presentation indicated that our support of Bipole III was conditional upon reaching agreement with Hydro on compensation for adverse effects to our collective rights, business training, and employment opportunities. These conditions are still outstanding.

While we have met with Manitoba Hydro to negotiate an agreement covering these matters, progress has been painfully slow. Months have gone by between meetings and waiting for a response to a concrete proposal by TCN. Some modest progress has been made in the area of business opportunities for our nation. However, other work on Keewatinoow, which we are fully equipped to handle, has been denied to us for no apparent reason.

We cannot support the issuance of any environmental licence which does not ensure that such concerns and proposed accommodations are addressed.

The CEC has the authority to make recommendations with respect to the mitigation of any potential environmental, socioeconomic and cultural effects resulting from Bipole III. We
\begin{tabular}{|c|c|c|}
\hline & trust that TCN's concern and proposed & Page 6911 \\
\hline 2 & accommodations will be recognized in your & \\
\hline 3 & recommendations. & \\
\hline 4 & We ask that if you intend to recommend & \\
\hline 5 & to the Cabinet that Bipole III should be licensed, & \\
\hline 6 & that the conditions be attached to the licence to & \\
\hline 7 & ensure that Manitoba Hydro has reached an & \\
\hline 8 & agreement with TCN on compensation, business, & \\
\hline 9 & training and employment opportunities for any & \\
\hline 10 & construction to begin within the Split Lake & \\
\hline 11 & resource management area. Thank you. & \\
\hline 12 & THE CHAIRMAN: Thank you, Councillor & \\
\hline 13 & Young. & \\
\hline 14 & We don't have cross-examination on & \\
\hline 15 & final argument. I have a question of & \\
\hline 16 & clarification, though. And it may be in the & \\
\hline 17 & earlier presentation in November. If it is, you & \\
\hline 18 & can just refer me to that. & \\
\hline 19 & When you were talking about the & \\
\hline 20 & adverse effects agreement, you mentioned & \\
\hline 21 & accommodation in respect of Keewatinoow. Can you & \\
\hline 22 & elaborate, or will I find that in the November & \\
\hline 23 & presentation? & \\
\hline 24 & MR. YOUNG: Yes, I would like Ron to & \\
\hline 25 & answer this one. & \\
\hline
\end{tabular}

MR. LOWE: That is part of the November presentation. The Keewatinoow Converter Station and electrode site and a substantial amount of the collective lines are located outside the boundaries of the Split Lake resource management area, but within the defined Split Lake resource area which is defined in the 1992 agreement.

THE CHAIRMAN: Thank you very much. We will refer to that document as well in your earlier presentation. Thank you.

Any other questions of clarification?

Okay. Thank you very much for your presentation today and thank you very much for your community's participation over the last few months.

We'll just have a brief time out here.
(Brief recess)

THE CHAIRMAN: Thank you, Councillor Garson.

We have had many opportunities over the past weeks and months where people from basically anywhere who wanted to speak and let us know their concerns were welcome to. Right now, though, we are in a sort of formal closing part of
the process. And at this point we are hearing from people who are officially designated to speak on behalf of your community. And the directions that we have had are that Councillor Young and the consultants who are with him are delegated by your chief to speak on behalf of the community. You are certainly entitled to have your views. If you had come out at a different time, we would have readily heard your concerns.

SPEAKER: I didn't know about this meeting. I just found out yesterday, they are not informing the rest of council.

THE CHAIRMAN: We did have meetings in Gillam and Thompson last autumn at which people were given an opportunity to speak. And then we had meetings throughout half of October and all of November here in Winnipeg at which people were given an opportunity to speak. So, you know, I don't like to cut you off, but we are in a formal part of the process at this time. Thank you. SPEAKER: You are welcome. THE CHAIRMAN: So we will move on
then. Does that complete the -- Councillor Young, that completes the TCN presentation? Thank you. Next up will be Pine Creek First

Nations, Mr. Mills and Mr. Stockwell.
MR. MILLS: Good afternoon,
Mr. Chairman. John and I, on behalf of Chief Charlie Boucher and the Council of Pine Creek First Nation would like to thank the Manitoba Clean Environment Commission for the opportunity to work within this process, to attempt to have Pine Creek's position, concerns, and proposed solutions discussed, and hopefully understood and recognized.

Pine Creek First Nation, Mr. Chairman, believes it is the most affected stakeholder in the Manitoba Hydro Bipole III C1 route portion. Pine Creek First Nation is pleased to complete its participation in the CEC Bipole III review with the following closing comments.

Mr. Chairman, if our presentation as
follows sounds familiar, it is, because our concerns have remained consistent throughout this process. The communities' concerns remain. The greatest and tangible concern, Mr. Chairman, is the inadequate consultation and/or the failure, refusal of the process to be transparent and inclusive.

The community, and John and I would
certainly agree, believe that the Province has failed in its duty to consult and accommodate with regards to this matter. The Province, and quite recently Hydro's refusal to share information with Pine Creek, the failure to share and coordinate information between Provincial departments and authorities, and the recent secrecy surrounding discussions with the proponent all point to a serious lack of understanding of or commitment to the honour of the Crown.

The duty to consult and the test of consultation was clearly spelled out by Mr. Gord Hannon, the gentleman from the Provincial Justice Department, who spoke to you on August \(16 t h\), prior to our joining the process. He assured us that Conservation would take the lead, and the clear implication was that Conservation would oversee and collect germane information from all other associated Provincial departments.

As we all experienced with the Bison debacle, which we will speak to soon, this just did not happen.

Mr. Chairman, you have indicated that you may or may not have much to say in regard to that matter. And we would ask you that if the
\begin{tabular}{|c|c|c|}
\hline & & Page 6916 \\
\hline 1 & Clean Environment Commission doesn't express & \\
\hline 2 & comment or concern to the Minister, who will? & \\
\hline 3 & As everyone who has endured us through & \\
\hline 4 & this process knows, one of our client's greatest & \\
\hline 5 & concerns is their watershed. The Wellman Lake in & \\
\hline 6 & the Duck Mountains contains the finest Brown Trout & \\
\hline 7 & in Manitoba, those waters are crystal clear. That & \\
\hline 8 & water leaves the Duck's and flows 45 miles through & \\
\hline 9 & the legs of Provincial indifference to arrive at & \\
\hline 10 & the Pine Creek First Nation basin. It arrives & \\
\hline 11 & tainted by the waste of 4,000 Bison. & \\
\hline 12 & Pine Creek First Nation is confident & \\
\hline 13 & that Bipole III will add to the problem and add to & \\
\hline 14 & the rinse of sickness that is now flowing into the & \\
\hline 15 & community. & \\
\hline 16 & Water Stewardship and Conservation & \\
\hline 17 & have no comment in TAC review. Hydro advises us & \\
\hline 18 & that hundreds of thousands of litres of additional & \\
\hline 19 & water into an already bloated community through & \\
\hline 20 & the legs of this herd will not have a significant & \\
\hline 21 & effect on the community. & \\
\hline 22 & We must predict that the Pine Creek & \\
\hline 23 & basin, we believe, will in short order probably & \\
\hline 24 & become Manitoba's Walkerton. Children in the & \\
\hline 25 & three Aboriginal communities experience septic & \\
\hline
\end{tabular}
sores today, coliform and e. coli fill the community's drinking water source. We believe that the additional water, no matter how much or how little, contributed through the Bipole III right-of-way clearing, will only complicate the inevitable review of cause, assessment of liability and assignment of costs.

We encourage the Province, with Hydro playing a part, to drop their denial and address this matter prior to the Bipole III right-of-way clearing taking place.

The community has grave concerns over the route and the route consideration. Pine Creek First Nation has responded to the final preferred route and the alternate final preferred route with the proposed very minor route revision, that the First Nation membership believes will resolve the majority of their routing concerns.

Hydro and the Province can't tell any of us today what the final route will be. Hydro will tell us that they are not considering the minor revision which we proposed. The band's proposed solution just can't gain any traction. While Hydro and Conservation discuss route alterations on the basis of a concern for, in
quotation marks, "culture", yet neither party has picked up the phone, spoken to and addressed the owners of that culture of which they base their concern.

The route selection process has not been completed, Mr. Chairman. And candidly, we don't think that you have anything yet that you are able to refer to the Minister for consideration of a licence. Can anyone tells us the route of Bipole III today? We don't believe so.

Mr. Chairman, while Conservation drives Bipole III here and there, no one in the Province seems to understand the substantial conflict with perhaps, in the owner's own words, probably the largest Bison herd in the world. At least 70 sections of specific use lands and the longest moose proof fence in the Province didn't even appear on the Bipole III radar screen until mid February. No one understands the extent of this matter fully even today.

We all, Pine Creek, Hydro and Conservation agree that the moose are in serious decline. While Hydro and Conservation debate alternate routes to help save the moose, the
\begin{tabular}{|c|c|c|}
\hline & & Page 6919 \\
\hline 1 & Provincial Lands department is assisting in & \\
\hline 2 & accumulating the very lands under consideration of & \\
\hline 3 & moose decline for a much larger fenced Bison & \\
\hline 4 & compound. The right hand, Conservation, doesn't & \\
\hline 5 & understand what the left hand, Lands, has just & \\
\hline 6 & done. & \\
\hline 7 & Simultaneous to this, Mr. Chairman, & \\
\hline 8 & Provincial Agriculture, MAFRI, ignores complaints & \\
\hline 9 & from the public and concerns from its own field & \\
\hline 10 & staff, and insists that the Bison are grazing. & \\
\hline 11 & The Bipole III contributed run off & \\
\hline 12 & will help, we believe, rinse this waste down into & \\
\hline 13 & three Aboriginal communities with little, if any, & \\
\hline 14 & Provincial comment or oversight, and with & \\
\hline 15 & absolutely no Aboriginal consultation whatsoever. & \\
\hline 16 & Mr. Chairman, every involved & \\
\hline 17 & Aboriginal community has expressed their serious & \\
\hline 18 & concern of chemicals sprayed over their & \\
\hline 19 & traditional lands and crops. It has been in every & \\
\hline 20 & Hydro confirmation of community discussion, it has & \\
\hline 21 & been in the minutes of countless section 35 & \\
\hline 22 & meetings; 22 traditional herbs and medicines were & \\
\hline & clearly delineated by the Pine Creek First Nation & \\
\hline & community, as well as several berry and bark & \\
\hline 25 & crops, all enjoyed by the band members and their & \\
\hline
\end{tabular}
\begin{tabular}{|ll|}
\hline 1 & families. And all of them regrettably found on Page 6920 \\
2 & all of the considered routes. \\
3 & Despite all other crop harvesters \\
4 & having been offered a crop loss compensation, none \\
5 & has been offered to Aboriginal harvesters. \\
6 & We heard, Mr. Chairman, your \\
7 & Commissioners' comments and concerns with regard \\
8 & to outfitters and the comparison of their damages \\
10 & with respect to Aboriginal harvesters and other \\
11 & more, shall we say, tragically traditional \\
12 & farmers. If a grain farmer loses crop to \\
13 & right-of-way work, he will be compensated through \\
24 & closer to the community, those concerns were \\
14 & an acknowledged process. When an Aboriginal \\
15 & harvester loses their crop, and we know they will, \\
16 & it sounds as if Court of Queen's Bench will be
\end{tabular}
relationship to the community doesn't necessarily have a relationship to the effects in the community. However, we disagree quite seriously in that regard. The community just doesn't understand why -- we raise this issue, do we really need the Clean Environment Commission to make a recommendation to the Minister to suggest that a First Nation adjacent to a high speed intersection should receive the same levels of lighting as the nearby white community receives? We don't think so.

Mr. Chairman, the effect on trappers,
the community is increasingly concerned that those who are not owners of licensed Provincial traplines will be left begging for consideration. Hydro has indicated they will consider it.

ATK review: Mr. Chairman, when Hydro has been pressured with regards to Swan Lake's ATK concerns and that crossing, Mr. McGarry indicated to you clearly that Hydro has lots of time to resolve the Swan Lake ATK concerns.

Hydro has also indicated that the amounts in the infamous letter which is under consideration includes hundreds of thousands of dollars spent to date on ATK for other
communities. Pine Creek has vigorously denied the validity of the ATK Hydro relies upon. Recent comments by Hydro's own consultant raise serious concerns about new found burial sites, Mr. Chairman.

Pine Creek First Nation's simple request of Manitoba Hydro is to provide us with the resources to redo or continue the ATK. That request has been denied.

The community is upset, concerned and
increasingly angry over their lack of understanding of what the cumulative effects on the community's health may be. Chief and Council do not understand what cumulative effects Bipole III will have on any or all aspects of band members' health and well-being. No help has been offered. Hydro has not been forthcoming in this regard. Mr. Osler, in fact, denied an effect of any significance exists. Mr. Osler has never been to the community, we understand. His peer Ms. Petch disagrees. Still no response.

Mr. Chairman, the cumulative effects on the health of Pine Creek First Nation are not understood and need to continue to be understood after CEC is complete.

Mr. Chairman, we are the first to admit and to appreciate the economic development opportunities that Hydro has entered into discussions with us. However, we do observe that they have slow-played any potential economic relationship or benefits. The community has heard the description of the CDI fund. And we, like I think most other affected Aboriginal communities, ask ourselves, why does Hydro need a licence first? And why won't they commit to the CDI fund prior to a licence being issued?

It is arguably repulsive to dangle a carrot like that in front of the community with no substance or commitment. If it is a commitment, table it. If it isn't a commitment, remove it.

Mr. Chairman, the reliance upon this entire process of the TAC, the technical advisory committee -- technical advisory committee of the Province of Manitoba, in Pine Creek's opinion, has candidly and tragically been a waste of time.

Serious technical oversight is required and expected of Provincial officials. Very little is offered or received.

The recent consideration of the route revision of the most significant construction
\begin{tabular}{|c|c|c|}
\hline & project in Manitoba in this decade warranted two & Page 6924 \\
\hline 2 & of 25 TAC review comments from the Provincial & \\
\hline 3 & officers whose oversight we were counting on. Our & \\
\hline 4 & concerns were raised through the consultation & \\
\hline 5 & process at every level, Mr. Chairman. We asked, & \\
\hline 6 & we offered, we proposed, we cajoled if we could & \\
\hline 7 & meet with TAC, talk to TAC, forward information to & \\
\hline 8 & TAC. We were assured that was happening through & \\
\hline 9 & the consultation process, Mr. Chairman. It & \\
\hline 10 & clearly didn't. & \\
\hline 11 & Authority to proceed on this matter is & \\
\hline 12 & issued on the basis of a TAC review, as we & \\
\hline 13 & observed, occasionally before that review is even & \\
\hline 14 & available. We refer to the infamous November 2nd & \\
\hline 15 & exchange when this Commission received an & \\
\hline 16 & authority to proceed -- or Manitoba Hydro received & \\
\hline 17 & an authority to proceed from a TAC process that, & \\
\hline 18 & in fact, hadn't been assembled or completed. & \\
\hline 19 & Our disdain and concern for the TAC & \\
\hline 20 & process lead us to review other TAC that is & \\
\hline 21 & currently in the public registry. A TAC review & \\
\hline 22 & recently completed of an all terrain vehicle park & \\
\hline 23 & in the Duck Mountains is much more complete and & \\
\hline 24 & much more inclusive than the TAC review provided & \\
\hline 25 & to us after our significant requests that they & \\
\hline
\end{tabular}
provide us with answers to our concerns.
    Water quality concerns of a much
    smaller Manitoba Hydro transmission line in the
    Portage area, crossing one watershed, affecting a
    community one quarter the size of the Pine Creek
    basin, and at four times the distance, elicited a
    far more complete TAC response than the one we
    were hoping and looking for did. The entire TAC
    process is disappointing to us, Mr. Chairman, and
    is such a lost opportunity for good, founded
    information to be shared.
CEC must comment to the Minister. We would all make better decisions if we had better information, Mr. Chairman.
Our last point and in closing, when John and I entered into this process on behalf of Pine Creek First Nation, one of our first presumptions was that we were going to argue for a significant amount of oversight of Manitoba Hydro, no matter what or where became of Bipole III.
Having done our research and having read every document available to us, Mr. Chairman, the failure of the Province to monitor and enforce the overlapping LP permit, 2191E, that has a far greater effect on Pine Creek First Nation than we
expect Bipole will have, shows a real lack of resources or sincerity within that oversight process. We now don't believe that value would be achieved by encouraging the Minister to address additional resources to Conservation for oversight. In that regard, Hydro appears to know more and certainly offer more in terms of mitigation concern.
In closing, Mr. Chairman, we went back and reread the August 16 th transcripts. The concerns of consultation were raised then. Those concerns seem to have fallen on deaf ears. The assurances of Mr. Hannon, senior member of the Justice Department of the Province of Manitoba, that Conservation would take the lead and coordinate the Provincial contribution just quite simply never transpired. The faults we discussed today were anticipated on August 16th. Einstein's famous definition of insanity comes to mind.
Mr. Chairman, the Clean Environment Commission has the ability to make recommendations of meaningful incorporation and change. We await your report with great hope for the health of Pine Creek First Nation.
Pine Creek First Nation would like to
\begin{tabular}{|c|c|c|}
\hline & & Page 6927 \\
\hline 2 & referenced matters addressed clearly and in & \\
\hline 3 & writing. Chief and council have encouraged me to & \\
\hline 4 & arrange those meetings with Hydro. We are & \\
\hline 5 & currently awaiting Hydro's call. & \\
\hline 6 & Thank you, Mr. Chairman. Those are & \\
\hline 7 & our closing comments. & \\
\hline 8 & THE CHAIRMAN: Thank you, Mr. Mills. & \\
\hline 9 & Any questions of clarification? & \\
\hline 10 & Thank you Mr. Mills and Mr. Stockwell, & \\
\hline 11 & thank you for your dogged participation in this & \\
\hline 12 & process. You have added to the process & \\
\hline 13 & immeasurably and represented your clients well, so & \\
\hline 14 & thank you. & \\
\hline 15 & MR. MILLS: Thank you for your & \\
\hline 16 & indulgence. & \\
\hline 17 & THE CHAIRMAN: Ms. Whelan-Enns, & \\
\hline 18 & Wildlands, Manitoba Wildlands. & \\
\hline 19 & MS. WHELAN-ENNS: Mr. Chair, my name & \\
\hline 20 & is Gaile Whelan-Enns and I'm speaking for Manitoba & \\
\hline 21 & Wildlands at this time in closing statements. I & \\
\hline 22 & have two documents in front of me that are on & \\
\hline 23 & screen only, and we will provide them on paper in & \\
\hline & the next day or so. & \\
\hline 25 & I have taken the approach of watching & \\
\hline
\end{tabular}
the patterns in the hearings in terms of repeat concerns voiced, repeat questions asked, and/or repeat, one of the EIS words would be deficiencies. So, again, in terms of our capacity that's the general description of the approach taken.

We do feel pretty strongly that there are some emerging patterns. The people here for the panel will be very aware of those at this point for sure. So there may be some repetition about things that are already quite evident.

One of the things that we assume in terms of participation, all of our roles in public hearings of the Environment Act in Manitoba is that we all need access to the information, transparency, understandable process, document language, everything being clear to all of us, if you will. And that also then applies to all of the steps in planning a project of this nature, preparing EIS, dealing with both what the process is under the Environment Act and what the process is then through the CEC.

We would ask the CEC and the panel to closely consider the scoping document at the very beginning of both sets of proceedings, if you
will, to see whether it has been fulfilled.

From the Manitoba Wildlands point of view, we have been involved from the time that EAP under the Environment Act and scoping document were posted and reviewed, and filed a variety of mostly recommendations on standards to Manitoba Hydro when the scoping document was being publicly reviewed.

It is entirely possible that the participants in the hearings, now that we are getting close to the end, would agree with the statement from the MMF yesterday that they firmly believe that the scoping document has not been fulfilled.

The first topic \(I\) have in front of me here has to do with Manitoba Hydro compensation. Again, we have heard, particularly in the last two or three days and prior to that, a variety of comments from participants about Manitoba Hydro's assistance of compensation for this kind of project and/or for generation project.

One thing that struck me throughout is we are not hearing about compensation for impacts and loss of income or sustenance from hunting, or gathering or tourism. We have a fairly narrow
\begin{tabular}{|c|c|c|}
\hline & path here that has only seemingly to do with & Page 6930 \\
\hline 2 & compensation for trapping. & \\
\hline 3 & Certain of the affected communities, & \\
\hline 4 & Metis and First Nation, no longer can trap. So it & \\
\hline 5 & is -- well, it strikes me as an area that the CEC & \\
\hline 6 & may want to take a look at in terms of what is & \\
\hline 7 & compensation and why we only have one kind of four & \\
\hline 8 & or five. And even gathering, it also has got to & \\
\hline 9 & do with cash crops and the subsistence economy, or & \\
\hline 10 & sustenance is seemingly absent. & \\
\hline 11 & We have heard a variety of comments & \\
\hline 12 & about how the compensation processes seem to be a & \\
\hline 13 & closed door and not necessarily understandable. & \\
\hline 14 & If one was to harken back to the early stages of & \\
\hline 15 & Wuskwatim proceedings, and just before the & \\
\hline 16 & hearings on Wuskwatim there were 350 outstanding & \\
\hline 17 & compensation claims still with respect to the & \\
\hline 18 & Nelson House First Nation and the lands nearby at & \\
\hline 19 & the time that those proceedings started. & \\
\hline 20 & My next heading here in front of me in & \\
\hline 21 & sort of trying to collect our observations, it & \\
\hline 22 & says "alphabet soup of areas." It goes directly & \\
\hline 23 & to things being understandable, accessible and & \\
\hline 24 & sensible, and reasonable for everybody in their & \\
\hline 25 & roles in terms of the proceedings. & \\
\hline
\end{tabular}

We have a researcher right now that basically keeps asking me questions about the alphabet soup. And I find myself saying, well, you know, if you have to go back to what was almost -- it was over 20 per cent of the Province in terms of the original project area, study area, and then you have to move into the possible corridors of it, and keep on rolling in terms of the language used and the descriptors for the areas on the preferred corridor. The pattern that I have observed, though, in both written language and in the room here in the hearings, is that there is a preference on the part of the proponent to steer everything to the 66 metre corridor. So we have I think a lack or an absence of acknowledgment and clarity on all of the other impacts in order to get to the 66 metre corridor being cleared, built and operational. So we are talking about access roads, we are talking about burrow pits, we are talking about anything else that needs to be cleared or altered in order to get the towers in.

So when Manitoba Hydro provided our office with the 4.5 kilometre wide impact zone data last fall, that was a good move. But if you
think about what is the project area, what is the local study area, what is the study area, what is the ROW, and you think about what we have before us and what we have been hearing, and how the terms are being used, overall, the focus and the intent is for us to be thinking only about the right-of-way, and there is a much wider impact zone. Manitoba Hydro's own trapping compensation policy acknowledges up to ten kilometres.

So I think that it needs some clarity, and it is a request also for you to consider this. Just double checking -- burrow pits, access roads, further clearing, work yards, vehicles, I don't think that we have heard enough about restoration and rehabilitation of impacts on it either.

I want to also make a couple of quick comments about, to use sort of general terms, things that have to do with water power and water tenure, if you will, that our utility holds in Manitoba. And I'm again making a request that the CEC maybe give a little bit of thought and take a look at maybe just the full scope. Because we need that context, all of us, when we are in our roles and in the proceedings with respect to such
a significant project. And it is not generally known, for instance, so an example would be the full traditional territory for Pukatawagan now split into two First Nations, and the hundreds of thousands of hectares of water power tenure held by our utility in that region, and what the overall effect is in the whole province. And again, I think this would affect, this kind of context would help in terms of all the questions around VECs, and the fact that we really have, I think, insufficient attention to water and water systems.

On Aboriginal traditional knowledge, a couple of quick comments, and some of this was asked in cross-examination. But to have 96 interviews to base these kinds of conclusions, analysis, and decisions, on the part of the proponent, on such a tiny, tiny proportion of the population in these affected communities, sort of is a little -- it begs reality. And this is one of the reasons why during cross-examination \(I\) asked the questions about review and possible standards and methodologies, other than what was used, whether the standards that First Nations across Canada and north of 60 are using, whether
they were looked at, whether there was any discussion at all in terms of these standards.

If you take the total number of people participating, choosing to participate in the ATK gathering workshops, and those that had one-on-one interviews, any way you run the numbers, total population in the region of Aboriginal persons, populations in relation to specifically affected communities, this proportion is extraordinarily low. And that may well be one of the reasons why we have had so much discussion and so many questions.

There is a couple of kinds of tenure and/or rights that Manitoba Hydro is acquiring with respect to Crown lands in this project that are barely visible in the EIS, have not been discussed particularly to date, and were handled last summer mostly. And I have only seen one set of documentation in this regard, so \(I\) cannot claim to know the whole pattern, but were basically handled in a fairly unilateral manner last summer.

So I'm referring to two things. One is the right-of-way itself on the preferred corridor, and the steps that were taken between the proponent and Manitoba Conservation to acquire
rights to the right-of-way on the preferred corridor. One question at this point might be whether the same process has already occurred in terms of these alternate routes. We have no idea. My point, though, is, we have no idea, but this really should have been, other than a couple of little references in a word search in the EIS, really should have been part of what we have been dealing with and discussing.

The second thing that was going on last summer -- and I guess I better describe the documentation, 11 by 14 page with very odd little maps attached, with a bunch of blocks on them, no context, no placement at all, and a little tear off consent sheet at the bottom. That's how the ROW rights were handled.

The other thing that was going on at the same time is odd faxes, which are then of course in black and white and might benefit from some colour, to affected First Nations, perhaps also to municipalities and other Metis communities -- again, I do not know. The cover letter was basically, you know, range, township kind of description. And then the second page in the fax was -- it is all eight and a half by 11 --
\begin{tabular}{|c|c|c|}
\hline 1 & just a series of little black dots and the & Page 6936 \\
\hline 2 & explanation on the letter is, this is where we are & \\
\hline 3 & going to come and test the soil and determine what & \\
\hline 4 & we need to know in terms of placement of towers. & \\
\hline 5 & The only set that I saw surprised me right away, & \\
\hline 6 & because the context and location was just sort of & \\
\hline 7 & right beside a reserve, and that was it. So there & \\
\hline 8 & is no way of knowing, because we have not heard & \\
\hline 9 & anything, there's no way of knowing whether that & \\
\hline 10 & was the only drill hole sites for testing, or the & \\
\hline 11 & only ones considered by the proponents to be & \\
\hline 12 & relevant to said First Nation. There is no way of & \\
\hline 13 & knowing. We have next to nothing. & \\
\hline 14 & We are talking about a proponent who & \\
\hline 15 & is our utility. We are all of Manitoba Hydro. & \\
\hline 16 & And we have some challenges and also some real & \\
\hline 17 & opportunities right now in terms of the kinds of & \\
\hline 18 & steps that can be taken to ensure that & \\
\hline 19 & self-assessment by the public utility in Manitoba & \\
\hline 20 & improves and perhaps has some stronger scoping & \\
\hline 21 & documents, stronger environmental assessment & \\
\hline 22 & standards. There is a variety of things that may & \\
\hline 23 & come forward in your discussions and your & \\
\hline 24 & recommendations, and I'm hopeful in that regard. & \\
\hline 25 & It is predictable that I might have a & \\
\hline
\end{tabular}
couple of things I want to say about data and maps. We have an absent entity in the room, they are not an elephant in the room, but we have a company that Manitoba Hydro used for a period of years at the beginning of their planning process, at the beginning of their community engagement process, and who produced a lot of the products in this EIS. So this is MMM Group. We were told by Manitoba Hydro staff panel members that they are no longer associated and that they are no longer providing services. Again, I'm not quoting transcript. This means that there is really no way to get an answer on anything to do with maps. And there were some technical standards that blocked access and blocked the ability to use the maps, including in communities, including in meetings, including yourselves.

Any organization that puts as many as 150 maps in one pdf is creating work for everyone. And if you are in Northern Manitoba, rural Manitoba, if you have intermittent broadband, then this kind of lack of access is really -- it is a block on participation and so on.

So it is a mystery, and that's why I asked a couple of questions in cross-examination,
but \(I\) also think it is a gap and absence that is unfortunate.

Similarly -- and there are other participants who had been able to dig and work and research and respond and participate more thoroughly than we have, who have already said that they have got some real questions about the data and how it was acquired and how it was used, whose it was, and how it was aggregated.

So I have to assume that if you look
at a series of maps, take one of the four main regions in these sets of 11 by 17 maps through the corridor, the region the corridor traverses, I have to assume that we potentially have data from 1960, and data from 1985, and data from 1993, and data from yesterday, combining the same set of data with no methodology information and no variance information. I have to assume that because we don't know anything else. We have so little information in that regard.

There is a contrast that \(I\) think really matters in terms of what \(I\) just said, and that has to do with the first time that our province, our utility began preparations and planning for Bipole III. So this was work that
will precede 1988 within the utility, but this is work that was generally between 1988 and about 1990 or 1991. It was on the east side of our province, it was thorough investigation of three possible corridors for Bipole III, and there was a great deal of actual field work, on the ground actual field work. All of which data and information is still in the possession of Manitoba Hydro.

So it is an incredible contrast when I sit and listen to what we have been dealing with here in the hearings. Because there is a way to do this right, and you have heard a lot of commentary about this. Now, to go back to what we sometimes think of as sort of Conawapa 1 or Bipole III 1, in our discussions in our office, some of the scientists who did that field work, two in particular that \(I\) know, are quite available to you, in terms of methodology and what they were asked to do.

And I happen to have had a volunteer researcher for about a five-month period. I'm trying to figure out whether this was spring and summer of '97, or '98, it is awhile ago. But she
spent a great deal of time in the Manitoba Hydro library, a lot of time actually working with Bill Pruitt's papers at the University of Manitoba. So I'm a lucky Manitoban, I have seen all of these maps from that field work, using those methodologies, and including in terms of what, for instance, the impacts was for each of the three options in terms of how the field work was done. I'm going to pass on saying anything further about the technical advisory committee. I think there is participants, in particular Pine Creek First Nation consultants, who have been very thorough. But this is an area of huge disappointment to me. In terms of Bipole III, I think of the entire undertaking, everything that we have been involved with since 2009, as a series of opportunities. And then the question, of course, is whether the opportunities have been realized.

I have colleagues in the environmental organizations across Canada who have sort of their favorite -- oh no, there she goes again kind of thing, where she comments. But I think it is worth saying that I always comment about the challenge for everybody involved in this kind of
\begin{tabular}{|c|c|c|}
\hline & undertaking, to think according to your training, & Page 6941 \\
\hline 2 & your role, your specialty, and then to think & \\
\hline 3 & ecologically about all of it to see where it & \\
\hline 4 & integrates, to see where it is not fitting, to see & \\
\hline 5 & whether we are thinking ecologically and & \\
\hline 6 & holistically. And so far we are not there in & \\
\hline 7 & Bipole III. & \\
\hline 8 & If you take a look, if you choose to & \\
\hline 9 & take a look in your deliberations in terms of & \\
\hline 10 & rounds one to four, Manitoba Hydro, they call it & \\
\hline 11 & consultations or community engagement, if you look & \\
\hline 12 & at the rounds one to four information, you are & \\
\hline 13 & going to see right away why there was, and & \\
\hline 14 & continues to be confusion in the media, probably & \\
\hline 15 & confusion by politicians, certainly confusion in & \\
\hline 16 & the municipalities and affected communities, about & \\
\hline 17 & what the sequence was going to be, what the & \\
\hline 18 & proceedings would be, what was going to happen & \\
\hline 19 & when, and also what is consultation. & \\
\hline 20 & So there is these patterns again and & \\
\hline 21 & changes in the use of language. And every First & \\
\hline 22 & Nation community I have talked to over the last & \\
\hline & three years about Bipole III, almost the second & \\
\hline & thing they say is, the Crown is consultation, why & \\
\hline 25 & does Hydro use the consultation word? If they & \\
\hline
\end{tabular}
come in and tour our community, or they talk to us the day before or the day after we have had a section 35 meeting, it gets really confusing. So, again, opportunity not necessarily met.

So I want to say -- and it is a

Manitoba saying -- and a fairly true and effective one, that \(I\) would be inclined to thank Dennis Whitebird for working on in terms of public language. But it is true, and it matters perhaps at the end of these hearings to say we, in fact, all of us are Treaty people. Whether we are settlers or whether we are Aboriginal persons, whether we are Metis, whether we are First Nation or non-status, we are all Treaty people.

Everything that has been said about rights and Treaty in this room actually affects all of us. Now, a couple of quick things about science, if I may. The Consumers Association of Canada experts were wonderful to have, to have that kind of in-depth work. But we haven't necessarily had enough independent science in the proceedings, in the hearings. And I think that this is probably one of the biggest challenges, is the in-house Hydro panels and their analysis and information they bring forward, what is in the EIS
\begin{tabular}{|c|c|c|}
\hline & and Manitoba Hydro documents, and then & Page 6943 \\
\hline 2 & external Hydro experts, we get the pattern, but & \\
\hline 3 & the ideal is to have a really solid independent & \\
\hline 4 & scientific assessment of what they have said, and & \\
\hline 5 & identification of alternatives and approaches. & \\
\hline 6 & So I have mentioned to the secretary & \\
\hline 7 & Of the CEC a couple of times, and I also asked a & \\
\hline 8 & couple of cross-examination questions regarding & \\
\hline 9 & the National Woodland Recovery Strategy, and the & \\
\hline 10 & references from the external panel of experts & \\
\hline 11 & regarding moose and Woodland caribou in November. & \\
\hline 12 & So the National Recovery Strategy for Woodland & \\
\hline 13 & caribou in this country was finalized in November & \\
\hline 14 & 2012. We heard references to the fact that it was & \\
\hline 15 & used and included, and a partial basis for the & \\
\hline 16 & Woodland caribou documents filed by Manitoba Hydro & \\
\hline 17 & at the end of July. & \\
\hline 18 & Just not that simple. And given how & \\
\hline 19 & long a time period and how many interventions and & \\
\hline 20 & changes and rejections of the National Woodland & \\
\hline 21 & Recovery Strategy until we got to October 2012, I & \\
\hline 22 & would ask you to take this as an example of an & \\
\hline 23 & area where everything you have heard so far about & \\
\hline 24 & Woodland caribou from other participants is & \\
\hline 25 & important, and greater independent information & \\
\hline
\end{tabular}
ideally would have come forward to you.
Now, what I have been doing along the way is checking with a national environmental organization and their chief scientist on this. We haven't had the capacity to do what I suggested we needed. But \(I\) think it is important in matters that Manitoba Hydro bring forward what is, versus adding or claiming something new. There are very specific contents in the new National Recovery Strategy for Woodland Caribou that are specific to certain of the Woodland caribou herds affected by Bipole III.

So we have had a combination of commentary, because while we have had claims of the National Recovery Strategy being used, we have had nothing from Manitoba Hydro specific to what is in the National Recovery strategy for Woodland caribou and those herds. It is not there, it hasn't been done.

We had a snake oil comment yesterday morning about snake oil environmental assessment, and it is in the record. And it is from Wuskwi Sipihk First Nation. I am curious, and we will probably know tomorrow, whether all three First Nations most affected by these route alterations
\begin{tabular}{|c|c|c|}
\hline & re going to approximately say & Page 6945 \\
\hline 2 & this is not good enough. But I decided I would & \\
\hline 3 & look up junk science, because of that comment & \\
\hline 4 & yesterday. It is junkscience.com and there are a & \\
\hline 5 & lot of fairly clear references and sets of & \\
\hline 6 & information, a lot of it American, some of it & \\
\hline 7 & European, and definitions. I'm not going to go so & \\
\hline 8 & far to say we have been on the receiving end of & \\
\hline 9 & junk science, but I think it really matters that & \\
\hline 10 & the scientific standards, the EA standards and so & \\
\hline 11 & on be given a fair bit of thought. The ideal & \\
\hline 12 & situation would be for us to have an updated & \\
\hline 13 & Environment Act in the Province, greater support & \\
\hline 14 & for the CEC, an actual environmental assessment & \\
\hline 15 & regulatory mechanism, ideally, again, my favorite & \\
\hline 16 & topic perhaps, regulatory standards and & \\
\hline 17 & requirements for the public registry and access to & \\
\hline 18 & information with respect to the Environment Act in & \\
\hline 19 & the Province. & \\
\hline 20 & I have been wanting to have an & \\
\hline 21 & opportunity to say -- and I only have a couple, & \\
\hline 22 & three more things to say, Mr. Chair -- I have been & \\
\hline 23 & wanting to basically say what might be really & \\
\hline & obvious but always needs to be said near the end & \\
\hline 25 & of a process. And that is I believe everybody who & \\
\hline
\end{tabular}
is a participant or party to this CEC proceedings and hearings has been working pretty hard. And this is a long set of hearings. So this is basically to participants, to their consultants, to their legal counsel, to everybody in Manitoba Hydro and everybody associated with the CEC, it is a lot of work, and it is a thank you. What we do matters. And that's an understatement from an environmental public interest point of view. When I was thinking about junk science and looking it up yesterday, I also found myself with another common term, which is BAU. And there is challenge here \(I\) think at the end of the hearings to think about how much business as usual we have been hearing, reading, reviewing, listening to, responding to from Manitoba Hydro. And there is an overarching question, and that is this mostly business as usual, assumed licence, and are we losing the opportunities or adding risk because of the approach taken by the proponent, our utility?

So we were relaxing a little bit during the evenings' work last night in the office, and we started to have a conversation about some comments for today about the
alternative to business as usual and the kinds of sets of questions that really do matter near the end of these proceedings. I was also thinking about an associate and a couple of environmental organizations in Minneapolis that \(I\) have been talking to recently. Of course, Minnesota has switched back to a democratic majority, both the Senate and their House recently, which means there is an increase and returned focus to, for instance, their first renewable portfolio standards and mandated deadlines and requirements in terms of the proportion of energy used in their State. So they are going to go for 40 per cent very soon.

So in terms of the alternative to business as usual in Manitoba, I think a lot of very repetitive and not necessarily out loud assumptions, and what we are all involved in here, I wanted to suggest -- and I'm not going to make any comments about people's age here, but \(I\) know this was before \(I\) was born -- I wanted to suggest it is worth reminding ourselves that in the 1940 s through the entire eastern seaboard of the USA, almost all water was heated using solar. I think that Mr. Gore has a point when he says, well, you
know, if we were able to figure out how to cope with World War II -- this is my vernacular, he is a better speaker -- if we were able then to put the Marshall plan in place, work as allies after the war, build the \(U N\), then today in the decade we are in now, in the world we are in now, we maybe need to use the same kind of spirit, innovation, know-how and will to think seriously about everything to do with energy and climate. These hearings are about energy.

To change business as usual
assumptions takes all of those things, it takes vision, it takes risk, it takes human innovation, and hopefully humanist values with a long time line beyond the 50 years that we have been talking about in terms of decommissioning. Which of course means that if 50 years is the figure, or 100 years is the figure for decommissioning of the future Bipole III, we need to already get ready on what the status of Bipoles I and II are.

So some of the kinds of things we might want to imagine and then ask questions about would just be, for instance, a significant multiplier on the use of heat pumps and thermal heat and solar energy in our province, where wind
projects in the north of Manitoba, top half, top two thirds, it is all north, would actually provide energy within the regions that the projects are producing the energy in.

We would have then a feed in tariff. Lots of jurisdictions in our continent, and in Europe have a feed in tariff or equivalent, where the excess energy produced by domestic, commercial, apartment, home, business installations goes right back into the grid. Certainly there is on again off again vision of how that would ultimately work overall in Ontario, and there are many examples of course in Europe and North America. These renewable portfolios standards, there are different acronyms and different names for them, with public mandated goals and deadlines, create their own economy, create thousands of jobs, challenge everyone to do better, including an analysis research, training, and the local economy. Thinking Manitoba is a local economy here.

So the questions, and there is a simple set I think, are whether Manitobans overall wish to continue to cross the thresholds and the tipping points that we risk in terms of the health

\begin{tabular}{|c|c|c|}
\hline & extremely difficult situation without a NFAT, & Page 6951 \\
\hline 2 & without a needs for and alternatives to review for & \\
\hline 3 & this project. So that's a quick thank you. & \\
\hline 4 & I have a short set of requests, but & \\
\hline 5 & you can tell that I have been making requests in & \\
\hline 6 & my comments right through. & \\
\hline 7 & We would really I think all benefit if & \\
\hline 8 & the CEC find ways to think about and make & \\
\hline 9 & recommendations about earlier planning, earlier & \\
\hline 10 & public information, earlier engagement of all & \\
\hline 11 & affected parties, communities, municipalities, & \\
\hline 12 & landowners, First Nations, Metis communities, & \\
\hline 13 & earlier consultation, much, much earlier & \\
\hline 14 & Aboriginal traditional knowledge gathering, much & \\
\hline 15 & different standards and requirements. All of & \\
\hline 16 & this, if it was in advance of the EIS, we would be & \\
\hline 17 & in a very different sequence, I think, and & \\
\hline 18 & potentially in a better place in terms of decision & \\
\hline 19 & making. & \\
\hline 20 & You heard me previously make comments & \\
\hline 21 & about having a regulatory -- sorry, regulation, & \\
\hline 22 & regulatory standard public registry. We & \\
\hline 23 & probably -- we don't drink in our office, but we & \\
\hline 24 & would probably get the chocolate out and drink a & \\
\hline 25 & lot of extra tea and take a break the day we saw a & \\
\hline
\end{tabular}
reference to the CEC that was deeper. You need your flexibility, but a reference that was deeper in terms it of independent science would benefit decision making. That's just a simple example. We also have moved -- and I'm going to say a couple of quick things about the 1990s and stop. We have moved, more specifically stopped under the Environment Act in Manitoba from having any kind of public review to set the EIS standards for a class 3 project. The EIS standards for Wuskwatim were set where the CEC actually, I think probably five locations, maybe four in the province where the CEC held meetings. And because they did that and went to the north, they had a lot of Manitoba citizens who participated, for instance, in the initial public hearings in Manitoba communities when Conawapa almost happened 20 years ago. So they had a lot of expertise, they had a lot of people in the room when the EIS standards for Wuskwatim, both generation and transmission were being set. It was a healthy, well attended process. We tripped over some problems with the public registry. The then Chair of the CEC fixed that very rapidly. And there was confidence in those standards, much greater
\begin{tabular}{|c|c|c|}
\hline & confidence perhaps than a scoping document & Page 6953 \\
\hline 2 & discussions that are between licensing, I assume & \\
\hline 3 & licensing branch and the proponent, and then a & \\
\hline 4 & final scoping document that's to direct what they & \\
\hline 5 & include. & \\
\hline 6 & One of the other things that happened & \\
\hline 7 & all of the time in the 1990s, and I wonder some & \\
\hline 8 & days if it is the internet that causes these & \\
\hline 9 & differences in approach. But in the 1990s, as & \\
\hline 10 & soon as the EAP for a class 3 development in & \\
\hline 11 & Manitoba was filed, everyone who had any previous & \\
\hline 12 & pattern of participating in reviews, class 2 or 3, & \\
\hline 13 & received correspondence that told us what the & \\
\hline 14 & schedule was going to be, told us if there were & \\
\hline 15 & going to be any public meetings, as I was & \\
\hline 16 & describing, told us also who was on the TAC. & \\
\hline 17 & So I could go a little more thoroughly & \\
\hline 18 & into this, but again we need to build and improve, & \\
\hline 19 & not lose in the tools we use to make these & \\
\hline 20 & decisions in Manitoba. & \\
\hline 21 & So, Mr. Chair, I'm going to stop. I & \\
\hline 22 & appreciate the time to speak this afternoon. And & \\
\hline 23 & as I said when I started, I have two documents on & \\
\hline 24 & the screen in front of me and will provide them on & \\
\hline 25 & paper and electronic to the Commission. & \\
\hline
\end{tabular}

THE CHAIRMAN: Thank you very much, Ms. Whelan Enns. Just in your very last note about the '90s and the change in process, I'm not sure that the CEC reviewed a class 3 project throughout that entire decade. There was a review of Conawapa that was truncated, but that was not the CEC, it was a different panel that was set up.

MS. WHELAN-ENNS: Fair question and good question, and of course we all have got Hydro brain right now.

So during the 1990s, we had two rounds of quite extensive forestry licensing hearings. They were handled at the level of class 3, they didn't need to be, and we had some separation between new plans and the forest management plans. But because you asked the question, there is a couple of other examples that happened, because in those hearings Federal science experts were in the hearings.

THE CHAIRMAN: Different era as well in that regard.

MS. WHELAN-ENNS: That is right, the door is shutting in a lot of ways on Federal science. But I'm just taking the opportunity to say that there were options in terms of additional
\begin{tabular}{|c|c|c|}
\hline & & Page 6955 \\
\hline 1 & independent science, and there were instances & \\
\hline 2 & where Manitoba Government experts were presenting & \\
\hline 3 & and being asked questions. The instance that is & \\
\hline 4 & since the change in the Provincial Government in & \\
\hline 5 & '99 that comes to mind, that maybe bears on your & \\
\hline 6 & question -- and I'm hesitating because we had a & \\
\hline 7 & lot of mills built on the Assiniboine River, & \\
\hline 8 & didn't we? I think that is McCain's. And because & \\
\hline 9 & the participants, including the funded & \\
\hline 10 & participants were very, very specific in their & \\
\hline 11 & requests, we had an Environment Canada expert who & \\
\hline 12 & had handled nutrication, nutrient problems in the & \\
\hline 13 & two provinces west to us come in and significantly & \\
\hline 14 & contribute. & \\
\hline 15 & THE CHAIRMAN: Was that the McCain's & \\
\hline 16 & in Brandon or the Simplot in Portage? One or the & \\
\hline 17 & other, it doesn't really matter. We don't need to & \\
\hline 18 & go down that road. & \\
\hline 19 & Thank you very much for your comments & \\
\hline 20 & this afternoon, and thank you very much for your & \\
\hline 21 & participation over the last many months. And it & \\
\hline 22 & is only a few weeks before we jump into Keeyask, & \\
\hline & and we will see you then. Thank you very much. & \\
\hline 24 & MS. WHELAN-ENNS: Thank you very much. & \\
\hline 25 & THE CHAIRMAN: Okay. That brings us & \\
\hline
\end{tabular}


\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{5}{|r|}{Page 6959} \\
\hline 6942:4 6945:15 & 6908:7 & 6821:2 6855:1 & 6860:19 6912:23 & approval 6831:8 \\
\hline 6949:11,11 & allies 6948:4 & 6861:5 & apartment 6949:9 & approvals 6840:7 \\
\hline 6953:18 & allow 6815:2,24 & amount 6788:2,21 & apologize 6824:18 & approved 6830:24 \\
\hline against 6852:9 & 6819:19 6843:7 & 6802:7 6808:24 & apparent 6854:5 & 6843:6 \\
\hline age 6947:20 & 6851:6 6854:11 & 6912:4 6925:19 & 6910:17 & approximate \\
\hline agency 6871:20 & 6873:21 6890:19 & amounts 6803:21 & appear 6784:6 & 6871:14 \\
\hline 6880:13 & 6898:3 & 6803:22 6921:23 & 6849:8 6878:6 & approximately \\
\hline agenda 6781:5 & allowed 6909:6 & analysis 6841:1 & 6918:19 & 6840:2 6866:24 \\
\hline aggregated 6938:9 & allowing 6824:8 & 6858:6 6859:20 & APPEARANCES & 6908:11 6945:1 \\
\hline ago 6809:22 6815:7 & allude 6897:10 & 6863:6 6891:4 & 6777:1 6778:1 & April 6792:23 \\
\hline 6822:25 6828:21 & alluded 6853:14 & 6933:17 6942:24 & appears 6837:11 & aquatic 6868:24 \\
\hline 6847:20 6866:6 & 6856:17 6880:18 & 6949:19 & 6839:17 6852:4 & area 6785:7 6786:3 \\
\hline 6876:11 6900:6 & all-terrain 6811:9 & analytical 6858:12 & 6860:25 6926:6 & 6786:25 6794:12 \\
\hline 6939:25 6952:18 & almost 6847:2 & 6862:2 & applicable 6870:12 & 6795:11,15 \\
\hline agree 6836:2 & 6878:9 6920:9 & and/or 6914:22 & application 6784:5 & 6798:11 6800:15 \\
\hline 6867:21 6873:4,8 & 6931:5 6941:23 & 6928:2 6929:21 & 6784:14 6785:5 & 6801:20,21 \\
\hline 6873:19,25 & 6947:24 6952:17 & 6934:14 & 6808:23,23 & 6803:4,8 6807:18 \\
\hline 6875:7 6876:6 & along 6782:8 & anecdotes 6796:3 & 6809:14,15 & 6809:10 6812:3,5 \\
\hline 6878:4,12,23 & 6794:19 6795:13 & angry 6922:11 & 6810:1,4,6 & 6812:8,10 \\
\hline 6880:2 6881:19 & 6795:25 6796:17 & animal 6782:15 & 6851:20 6857:20 & 6814:11,12 \\
\hline 6896:12 6915:1 & 6814:3 6944:2 & animals 6800:13 & 6862:11 6863:1 & 6816:18,25 \\
\hline 6918:23 6929:11 & alphabet 6930:22 & 6811:10 & 6884:24 6887:15 & 6817:4,5 6820:20 \\
\hline agreed 6865:24 & 6931:3 & another 6784:15 & 6892:2 & 6833:22 6835:20 \\
\hline 6867:11,18 & already 6804:21 & 6818:9 6839:22 & applications 6785:1 & 6837:12 6857:21 \\
\hline 6871:19 6872:3 & 6814:1,16 & 6846:10 6862:23 & 6810:4 6851:8 & 6873:20,23 \\
\hline 6873:7,24 6876:6 & 6816:20,23 & 6883:22 6890:10 & 6856:21,25 & 6874:8 6888:17 \\
\hline 6877:15 6878:1 & 6828:18 6866:13 & 6901:13 6946:12 & 6857:14 6861:16 & 6889:3 6890:20 \\
\hline 6893:20 & 6884:8 6888:22 & answer 6782:10 & 6862:23 6881:8 & 6891:6,8,22 \\
\hline agreement 6790:23 & 6888:23 6889:9 & 6788:4 6799:18 & 6881:22 & 6892:20 6908:12 \\
\hline 6790:24 6837:1 & 6890:24 6895:25 & 6815:10 6822:15 & applied 6791:9 & 6908:23 6909:1 \\
\hline 6909:19,20 & 6898:11 6916:19 & 6823:25 6834:8 & 6793:6 6809:3 & 6909:22 6910:13 \\
\hline 6910:4,9 6911:8 & 6928:11 6935:3 & 6842:1 6850:20 & 6850:24 & 6911:11 6912:6,7 \\
\hline 6911:20 6912:8 & 6938:6 6948:19 & 6871:4 6888:9 & applies 6860:19 & 6925:4 6930:5 \\
\hline agreements 6907:8 & alterations 6917:25 & 6891:12 6893:12 & 6928:18 & 6931:6,6 6932:1,2 \\
\hline 6909:17 & 6944:25 & 6911:25 6937:13 & apply 6804:22 & 6932:2 6940:13 \\
\hline agricultural 6817:7 & altered 6816:17 & answered 6850:17 & 6839:14 6849:10 & 6943:23 \\
\hline 6817:11 6836:3,8 & 6931:21 & answering 6886:12 & 6851:12 6888:15 & areas 6783:21 \\
\hline 6838:11 & alternate 6812:5 & answers 6925:1 & appointed 6957:5 & 6785:21 6786:11 \\
\hline agriculture 6788:13 & 6917:15 6918:25 & anthropogenic & appreciate 6876:5 & 6786:16,21 \\
\hline 6806:4 6919:8 & 6935:4 & 6888:25 & 6923:2 6953:22 & 6787:13 6789:7 \\
\hline agrument 6780:14 & alternative 6817:3 & anticipate 6818:12 & apprenticeship & 6789:23 6795:21 \\
\hline ahead 6804:19 & 6842:4 6947:1,15 & anticipated 6839:25 & 6794:20,24 & 6804:15 6807:16 \\
\hline 6820:14 6822:19 & alternatives 6943:5 & 6926:18 & apprenticeships & 6810:16 6811:20 \\
\hline 6830:18,19 & 6951:2 & anticipation 6903:1 & 6794:23 & 6812:22 6814:3 \\
\hline 6843:6 6848:11 & although 6797:19 & anybody 6791:13 & approach 6787:21 & 6816:13 6817:19 \\
\hline 6863:24 6864:8 & 6807:16 6852:14 & 6900:2,7 & 6790:11 6812:23 & 6817:21 6818:4 \\
\hline 6875:4 6898:21 & 6864:16 6891:17 & anymore 6782:7 & 6814:6 6851:23 & 6823:5 6930:22 \\
\hline 6899:4 & always 6812:9 & anyone 6793:13 & 6852:8,10,17 & 6931:10 \\
\hline Aimee 6777:14 & 6861:23 6863:2,6 & 6918:9 & 6858:18 6864:21 & arguably 6890:11 \\
\hline aiming 6892:7 & 6874:9 6875:13 & anything 6793:9,17 & 6875:22 6880:2 & 6923:12 \\
\hline air 6892:17,24 & 6885:13 6940:24 & 6806:12 6816:10 & 6927:25 6928:5 & argue 6861:3 \\
\hline airplane 6782:8 & 6945:24 & 6822:15 6832:16 & 6946:20 6950:4 & 6925:18 \\
\hline airplanes 6782:9 & ambitious 6852:10 & 6885:9,10,11 & 6953:9 & argues 6855:13 \\
\hline Alberta 6877:14,23 & 6852:11 & 6896:5 6899:6 & approaches 6854:16 & argument 6780:10 \\
\hline 6877:25 6878:5 & Ambroise 6827:18 & 6918:7 6931:20 & 6859:23 6943:5 & 6780:12 6832:19 \\
\hline 6878:24 6886:18 & amended 6880:23 & 6936:9 6937:13 & appropriate & 6839:13 6843:22 \\
\hline 6890:11 6893:7 & America 6949:14 & 6938:19 6940:9 & 6838:19 6849:18 & 6844:12 6903:1 \\
\hline 6899:21 & American 6833:20 & anyway 6788:12 & 6862:7 6873:2 & 6911:15 \\
\hline alignment 6849:25 & 6945:6 & anywhere 6786:20 & appropriately & arguments 6781:14 \\
\hline alive 6821:3 6908:6 & amongst 6820:24 & 6810:2,3 6849:11 & 6801:24 & 6903:21 6904:6 \\
\hline
\end{tabular}
\begin{tabular}{|c}
\(6956: 3\) \\
arise \(6888: 3\) \\
arisen 6851:25 \\
\(6860: 1 \quad 6888: 14\)
\end{tabular}
arises 6850:6
arising 6781:18 6822:1
around 6785:7,7,9 6810:15 6811:16
6811:18 6821:6
6823:7 6834:21
6854:21 6855:11
6868:15 6880:18
6883:17 6885:6
6920:21 6933:10
arrange 6927:4
arrangement 6806:19
arrive 6884:12 6916:9
arrives 6916:10
art 6857:1
artificial 6909:8
Ashern 6808:22
aside 6787:17 6842:10 6844:5 6844:10 6896:15
asked 6815:8 6819:7 6882:16 6893:16 6924:5 6928:2 6933:15 6933:22 6937:25 6939:21 6943:7 6954:16 6955:3
asking 6797:1 6867:13,20 6931:2
aspect 6798:13 6807:14
aspects 6806:19 6922:15
assembled 6924:18
assembly 6792:9
assess 6831:15 6853:21 6856:1,1 6860:7 6861:1 6885:23 6886:1 6886:13 6887:11
assessable 6886:13
assessed 6852:17,19 6852:21 6853:12 6873:22 6876:18 6895:14 6896:8
assesses 6853:7 6875:21
assessing 6810:20 6851:13 6858:9 6894:20 6896:19
assessment 6797:21 6841:11 6847:21

6848:1,16 6849:4
6849:10 6850:1
6850:18,21
6851:9 6853:1,3
6853:15 6854:19
6855:5,7,10,13,15
6855:18,19,25
6856:7 6857:1,6
6857:18 6858:11
6858:14,25
6860:18 6861:14
6861:20 6862:14
6862:18 6863:24
6864:8,11
6869:21,23
6870:9,12 6872:7
6872:11,24
6873:3,21
6874:10,14
6875:10 6876:13
6879:18 6880:1
6880:13,20
6881:16 6882:2
6882:21,25
6883:18 6886:4
6887:23,24
6889:23 6891:15
6892:8 6893:2,19
6893:23 6894:9
6894:18 6899:2,8
6899:14 6907:6
6917:6 6936:21
6943:4 6944:21
6945:14
assessments
6849:14 6850:7
6850:12,19
6851:17 6853:6
6856:16 6857:25
6858:3 6859:17
6859:18 6860:6
6861:6,8 6862:6
6862:13 6864:14
6881:8 6882:7
6883:3 6884:1,15
6887:21 6894:22
6897:14 6898:1
6901:20
assignment 6866:4
6917:7
Assiniboine 6955:7
assist 6848:22
6863:18 6865:12
6865:19 6891:7
assistance 6903:9 6929:20
assisting 6919:1
associate 6947:4 associated 6832:22 6861:15 6915:19

6937:10 6946:6
Association 6777:13
6942:18 6956:4
assume 6802:6
6844:14 6861:8
6928:12 6938:10
6938:14,18
6953:2
assumed 6946:18
assumes 6839:18
assuming 6844:23
6846:12
assumptions
6861:25 6947:18
6948:12
assurance 6811:12
assurances 6926:13
assured 6915:15 6924:8
Athabasca 6890:11 6892:14
ATK 6921:17,18,21 6921:25 6922:2,8 6934:4
attached 6865:24 6910:1 6911:6 6935:13
attack 6784:17
attempt 6798:3 6823:16,18 6914:7
attend 6871:22
attendance 6871:18 6871:25 6872:2 6872:13
attended 6871:10 6952:22
attention 6834:18 6854:22 6867:15 6933:11
attitude 6808:12
attributable 6806:21
ATV 6811:18 6813:5
audience 6804:4
August 6915:14 6926:10,18
authored 6847:22
authorities 6863:18 6915:7
authority 6872:22 6872:24 6910:22 6924:11,16,17
autumn 6913:14 avail 6850:25 6865:4
available 6791:16 6792:2,3 6822:15 6859:3 6861:21

6861:22 6874:24
6889:10 6891:21
6895:22,23
6898:12 6903:8
6924:14 6925:22
6939:19
avoid 6786:3 6803:4
6866:15 6878:6
6896:20
await 6926:22
awaiting 6927:5
aware 6864:5
6868:14,19
6873:9 6880:24
6928:9
away 6782:6
6824:16 6936:5
6941:13
awhile 6939:25
a.m 6781:2 6820:6,7 6956:9
\(\overline{\text { B }}\)
back 6784:4,12
6788:24 6789:1
6789:13 6808:8
6810:8,9,11
6820:5 6822:3
6826:8 6861:23
6871:8 6873:18
6887:5,25 6890:1
6890:20,24
6894:4 6903:24
6926:9 6930:14
6931:4 6939:15
6947:7 6949:10
backdrop 6859:4
backed 6890:15
background
6799:14
Bad 6874:15
bait 6799:25
6801:14 6805:13
6805:15
balance 6907:22
band 6919:25 6922:15
band's 6917:22
bank 6789:7
barely 6934:16
bargaining 6794:16
bark 6919:24
barn 6819:22
base 6918:3 6933:16
based 6802:10 6806:8 6812:21 6849:5 6852:9,14 6853:1 6854:16 6855:20 6862:6

6863:19 6873:5
6875:8 6876:1
baseline 6883:19,21
6887:4 6896:11
6896:22 6897:9
6897:15,23
6898:23 6899:5
6899:12,19,24
6900:4
basic 6846:6 6862:3 6862:8
basically 6912:23
6931:2 6934:20
6935:23 6945:23
6946:4
basics 6853:4 6890:7
basin 6916:10,23 6925:6
basing 6849:6
basis 6801:3 6802:17 6803:10 6804:10 6805:1 6853:24 6854:2,3
6854:23 6859:1
6862:24 6865:1
6881:11 6892:18
6896:8 6917:25
6924:12 6943:15
bat 6890:4
BAU 6946:12
6950:14
BC 6810:18 6891:6
beaning 6844:8
bear 6799:10 6800:25 6802:19
6802:21,24 6803:2,8
bearing 6837:3
bears 6799:25 6955:5
became 6925:20
become 6789:4,13 6811:6 6851:4 6884:19 6916:24
becomes 6882:1 6886:9 6887:13
becoming 6790:14 6812:4
Beddome 6777:19
Bedford 6777:8 6799:21 6821:14 6821:15 6847:14 6847:16 6903:16
before 6782:4
6784:3 6805:3 6809:22 6819:13 6837:25 6839:2 6840:21 6841:5 6842:8,17
\begin{tabular}{|c|c|c|c|c|}
\hline 6851:20 6863:1 & 6914:12 6917:17 & 6795:19,19 & blocks 6935:13 & brings 6859:9 \\
\hline 6867:10 6875:25 & Bench 6920:16 & 6796:1 6797:2 & blueberries 6807:5 & 6955:25 \\
\hline 6894:16 6900:5,6 & beneficial 6804:8 & 6801:3,15 & 6807:13,17,23 & British 6890:23 \\
\hline 6904:10 6906:5 & benefit 6790:8 & 6802:22 6803:8 & blueberry 6786:17 & broad 6789:22 \\
\hline 6924:13 6930:15 & 6858:16 6864:2 & 6808:12,21 & board 6777:4 & 6804:4 6837:9 \\
\hline 6932:3 6942:2 & 6881:4,9 6883:12 & 6823:17 6824:9 & 6829:6 6865:21 & 6849:17 \\
\hline 6947:21 6955:22 & 6891:25 6892:12 & 6825:7 6827:2,16 & 6877:24,25 & broadband 6937:21 \\
\hline began 6908:8 & 6935:19 6951:7 & 6827:23 6828:7,8 & bodes 6834:16 & broadcast 6784:9 \\
\hline 6938:24 & 6952:3 & 6830:21 6831:17 & bookings 6805:20 & 6808:16 6810:1 \\
\hline begging 6921:15 & benefits 6844:25 & 6832:15 6834:21 & booth 6807:6 & broader 6804:4 \\
\hline begin 6850:4 6888:8 & 6858:4 6859:2 & 6838:8,15,16 & border 6829:7,15 & 6855:24 \\
\hline 6906:13,24 & 6909:25 6923:6 & 6842:8,9,12,13,15 & 6829:18 6835:21 & broadly 6860:19 \\
\hline 6911:10 & berries 6787:5 & 6842:21,24,25 & 6839:5,12 & 6861:23 \\
\hline beginning 6841:16 & 6788:11 6808:1 & 6843:12,12,24,25 & born 6947:21 & broke 6894:4 \\
\hline 6928:25 6937:5,6 & berry 6786:4,7 & 6843:25 6844:2,3 & botanists 6807:21 & Brotherhood \\
\hline begins 6879:12 & 6787:24 6788:9 & 6844:9,10 & both 6783:20 & 6794:17 \\
\hline begs 6850:5 & 6919:24 & 6845:11,22,25 & 6798:18 6799:20 & brought 6790:9 \\
\hline 6933:20 & beside 6804:16 & 6846:22,25 & 6802:13 6842:2 & 6819:8 6849:1 \\
\hline behalf 6799:8,11 & 6871:24 6936:7 & 6847:10 6848:15 & 6845:13 6846:22 & 6857:15 \\
\hline 6868:25 6913:3,6 & best 6802:5 6819:1 & 6848:24 6849:23 & 6850:7 6852:15 & brown 6808:17 \\
\hline 6914:3 6925:16 & 6863:24 6873:6 & 6851:23 6852:4 & 6858:18 6859:2 & 6809:10 6820:21 \\
\hline behind 6801:9 & 6875:6,9,16 & 6855:6 6856:6 & 6859:12 6861:11 & 6916:6 \\
\hline being 6784:23 & 6882:3 6888:11 & 6867:12 6895:10 & 6863:23 6891:15 & Bruce 6777:6 \\
\hline 6786:25 6789:24 & 6892:3 6898:4 & 6906:19 6907:14 & 6906:4 6928:20 & brush 6784:22 \\
\hline 6790:9 6799:23 & better 6800:5 & 6907:24 6908:2 & 6928:25 6931:11 & 6789:14 6792:4 \\
\hline 6800:2 6804:16 & 6836:13 6857:23 & 6908:20 6909:3 & 6947:7 6952:20 & brushes 6784:18 \\
\hline 6809:13 6813:16 & 6883:11 6889:14 & 6909:15 6910:3 & 6956:5 & brushing 6784:23 \\
\hline 6816:17 6819:15 & 6890:6 6925:13 & 6910:25 6911:5 & bottom 6899:23 & budget 6828:18,21 \\
\hline 6830:23 6831:16 & 6925:13 6935:11 & 6914:13,15 & 6935:15 & 6829:2 6830:22 \\
\hline 6833:19 6834:21 & 6948:3 6949:19 & 6916:13 6917:4 & Boucher 6778:2 & buffers 6785:8 \\
\hline 6834:22 6836:1 & 6951:18 & 6917:10 6918:10 & 6914:4 & build 6785:16 \\
\hline 6837:18,19 & between 6795:8 & 6918:13,19 & bound 6882:23 & 6794:22 6828:1 \\
\hline 6839:19,20,20 & 6799:15 6800:7 & 6919:11 6922:14 & boundaries 6885:14 & 6829:8 6845:1,6 \\
\hline 6841:9 6842:14 & 6806:20 6824:2 & 6925:20 6926:1 & 6912:5 & 6847:1 6948:5 \\
\hline 6842:21 6844:22 & 6825:20 6827:7 & 6927:1 6938:25 & bounds 6884:18 & 6953:18 \\
\hline 6864:14 6873:22 & 6828:2,7 6829:9 & 6939:5,16 & 6886:11,19,21 & building 6807:15 \\
\hline 6895:16 6904:6 & 6829:14 6830:3,8 & 6940:14 6941:7 & 6887:9 & 6829:8 6830:2 \\
\hline 6923:11 6928:17 & 6847:3 6854:5 & 6941:23 6944:12 & BPC 6779:17 & built 6885:10 \\
\hline 6929:7 6930:23 & 6856:20,23 & 6948:19 6956:4 & 6904:25 6905:20 & 6886:5 6931:18 \\
\hline 6931:18 6932:5 & 6860:4 6910:11 & Bipoles 6808:13,15 & brain 6954:10 & 6955:7 \\
\hline 6944:15 6952:21 & 6915:6 6934:24 & 6808:18 6817:9 & branch 6816:24 & bullet 6875:7 \\
\hline 6955:3 & 6939:2 6953:2 & 6818:8 6820:18 & 6953:3 & bunch 6935:13 \\
\hline believe 6781:7 & 6954:15 & 6827:14 6948:20 & Brandon 6955:16 & burial 6922:4 \\
\hline 6790:19 6794:8 & beyond 6789:24 & Bison 6915:20 & break 6781:9 & burning 6818:2 \\
\hline 6798:21 6814:1 & 6793:15 6812:13 & 6916:11 6918:16 & 6819:11 6820:5 & burrow 6931:20 \\
\hline 6823:18 6827:4 & 6834:16 6844:18 & 6919:3,10 & 6902:23 6951:25 & 6932:12 \\
\hline 6828:13 6835:11 & 6886:23 6890:24 & bit 6781:6,18 & Brian 6777:3,11 & bushes 6821:2 \\
\hline 6836:15,24 & 6948:15 & 6782:1,20 6786:5 & brief 6793:2 6842:1 & busier 6888:23 \\
\hline 6849:17 6850:4 & bid 6791:12 & 6796:12 6814:20 & 6903:3 6912:17 & business 6800:24 \\
\hline 6860:2 6871:2 & bidding 6791:14 & 6818:9 6832:6 & 6912:18 & 6801:2 6802:18 \\
\hline 6875:15 6876:11 & big 6817:8 6818:6 & 6841:15 6846:3 & briefly 6894:5 & 6802:22 6804:7 \\
\hline 6879:24 6882:6 & biggest 6942:23 & 6877:14 6893:14 & 6901:3 & 6805:18 6910:5 \\
\hline 6887:10 6895:24 & Bill 6872:14 6940:2 & 6903:5 6932:22 & Briggs 6807:18 & 6910:14 6911:8 \\
\hline 6902:13 6906:4 & billion 6823:22 & 6945:11 6946:22 & bring 6783:8 & 6946:14,18 \\
\hline 6909:15 6915:1 & 6824:11,14,23 & black 6802:19,23 & 6791:24 6797:14 & 6947:1,16 \\
\hline 6916:23 6917:2 & 6825:11 6826:14 & 6935:19 6936:1 & 6822:3 6840:13 & 6948:11 6949:9 \\
\hline 6918:10 6919:12 & billions 6800:4 & bloated 6916:19 & 6942:25 6944:7 & businesses 6791:16 \\
\hline 6926:3 6929:13 & Bipole 6776:6 & block 6781:24 & bringing 6822:4 & 6800:23 \\
\hline 6945:25 6956:7 & 6777:10 6790:12 & 6937:23 & 6840:21 6841:4 & busy 6888:22,22,23 \\
\hline believes 6907:13 & 6790:18 6793:16 & blocked 6937:15,15 & 6849:13 & Byron 6777:13 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline C & carrot 6923:13 & central 6791:6 & 6836:23 6837:24 & 6914:4 \\
\hline C 6780:7,10 & carry 6822:12 & centre 6776:18 & 6838:4 6841:20 & check 6826:18 \\
\hline Cabinet 6911:5 & 6904:4 & 6779:6 6853:11 & 6841:21 6845:17 & 6830:6,12,14 \\
\hline cable 6825:20,24 & case 6789:12 & 6904:18 6905:9 & 6846:19 6847:12 & 6896:3 \\
\hline 6826:2 6828:10 & 6796:14 6800:21 & centric 6851:23 & 6847:17,19 & checking 6932:12 \\
\hline 6839:19,20 & 6804:5,25 & 6853:4,11 6858:3 & 6848:9,11,13,20 & 6944:3 \\
\hline 6847:6 & 6805:12 6806:8 & 6875:22 & 6865:8 6869:18 & chemicals 6919:18 \\
\hline CAC 6779:19 & 6809:11 6812:7 & century 6891:3 & 6870:24 6874:1,5 & chief 6906:15 \\
\hline 6865:20 6905:1 & 6817:14 6844:7 & certain 6788:2 & 6879:5,23 6880:4 & 6913:6 6914:3 \\
\hline 6905:21 & 6851:9 6885:13 & 6790:6 6796:23 & 6880:8,10,14,22 & 6922:13 6927:3 \\
\hline cajoled 6924:6 & 6888:4 6897:12 & 6813:22 6884:23 & 6881:1,12 & 6944:4 \\
\hline calculation 6824:12 & 6909:12 & 6892:25 6930:3 & 6882:10,19 & Children 6916:24 \\
\hline 6839:23 & cases 6783:11 & 6944:11 & 6883:15 6885:5 & chocolate 6951:24 \\
\hline calculator 6826:17 & 6787:6 6806:6 & certainly 6785:15 & 6887:16 6893:8 & choice 6855:19 \\
\hline call 6783:7 6824:11 & 6853:9 6884:3 & 6786:16,20 & 6902:18,22 & choke 6785:3 \\
\hline 6887:2 6905:24 & 6899:9,10 & 6789:10,12,14 & 6903:13,19 & choose 6941:8 \\
\hline 6927:5 6941:10 & case-by-case 6801:3 & 6790:5 6792:6,13 & 6904:4 6905:23 & choosing 6934:4 \\
\hline called 6810:19 & 6803:10 & 6794:2,4 6797:8 & 6906:8 6911:12 & chosen 6837:23 \\
\hline 6886:3 & cash 6930:9 & 6814:21 6816:2,8 & 6912:9,19 & 6852:2 \\
\hline came 6801:7 & cast 6858:24 & 6835:14,15 & 6913:13,22 & Chris 6906:12,14 \\
\hline 6808:10 6825:9 & catering 6792:7 & 6849:8 6858:11 & 6914:3,11,17,21 & 6906:22 \\
\hline 6834:18 6890:4 & Cathy 6777:5 & 6875:23 6877:21 & 6915:23 6918:6 & chronology 6842:17 \\
\hline 6901:16 & cause 6811:9 & 6878:9,25 6881:5 & 6918:12 6919:7 & 6867:9 \\
\hline camel's 6894:4 & 6853:18 6854:1 & 6882:4 6886:14 & 6919:16 6920:6 & chunk 6956:6 \\
\hline camp 6795:10,24 & 6860:3 6917:6 & 6887:6 6891:5 & 6920:18 6921:12 & circumstance \\
\hline 6796:6,17 6797:7 & caused 6853:24 & 6892:15 6895:25 & 6921:17 6922:5 & 6805:11 6812:17 \\
\hline camps 6797:24 & 6897:25,25 & 6896:6 6902:3 & 6922:22 6923:1 & circumstances \\
\hline Canada 6777:13 & causes 6894:24 & 6913:7 6915:1 & 6923:16 6924:5,9 & 6813:20 6814:18 \\
\hline 6849:11 6850:22 & 6953:8 & 6926:7 6941:15 & 6925:9,14,22 & citizen 6950:13 \\
\hline 6858:20 6859:14 & cause/effect 6853:8 & 6949:11 & 6926:9,20 6927:6 & citizens 6952:15 \\
\hline 6860:20 6872:11 & causing 6857:8 & certainty 6862:25 & 6927:8,17 6954:1 & City 6817:20 \\
\hline 6872:25 6876:13 & caveat 6864:9 & 6863:17 6877:8 & 6954:20 6955:15 & claim 6801:9,15 \\
\hline 6881:7 6883:9 & caveats 6883:1 & 6878:8 6901:12 & 6955:25 & 6805:1,19,21 \\
\hline 6933:25 6940:21 & CDI 6923:7,10 & 6901:19,23 & challenge 6819:14 & 6934:19 \\
\hline 6942:19 6955:11 & CEA 6849:4,23 & 6902:2 & 6901:18 6940:25 & claimed 6850:2 \\
\hline Canadian 6779:4 & 6852:4 6855:6 & CERTIFICATE & 6946:13 6949:18 & 6858:13 \\
\hline 6860:18 6862:18 & 6856:6,21 & 6957:1 & challenges 6936:16 & claiming 6944:8 \\
\hline 6880:13,20 & 6857:12 6871:10 & certificatio & 6942:23 & claims 6801:7,24 \\
\hline 6891:14 6904:15 & 6872:17 6873:6 & 6794:20 & challenging 6887:6 & 6803:20 6804:3 \\
\hline 6905:5 & 6879:21 6880:5 & certify 6957:7 & chance 6801:22 & 6804:10 6930:17 \\
\hline candidate 6896:1 & 6885:6 6896:19 & cetera 6787:12 & change 6819:11 & 6944:14 \\
\hline candidates 6791:8 & 6896:20 6899:23 & 6799:25 6800:1 & 6828:22 6832:7 & clarification 6783:7 \\
\hline candidly 6918:6 & CEAM 6875:6 & chain 6853:8 & 6856:11 6888:25 & 6893:11 6894:14 \\
\hline 6923:20 & CEAs 6856:24 & chain-saw 6811:17 & 6897:11,21,22,23 & 6911:16 6912:12 \\
\hline capability 6834:3 & 6860:13 6863:9 & 6811:18 & 6898:23 6899:16 & 6927:9 \\
\hline capacity 6928:4 & 6863:12 6886:6 & Chair 6874:4 & 6900:9 6926:22 & clarify 6796:7,12 \\
\hline 6944:5 & CEC 6907:25 & 6879:2 6927:19 & 6948:11 6954:3 & 6853:1 6868:11 \\
\hline capital 6828:18 & 6908:5,8 6910:2 & 6945:22 6952:23 & 6955:4 & clarity 6799:19 \\
\hline 6829:4,12 6833:7 & 6910:22 6914:15 & 6953:21 & changes 6800:14 & 6857:4 6881:23 \\
\hline 6839:1 & 6922:25 6925:12 & Chairman 6777:2 & 6828:5 6898:10 & 6882:5 6931:16 \\
\hline car 6782:3 & 6928:22,23 & 6781:3 6782:12 & 6899:4 6900:7 & 6932:10 \\
\hline care 6788:13 & 6930:5 6932:22 & 6782:24 6799:5 & 6941:21 6943:20 & class 6952:10 \\
\hline 6799:10 6817:4 & 6943:7 6945:14 & 6803:13 6810:25 & changing 6835:21 & 6953:10,12 \\
\hline 6838:21 6865:2 & 6946:1,6 6950:21 & 6814:2 6815:4 & 6897:1,25 & 6954:4,13 \\
\hline 6884:25 & 6951:8 6952:1,11 & 6816:12 6817:6 & 6898:14 & classic 6819:22 \\
\hline caribou 6814:13 & 6952:13,24 & 6817:13,17 & chapter 6870:1,8,10 & Clean 6776:1 \\
\hline 6816:12,13 & 6954:4,7 & 6818:5,14 6819:3 & characterized & 6777:2 6779:13 \\
\hline 6817:5 6943:11 & Cecelia 6957:5,14 & 6820:8,14 6821:5 & 6888:6 & 6848:23 6868:8 \\
\hline 6943:13,16,24 & CEC/MH 6823:20 & 6821:10 6822:7 & charge 6823:8 & 6868:15 6904:21 \\
\hline 6944:10,11,18 & cent 6931:5 6947:13 & 6822:18,24 & Charlie 6778:2 & 6905:16 6906:19 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline 6822:5 6833:14 & 6817:2 6856:14 & 6877:17 6882:4 & Duck's 6916:8 & ecological 6902:4 \\
\hline 6835:14 6836:17 & 6915:8 6923:4 & 6890:13 6895:10 & due 6802:13 6857:3 & ecologically 6941:3 \\
\hline 6842:12 6845:21 & 6936:23 6939:17 & 6903:11 6919:6 & 6865:2 6897:24 & 6941:5 \\
\hline 6846:7 6858:19 & 6953:2 & 6925:21 6940:8 & 6908:5 & ecology 6855:2 \\
\hline 6858:19 6874:8 & disdain 6924:19 & 6944:19 & Duluth 6833:22 & economic 6923:2,5 \\
\hline 6889:8,9 6899:7 & dismissal 6854:6 & door 6819:22 & 6837:12 6839:5 & economy 6930:9 \\
\hline 6900:3 6913:8 & disparity 6854:4 & 6930:13 6954:23 & duly 6957:5 & 6949:17,20,21 \\
\hline 6949:15,16 & disseminated & Dorsey 6824:2,7 & Dunker 6872:3,6,9 & ecosystem 6852:9 \\
\hline 6951:15,17 & 6834:23 & 6825:20 6827:7 & 6876:8 & 6852:14,17 \\
\hline 6954:7,20 & distance 6925:6 & 6827:17 6828:2 & Dunker's 6876:15 & 6853:1 6854:16 \\
\hline differently 6850:16 & distinct 6787:2 & 6829:6,10,14,17 & duration 6792:21 & 6875:24 \\
\hline difficult 6796:24 & distributed 6848:19 & 6830:3,9,11 & 6793:7,15 & eco-system 6909:14 \\
\hline 6832:6 6886:10 & distribution & 6831:19 6833:9 & 6795:15 6833:5 & edge 6817:23 \\
\hline 6951:1 & 6818:21 & 6833:17,21 & during 6784:2 & effect 6805:2,6 \\
\hline dig 6938:4 & disturbance & 6835:7 6839:8,9 & 6790:22 6794:15 & 6806:17 6807:12 \\
\hline diligence 6865:3 & 6800:16 6802:17 & 6843:3 6845:10 & 6802:24 6847:24 & 6852:20 6853:23 \\
\hline diminishes 6881:25 & 6802:24 6803:7 & 6845:22,25 & 6895:25 6933:21 & 6854:3,17,21,24 \\
\hline direct 6806:13 & 6807:21 & Dorsey/Riel & 6946:23 6954:11 & 6875:23 6876:16 \\
\hline 6808:2 6874:12 & ditch 6782:1 & 6827:11 & duty 6915:2,11 & 6877:22 6879:13 \\
\hline 6892:19 6894:23 & diverted 6842:15 & dots 6936:1 & & 6879:25 6893:18 \\
\hline 6894:25 6895:13 & doable 6835:15 & double 6932:12 & E & 6894:23 6895:3,7 \\
\hline 6953:4 & document 6819:15 & Doubts 6849:4 & e 6831:22 6832:10 & 6895:9,12,13,19 \\
\hline directed 6809:15,16 & 6819:24 6820:2 & Douglas 6777:8 & 6832:11 6839:17 & 6896:2,7,22,25 \\
\hline directing 6867:15 & 6837:8 6840:2 & down 6781:24 & 6839:23 6917:1 & 6916:21 6921:12 \\
\hline 6876:23 & 6848:7 6873:13 & 6784:10 6785:1 & EA 6945:10 & 6922:18 6925:25 \\
\hline direction 6789:17 & 6878:3,14 & 6788:23 6789:3 & each 6791:8,11,20 & 6933:7 \\
\hline 6795:5 6837:9 & 6880:17,25 & 6801:3 6803:10 & 6791:21 6793:6 & effective 6788:16 \\
\hline 6856:11 & 6912:10 6925:22 & 6807:6 6824:23 & 6795:15 6846:5 & 6942:6 \\
\hline directions 6913:3 & 6928:16,24 & 6826:14 6833:9 & 6853:9 6856:10 & effects 6822:6 \\
\hline directly 6785:13 & 6929:4,7,13 & 6835:7 6836:17 & 6858:18 6874:7 & 6838:2 6847:21 \\
\hline 6790:12 6806:21 & 6953:1,4 & 6840:14,21 & 6940:7 & 6848:1,16 6849:4 \\
\hline 6848:2 6857:19 & documentation & 6879:11 6919:12 & EAP 6929:3 & 6849:25 6850:19 \\
\hline 6930:22 & 6934:19 6935:12 & 6955:18 & 6953:10 & 6851:13,25 \\
\hline disagree 6832:19 & documents 6821:16 & Dr 6821:18 6858:23 & earlier 6789:18 & 6853:9,18,23,24 \\
\hline 6921:3 & 6821:21,23 & 6858:23 6864:6,6 & 6810:16 6839:6 & 6854:1,9,10,12,22 \\
\hline disagrees 6922:21 & 6822:1,8 6867:17 & 6871:24 6872:3,6 & 6840:25 6841:2 & 6855:5,7,16,24 \\
\hline disappointing & 6867:23 6868:12 & 6872:9,14,16 & 6842:3 6843:5 & 6856:7 6857:5 \\
\hline 6925:9 & 6868:20,21 & 6873:2,18 & 6846:20 6848:8 & 6858:1,9 6859:1,5 \\
\hline disappointment & 6904:11 6927:22 & 6874:12 6875:7 & 6880:14 6893:12 & 6860:8 6861:1 \\
\hline 6940:14 & 6936:21 6943:1 & 6876:8,15 & 6903:23 6911:17 & 6862:14 6864:15 \\
\hline disasters 6833:3 & 6943:16 6953:23 & draft 6812:20 & 6912:11 6951:9,9 & 6869:20,23 \\
\hline discernible 6855:1 & dogged 6927:11 & 6813:17 6814:17 & 6951:10,13,13 & 6870:8,13 6872:7 \\
\hline discovered 6883:16 & doing 6785:4 & drafting 6821:22 & early 6836:4 & 6873:3 6874:14 \\
\hline discretion 6871:21 & 6786:6 6790:21 & drape 6859:4 & 6841:10 6866:25 & 6875:10,24 \\
\hline 6884:21 & 6820:12 6822:14 & draw 6892:9 & 6867:2 6930:14 & 6878:10 6879:18 \\
\hline discuss 6823:9 & 6844:19 6846:13 & drawn 6798:18 & ears 6926:12 & 6880:1 6882:21 \\
\hline 6852:2 6917:24 & 6861:20 6884:14 & 6880:5 & earth 6907:21,22 & 6882:25 6883:3 \\
\hline discussed 6827:18 & 6944:2 6950:4,6 & drill 6936:10 & 6908:17 & 6883:17 6886:4 \\
\hline 6858:21 6914:9 & dollars 6800:4 & drink 6951:23,24 & easement 6817:14 & 6887:20 6888:5 \\
\hline 6926:17 6934:17 & 6921:25 & drinking 6917:2 & easements 6817:22 & 6889:23 6891:1 \\
\hline discussing 6785:11 & domestic 6949:8 & driver 6860:3 & 6817:25 & 6892:8 6893:19 \\
\hline 6815:20 6935:9 & done 6782:13 & drives 6802:21 & eases 6817:22 & 6893:23 6894:8 \\
\hline discussion 6811:24 & 6786:16 6788:14 & 6918:13 & easiest 6888:9 & 6894:15,17,18,24 \\
\hline 6812:12 6815:17 & 6789:24 6796:1 & drop 6791:25 & east 6828:22 6833:9 & 6895:8,14,16 \\
\hline 6828:24 6842:2 & 6807:9 6809:13 & 6917:9 & 6835:7 6939:3 & 6898:5,12 \\
\hline 6852:6 6857:16 & 6832:16 6842:12 & drove 6782:2 & eastern 6947:23 & 6899:22 6903:3 \\
\hline 6865:19 6875:11 & 6842:17 6843:16 & Drs 6866:11,22 & eastward 6827:2,19 & 6908:21,24,25 \\
\hline 6903:6 6919:20 & 6849:10,14 & 6869:9 & 6837:12 & 6909:4,7,21 \\
\hline 6934:2,11 & 6857:12 6859:17 & Duck 6916:6 & easy 6797:17 & 6910:5,25 \\
\hline discussions 6817:1 & 6861:6 6864:6 & 6924:23 & echo 6887:3 & 6911:20 6921:2 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{5}{|r|}{Page 6967} \\
\hline 6922:12,14,22 & ends 6784:23 & 6952:8 6955:11 & 6811:4,10 & examine 6858:1 \\
\hline efforts 6808:11 & 6836:1 6846:22 & environmental & 6812:10 6842:22 & 6883:4 6898:4 \\
\hline eight 6790:19 & 6858:19 & 6834:20 6835:3 & 6843:1 6844:19 & examined 6870:10 \\
\hline 6815:15,18 & endured 6805:2 & 6841:11 6850:18 & 6847:8 6852:19 & Examiner 6957:6 \\
\hline 6935:25 & 6916:3 & 6851:9 6857:18 & 6883:12 6902:6 & 6957:15 \\
\hline Einstein's 6926:18 & energy 6818:16 & 6857:25 6860:6 & 6918:19,21 & EXAMINER'S \\
\hline EIS 6797:22 6798:1 & 6877:23 6947:12 & 6860:18 6862:18 & 6924:13 6930:8 & 6957:1 \\
\hline 6841:17 6870:8 & 6948:9,10,25 & 6864:11,13 & evenings 6946:23 & examines 6857:21 \\
\hline 6909:16 6928:3 & 6949:3,4,8 6950:5 & 6869:16 6870:2 & event 6830:17 & examining 6830:9 \\
\hline 6928:20 6934:16 & 6950:7,9,13,14 & 6872:10,24 & 6833:2 6861:6 & example 6790:4 \\
\hline 6935:7 6937:8 & enforce 6925:23 & 6876:13 6880:13 & 6871:22 & 6795:19 6844:5 \\
\hline 6942:25 6951:16 & engagement 6864:2 & 6880:20 6884:1 & events 6844:4 & 6864:5 6881:11 \\
\hline 6952:9,10,19 & 6866:24 6937:6 & 6884:14 6889:22 & 6897:25 & 6883:8 6886:16 \\
\hline either 6787:23 & 6941:11 6951:10 & 6891:15 6894:22 & eventually 6784:17 & 6888:12,24 \\
\hline 6906:4 6932:16 & engaging 6785:10 & 6897:14 6901:20 & 6784:18 6785:4 & 6890:10 6892:13 \\
\hline elaborate 6901:2 & 6790:12 & 6910:19,24 & ever 6796:1 6807:1 & 6892:17 6893:4 \\
\hline 6911:22 & enhance 6787:4 & 6936:21 6940:20 & 6807:7 & 6898:12,17,21 \\
\hline elaborated 6908:3 & enhanced 6814:14 & 6944:3,21 & every 6789:1 & 6900:6 6933:2 \\
\hline elapsed 6881:5 & 6815:9,11,14,19 & 6945:14 6946:9 & 6791:15 6800:18 & 6943:22 6952:4 \\
\hline elected 6906:15 & enjoy 6857:25 & 6947:4 & 6800:18 6838:22 & examples 6850:23 \\
\hline Electrical 6794:17 & enjoyed 6919:25 & environments & 6855:19 6908:25 & 6858:19 6859:25 \\
\hline electrode 6912:3 & enjoying 6858:4 & 6807:13 & 6919:16,19 & 6883:9 6888:10 \\
\hline electronic 6953:25 & Enns 6777:17 & envisioned 6859:11 & 6924:5 6925:22 & 6889:18 6891:11 \\
\hline elements 6864:17 & 6780:14 6954:2 & 6902:15 & 6941:21 & 6902:3 6949:13 \\
\hline elephant 6937:3 & enough 6803:25 & equally 6849:17 & everybody 6930:24 & 6954:17 \\
\hline elicited 6925:6 & 6868:3 6873:21 & 6861:9 & 6940:25 6945:25 & excavated 6811:14 \\
\hline Elise 6777:7 & 6881:5 6885:25 & equipment 6784:10 & 6946:5,6 & exceed 6884:18 \\
\hline elsewhere 6795:13 & 6887:10 6897:23 & 6790:16 6792:5 & everyday 6837:5 & exceeded 6887:12 \\
\hline 6812:16 6858:20 & 6932:14 6942:21 & equipped 6910:16 & everyone 6916:3 & excess 6949:8 \\
\hline embed 6864:16 & 6945:2 & equivalent 6949:7 & 6937:19 6949:18 & exchange 6924:15 \\
\hline emerged 6859:14 & ensure 6791:9 & equivalents 6860:21 & 6953:11 & exclusion 6860:12 \\
\hline emerges 6860:3 & 6797:23 6816:6 & era 6954:20 & everything 6856:1,1 & excursions 6797:24 \\
\hline emerging 6928:8 & 6863:2,6 6884:25 & erection 6792:9 & 6861:20 6890:13 & excuse 6864:24 \\
\hline emissions 6892:24 & 6897:16 6902:9 & error 6824:12 & 6928:17 6931:14 & 6867:19 6900:16 \\
\hline emphasis 6860:11 & 6907:10 6910:19 & 6825:1,5,7 & 6940:15 6942:15 & exercise 6782:14 \\
\hline emphasizes 6907:22 & 6911:7 6936:18 & especially 6788:21 & 6943:23 6948:9 & 6835:1 \\
\hline employees 6791:1 & entered 6923:3 & 6797:16 6803:20 & everywhere 6816:3 & EXHIBIT 6779:2 \\
\hline 6795:9 6796:22 & 6925:16 & 6816:1 & evidence 6819:25 & 6905:3,5,7,10,11 \\
\hline employment & enthusiastic 6863:8 & espoused 6856:25 & 6821:17 6828:25 & 6905:13,15,18,20 \\
\hline 6789:23 6790:6,7 & entire 6809:10 & essence 6844:12 & 6863:20 6866:11 & 6905:21 \\
\hline 6791:17 6793:12 & 6845:24 6923:17 & essentially 6789:1 & 6884:5 6903:17 & EXHIBITS 6779:1 \\
\hline 6796:13 6910:6 & 6925:8 6940:15 & 6831:21 6833:13 & 6907:25 & exist 6863:3 6896:4 \\
\hline 6911:9 & 6947:23 6954:5 & 6843:24 6899:15 & evidenced 6863:1 & 6902:5 \\
\hline empty 6823:2 & entirely 6929:9 & establish 6803:18 & evident 6854:5 & existence 6868:20 \\
\hline enable 6860:9 & entities 6882:13 & 6849:17 & 6928:11 & 6901:16 \\
\hline encompassing & entitled 6913:7 & established 6804:3 & evolution 6890:17 & existing 6797:15,19 \\
\hline 6859:23 & entity 6937:2 & 6851:4 6886:15 & evolutionary & 6834:1 6870:3 \\
\hline encountered 6803:4 & environment & establishment & 6850:23 & 6907:8 \\
\hline encourage 6917:8 & 6776:1 6777:2 & 6890:18 & evolving 6864:20 & exists 6816:20 \\
\hline encouraged 6927:3 & 6779:13 6848:23 & estimate 6827:8 & 6883:19,21 & 6859:7 6891:22 \\
\hline encouraging 6926:4 & 6868:8,15,24 & estimated 6823:21 & 6896:11,22 & 6896:5 6922:19 \\
\hline end 6819:8 6837:10 & 6870:3 6877:25 & 6827:3 6828:9 & 6897:9 6899:18 & expand 6848:14 \\
\hline 6845:11 6846:23 & 6897:19 6898:13 & et 6787:12 6799:25 & 6900:8 & expansive 6852:16 \\
\hline 6903:8 6929:11 & 6898:14 6904:21 & 6799:25 & exact 6825:17 & 6854:15 6858:5 \\
\hline 6942:10 6943:17 & 6905:16 6906:19 & Europe 6949:7,14 & 6838:25 & 6859:22 \\
\hline 6945:8,24 & 6906:24 6914:6 & European 6945:7 & exactly 6833:23 & expect 6926:1 \\
\hline 6946:13 6947:3 & 6916:1 6921:6 & evaluated 6833:14 & 6868:12 6876:2 & expected 6787:9 \\
\hline 6956:1 & 6926:20 6928:14 & evaluation 6907:23 & 6878:14 6891:19 & 6821:23 6863:17 \\
\hline endless 6857:8 & 6928:21 6929:4 & even 6787:18 & examination 6850:5 & 6864:18 6923:22 \\
\hline endlessly 6855:1 & 6945:13,18 & 6791:24 6806:6 & 6883:6 & expecting 6846:15 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{5}{|r|}{Page 6968} \\
\hline expenditure 6829:4 & fabric 6886:6 & February 6779:9 & fill 6902:11 6917:1 & 6921:8 6922:6,23 \\
\hline 6833:8 & facility 6797:11 & 6792:22 6848:15 & final 6781:13 & 6923:1,10 \\
\hline experience 6795:21 & fact 6803:17 6809:6 & 6865:14,23 & 6812:3 6814:10 & 6925:17,17,25 \\
\hline 6797:9 6804:17 & 6809:20 6830:15 & 6866:25 6867:2,3 & 6816:17 6841:17 & 6926:24,25 \\
\hline 6805:18 6862:4 & 6839:14 6842:25 & 6867:6,16,22 & 6898:24 6904:5 & 6929:15 6930:4 \\
\hline 6907:17 6916:25 & 6844:4 6889:3 & 6868:6,23 6869:4 & 6911:15 6917:14 & 6930:18 6933:4 \\
\hline experienced & 6891:14 6893:23 & 6871:10,11 & 6917:15,20 & 6933:24 6935:20 \\
\hline 6792:13 6862:12 & 6896:16 6898:18 & 6877:3 6904:20 & 6953:4 & 6936:12 6938:23 \\
\hline 6915:20 & 6922:18 6924:18 & 6905:12 6918:20 & finalized 6943:13 & 6940:12 6941:21 \\
\hline experiences & 6933:10 6942:10 & Federal 6860:22,24 & finally 6889:7 & 6942:13 6944:23 \\
\hline 6795:18 6907:19 & 6943:14 6950:20 & 6954:18,23 & financial 6842:5,11 & 6944:24 6947:10 \\
\hline expert 6782:22 & failed 6915:2 & Federation 6777:15 & 6844:11 & 6951:12 \\
\hline 6872:6 6955:11 & failing 6846:8 & 6779:4 6819:16 & find 6791:15 & firstly 6823:17 \\
\hline expertise 6848:4 & failure 6846:17 & 6904:16 6905:6 & 6818:22 6819:1 & fisher 6781:21 \\
\hline 6952:18 & 6858:14 6914:22 & fee 6818:3 & 6822:10,11 & fitting 6941:4 \\
\hline experts 6871:18 & 6915:5 6925:23 & feed 6949:5,7 & 6883:23 6885:19 & five 6784:3,14 \\
\hline 6942:19 6943:2 & fair 6786:5 6788:20 & feeding 6887:25 & 6911:22 6931:3 & 6790:20 6810:8 \\
\hline 6943:10 6954:18 & 6831:12 6871:17 & feeds 6824:6 & 6951:8 & 6930:8 6952:12 \\
\hline 6955:2 & 6877:14,16 & feel 6849:16 & finding 6845:8 & 6956:2 \\
\hline explain 6821:12 & 6881:3 6945:11 & 6856:11 6928:7 & findings 6845:5 & five-month 6939:23 \\
\hline explanation & 6954:8 6956:5,5 & feet 6782:16 & fine 6868:4 6884:23 & fixed 6801:1 \\
\hline 6811:12 6846:4 & fairly 6788:24 & fellow 6906:20 & 6898:25 & 6898:23 6952:24 \\
\hline 6936:2 & 6886:15 6888:6 & felt 6817:21 & finest 6916:6 & flexibility 6952:2 \\
\hline explicitly 6860:17 & 6892:14 6929:25 & fence 6806:9 & finger 6838:25 & flowing 6916:14 \\
\hline explore 6854:2 & 6934:21 6942:6 & 6918:18 & 6839:1 & flows 6916:8 \\
\hline 6884:23 6890:6 & 6945:5 6956:3 & fenced 6919:3 & finish 6829:22 & flux 6836:16 \\
\hline export 6834:2 & fall 6820:17,19 & fences 6811:20 & finished 6822:2 & flying 6782:8 \\
\hline 6843:7 6950:6 & 6841:2 6931:25 & fencing 6806:11 & 6842:8 & focus 6861:1 \\
\hline exporting 6950:9 & fallen 6926:12 & 6811:25 6812:15 & fire 6788:12 & 6862:19 6932:5 \\
\hline exposed 6788:22 & falling 6900:18 & fertile 6863:12 & 6898:21 & 6947:9 \\
\hline exposure 6807:14 & familiar 6852:13 & few 6792:14 & firmly 6862:19 & focused 6857:15 \\
\hline express 6916:1 & 6874:20 6877:22 & 6802:20 6809:22 & 6929:12 & 6869:20 \\
\hline expressed 6860:18 & 6878:2 6914:18 & 6810:25 6815:7 & first 6777:20 6778:2 & folk 6807:2 6808:11 \\
\hline 6873:4 6907:21 & families 6920:1 & 6841:10 6849:9 & 6779:14 6780:12 & folks 6821:25 \\
\hline 6919:17 & famous 6926:19 & 6867:17 6870:25 & 6781:6 6783:14 & 6905:25 \\
\hline extend 6816:3 & far 6782:5 6856:18 & 6871:17 6876:10 & 6783:20 6784:14 & follow 6803:13 \\
\hline 6886:23 & 6857:16,25 & 6895:23 6909:10 & 6786:22 6787:12 & 6804:11 6832:4 \\
\hline extended 6794:4 & 6859:24,25 & 6909:11 6912:15 & 6787:15,20 & 6849:24 6901:21 \\
\hline 6814:3 6833:5 & 6862:2,5 6884:11 & 6955:22 & 6788:8 6790:3,13 & followed 6791:5,5 \\
\hline 6866:24 & 6887:1 6888:14 & fictionalized & 6791:11 6794:2 & 6832:2 6850:22 \\
\hline extending 6816:8 & 6891:24 6897:18 & 6884:20 & 6795:7,9 6798:25 & 6880:19 \\
\hline extends 6886:7 & 6899:7 6925:7,24 & fictionalizing & 6800:9 6807:24 & following 6781:8,9 \\
\hline extensive 6793:5 & 6941:6 6943:23 & 6863:11 & 6810:5 6813:18 & 6781:12 6792:25 \\
\hline 6954:12 & 6945:8 & field 6782:1 & 6821:12 6823:18 & 6853:19 6859:20 \\
\hline extensively 6810:23 & Fargo 6837:10 & 6871:18 6872:6 & 6842:8 6854:20 & 6861:13 6888:15 \\
\hline extent 6782:21 & 6838:10 & 6872:22 6919:9 & 6855:5 6856:15 & 6900:14 6904:7 \\
\hline 6786:2 6850:2 & farmer 6920:12 & 6939:6,7,18 & 6856:20 6857:3 & 6914:16 \\
\hline 6870:11 6871:1 & farmers 6920:12 & 6940:5,8 & 6860:7,12,25 & follows 6855:6,7 \\
\hline 6892:12 6893:13 & fashion 6786:14 & figure 6832:3,5 & 6870:17 6875:7 & 6856:6,7 6864:21 \\
\hline 6895:2 6918:20 & 6885:24 6888:16 & 6845:20,21 & 6879:12 6885:22 & 6914:18 \\
\hline external 6943:2,10 & fast 6898:3 & 6939:24 6948:1 & 6886:12 6887:9 & follow-up 6793:1 \\
\hline extra 6786:6 6825:6 & fate 6851:19 & 6948:17,18 & 6888:9 6891:9 & 6796:2 6843:18 \\
\hline 6825:6 6951:25 & 6852:24 & file 6884:24 & 6893:11 6897:5 & fond 6876:7 \\
\hline extraordinarily & faults 6926:17 & filed 6819:15,17 & 6901:16 6904:6,8 & Food 6788:14 \\
\hline 6934:9 & favorite 6940:22 & 6821:16 6848:8 & 6904:22 6905:17 & foot 6819:1 \\
\hline extreme 6950:25 & 6945:15 & 6869:7,14,21 & 6908:8 6913:25 & footprint 6873:24 \\
\hline extremely 6842:23 & favourably 6847:25 & 6929:5 6943:16 & 6914:5,11,14 & forage 6806:6 \\
\hline 6951:1 & fax 6935:25 & 6950:22 6953:11 & 6916:10,12 & forecast 6829:5,12 \\
\hline & faxes 6935:18 & filing 6857:13 & 6917:14,17 & 6829:15 6833:8 \\
\hline F & fear 6801:7 6898:17 & 6858:15 6866:1 & 6919:23 6920:19 & 6839:1,7 6857:24 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{5}{|r|}{Page 6969} \\
\hline foregoing 6957:7 & 6804:20 6806:13 & fundamental & 6893:12 & 6820:2 6825:3 \\
\hline foreseeable 6878:12 & 6807:21 6809:8 & 6851:21 6852:5 & gears 6817:6 & 6829:23 6832:1 \\
\hline forest 6954:15 & 6810:8 6811:4,5 & 6883:25 & general 6786:19 & 6874:1 6898:15 \\
\hline forestry 6954:12 & 6811:16,16 & Fundamentally & 6787:7 6790:4 & 6908:5 6932:22 \\
\hline forks 6807:6 & 6813:24 6814:23 & 6894:16 & 6812:19 6813:4 & given 6799:20 \\
\hline formal 6912:25 & 6816:25 6817:2 & fundamentals & 6813:22 6837:9 & 6833:4 6842:24 \\
\hline 6913:19 & 6821:18,22 & 6849:14 6850:8 & 6928:5 6932:18 & 6843:15 6849:12 \\
\hline forms 6898:15 & 6825:6 6826:21 & 6851:3,5,16 & generally 6795:25 & 6857:6 6882:19 \\
\hline formula 6950:7 & 6827:14,16 & 6875:20 & 6797:23 6802:19 & 6896:18 6897:23 \\
\hline formulae 6859:21 & 6828:22 6829:17 & funded 6955:9 & 6813:3 6833:22 & 6899:20 6913:15 \\
\hline forth 6789:24 & 6830:7 6831:23 & further 6802:3 & 6852:16 6881:19 & 6913:18 6943:18 \\
\hline 6794:13 6796:19 & 6833:9,17,21 & 6813:24 6847:14 & 6933:1 6939:2 & 6945:11 \\
\hline forthcoming & 6834:20 6835:7 & 6848:14 6875:16 & generating 6800:10 & glass 6822:22 \\
\hline 6852:13 6922:17 & 6837:2 6838:2 & 6876:4 6879:3 & generation 6830:23 & 6823:1 \\
\hline forward 6790:9 & 6839:18 6840:9 & 6884:7 6893:18 & 6831:9 6834:10 & Glenn 6783:25 \\
\hline 6791:24 6800:22 & 6840:10 6841:18 & 6894:8 6902:19 & 6841:1 6843:5 & globally 6850:22 \\
\hline 6801:7,18 6819:1 & 6842:9 6844:6,11 & 6903:17 6932:13 & 6844:18,18 & Gloria 6777:14 \\
\hline 6821:21 6822:4 & 6844:24 6845:6 & 6940:10 & 6868:10,17 & go 6781:19,23 \\
\hline 6840:10 6924:7 & 6850:5,9,11,13,15 & furtherance & 6929:21 6952:20 & 6784:4,21 6791:7 \\
\hline 6936:23 6942:25 & 6852:3,13 & 6799:14 & generic 6849:9 & 6791:12,24 \\
\hline 6944:1,7 6950:2 & 6863:22 6874:15 & future 6799:11 & 6889:20 6891:10 & 6800:17 6802:2 \\
\hline forward-looking & 6877:9 6881:10 & 6802:5 6828:25 & generically 6888:12 & 6802:21 6805:14 \\
\hline 6890:5 & 6881:14 6886:18 & 6830:22 6834:10 & gentleman 6811:16 & 6808:8 6810:9,11 \\
\hline found 6784:21 & 6891:25 6892:4 & 6834:13 6843:13 & 6886:18 6915:13 & 6812:13 6815:6 \\
\hline 6858:20 6904:13 & 6894:12 6896:3 & 6844:4,18 & gentlemen 6782:12 & 6818:3 6820:9,14 \\
\hline 6913:11 6920:1 & 6899:23 6900:13 & 6863:13 6883:5 & 6822:19 6847:15 & 6822:19 6826:2 \\
\hline 6922:4 6946:11 & 6903:2,6 6904:14 & 6885:8,12 6886:5 & George 6847:22 & 6828:5 6832:11 \\
\hline foundation 6862:19 & 6904:17,24 & 6886:11,15,21 & 6848:10 & 6833:9 6836:18 \\
\hline foundations & 6905:8,19 & 6889:2,17 6890:9 & Gerald 6782:6 & 6837:16 6848:2 \\
\hline 6792:11 & 6906:22 6910:25 & 6890:22 6898:11 & germane 6799:2 & 6848:11 6850:25 \\
\hline founded 6925:10 & 6912:22 6913:2 & 6898:17 6909:21 & 6915:18 & 6863:9 6865:22 \\
\hline four 6781:12 & 6915:13,18 & 6948:19 6950:8 & gets 6792:12 6838:6 & 6875:4 6879:25 \\
\hline 6844:23 6925:6 & 6919:9,9 6920:25 & futures 6859:25 & 6841:17 6942:3 & 6887:5 6896:3 \\
\hline 6930:7 6938:11 & 6924:2,17 6929:2 & 6886:8 & getting 6791:11 & 6903:22 6905:25 \\
\hline 6941:10,12 & 6929:3,12,19,24 & & 6802:8 6819:22 & 6906:1 6931:4 \\
\hline 6952:12 6956:2 & 6935:19 6938:14 & G & 6929:11 & 6939:15 6945:7 \\
\hline fox 6781:23 6795:7 & 6938:15,15,16 & G 6780:6,14 & GHA 6813:20 & 6947:13 6953:17 \\
\hline 6796:8 6798:22 & 6940:5 6943:10 & 6815:16 & 6814:2 & 6955:18 \\
\hline 6799:2 6870:16 & 6943:24 6944:16 & Gaile 6777:17 & Gibbons 6777:4 & goal 6897:1,2 \\
\hline fragmentation & 6944:22 6946:8 & 6927:20 & 6779:16 6783:2,4 & goals 6949:17 \\
\hline 6812:11 6908:11 & 6946:16 6952:8 & gain 6883:11 & 6785:18 6787:1 & goes 6799:25 6824:6 \\
\hline frame 6841:5 & front 6801:17 & 6917:23 & 6787:16 6789:16 & 6827:2 6830:17 \\
\hline 6843:16 6856:13 & 6802:16 6826:17 & gained 6891:25 & 6793:1 6794:10 & 6830:19 6835:6 \\
\hline framework 6841:14 & 6835:11 6837:21 & 6892:6 & 6794:15 6795:3 & 6839:24 6843:6 \\
\hline 6889:22,24 & 6839:5 6840:18 & gait 6782:15 & 6796:8,9,14 & 6864:20 6890:1 \\
\hline 6891:2,8 & 6905:25 6923:13 & game 6802:18 & 6798:14 6799:3 & 6895:4 6930:22 \\
\hline framework's & 6927:22 6929:15 & 6812:2 & 6841:25 6843:18 & 6940:22 6949:10 \\
\hline 6890:7 & 6930:20 6953:24 & gamut 6792:20 & 6845:16 6893:9 & going 6781:17 \\
\hline free 6786:12 & frustration 6859:14 & gap 6902:11 6938:1 & 6893:10 6896:10 & 6786:17,18 \\
\hline freeboard 6858:1 & fuel 6792:7 & gaps 6861:25 & 6899:11 6900:11 & 6789:3,4 6795:23 \\
\hline Friesen 6777:11 & fulfilled 6929:1,14 & Garland 6777:12 & 6902:16 6904:24 & 6797:11 6804:2 \\
\hline from 6779:6,15 & full 6786:2 6815:9 & Garson 6912:20 & 6905:19 & 6811:20,22 \\
\hline 6781:7,18,20 & 6817:25 6823:1 & gas 6891:7 & Gillam 6788:2 & 6815:5 6818:19 \\
\hline 6782:4,21 & 6877:5,9 6902:13 & gate 6812:1 & 6793:3,20 & 6818:23,24 \\
\hline 6785:10,13 & 6932:23 6933:3 & gates 6811:22 & 6794:11 6795:7 & 6820:9 6824:15 \\
\hline 6787:2,4 6789:20 & fully 6782:25 & 6812:15 & 6795:10 6796:21 & 6827:18 6830:8 \\
\hline 6791:13 6792:4 & 6861:24 6896:24 & gathering 6807:3 & 6796:24 6798:7 & 6831:5,7 6834:8 \\
\hline 6793:8 6796:22 & 6910:15 6918:21 & 6929:25 6930:8 & 6798:24 6913:14 & 6835:2 6837:5,7 \\
\hline 6797:11 6798:18 & function 6950:1 & 6934:5 6951:14 & Gimli 6781:22 & 6837:17 6840:11 \\
\hline 6800:14 6804:1 & fund 6923:7,10 & gave 6799:14 & give 6793:4,14 & 6842:13 6844:1 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline 6847:5 6874:12 & 6952:25 & 6899:21 & harvesters 6786:7 & hectares 6933:5 \\
\hline 6885:23 6888:20 & greatest 6914:21 & Gunn 6847:24 & 6920:3,5,10 & heel 6782:19 \\
\hline 6888:21,23 & 6916:4 & 6848:16 6849:5 & harvesting 6783:22 & Hegmann 6780:6 \\
\hline 6889:3,8 6890:8 & green 6777:4,18 & 6858:23 6864:6 & 6785:21 6786:5 & 6822:4 6847:23 \\
\hline 6890:24 6895:7 & 6809:4 6821:1,9 & 6866:11,16,22 & 6787:4,11,24,24 & 6848:4,10,12,21 \\
\hline 6901:3 6902:7,8 & 6825:22 6831:13 & 6869:9,22 & having 6782:13 & 6865:11,12,16,22 \\
\hline 6925:18 6935:10 & 6956:7 & 6873:12 & 6794:2 6803:19 & 6865:25 6866:9 \\
\hline 6935:17 6936:3 & Gretna 6833:10 & G1A/G2A 6820:18 & 6807:25 6818:25 & 6866:18,19,20,23 \\
\hline 6940:9 6941:13 & 6835:7,7 & & 6851:25 6920:4 & 6867:5,16,19,25 \\
\hline 6941:17,18 & grid 6949:10 & H & 6925:21,21 & 6868:2,4,5,11,19 \\
\hline 6945:1,7 6947:13 & grips 6896:24 & habitat 6803:7 & 6951:21 6952:8 & 6869:2,11,17 \\
\hline 6947:19 6950:1 & ground 6813:12 & half 6792:23 6810:9 & Hazel 6821:2 & 6870:4,10,18,24 \\
\hline 6952:5 6953:14 & 6939:6 & 6810:12 6817:24 & head 6791:4 & 6871:6,9,13,20,25 \\
\hline 6953:15,21 & grounded 6907:16 & 6822:22 6823:1,2 & 6819:11 6823:6 & 6872:4,8,15,20,23 \\
\hline gone 6825:13 & grounds 6863:13 & 6913:16 6935:25 & heading 6829:17 & 6873:8,25 6874:9 \\
\hline 6826:21 6910:11 & group 6786:23 & 6949:1 & 6930:20 & 6874:17,21 \\
\hline \(\boldsymbol{\operatorname { g o o d }} 6781: 3\) & 6791:11 6804:7 & halfway 6879:11 & headline 6878:20,21 & 6875:3,11 6876:6 \\
\hline 6782:11 6783:4 & 6820:5 6834:20 & halls 6862:7 & health 6922:13,16 & 6876:10,19,25 \\
\hline 6807:14,23 & 6835:4 6872:17 & hand 6792:4 & 6922:23 6926:23 & 6877:4,10,11,13 \\
\hline 6815:4 6818:17 & 6937:8 & 6861:13 6865:13 & 6949:25 & 6877:16,20 \\
\hline 6848:12 6850:14 & groups 6781:13 & 6884:20 6886:2 & healthy 6952:21 & 6878:2,13,17,22 \\
\hline 6850:17 6851:17 & 6787:20 6794:25 & 6919:4,5 & hear 6793:20 & 6878:25 6879:3 \\
\hline 6861:18,19 & 6807:5 6811:2,3 & handed 6899:22 & 6796:10 6818:10 & 6879:22 6880:3,7 \\
\hline 6864:5 6865:10 & grow 6788:25 & handful 6793:6 & 6868:4 6906:25 & 6880:12,16,24 \\
\hline 6873:3 6874:15 & 6807:23 6809:1 & handgun 6809:14 & heard 6781:20 & 6881:3,19 \\
\hline 6875:5 6876:20 & 6832:9 & handle 6796:24 & 6783:9 6809:22 & 6882:18,24 \\
\hline 6882:6,25 6884:2 & growing 6784:6 & 6910:16 & 6810:16 6811:4,4 & 6883:25 6885:15 \\
\hline 6884:2,12 & 6785:2 6809:5 & handled 6934:17,21 & 6811:15 6812:22 & 6888:2,8 6892:10 \\
\hline 6887:11 6891:4 & 6843:8 & 6935:16 6954:13 & 6813:6 6814:21 & 6894:13 6897:5 \\
\hline 6896:19 6906:18 & growth 6788:21 & 6955:12 & 6818:7 6821:18 & 6899:14 6900:13 \\
\hline 6914:2 6925:10 & 6843:11 & handout 6900:13 & 6846:19 6847:20 & 6901:5 6902:18 \\
\hline 6931:25 6945:2 & growths 6784:17 & hang 6950:8 & 6913:9 6920:6,25 & 6903:5,25 \\
\hline 6954:9 & guarantee 6862:11 & Hannon 6915:13 & 6923:6 6929:17 & Hegmann's 6779:8 \\
\hline Gord 6915:12 & guess 6781:5 & 6926:13 & 6930:11 6932:14 & 6779:9,11 \\
\hline Gore 6947:25 & 6785:19 6794:6 & happen 6831:10 & 6936:8 6939:13 & 6904:19,19,20 \\
\hline government & 6797:1 6803:16 & 6833:3 6857:24 & 6943:14,23 & 6905:10,11,13 \\
\hline 6850:10 6871:16 & 6803:18 6814:6 & 6888:4 6889:4 & 6951:20 & height 6788:5 \\
\hline 6886:19 6889:14 & 6814:23 6815:24 & 6891:11 6899:5 & hearing 6776:7 & 6815:25 \\
\hline 6893:7 6955:2,4 & 6817:17 6825:23 & 6915:22 6939:22 & 6820:6 6828:25 & held 6776:18 \\
\hline grain 6920:12 & 6885:6 6903:7 & 6941:18 & 6852:1 6895:25 & 6815:17 6933:5 \\
\hline Grand 6808:12,21 & 6935:11 & happened 6881:6 & 6904:2 6913:1 & 6952:13 \\
\hline 6820:10,19 & guidance 6850:10 & 6890:2 6892:16 & 6929:23 6932:4 & help 6791:16 \\
\hline 6821:6 & 6862:16 6875:20 & 6952:17 6953:6 & 6946:15 & 6796:11 6797:5 \\
\hline Grant 6801:12 & 6876:20 6880:21 & 6954:17 & hearings 6779:13 & 6851:16,19 \\
\hline 6802:25 & 6886:17,22 & happening 6857:22 & 6868:9,17 & 6889:13,17 \\
\hline granted 6805:18 & 6896:18 6901:25 & 6857:23 6881:7 & 6896:14 6904:22 & 6890:8 6891:25 \\
\hline grapple 6901:17 & 6903:2 & 6889:15 6890:21 & 6905:16 6907:3,5 & 6918:25 6919:12 \\
\hline grass 6820:21 & guide 6847:22 & 6924:8 & 6907:10 6908:8 & 6922:16 6933:9 \\
\hline 6821:6 & 6850:1 6855:8 & happens 6788:21 & 6928:1,14 & hence 6817:24 \\
\hline grasses 6785:3 & 6856:8 6862:15 & 6825:8 6834:16 & 6929:10 6930:16 & 6851:2 6853:10 \\
\hline grave 6917:12 & 6872:19 6873:11 & 6852:22 6854:14 & 6931:12 6939:12 & 6854:12 \\
\hline grazing 6919:10 & 6873:19 6874:7 & 6886:1 6889:6 & 6942:10,22 & herbicide 6783:15 \\
\hline great 6838:21 & 6875:19 6876:21 & hard 6848:18 & 6946:2,3,14 & 6783:17 6784:5 \\
\hline 6841:19 6844:25 & 6880:9,11,17,23 & 6946:2 & 6948:10 6952:16 & 6785:1,24 \\
\hline 6858:16 6863:15 & 6886:16 & hardship 6804:2 & 6954:12,18,19 & 6786:12 6787:2 \\
\hline 6926:23 6939:6 & guideline 6877:23 & harken 6930:14 & heart 6898:7 & 6787:17 6808:8 \\
\hline 6940:1 & 6879:1 & Harmonized 6798:7 & heat 6948:24,25 & 6808:16,22 \\
\hline greater 6832:21 & guidelines 6878:24 & 6798:24 & heated 6947:24 & 6809:3,15 \\
\hline 6858:1 6925:25 & 6880:5 6882:13 & harmony 6907:22 & heavily 6834:17 & herbicides 6783:21 \\
\hline 6943:25 6945:13 & 6882:17,22,23 & harvester 6920:15 & heavy 6792:5 & 6785:21 6786:1,8 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline 6789:19 6809:21 & 6853:25 6855:2 & 6941:10,25 & 6846:22,25 & 6849:23 6853:13 \\
\hline 6810:15 & 6862:3 6883:7 & 6942:24 6943:1,2 & 6948:2,20 & 6856:12 6859:6 \\
\hline herbiciding 6784:2 & 6886:22 6897:24 & 6943:16 6944:7 & III 6776:6 6777:10 & 6873:10 6875:13 \\
\hline 6784:19 6785:4,8 & 6948:13 & 6944:16 6946:6 & 6790:12,18 & 6876:3 6890:16 \\
\hline 6785:17 6786:19 & humanist 6948:14 & 6946:16 6950:2 & 6801:3,15 & 6894:14 6896:17 \\
\hline herbs 6919:22 & hundred 6804:6 & 6950:16 6954:9 & 6802:22 6803:8 & 6899:1,5,10 \\
\hline herd 6817:2 & 6826:23 6827:3,8 & hydroelectric & 6808:12 6825:7 & 6902:6 6943:25 \\
\hline 6916:20 6918:16 & 6827:13 & 6907:17 6909:18 & 6828:7 6830:21 & 6944:6 \\
\hline herds 6944:11,18 & hundreds 6908:14 & Hydro's 6781:10 & 6831:17 6834:21 & importantly 6884:3 \\
\hline hereinbefore & 6916:18 6921:24 & 6783:24 6787:8 & 6838:8,15,16 & 6889:17 \\
\hline 6957:9 & 6933:4 & 6787:21 6789:22 & 6842:8,13,21 & impression 6881:14 \\
\hline hesitating 6955:6 & hunt 6799:10 & 6809:23 6832:22 & 6843:25 6844:3,9 & improve 6851:1 \\
\hline high 6832:25 & 6801:1 & 6837:15 6839:12 & 6847:10 6848:15 & 6857:2 6859:12 \\
\hline 6837:3 6842:23 & hunters 6802:20 & 6839:22 6915:4 & 6848:24 6849:23 & 6953:18 \\
\hline 6845:14 6901:12 & 6804:15 6811:6 & 6922:3 6927:5 & 6851:23 6906:19 & improves 6936:20 \\
\hline 6902:1 6921:8 & hunting 6787:11,25 & 6929:19 6932:8 & 6907:14,24 & inadequate 6914:22 \\
\hline highly 6876:8 & 6807:2 6811:10 & hypothetical & 6908:2,20 6909:3 & inadvertent 6803:1 \\
\hline highway 6811:6 & 6812:3,9 6813:10 & 6859:25 6863:10 & 6909:15 6910:3 & inclined 6942:7 \\
\hline 6814:12 6816:16 & 6929:24 & 6884:20 6886:24 & 6910:25 6911:5 & include 6812:15 \\
\hline Hills 6807:17 & HVDC 6828:17 & & 6914:13,15 & 6898:20 6953:5 \\
\hline him 6848:6 6866:8 & hydro 6777:8 & I & 6916:13 6917:4 & included 6824:1 \\
\hline 6876:8 6913:5 & 6779:6 6780:2,4,6 & Ian 6777:22 & 6917:10 6918:10 & 6825:3,6 6847:6 \\
\hline hindsight 6881:9 & 6785:22 6786:9 & idea 6784:7 6791:7 & 6918:13,19 & 6879:20 6885:7 \\
\hline hire 6790:25 6791:1 & 6791:21 6793:8 & 6885:22 6894:10 & 6919:11 6922:15 & 6885:12 6886:25 \\
\hline hiring 6790:16 & 6794:1 6795:8,17 & 6895:17 6896:24 & 6925:20 6927:1 & 6895:4 6943:15 \\
\hline 6791:1,19 & 6796:22 6797:2 & 6935:4,5 & 6938:25 6939:5 & includes 6829:8,19 \\
\hline historical 6846:13 & 6797:20 6798:18 & ideal 6943:3 & 6939:16 6940:14 & 6830:1 6850:18 \\
\hline historically 6846:8 & 6798:20 6799:15 & 6945:11 & 6941:7,23 & 6864:14 6882:12 \\
\hline 6888:14 & 6799:21 6800:4 & idealist 6881:18 & 6944:12 6948:19 & 6921:24 \\
\hline history 6817:18 & 6801:8 6802:4 & idealistic 6882:20 & illustrate 6888:12 & including 6798:22 \\
\hline 6850:21 & 6803:17 6806:12 & ideally 6944:1 & imagine 6948:22 & 6811:3 6813:8 \\
\hline hit 6784:7,8 & 6817:9 6821:22 & 6945:15 & immeasurably & 6854:17,21 \\
\hline hold 6898:3 6950:8 & 6822:8 6823:16 & ideals 6861:7,10 & 6927:13 & 6855:21 6858:22 \\
\hline holder 6846:14 & 6828:8,19 & identical 6831:25 & immersed 6862:10 & 6863:4 6871:22 \\
\hline holds 6932:20 & 6831:17 6833:2 & 6920:9 & impact 6800:22 & 6873:15 6878:7 \\
\hline hole 6936:10 & 6834:13 6835:5 & identification & 6802:23 6806:13 & 6882:14 6887:2 \\
\hline holistically 6941:6 & 6836:24 6841:1 & 6943:5 & 6869:16 6870:2 & 6898:21 6937:16 \\
\hline home 6802:21 & 6842:7,20 6843:2 & identified 6803:3 & 6872:11,24 & 6937:16,17 \\
\hline 6949:9 & 6846:5,21 6848:2 & 6812:18,25 & 6884:1,15 & 6940:6 6949:19 \\
\hline homeland 6909:12 & 6866:3,10 & 6814:2,8,12,14 & 6894:22 6897:14 & 6955:9 \\
\hline honour 6909:23 & 6868:25 6869:7 & 6819:9 6846:25 & 6901:20 6931:24 & inclusive 6798:22 \\
\hline 6915:10 & 6869:15 6882:15 & 6871:21 6873:12 & 6932:7 & 6914:24 6924:24 \\
\hline hook 6806:12 & 6902:19 6904:17 & identifies 6875:21 & impacted 6909:11 & income 6800:11 \\
\hline hope 6841:25 & 6905:8 6906:20 & identify 6782:20 & impacts 6835:2 & 6929:24 \\
\hline 6848:21 6903:22 & 6907:9,11 & 6786:22 6823:16 & 6907:6,12,14,24 & incomprehensible \\
\hline 6926:23 & 6908:22,23,25 & 6867:17,22 & 6908:2,16,20 & 6909:5 \\
\hline hopeful 6936:24 & 6909:6,20,21 & Identifying 6878:20 & 6909:18 6929:23 & inconsistent 6900:8 \\
\hline hopefully 6816:18 & 6910:4,8 6911:7 & ignores 6832:24 & 6931:17 6932:15 & incorporate \\
\hline 6914:9 6948:14 & 6914:13 6916:17 & 6845:3 6919:8 & 6940:7 & 6881:15 6903:5 \\
\hline hoping 6794:21 & 6917:8,19,20,24 & II 6795:19 6796:1 & implication 6915:17 & incorporation \\
\hline 6795:1 6846:15 & 6918:22,24 & 6797:3 6808:13 & implications 6860:5 & 6891:1 6926:22 \\
\hline 6925:8 & 6919:20 6920:20 & 6808:15,18,21 & 6898:9 & increase 6831:2,2 \\
\hline horizon 6888:21 & 6921:16,17,20,22 & 6817:9 6818:8 & implied 6896:21 & 6834:3 6947:9 \\
\hline horizons 6877:6 & 6922:2,7,17 & 6820:18 6823:17 & implies 6831:4 & increased 6812:9 \\
\hline horse 6819:22 & 6923:3,9 6924:16 & 6824:9 6827:2,14 & import 6834:3 & increasingly \\
\hline hour 6782:9 & 6925:3,19 6926:6 & 6827:16,24 & 6843:8,9 & 6921:13 6922:11 \\
\hline House 6930:18 & 6927:4 6929:7,16 & 6842:9,15,24,25 & importance 6853:5 & incredible 6939:10 \\
\hline 6947:8 & 6931:23 6934:14 & 6843:12,25 & 6881:25 & incremental 6854:8 \\
\hline huge 6940:13 & 6936:15 6937:4,9 & 6844:2,10 & important 6804:14 & incur 6801:14 \\
\hline human 6851:15 & 6939:9 6940:1 & 6845:11,22,25 & 6812:7,22 6838:2 & 6806:4 \\
\hline
\end{tabular}
incurred 6830:17
indeed 6820:17,22
6850:22 6873:12
6874:6,7 6884:19
6886:5 6898:13
6901:21
independent
6942:21 6943:3
6943:25 6952:3
6955:1
INDEX 6779:1 6780:1
indicate 6785:23,23
6786:10 6894:5
indicated 6794:22 6802:21 6809:8,9
6835:5 6847:25
6869:3 6902:15
6910:2 6915:23
6921:16,19,22
6956:5
indicating 6903:11
indicators 6782:16
indifference 6916:9
individual 6790:3
6800:18 6804:10
6804:25 6809:16
6857:14 6859:1
6861:2
individuals 6821:21
6871:21 6873:14
6873:15 6890:5
indulgence 6927:16
industries 6818:17
industry 6818:16,16
inevitable 6917:6
infamous 6921:23 6924:14
influenced 6893:3
inform 6797:6 6798:9
information
6795:18 6801:17
6810:17 6823:19
6823:21 6824:1
6826:22 6851:18
6856:4 6858:5,15
6859:4 6864:23
6864:25 6866:1
6870:11 6884:2
6885:1,25
6887:11,14
6891:5,21,24
6900:15,21,25
6901:10 6915:4,6
6915:18 6924:7
6925:11,14
6928:15 6938:17
6938:18,20
6939:8 6941:12
\begin{tabular}{|c|c|}
\hline 6942:25 6943:25 & interest 6792:16 \\
\hline 6945:6,18 & 6795:10 6849:2 \\
\hline 6951:10 & 6853:17,17 \\
\hline informative & 6946:9 \\
\hline 6797:10 6896:7 & interested 6791:13 \\
\hline informed 6795:22 & 6791:23 6794:2 \\
\hline 6796:4 & interesting 6883:16 \\
\hline informing 6913:12 & interests 6799:2 \\
\hline initial 6952:16 & 6907:8,12 \\
\hline initially 6834:4 & interfere 6806:10 \\
\hline 6843:8 6880:5 & 6807:15 \\
\hline initiation 6897:20 & intermittent 6790:1 \\
\hline initiative 6889:21 & 6937:21 \\
\hline initiatives 6861:5 & internal 6796:3 \\
\hline innovation 6859:21 & 6798:20 \\
\hline 6948:7,13 & International \\
\hline input 6813:19 & 6794:17 \\
\hline insanity 6926:19 & internet 6953:8 \\
\hline insight 6851:12 & interpretation \\
\hline 6855:24 6856:4 & 6844:2 6884:4,9 \\
\hline 6862:3 6866:21 & 6901:11 \\
\hline
\end{tabular}
intersection 6921:9
interventions 6943:19
interviews 6791:25 6933:16 6934:6
intriguing 6883:23
introduce 6895:17
introduced 6886:18 6894:19
introducing 6863:14 6875:12 6906:14
introduction 6793:2
introductory 6866:14
intuitive 6852:24
investigation 6884:10 6939:4
involved 6785:10,14 6792:15 6804:6 6857:8 6864:3 6891:7 6919:16 6929:3 6940:16 6940:25 6947:18
involvement 6802:10
involves 6798:25 6800:12
in-depth 6942:20
in-house 6942:24
in-province 6950:7
in-service 6835:8 6839:2,25
isolated 6797:13
issuance 6910:18
issue 6799:13 6800:22 6801:19 6808:8,9 6812:8 6814:13 6816:25

6818:15 6842:16 6843:23 6845:14 6849:1,2 6859:10 6868:3 6885:17 6897:4 6921:5 issued 6907:11 6923:11 6924:12 issues 6804:9,14 6807:25 6814:14 6819:23 6821:13 6844:20 6845:7 6856:12,13,17
i.e 6899:25
\(\frac{\mathbf{J}}{\mathbf{J} \text { 6780:12 6957:5,14 }}\)
James 6777:19
Janet 6777:9
January 6792:22
Jason 6777:16
job 6792:18
6855:25 6861:13
6892:3
jobs 6949:18
John 6778:3 6914:3 6914:25 6925:16
Johnson 6777:5,9
6904:13 6906:10
joining 6915:15
joint 6790:14,20
jointly 6833:20
judge 6833:3
judgment 6854:12 6884:4
July 6823:18 6869:15 6943:17
jump 6955:22
junk 6945:3,9 6946:10
junkscience.com 6945:4
jurisdictions 6949:6
just 6782:19 6787:5 6788:8 6789:1
6793:11,18
6796:7 6799:6
6802:3 6803:13
6804:11 6805:23
6806:23 6808:8
6810:14 6811:7
6811:11 6814:20
6815:10 6817:8
6817:14,16
6818:6 6819:13
6822:15 6825:3,5
6828:13 6829:22
6833:9 6834:7
6835:7 6836:4
6841:7,9 6843:18
6848:6 6853:1

6854:24 6862:2
6865:12 6867:8
6869:24 6873:18
6874:11 6875:3,5
6876:22 6880:7
6882:6 6883:21
6888:21 6897:20
6898:3,16
6899:11 6900:9
6902:25 6903:9
6903:10 6906:8
6906:13 6911:18
6912:17 6913:11
6915:21 6917:23
6919:5 6921:4
6926:16 6930:15
6932:12,23
6936:1,6 6938:22
6943:18 6948:23
6952:4 6954:2,24
Justice 6915:13
6926:14
justified 6855:17
juxtaposed 6852:8
K
Kaplan 6777:3
6799:5,6 6802:2
6803:12 6893:8
Kaplan's 6822:13
Karen 6777:11
Keating 6777:22
keep 6824:16
6889:3 6897:1
6931:8
keeping 6848:7
keeps 6835:21
6846:5 6931:2
Keewatinoow 6795:24 6796:6 6796:16 6797:7 6797:14,18 6908:13 6910:15
6911:21 6912:2
Keeyask 6955:22
Ken 6777:4
Kettle 6807:17
kilometre 6815:15
6815:18 6824:2
6826:9 6827:11
6829:9,14 6830:2
6839:18 6931:24
kilometres 6826:22
6826:23 6827:3,5
6827:8,13,17,21
6827:22 6828:17
6829:20 6847:7
6908:11 6932:9
kind 6783:23
6787:19 6790:1

Page 6973
\begin{tabular}{|c|c|c|c|c|}
\hline 6790:10 6792:3 & 6865:1 6900:15 & 6929:17 6931:25 & 6881:10 & limits 6861:17 \\
\hline 6792:22,23 & 6900:21,24 & 6934:18,21 & let 6781:19 6821:13 & 6862:1,8,20,22 \\
\hline 6798:15 6815:20 & 6915:9 6922:11 & 6935:11 6941:22 & 6822:21 6829:3 & 6864:10 6883:23 \\
\hline 6818:18 6833:23 & 6926:1 6931:15 & 6946:23 6950:23 & 6838:4 6912:23 & 6884:6,11 6885:3 \\
\hline 6843:16 6846:14 & 6937:22 & 6954:2 6955:21 & letter 6779:4,9 & line 6790:23 \\
\hline 6903:4 6929:20 & ladies 6782:12 & later 6782:2 & 6804:13 6812:1 & 6794:12 6795:13 \\
\hline 6930:7 6933:8 & laid 6813:16 & 6784:13,15 & 6865:24 6866:3,7 & 6795:25 6796:18 \\
\hline 6935:24 6937:22 & Lake 6795:7 6796:8 & 6834:14 6835:16 & 6867:21 6904:16 & 6799:24 6803:14 \\
\hline 6940:22,25 & 6798:23 6799:2 & latter 6857:19 & 6904:19 6905:6 & 6804:16 6806:9 \\
\hline 6942:20 6948:7 & 6870:17 6911:10 & 6860:13 & 6905:11 6921:23 & 6807:15,20,25 \\
\hline 6952:9 & 6912:5,6 6916:5 & launched 6950:20 & 6935:23 6936:2 & 6808:22 6811:1 \\
\hline kinds 6791:15 & 6921:21 & Laverendrye & let's 6896:3 6903:24 & 6813:9,10 6814:4 \\
\hline 6792:1 6896:20 & Lake's 6921:18 & 6839:17,19 & level 6835:22 & 6815:12 6816:14 \\
\hline 6933:16 6934:13 & Laliberte 6777:12 & 6842:14 6844:1,3 & 6836:19 6892:9 & 6816:21,21 \\
\hline 6936:17 6947:1 & land 6806:2,3,5 & 6844:10 6847:1,5 & 6902:10 6924:5 & 6824:2,5 6825:22 \\
\hline 6948:21 & 6817:7,10,23 & Lawson 6821:18 & 6954:13 & 6826:7,9,23 \\
\hline knew 6786:8 & 6818:8 6836:3,8 & lawyers 6799:20 & levels 6889:12 & 6827:1,7,11,17 \\
\hline know 6782:14 & 6837:2 6858:16 & lay 6811:19 6837:2 & 6921:9 & 6828:1,17 6829:1 \\
\hline 6789:3,6,7 6790:1 & 6881:23 6883:13 & 6855:2 6879:15 & liability 6917:7 & 6829:7,9,13,14,17 \\
\hline 6794:6 6798:16 & 6888:17 6890:15 & lead 6796:4 6840:1 & library 6940:2 & 6830:3,8,16 \\
\hline 6802:9 6804:5 & landowner 6817:22 & 6840:6,13 & licence 6814:23 & 6831:3,10 6832:5 \\
\hline 6807:21,24 & landowners & 6879:24 6915:16 & 6907:11 6910:19 & 6833:7,8,12,18,21 \\
\hline 6811:1 6816:10 & 6951:12 & 6924:20 6926:15 & 6911:6 6918:9 & 6834:3 6835:2,19 \\
\hline 6817:21 6821:15 & lands 6805:24 & leading 6871:18 & 6923:9,11 & 6835:21,23 \\
\hline 6828:22 6833:5 & 6806:18 6838:11 & 6872:18,22 & 6946:18 & 6836:1,1,7,7 \\
\hline 6834:12 6835:22 & 6886:20 6909:2 & leads 6841:25 & licences 6801:1 & 6837:7,8,16,22,25 \\
\hline 6836:18 6843:3 & 6918:17 6919:1,2 & learn 6850:25 & 6802:18 & 6838:6,16 6839:5 \\
\hline 6844:24 6846:11 & 6919:5,19 & learned 6881:10 & licensed 6911:5 & 6839:7,18,21,24 \\
\hline 6890:5 6896:16 & 6930:18 6934:15 & 6892:4 & 6921:14 & 6841:1 6843:7,9 \\
\hline 6912:24 6913:10 & landscape 6859:23 & learning 6864:19 & licensing 6889:11 & 6844:5,6,24 \\
\hline 6913:18 6920:15 & 6883:8 6888:20 & 6902:9 & 6953:2,3 6954:12 & 6845:6 6925:3 \\
\hline 6926:6 6931:4 & 6889:1 6897:21 & lease 6806:15,16,17 & Lidar 6810:19,22 & 6948:15 \\
\hline 6934:20 6935:22 & landscapes 6851:15 & leases 6806:2,4 & lies 6851:24 & linemen 6792:12 \\
\hline 6935:23 6936:4 & language 6883:17 & least 6789:22 & life 6845:11 & 6793:22,24,24 \\
\hline 6938:19 6939:19 & 6899:18 6928:17 & 6854:25 6860:24 & light 6882:21 & 6794:1 6818:20 \\
\hline 6944:24 6947:20 & 6931:9,11 & 6879:13 6897:16 & lighting 6921:10 & lines 6809:2 \\
\hline 6948:1 & 6941:21 6942:9 & 6901:24 6918:17 & like 6791:19 6800:4 & 6810:21 6818:19 \\
\hline knowing 6786:2 & large 6784:6 & leave 6788:18 & 6803:13 6806:12 & 6845:11,12 \\
\hline 6815:5 6936:8,9 & 6803:25 6807:18 & 6793:13 6862:12 & 6807:13 6808:7 & 6908:12 6912:4 \\
\hline 6936:13 & 6814:25 6861:4 & 6902:7 & 6809:17 6810:5 & lingo 6894:21 \\
\hline knowledge 6797:4 & 6873:20 6888:25 & leaves 6784:8 & 6811:7,11 & list 6860:25 6882:12 \\
\hline 6807:10 6808:6 & 6890:20 & 6820:25 6916:8 & 6813:20,23 & listed 6798:1 \\
\hline 6861:21 6933:13 & largely 6783:7 & leaving 6855:14 & 6819:13 6820:8 & 6831:13 \\
\hline 6951:14 & 6835:19 & left 6782:22 & 6821:2 6822:9 & listen 6939:11 \\
\hline known 6786:1 & larger 6784:16 & 6789:15 6919:5 & 6823:8 6882:10 & listening 6946:16 \\
\hline 6878:8 6933:2 & 6785:3 6788:23 & 6921:15 & 6896:12 6906:23 & literature 6852:15 \\
\hline knows 6804:21 & 6860:15 6861:7 & legal 6903:2 6946:5 & 6911:24 6913:19 & 6858:22,25 \\
\hline 6805:18 6842:1 & 6864:14 6873:24 & legislative 6851:8 & 6914:5 6923:7,13 & 6864:7 \\
\hline 6916:4 & 6883:12 6919:3 & legitimacy 6856:16 & 6926:25 6950:15 & litres 6916:18 \\
\hline know-how 6948:8 & largest 6850:20 & legitimate 6801:8 & likely 6833:17 & little 6782:1 \\
\hline kV 6824:2 6826:23 & 6918:16 & 6801:15 6804:7 & likewise 6869:12 & 6797:12 6799:19 \\
\hline 6828:25 6829:7,9 & last 6785:20 & 6805:19 & 6887:5 & 6814:20 6846:3 \\
\hline 6829:14,20 & 6794:16 6795:4 & legs 6916:9,20 & like-minded & 6846:16 6865:13 \\
\hline 6830:2,4,16 & 6808:17 6815:7 & length 6827:6 & 6864:17 & 6865:22 6867:15 \\
\hline 6831:3 6834:2 & 6823:4 6827:18 & less 6784:19,19 & limit 6811:13 & 6876:23,25 \\
\hline 6844:6 & 6833:15 6846:19 & 6846:17 6855:16 & 6813:4 6815:2 & 6882:20 6917:4 \\
\hline & 6893:13,25 & 6885:11 & limited 6786:10 & 6919:13 6923:22 \\
\hline L & 6900:11,12 & lessee 6806:7,8,20 & 6801:17 6815:16 & 6932:22 6933:20 \\
\hline lack 6857:4 6858:8 & 6909:2 6912:15 & lesser 6795:12,14 & 6815:21 6834:20 & 6935:7,12,14 \\
\hline 6864:23,25 & 6913:14 6925:15 & lessons 6875:6 & 6835:4 & 6936:1 6938:20 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline 6946:22 6953:17 & 6946:11 & 6842:23 6870:25 & 6781:10 6788:13 & 6861:5 6865:3,3 \\
\hline live 6908:24 & looks 6809:17 & 6871:2 6910:13 & 6791:21 6793:22 & 6881:5 6885:18 \\
\hline livelihoods 6800:13 & 6820:8 & MAFRI 6919:8 & 6793:25 6794:1,6 & 6890:19 6892:16 \\
\hline livestock 6806:11 & lose 6953:19 & main 6848:14 & 6812:6 6814:23 & 6893:5 6895:15 \\
\hline load 6833:2 6843:11 & loses 6920:12,15 & 6938:11 & 6815:17 6819:15 & 6895:22 6897:7 \\
\hline local 6789:19,20 & losing 6946:19 & maintain 6814:24 & 6823:16 6828:8 & 6901:22 6902:2,3 \\
\hline 6790:6,7 6791:6 & loss 6804:21 6808:3 & 6815:2 & 6828:19 6831:17 & 6908:14 6912:21 \\
\hline 6791:16,17 & 6808:3 6813:10 & maintenance & 6832:22 6833:1 & 6934:11 6937:18 \\
\hline 6798:22 6932:2 & 6842:22 6843:4 & 6783:18 6788:15 & 6833:17 6834:10 & 6943:19 6949:13 \\
\hline 6949:20,21 & 6845:15 6920:4 & 6813:12 & 6834:13 6835:5 & 6955:21 \\
\hline located 6795:11 & 6929:24 & major 6811:2 & 6836:24 6837:15 & mapped 6807:16 \\
\hline 6912:4 & losses 6802:11 & 6849:9 & 6839:12,22 & maps 6935:13 \\
\hline location 6793:16 & lost 6925:10 & majority 6790:17 & 6842:7,20 6843:2 & 6937:2,13,16,19 \\
\hline 6843:11 6845:19 & lot 6782:16 6784:24 & 6917:18 6947:7 & 6846:4 6848:2,23 & 6938:11,12 \\
\hline 6936:6 & 6788:23 6806:25 & make 6781:13 & 6865:20 6866:3 & 6940:5 \\
\hline locations 6805:14 & 6806:25 6807:19 & 6790:6 6801:9 & 6866:10 6868:15 & March 6776:19 \\
\hline 6952:12 & 6810:7 6811:24 & 6804:25 6838:22 & 6868:25 6869:7 & 6779:2 6781:1 \\
\hline Lodge 6804:6 & 6813:6,25 6815:5 & 6839:21 6854:12 & 6869:15 6882:10 & 6792:22 6825:10 \\
\hline long 6804:22 & 6816:19 6817:18 & 6855:19 6856:18 & 6882:14 6902:19 & 6904:14 6905:4 \\
\hline 6822:23 6892:16 & 6818:10 6823:3 & 6863:21 6864:24 & 6904:9,17 6905:8 & 6910:1 \\
\hline 6900:6 6901:18 & 6845:7 6877:17 & 6894:17 6899:9 & 6906:20 6907:9 & mark 6786:24 \\
\hline 6907:16 6943:19 & 6888:20 6937:7 & 6900:17 6910:22 & 6907:11 6908:23 & marked 6875:2 \\
\hline 6946:3 6948:14 & 6939:13 6940:2 & 6921:7 6925:13 & 6910:8 6911:7 & markers 6785:23 \\
\hline longer 6817:24 & 6945:5,6 6946:7 & 6926:21 6932:17 & 6914:5,13 6916:7 & market 6817:15 \\
\hline 6930:4 6937:10 & 6947:16 6951:25 & 6947:19 6951:8 & 6920:20 6922:7 & 6950:9 \\
\hline 6937:10 & 6952:15,18,19 & 6951:20 6953:19 & 6923:19 6924:1 & marketable 6793:15 \\
\hline longer-term & 6954:23 6955:7 & maker 6859:2 & 6924:16 6925:3 & marks 6918:1 \\
\hline 6793:12 & lots 6789:14 & 6901:13 & 6925:19 6926:14 & Marshall 6948:4 \\
\hline longest 6918:18 & 6921:20 6949:6 & makers 6851:18 & 6927:18,20 & marten 6781:21 \\
\hline long-established & loud 6868:3 & 6856:3 & 6928:14 6929:2,6 & 6782:8 \\
\hline 6800:11 & 6947:17 & makes 6844:11 & 6929:16,19 & massive 6909:13 \\
\hline long-standing & low 6785:2 6790:1 & 6850:17 6864:1 & 6931:23 6932:8 & match 6861:10 \\
\hline 6858:23 & 6809:7 6934:10 & 6900:13 & 6932:21 6934:14 & material 6821:17 \\
\hline long-term 6793:8 & Lowe 6780:10 & making 6804:18 & 6934:25 6936:15 & 6867:6 6869:2,14 \\
\hline 6800:12 6862:7 & 6906:5,7,13 & 6854:9 6863:19 & 6936:19 6937:4,9 & 6869:19 6884:24 \\
\hline look 6791:8 6807:11 & 6912:1 & 6895:19 6932:21 & 6937:20,21 & 6899:20 \\
\hline 6808:13 6812:25 & LP 6925:24 & 6951:5,19 6952:4 & 6939:8 6940:1,3 & materials 6779:19 \\
\hline 6814:14,18 & luck 6815:4 & manage 6797:11 & 6941:10 6942:6 & 6865:20 6874:4 \\
\hline 6822:9 6837:2 & lucky 6940:4 & 6860:8 6861:1 & 6943:1,16 6944:7 & 6874:13 6903:10 \\
\hline 6844:17 6853:25 & lunch 6902:23 & 6883:11 6890:21 & 6944:16 6946:5 & 6905:1,22 \\
\hline 6882:20 6886:4,4 & 6903:20 & 6891:5 6895:1 & 6946:16 6947:16 & mathematics \\
\hline 6890:9 6899:3,4 & & managed 6822:11 & 6949:1,20 & 6828:14 \\
\hline 6900:20 6908:23 & M & management & 6950:12,15 & matter 6832:19 \\
\hline 6930:6 6932:23 & MacKay 6777:3 & 6810:17 6812:20 & 6952:8,15,17 & 6843:13 6855:3 \\
\hline 6938:10 6941:8,9 & 6804:11 6805:3,6 & 6813:8,17 & 6953:11,20 & 6879:15 6880:15 \\
\hline 6941:11 6945:3 & 6805:9,22 & 6814:11,17 & 6955:2 6957:6 & 6881:21,24 \\
\hline 6950:15 & 6806:23 6808:4,7 & 6874:15 6889:23 & Manitoban 6940:4 & 6898:18 6900:10 \\
\hline looked 6813:21 & 6809:6,20 6810:2 & 6890:25 6901:19 & Manitobans 6791:5 & 6915:3,25 6917:3 \\
\hline 6833:19 6844:21 & 6810:14,24 & 6911:11 6912:6 & 6949:23 6950:10 & 6917:10 6918:21 \\
\hline 6844:22 6895:4 & 6821:4 6887:16 & 6954:15 & Manitoba's 6916:24 & 6924:11 6925:20 \\
\hline 6895:19 6934:1 & 6887:18 6888:7 & mandate 6853:16 & manner 6934:21 & 6947:2 6955:17 \\
\hline looking 6796:12 & 6892:5 & 6884:22 & many 6781:12 & matters 6849:21 \\
\hline 6797:13 6798:15 & Madam 6904:12 & mandated 6859:8 & 6783:10 6789:2 & 6852:3 6858:12 \\
\hline 6825:10 6831:4 & Madden 6777:16 & 6891:18 6947:11 & 6807:4,4 6810:9 & 6869:21 6879:19 \\
\hline 6835:1,13,14 & Madden's 6779:2 & 6949:16 & 6818:1 6819:23 & 6884:10,15,23 \\
\hline 6841:15 6844:20 & 6904:14 6905:3 & mandates 6831:21 & 6828:21 6834:11 & 6901:22 6910:9 \\
\hline 6845:1 6846:23 & made 6788:4 & Manitoba 6776:1 & 6838:20 6850:8 & 6927:2 6938:22 \\
\hline 6862:12 6864:15 & 6789:17 6795:23 & 6776:19 6777:6,8 & 6850:12 6857:22 & 6942:9 6944:6 \\
\hline 6883:6 6894:23 & 6797:6 6803:23 & 6777:15,17,18 & 6858:2,24 & 6945:9 6946:8 \\
\hline 6898:20 6925:8 & 6812:6 6823:18 & 6779:6 6780:14 & 6859:15 6860:21 & may 6781:8 6783:18 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline 6784:14 6786:3 & McGarry 6780:2,4 & meets 6864:4 & 6951:12 & Minneapolis 6947:5 \\
\hline 6790:2,7 6792:17 & 6782:11 6788:8 & megawatts 6832:8 & metre 6931:14,17 & Minnesota 6833:21 \\
\hline 6796:23 6799:8 & 6796:7,11 6797:8 & 6832:10 6834:4 & metres 6788:5 & 6836:25 6947:6 \\
\hline 6799:12 6802:24 & 6798:21 6800:9 & 6843:8 & 6815:25 & minor 6803:6 \\
\hline 6805:17,19 & 6802:15 6803:16 & member 6777:3,3,4 & MH 6779:6,8,9,11 & 6917:16,22 \\
\hline 6815:1 6817:23 & 6804:24 6805:5 & 6926:13 & 6779:13 6904:18 & minute 6805:24 \\
\hline 6831:10,10,10 & 6805:10 6806:3 & members 6781:7,16 & 6904:21,23,24 & 6820:5 \\
\hline 6832:5 6836:9,24 & 6807:10 6808:6 & 6841:24 6872:17 & 6905:7,10,11,13 & minutes 6809:22 \\
\hline 6847:19 6851:12 & 6811:24 6814:6 & 6906:18 6919:25 & 6905:15,18 & 6819:10 6919:21 \\
\hline 6853:7,18 6854:1 & 6816:15 6817:12 & 6922:16 6937:9 & Michael 6777:4 & miss 6854:17,20 \\
\hline 6855:12,16,22 & 6841:7 6921:19 & membership & mid 6918:20 & missed 6787:14 \\
\hline 6857:22,24 & McGraw 6805:13 & 6798:18 6917:17 & middle 6834:1 & 6839:15 6855:12 \\
\hline 6859:4 6861:5 & mean 6801:20,23 & memo 6779:2 & 6845:21 & 6856:14 \\
\hline 6865:18 6866:15 & 6807:3 6815:4 & 6904:14 6905:3 & midst 6909:18 & missing 6825:24 \\
\hline 6873:21,23 & 6817:15 6819:20 & memory 6871:14 & might 6785:24 & 6842:18 6847:7 \\
\hline 6874:7 6876:3 & 6846:19,25 & mentioned 6789:18 & 6787:3,10 6788:7 & misunderstood \\
\hline 6882:6 6883:7,12 & 6847:9 6857:10 & 6808:9 6816:16 & 6806:1 6811:19 & 6838:13 \\
\hline 6884:10,11,18,22 & 6881:6 6883:19 & 6843:1 6867:6 & 6812:13,14 & mitigable 6803:3 \\
\hline 6885:19 6887:13 & 6885:8 6886:21 & 6883:2 6897:10 & 6813:1,13,21 & mitigate 6895:1 \\
\hline 6889:2,3,4 6890:9 & 6899:1,6 6900:4,5 & 6911:20 6943:6 & 6815:6 6816:13 & mitigation 6815:9 \\
\hline 6894:6 6896:4 & meanders 6813:9 & mentioning 6884:13 & 6822:9 6828:20 & 6815:11,14 \\
\hline 6898:5,15,23 & meaning 6852:25 & mere 6789:25 & 6834:11 6835:18 & 6816:5 6870:9 \\
\hline 6899:5,9,10 & 6897:8 & merit 6801:10 & 6837:10 6846:3 & 6909:24 6910:23 \\
\hline 6908:23 6911:16 & meaningful 6851:18 & 6854:22 & 6846:23 6878:6 & 6926:8 \\
\hline 6915:24,24 & 6926:22 & merits 6853:15 & 6882:20 6888:18 & mitigations 6815:20 \\
\hline 6922:13 6928:10 & meanings 6875:13 & Meronek 6777:11 & 6893:22 6896:18 & MMF 6779:2,4 \\
\hline 6930:6 6934:10 & means 6851:11 & 6780:5 6822:18 & 6896:20 6897:4 & 6783:20 6904:15 \\
\hline 6936:22 6942:18 & 6852:12 6853:2 & 6822:21 6823:1 & 6898:17 6900:4 & 6905:3,5 6929:12 \\
\hline maybe 6796:11 & 6858:19 6876:2 & 6823:13,15,25 & 6909:9 6935:2,19 & MMM 6834:20 \\
\hline 6805:22 6806:6 & 6937:12 6947:8 & 6824:5,15,19,25 & 6936:25 6945:23 & 6835:4 6937:8 \\
\hline 6846:3 6890:6 & 6948:17 & 6825:8,13 6826:1 & 6948:22 & model 6907:21,22 \\
\hline 6932:22,23 & measurable & 6826:11,13,18,21 & miles 6782:9 6916:8 & modeling 6898:21 \\
\hline 6948:6 6952:12 & 6854:25 6879:13 & 6827:12,20 & million 6824:23 & modelled 6860:21 \\
\hline 6955:5 & 6895:2 6897:21 & 6828:4,16 6829:3 & 6825:14,22 & models 6859:24 \\
\hline Mayor 6777:9 & measure 6839:11 & 6829:19,22 & 6826:3,5,6,10,14 & modernizing \\
\hline 6794:15 6799:21 & measures 6797:23 & 6830:1,5,12,15,25 & 6828:6 6829:15 & 6845:24 \\
\hline 6847:19 6866:5 & 6798:9 6811:25 & 6831:11 6832:18 & 6829:16 6831:2,2 & modest 6910:13 \\
\hline 6866:13 6867:12 & 6812:13,16 & 6833:6,25 & 6839:11,22 & moment 6787:17 \\
\hline 6902:21 6903:16 & 6813:1,7,15,21,22 & 6834:18 6835:3 & 6845:23 6847:2 & 6798:17 6808:8 \\
\hline 6903:18 & 6814:15 6816:5 & 6835:17,18,25 & millions 6800:3 & 6825:3 6832:1 \\
\hline Mazur 6780:4 & mechanical 6784:24 & 6836:6,11,13,20 & mills 6778:3 & 6857:7 6875:3 \\
\hline 6823:11,13,23,24 & mechanically & 6837:8,13,22,24 & 6780:12 6914:1,2 & 6887:8 6889:5,6 \\
\hline 6824:4,8,18,24 & 6810:7 & 6838:1,6,12,18,24 & 6927:8,10,15 & 6898:2,3,16 \\
\hline 6825:2,12,15 & mechanism 6945:15 & 6839:6,24 6840:6 & 6955:7 & 6902:23 \\
\hline 6826:5,12,16,19 & mechanisms 6865:3 & 6840:10,17,20 & mind 6798:7 6812:8 & momentarily \\
\hline 6826:25 6827:16 & 6890:19 & 6841:6,8,19,21 & 6882:1 6894:10 & 6888:10 \\
\hline 6827:22 6828:11 & media 6818:10 & met 6823:4 6910:8 & 6896:17 6926:19 & moments 6876:11 \\
\hline 6828:20 6829:16 & 6941:14 & 6942:4 & 6955:5 & Monday 6819:5 \\
\hline 6829:21,25 & medical 6902:4 & method 6784:9 & mine 6890:2 & money 6803:21,22 \\
\hline 6830:4,6,14,19 & medicines 6919:22 & 6849:8,25 6850:9 & 6892:23 & 6846:11 6847:8 \\
\hline 6831:8,14 & meet 6790:6 6924:7 & 6858:12 6901:21 & minimal 6785:4 & monitor 6883:11 \\
\hline 6832:24 6833:11 & meeting 6779:6 & methodologies & 6815:22 & 6925:23 \\
\hline 6834:6,25 & 6787:20 6858:14 & 6933:23 6940:6 & minimization & monitored 6811:23 \\
\hline 6835:10 6837:4 & 6904:17 6905:7 & methodology & 6860:12 & monitoring 6864:18 \\
\hline 6839:4 6840:4,9 & 6913:11 6942:3 & 6938:17 6939:20 & minimize 6797:24 & 6890:18 \\
\hline 6840:15,18,24 & meetings 6910:11 & Metis 6777:15 & Minister 6916:2 & months 6792:14,23 \\
\hline 6841:12 6842:19 & 6913:13,16 & 6787:13,20 & 6918:8 6921:7 & 6822:25 6840:2,7 \\
\hline 6844:14 6846:1 & 6919:22 6927:4 & 6807:24 6813:18 & 6925:12 6926:4 & 6840:8,13 \\
\hline 6847:4 & 6937:17 6952:13 & 6819:15 6930:4 & Minitonas 6779:6 & 6841:10 6910:10 \\
\hline McCain's 6955:8,15 & 6953:15 & 6935:21 6942:13 & 6904:18 6905:8 & 6912:16,22 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{5}{|r|}{Page 6977} \\
\hline north/south 6844:6 & occasion 6861:9 & 6955:25 & 6818:7,15 & 6834:9 6835:14 \\
\hline 6844:17 & 6868:2,7 & once 6833:1 & 6822:22 6823:4 & 6843:2 6844:21 \\
\hline notably 6795:6 & occasionally 6806:6 & 6862:11 & 6831:8 6835:22 & 6845:19 6940:8 \\
\hline note 6797:22 6841:3 & 6924:13 & one 6781:16,17 & 6842:4,16 6843:3 & 6950:12 6954:25 \\
\hline 6848:17 6954:2 & occur 6898:15 & 6782:10 6784:15 & 6845:17 6853:24 & order 6827:24 \\
\hline notes 6957:8 & occurred 6813:20 & 6785:25 6789:10 & 6868:19 6878:7 & 6832:8 6890:3,19 \\
\hline nothing 6831:7 & 6857:4 6889:1 & 6791:3,8 6793:18 & 6917:5 6927:23 & 6901:24 6902:9 \\
\hline 6857:19 6936:13 & 6935:3 & 6794:20 6795:16 & 6930:1,7 6932:6 & 6907:5 6916:23 \\
\hline 6944:16 & occurs 6852:23 & 6799:6,18,23 & 6934:18 6936:5 & 6931:17,21 \\
\hline notion 6805:23 & ocean 6800:6 & 6802:2,17,23 & 6936:10,11 & organization \\
\hline 6860:19 & October 6824:22 & 6803:17,18 & 6945:21 6955:22 & 6937:18 6944:4 \\
\hline notions 6863:14 & 6908:3 6913:16 & 6804:8,12,13,14 & Ontario 6949:13 & organizations \\
\hline 6882:8 & 6943:21 & 6805:8,10 & onto 6814:12 & 6940:21 6947:5 \\
\hline notwithstanding & odd 6935:12,18 & 6806:23 6808:5,9 & 6859:4 & original 6814:10 \\
\hline 6849:15 & off 6781:17,23,25 & 6810:14 6811:16 & open 6786:20 & 6864:21 6901:6 \\
\hline November 6869:1,8 & 6791:3,25 6795:4 & 6814:21 6815:1 & 6820:1 6855:14 & 6931:6 \\
\hline 6870:17,23 & 6810:15 6814:12 & 6819:16,20 & opening 6908:2 & originally 6902:14 \\
\hline 6906:6 6908:4 & 6822:25 6824:7 & 6821:11 6822:11 & opens 6793:12 & Ortiz 6780:2 \\
\hline 6910:2 6911:17 & 6826:3,6,13 & 6823:5 6827:1,6,7 & 6895:15 & 6809:12,12,25 \\
\hline 6911:22 6912:2 & 6827:14 6895:3 & 6827:8 6830:9 & operate 6795:24 & 6810:3,22 6813:3 \\
\hline 6913:17 6924:14 & 6895:23 6913:19 & 6831:20 6833:16 & operation 6794:12 & 6820:12,13,15 \\
\hline 6943:11,13 & 6919:11 6935:15 & 6835:16 6837:6 & 6801:5 6803:11 & 6821:8 \\
\hline nowhere 6854:4 & 6949:11 & 6842:17 6844:24 & 6804:7 & Osler 6780:7 6822:3 \\
\hline number 6796:21 & offbeat 6818:10 & 6845:17,18 & operational 6931:18 & 6865:11 6899:11 \\
\hline 6797:22 6801:1,2 & offer 6794:5 & 6846:10 6851:12 & operators 6792:6 & 6920:25 6922:18 \\
\hline 6801:18 6809:2 & 6855:23,24 & 6852:4 6853:6,23 & 6804:6 & 6922:19 \\
\hline 6810:12 6811:2 & 6861:13 6865:3 & 6854:11,17 & opinion 6842:6 & ostensible 6858:8 \\
\hline 6813:7,15 & 6926:7 & 6856:21 6857:12 & 6923:19 & other 6782:17 \\
\hline 6814:25 6826:3 & offered 6920:4,5 & 6857:20 6859:4 & opportune 6846:24 & 6786:13 6787:5 \\
\hline 6828:9 6831:1 & 6922:17 6923:23 & 6860:3 6862:9 & opportunities & 6793:25 6794:25 \\
\hline 6840:16 6847:20 & 6924:6 & 6864:8 6865:5 & 6787:4,11,12 & 6795:20 6806:23 \\
\hline 6847:23 6866:6 & office 6931:24 & 6872:17 6875:21 & 6791:10 6792:7 & 6807:25 6811:25 \\
\hline 6872:11 6873:14 & 6939:17 6946:24 & 6875:21,22 & 6792:10,19 & 6814:3 6816:8,9 \\
\hline 6874:2 6875:12 & 6951:23 & 6879:9,9 6881:10 & 6793:12 6910:6 & 6818:16 6819:3 \\
\hline 6878:18 6882:10 & officers 6924:3 & 6882:3 6883:5,15 & 6910:14 6911:9 & 6822:12 6827:7 \\
\hline 6904:11,16 & Official 6957:1,5,15 & 6884:11,14,15,20 & 6912:21 6923:3 & 6827:10 6833:19 \\
\hline 6905:1 6934:3 & officially 6913:2 & 6884:25 6885:5 & 6936:17 6940:17 & 6841:22 6842:18 \\
\hline numbers 6795:14 & officials 6923:22 & 6885:18 6886:1 & 6940:18 6946:19 & 6842:18 6844:4 \\
\hline 6823:7,9 6825:4 & offset 6864:19 & 6886:17 6887:18 & opportunity & 6845:8 6850:23 \\
\hline 6845:20 6934:6 & offsetting 6909:24 & 6887:21 6890:13 & 6785:12,14 & 6852:21 6853:25 \\
\hline nutrication 6955:12 & often 6784:25 & 6890:19 6893:11 & 6793:20 6813:11 & 6855:24 6856:22 \\
\hline nutrient 6955:12 & 6854:14 6856:14 & 6893:22 6894:21 & 6829:23 6846:21 & 6857:17 6858:2 \\
\hline & 6857:9 6858:3 & 6895:18 6900:9 & 6851:1 6860:13 & 6859:12 6876:17 \\
\hline 0 & 6862:8 6864:16 & 6900:20 6911:25 & 6883:1,4 6886:3 & 6879:7 6882:11 \\
\hline objectives 6860:15 & 6886:7 6890:3 & 6916:4 6918:13 & 6906:25 6907:2 & 6883:9 6885:5 \\
\hline obligates 6909:20 & 6901:8 & 6918:20 6925:4,5 & 6913:15,18 & 6886:17 6887:22 \\
\hline obliged 6849:16 & oh 6940:22 & 6925:7,17 6928:3 & 6914:6 6925:10 & 6889:11 6893:5 \\
\hline observation & oil 6877:18 6890:10 & 6928:12 6929:22 & 6942:4 6945:21 & 6896:2,25 \\
\hline 6782:15,19 & 6890:11 6891:7 & 6930:7,14 & 6954:24 & 6901:11 6909:10 \\
\hline 6785:11 & 6892:14,22 & 6933:20 6934:10 & opposed 6794:12 & 6909:11,25 \\
\hline observations & 6898:19 6944:20 & 6934:18,22 & 6825:21 & 6910:15 6912:12 \\
\hline 6861:22 6930:21 & 6944:21 & 6935:2 6937:19 & opposite 6900:23 & 6915:18 6920:3 \\
\hline observe 6923:4 & okay 6782:24 & 6938:11 6941:10 & 6901:14 & 6920:10 6921:25 \\
\hline observed 6924:13 & 6799:3 6805:22 & 6941:12 6942:7 & opted 6821:19 & 6923:8 6924:20 \\
\hline 6931:11 & 6810:24 6828:4 & 6942:23 6953:6 & optimal 6843:23 & 6931:16 6933:23 \\
\hline obsolete 6836:10,11 & 6833:6 6840:20 & 6955:16 & option 6833:16,19 & 6935:6,17,21 \\
\hline obtained 6831:9 & 6868:5 6870:14 & ones 6936:11 & 6843:14,14 & 6938:3 6943:24 \\
\hline obvious 6945:24 & 6880:4 6888:8 & oneself 6802:23 & 6844:21,22 & 6953:6 6954:17 \\
\hline obviously 6799:1 & 6903:19 6904:4 & one-on-one 6934:5 & 6858:12 & 6955:17 \\
\hline 6806:13 6903:6 & 6906:8 6912:13 & only 6793:6 6809:7 & options 6833:14 & others 6811:5 \\
\hline
\end{tabular}

Page 6978
\begin{tabular}{|c|c|c|c|c|}
\hline 6856:18 6864:6 & 6912:15,21 & 6848:5 6884:22 & 6912:15 6914:15 & Penner 6780:2 \\
\hline 6900:24 & 6917:12 6919:18 & 6903:2,7 6906:19 & 6927:11 6928:13 & 6783:25,25 \\
\hline otherwise 6855:16 & 6922:11 6931:5 & 6928:9,23 6937:9 & 6937:23 6955:21 & 6786:15 6787:14 \\
\hline 6903:9 & 6941:22 6952:22 & 6943:10 6954:7 & particular 6782:13 & 6788:19,20 \\
\hline ourselves 6851:1 & 6955:21 & panels 6942:24 & 6786:4 6787:13 & 6790:10 6793:18 \\
\hline 6873:11 6923:9 & overall 6783:22 & paper 6874:24 & 6796:8 6798:11 & 6794:14,22 \\
\hline 6947:22 & 6798:24 6803:7 & 6875:17 6876:2 & 6800:19 6809:19 & 6808:20 6813:1 \\
\hline out 6781:22,23 & 6806:17 6854:10 & 6927:23 6953:25 & 6811:7 6812:17 & 6814:20 6815:14 \\
\hline 6782:8 6784:16 & 6932:5 6933:7 & papers 6821:24 & 6816:25 6823:8 & people 6786:3 \\
\hline 6785:3 6786:24 & 6949:12,23 & 6940:3 & 6823:20 6829:13 & 6789:20,23 \\
\hline 6789:5,9 6791:15 & overarching & paragraph 6834:1 & 6833:7 6834:23 & 6791:23 6792:10 \\
\hline 6799:25 6802:25 & 6946:17 & 6867:17 6877:6,9 & 6835:25 6836:22 & 6792:13 6793:3,6 \\
\hline 6805:5 6807:24 & overhead 6825:21 & 6878:21 6879:12 & 6837:23 6840:2 & 6794:3 6795:14 \\
\hline 6808:11 6813:16 & 6826:6 6839:21 & 6899:23 6900:12 & 6840:12 6908:24 & 6798:18 6800:12 \\
\hline 6819:22 6822:1,9 & overheads 6828:12 & parallel 6816:21 & 6939:19 6940:11 & 6801:2,18 6802:9 \\
\hline 6825:18 6828:9 & overlapping & 6820:18 6827:24 & particularly & 6802:19 6804:6 \\
\hline 6828:11 6834:7 & 6925:24 & paralleling 6824:9 & 6796:21 6807:3 & 6806:1,5,25 \\
\hline 6839:6 6841:9,12 & overly 6863:8 & 6825:21 6826:9 & 6810:18 6929:17 & 6807:8 6811:7 \\
\hline 6845:9 6855:11 & 6884:19 & 6827:11 6828:1 & 6934:17 & 6818:25 6857:22 \\
\hline 6859:6 6866:4 & oversee 6915:17 & parameters 6885:7 & parties 6864:3 & 6899:18 6903:21 \\
\hline 6874:22 6889:15 & oversight 6919:14 & 6909:9 & 6878:5 6889:13 & 6912:22 6913:2 \\
\hline 6890:13 6892:6,9 & 6923:21 6924:3 & pardon 6801:21 & 6951:11 & 6913:14,17 \\
\hline 6892:19 6893:1 & 6925:19 6926:2,6 & 6816:24 & partners 6790:14 & 6928:8 6934:3 \\
\hline 6898:1 6899:20 & overview 6834:20 & park 6924:22 & parts 6883:9 & 6942:11,14 \\
\hline 6899:23 6900:18 & 6834:24 6835:4 & parlance 6894:21 & party 6777:18 & 6952:19 \\
\hline 6912:17 6913:8 & 6903:4 & part 6783:12 & 6918:1 6946:1 & people's 6909:12 \\
\hline 6913:11 6915:12 & own 6818:20 6882:7 & 6787:15 6788:8 & 6956:7 & 6947:20 \\
\hline 6939:24 6947:17 & 6918:15 6919:9 & 6788:11,18 & Pas 6814:22 & per 6931:5 6947:13 \\
\hline 6948:1 6951:24 & 6922:3 6932:8 & 6793:3 6797:19 & pass 6895:7 6940:9 & percent 6817:15 \\
\hline outage 6831:18,19 & 6949:17 6950:5 & 6797:20 6798:23 & passe 6843:21 & 6901:22 6902:2 \\
\hline 6831:23 6832:25 & owners 6918:3 & 6798:23 6804:17 & passed 6855:4 & perhaps 6781:12 \\
\hline 6832:25 6845:3 & 6921:14 & 6805:21 6806:16 & 6879:17 & 6782:6 6789:21 \\
\hline outages 6831:21 & owner's 6918:15 & 6808:18 6814:15 & past 6863:13 6885:8 & 6793:13 6795:12 \\
\hline 6833:5 & oxymoron 6883:22 & 6819:20 6820:20 & 6885:10 6886:4 & 6799:19 6803:1 \\
\hline outcome 6834:17 & 6896:12 & 6821:12 6832:3,7 & 6886:11 6887:1,3 & 6819:10 6820:4 \\
\hline outfitter 6801:11 & & 6847:7 6855:23 & 6887:7 6889:16 & 6842:12 6850:9 \\
\hline 6803:11,24 & P & 6870:5 6888:2 & 6912:22 & 6850:11,13 \\
\hline 6805:12 & P 6780:2,4 & 6912:1,25 & pasts 6859:24 & 6854:4 6869:18 \\
\hline outfitters 6799:8,11 & pack 6814:24 & 6913:20 6917:9 & 6886:7 & 6883:5,11,20 \\
\hline 6799:16,22 & packs 6814:22 & 6931:13 6933:17 & pasture 6806:5 & 6887:13 6888:11 \\
\hline 6800:7,8,21 & pads 6782:20 & 6935:8 6950:15 & Pat 6777:3 6796:9 & 6889:16,19 \\
\hline 6801:12,21 & page 6779:2 & partial 6943:15 & 6816:10 & 6891:9 6894:13 \\
\hline 6802:7,9,14 & 6823:10 6825:10 & participant 6781:13 & patches 6786:17,20 & 6895:18 6918:15 \\
\hline 6804:13 6811:4 & 6825:23 6828:6 & 6946:1 & 6788:10 & 6935:20 6936:20 \\
\hline 6920:8 & 6829:3 6833:25 & participants & path 6850:23 & 6942:9 6945:16 \\
\hline outside 6820:19 & 6834:2 6845:19 & 6783:13 6841:22 & 6930:1 & 6953:1 6956:2 \\
\hline 6912:4 & 6867:16,21 & 6879:7 6897:3 & pattern 6787:3 & period 6783:10 \\
\hline outstanding 6910:7 & 6874:2,4 6875:1,2 & 6906:21 6929:10 & 6931:10 6934:20 & 6805:20 6866:23 \\
\hline 6930:16 & 6876:23 6878:15 & 6929:19 6938:4 & 6943:2 6953:12 & 6937:4 6939:23 \\
\hline over 6781:8 6783:9 & 6878:17 6879:10 & 6940:11 6943:24 & patterns 6928:1,8 & 6943:19 \\
\hline 6784:19 6817:19 & 6887:19 6899:22 & 6946:4 6955:9,10 & 6941:20 & permit 6925:24 \\
\hline 6828:5 6831:4,6 & 6935:12,24 & participate 6794:4 & pause 6898:15 & permitted 6787:22 \\
\hline 6833:14 6838:7,8 & pages 6957:7 & 6907:2 6934:4 & pay 6802:16 & 6788:3 \\
\hline 6838:15,16 & paid 6790:1 & 6938:5 & paying 6817:15 & permitting 6889:11 \\
\hline 6848:6 6851:1 & painfully 6910:10 & participated 6907:4 & 6950:11 & persons 6871:16 \\
\hline 6857:4 6872:11 & paints 6855:15 & 6952:15 & pdf 6937:19 & 6934:7 6942:12 \\
\hline 6883:16 6885:17 & panel 6780:2,3,4,5,6 & participating & peer 6922:20 & perspective 6831:24 \\
\hline 6903:23 6906:1 & 6780:8 6781:7,16 & 6907:9 6934:4 & Peguis 6777:20 & 6838:3 6842:10 \\
\hline 6908:14,21 & 6783:5 6805:7 & 6953:12 & 6779:13 6904:22 & 6844:7,12,24 \\
\hline 6909:1,16 & 6820:2 6841:23 & participation & 6905:17 6956:6 & 6849:18 6873:2,5 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{5}{|r|}{Page 6981} \\
\hline Q & 6801:7 6807:18 & realities 6796:23 & 6795:20 6797:3 & refer 6861:17 \\
\hline qualities 6863:3,7 & 6810:22 6824:12 & reality 6897:10 & 6807:4 6818:7 & 6862:25 6863:10 \\
\hline 6863:16 & 6827:12 6841:15 & 6900:23 6933:20 & 6824:6 6834:19 & 6884:19 6887:3 \\
\hline quality 6892:17 & 6842:2 6870:25 & realized 6940:19 & 6892:15 6906:14 & 6887:20,22 \\
\hline 6925:2 & 6894:11 6915:3 & really \(6782: 7\) & 6915:4 6924:22 & 6896:23 6897:15 \\
\hline quantifiable 6896:6 & 6921:3 6926:16 & 6801:2 6817:8 & 6947:6,8 & 6911:18 6912:10 \\
\hline quarter 6817:24 & 6928:11 6939:19 & 6834:15 6837:3 & receptors 6855:25 & 6918:8 6924:14 \\
\hline 6925:5 & 6954:12 & 6843:13 6845:13 & recess 6912:18 & reference 6788:4 \\
\hline Queen's 6920:16 & quotation 6918:1 & 6853:2 6880:15 & recessed 6820:6 & 6789:18 6880:17 \\
\hline question 6785:19 & quote 6900:14 & 6899:1 6921:6 & 6904:2 & 6882:15 6900:13 \\
\hline 6787:2,15,17 & quoting 6937:11 & 6933:10 6935:6,8 & recognition 6862:20 & 6952:1,2 \\
\hline 6788:4 6793:2 & Q.B 6957:15 & 6937:12,22 & 6885:3 & referenced 6839:2 \\
\hline 6795:4 6799:6,12 & & 6938:22 6942:3 & recognize 6793:22 & 6847:23 6927:2 \\
\hline 6800:2 6804:12 & R & 6943:3 6945:9,23 & 6798:2 6800:23 & references 6896:14 \\
\hline 6806:23 6810:14 & R 6780:10 & 6947:2 6950:17 & 6801:23 6803:21 & 6935:7 6943:10 \\
\hline 6815:8 6817:7 & radar 6918:19 & 6950:17 6951:7 & 6819:18 6891:16 & 6943:14 6945:5 \\
\hline 6818:9 6819:7 & rail 6816:21 & 6955:17 & 6891:19 6898:9 & referencing 6823:9 \\
\hline 6824:20 6829:23 & raise 6832:12 & reason 6825:16 & 6898:16 & referred 6882:16 \\
\hline 6836:6,22 & 6921:5 6922:3 & 6831:15 6857:7 & recognized 6800:15 & referring 6788:9,17 \\
\hline 6838:13 6842:11 & raised 6783:12,21 & 6893:22 6894:7 & 6801:10 6862:9 & 6805:13 6840:15 \\
\hline 6845:18 6849:13 & 6785:20,25 & 6895:5 6900:22 & 6864:25 6872:23 & 6844:14 6857:6 \\
\hline 6850:5,17 6871:7 & 6795:6 6796:20 & 6900:25 6901:15 & 6889:1 6901:8 & 6868:13 6875:18 \\
\hline 6885:16 6886:12 & 6849:5,21 6852:3 & 6910:17 & 6911:2 6914:10 & 6880:8 6900:12 \\
\hline 6887:9,18 6888:2 & 6869:22 6920:19 & reasonable 6814:9 & recollection 6830:8 & 6934:22 \\
\hline 6888:6 6891:10 & 6920:24 6924:4 & 6855:20 6877:8 & recommend 6911:4 & refers 6837:8 \\
\hline 6891:12,13 & 6926:11 & 6886:9 6903:14 & recommendation & reflect 6849:24 \\
\hline 6896:10 6898:8 & raises 6889:7 & 6930:24 & 6921:7 & reflecting 6852:10 \\
\hline 6900:11 6911:15 & range 6843:10 & reasonably 6807:23 & recommendations & 6860:4 6863:16 \\
\hline 6935:2 6940:17 & 6845:12 6935:23 & 6817:3 6856:2 & 6863:19 6864:17 & reflection 6898:22 \\
\hline 6946:17 6954:8,9 & ranges 6792:4 & 6878:11 & 6910:23 6911:3 & reflects 6837:20 \\
\hline 6954:16 6955:6 & rapidly 6952:24 & reasoning 6862:24 & 6926:21 6929:6 & 6863:7 6873:13 \\
\hline questioning & Rapids 6808:13,22 & reasons 6860:2 & 6936:24 6951:9 & 6908:18 6909:16 \\
\hline 6902:20 & 6820:10,19 & reb & recommende & refurbish 6846:22 \\
\hline questions 6780:3,5 & 6821:6 & rebuttal 6779:14 & 6873:7 & refurbishing \\
\hline 6780:8 6781:7,15 & rare 6901:23 & 6780:4 6781:10 & reconstruct 6887:6 & 6845:25 \\
\hline 6781:17 6783:3,6 & rate 6846:13,17 & 6781:11 6821:12 & reconvene 6781:4 & refurbishment \\
\hline 6783:8,21 6795:8 & rather 6800:17 & 6821:16,20,24 & 6956:9 & 6847:9 \\
\hline 6797:5 6810:25 & 6817:14 6861:4 & 6822:1 6823:6,10 & reconvened 6820:7 & refusal 6914:23 \\
\hline 6819:4,9 6821:24 & reach 6791:15 & 6825:9,11,23 & 6904:3 & 6915:4 \\
\hline 6822:1,16,19 & 6884:11 & 6826:24 6827:14 & record 6779:6 & regard 6783:24 \\
\hline 6824:16 6827:9 & reached 6911:7 & 6843:1 6845:20 & 6791:3 6814:1 & 6863:3 6869:21 \\
\hline 6828:24 6841:23 & reaching 6910:4 & 6848:16 6866:11 & 6819:20,23,24 & 6871:3,6 6915:24 \\
\hline 6847:13,15 & reacquaint 6875:15 & 6866:22 6867:10 & 6820:3 6822:21 & 6920:7 6921:4 \\
\hline 6865:9 6879:4,8,9 & reacquaintance & 6869:9 6903:17 & 6824:22 6849:22 & 6922:18 6926:6 \\
\hline 6887:17 6893:11 & 6874:23 & 6904:23 6905:17 & 6869:19 6899:12 & 6934:19 6936:24 \\
\hline 6912:12 6927:9 & reactors 6845:23 & recall 6783:15,19 & 6900:10 6904:12 & 6938:20 6954:21 \\
\hline 6928:2 6931:2 & 6846:2 & 6797:16 6799:9 & 6904:15,17 & regarding 6828:25 \\
\hline 6933:9,22 & read 6799:20 & 6799:13 6823:23 & 6905:7 6906:11 & 6842:3 6852:4 \\
\hline 6934:12 6937:25 & 6829:3 6874:22 & 6835:8 6847:20 & 6944:22 & 6857:3,5 6859:17 \\
\hline 6938:7 6943:8 & 6875:17 6876:1 & 6873:9 & Recovery 6943:9,12 & 6943:8,11 \\
\hline 6947:2 6948:22 & 68925:22 & receive 6921:9 & 6943:21 6944:9 & regards 6787:5 \\
\hline 6949:22 6950:22 & readily 6913:9 & received 6834:19 & 6944:15,17 & 6789:22 6869:22 \\
\hline 6950:23 6955:3 & reading 6843:19 & 6923:23 6924:15 & Red 6793:3,10,21 & 6875:20 6883:3 \\
\hline quick 6874:23 & 6946:15 & 6924:16 6953:13 & 6793:22 6794:7 & 6887:1 6896:7 \\
\hline 6890:3 6932:17 & reads 6890:13 & receives 6921:10 & 6794:10,21 & 6901:9 6915:3 \\
\hline 6933:14 6942:17 & ready 6802:8 & receiving 6945:8 & do 6922 & 6921:18 \\
\hline 6951:3 6952:6 & 6820:9 6903:22 & recent 6797:9 & redone 6850:3 & regeneration \\
\hline quickly 6902:25 & \(6948: 19\)
real 6893.3 & 6898:19 6915:7 & reduced 6809:21 & 6788:11 \\
\hline \[
\begin{gathered}
\text { quite 6782:20 } \\
6788: 66799
\end{gathered}
\] & 6936:16 6938:7 & ( \(\begin{array}{r}\text { 6922:2 6923:24 } \\ \text { recently 6788:3 }\end{array}\) & reduction 6824:22 & 6852:22 6933:6 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline 6934:7 6938:13 & relevant 6819:17,19 & 6876:23 6877:1,2 & 6877:24 6922:8 & 6868:7,20,23 \\
\hline regional 6857:17,21 & 6837:25 6897:18 & 6904:25 6905:20 & 6926:2,5 & 6869:14,25 \\
\hline 6857:24 6858:10 & 6936:12 & 6910:1 6926:23 & respect 6802:7 & 6870:1,4,8,15,18 \\
\hline 6887:22,24 & reliability 6827:25 & reports 6825:17 & 6836:21 6838:23 & 6870:21 6871:1 \\
\hline 6888:13,13,19 & 6831:18,24 & 6869:7 & 6908:1 6910:23 & 6887:15 6900:1 \\
\hline 6890:14,18,25 & 6832:20,22 & represent 6863:15 & 6911:21 6920:10 & 6914:15 6916:17 \\
\hline 6892:6,18,19,20 & 6843:10,23 & represented & 6930:17 6932:25 & 6917:6 6921:17 \\
\hline 6893:1,6 & 6844:8,25 & 6898:19 6927:13 & 6934:15 6945:18 & 6924:2,12,13,20 \\
\hline regions 6938:12 & 6845:14 6950:13 & representing & respects 6882:8 & 6924:21,24 \\
\hline 6949:3 & reliance 6923:16 & 6860:13 6890:12 & respond 6801:22 & 6933:22 6951:2 \\
\hline register 6820:3 & relies 6922:2 & represents 6825:24 & 6819:14 6821:23 & 6952:9 6954:5 \\
\hline registry 6924:21 & relocation 6801:13 & repulsive 6923:12 & 6829:24 6849:16 & reviewed 6867:18 \\
\hline 6945:17 6951:22 & 6805:16 6823:17 & request 6799:22 & 6938:5 & 6867:23 6869:3,8 \\
\hline 6952:23 & 6823:22 6843:12 & 6823:19,21 & responded 6800:24 & 6869:19 6929:5,8 \\
\hline regrettably 6920:1 & 6844:22 & 6824:1 6826:22 & 6917:14 & 6954:4 \\
\hline regrow 6807:22 & remain 6815:25 & 6922:7,9 6932:11 & responding 6894:1 & reviewing 6812:5 \\
\hline regrowth 6787:3,3 & 6843:24 6914:20 & 6932:21 & 6946:16 & 6813:18 6863:18 \\
\hline 6787:9,22 6788:3 & remained 6914:19 & requested 6800:6 & response 6779:13 & 6946:15 \\
\hline 6788:10,16 & remaining 6895:3 & requests 6924:25 & 6779:15 6783:23 & reviews 6850:13 \\
\hline regulated 6860:8 & remains 6820:1 & 6951:4,5 6955:11 & 6802:14 6823:19 & 6856:13 6953:12 \\
\hline regulation 6888:1 & 6851:3 & required 6784:20 & 6823:21 6826:7 & revised 6824:14 \\
\hline 6892:6 6951:21 & remark 6908:2 & 6784:23 6827:23 & 6827:9 6849:20 & revision 6824:11 \\
\hline regulator 6863:2 & remedy 6920:17 & 6840:6 6863:23 & 6894:1 6903:4 & 6825:9 6839:8 \\
\hline regulators 6841:17 & remember 6797:25 & 6882:14 6923:21 & 6904:21,23 & 6917:16,22 \\
\hline 6858:17 & remind 6869:18 & requirement & 6905:15,18 & 6923:25 \\
\hline regulatory 6841:9 & 6873:11 & 6887:14 & 6910:12 6922:21 & revolves 6854:21 \\
\hline 6856:25 6857:13 & reminding 6947:22 & requirements & 6925:7 & 6855:11 \\
\hline 6857:20 6858:15 & remote 6810:18,20 & 6857:13 6858:15 & responses 6783:9 & re-establishment \\
\hline 6861:15 6862:10 & remove 6923:15 & 6945:17 6947:11 & 6799:20 6893:14 & 6801:13 6805:17 \\
\hline 6862:16,23 & removed 6828:23 & 6951:15 & rest 6855:3 6879:15 & Re-examination \\
\hline 6881:22 6887:21 & removes 6816:19 & requires 6909:23 & 6913:12 & 6780:9 \\
\hline 6889:10 6945:15 & render 6851:19 & reread 6926:10 & restate 6848:14 & rhyme 6895:23 \\
\hline 6945:16 6951:21 & renewable 6947:10 & research 6850:15 & 6869:18 6908:9 & Riel 6824:2 6825:21 \\
\hline 6951:22 & 6949:14 & 6856:22 6862:8 & restoration 6932:15 & 6827:3,7,15,19 \\
\hline rehabilitation & rent 6806:5 & 6864:15 6925:21 & restrict 6813:8 & 6828:3 6829:9,17 \\
\hline 6932:15 & repeat 6882:6 & 6938:5 6949:19 & result 6788:5 & 6830:3,10 6832:4 \\
\hline Reid 6957:5,14 & 6928:1,2,3 & researcher 6931:1 & 6799:7 6801:14 & 6839:10,10 \\
\hline rejected 6850:3 & repeated 6852:5 & 6939:23 & 6825:9 6848:2 & 6842:14 6843:25 \\
\hline rejections 6943:20 & repeating 6950:18 & researchers & 6858:13 6873:23 & 6844:3,10 \\
\hline related 6787:1 & repetition 6928:10 & 6858:22 6859:16 & 6892:19 6895:1 & right 6791:19 \\
\hline 6801:19 6804:9 & repetitive 6947:17 & reservations 6802:8 & 6898:10 & 6802:6,6 6803:19 \\
\hline 6806:4 6807:25 & replaced 6828:12 & 6804:18,19 & resulting 6855:21 & 6804:8 6805:11 \\
\hline 6823:5 6828:24 & replacement & reserve 6936:7 & 6910:25 & 6812:20 6823:13 \\
\hline 6855:3 6877:18 & 6845:22 6846:2 & reside 6852:22 & results 6856:3 & 6825:23 6827:20 \\
\hline relates 6785:19 & replicated 6893:5 & resident 6802:18 & resume 6903:19 & 6832:18 6835:17 \\
\hline 6879:10 & reply 6796:10 & residents 6795:7 & resumés 6791:24 & 6839:4 6846:23 \\
\hline relating 6796:8 & report 6779:17 & residual 6851:24 & 6792:1 & 6871:23 6890:12 \\
\hline 6868:9 6869:15 & 6796:1 6825:25 & 6879:25 6894:15 & retained 6866:10,18 & 6892:17 6898:4,6 \\
\hline 6870:2,16,22 & 6827:4 6832:3,11 & 6895:3,13 6896:2 & 6866:19 6867:2,9 & 6898:11,24 \\
\hline 6903:3 & 6835:10 6836:10 & 6896:25 & retainer 6865:24 & 6901:5,10 \\
\hline relation 6802:22 & 6836:14,21 & resolve 6845:13 & 6866:3,7 & 6912:24 6919:4 \\
\hline 6934:8 & 6843:19,20,22 & 6917:17 6921:21 & return 6894:13 & 6931:1 6936:5,7 \\
\hline relationship & 6844:13,15,16 & resolves 6845:7 & returned 6947:9 & 6936:17 6939:13 \\
\hline 6908:18 6921:1,2 & 6845:1,5 6865:13 & resource 6858:17 & returning 6898:7 & 6941:13 6949:10 \\
\hline 6923:6 & 6865:15,23 & 6883:13 6888:17 & reveal 6883:10 & 6951:6 6954:10 \\
\hline relationships & 6867:3,15,18,24 & 6889:4 6890:3 & review 6834:12 & 6954:22 \\
\hline 6908:17 & 6868:2,6,8,16,23 & 6908:12,22 & 6837:25 6841:12 & rights 6907:7,12 \\
\hline relatively 6786:11 & 6868:24 6870:15 & 6909:1,22 & 6851:10 6853:20 & 6910:5 6934:14 \\
\hline 6786:12 6807:20 & 6870:21 6874:13 & 6911:11 6912:5,7 & 6857:20 6861:24 & 6935:1,16 \\
\hline relaxing 6946:22 & 6874:16,20 & resources 6837:19 & 6862:17 6865:4 & 6942:15 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline rights-of-way & 6954:11 & satisfies 6782:25 & 6935:10,24 & semi-retired 6800:3 \\
\hline 6807:22 6809:24 & route 6805:14 & save 6839:11 & 6941:23 & Senate 6947:8 \\
\hline rights-of-ways & 6811:6 6812:4 & 6918:25 & secondly 6888:3 & senior 6926:13 \\
\hline 6815:3 & 6814:10 6816:17 & saw 6781:23,25 & secrecy 6915:7 & sense 6788:2 6792:1 \\
\hline right-hand 6875:2 & 6830:9 6833:12 & 6794:11 6936:5 & secretary 6777:5 & 6793:4 6803:3 \\
\hline 6878:16 & 6834:22 6835:6,6 & 6951:25 & 6904:12 6906:3 & 6818:2 6842:20 \\
\hline right-of-way & 6836:18 6838:14 & saying 6784:1 & 6943:6 & 6844:11 6850:20 \\
\hline 6784:11 6787:10 & 6914:13 6917:13 & 6787:16 6809:10 & section 6815:15,19 & 6853:6 6864:2 \\
\hline 6788:15 6789:3 & 6917:13,15,15,16 & 6879:19 6891:20 & 6817:24,25,25 & 6893:2,21 \\
\hline 6789:11 6790:18 & 6917:20,24 & 6891:23 6895:9 & 6839:18 6919:21 & sensible 6930:24 \\
\hline 6803:9 6806:17 & 6918:5,10 & 6931:3 6940:9,24 & 6942:3 & sensing 6810:18,20 \\
\hline 6808:18 6810:6 & 6920:22 6923:24 & 6942:6 & sectionalization & sensitive 6786:24 \\
\hline 6811:15 6812:24 & 6944:25 & says 6840:12 & 6832:5 & 6816:1 \\
\hline 6813:4,25 & routes 6812:4 & 6843:20 6850:19 & sections 6791:6 & sensitivity 6786:7 \\
\hline 6814:13,25 & 6918:25 6920:2 & 6902:7 6930:22 & 6918:17 & 6786:21 \\
\hline 6816:4,7 6817:10 & 6935:4 & 6947:25 & security 6950:13 & sent 6834:19 6841:3 \\
\hline 6917:5,10 & routing 6833:24 & scale 6859:24 & see 6782:2,2,4,6,7 & sentence 6879:14 \\
\hline 6920:13 6932:7 & 6835:19 6841:13 & 6888:18,19 & 6801:10 6804:16 & separate 6845:10 \\
\hline 6934:23 6935:1 & 6917:18 & 6909:13 & 6820:17,23 & separated 6827:23 \\
\hline right-of-ways & ROW 6783:19 & scary 6824:20 & 6821:1 6822:10 & separation 6954:14 \\
\hline 6788:22 6789:2 & 6932:3 6935:16 & schedule 6813:12 & 6834:5 6853:25 & septic 6916:25 \\
\hline 6789:13 6817:18 & ROWs 6787:22 & 6953:14 & 6865:23 6877:8 & sequence 6941:17 \\
\hline rinse 6916:14 & 6790:9 & scheduled 6903:21 & 6878:17,19 & 6951:17 \\
\hline 6919:12 & rule 6886:12 & science 6850:24 & 6879:23 6888:21 & series 6936:1 \\
\hline riparian 6785:9 & ruled 6819:17 & 6851:12 6862:2 & 6889:2 6893:14 & 6938:11 6940:16 \\
\hline 6816:5 & rules 6796:5,15,19 & 6884:2,9 6901:7 & 6894:25 6896:3 & 6950:2 \\
\hline rise 6861:9 & run 6806:16 6811:8 & 6901:20 6902:4,5 & 6899:4 6929:1 & serious 6915:9 \\
\hline risk 6831:20 & 6833:16,20 & 6942:18,21 & 6941:3,4,4,13 & 6918:23 6919:17 \\
\hline 6832:25 6845:14 & 6839:10 6919:11 & 6945:3,9 6946:10 & 6955:23 & 6920:19 6922:3 \\
\hline 6863:15 6901:19 & 6934:6 & 6952:3 6954:18 & seeing 6838:3 & 6923:21 \\
\hline 6946:19 6948:13 & running 6790:16 & 6954:24 6955:1 & seek 6859:11 & seriously 6921:3 \\
\hline 6949:25 & 6830:10 6844:6,9 & scientific 6862:8,24 & seeking 6903:1 & 6948:8 \\
\hline risks 6842:22 & 6852:6 & 6884:10 6901:9 & seem 6783:10 & serve 6851:6,11 \\
\hline River 6811:16 & runs 6820:18 & 6943:4 6945:10 & 6803:25 6885:9 & served 6851:4 \\
\hline 6955:7 & rural 6817:20 & scientist 6944:4 & 6926:12 6930:12 & 6861:5 \\
\hline road 6781:24,25 & 6818:3 6937:20 & scientists 6939:18 & seemed 6814:9 & serves 6871:14 \\
\hline 6797:15,16,19 & rush 6903:11 & scope 6852:17 & 6817:2 6843:21 & service 6832:12 \\
\hline 6811:19,21 & & 6866:4 6932:23 & seemingly 6878:8 & services 6937:11 \\
\hline 6816:22 6955:18 & S & 6950:21 & 6930:1,10 & serving 6858:18 \\
\hline roads 6811:15 & safe 6838:22 & scoped 6859:19 & seems 6800:4,6 & set 6802:16 6893:13 \\
\hline 6931:19 6932:13 & sake 6899:12 & scoping 6852:10,11 & 6918:14 & 6934:18 6936:5 \\
\hline Robert 6777:20 & same 6799:1 & 6852:14 6861:22 & seen 6804:1 6834:23 & 6938:16 6946:3 \\
\hline robustness 6863:5 & 6810:15 6818:24 & 6928:24 6929:4,7 & 6834:25 6900:18 & 6949:23 6951:4 \\
\hline role 6821:22 6941:2 & 6850:22 6854:1 & 6929:13 6936:20 & 6900:22 6934:18 & 6952:9,11,21 \\
\hline roles 6928:13 & 6857:10 6862:13 & 6953:1,4 & 6940:4 & 6954:7 \\
\hline 6930:25 6932:25 & 6896:16 6921:9 & screen 6918:19 & sees 6842:20 & sets 6928:25 \\
\hline rolling 6931:8 & 6935:3,18 & 6927:23 6953:24 & segments 6790:19 & 6938:12 6945:5 \\
\hline Ron 6911:24 & 6938:16 6945:1 & seaboard 6947:23 & 6790:20 & 6947:2 \\
\hline room 6931:12 & 6948:7 & Seal 6793:4,10,21 & select 6834:15 & setting 6866:4 \\
\hline 6937:2,3 6942:16 & sands 6877:18 & 6793:22 6794:8 & selected 6838:7,14 & settle 6909:20 \\
\hline 6952:19 & 6890:10,11 & 6794:10,21 & 6853:9 6855:23 & settlers 6942:12 \\
\hline root 6860:3 & 6892:14,22 & search 6935:7 & selection 6918:5 & seven 6840:9 \\
\hline rooted 6884:1 & 6898:19 & season 6813:14 & selective 6808:23 & Seventy 6827:22 \\
\hline Rose 6821:2 & sandy 6807:13 & second 6784:12 & 6809:14 & several 6783:20 \\
\hline Ross 6872:14,16 & Sapotaweyak & 6788:18 6793:18 & self-assessment & 6784:13 6804:6 \\
\hline 6873:2,18 & 6956:7 & 6855:9 6856:5,22 & 6936:19 & 6833:15 6834:9 \\
\hline 6874:12 6875:7 & Sargeant 6777:2 & 6859:9 6860:8 & sell 6807:5 & 6844:21 6893:10 \\
\hline roughly 6828:6 & 6893:12 6894:2 & 6867:16 6873:18 & selling 6807:7 & 6919:24 \\
\hline round 6794:16 & 6896:11 & 6877:5,9 6891:12 & semantics 6875:12 & Shannon 6777:9 \\
\hline rounds 6941:10,12 & satisfied 6817:3 & 6896:10 6898:24 & 6897:7 6898:7 & 6782:6 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{5}{|r|}{Page 6984} \\
\hline share 6782:23 & Simultaneous & 6803:21,22 & 6890:12 6891:11 & soup 6930:22 \\
\hline 6848:4 6915:4,5 & 6919:7 & 6807:20 6809:17 & 6891:21 6893:13 & 6931:3 \\
\hline shared 6925:11 & since 6806:24 & 6845:18 & 6893:22 6894:16 & source 6848:3 \\
\hline Shaun 6777:22 & 6816:20 6874:22 & smaller 6784:18 & 6898:7 6899:9,10 & 6850:9 6917:2 \\
\hline shedding 6833:2 & 6880:23 6940:16 & 6789:15 6804:7 & 6899:18 6900:21 & sources 6850:10 \\
\hline sheet 6935:15 & 6955:4 & 6925:3 & 6901:25 6903:1 & south 6796:18 \\
\hline short 6792:21 & sincerity 6926:2 & smoothing 6845:23 & 6903:15,20,22 & 6827:2,19 6828:2 \\
\hline 6819:10 6820:10 & single 6810:4 & 6846:2 & 6910:12 6928:8 & 6828:17 6829:17 \\
\hline 6822:9 6855:25 & 6888:17 & snake 6944:20,21 & 6928:10 6932:10 & 6830:10,11 \\
\hline 6916:23 6951:4 & Sipihk 6781:20 & Snowman 6814:22 & 6933:14 6935:20 & 6831:3 6833:18 \\
\hline shortage 6818:11 & 6808:11 6944:23 & 6815:2 & 6936:16,16,20 & 6835:20 6846:23 \\
\hline shortly 6880:19 & sir 6820:14 6822:20 & snowmobile 6815:3 & 6937:14 6938:7 & so-called 6826:9 \\
\hline show 6822:22 & 6822:22 6824:9 & snowmobilers & 6939:17 6945:6 & 6846:21 6851:22 \\
\hline 6837:14 & 6824:16,22 & 6815:1,5 & 6946:25 6948:21 & 6857:17 \\
\hline showed 6808:14 & 6829:23,25 & social 6796:15,23 & 6950:22 6952:22 & space 6909:8 \\
\hline 6809:7 6893:24 & 6834:5 6835:9 & society 6950:5 & 6953:7 6954:14 & spare 6846:5,9,9 \\
\hline showing 6788:15 & 6836:14 6837:14 & socioeconomic & somebody 6782:10 & speak 6788:9 \\
\hline shown 6820:15,16 & 6838:2,7 6841:6 & 6797:21 6910:24 & 6816:22 6900:4 & 6821:20 6890:4 \\
\hline shows 6926:1 & 6841:19 6848:11 & soil 6936:3 & someone 6785:10 & 6912:23 6913:2,6 \\
\hline shrubs 6785:2 & 6865:8,15 6866:2 & solar 6947:24 & 6852:23 6889:7 & 6913:15,18 \\
\hline 6809:7,18 6821:1 & 6866:4 6867:1,4,9 & 6948:25 6950:17 & something 6785:15 & 6915:21 6953:22 \\
\hline shutting 6954:23 & 6867:20 6868:1 & sold 6807:6 & 6786:5,16 & speaker 6913:10,21 \\
\hline sickness 6916:14 & 6868:14,22 & solid 6878:9 6943:3 & 6792:16 6793:5 & 6948:3 \\
\hline side 6792:8 6907:1 & 6869:5,10,12,25 & solidified 6834:15 & 6795:1 6798:19 & speaking 6868:3 \\
\hline 6939:3 & 6870:6,14,20 & solution 6832:23 & 6816:2 6831:5,11 & 6927:20 \\
\hline sight 6813:9,10 & 6871:5,12,19 & 6843:23 6845:5 & 6832:16 6833:16 & speaks 6861:18 \\
\hline signed 6836:25 & 6872:7,14,16,22 & 6917:23 & 6838:18 6853:21 & 6862:1 \\
\hline 6866:3 & 6873:1,17 6874:7 & solutions 6914:9 & 6885:23 6889:8 & specialty 6941:2 \\
\hline significance 6854:7 & 6874:11,16,19 & solve 6843:9 & 6889:13 6892:5 & species 6800:13 \\
\hline 6894:19 6922:19 & 6876:22 6877:9 & 6950:12 & 6893:16 6901:17 & 6809:18 \\
\hline significant 6789:8 & 6877:22 6878:1,4 & some 6781:6,11 & 6944:8 & specific 6796:12 \\
\hline 6803:24 6808:24 & 6878:12,16,21,24 & 6783:2,8,11,13 & sometime 6834:14 & 6798:8 6812:2,14 \\
\hline 6809:2 6855:4 & sit 6798:12 6837:13 & 6785:16,23 & 6841:2 & 6813:20 6814:11 \\
\hline 6879:17,20,24 & 6939:11 & 6786:9,23 & sometimes 6802:5,6 & 6814:18 6816:9 \\
\hline 6893:17,24 & site 6842:14 & 6788:11,14 & 6862:4 6939:15 & 6833:12 6918:17 \\
\hline 6894:6 6895:5,8 & 6885:11 6912:3 & 6789:21 6790:2 & soon 6805:2 & 6944:9,10,16 \\
\hline 6895:13 6916:20 & sites 6815:22 6922:4 & 6792:17,18 & 6842:21 6915:21 & 6955:10 \\
\hline 6923:25 6924:25 & 6936:10 & 6793:2,11 6794:7 & 6947:14 6953:10 & specifically 6821:17 \\
\hline 6925:19 6933:1 & sitting 6871:23 & 6796:3,4,15,17 & sores 6917:1 & 6851:22 6862:15 \\
\hline 6948:23 & situ 6892:23 & 6797:4,6 6798:5 & sorry 6787:14 & 6862:17 6887:14 \\
\hline significantly & situation 6810:5 & 6800:15,22 & 6793:19 6796:9 & 6934:8 6952:7 \\
\hline 6920:22 6955:13 & 6833:16 6860:1 & 6803:1 6805:15 & 6798:14 6824:18 & specifications \\
\hline similar 6803:15 & 6860:23 6889:9 & 6806:6 6807:7,16 & 6827:12 6829:25 & 6790:24 6791:12 \\
\hline 6816:4 6833:15 & 6892:14 6945:12 & 6810:17 6811:11 & 6839:9,20 6840:4 & specifics 6797:25 \\
\hline 6901:21 & 6951:1 & 6820:10 6823:7,9 & 6878:13 6880:11 & speed 6921:8 \\
\hline Similarly 6938:3 & situations 6902:3 & 6823:16 6824:23 & 6951:21 & spelled 6915:12 \\
\hline simple 6803:16 & size 6796:24 & 6825:3,6,13 & sort 6783:22 & spent 6786:5 \\
\hline 6818:3 6853:5 & 6843:15 6925:5 & 6827:17 6828:24 & 6785:23 6786:24 & 6895:24 6921:25 \\
\hline 6885:9 6922:6 & skidoos 6811:8 & 6838:15 6839:15 & 6787:8 6794:7 & 6940:1 \\
\hline 6943:18 6949:23 & skill 6818:11 & 6843:13 6845:9 & 6808:11 6810:15 & spirit 6948:7 \\
\hline 6952:4 & skilled 6818:18 & 6846:11 6849:20 & 6810:20 6819:21 & spit 6800:6 \\
\hline simpler 6878:6 & skills 6793:14 & 6850:13 6851:5 & 6833:21 6883:20 & spite 6798:3 \\
\hline simplest 6853:6 & 6818:22 & 6852:19 6854:25 & 6912:25 6930:21 & split 6790:18 \\
\hline 6888:9,15 & slight 6802:24 & 6855:22 6857:21 & 6932:18 6933:19 & 6911:10 6912:5,6 \\
\hline simplistic 6859:20 & slightly 6789:16 & 6865:19 6867:22 & 6936:6 6939:16 & 6933:4 \\
\hline Simplot 6955:16 & 6800:10,24 & 6873:15 6874:21 & 6940:21 & splitting 6846:24 \\
\hline simply 6852:21 & slotted 6846:12 & 6876:7 6881:9,9 & sought 6799:9 & spoke 6915:14 \\
\hline 6862:4,9 6864:1 & slow 6910:10 & 6883:16 6884:3 & 6907:10 & spoken 6866:14 \\
\hline 6926:17 & slow-played 6923:5 & 6885:24 6888:10 & sounds 6896:12 & 6918:2 \\
\hline simulate 6859:24 & small 6801:2 6803:9 & 6889:16 6890:4 & 6914:18 6920:16 & spot 6784:4 6785:24 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline 6786:13 & 6831:20 6843:3,4 & strongly 6928:7 & summarize 6787:7 & swear 6906:4 \\
\hline sprayed 6820:20,23 & 6843:15 6847:1 & struck 6929:22 & 6787:18,21 & sweeping 6849:12 \\
\hline 6919:18 & 6908:13 6912:3 & students 6794:10 & 6896:23 & switch 6805:24 \\
\hline spring 6800:25 & stations 6805:15 & studied 6893:18 & summer 6820:25 & 6847:18 \\
\hline 6841:4 6939:24 & status 6948:20 & studies 6788:14 & 6934:18,21 & switched 6947:7 \\
\hline Spur 6807:18 & statutory 6859:7 & 6837:5 6858:10 & 6935:11 6939:25 & Switching 6817:6 \\
\hline St 6827:17 & 6890:15 & 6859:3,8 6862:7 & summing 6783:23 & sworn 6848:6,10 \\
\hline stacks 6892:24 & stay 6805:23 & 6864:16 6873:6 & sun 6807:14 & 6906:5,12 \\
\hline staff 6871:16 & stayed 6797:24 & 6888:14 6891:17 & Sunday 6781:22 & system 6797:15 \\
\hline 6919:10 6937:9 & steadily 6810:12 & 6892:11,20 & super 6811:6 & 6950:15 \\
\hline stage 6812:20 & steer 6931:14 & study 6796:2 & supplemental & systems 6933:12 \\
\hline stages 6841:11 & Stenotype 6957:8 & 6801:20,21 & 6869:14 & 6950:1 \\
\hline 6930:14 & step 6802:3 6880:1 & 6837:14,18,20 & supplemented & \\
\hline stakeholder & steps 6901:25 & 6840:12,16 & 6861:21 & T \\
\hline 6914:12 & 6928:19 6934:24 & 6856:22 6857:1 & supply 6792:7 & table 6814:17 \\
\hline stalled 6864:10 & 6936:18 & 6857:18 6873:20 & 6831:25 6832:4,7 & 6819:11 6828:5 \\
\hline stand 6782:4 & Stewardship 6777:6 & 6874:8 6875:10 & support 6857:13 & 6831:4,12 \\
\hline 6890:19 6896:4 & 6916:16 & 6890:18 6891:22 & 6860:15 6863:1 & 6923:15 \\
\hline standard 6788:6 & still 6783:10 6798:5 & 6891:23 6892:7 & 6884:24 6910:3 & tabled 6904:25 \\
\hline 6848:1 6850:6 & 6809:4,4 6812:7 & 6893:2,3,6 6931:6 & 6910:18 6927:1 & tabletop 6835:1 \\
\hline 6862:25 6863:17 & 6815:20 6819:18 & 6932:2,2 & 6945:13 & TAC 6916:17 \\
\hline 6873:12 6951:22 & 6821:3 6831:3 & sub 6818:21 & supportable & 6923:17 6924:2,7 \\
\hline standards 6929:6 & 6832:14 6841:10 & subject 6826:18 & 6863:20 & 6924:7,8,12,17,19 \\
\hline 6933:23,24 & 6842:1 6847:4 & 6828:14,23 & supported 6858:24 & 6924:20,21,24 \\
\hline 6934:2 6936:22 & 6879:20 6883:2 & 6851:8 6853:16 & 6893:6 & 6925:7,8 6953:16 \\
\hline 6937:14 6945:10 & 6883:18 6893:23 & 6861:2 6862:16 & supporting 6779:19 & tainted 6916:11 \\
\hline 6945:10,16 & 6895:3 6908:6,7 & 6874:23 6882:2 & 6859:19 6865:19 & take 6784:16,19 \\
\hline 6947:11 6949:15 & 6910:7 6922:21 & 6883:17 & 6874:3 6905:1,22 & 6788:13 6789:9 \\
\hline 6951:15 6952:9 & 6930:17 6939:8 & submission 6848:15 & suppose 6786:6 & 6795:25 6804:14 \\
\hline 6952:10,20,25 & 6950:8 & 6849:19 6858:8 & 6844:9 & 6805:17 6815:5 \\
\hline stands 6801:9 & Stockwell 6778:3 & 6869:4 & supposed 6834:12 & 6817:4,16 \\
\hline 6863:7 & 6780:12 6914:1 & submit 6867:5 & supposition 6852:18 & 6819:10 6820:4 \\
\hline start 6781:17 & 6927:10 & submitted 6907:25 & sure 6782:24 6788:6 & 6821:11 6824:15 \\
\hline 6791:22 6792:18 & stop 6815:6 6952:7 & subsequent 6866:16 & 6790:10 6799:18 & 6826:3,5 6834:24 \\
\hline 6886:10 6903:20 & 6953:21 & subset 6785:18 & 6821:11 6822:8 & 6838:21 6840:19 \\
\hline started 6892:15 & stopped 6952:7 & subsistence 6930:9 & 6824:13 6838:22 & 6862:4 6866:2 \\
\hline 6900:5 6907:19 & story 6890:14 & substance 6923:14 & 6894:11 6903:14 & 6878:13 6881:9 \\
\hline 6930:19 6946:24 & 6907:1,1 & substantial 6901:18 & 6928:10 6954:4 & 6882:16 6884:25 \\
\hline 6953:23 & straight 6833:18 & 6907:15,17 & surprised 6936:5 & 6886:2 6891:24 \\
\hline starting 6784:6 & 6835:6 & 6908:15 6912:3 & surround 6897:13 & 6895:20 6899:24 \\
\hline 6791:18 6853:10 & strain 6909:13 & 6918:14 6956:4 & surrounding 6915:7 & 6902:23 6915:16 \\
\hline 6885:19,21 & strategetic 6887:23 & substantially & surrounds 6855:2 & 6926:15 6930:6 \\
\hline state 6836:16 & strategic 6857:18 & 6872:10 6876:12 & surveillance 6812:1 & 6932:22 6934:3 \\
\hline 6874:13 6906:10 & 6857:25 6888:13 & 6909:3 & 6812:15 & 6938:11 6941:8,9 \\
\hline 6947:13 & strategy 6889:24 & succinctly 6896:23 & surveys 6782:21 & 6943:22 6950:3 \\
\hline stated 6825:19 & 6943:9,12,21 & suffice 6908:10 & survive 6821:6 & 6951:25 \\
\hline 6850:16 6858:7 & 6944:10,15,17 & sufficient 6894:7 & survives 6821:8 & taken 6788:23 \\
\hline 6876:10 6901:6 & straw 6894:4 & suggest 6842:11 & suspect 6876:3 & 6802:8 6817:19 \\
\hline 6901:14 6957:9 & stream 6789:7 & 6871:17 6921:7 & sustainability & 6818:7 6845:3 \\
\hline statement 6869:16 & 6816:6 & 6947:19,21 & 6861:8 6881:21 & 6927:25 6928:6 \\
\hline 6870:2 6871:2 & stretch 6859:16 & suggested 6944:5 & 6882:8 6883:6 & 6934:24 6936:18 \\
\hline 6929:12 & strictly 6798:19 & suggesting 6805:7 & 6889:22 6950:14 & 6946:20 6957:8 \\
\hline statements 6927:21 & strikes 6883:21 & 6869:6,13 6870:1 & sustainable 6860:9 & takes 6792:14 \\
\hline states 6833:9 & 6900:18,19 & 6870:7 6871:9 & 6860:15 6861:3 & 6875:23 6948:12 \\
\hline 6844:6 6864:22 & 6930:5 & 6875:8 6895:18 & 6881:13,15 & 6948:12,13,13 \\
\hline static 6900:1 & stringing 6792:11 & suggestion 6832:20 & 6882:11,22 & taking 6817:14,21 \\
\hline station 6794:12 & 6792:15 & 6832:21 & sustenance 6929:24 & 6849:16 6862:6 \\
\hline 6801:14 6805:14 & strip 6817:23 & suggests 6833:1 & 6930:10 & 6917:11 6954:24 \\
\hline 6827:19 6829:10 & strong 6864:9 & suite 6813:1 & Swan 6811:16 & talk 6833:25 6834:2 \\
\hline 6829:10 6830:3,3 & stronger 6936:20,21 & 6814:16 & 6921:18,21 & 6877:6 6881:13 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{5}{|r|}{Page 69} \\
\hline 6804:2,10 & tiny 6933:18,18 & 6808:12 & \(\boldsymbol{\operatorname { t r a p }}\) 6930:4 & Tuesday 6776:19 \\
\hline 6814:15,17 & tipped 6822:24 & tower 6792:8,9 & trapline 6800:16 & 6781:1 \\
\hline 6817:11 6819:25 & tipping 6894:2,10 & 6815:22 & traplines 6921:15 & Turenne 6799:8,12 \\
\hline 6850:12 6852:7 & 6949:25 & towers 6815:23 & trapper 6800:18 & 6801:6 6802:20 \\
\hline 6858:9,19 & title 6817:10,16,19 & 6931:22 6936:4 & 6802:1 & turn 6848:6 \\
\hline 6860:20 6889:10 & 6818:3,7 & town 6796:24 & trappers 6799:16 & turning 6781:15 \\
\hline 6898:12 6907:21 & titled 6870:8 & township 6935:23 & 6800:8 6801:20 & two 6781:24 \\
\hline 6916:3,8,19 & 6874:13 & track 6782:14,17,21 & 6803:15 6804:5 & 6799:21 6800:21 \\
\hline 6917:4 6920:13 & today 6781:5 & tracks 6782:3,5,5,8 & 6920:9 6921:12 & 6804:19 6805:17 \\
\hline 6924:4,8 6928:22 & 6783:1 6798:12 & traction 6917:23 & trapping 6800:11 & 6808:18 6821:16 \\
\hline 6938:12 6947:23 & 6803:17 6827:25 & traditional 6907:18 & 6930:2 6932:8 & 6821:20 6827:1 \\
\hline 6951:6 & 6833:16 6834:8 & 6908:16 6919:19 & travel 6815:1 & 6835:14,16 \\
\hline throughout 6816:3 & 6835:13 6837:11 & 6919:22 6920:11 & traverse 6836:7 & 6841:18 6846:6 \\
\hline 6816:7 6913:16 & 6837:13 6840:9 & 6933:3,13 & traverses 6836:2 & 6854:16,17 \\
\hline 6914:19 6920:18 & 6842:2 6848:4 & 6951:14 & 6938:13 & 6856:12,21 \\
\hline 6929:22 6954:5 & 6849:2,16 & traditionally & treat 6810:9,10,11 & 6857:10,12 \\
\hline tie 6829:1 6831:9 & 6857:15 6865:5 & 6788:12 & treated 6808:16,19 & 6860:5,14 6879:9 \\
\hline 6833:7,12 6834:3 & 6865:21 6884:8 & traditions 6908:19 & 6809:17 6810:7 & 6887:20 6888:2 \\
\hline tied 6861:23 & 6887:19 6899:21 & traffic 6920:21 & treating 6809:19 & 6900:20 6901:25 \\
\hline time 6782:5 & 6903:17 6908:6,7 & tragically 6920:11 & Treaty 6942:11,14 & 6902:23 6924:1 \\
\hline 6784:13 6795:5 & 6912:14 6917:1 & 6923:20 & 6942:16 & 6927:22 6929:17 \\
\hline 6800:18 6805:20 & 6917:20 6918:10 & trail 6811:21 & tree 6809:18 & 6933:4 6934:22 \\
\hline 6808:2 6813:14 & 6918:21 6926:18 & 6813:13,24 & trees 6784:5,7,16,22 & 6939:18 6949:2 \\
\hline 6817:19 6818:24 & 6946:25 6948:5 & 6814:22,24 & 6784:25 6785:3 & 6953:23 6954:11 \\
\hline 6819:19 6820:17 & 6956:8 & trails 6811:13,21 & 6786:18 6788:5 & 6955:13 6956:3 \\
\hline 6820:25 6822:9 & today's 6956:1 & 6813:9,23 6815:3 & 6788:23,25 & Tymofichuk 6780:2 \\
\hline 6823:4 6832:10 & toes 6782:19 & 6815:22 & 6789:4,5,9,15 & 6780:4 6817:17 \\
\hline 6834:21 6835:12 & together 6783:8 & trained 6794:3 & 6808:24,25 & 6818:14 6822:17 \\
\hline 6835:24 6836:24 & 6786:22 6815:24 & training 6792:15,18 & 6809:1,3,16 & 6836:23 6837:17 \\
\hline 6837:9 6840:1,6 & 6825:4 & 6793:23 6818:17 & 6810:7 6811:19 & 6838:9,17,20 \\
\hline 6840:13 6841:5 & told 6807:4 6808:14 & 6910:6 6911:9 & 6815:24 6820:22 & 6841:3 \\
\hline 6842:24 6843:13 & 6809:21 6866:5 & 6941:1 6949:19 & 6821:3 & type 6792:12 \\
\hline 6843:16 6846:24 & 6937:8 6953:13 & trains 6794:1 & tremendously & 6797:10 6844:17 \\
\hline 6851:1 6857:10 & 6953:14,16 & trajectory 6889:2 & 6838:1 & 6846:5 6881:16 \\
\hline 6858:4 6861:22 & tomorrow 6819:5 & transcript 6776:18 & trenches 6811:14,25 & types 6792:19 \\
\hline 6864:20 6866:23 & 6903:10,12,13 & 6870:16,21 & 6812:15 & 6812:16 6833:3 \\
\hline 6873:13 6874:21 & 6944:24 6956:2 & 6937:12 6957:8 & tried 6812:12 & 6846:7 6856:21 \\
\hline 6874:24 6875:14 & 6956:10 & transcripts 6870:19 & 6899:13 & 6886:22 6889:4,5 \\
\hline 6877:6 6880:18 & tools 6953:19 & 6926:10 & trifle 6783:11 & typically 6783:17 \\
\hline 6880:21 6881:5 & top 6791:4 6875:2 & transformed 6909:2 & trigger 6851:25 & 6786:18,19 \\
\hline 6882:2 6887:6 & 6877:10 6878:15 & transformer 6846:5 & 6859:7 6879:10 & 6789:14 6853:16 \\
\hline 6889:6 6895:24 & 6896:25 6949:1,1 & transformers & 6887:24 6889:7 & 6882:15 6888:16 \\
\hline 6898:2 6899:16 & topic 6806:24 & 6845:23 6846:4,8 & 6891:18 & typo 6824:12 \\
\hline 6900:6 6901:18 & 6822:5 6852:5 & 6846:16 & triggers 6894:15 & \\
\hline 6909:8 6912:17 & 6898:18 6929:15 & transmission & trim 6784:25 & U \\
\hline 6913:8,20 & 6945:16 & 6776:6 6790:23 & tripped 6952:22 & Ugly 6874:15 \\
\hline 6921:20 6923:20 & topical 6784:8 & 6801:4 6807:15 & trouble 6857:8 & ultimate 6844:15 \\
\hline 6927:21 6929:3 & topics 6823:3 & 6807:19,25 & Trout 6916:6 & ultimately 6949:12 \\
\hline 6930:19 6935:18 & total 6826:12 & 6816:21 6818:21 & true 6864:21 6942:6 & UN 6948:5 \\
\hline 6938:23 6940:1,2 & 6876:16 6934:3,6 & 6821:13 6829:7,9 & 6942:9 6957:7 & unacceptable \\
\hline 6943:19 6948:14 & totally 6808:17 & 6829:13 6830:2 & truncated 6954:6 & 6833:4 6902:10 \\
\hline 6953:7,22 6956:6 & 6845:2 & 6830:16 6844:17 & trust 6908:4 6911:1 & unbearable 6909:14 \\
\hline 6957:9 & touch 6881:16,17 & 6868:10,18 & try 6797:23 6798:9 & uncertain 6834:11 \\
\hline times 6794:5 6795:6 & touchstone 6907:23 & 6908:12 6925:3 & 6813:3 6837:5 & uncertainties \\
\hline 6847:23 6863:15 & tour 6788:1 6942:1 & 6952:21 & 6900:9 & 6861:25 6864:19 \\
\hline 6864:9 6870:25 & tourism 6929:25 & transparency & trying 6783:8 & uncertainty 6878:7 \\
\hline 6884:10 6887:13 & toward 6829:17 & 6928:16 & 6790:5 6823:6 & 6901:22 6902:1 \\
\hline 6895:6,11 & 6830:10 6833:21 & transparent & 6864:7 6883:18 & 6902:11 \\
\hline 6896:14 6901:21 & 6833:22 6837:12 & 6914:23 & 6900:2 6901:17 & unclear 6783:11 \\
\hline 6925:6 6943:7 & towards 6794:7,20 & transpired 6926:17 & 6930:21 6939:24 & 6852:12 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{5}{|r|}{Page 6988} \\
\hline uncovering 6803:1 & unfamiliar 6852:11 & 6859:3 6864:24 & 6898:15 & 6854:6 6855:13 \\
\hline under 6815:3 & unfortunate & 6865:1 6875:9 & VEC 6853:9 6873:5 & 6858:24 6860:9 \\
\hline 6838:16 6852:18 & 6860:23 6938:2 & 6893:25 6894:15 & 6874:7 6875:8,25 & 6863:22 6873:5 \\
\hline 6853:20 6861:24 & unfortunately & 6896:8,11 & VECs 6852:18,19 & 6876:16 6885:1 \\
\hline 6862:17 6875:5,7 & 6892:11 & 6899:18 6900:16 & 6853:24 6854:1 & 6885:19 6887:9 \\
\hline 6878:21 6885:21 & unilateral 6934:21 & 6901:7,7 6931:9 & 6854:18 6855:10 & 6892:20 6895:6 \\
\hline 6899:25 6919:2 & union 6794:19 & 6932:5 6933:24 & 6855:14,20,21 & 6900:21 6907:20 \\
\hline 6921:23 6928:21 & unions 6791:21 & 6937:4 6938:8 & 6858:1 6873:21 & 6909:19 6929:3 \\
\hline 6929:4 6952:8 & unique 6890:16 & 6943:15 6944:15 & 6875:22 6876:17 & 6946:9 \\
\hline underestimate & 6907:20 & 6947:12 & 6933:10 & viewed 6859:18 \\
\hline 6878:10 & United 6844:5 & useful 6856:4 & VEC's 6852:24 & 6863:12 6876:20 \\
\hline underground & universal 6812:24 & 6858:21 6870:11 & vegetation 6810:17 & views 6849:6 \\
\hline 6825:20 6826:2 & universally 6814:7 & 6877:7 6888:5 & 6810:21 6813:8 & 6856:25 6862:5 \\
\hline 6828:10,12 & universe 6853:12 & 6889:19 6891:14 & vehicle 6813:5 & 6873:14 6885:18 \\
\hline undergrowth & University 6940:3 & 6892:5 6897:16 & 6924:22 & 6913:7 \\
\hline 6784:18 6788:22 & unless 6816:9 & uses 6894:22 & vehicles 6811:9 & vigorously 6922:1 \\
\hline 6788:24 6789:14 & unrealistic 6881:17 & using 6788:14 & 6932:14 & VII/428 6823:20 \\
\hline 6809:4 & unresolved 6860:4 & 6789:19 6810:19 & venture 6790:14,21 & virtues 6861:19 \\
\hline underlying 6856:12 & until 6803:5 & 6815:13 6816:13 & vernacular 6948:2 & visible 6934:16 \\
\hline underneath 6818:8 & 6834:14 6845:13 & 6818:19 6853:2 & version 6857:19 & vision 6948:13 \\
\hline understand 6782:25 & 6862:9 6918:19 & 6876:11 6899:14 & 6880:15 6889:20 & 6949:12 \\
\hline 6783:16 6805:7 & 6943:21 & 6900:4 6933:25 & 6891:16 & visited 6823:3 \\
\hline 6817:9 6820:9 & unusual 6838:23 & 6940:5 6947:24 & versions 6857:12 & visualize 6832:6 \\
\hline 6830:25 6840:5 & 6890:1 & usual 6946:14,18 & 6887:20 & vis-a-vis 6799:16 \\
\hline 6843:20 6856:15 & update 6880:25 & 6947:1,16 & versus 6845:2 & 6800:8 \\
\hline 6857:23 6866:18 & 6881:2,11 & 6948:11 & 6944:7 & voiced 6928:2 \\
\hline 6869:24 6875:17 & updated 6836:21 & utilities 6829:6 & very 6784:8 6785:4 & voltage 6835:22 \\
\hline 6883:10,20 & 6837:14 6880:23 & 6833:20 6877:24 & 6789:13 6797:17 & 6836:19 \\
\hline 6884:21 6889:14 & 6945:12 & utility 6818:15 & 6799:2,3 6802:20 & VOLUME 6776:16 \\
\hline 6890:8 6897:6 & updating 6812:21 & 6836:25 6837:6 & 6803:9 6804:7 & volunteer 6939:22 \\
\hline 6918:14 6919:5 & 6881:4 & 6932:20 6933:6 & 6805:15 6809:20 & volunteered \\
\hline 6921:5 6922:14 & upset 6922:10 & 6936:15,19 & 6812:7 6816:4 & 6824:21 \\
\hline 6922:20 & USA 6947:23 & 6938:24 6939:1 & 6820:4 6821:4 & volunteering \\
\hline understandable & use 6783:15 6784:2 & 6946:21 & 6837:1,1,3,9 & 6824:17 \\
\hline 6859:14 6886:2,9 & 6785:12,21,24 & utilizing 6784:10 & 6841:10 6845:18 & \\
\hline 6928:16 6930:13 & 6786:2,10,12 & U.S 6829:6,14 & 6847:24 6848:3 & W \\
\hline 6930:23 & 6787:13 6789:18 & 6830:11 6837:7 & 6849:13 6863:16 & W 6780:12 \\
\hline understandably & 6802:9 6803:8 & 6839:5 & 6882:25 6885:15 & Wabowden 6814:10 \\
\hline 6885:16 & 6809:21 6810:18 & & 6885:16,17 & 6817:1,5 \\
\hline understanding & 6810:20,22 & V & 6886:19 6890:1,4 & wait 6792:24 \\
\hline 6793:21 6808:20 & 6813:5,14 & vacated 6803:5 & 6890:16,16,20 & 6804:22 \\
\hline 6827:13 6838:24 & 6815:23 6816:5 & valid 6875:24 & 6893:3 6894:5 & waiting 6910:11 \\
\hline 6842:15 6848:18 & 6822:13 6833:2 & 6896:1 & 6896:1,23 & wake 6819:6 \\
\hline 6854:10 6876:15 & 6851:22 6858:17 & validity 6922:2 & 6897:10 6898:18 & Walkerton 6916:24 \\
\hline 6878:11 6915:9 & 6859:23 6887:2 & value 6817:16 & 6898:18 6901:18 & walking 6781:23 \\
\hline 6922:12 & 6887:25 6890:15 & 6854:7 6891:17 & 6902:22,25 & want 6781:21 \\
\hline understands & 6891:23,23,24 & 6926:3 & 6909:11 6912:9 & 6794:3 6800:5 \\
\hline 6918:20 & 6899:13 6900:8 & valued 6852:17 & 6912:13,14 & 6802:9,12 6815:6 \\
\hline understatement & 6909:9 6918:17 & values 6948:14 & 6917:16 6919:2 & 6893:14 6930:6 \\
\hline 6946:8 & 6932:18 6937:15 & valve 6845:22 & 6923:22 6928:9 & 6932:17 6937:1 \\
\hline understood 6799:17 & 6941:21,25 & 6846:6,7 & 6928:24 6935:12 & 6942:5 6948:22 \\
\hline 6856:15 6914:9 & 6948:7,24 & valves 6846:2 & 6940:12 6944:8 & 6950:19,21 \\
\hline 6922:24,24 & 6953:19 & variance 6938:18 & 6947:14,17 & wanted 6816:22 \\
\hline undertaking & used 6783:17,18 & variety 6860:2 & 6951:17 6952:24 & 6912:23 6947:19 \\
\hline 6779:15 6904:23 & 6785:24 6786:2,9 & 6863:3 6929:5,18 & 6954:1,2 6955:10 & 6947:21 \\
\hline 6905:19 6940:15 & 6786:13 6788:13 & 6930:11 6936:22 & 6955:10,19,20,23 & wanting 6793:13 \\
\hline 6941:1 & 6809:23 6812:16 & various 6795:6 & 6955:24 6956:1,9 & 6945:20,23 \\
\hline undue 6804:1 & 6813:23 6815:11 & 6849:7 6871:21 & vestments 6862:6 & war 6948:2,5 \\
\hline unencumbered & 6815:12 6825:20 & 6882:8,13 6889:5 & view 6808:14 & warrant 6855:12 \\
\hline 6858:2 & 6846:9 6857:9 & 6889:12 6894:24 & 6842:6 6849:17 & warranted 6924:1 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{5}{|r|}{Page 6989} \\
\hline Warren 6778:3 & 6848:17 6851:4,5 & 6912:17 & 6873:1,17 6874:3 & 6792:1,3,5,6,10 \\
\hline wasn't 6818:6 & 6851:6,11 6861:6 & we're 6789:3 & 6874:6,11,19 & 6792:12,14,15,20 \\
\hline 6825:16 6845:4 & 6861:6 6865:18 & 6797:13 6803:18 & 6875:1,5 6876:5 & 6792:21,24 \\
\hline 6880:14 & 6872:9 6886:15 & 6806:24 6811:10 & 6876:14,22 & 6795:15 6809:13 \\
\hline waste 6916:11 & 6886:17 6887:7 & 6815:21 6816:23 & 6877:2,5,13,17,21 & 6837:17 6856:16 \\
\hline 6919:12 6923:20 & 6889:12 6893:5 & 6818:19 6820:8 & 6878:4,15,19,23 & 6863:4,25 6864:6 \\
\hline watching 6927:25 & 6895:6 6901:11 & 6825:18 6829:10 & 6879:2,6 6899:21 & 6870:5 6877:18 \\
\hline water 6777:6 & 6907:1,2 6912:10 & 6831:4 6832:8 & 6902:24,25 & 6885:2 6886:6 \\
\hline 6822:23 6916:8 & 6919:24 6927:13 & 6834:8 6835:13 & 6903:14 6905:1 & 6890:13 6902:8 \\
\hline 6916:16,19 & 6930:5 6931:3 & 6841:10 6846:15 & 6905:21 & 6910:15 6914:7 \\
\hline 6917:2,3 6925:2 & 6934:10 6947:25 & 6846:22 6882:16 & willing 6792:18 & 6920:13 6932:13 \\
\hline 6932:19,19 & 6952:22 6954:20 & 6890:8 6895:9 & wind 6948:25 & 6937:19 6938:4 \\
\hline 6933:5,11,11 & Wellman 6916:5 & 6897:6,11 & window 6846:21 & 6938:25 6939:2,6 \\
\hline 6947:24 & well-being 6922:16 & 6903:10 & 6855:23 & 6939:7,18 6940:5 \\
\hline waters 6909:3 & well-regulated & we've 6792:21 & Winnipeg 6776:18 & 6940:8 6942:20 \\
\hline 6916:7 & 6800:12 & 6804:1 6831:6 & 6776:19 6817:20 & 6946:7,23 6948:4 \\
\hline watershed 6916:5 & went 6781:25 & whatsoever 6919:15 & 6913:17 & 6949:12 \\
\hline 6925:4 & 6808:12 6875:1 & Whelan 6777:17 & winter 6792:25 & worked 6817:25 \\
\hline way 6782:15 6783:9 & 6926:9 6952:14 & 6780:14 6954:2 & 6820:21 6821:7,8 & 6841:9 \\
\hline 6791:9 6815:1 & were 6786:8 6787:7 & Whelan-Enns & wire 6792:11 & worker 6798:5,12 \\
\hline 6854:25 6856:16 & 6790:5 6793:3 & 6927:17,19,20 & wise 6841:9 & workers 6794:17 \\
\hline 6862:13 6863:24 & 6795:23,23 & 6954:8,22 & wish 6848:13,17 & 6797:11,23 \\
\hline 6881:24 6882:7 & 6796:5,15,20 & 6955:24 & 6851:22 6856:9 & 6798:4,11,13 \\
\hline 6883:6 6884:1 & 6797:22 6799:9 & whichever 6906:1 & 6856:18 6857:1 & 6818:18 6908:14 \\
\hline 6886:16 6888:11 & 6808:24 6809:18 & while 6861:24 & 6862:5 6863:9,21 & working 6790:13 \\
\hline 6888:11 6893:4 & 6812:7 6817:1 & 6863:14 6865:2 & 6869:17 6882:5 & 6794:7,11,19 \\
\hline 6898:4 6899:13 & 6820:16 6825:4 & 6871:15 6878:6 & 6884:22 6892:22 & 6798:8 6859:16 \\
\hline 6899:14 6908:24 & 6834:7 6860:21 & 6884:20 6908:23 & 6949:24 6950:3 & 6872:17 6940:2 \\
\hline 6909:7 6934:6 & 6865:20 6866:9 & 6910:8 6917:24 & witness 6879:8 & 6942:8 6946:2 \\
\hline 6936:8,9,12 & 6866:19 6867:1,9 & 6918:12,24 & 6902:20 & works 6818:21 \\
\hline 6937:13 6939:12 & 6869:8 6871:16 & 6944:14 & witnesses 6820:1 & 6861:16 6863:25 \\
\hline 6944:3 & 6871:17 6873:1 & white 6921:10 & 6841:23 & 6892:13 \\
\hline Wayne 6809:12 & 6880:5 6894:1 & 6935:19 & wolf 6813:6,11,13 & workshop 6871:11 \\
\hline ways 6800:10 & 6901:3 6906:5 & Whitebird 6942:8 & wonder 6953:7 & 6871:16 \\
\hline 6813:3 6893:5 & 6908:8 6909:10 & whole 6802:17 & wonderful 6942:19 & workshops 6934:5 \\
\hline 6900:20 6951:8 & 6911:19 6912:24 & 6838:3 6890:14 & wondering 6782:7 & world 6842:12 \\
\hline 6954:23 & 6913:15,17 & 6933:7 6934:20 & 6799:15 6815:10 & 6864:11 6887:4 \\
\hline weak 6852:20 & 6919:22 6920:23 & 6950:2 & wonders 6892:13 & 6897:12 6899:15 \\
\hline 6859:19 6950:17 & 6924:3,4,8 6925:8 & wide \(6818: 11\) & Woodford 6821:18 & 6899:16 6900:5,6 \\
\hline Webb 6777:6 & 6925:18 6926:11 & 6931:24 & Woodland 6943:9 & 6907:20 6918:16 \\
\hline week 6815:8 & 6926:18 6929:5 & widely 6873:4 & 6943:11,12,16,20 & 6948:2,6 \\
\hline 6827:18 6846:20 & 6930:16 6934:1 & wider 6932:7 & 6943:24 6944:10 & worst 6789:12 \\
\hline 6950:23,23 & 6934:17,20,24 & wilderness 6804:15 & 6944:11,17 & worth 6940:24 \\
\hline weeks 6783:10 & 6935:16 6937:8 & 6811:8 & word 6840:19 & 6947:22 \\
\hline 6847:20 6866:6 & 6937:14 6939:20 & Wildlands 6777:17 & 6893:25 6894:2 & wouldn't 6784:9 \\
\hline 6867:10 6912:22 & 6942:19 6946:22 & 6780:14 6904:9 & 6894:15,18 & 6816:8 6819:17 \\
\hline 6955:22 & 6948:1,3 6952:11 & 6927:18,18,21 & 6895:5 6899:12 & 6830:20 6831:14 \\
\hline weight 6820:2 & 6952:21 6953:14 & 6929:2 & 6900:3 6935:7 & 6831:15 6834:15 \\
\hline welcome 6912:24 & 6954:13,18,25 & wildlife 6813:5 & 6941:25 6950:18 & 6839:13 \\
\hline 6913:21 & 6955:1,2,10 & 6816:24 & words 6786:13 & wrestle 6883:18 \\
\hline well 6785:9,11 & weren't 6786:13 & Williams 6777:13 & 6852:21 6857:5,9 & writing 6927:3 \\
\hline 6791:17 6796:18 & west 6828:22 & 6779:19 6780:8 & 6859:12 6875:25 & written 6821:16 \\
\hline 6797:8 6800:9 & 6955:13 & 6865:9,10,18 & 6876:7,12 & 6849:19 6862:15 \\
\hline 6802:15 6803:16 & we'll 6781:3,9 & 6866:2,6,9,17,21 & 6881:20 6884:7 & 6865:14 6931:11 \\
\hline 6803:23 6805:5 & 6805:22 6818:1 & 6867:1,8,14,20 & 6896:2 6897:8 & wrong 6842:7 \\
\hline 6805:22 6809:6 & 6818:25 6819:10 & 6868:1,5,14,22 & 6918:15 6928:3 & Wuskwatim \\
\hline 6813:6 6816:15 & 6820:4 6822:12 & 6869:5,12,24 & work 6785:15,16 & 6795:21 6797:3,9 \\
\hline 6822:11 6829:21 & 6847:17 6873:17 & 6870:6,14,20 & 6786:22 6789:21 & 6797:16 6868:9 \\
\hline 6836:9 6843:10 & 6902:23 6903:9 & 6871:4,8,15,23 & 6790:1,15,17,21 & 6868:17 6930:15 \\
\hline 6844:11,25 & 6903:20,23 & 6872:2,5,13,16,21 & 6791:14,23 & 6930:16 6952:11 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{5}{|r|}{Page 6990} \\
\hline 6952:20 & \$1.78 6823:22 & 18th 6779:10 & 21 6878:15 6899:22 & 65 6839:20,20 \\
\hline Wuskwi 6781:20 & 6824:11 & 6848:15 6865:14 & 21st 6891:3 & 6847:7 \\
\hline 6808:11 6944:22 & \$204 6829:15,16 & 6865:23 6867:3,6 & 2191E 6925:24 & 66 6931:14,17 \\
\hline & 6839:11 & 6867:16,22 & 22 6919:22 & 6782 6780:3 \\
\hline Y & \$21,000 6799:23 & 6868:6,23 6869:4 & 23rd 6871:11 & 68 6829:20 6830:2 \\
\hline yards 6932:13 & \$430 6825:14 & 6877:3 6904:20 & 24th 6871:11 & 6820 6780:4 \\
\hline Yeah 6786:15 & \$580 6824:23 & 6905:12 & 25 6802:4 6924:2 & 6822 6780:5 \\
\hline 6800:16 6825:2,3 & \$766 6831:2 & 19 6812:3 6813:20 & 272 6845:23 6847:3 & 6842 6780:5 \\
\hline 6827:16 & \$850 6828:6 6831:2 & 6814:3 & 278 6826:14 & \(68486780: 7\) \\
\hline year 6789:1,10 & \$900 6847:2 & 19A 6815:16 & & \(68656780: 8\) \\
\hline 6793:6 6800:14 & & 1940s 6947:22 & 3 & 6879 6780:8 \\
\hline 6800:14 6804:20 & 1 & 1957 6907:19 & 3 6823:10 6825:10 & 6905 6779:2,4,6,8,9 \\
\hline 6804:20 6805:1,3 & 1 6828:5 6831:4,12 & 1960 6938:15 & 6825:23 6844:21 & 6779:11,13,15,17 \\
\hline 6805:17 6808:18 & 6832:3 6867:16 & 1985 6938:15 & 6845:19 6876:23 & 6779:19 \\
\hline 6821:1 6834:14 & 6867:21 6939:16 & 1988 6939:1,2 & 6879:10 6952:10 & 6906 6780:10 \\
\hline 6841:16 & 6939:16 & 1990 6939:3 & 6953:10,12 & 6914 6780:12 \\
\hline yearly 6802:7 & 1st 6908:3 & 1990s 6952:6 & 6954:4,13 & 6927 6780:14 \\
\hline years 6784:3,13,14 & 1.2 6824:23 & 6953:7,9 6954:11 & 3rd 6827:10 & \\
\hline 6784:15 6802:4 & 1.3 6832:3 & 1991 6939:3 & 32 6776:16 6779:2 & 7 \\
\hline 6804:19 6810:8 & 1:15 6903:24 6904:3 & 1992 6909:19 & 6904:15 6905:3 & 7 6875:2 \\
\hline 6810:10 6818:1 & 10 6810:8,10 6890:1 & 6912:7 & 33 6779:4 6904:16 & 70 6824:1 6826:8,22 \\
\hline 6828:21 6831:20 & 10:10 6820:7 & 1993 6938:15 & 6905:5 & 6827:5,10,21 \\
\hline 6833:1,15 & 100 6901:22 6902:2 & 1999 6872:18 & 35 6908:22,25 & 6828:17 6918:17 \\
\hline 6835:16 6840:9 & 6948:18 & 6880:12,23 & 6909:12 6919:21 & 700 6843:8 \\
\hline 6840:22 6841:18 & 105 6839:18 & & 6942:3 & 750 6834:4 \\
\hline 6850:11 6857:4 & 11 6874:4 6935:12 & 2 & 350 6930:16 & \\
\hline 6883:16 6885:18 & 6935:25 6938:12 & 2 6953:12 & 370 6825:22 6826:3 & 8 \\
\hline 6890:1 6897:24 & 11th 6910:1 & 2nd 6924:14 & 6826:5 & 8 6870:8,10 \\
\hline 6908:15,22 & 1100 6843:9 & 2:00 6903:21 & 39 6840:8,13 & 8th 6870:17 \\
\hline 6909:2 6937:5 & 12 6776:19 6779:19 & 2:30 6903:22 & & 889 6847:3 \\
\hline 6941:23 6948:15 & 6781:1 6905:2,21 & 2:40 6956:11 & 4 & 890 6847:2 \\
\hline 6948:17,18 & 12:15 6904:2 & 20 6802:4 6831:20 & 4 6825:10 6833:25 & \\
\hline 6952:18 & 120 6782:9 & 6833:1 6845:12 & 6876:24 6887:19 & 9 \\
\hline yesterday 6781:20 & 122 6779:6 6904:18 & 6931:5 6952:18 & 4,000 6916:11 & 9 6804:20 \\
\hline 6799:7 6808:10 & 6905:7 & 2000 6832:10 & 4.5 6931:24 & 9:00 6781:2 6956:9 \\
\hline 6808:13 6811:5 & 123 6779:8 6829:13 & 2004 6868:15 & 40 6839:19,20 & 9:56 6820:6 \\
\hline 6819:14,24 & 6904:19 6905:10 & 2009 6940:16 & 6840:2,7 6845:12 & 90s 6954:3 \\
\hline 6820:16 6904:14 & 124 6779:9 6904:20 & 2010 6834:19 & 6947:13 & 92 6826:6 \\
\hline 6913:11 6929:12 & 6905:11 & 6836:11 6843:19 & 437 6908:11 & 94 6880:5 \\
\hline 6938:16 6944:20 & 125 6779:11 & 6844:13,15 & 45 6916:8 & 96 6933:15 \\
\hline 6945:4 6946:11 & 6904:21 6905:13 & 6874:16 & 450 6839:22 & 97 6939:25 \\
\hline yesterday's 6781:18 & 126 6779:13 & 2011 6869:1,8 & & 98 6939:25 \\
\hline young 6780:10 & 6904:23 6905:15 & 2012 6823:19 & 5 & 99 6955:5 \\
\hline 6793:3 6906:12 & 127 6779:15 & 6869:15 6870:17 & 5 6844:22 & \\
\hline 6906:14,16,18,22 & 6904:24 6905:18 & 6870:23 6871:8 & 50 6827:17 6843:10 & \\
\hline 6911:13,24 & 13th 6870:23 & 6871:10 6891:15 & 6845:12 6948:15 & \\
\hline 6913:4,23 & 6908:4 & 6891:16 6908:3,4 & 6948:17 & \\
\hline youth 6786:6 & 14 6935:12 & 6943:14,21 & 500 6824:2 6826:23 & \\
\hline & 15 6802:4 6810:10 & 2013 6776:19 & 6828:25 6829:7,9 & \\
\hline Z & 150 6817:15 & 6781:1 6865:23 & 6829:20 6830:2,4 & \\
\hline zero 6832:13 & 6937:19 & 6867:22 6868:6,7 & 6830:15 6831:3 & \\
\hline zone 6786:24 & 1500 6832:8 & 6868:23 & 6834:2 6844:6 & \\
\hline 6816:1 6931:24 & 16 6804:20 & 2017 6832:6 & 55 6908:22 6909:2 & \\
\hline 6932:8 & 16th 6915:14 & 2018 6835:8,15 & & \\
\hline zones 6785:9 6816:6 & 6926:10,18 & 2020 6839:3,25 & 6 & \\
\hline & 167 6826:10 & 6840:1,10,11 & 6 6814:12 6816:16 & \\
\hline \$ & 17 6788:5 6815:25 & 2025 6831:5,18,24 & 6870:2 & \\
\hline \$1.2 6824:14 & 6938:12 & 6832:10,20 & 6th 6779:2 6904:14 & \\
\hline \$1.35 6826:14 & 18 6779:17 6829:4 & 6834:7 & 6905:4 & \\
\hline \$1.631 6825:11 & 6904:25 6905:20 & 2040 6843:10 & 60 6829:8 6933:25 & \\
\hline
\end{tabular}

This document was created with Win2PDF available at http://www.win2pdf.com.
The unregistered version of Win2PDF is for evaluation or non-commercial use only. This page will not be added after purchasing Win2PDF.```

