Environmental Assessment Board
Highway 104 at Antigonish

HEARING PANEL
TRANSCRIPT

for Hearings
held at the Claymore Inn
Antigonish, NS
June 23 and 24, 2005

Environmental Assessment Board
Highway 104 at Antigonish Public Hearings

Thursday, June 23, 2005 – Afternoon Hearing

Tony Blouin: …Temp Board, on my right is Bonnie Rankin, on my left Dale Smith, and we also have a couple of support staff with us today. First on my right there is Jim Gordon, he is the administrator for the Assessment Board, and on Jim's right is Stephen McGraw, he is a legal solicitor with the Department of Justice and he is the legal advisor to the board. So the public hearings are essentially a chance for the panel members, but more particularly for the public, to come here, express their views, to ask any questions they have about the project and have those answered as best as possible by the proponent. The process is mandated under the Nova Scotia Environmental Assessment Act and the Assessment Regulations.

This is a class 2 undertaking, which means it has to be referred to the Environmental Assessment Board for public hearings. The public hearings are a nonjudicial process, in other words, we don't use the same procedures that a court of law would necessarily use, but there are rules and procedures, which I will outline very briefly, just to give a bit of structure to the process.

The role of the panel is to appear here today to hear from the public, to hear answers to any questions that arise. We will then, the 3 members of the panel here today, will prepare a report, which goes to the Minister of Environment for Nova Scotia. Our report can contain recommendations and conditions as we see fit, which will be recommended to the Minister. The final decision is the Minister's and will be made by him as to whether the project proceeds and under what conditions. We have scheduled 4 sessions. There is a schedule as a handout on the side table there. There is one this afternoon, another one this evening at 7 o'clock, and similarly tomorrow at 1:30 and again at 7. We do have some other handouts available there; there is a set of the Assessment Board regulations, which set out the process that we are following. There is also a background shorter version of that, which includes the important points from the regulations.

In terms of the procedure here, I'll just briefly describe it to get under way. The process is, as I say, a nonjudicial, it's an informal process, but we do have some rules and procedures. Probably fundamentally is respect for others, these hearings and the issues here are about the issues, not about personalities, so I just ask everybody to have some respect for other participants. There is a provision for formal presentations within the process. We have had 3 individuals who have requested to make formal presentations. We don't have one scheduled this afternoon, but there will be one this evening, one tomorrow afternoon and another one tomorrow evening. The process begins by a presentation by the proponent of the project, so they will do about a 20-30 minute, I think, introduction to the project, give an outline of it, and the current status of that. Then there is a provision for questions from the audience, if any of you have questions that you want to address, the question should be addressed to the Chair, and I will determine who would be appropriate amongst the participants to answer questions. The panel members may also have questions for the proponents and in terms of process, if you have questions, please step forward and use the microphone that's provided in the middle there. It is important that we do have a record of any questions and comments that you make, so that is important to use the microphone. The proceedings are recorded and a full set of transcripts will be provided and made

available publicly following the hearings. There is a provision for media, but I don't think we have any here today, so that's fine.

Tony Blouin: The panel has until August 6 to make a report to the Minister and as I said, that report can either recommend that the project not proceed or that it proceed with or without any attached conditions and the final decision is with the Minister. There is, I should mention, also a federal environmental assessment process. This project is subject to that federal process, the process that we're engaged in here is for the Province of Nova Scotia, but the environmental assessment report that the proponent has generated and the process has been designed in such a way as to try to satisfy the requirements of both levels of government, federal and provincial.

Just a few things in terms of logistics, somewhere about the middle of the proceedings, I think we'll try and take about a 10-minute break, if people need that. Washrooms are just outside the door here, there's water available at the back, and I just ask if anybody's got cell phones or pagers, that sort of thing, just please have them turned off.

So we will get under way, I think the first item of business is we have a couple of documents that the administrator needs to read into the record, so do you want to go ahead and do that, Jim, or Stephen, sorry?

Stephen: Yeah, Jim, just a couple of preliminary (inaudible) of the issues, a couple of documents to be entered as it is the regulations required of the administrator to provide an affidavit service as sending out publication of the notice of the hearing, the administrator has signed that affidavit this morning (inaudible) and we could simply maybe mark down the specific one in the record, we can deal with it that way. The second item, Mr. Chair, is the schedule of the critical aids that were prepared by the administrator to outline the dates and various steps of this proceeding that have taken place on, and if you could just mark that as Exhibit No. 2, and that would be the last item that we need to deal with up front, and I believe copies of that list are available on the side table.

Tony Blouin: Okay, thanks very much. So I will ask, the Department of Transportation and Public Works have some representatives here today, and I am going to ask them to introduce themselves and go ahead with their presentations.

Dwayne Cross: Thank you, Mr. Chair. My name is Dwayne Cross, I'm a highway planning engineer with the Nova Scotia Department of Transportation and Public Works. Um, I seem to get a lot of echo… let's check that now. Maybe I'll just proceed, try to get the audio working as we go.

Tony Blouin: Before we do so, I am going to just swear you in.

Dwayne Cross: Okay.

Tony Blouin: The regulations require this. Not the members of the audience… (inaudible)

Do you swear that the evidence you are about to… (inaudible)

Dwayne Cross: Okay, the project is, as everybody knows today, we're dealing with Highway 104... (inaudible)…and EA's part (inaudible)presentation process. So, I guess the first question is, why are we here now? Why are we bothering with this project, and obviously there are a series of problems that have grown over time, and

(inaudible). First of all, traffic problems… the (inaudible) traffic problems (inaudible). This outlines (inaudible) there are 14,400 people per day. Keep in mind that the highway reaches (inaudible) reaches 10,000 (inaudible). It (inaudible). In particular, in summertime the average daily traffic nears 20,000 vehicles (inaudible). Second highest volumes in the province (inaudible) 100-series (inaudible) highway, and a larger (inaudible) trucks and in this case, something like 20%, and that's a significant amount of traffic (inaudible). Access, there are numerous residential and commercial driveways along the entire corridor, several (inaudible) intersections. Speed is an issue. Posted speeds are always 60 km/h, so it is varied from 100 on the approaches to as low as 60, so there is quite a bit of change in speed, obviously, so next to local or particularly slower traffic and through traffic, which is fast, (inaudible) which is, perhaps, now (inaudible). It's not just (inaudible), what it is, is the difference of speed between vehicles is made (inaudible). High-speed differential increases the likelihood and severity of collisions.

Dwayne Cross: Finally, I'll touch on overall safety, the combination of high volumes, uncontrolled access, and local versus through traffic has resulted in the highest collision rates in the province for 100-series roads, and in fact, if we look at one particular section on the overall job, on the overall project, there are up to 13 times the provincial average for a 2-lane 100-series controlled-access highway and up to 15 times that for 4-lane divided 100-series highways, so there are some significant safety issues. This slide indicates the relationship between speed differential and collisions, so as your speed differential increases, let's say, a vehicle pulling out and accelerating to, perhaps, 40 km/h and interfering with traffic maybe at 80 km/h, you can see that the crash rate significantly increases and this is another slide that shows that at any typical intersection, when an analysis of the collisions is looked at, you can see that about 75% are, in particular, due to left turn movements. Here is a picture down in the Lower South River area that shows patrons to this establishment and when they're going to leave, they're actually going to have to back out onto the Trans-Canada Highway. Certainly a safety concern, for, I'm sure everybody would agree with that, and looking again, in the same general area, you may believe it or not, but there is an actual major intersection in this slide, but it's lost in the lack of control and curving with the huge expanse of asphalt. Another feature that is fairly unique to the Trans-Canada Highway would be signalized intersections, and that's highly atypical for a Trans-Canada Highway, a 100-series highway, and it's another example here, actually, you can see with a few tractor trailers going through the area, another example of the high-truck traffic that this facility is exposed to.

So we want to, we know what the problem is, let's try to identify a solution. So we wanted to identify the routing, including access locations, for a new Highway 104, from Addington's Fork Road to Taylor Road, that best meets the transportation and economic development needs, the local community and the province, and that's important to note that it's a facility that needs to satisfy not only those that live in the Antigonish area, but this roadway is going to service not only provincial wide, but throughout the entire country. So we need to secure the identified highway alignment, including interchange locations, through a corridor preservation process, and basically, the end product with corridor preservation is we purchase the land, so eventually when the funding is available, that we can proceed with that, basically pull our work off the shelf and pretty much, that's the case and away we go.

This highway is part of the national highway system, so it is eligible for cost-sharing with the federal government and what the national highway system is, it's a

network of, in our case, 100-series highways, which are of national significance, so they're significant to the entire country, and within our province, you can see, there's a variety with the 101, the 104 through here, Trunk 4 and Cape Breton, the 102, and certainly 104 through to the border, and we can see Antigonish, provincial-wise, is one small piece of that overall puzzle, one small piece of that entire national highway system vision, which I believe we're looking at a 600-800 million deficit in it, just within our province. So, you think back to the pictures of Lower South River with the access issues and this slide shows you what the national highway system would look like, in this case, a 4-lane divided highway with full access control and full access control being controlled the great separated interchanges. When I say great separated, I mean the, in this case, the major highway, in this case Highway 102, passes over the minor road, so that traffic on both roadways do not interfere with each other.

Dwayne Cross: I'm going to go through the project chronology right back to the project's inception. The Corridor Preservation Study was initiated in the fall of 1996, the constraint identification occurred through the winter of 1997, and constraints being an initial cut at trying to find out what environmental features and overall features needed to be considered with routing. This constraint information was assembled in a map and presented at the first public consultation in May 1997. Investigation of alignment options went on through the summer and fall of 1997 and from that work, there was the identification of the most feasible alignment options, and in this case, there were 3, and some of you may recall the red, the blue and the brown that were the names designated at the time. Further analysis of these options went on through the winter of 1998, which brought us to our second consultation in May 1998, where the
3 options were presented and input was received from the public.

Following this, we went through a safety review process by an independent consultant, which was hired by the Department in February 1999. The blue route with the interchanges as we are proposing through the environmental assessment, was recommended to the Minister by staff in April 1999. We went into some further refinements and, I guess, support of the choice with a peer assessment, which was also completed by an independent consultant in April 2000, following which, our Minister approved the alignment to be registered for the environmental assessment process in May of the same year. Our third consultation with the public, in this case, was an information session, basically to bring the debate over the choice to an end and present the public as to what our department was moving forward with, and that occurred in May 2001. The alignment received overwhelming support at the time, but as we know, and with any highway project, you can't satisfy everyone, but we certainly made the argument that we made the best choice based on the significant amount of work that was carried out to that point. Following this, we entered into a project description, or we developed a project description, as part of the federal and provincial environmental assessment processes and both approvals are required for this project, federal-wise in particular because of the trigger for funding.

The project was registered for environmental assessment in November 2001 and just a point to note, there were no public comments received on the terms of reference during the public review period. So the final terms of reference were issued in February 2002, a consultant was required to develop the EA report, in this case it was Jacques Whitford, and they are with us here today. Fieldwork was conducted through 2002; the final report was submitted in April of this year. The

Minister of DEL referred the report to the board, and we are here today at the public hearings with the panel that was established.

So I'm going to take, I guess, a pan through the project and just review it with everybody. You guys down in the back, if I'm in the way, maybe we can just get you to slide over if I'm being an obstruction, just to view it. We come in off of, so we're coming in from the west, from New Glasgow, as we're entering the speed reduction zone as it stands today with the existing highway through the Addington Forks Road intersection, the existing highway is along here, and we would be coming off with a new diamond interchange and a realigned Addington Forks Road. So we will continue on, you can see the existing alignment coming along here, we have Gasoline Alley through here, the new Superstore and Wal-Mart are located here, with the alignment going just in behind of the Superstore. We come down, we cross under an adjusted Trunk 7, and what I mean by adjusted Trunk 7, it will be built up and over the new highway, and the interchange ramps will tie in. By building Trunk 7 over the new highway, our interchange ramps will have a secondary function as noise mitigation, in particular, for the community in this area.

Dwayne Cross: So we continue on, this is, I think it's James Street, we come along, we have the existing signalized intersection at Trunk 7, existing signalized intersection at Church Street, the Saint Unions property is here, continue on from Trunk 7, crossing over the Church Street Extension area, and crossing the West River. At this point, we were proposing a service road, and for quite some time proposed a service road. In the past little while, we have been reevaluating that choice and looking at providing a tunnel under the new highway, so that those people who would have been severed on the end of Church Street who would have to access, have to get access from Trunk 7, wouldn't have to do this. We wouldn't construct the service road, but provide a tunnel under the new highway, allowing continued access similar to as it exists today. So we cross West River, continue on to the Beech Hill Road crossing, and this is the existing intersection with no left turns identified, and that's a valid point to make too, as we recall the slide that showed 75% of collisions at an intersection are typically attributed to the left turn movement, certainly a move that we have put in place to help reduce that chance with the existing intersection.

Back to the new alignment, we would be crossing over Beech Hill Road and providing a new diamond interchange, and at this point, something that we have been considering is connecting between the new highway and the old, as an interim measure of phasing the projects, so that we could construct the project in 2 phases. The overall project cost is currently estimated at nearly 90 million dollars, which is a significant chunk of change for our small province to deal with, and by splitting the project here, it actually quite neatly splits the cost of the project in half, which definitely increases the interest and ability and the opportunity to fund it, to fund the projects.

So we continue on to the east, come down around behind, this is the intersection with Trunk 4 into Antigonish, the manufactured community home, community home is here, the old central supply's is through here, so we would come in around the back, crossing over, we'd be crossing over the existing highway on our downward approach to crossing the Lower South River. At this point, we show South Side Harbor Road is realigned and connecting into the intersection at Route 316, and this would be Mother Webb's. Through this realignment, we would provide our 4th new diamond interchange. South Side Harbor Road would be cut off here and the Route 316 ties in. Anybody that has driven that area can see the intersection has

been upgraded in the past few years ago with the vision that it would be continued up to the new highway without having to come back and spend money and make changes at that time.

So we continue on and tie back into the existing Highway 104 just past Taylor Road. With our proposal, Taylor Road would be realigned up and over Highway 104 at this point and tie back into the existing highway. So touching again on traffic volumes, what I show here is at the time the studies were completed, the volumes were about, they were factored to 15,000 vehicles per day as part of the study. Without the highway in the year 2010, we would be looking at 21,000 vehicles a day and in the year 2030 we would be looking at nearly 40,000 a day, that's the top end of the volumes along the existing sections, so you can see with 39,000 or 40,000 vehicles a day, our 4-lane divided highways are getting to the point of consideration for
6-laning. With the new highway constructed, we see with the old highway for the similar years, the volumes are quite a bit reduced, 88 compared to the 21,000 and 16 compared to 39,000, but the new highway, traffic volumes would be up to 17,000 and up to 30,000 vehicles a day. As a measure that we consider, as something that we looked into with the high cost of the project was the fact maybe that we could consider building a 2-lane road, but certainly with the projections, if we built a 2-lane road, we would be following it up with twinning pretty much at the same time, so we don't have a choice but to build a 4-lane highway and all these numbers are projected vehicles per day.

Dwayne Cross: There are a few features in particular I want to kind of highlight on outside of the chronology that I've gone through. As I've mentioned earlier about the safety review, we wanted to review the alignment options and have the independent consultant recommend the scheme that provides the greatest safety. They examined 8 scenarios from the 3 alignments that we were dealing with, and out of that, the blue alignment with interchange locations, as I just went through, provided the greatest safety. The other point I mentioned about the chronology was the peer assessment. This consultant who undertook the peer review with the 3 alignments and they reassessed the project with fresh eyes, we wanted, I guess, a senior, well experienced group of engineers to look at this and then see if, I guess, we were doing the prudent thing, and out of that again came the recommendation of the blue route being adopted in principle.

The last consultation we had in May 2001, the information session, we presented the alignment to be registered for EA, and we had handouts and large-scale maps. About 200 attendees were there and about 27 comment forms were completed. The atmosphere was quite positive at the session, and the comment forms, when they were analyzed, yielded about 52% support of the project, 22% didn't oppose it, but had concerns over particular aspects, and only 15% did not support the project. At the session, it just seemed to be there was desire to get on with things, get the project under way and let's see it built. Another point I want to highlight is the socioeconomic consideration; there are a number of businesses along the existing route, which certainly deserve attention and study. The terms of reference for the environmental assessment with regard to socioeconomics was adequately covered, but over and above that, we asked our environmental assessment consultant to do a little more work, again, in recognition of the business impacts that were going to result from the roadway. We had met with the Regional Development Authority and with Profile Antigonish, I understand now called the Antigonish Area Partnership, and they provided input to us as well. I guess the key methods identified which came out of those meetings were impacts to be

minimized, or things to be considered, would be interchange beautification, appropriate signage on the new highway, and proper locating of the Tourist Information Center at one of the new interchanges.

I'll take an opportunity now to go through our roadside signing programs for 100-series highways, and our department have, we have numerous signing programs for which there are, I guess, some of them are by default with the roadway and some of them are opportunities, possible opportunities, which can be pursued by the town and by businesses. This one is the typical guide sign that you would see along the roadway. We have industrial or business park signs, and certainly for the industrial park on the eastern end of the project. There are community identity signs along our highways. We have motorist service symbol signs, business logo signs, in this case you can see, for example, McDonalds and the fuel stations, major tourist attraction signs, if there are major attractions, they may qualify for this type of sign. Scenic travel way signs, in this case would be the Ceilidh Trail, and large service business area loop signs. As I mentioned, eligibility for each type would need to be assessed within the guidelines of the respective program, they're not all by default approved, and as I mentioned, it's up to the town, the municipality and the businesses to actually choose to participate when it is possible.

Dwayne Cross: Another additional highlight on our environmental planning process is the environment is a significant component to our highway projects, all of our planning projects, at numerous steps along the way, and with this one, the preliminary screening, which is conducted in-house, this is pretty much the first thing we do when we're considering a new highway. We have 63 constraints, which are investigated, we contact various agencies and groups for known information at that time, develop a constraint map, identify areas that need to be avoided, and make an attempt to fit the alignment, considering all factors, one of them being the environment, and at this stage, this is what comprised the first consultation for the project. We have the environmental assessment report, which we see numerous copies around here today, with that there is a significant amount of field work and detailed information that is gathered, and with that, we use it to tweak our alignment to avoid or minimize impacts. We have a certain level of comfort coming out of our in-house screening, but certainly with detailed fieldwork, you don't know what can be found and in some cases, the alignment needs to be adjusted as such. Within the report, there is recommended mitigation and followup work to occur as the design and construction proceeds, and that's outlined in the report. Getting through the process to the point where we have approval, pretty much, and pardon the pun, I guess, gives us the green light to proceed towards construction. It's a major milestone in the planning process.

Finally, environmental protection plan, this is developed nearing construction and we do have a generic environmental best management practices within that. It's site and project specific things to do and also within that, followup and monitoring is included, if they are required. So, finally, the next steps that we have to carry on from here, the deadline for submission of report and recommendations to the Minister from the Board, and from the panel, is in August. We anticipate a decision from DEL at that time and as the Chair mentioned, it could be an approval, approval with conditions, or rejection. We will then be getting into field survey and detailed design, pending the approval, purchase of the corridor, and this would lead us into… the earliest possible start date for construction is in the spring of 2008, and this is our best guess right now as far as the timeline goes. Hurdles

along the way may change that; obviously, the availability of funding will directly influence when construction would start on the project, and that's it, thank you.

Tony Blouin: Thanks very much, Mr. Cross.

End Tape 1

Tony Blouin: …way for the panel members, none of us who live here, to familiarize ourselves with that whole route and the various sites that are involved. So that, just looking for the date, if Jim, you can refresh my memory… yeah, on the 14th, on June 14th, we undertook that, so as a matter of record, that took place with the 3 panel members and Jim Gordon and we visited the sites with Dwayne Cross. Okay, sorry, please go ahead. Perhaps you could just state your name, please, to start.

Philip Corkum: Um, Philip Corkum.

Jim Gordon: Yes, you have a choice to promise to tell the truth by affirmation, or you may swear on the Bible, which do you prefer?

Philip Corkum: Swear on the Bible.

Jim Gordon: Do you swear that the evidence you are about to give shall be the truth, the whole truth, and nothing but the truth, so help you God?

Philip Corkum: I do.

Jim Gordon: speak into the mike there, if you would. Perhaps you could state your name, please?

Robert Federico: Robert Federico.

Jim Gordon: Would you like to swear by affirmation or by the Bible?

Robert Federico: Bible.

Jim Gordon: Okay. Do you swear that the evidence you are about to give shall be the truth, the whole truth, and nothing but the truth, so help you God?

Robert Federico: I do.

Shannon Murphy: Shannon Murphy.

Jim Gordon: Would you like to swear by affirmation or by the Bible? Do you swear that the evidence you are about to give shall be the truth, the whole truth, and nothing but the truth, so help you God?

Shannan Murphy: I do.

(general laughter, mumbling)

Stephen: I should note as well, Mr. Chair, that once sworn, the witnesses will remains sworn throughout the proceedings, so that we don't need to do this on subsequent panels and presentations.

Tony Blouin: Thank you.

Lesley Griffiths: My name is Lesley Griffiths.

Jim Gordon: Affirmation? Do you swear that the evidence you are about to give shall be the truth, the whole truth and nothing but the truth?

Lesley Griffiths: I do.

Elizabeth Pugh: Elizabeth Pugh.

Jim Gordon: Do you swear that the evidence you are about to give shall be the truth, the whole truth, and nothing but the truth, so help you God?

Elizabeth Pugh: I do.

Michael Croft: Michael Croft.

Jim Gordon: Affirmation?

Michael Croft: Affirmation.

Jim Gordon: Do you swear that the evidence you are about to give shall be the truth, and nothing but the truth?

Michael Croft: I do.

Lester Tingley: Lester Tingley.

Jim Gordon: Do you swear that the evidence you are about to give shall be the truth, the whole truth, and nothing but the truth, so help you God?

Lester Tingley: I do.

Tony Blouin: Okay, thank you very much to the participants for that. I am going to ask Bonnie Rankin; I think she had a question that she wanted to start out with.

Bonnie Rankin: Yes, um, you noted in your presentation that following the EA report, that one of the purposes was for you to tweak the alignment, if any issues were flagged. Was any tweaking done to the alignment following the report? Who would be best able to answer that?

Phil Corkum: Yeah, there were a couple things we looked at during the EA, but there really was no tweaking involved in that process.

Bonnie Rankin: Okay.

Tony Blouin: I have a question for the proponent, and I will start off by putting it in a general form. There were a number of specific instances of this throughout the report that I noted, but the general issue is that in the report, there were a number of areas where you indicate that the Department may consider a certain action or a certain mitigation or a certain design for a portion of the project, but there, in my view, was no firm commitment as to either which option might be chosen or what process you would go through to choose that option and to make that known, and for the

purposes of the record, I think I should note each instance of it, and maybe ask you to respond to one or two particular instances or good examples of it. For the purposes of response, though, I will provide a written list to the proponent and time permitting, if you want to try to go through all of them today or at other sessions, that's fine, but if not, a response in writing would also be appropriate.

So, perhaps the first instance of it that I noted is on Page 9, you make reference to crossing of sensitive streams within the alignment, and you note that either a bridge or an open-bottom type of culvert structure could be used to minimize the impacts on the stream, and again on Page 9, there's a note that for example, at West River, that a free-span structure might be considered over that, and you also indicate that alternative options might be looked at, but there's no indication of what those options are, so my question is, what sort of commitment would the Department be prepared to make in regard to a preferred option or an option that would be chosen so that the panel and the public can understand what design is going to be used and therefore what impacts that design may or may not have… and if you could identify yourself for the record.

Phil Corkum: Yeah, it's Phil Corkum, um, as far as streams are concerned, we don't really have information at this point so that we can commit to whether it's going to be a bottomless arch-type structure or a culvert. That's going to depend on if there's fish in the stream and, you know, the actual field data that's going to required to do the detailed design of that stream. Really, all we have to go on right now are contour maps. There hasn't been any actual field survey measurements done on the project yet. That normally doesn't come until after the EA is completed and we move on to field survey and detailed design. So there, you know, if the situation is like that, we simply don't have enough information to make firm commitments at this point, and similarly, for a structure crossing, like a flood plain, for instance, we can't, at this point in the planning process, we don't have enough information to make a firm commitment whether the structure is going to be, you know, 2-span, 3-span, or a clear span at this point. That information, we will get as we go through the detailed design of these structures.

Tony Blouin: Okay, I understand, and that being the case, then, is there anything the Department can indicate, given that different options may have different environmental impacts, could you provide any further clarity as to what different mitigations you might be prepared to undertake if, for example, you choose a design that may have more impact than another possible alternative?

Phil Corkum: Well, one example that I think Dwayne alluded to when he was talking about the crossing of Trunk 7 is that normally when you cross a minor road, the rule of thumb is that you always try to put your major road under the minor road, and that, in a lot of cases, that acts, because most of the traffic, the heavy traffic, truck traffic, is going to be on your major road, so in other words, your slopes will act as sound barriers for the major traffic. The other reason, of course, is that you have less wear and tear on a structure. If you're putting your major road over a minor road, all your heavy traffic is going to be on your structure, so your structure takes more wear and tear, maintenance costs are higher, so that's just one example.

Another example is grades, I mean, we have certain standards where we, when we design a road, certain grades we use, but the steeper grades we have on a highway, the more difficult it is for large trucks, loaded trucks, I mean, it costs them more to operate on the highway, there's more, I guess, more concerns in the wintertime, so there are things, there are things that we can do with the geometry

of the road during the design process that will help us. We have guidelines, but we do have some flexibility there to do the design.

Uh, Dwayne, if you want to add anything to that…?

Tony Blouin: Okay, well maybe for the purposes of the record then, let me just note, as I said, there are a number of instances in the report where the same type of issue arises where you've indicated that options may be considered and there may not be appropriate information to choose between them at this point. So what I'm going to ask is, I'll give you these by page reference, and I would ask that you respond in writing with anything additionally you could give the panel so that we can understand what the differential environmental impacts of the different options might be, and what the Department is prepared to do to try to address those?

Phil Corkum: If we can answer verbally today, would that be sufficient?

Tony Blouin: Of course, sure.

Phil Corkum: We'll try to answer as many things verbally as we can, and if there are some things that will take a little bit more time, we might, you know, we will give it to you in writing if that's okay.

Tony Blouin: Time permitting, sure, yes, of course.

Phil Corkum: Of course.

Tony Blouin: Okay, so I did mention on Page 9, there is an issue of crossing some sensitive streams and whether a bridge or an open-bottomed culvert might be used, and the issue of a possibility of a free-span structure at West River. On Page 10, there's a reference to the crossing of the watercourse at, I guess this is a location reference, 8 +150. You've indicated you may consider an arch structure there. On Page 57 and 58, you indicate that noise mitigation will be considered for houses in that area if necessary, and that would be another area where we would need to either have a commitment from the Department, or understand what other mitigations might be applied as appropriate. Similarly, Page 61 and 62, noise mitigations will be considered. On Page 110, mitigation for a stream crossing is recommended, but I find that in Table 5.14, that there is no detailed commitment as to what particular mitigation would be undertaken there. On Page 122, it's again an issue of mitigation for stream crossings, and it's a reference to stream crossing #11.

Page 131, the need for an underpass to accommodate wildlife passage will be considered, and it's again a question of the degree of commitment and whether or not that would be done, and if not, what other mitigation might be applicable. Page 146, you've indicated the possibility that the right-of-way would not be mowed until the end of July, this being to avoid the nesting season for certain bird species. I would like to see a stronger commitment to have that done, or not done, I guess, as the case may be. Page 160, there's discussion of the bridge design and the possibility of habitat enhancement for a rare plant species, and I guess, what we would be looking for there would be some sort of commitment to do that prior to the bridge construction, or to understand if it's not going to be done, what are the implications.

On Page 177, there's a discussion of sedimentation control methods, but there doesn't appear to be a clear commitment to implement them. Again on Page 177,

discussion of a wetland compensation program, which may consider the replacement of hydrological functions through the compensation program, but there's no firm commitment apparent to undertake that. Page 179, again in regard to wetland compensation program, it's not clear whether there's a clear commitment there to replace any habitat that's destroyed or impacted.

Page 180 and 181, and I think this is a repetition, it's again in regard to stream crossing #11, whether or not an arch culvert would be used to facilitate wildlife movement. On Page 181, there's again, it's a repetition of the wetland compensation plan and whether or not there's a firm commitment to replace destroyed habitat and to undertake monitoring. I'm getting to the end here.

On Page 201, there's a discussion of the relocation of the Visitor Center, but again there doesn't seem to be a firm commitment or a specific plan or location where that would be done. Page 203, there's a proposal for mitigations, and I'm going to have to refer to the page myself, I didn't note what it was in reference to…okay, sorry, it's just, it's a general discussion in regard to mitigation to address the economic impacts and things such as signage, lighting, landscape design, are discussed, but there didn't seem to be a clear commitment to undertake any specifics there. On Page 205, there's a discussion of the community liaison committee and the fact that that committee would be expected to monitor the long-term economic effects of the project, and my question is, again, it's looking for a commitment. There will be a need for resources and to ensure that the committee has the capacity to do that work, so I think we would need further information about the mechanisms and a commitment from the Department to actually provide the required resources to make sure that that can be done.

Page 225, there's a mention of undertaking followup on impact on archaeological resources, and that this followup would be done at the direction of the Nova Scotia Museum, so I was just looking for a bit more commitment on the Department's part to undertake that required consultation with the Museum. On page 266, this is in regard to environmental complaints monitoring, and you indicate the possibility that the Department would undertake what you describe as a self-regulatory program, in other words, compliance monitoring that is above and beyond what would technically be required by the regulators, but there is no detail provided there and no specific commitment that that would actually be undertaken, there's just a general discussion of that possibility.

Those are the instances where, that deal with, I think, unknown possibilities with not a clear commitment by the Department as to what would or would not be done, and if it's not done, what are the alternatives and what are the implications of not doing it? So I will leave you to address any of the ones on the list that you might want to.

Phil Corkum: Mr. Chair, I just want to ask you if my answer to the question, the initial question, about the culverts, the lack of information at this point to make a firm decision on culverts, will that address all the questions that you had concerning whether it's going to, you know, what type of culvert we're using? I notice there were 3 or 4 or maybe 5 of those here, would that answer address those questions right now?

Tony Blouin: I think, if you're indicating that each of those cases, that you simply don't have adequate information at this time to be able to answer the question, then I guess, yeah, that would obviously have to suffice at this point.

Phil Corkum: Okay, so we can cross those off the list, is that my understanding?

Tony Blouin: Uh, yes, except that…

Phil Corkum: As far a written response or a response later on in these proceedings?

Tony Blouin: I would say yes, except if you are able to give any indication of what would happen, and it's hard without getting into specific instances, but for a particular stream crossing, if there's the possibility, for instance, of an open-bottomed culvert or a closed-bottomed culvert and you're not able to make that determination yet at this point, I think the panel would like to, certainly I would like to understand what are the implications if you're not going to use the open-bottomed culvert, then what are the implications in terms of environmental impact so that we can make a determination whether that's acceptable or not?

Elizabeth Pugh: I think I can answer that question, Mr. Chair. As part of the sort of ongoing process that we have to go through for environmental compliance, we do have to satisfy the Department of Fisheries and Oceans, and at this point, we don't have the information and we don't know exactly what kind of designs we're going to be doing; however, as we get closer, we will be discussing that with the Department of Fisheries and making sure that what we intend to do meets their requirements, because that legislatively actually is under that domain, and we also, for almost all the stream crossings that are of any concern, have to go through what's called a HADD approval, which is the Harmful Alteration, Destruction and Disruption of fish habitat, and that's an approval process under the Fisheries Act, so in that process, we not only discuss the type of design that is appropriate, and of course that will incorporate fish habitat as well as our pricing, and we can usually come up with a solution for both departments, but we also have to deal with compensation and mitigation. So even though we don't have the information at that stage, we do have another legislative process that we have to go through that, I think, you know, very adequately addresses any issues with impacts on fish and fish habitat.

Tony Blouin: Okay, thank you. I guess, apart from stream crossings, then, were there any other instances that you wanted to discuss?

Dwayne Cross: Just wanted to touch on the relocation of the Visitor's Center, and we have been in discussion or in talks with Ken Watkins of the ARDA and Regional Development Agency and we have a piece of surplus department land in the Addington Forks Road area, which they are, I guess, keenly looking at and certainly we have identified a potential point of access. It obviously has to go through the standard approval process for being granted that access point, but at a preliminary stage, it looks like a promising point of access to the site and again, in using the surplus land that we own for potential VIC location, so that would be right in one of the quadrants of the Addington Forks Road interchange.

Tony Blouin: Okay, so if I understand then, the answer is pending the approval of that access point, then that would be the intended location?

Dwayne Cross: Pending approval of the access point, and I would believe, I guess a final confirmation of their interest in locating to that site. At this point, I guess I would deem it as initial talks or potential…and my understanding is that they approached us regarding the surplus land and it's just potentially a good opportunity and a good location.

Tony Blouin: Okay, thank you.

Phil Corkum: With respect to the signing, I think, on Page 203, you said the signage, lighting and landscaping, of the interchanges, that's a discussion that you know, we intend, particularly with the signing, intend to have with the communities, just to highlight some of the signing programs and go over some of the signing programs that they may be eligible for, because undoubtedly there are some programs there that they may not be aware of, even, so this was something that we had intended all along to do. Of course, we haven't gotten to that stage yet where we would actually sit down with them and do that, but that was part of, and I mean, there's really no detail in the report yet simply because we haven't had that discussion with them at that level of detail.

Tony Blouin: Okay, and I'm sorry, I may have missed it; could I ask you to clarify when you say "them", whom are you referring to?

Phil Corkum: The communities, both Antigonish and Lower South River.

Tony Blouin: Okay. Could I ask, for an individual business, how would they be informed, I guess, of that discussion, how would they become involved in that?

Phil Corkum: Where, there are signing programs that are available to, we have signing programs that may be available to certain businesses, and I think we actually have information on our website concerning those as well, so it could be a matter of, you know, making the community aware that that information is out there.

We do have some information here that we could give the panel as far as the signing programs that we have available. It may help the panel, you know, I guess, get a better feeling for the type of signing, just as a supplement to the presentation. They are in the presentation; there is a bit more information around the signing.

Tony Blouin: Okay, you're referring to a document you have, then, that's standard…?

Phil Corkum: Yes, that the panel may be interested in and give you a better idea of some of the signing programs and the eligibility around those programs.

Tony Blouin: Okay, thanks, I think that would be useful, and could I ask that you give that to the administrator, Jim Gordon, at some point for filing?

Phil Corkum: Okay.

Tony Blouin: Thanks.

Phil Corkum: Did you want the document now, or is this something we could provide after our sessions? Just in the event that we may need to, I guess, refer to it, at maybe some later point or during a question from the public at a future session?

Tony Blouin: Oh, I see, no, just at the session of this hearing process, that would be fine, thank you.

Dale Smith: Perhaps, Mr. Chair, we can note that as an undertaking. I got two, one was for the PowerPoint presentation, and then the second would be for the signage doc.

Tony Blouin: Okay.

Was there anything else on my admittedly long list of page references that you wanted to deal with now, or maybe at a later stage of the hearings, if not in writing later?

Phil Corkum: Sorry. Um, there's, I guess there's one item here, Page 177, the item with reference to sedimentation control measures, and you said there was no clear commitment, that may have been, I guess, an oversight in the report or miswording. There certainly will be, or there is, a commitment for sedimentation control. This is a fairly standard process that we employ on all our construction projects, so it's a standard procedure. I think, as well, with reference to Page 205 in the CLC, I think you said that a further commitment should be required there…

Tony Blouin: Well, it's just that, as I understand, you're expecting the CLC to undertake monitoring of the long-term economic effects, but there's no indication whether resources would be provided, or if there's a commitment to do that, to allow the CLC to undertake that work.

Phil Corkum: Yeah, that's something we may, I think, we may have to take some time on, get some more input, give it a little more thought before we address that, I don't think we can address that here right now.

Tony Blouin: Okay, that's fine.

Robert Federico: Mr. Chair.

Tony Blouin: Yep.

Robert Federico: There was a question about Page 110, road and sediment control…

Tony Blouin: Could I ask you to identify yourself?

Robert Federico: Robert Federico. There was a question about mitigation for stream crossings, and it wasn't captured in the table. Is that a concern, or…?

Tony Blouin: Well, that was my reading of it, yes, and if that is the case, if it's not captured, then that would be a concern… I think it should be.

Robert Federico: I think there are some things that are, the table is just an attempt to summarize, maybe not all of the mitigations, some mitigations and details are presented in the text, not necessarily captured in all of the tables, but if it's, if it's in the text, then that of itself is a commitment, but it might just have been an oversight that it wasn't in the table.

Tony Blouin: Okay, along the basis of the statement you just made, there's a commitment if it's in the text, then that's fine.

Robert Federico: Yes.

Elizabeth Pugh: Make my entrance. I'd just like to make a comment on the, I think there were 3 areas where you said there wasn't a firm commitment to the wetland compensation. That is something that again, with the level of design that we have right now, we don't really know exactly what the wetland impacts are going to be. It's approximate, because once we get in and do our final, especially the vertical

design, we'll know exactly how much of the wetland we'll be taking away, and that is something that we will, I guess we can definitely commit to discussions with Environment Canada and Natural Resources on how to approach the wetland compensation, and that's, again, a standard procedure for our department. Wetland compensation is something that is really evolving at the time, so any commitment we make now would actually be pretty outdated by the time we came around to building the road, I think it's much better to sort of leave that and have discussions closer to the time. We're also in the process, that's the Department of… or actually, not as a Department, but we're involved with the development of wetland policies that are going on provincially and federally, so we're very aware of the issue and so that's something that again, we'll commit to, but we don't' really even know what level is going to be expected at this point, let alone what level of impact we're going to have.

Dwayne Cross: Further to Elizabeth's point, at this stage of the process, we're doing all of our functional design work using mapping, and our mapping is specialty flown and developed, but the accuracy could still be +/- 1 m of accuracy based on the level of mapping we have, so once the, if we receive approval to proceed with the project, one of our next steps, as I mentioned in the presentation, is to get into the field survey, where we accurately pick up the location of all the features and locate the highway itself, so we'll know, you know, down to a centimeter of accuracy, the level of our impacts. As we show with the map, we show the entire width of the corridor, and we know in most case, or in several cases, we won't be needing that full corridor width, it's only a portion of it within that will be directly impacted with the construction of the highway, so until we get through the survey and through that detailed design, only at that point will we know the exact extent of the footprint of impact from the roadway, and obviously that has a direct correlation to compensation of impacts that are incurred along the way. For example, maybe the square meters of the wetland that's impacted.

Tony Blouin: Okay.

Phil Corkum: I just want to address the noise mitigations issues that you had there on 57-58 and 61-62. We don't have, we don't have a policy of mitigating noise, so it's not something that we can commit to, mitigating noise. What we can commit to is that we will do everything we can around, I guess, in the area of geometric design, as I mentioned, I talked about what we tried to do at Trunk 7, we'll do everything we can within the realm of geometric design to minimize the impact of noise, but as far as committing to noise mitigation, we don't have a policy and we can't do that. Um, you know, and even in saying that we'll try to do everything we can through geometric design, as obviously there are other considerations in that as well, the cost of the project has to be a consideration as well in adjusting the geometric design. So there are different issues there besides just mitigating the noise that come into play, so…

Dwayne Cross: Further to Phil's point, the (inaudible) right-of-way we're proposing on this project is 150 m, and historically it's only been 100 m and our intent with the 150 is to add in a buffer between the actual footprint of the roadway and the edge of the right-of-way, the alignment that we would own and control and in some cases, perhaps, preserve for example the tree buffer between the roadway itself and any type of development that may exist now or may come in the future.

And of course, that does, with the additional land comes a cost to us with the land acquisition to accommodate that.

Elizabeth Pugh: I think the comment from Page 225, with the commitment to followup on the archeology, that is definitely something we'll commit to.

Tony Blouin: Okay, thanks. Sorry, were there further items on the list you wanted to address, or do we want to move on?

Robert Federico: In terms of the question about commitments for environmental compliance monitoring, in terms of self-monitoring, the monitoring that the department would do during highway construction, there are a number of potential activities there that, sort of a bit of a menu of potential things that would be undertaken, but I guess it's too soon to say the specific, to commit to a specific monitoring program at this point.

Phil Corkum: Yeah, just to add to that, the monitoring during construction is, again, standard procedure as far as the, what's being done to protect the environment.

Tony Blouin: Standard, sorry, so standard procedure then would be to go beyond the basic required level of compliance monitoring, is that the answer?

Phil Corkum: I think we're going to have to provide an answer to the panel later on in that one.

Tony Blouin: Yeah, okay, that's fine.

Phil Corkum: I don't think we have any other issues here to deal with, this list, and I just want to ask Mr. Chairman if you will provide us with a revised list of things? I think we covered off some of these now, so…

Tony Blouin: I will, yes.

Phil Corkum: The list will be revised. Okay, thank you.

Tony Blouin: Dale Smith had a question?

Dale Smith: Yes, concerning the presentation at the beginning, there was reference made under Safety Review to 8 scenarios in the selection of the three, working through the three alignments to the blue alignment, and I was wondering what the 8 scenarios involved, to give us some indication of what they were.

Phil Corkum: Um, just take a couple minutes; I'm going to take out the report and go through them in particular, one by one.

Tony Blouin: Okay, I'm going to make a suggestion, it's just coming up on 3 o'clock, and the proponents have indicated they want to refer to reports that they have. Does anybody feel the need to take a break? Do we want to take about a 10-minute recess, washrooms, get a drink of water? There's a coffee shop available in the hotel here, if anyone wants that. It's 10 to 3, so let's say that we will take a 10-minute break and reassemble here at 3 o'clock. Okay? Thanks.

End Tape 2

Tony Blouin: So we did have a question on the floor regarding the 8 scenarios that you had looked at in developing the final alignment.

Dwayne Cross: I do have all 8 scenarios here. There are figures that go with them. Would you prefer me to read through all of it right now, or provide a copy of it later on for clarification?

Tony Blouin: Maybe just a summary of some sort, and provide a copy later on?

Dwayne Cross: Okay. There are 8 different scenarios that were reviewed and they were identified as, and I will read through, Option 1a, which is 4-lane, trying to think of a better way to summarize it. 1a and 1b, both were 4-lane wide median, so it would be a wide median with depressed grass median, the first one with 4 interchanges, the second with 7 interchanges. Option 1c and 1d, both were narrow median, this would include a Jersey-type barrier, which measures, it would be edge of lane to edge of lane, is 5.6 m, and similarly, 1c and 1d, 4 interchanges and 7 interchanges. All of Option 1 were based on the red alignment option. Option 2a and 2b were based on the blue route, both of them were for a wide median highway, 22.6 m with 2-way, including an interchange near the cemetery and Trunk 4 east. 2b would be the 4 interchanges, but this one including an interchange at Trunk 7 and Beech Hill Road, this one matches up with the alignment that we've gone forward with. Finally, the two Options 3a and 3b, which were based on the brown route. The first was a 4-lane wide median, 22.6 m wide median, with 3 interchanges. 3b is a 2-lane highway, same alignment, 2-lane highway, obviously with no median, and similarly, 3 interchanges. As I mentioned, there are the figures, and the figures illustrate where all the respective interchanges go with each option, which we can provide.

Tony Blouin: Again, I'll emphasize that it's open to members of the audience as well, if there are any questions you wish to have addressed. I also want to mention, or I guess repeat, that there will be a full set of transcripts of all of the hearing sessions made available that will be available in about a week and I understand that it would be available at the Department of Environment offices here in Antigonish as well as in Halifax, so there will be copies of that that people can refer to there, later on, about a week from today.

Anything else from Bonnie or Dale?

Dale Smith: Not at this time.

Phil Corkum: Mr. Chairman, we have one more of your list, we have one more that we can take care of now.

Tony Blouin: Okay, sure.

Phil Corkum: On Page 160, regarding habitat enhancement prior to the construction of the bridge, the West River Bridge, and that is something that we will commit to… prior to bridge construction.

Tony Blouin: Okay, thank you, yes.

Tony Blouin: Bonnie's just looking for a reference in the report, that maybe I can just ask, presumably a quick question here, on Page 20 in regard to the salt management program, you talk about the use of pre-wetting as a method that is sometimes used, and I'm just curious whether the intention is to use pre-wetting on this particular piece of highway?

Phil Corkum: I don't think we can commit, at this point, to using pre-wetting. It's a maintenance method that's used in certain areas. We don't blanket use it all over the province, it's used in certain areas for certain reasons, but, so I don't think at this point we can commit to using that on the project.

Tony Blouin: Okay.

Bonnie Rankin: I do have a further question. This is in the local economy section, Section 6.1 of the report, Page 200. It's about local hiring. I'm sure it's a concern to the people in the area. Just to quote the report, "the extent to which local individuals are hired will depend on the hiring practices of the select contractors." So is there no policy of the department that contractors should make every effort to employ local trades people during a project like this?

Dwayne Cross: Um, we'll have to check on that to be sure. I don't want to, I think I know the answer, but I'd like to check to be sure. That's a good question, though.

Tony Blouin: I just noted that as undertaking No. 5.

Phil Corkum: Mr. Chair, I'd just like to ask if some of these questions, if we have answers to them during the proceedings, we can come back to you during the next day and a half or whatever, and…

Tony Blouin: Pending any legal advice to the contrary, no, there's no problem with that.

I have an additional question. I guess, it first comes up on Page 21, but then subsequently later in the report, it has to do with the… under consideration of different options for the project and one of which is do nothing, and you indicate on Page 21 that traffic volumes are increasing and are projected to increase again to a greater extent in the future, and then subsequently on Page 229, I think, there's a further analysis of that and some tables provided of numbers and so on. My reading of the information in the report is that the future projections have been based simply on extrapolating recent trends, so percentage increases over the last few years have been extrapolated out into future years, and my question is, to what extent is the Department comfortable with a simple extrapolation? Is that appropriate and does that, in your opinion, give an accurate or a reliable reading of future traffic volumes? Given that other things may affect traffic, you know, rather than just recent historic growth rates.

Mike Croft: The use of historical traffic counts to project future volumes is a standard process. It's used quite extensively throughout the province. It's used a lot for traffic analysis and traffic impact studies, and we're very comfortable with that type of analysis, particularly on a highway of this nature, because the growth tends to be fairly steady.

Tony Blouin: So would you say, then, that based on your past experience where that methodology has been used, has it proven to be reliable? Does it, in fact, subsequently then give an accurate projection of volume?

Mike Croft: If it's extrapolated over a long period of time, it can be very accurate. If you're looking at a short period of time, you can have, you know, fluctuations. It usually fluctuates with the economy. If you have good economic growth, then you have higher growth rates in your traffic. If you have lower growth in the economy, then your traffic growth rates tend to be lower, but if you look over a 15 or 20-year time

period, it's very accurate, unless there's, you know, something that is very unforeseen happens in the local area, for example, if natural gas or something like that was to really take off in a big way that was unexpected, then you could see a larger than normal growth rate. But typically, on the 100-series highways, it's pretty steady.

Tony Blouin: Okay, thanks.

Just a supplemental on that, I'm just thinking about regular gas and the price increases in regular gas and what that might do to our traffic volumes?

Mike Croft: Well, their natural instinct would be to think that if the price of gas goes up, that your traffic volume increases might not be as high in the future, but the elasticity of demand seems to be quite high. People tend to not adjust their driving patterns, to date anyways, even with the increases in fuel prices, we haven't noticed any decreases in traffic volumes, but it's hard to predict in the future, if the gas prices really go higher, you may notice a difference, but to date, we haven't noticed any difference.

Tony Blouin: I guess I'll jump in with another one. On Page 196, you indicate that there's a fairly high capture rate for traffic through Antigonish for various businesses at the present time, and there's a statement that that high capture rate is attributed to the existing proximity of Highway 104 to a number of those businesses, and I'm just wondering, does that mean that there is an implication for possibly significant impacts with the relocation of the highway if that proximity is removed, do you expect the capture rates for those businesses to go down to a significant extent, given that you make the statement that the present high capture rate is due to the proximity?

Phil Corkum: Um, it depends on the type of business. For certain businesses, such as drive-by businesses, fast food restaurants, impulse buying like that, there certainly will be an impact, and I mean, we don't know at this point what that impact will be, but there will be an impact if those types of businesses can't be seen, there's no question. On the other side, of course, there will be, you know, with any new project, with any new highway project, there's also a positive side in that there's opportunities for relocation of some of the older businesses closer to the highway, so there's really two sides to the story.

Tony Blouin: Okay, and kind of as a followup to that, if there is such an impact and assuming in some instances or some cases, that there would be, obviously relocation, as you say, it may provide new opportunities, but there is going to be a certain cost involved in relocating a business. Is there any program or, you know, I hate to use the word compensation, but is there something that businesses could apply for or take advantage of, any sort of program that the Department provides to address or reduce those impacts?

Phil Corkum: Outside of potential opportunities with the signing program, we don't have any other opportunities and we do not have a policy with regard to compensating businesses for potential losses due to this type of facility. There's, I think as with any business, there's no guarantee of the traffic that may potentially visit your site. That's a choice of the business to locate at those facilities, and I think we're going to have further comment on the original question…

Lesley Griffiths: I just wanted to point out that in the context of Page 196, that comment, I think, was made at least partly, if not entirely, in the context, that whole section is kind of comparing the capture rate in Antigonish to the rest of the tourism area, the Antigonish-Eastern Shore tourism area in which it's located, and that table up above, Table 6.9, does that, in fact, and is comparing capture rates to other communities in that area, and so it's not in the least bit surprising, I would think, that of those communities in that area, Antigonish is probably going to have a higher capture rate because it does have this highway going through it. So I just wanted to clarify that there was a comparative element to that statement.

Tony Blouin: Okay, yeah, understood, and I guess my question just related to what happens when that proximity is no longer there to some relative extent.

Lesley Griffiths: Yes, and the other thing that is in the report is the information that was provided by the BC Nickel study, an origin-destination study that was done in 1999, which did indicate that there is, I think it's 60-70% of the traffic on the existing highway originated from or was going to Antigonish, was in fact, basically locally-based traffic, so there is, now that obviously doesn't help such businesses as hotels and motels, because they're reliant on out of town traffic or nonresident traffic, but it is worth noting that the highway is carrying a really quite high percentage of local traffic right now.

Tony Blouin: Okay. Again, unless anybody else has anything at present, I'll jump in with another one here. On Page 204, there's a statement that, if I understand it correctly, I think the statement says that the new highway alignment will improve access to the Millennium Center, which is the facility at St. F. X. and my question is, how is that the case? I don't quite understand how relocating the highway further from the Center would improve access.

Mike Croft: What is meant by that statement is that now, the intersection is an at-grade intersection on 100-series highway, a signalized intersection. Typically, a lot of the collisions at those types of intersection result from left-turning traffic, and with the new alignment, the new highway, there will be a grade-separated interchange, where you won't have that situation. Traffic will be able to exit off the main highway safely onto Trunk 7, and then proceed into the town safely. So that's the improvement in the access, not only to the university, but also to the town in that area.

Tony Blouin: So it's more a question, when it says improved access, it's a question of more improving the safety rather than the actual ease of access or proximity, or other aspects.

Mike Croft: Access improvement, a function of that would include safety, so that removing, in that case, removing the through traffic or traffic which is making some sort of an origin or destination through that intersection being removed from the existing signalized at-grade and separating those volumes.

Tony Blouin: Okay.

Phil Corkum: Just for purposes of the record, Mr. Chair, throughout the afternoon, we have been, I think, as a form of shorthand, referring to page numbers, those are, of course, to the environmental assessment report by the proponent, I believe the date is April 2005, prefiled and made available for public comment, and I don't know that

it's absolutely necessary to make that a formal exhibit, since it is the basis for the proceeding, but we can do so if you wish, whatever your pleasure is.

Tony Blouin: Well, I have no objection to making it a formal submission just for completion, but obviously, yeah, that is the subject of the hearing.

Phil Corkum: Okay, we'll identify it as No. 3, which is the next on the list.

Tony Blouin: Any questions from anybody else? I don't want to monopolize it. Anybody in the audience? No? Well, I'll just continue on the list, then. I guess it's my chance to get all of these on the record. On Page 205, there's a statement that economic impacts on particular establishments are not likely to be significant, and I'm just wondering, in the context of, you know, the discussion of traffic volumes and that there would be some impact on certain businesses as a result of relocating the highway alignment and reducing through traffic, can the Department provide any further justification of that statement?

Robert Federico: Mr. Chair, I would just like to refer the panel to Page 198, which includes the residual environmental effects evaluation criteria for this particular component, and I'd just like to, in each of the components that have been evaluated in the environmental assessment have significance criteria for both significant adverse effects and also positive effects, so when the report comes to a conclusion that the effects are not significant, it may mean that there are, in fact, adverse effects, but they don't meet the bar or the threshold for significance under this definition. So, it's a word that has a very specific meaning in each case, and some of the criteria, and they're developed for each one of these, so they're tailored to each of the specific valued environmental or socioeconomic components. So in this case, the component is the local economy, it says that significant adverse criteria on local economy is one that results in a measurable project-related reduction in total long-term local employment or total local business revenues or profitability as the result of an effect on the number of customers and their spending patterns or on the cost of doing business. So the emphasis here is in the total, or the overall, effects on, or the effects on overall employment or overall profitability as a result of the project. So the conclusion really means that it didn't, this project does not meet that particular criteria overall.

Tony Blouin: Okay, understood. I guess then, subsequently, if the criteria that you refer to are, in some sense, quantitative, you refer to local employment, business revenues and profitability and so on, does the Department have any data to substantiate the statement that then, the economic impacts would not be significant?

Robert Federico: I think it's more of a, there's a couple of, we know that there will be, as been mentioned, it's expected that there will be some localized adverse effects on certain businesses as a result of the bypass. It's anticipated that there will be positive effects on business as well, that's been noted throughout the report that has not been quantified. What has been quantified has been some of the economic effects attributable to the construction of the project, but not long-term through the general benefits that the project will provide in terms of opening up new areas for development, increased transportation safety and efficiency, that per se has not been quantified.

Tony Blouin: Okay.

Robert Federico: It's also, I might add, it's very difficult to quantify that. It's really difficult, if not impossible, to try and predict how, for example, development will proceed as a result of the new highway being in place. These things are very difficult to predict in any quantifiable way.

Lesley Griffiths: Mr. Chair, could I just speak supplementary to that? Because I think it's important what we did do to enable the proponents, and also the public, to get perhaps a better understanding of what might happen, and I should say that in part, this was done in response to some input we received when we were talking with, at that time, Profile Antigonish, where they expressed an interest in knowing what has happened in other cases where communities of comparable size have been bypassed, and that's why the supplemental study was done that is reported in the appendix and really, we felt that this was a more useful way to approach this question then to attempt, as Robert has said, a very difficult exercise in projecting what might happen with so many different variables, was to actually look at a real experience in these communities. So, I'm sure you've read the appendix and I don't need to repeat it, but it was based on reports throughout North America on communities within a similar size range as Antigonish and also on interviews through the Maritime Provinces about experience of communities and a pretty consistent pattern emerged, which is of some short-term economic impact, nobody could deny that, that's obvious, that businesses in the short term are bypassed, some of them, anyway are going to suffer some consequences for that, but what was generally reported was two major things was one, that the effects of the impacts on communities that had a preexisting strong and diverse economies, which I think would be a fair description of Antigonish, in terms of the economic base that is here with the university and with the hospital, with the schools, the School Board, and so on, none of which is directly dependent upon the highway. Anyway, that the magnitude of effect on those kind of economies was considerably less than those often smaller centers that didn't have that kind of diversity in their base. That was very clear in the literature and also in the interviews. Then the other aspect was the general kind of resilience over time, and not even necessarily a very long period of time. It was just generally reported that adjustments were made and that these economic impacts were not seen as being long term, and it was particularly, the adjustment was particularly effective where a community was willing and able to take some proactive measures in terms of planning, in terms of marketing, and so on. What also was reported was how communities who might initially have been very concerned about the effects of a bypass, in fact, very much appreciated the improved quality of life that came along with taking a good chunk of fast traveling traffic out of the middle of their community, and that many of them were able to successfully focus on more developing their destination component of their economy as opposed to the drive-through, drive-by component.

Tony Blouin: Okay, thanks.

Um, I had a question, which comes up on Page 212. There's a statement there that you anticipate that 4 homes will be directly impacted by the right-of-way, the proposed right-of-way, and I just, my comment or question, I guess, is that during the field visit, my sense was that there may be a few more of that, from what we observed. Now it's hard to tell, obviously, on the ground, exactly where the right-of-way borders are in relation to certain specific properties. So, my question is just, is the Department still comfortable with that estimate of 4 homes based on your current knowledge of the right-of-way, is that accurate?

Dwayne Cross: If you would like, I could bring up the map and we could take a pan through and actually identify the ones that are on the list, just to verify that at this point, otherwise we could perhaps later look at the plans ourselves, or I could run down right now and just… off the top of my head, I can't definitely say a number.

Tony Blouin: Okay. Well, I don't think it's necessary to review the entire map at this point. Perhaps, yeah, maybe we can do that later just to confirm the number, but…

Dwayne Cross: Okay.

Tony Blouin: Okay, thanks. Maybe kind of a related question, again, I'm referring to Page 212, where there's a statement that no significant effect is anticipated of acquisition of properties, and I think that's probably based on the assumption that those properties directly affected will be acquired by the Department. I'm just wondering, what happens in a case where the owner of a property either doesn't agree to sell or doesn't agree with the terms or conditions of the sale, and I recognize expropriation is your ultimate mechanism, but I'm asking the question more in regard to impact on the home owner who may perceive it to be a significant impact if they don't feel they're getting the value that they would anticipate for a property.

Lester Tingley: Well, there's a number of possibilities. Usually, when we approach someone, our goal is to have a settlement occur that's pleasing to both sides, but if not, expropriation is the last step in the process, but in between, there's usually a number of things that can happen and it's specific to each property. An example might be that if I was to approach someone with a value on their property and they disagree, well then, we'd have them go out and get an appraiser of their choosing, and then we could review that and if we didn't agree, we'd go out and get another appraisal, and then usually after the two, we try to come to some sort of agreement and if that didn't work, then you would proceed to expropriation and let the court or the URB make a decision. Is there anything, like, it's difficult to deal in specifics…?

Tony Blouin: No, sorry, there was no specific instance of it. I guess that my question was more in relation to the statement in the report that no significant effect of property acquisition is anticipated, and I'm just wondering if that's a justifiable statement for the homeowner or property owner, you know, who doesn't agree with the process or doesn't agree with the outcome, they would, I think, perceive that as a significant effect. And maybe this gets back to your previous statement about criteria of significance.

Lester Tingley: That's right. I think we need to refer back to the criteria at the top of Section 6.2.3, which basically says that, and this is with respect, again, to the valued socioeconomic component is land use, and so a significant adverse environmental effect, as any project-related effect, it degrades or displaces established or planned land uses, including one that results in an uncompensated permanent loss of resources and essentially, the key there is that it's an uncompensated loss. So by definition, if an agreement can be reached with regard to fair market compensation, then that would in itself mitigate the impact.

Tony Blouin: So even an expropriation would be a compensation?

Lester Tingley: Yes.

Tony Blouin: Okay. I'm just reviewing my list here, some of these have already been addressed, so I just don't want to be repetitive. On Page 246, there's a statement that it's

considered unlikely that erosion control measures would fail, and I'm just wondering if you could provide a bit of further justification for that statement? I know in my own experience, I've certainly encountered instances where erosion control measure do fail. It may be unlikely in a statistical sense, but certainly they do fail, and with a large project, it may be more likely.

Phil Corkum: Just to clarify, my reading of that is, if I'm reading the same thing that you are, it says that erosion sediment control failure leading to significant adverse effects on valued environmental or socioeconomic components is considered unlikely. So, not necessarily that the failure itself is unlikely, although I think it, I guess, it depends on how we would want to quantify that, but the failure leading to a significant adverse effect would be unlikely, that is, for example, if the failure led to a change of population of a fish stock, for example, in a stream, that would be considered, by our definition, be considered significant, and that would be considered unlikely.

Tony Blouin: Okay that clarifies it, then. I had a question on Page 250, I guess that's the Table 8.1. I'm just wondering, you do include in that consideration of cumulative impacts, you have a section on residential development that might coincide with or be promoted by the development, but there's no mention of commercial development, and I'm just wondering why you would consider residential but not commercial?

Phil Corkum: Is this in the table, Mr. Chair?

Tony Blouin: Yes, it is. I'm not sure, I didn't see any mention in the text, so I referred to the table, it's clear there that you're talking about proposed residential subdivision development, but nothing in relation to commercial? Is it just a question that there is no commercial development currently in a proposal phase, is that…?

Phil Corkum: I think this related to, and we'd have to refer back to some of the research, but it does say on the top of Page 254 that several housing developments are planned for the area, and it's expected that the new highway will make previously inaccessible areas available for development, so I believe we were aware at the time of some planned residential development, and this would certainly also apply or extend to a new commercial development along the highway, even though it's not specifically mentioned, the same issues would apply. I just think we were aware, probably, of several subdivisions that were planned. We would have to check on specifics if you needed more information.

Tony Blouin: No, I don't think that's necessary, I think that it clarifies that you were just aware of particular residential proposals, but not necessarily commercial ones.

Phil Corkum: That's correct.

Tony Blouin: Okay. I had a question on Page 254, but it relates, I guess, to some previous instances that have come up and I think it's the second paragraph there, where it's indicated that cumulative effects with the project will be reduced to insignificant levels, and I, again, my question is was there justification for that statement, but I think probably this is another instance where it goes back to your definition of significance.

Robert Federico: As you may be aware, trying to assess cumulative impacts with respect to future projects is a difficult proposition. We, I guess, are forced to rely on the fact that

future proposals, future developments, will be obliged to follow the same types of regulatory requirements, whether they be environmental assessment or other forms of environmental permitting, and that, as is typical for projects, the various kinds would include stipulations of various kinds and/or would be required to follow standard guidelines with respect to erosion, sediment control, other projects would be forced to follow those or with respect to forestry activities. There are new regulations and guidelines that apply to those types of things to mitigate environmental impacts, so I guess we're forced to assume that other projects would also be forced to deal with their manage, their environmental effects, just as the highway project is, and that would really, by definition, help to reduce the cumulative impacts between the two projects. That's the sort of conceptual view, at least.

Tony Blouin: Okay.

End Tape 3

Tony Blouin: …and I think this related to wells. Let me just find the page myself here, 265. No, I guess it's more general than just wells, but anyways, my question relates to the statement at the bottom of the page that the number of properties to be surveyed will be determined by the contractor, and I'd just like to know, is that standard procedure, or is that an appropriate procedure? Should the contractor be determining that rather than the Department?

Elizabeth Pugh: Yes, that is standard procedure, and the reason why is that any impact on wells that occur through blasting is all covered underneath the blasting insurance and permitting that they have to go through. If you even bring it up that you're going to try and tell the blasting contractors where they need to be careful, they get a little upset, so that is very standard and will remain that way.

Tony Blouin: I had a question on Page 267, with the top half of the page there, you referred to the environmental effects monitoring program and some detail is given in regard to the types of things that would be sampled. I'm just wondering, at this phase, maybe it's a question of the phase of the project, but is the Department able to give any further detail or information about an environmental effects monitoring program; for instance, is there a standard set of procedures that you would use, or are they always project-specific, and if that's the case, is it possible to give any further detail at this point?

Phil Corkum: I think throughout, and I think these sections, Section 10, the section on monitoring programs, it would be 10.3.2 and 10.3.3, are really intended to give a kind of conceptual framework or conceptual view of monitoring and I think what we really need to go is look back through into the individual the valued environmental and socioeconomic components to look at the monitoring commitments for those particular sections. Environmental effects monitoring, typically it's relatively longer term. Compliance monitoring is typically done to ensure compliance with specific guidelines or regulations. The effects monitoring attempts to look at effects on that valued environmental or socioeconomic component, which may be different from a compliance issue. So I think we need to go back and look specifically within the different valued components, and I believe it may be summarized, for example, in the table in section 12.1, the followup and monitoring is summarized and some of these items would basically fall into that category of environmental effects monitoring. For example, the wood turtle monitoring would probably fall within that general category of environmental effects monitoring. I think monitoring the

abundance in distribution of populations of rare and uncommon plant species at the West River Crossing site is part of the habitat enhancement program, for example, in other words, the success of that program, which may happen over a couple of seasons to make sure that in fact, you know, it was successful, that would be a type of environmental effects monitoring, but it's specific to each of these categories.

Tony Blouin: Also on Page 267, the bottom half, in regard to compensation for land acquisitions, it's clear, and we have already discussed processes that would happen for directly impacted properties. I'm just wondering if, is there anything that the Department provides for adjacent properties that may not be directly affected, but may have some indirect effect? So is there any kind of a compensation program that deals with those cases?

Lester Tingley: Yes. The Expropriation Act has a section that deals with properties that are not directly affected, but are nearby.

Tony Blouin: Okay. Could you give just a bit of explanation of what that is?

Lester Tingley: Well, it's just a section of the Act that allows us to deal with them in much the same way as a property that's directly affected, where for example, we'd have to buy property from them if, I think it falls under the category of injurious affection, so if there is a deemed injury to the property, then we are allowed to deal with it by, I can't quote you the section of the Act, but I could certainly look it up and forward it to you, that allows us to deal with there problem.

Bonnie Rankin: Just as a followup to that, how would those indirectly affected properties be identified? Would the property owner have the onus of coming to the Department, or would the Department seek out those property owners?

Lester Tingley: It's usually the property owner that brings it to our attention because we, if it's outside the scope of the project, then we really, you know, it's difficult for us to identify. Maybe one of the other people could address that, but from an acquisition point of view, or property point of view, it usually falls to them. I guess our particular section doesn't have any way to identify it, so they would have to come forward.

Dwayne Cross: I guess further to that, within the limits of our defined right-of-way, obviously we would actively pursue those owners, of course, for the acquisition. Outside of that, it would be up to the landowners themselves to decide if they feel the need to come to us with that type of issue. Obviously, there's no particular limit. It could be a considerable distance away from the roadway and they may feel a validity of coming forward to make that claim, but we wouldn't pursue that. There may be cases where the person is completely accepting of the fact of the proximity, so I guess it would be up to them.

Tony Blouin: Okay, that's clear enough, I think. Thanks.

Moving along, Page 271, there's a reference to a dispute resolution policy, which will be established. I'm just wondering, given that it will be established, obviously you can't provide a lot of detail on it, but I'm just wondering what the mechanism would be? How will that be established? Would it be part of the environmental protection plan or is it something separate?

Dwayne Cross: We'll have to get back to you with a response on that.

Tony Blouin: Okay, that's fine.

Again, I'm just going to make sure that there aren't any questions from anyone else, if you want to bring them forward at this time. Audience? No? Panel members?

Bonnie Rankin: I do have another question. I'm going to take you back to Section 2 – Disposal of excavated soils. That's another instance where the soils that aren't going to be used as fill, a site is determined by the project engineer. Does the Department have a standard set of criteria that the project engineer has to refer to, to select a site?

Phil Corkum: Could you point us to a section?

Bonnie Rankin: It's Section 2.4.5, Page 12.

Lester Tingley: When you go and when you build a road, obviously there's a certain amount of material on the surface, the topsoil, where there's trees, roots and things that can't be used to build the road with. What we've done in the past is that material was basically wasted. What we try to do now is take that topsoil and I guess, you can use the word 'dispose of', but what we try to do is use it on areas where we want to grow grass and vegetation, so it would be stockpiled somewhere on the site and spread in the median, so that grass would grow, spread on the slopes so that we could get a good vegetative cover. Any roots and things in that process would be separated and chipped, so it's a much, I guess, a much more efficient process than it used to be years ago. We make full use of all that good topsoil material.

Elizabeth Pugh: Just to add to that, I think you noticed the sentence is actually 'approved by the engineer', not decided by. It's actually generally determined by the contractor, because they may have other uses for that material, so typically we don't really know what's going to happen with that until the time comes. The reason why the engineer has to approve it is that if there's any environmentally sensitive things, like it can't go near watercourses, and that sort of thing, but it is left up to the discretion of the contractor.

Tony Blouin: I have a question about the project timeframes. You indicated that the earliest likely start date would be 2008, and I'm just wondering what's the likely completion date? How long does it take to construct such a thing, and I understand it may depend on whether you do it in two phases or not, but maybe you could just clarify the time frame?

Phil Corkum: Um, as Dwayne mentioned in the presentation, we're currently looking at splitting the project up into two phases, and the project would probably not start unless we have a federal agreement in place. Normally, federal cost-share agreements are 5-year agreements; typically they've been 5-year agreements in the past, we don't know, obviously in the future, how long those agreements are going to be, but typically they've been 5-year agreements, so the idea would be to complete a project like this within the limits of a federal cost-share agreement, so 4-5 years. But again, it's hard to say because it does depend on, I guess, the amount of funding that the province has available to cash-flow the project out, so it's really hard to say at this point how long it would take, but 4-5 years for a project of, for instance, phase 1 of this could quite easily be accomplished.

Tony Blouin: Okay. Assuming you had all the funding you needed, could the whole thing be done in 4-5 years, or would it be longer?

Phil Corkum: The whole thing could certainly be done in 4-5 years if the funding was available.

Tony Blouin: Okay, thanks. I'm not sure if this is a fair question, so you can let me know, but in relation to that, is there any indication that you could provide on the level of priority that's placed on this project, either by the Department itself or by government more generally? I guess really what I'm asking is, how likely is it to start in 2008?

Phil Corkum: Again, it's difficult to say. Right now, this is one of the top priorities of the province as far as 100-series highway upgrading, but there are other priorities as well. Highway 101, 103, you know, there's quite a few of them. This is up at the top of the list with the rest of them. Obviously, it's difficult for us to say now if the funding is going to be available at that point to build that particular project; I don't think anyone can make that commitment.

Tony Blouin: Yeah, recognizing it depends on funding, as most things always do.

Phil Corkum: But our, I mean, when we do these projects as a planning design exercise to get them ready, our objective is to basically get the land purchased and have it ready. We're really not thinking about constructing the road, there are other issues that come into the picture, such as funding and other government priorities. All we can basically deal with is getting the project ready such that at a certain point in time, it's ready to be constructed if the funding and if other conditions are available such that that will happen.

Tony Blouin: Okay. My final question, actually, is in regard to the environmental protection plan, and there are a number of associated plans mentioned throughout the report that I take it, would be part of the environmental protection plan, and my count is that there are 14 other associated plans… I'm just wondering what's the schedule in process that you contemplate for completion of the environmental protection plan and would that final document be subject to public review?

Elizabeth Pugh: The Department has an almost final generic environmental protection plan, which covers off the sort of standard procedures that won't change from job to job. That hasn't gone through public review, but it has been reviewed by the various provincial and federal agencies that have a stake in it. The things that go into the environmental protection plan that would be specific for this project would all be worked out with the agencies that have the specific concern. For example, if there was some acid slates on a project, the mitigation that we would have to come up with would be worked out specifically with Environment Canada and Natural Resources and the people who have legislative control over those, so the time frame really depends on the issues that come out of the environmental assessment and as we proceed through the process of getting the more specific approvals, like the HADDS, which I mentioned earlier, the Fisheries approvals, and the watercourse permits, if there are other issues that come out and things need to be negotiated, so a lot of that is dependant, again, on the priority of the project; if it's happening next year, it will happen very quickly, but if we have more time, we will probably take more time. So I hope that answers that side of the question. It's really sort of negotiations with all the various agencies involved to develop those site-specific plans, and no, it doesn't generally get vetted by the public.

Tony Blouin: Could I just ask that if it's not subject to a public review, is it in fact a public document once it is produced?

Elizabeth Pugh: Yes it is, and that would be something that would be given to all the people who are working on the job at the time, the contractor and the engineers and that sort of thing.

Tony Blouin: Okay. I think that concludes my list of questions. Did the other panel members have anything further at this time?

Dale Smith: I have a question.

Tony Blouin: Okay, Dale had a question.

Dale Smith: A more general one, I guess, and back to the question or the subject of alignments, the blue route, at one point, crosses the existing 104 to go north of the existing highway, and I'm just wondering if you could review the criteria or the basis for that decision to cross over and go northward, and I'm also thinking of was there consideration given to going southward and connecting with the more southerly route at that point?

Mike Croft: The option of staying on the south side of the 104, it was investigated quite thoroughly, and based on that investigation and comparison, it was determined that the crossing and going to the north side was the best alignment to go with. There were a number of factors that went into that decision. Overall, the cost of the two options, whether you go north or south, was about the same. The alignment, the grades on the alignment, if you stayed on the south side, due to the topography, the grades were steeper. There were some issues with regards to access to Lower South River and where the interchange would be. If you stay on the south side, your interchange is basically, to service Lower South River it would be on Route 316.

There are some issues with having an interchange at that location. One of them is that you end up using Route 316 as your connector road to service your freeway, and there is quite a bit of residential development along that road, so you would add a lot of traffic onto that road. There's also the issue with the proximity of Route 316 to South River, and to put in our standard diamond interchange, your acceleration and deceleration lanes would actually extend onto the structure for the river, and another consideration was the actual crossing of South River. The topography in the area where we have to cross is quite steep. You'd basically come down a very steep grade, and then there is also a roadway that runs parallel to the river, Dunmore Road, which is right on the bank of the river and it made for a very complicated crossing and to a certain degree, there were some safety concerns with the fact that you would be coming down a long, steep grade and at the bottom of the grade, you would actually have a bit of a curve as you go across the structure over the river. It wasn't seen as being an ideal alignment, so… and another feature was that going to the north is actually about half a kilometer shorter, so it takes half a kilometer off as far as construction goes, and it's also half a kilometer less that all of the traffic using the road would have to travel.

So when we looked at all of those considerations, it appeared that going to the north was the best route. Our only big concern with going to the north was the potential for the environmental impacts at the crossing of South River, and we were actually so concerned about that that we commissioned a study specifically to look

at the crossing point at South River, and the results of that study indicated that it actually wasn't a bad location from an environmental impact perspective, to cross to the north side, and the cost of the structure, we did a detailed cost estimate on the structure on the north side to going over South River, and I forget what the value was right now, but we didn't do a cost for the structure on the south side, but just based on my experience and knowledge of the area, I think you would be probably at least as expensive, if not more, if you decided to go on the south side because of the difficult terrain.

Phil Corkum: I would just like to add that mike had mentioned the proximity of the interchange to the river crossing. On the south side, that would, Mike, correct me if I'm wrong, that would mean that you'd have 2 structures with 3 lanes each because of the ramps would extend back onto the structure, and the cost would be substantially more than a normal structure would be with the added lanes.

Mike Croft: But it certainly was something that was looked into in a lot of detail.

Tony Blouin: Could I just ask supplementary, the location that's referred to on the south side, how far south of the existing 104 would that be? Just to give an approximate location? In other words, was it the same as the brown route location, or was it a different one?

Mike Croft: It looks to be about, it's about the same location that the brown route went across, I think it's actually the identical location, so it's about 2 km, I believe.

Tony Blouin: Okay. I think that for now, that concludes the questions that the panel has. I'll just offer one more time, any member of the audience, if you want to ask a question. Nobody's stepping forward, so that being the case, I guess we'll conclude for now. The panel will reassemble at 7 p.m. tonight for another session, and to all the participants and the audience, thank you very much.

Environmental Assessment Board
Highway 104 at Antigonish Public Hearings

Thursday, June 23, 2005 – Evening Hearing

Tony Blouin: This is the second of 4 sessions that we're going to hold. There are some handouts at the side table there, one of which is the schedule and agendas for the 4 sessions. There is also a set of the Environmental Assessment Board regulations, that's the process that we're following as set out under the Act. There's also a shorter version of that, which summarizes some of the key points from the regulations, and there's one more handout, Jim, what was the other… I can't recall.

Jim Gordon: Oh, the timeline…

Tony Blouin: Oh yes, there's also a timeline and table of significant dates in the assessment process that this project is going through.

My name is Tony Blouin, I am the Chair of the Nova Scotia Environmental Assessment Board and I will be the Chair for the panel holding the hearings here today. On my right is Bonnie Rankin, a member of the Nova Scotia Assessment Board. On my left is Dale Smith, another member of the Assessment Board. To Bonnie's right is Jim Gordon, he is the administrator for the Assessment Board, and to Jim's right is Stephen McGraw of the Department of Justice, he's the legal advisor to the Assessment Board.

So to introduce the hearings, for those of you who weren't here this afternoon, this is just a chance for the public to come and hear about the project, to express their views and have their questions asked and answered. The process also makes provision for formal presentations to the hearings from those who have requested that. We do have one formal presentation this evening by Mr. James Dunn. We will have another formal presentation tomorrow afternoon and one tomorrow evening, and the session will begin with an outline of the project, presented by the proponent, the Department of Transportation and Public Works. Following the formal presentations, we will again open it up to questions, either from the panel members here or from any member of the audience.

Under the process, we do have some time limits. We're going to ask the proponent to take about 20 minutes to outline the project, a similar amount of time for the interveners, for their formal presentations. Where we have a small number and a small audience, I think that is going to give us some flexibility, so we will see how that goes.

For those who weren't here, again this afternoon, just for the record, the panel held a site visit to examine the different locations along the proposed routing. That happened on June 14, we did that with a representative of the Department of Transportation. That was just to familiarize ourselves with the area. Speakers who are giving formal presentations must be sworn in. Those who appeared here this afternoon are already sworn in and that will still apply; we will just need to do that for Mr. Dunn when he comes forward.

For public comments and questions, you are free to ask any question that you want pertaining to the project, or to make comments within a reasonable amount of time, and we will try to avoid repetition, but so far that hasn't really come up.

The process from here is that the panel will make a formal report to the Nova Scotia Minister of Environment. We will be submitting that report by August 6, and we have the scope to recommend that the project proceed, that it proceed with terms and conditions, or that it not proceed. We will summarize whatever it is we've heard here from the public, as well as our own reading of the report, and the analysis.

Depending on how long we go tonight, we may try to put in a break about halfway through, just for the facilities. There are washrooms just outside the room here, there's water available at the back, and for those who aren't familiar with assessment processes, this is the provincial environmental assessment process. There is also one that's conducted by the federal government, and this project is subject to that federal process as well, but the environmental assessment report and the process has been structured, hopefully in such a way that it satisfies requirements of both levels of government, so that they don't have to go through two different processes.

I think that's about it. So with that, I'll ask the Department of Transportation to go ahead and make their presentation. When they are finished, then we'll get Mr. Dunn to step forward and make his, and then we will have a time for questions.

Dwayne Cross: Thank you, Mr. Chairman. I'm going to take this opportunity to introduce our group, as well. My name is Dwayne Cross, I am a highway engineer with the Department of Transportation and Public Works in the Highway Planning and Design group. We have Phil Corkum, who is the manager of Highway Planning and Design, and we have Robert Federico, who is with Jacques Whitford, one of the contributors to the report, and Shannan Murphy, as well with Jacques Whitford. On the far end, Lester Tingley, he is our Acquisition and Disposal officer, he deals with land purchases. Mike Croft, he's our Access Management Engineer and a former engineer who worked on this project many years ago. Elizabeth Pugh is our environmental engineer and Lesley Griffiths, who is part of the group that worked on the report as well.

So I'll get right into things here. With 104 Antigonish, obviously we have many projects that we work on throughout the province. This is one that came up and there are several problems that have evolved over time, which have generated the need for the project, and first of all, with traffic volumes, we have analyzed average daily traffic volumes up to 14,400 vehicles per day… that's interesting… the summertime daily traffic volumes near 20,000, obviously with tourist traffic into account there. The existing highway sees the second highest volumes in the province for a 2-lane 100-series highway and certainly a large percent is of trucks and in particular, about 20%, so that's a significant volume of trucks that we're having to deal with, the road facility.

Access is an issue, there's numerous residential and commercial driveways along the way, at-grade intersections, speed limit varies significantly from 60 to 100 km/h, and obviously this presents a mix of local, slower traffic and through traffic, which is certainly desiring to travel at a much higher rate of speed, which brings me to speed differential, and this is the difference in speed between vehicles on the main roadway versus those entering and exiting. For example, somebody coming on from an intersection or a driveway conflicting with through traffic rapidly trying to get through the area. So a high-speed differential increase is the likelihood and the severity of collisions.

Finally safety, overall the combination of high volumes, uncontrolled access and local versus through traffic has resulted in the highest collision rates in the province for 100-series highways, that's No.1. Up to 13 times the provincial average for a 2-lane 100-series highway, and up to 15 times the provincial average for a 4-lane, divided, 100-series, controlled access highways, so a significant difference between the road infrastructure currently compared to what this project will take us to.

Dwayne Cross: Quickly touching on the speed differential, you can see with the increase in speed differential, there's a significant increase in the probability of collisions happening, and about 75% of these, based on statistics, occur due to left-turn movements. If I'm in the way of anybody down there, you can always shift to the side and get a better view.

I'm sure all of you are familiar with Mother Webbs in the Lower South River area. These people definitely have a need to back out onto the Trans-Canada Highway, which is certainly a significant safety issue in many people's minds, certainly mine. Similarly, here you see just a vast expanse of asphalt making up the Trans-Canada Highway with a major intersection in there, hidden somewhere. Another unique feature to the 100-series highway, to the Trans-Canada in this area is signalized intersections, which is an extremely rare thing to see, and again, another safety issue, and the example of the truck traffic that does move through here.

So the solution, for the solution, we need to identify a routing, including access locations, for the new highway, in this case, from Addington Forks Road to Taylor Road, that best meets the transportation and economic development needs of the local community and the province. That's important to keep in mind, that provincial roadways are not only to serve the local communities that we are passing by, it serves a function for not only the province, but our country. So we need a securely identified highway alignment, and we do that through corridor preservation, which basically means land purchases, and then we will construct the highway someday when the government finds the funding and places it on this project. It's important to note that this project is part of the national highway system, so it is eligible for federal cost sharing.

This slide shows the national highway system throughout the entire province, shown in red, and provincial-wide, Antigonish is a very small piece of that pie, and this is the vision of the national highway system for the province, which right now is at about a 600-800 million dollar deficit from where we should be with the status of the roadways. This is what the national highway system looks like for the most part, 4-lane divided highway, obviously compared to out front of Mother Webbs, you must agree there is a significant difference between the two types of facilities, and access to and from the grade-separated interchanges. Grade-separated being in this case, the main throughway, which is the 102 in this case, is separated from local traffic, which can cross the road, and the two of them do not interfere with each other's movements.

To go through the chronology of the project, we initiated a corridor preservation study in 1996. We went through a constraint identification, which are environmental features that we know of at the time through research and consultation with other agencies. That brought us to our first consultation in May 1997. Following this, we investigated some alignment options, identified the most feasible options, in this case there were 3, and for historical purposes, you may

recall the red, blue and brown were the designations. There was further analysis of the alignments, a second consultation in 1998. Following the consultation, there was certainly a feeling or a recognition of safety and the importance of safety, not only from our perspective but from what was heard from the public, so we commissioned an independent consultant to do a safety review, and following the safety review, the blue route with interchanges, as are proposed are included with the EA report and we will be talking about it further and in a little more detail later on, was recommended to our Minister. We followed this with a peer assessment, and again, this was commissioned out to an independent consultant. Following this, our Minister approved the alignment to be registered through the EA process. There was a third meeting with the public, this was an information session on the approved alignment in May 2001. At the time, there was overwhelming support for the project.

Dwayne Cross: Needless to say, we can't satisfy everybody with every project and that's certainly the case with any of our highway projects, but we certainly strive to do our best. Following the consultation, a project description was developed as part of the federal and provincial processes. This project requires approval at both levels, as the Chair mentioned earlier. The project was registered for EA in November 2001. The final terms of reference were issued and a consultant was hired to develop the report, which would be Jacques Whitford, who is with us here tonight. The final report was submitted this past April, and the Minster of DEL referred the report to the EA board, which led to the development of the panel that we are meeting with tonight.

I just want to take a quick skim through the project. I'll start on the west end. So as we come off the existing highway, at this point in the Addington Forks Road area, where the speed reduction occurs, we would peel off to the right of the existing road, Post Road along here, and we would be constructing a new diamond interchange. The alignment would continue on to the east, passing behind the fuel stations along Post Road, the Wal-Mart and Superstore would be in this area, so immediately behind the new highway, crossing under Trunk 7, and in this case, Trunk 7 would be constructed over the new highway, and this gives us the opportunity with the interchange ramps, the interchange ramps we built such that they would act as a natural sound barrier, especially for the community that lives adjacent to the highway.

So we continue on, crossing Church Street Extension, at the time of the consultations and through the development of the report, we had originally proposed a service road from Trunk 7 to the severed portion of Church Street Extension, severed due to the new highway crossing here. We have done additional work on this, and we are now looking at proving a tunnel access under the new highway and not going forward with the service road. This will provide continued access from one side to the other, as the local people enjoy today. Just for landmark features, we have St. Ninian's Cemetery right here, and the Dairy Queen would be here.

So we continue east to the Beech Hill Road crossing, we would be crossing over Beech Hill Road and providing a typical diamond interchange, and at this location, we have identified an opportunity to phase this project, and the reason we're considering phasing is based on the estimated cost. The project is estimated at nearly 90 million dollars, which pretty much makes it impossible to fund based on the funding ability of our government and our province, and by providing this transition here, we can phase the project in 2 steps and it cuts the price in half,

pretty much balanced between the 2 phases, and certainly would increase the ability for our government to fund the project.

So we continue on to the east, in behind manufactured home community here, the old Central Supplies buildings are in here, continuing on, we would be crossing over the existing highway and down and crossing South River here, we would be providing a new diamond interchange from an extension of Route 316 and realignment of South Side Harbor Road; doing this will certainly eliminate an unsafe intersection that exists today. At this point here, this is where Mother Webbs is. This mouse doesn't want to talk tonight. Then we run out with the remainder of the project, tying in just past Taylor Road and with Taylor Road realigned into the existing highway, so that Taylor Road would pass over the new highway.

Dwayne Cross: With this slide, I want to convey an appreciation for the traffic volumes that we are dealing with. If we didn't plan on building the highway, or never built the highway, based on 1998 traffic volumes, and these numbers were generated through the safety study that was carried out, they would be around 15,000 back then, and these were factored within the study. The year 2010, these volumes would increase to 21,000, and in 2030, this particular section would be up to 39,000 vehicles a day on the existing highway, which you can see is about 2.5 times what's there now, so we certainly know something needs to be done. With the new highway constructed, on the old highway, you can see a significant drop in the highest traffic volumes, and 17,000 and 30,000 vehicles per day being on the new highway. And with 10,000 vehicles a day being a flag to us to start considering a 100-series highway for twinning, we know right off the bat that we have to construct the 4-lane highway when we do the construction.

We went through the safety review, as I mentioned in the chronology, and the alignment options were reviewed. They looked at 8 scenarios of the 3 alignments, and out of that, the blue alignment with interchanges, as we just reviewed, was noted as providing the greatest safety. With the peer assessment, we conducted this with the desire to have a senior professional body look at the project with fresh eyes and with that process as well the blue route came out on top and was adopted in principle. The 2001 information session we had, we showed maps, had handouts, about 200 attendees, and 27 comment forms were submitted by the public. There was a positive atmosphere at the session, and from that analysis of the comment forms, we found 52% support for the project, 22% didn't oppose the project, but had concerns over particular aspects, and only 15% did not support the project. Again, with any highway project, we're not going to be able to please everybody, and there certainly seemed to be a desire to get on with things and get the highway built.

The socioeconomic component was recognized as something that was quite significant and needed to be accounted for. We went over and above what was required within the terms of reference, and had our consulting firm do additional work. We had met with the Regional Development Agency and with Profile Antigonish at the time, and they provided us with input. Some of the key things that came out of the meeting were interchange beautification, providing appropriate signage on the new highway, and locating the Tourist Information Center at one of the new interchanges.

I'll quickly skip through the signing. There are numerous signing programs available that we provide for 100-series highways, and quickly going through them,

we have guide signs, industrial business park signs, community identity signs, motorist service symbol signs, business logo signs, major tourist attraction signs, scenic travel way identity signs, and the large service business area loop signs. Of course, with all these programs, eligibility needs to be determined, and then it's up to the town, the municipality and businesses to choose if they want to participate when possible.

A couple of slides to talk about environmental planning. The environment is a significant factor all the way along in our highway planning process, and in fact, the very first thing that we do is a preliminary screening in-house, and we look at 63 constraints, we contact various agencies and groups to gather the known information at that time, develop a constraint map, identify the areas that we need to avoid with our routing, and then fit the alignment with the environment being an important factor, but it needs to fit in with several other factors that we need to deal with in planning a highway.

Dwayne Cross: Next is the environmental assessment report, and you can see a few copies, the very thick binders that are on the front table here. There is a significant amount of fieldwork and detailed information gathered and a lot of work that goes on with this. With any EA report, the level of information we have has been significantly increased, and based on the original routing of the alignment from our in-house screening, it may warrant some tweaking. With this project, there were a couple of areas that warranted a second look to see if adjustments could be made to minimize some environmental impacts, and that certainly was carried out here. Environmental mitigation and followup work are also identified in the report and these would occur as the design and construction proceeds and getting through the environmental approval and achieving an approval certainly is a significant milestone for a planning project, and we see it as the green light to proceed towards construction.

Finally, the environmental protection plan, it's a generic plan and it's based on best management practices and it does go through some additional customization as required based on the individual project of concern. The site and project-specific things that need to be done, of course, and any followup or monitoring, if it is required. So, in a global picture with the environment, the routing itself pretty much falls where all these features and where the environment governs.

To touch on the next steps, the deadline for submission of the report and recommendations to the Minister is in August, and a decision will be anticipated that same month from Environment and Labor. We will then continue with the field survey and detailed design, pending the approval of the project, go through purchasing of the corridor, and at this time, the earliest possible start date for construction is the spring of 2008, and that's our best determination right now, with the work that's left to be done on the project. Of course, funding is another major issue with this and ultimately it will dictate when construction will start.

Tony Blouin: Thanks very much. At this point, I'd ask Mr. Dunn to come forward and get sworn in, and to give us his presentation.

Stephen McGrath: Mr. Dunn, would you like to swear on the Bible or by affirmation?

Mr. Dunn: The Bible.

Stephen McGrath: Do you swear that the evidence that you are about to give shall be the truth, the whole truth and nothing by the truth, so help you God?

Phil Corkum: Mr. Chair, it may be appropriate, so we don't interrupt Mr. Dunn while he's making his presentation, I know he has previously filed some materials and I'm anticipating that he might be referring to those, maybe we can mark them ahead of time and then just simply go into Mr. Dunn's presentation.

Tony Blouin: Sure, that's fine.

Phil Corkum: Mr. Dunn, I'm just going to go through the materials that we have here, just to make sure that we have everything and mark them as we go, just if you could confirm that it's what we're supposed to have here. You have a presentation, a typewritten presentation, that you've prepared and bound and maybe we'll identify that for the record as Exhibit No. 4, and you have 2 photographs that you have filed, one showing the present view from the Dunn dwelling towards the South River in 2005, and then another series of photographs, or a compilation of photographs, in which you projected the view after the new 104 overpass.

Mr. Dunn: Yes.

Phil Corkum: We'll mark those photographs, the present view as Exhibit No. 5, and the after the overpass view as Exhibit No. 6, and you have put up a map across the room here, or a drawing across the room, are you intending to refer to that?

Mr. Dunn: Yes.

Phil Corkum: Okay, then we'll mark that as Exhibit No. 7. Were there any other materials that you had?

Mr. Dunn: No, there's just the, the map that's included in that binder.

Thank you, Mr. Chairman. My name is Fraser Dunn, I'm a resident of 25 Dunn's Loop, Lower South River. My property will be affected by the proposed relocation of Highway 104. I first wish to express my gratitude for the opportunity to make this presentation.

I also want to point out, as an introduction to myself, that I worked for the Nova Scotia Department of Highways, as it was known then, for about 10 years in the 1950s and 60s. I was a member of an on-site engineering staff involved in more than 80 km of highway alignment surveys, subgrade construction and asphalt paving of Trans-Canada Highway in Antigonish, Inverness and Cape Breton Counties. I also worked on the alignment of the Dartmouth Circumferential Highway, the Cabot Trail alignment survey on Cape Rouge and MacKenzie Mountains, and the realignment near Ingonish. I worked on the original Trans-Canada Highway here in 1955, when the South River Bridge was built. I also worked on the Antigonish Bypass in 1961, when the West River Bridge was built. After I joined the firm of AA Troy and Associates Engineering, Ltd., we were involved in the design of 7 overpasses and bridges on the Trans-Canada Highway. I also had the privilege to sit as a member of the Nova Scotia Environmental Control Council, where I learned a great deal about the impacts of large projects on our sensitive Nova Scotia environment.

Because of my experience working on highway alignment surveys, and the construction phase of Nova Scotia highways, I am very aware of how difficult it is to find a route through a community that will meet the requirements of the new highway, meet the financial restraints imposed by the taxpayers, and minimize the amount of damage to existing property affected by the new alignment. I realize the new highway must go somewhere, and in this case, this somewhere is very close to my home.

My first environmental concern about the alignment is to mitigate damage to my property and to the environment surrounding my home if this route is chosen. The proposals I will make will not only lesson the impact on my property, but it will reduce the cost of the project, improve the vertical alignment and provide a safer road. My home is located on what is known as Dunn's Loop, which is a loop off old Route 4, which was cut off when the Trans-Canada Highway 104 was built in 1955. It is a very scenic location with an exceptional view of the South River Valley.

Mr. Dunn: The proposed alignment for the new expressway crosses the existing Highway 104 between my home and my neighbor, Tina Landry. The alignment calls for an overpass, which will raise the level of traffic in front of my home by about 6 m. In addition to the increased traffic noise, which will be unbearable, the raised highway fill and structure would place an embankment across the eastern view plane of my property. My view of the South River Valley would be blocked. I say, not so jokingly, that I'll not see the sun until about 2 o'clock in the afternoon.

This environmental study references environmental concerns of my area in the following sections: Section 2.2, Page 6 lists an overpass at Dunn's Loop, but Table 2.1, Page 11 lists a cut at Dunn's Loop of 18.5 m. Also, appendix G, Page 10 lists a cut at Dunn's Loop between Station 10+270 and 11+190, which could cause problems with dug wells in the area. Section 6.2.5.2, Page 214 lists a full interchange at Dunn's Loop. Section 5.1.4 lists dust generation from construction activities and emissions from vehicles, which affect Dunn's Loop. Section 5.1.5.1, Page 56, lists Dunn's Loop as one area where homes may be exposed to dust. Page 57 lists Dunn's Loop as requiring mitigation of construction noise. Section 5.1.5.2, Page 58, talks about the impact of air quality from traffic. Table 5.4, Page 60 and 61, Site 8 at Dunn's Loop is expected to have significant increased noise levels at night. They go on to say 'construction of the highway as an underpass to the existing roadway to utilize the embankment as a barrier may not be cost-effective. However, it will be considered as an option for reduction of noise levels'. Page 62 says 'detailed examination of mitigation options will be considered near Site 5 and Site 8'. Site 8 is Dunn's Loop. Section 5.2, Table 5.8 lists domestic wells within 500 m of proposed highway, and Dunn's Loop again is listed. Page 81 says 'so the proposed 18.5 m deep road cut across Dunn's Loop could result in dewatering of these wells'. Page 81 also says 'the work in the Dunn's Loop area includes a major road cut up to 18.5 m'. Appendix L, Page 262, lists major cuts at Station 10+270, which is Dunn's Loop.

The following are my proposals to protect my view plane, maintain the economic value of my home, and eliminate some of the noise from the proposed road. I have already proposed to the Department of Transportation and Public Works engineer, Mr. Mike Croft, at the 2001 open house meeting in Antigonish, that an underpass be constructed at Dunn's Loop intead of an overpass. Incidentally, from this environmental assessment report, on Table 2.1, Page 11, Appendix G, Page 10, Section 5.2, Table 5.8, Page 81, and Appendix L, Page 262, all indicates a deep cut at Dunn's Loop, not an overpass as indicated in Section 2.2, Page 6.

Anyway, Mr. Croft advised me by telephone on April 25, 2002 that he had checked the profile from Station 9+00 to the South River Bridge crossing at Station 11+300, and he said his calculations showed that it is feasible to install an underpass at Dunn's Loop. He said the new highway grade via an underpass from the new South River Bridge to Dunn's Loop would be 3.7, and 4.5 from the underpass to the top of the hill at Station 10, while the highway grade via an overpass from the bridge to Dunn's Loop would be 5.8%, and 4.7% to the top of the hill at Station 10. Mr. Croft also said an underpass at Dunn's Loop does not affect the depth of the cut at the top of the hill at Station 9+800.

Mr. Dunn: However, Mr. Croft's replacement, Mr. Rob Herd, speaking to my son, James Dunn, in Halifax on July 25, 2002, said he wants to reverse the decision to use an underpass at Dunn's Loop. While he agrees that going under the existing 104 would be safer because an overpass bridge on a curve and on a 5.8% grade with a 16 m embankment has a hidden danger of black ice, but he is concerned that he would have surplus material because so much less fill would be required between Station 10+400 and Station 11+100. The surplus material is in the area of Station 9+900. If an overpass was constructed at Dunn's Loop, this surplus material could not easily be used in the fill area east of the overpass because the heavy equipment required to transport this fill would not be allowed to haul across the new overpass. Additional costs would be incurred to haul it around Highway 104. The extra costs could be as much as a dollar a cubic meter, and could amount to up to $50,000.

I have hand-calculated quantities of material required for an overpass versus an underpass. I estimate that the earth quantities required from Station 8+850 to Station 11+195 via an overpass at Station 10+550 would be in the area of 675,000 cubic meters, and on the wall is a profile I have compiled to show the difference in gradients of the roadway via an overpass and an underpass at Dunn's Loop. Now, I know you're concerned with surplus material, so the red line that's on that shows the 3.7% grade for the underpass, and the green line shows the 5.8% for the overpass. But there's 100 combinations in between the two. I have a little pencil line drawn in there that can almost use up the surplus material that you're concerned about. It just means rolling the grade a little bit.

Another thing that can be done is when you're constructing the old Route 4 over the new highway, it would be not very difficult to raise it at least a meter, lessening the cut again, so the surplus material could certainly disappear, and it certainly could be used on these steep embankments to change the slope from 2:1 to 4:1, eliminating a guardrail. The other thing I didn't mention is that if you go as an overpass between the 2 roads with a guardrail on both sides, you will be constructing about 2 miles of guardrail, which you should have to factor in as an expense. So the quantities of material required from Station 8+850 to Station 11+195 via an underpass would be in the area of 522,000 cubic meters. Therefore, there's 153,000 cubic meters less material to be moved if this section of roadway goes via an underpass at Dunn's Loop. At an estimated cost of 4 dollars per cubic meter, the underpass saves approximately $612,000.

Therefore, by installing an underpass at Dunn's Loop, the following advantages are: a cost saving of $612,000, a better gradient on the roadway from South River Bridge to Dunn's Loop, 3.7% versus 5.8, a safer road, as the danger of black ice on an overpass on a steep grade and a horizontal curve with the 16m embankment would be eliminated, less property damage to the property owners, the underpass

would mitigate the serious noise problem that would be created by raising vehicles 6 m above existing homes, the side slopes of the cut area would act as a natural barrier, eliminating the need for costly artificial sound barriers. The underpass would eliminate the embankment in front of my home, which would destroy the panoramic view, which is now a feature of the Dunn property. At all public meetings, the Nova Scotia Department of Transportation and Public Works officials have, for the past 5 years, and again tonight, stressed that this new alignment is to be the safest possible highway for high-speed traffic. Also, these same officials have stressed that every effort would be made to mitigate damage to property, noise pollution, etc., to adjacent property owners. Therefore, for all the reasons outlined, I respectfully request that you designate the crossing of Highway 104 at Dunn's Loop, Station 10+550 by the Atlantic Expressway to be an underpass.

Mr. Dunn: Also, in Section 5.1.5.1, Page 56, Dunn's Loop is listed as one of the areas where homes may be exposed to dust from heavy vehicles within the construction area. With regard to the dust problem mentioned, we went through this problem in 1955 and 1956. The dust was so bad you couldn't even see the house from the road. The house was covered inside and out. My mother didn't have a clothes dryer at that time, so it was impossible to clean clothes. If you hung them out on the clothesline, they would turn into mud. I can remember my father taking a sample of bales of hay to the Minster of Agriculture to show him that the mud formed in the hay bale when the dust and the water in the hay mixed, made the hay completely unusable. So all I can do is hope that 50 years later, a little more protection will be given to the people affected by…

End Tape 1

Mr. Dunn: …the South River estuary. I would like to refer to the peer review report on Highway 104 upgrading by Arthur Scott and Jack Duchera in April 2000, which makes several references to this environmentally sensitive area. On Page 8, they say, "The saltwater estuary at the South River is considered to be the most sensitive site within the study area, and is impacted by both the red and blue routes. No highway sub alternatives to these two basic options appear to have been examined to avoid this location". On Page 26 of the same report, they say, "The South River estuary has been identified as an environmentally sensitive area. Both the red and the blue routes will have a significant impact on this ESA. The brown route avoids this area, and consequently will have no impact on this natural resource." On Page 33, they state, "Additional studies are required to determine whether the proposed alignment of the blue route between extended Route 4 and Taylor's Road is the most acceptable routing for this new highway between these two limits, or whether a more southerly alignment is more appropriate. The latter may be more beneficial in terms of resulting in a more environmentally acceptable crossing of the South River, and an improved interchange configuration with 316."

The problem I see with this exercise here tonight is that this environmental assessment only considered the environmental impact on the South River at this particular crossing. Studies should have been done on at least 1 other crossing, so that a comparison could have been made to determine if this is the best, or the worst, crossing. I have color-enhanced the South River area of your project map, and when I look at the map and the photos enclosed, one statement screams out. Why are we crossing the river at this location? The potential for environmental damage is so great compared to any other crossing. This study only allows us to look at the impact at this site, and the mitigation proposed.

I cannot agree with the statement in the executive summary of Appendix E, which states, “Construction of a bridge within the study site is less likely to have a significant environmental impact than a site upstream or downstream”. The site selected crosses the river at the widest location, and not perpendicular to the river, thus making the crossing even longer than necessary. The crossing is in tidal water. A crossing above tidal influence would not affect the estuary because there would not be a sensitive estuary in that area. The crossing requires bridge abutments and piers to be placed in this environmentally sensitive estuary in 12-15 meters of till. A crossing above tidal influence, the river could be spanned with a 150 meter span with abutments clear of the river channel. The cost of the structure would only be a fraction of the cost of this structure. The environmental impact on the estuary would be nil.

Mr. Dunn: In the proposed structure, I find several points disturbing, and this is the structure that’s shown in the report, which states that it’s going to be four 60-meter spans. Firstly, the bridge is proposed to be constructed in an area where there is an average of 10 meters of mud between river bottom and bedrock, and I personally know, because I worked on the 1955 bridge, so I know what the area is like. See in your own subservice map 1, Section BB, it shows the actual depth to bedrock. This presents an engineering challenge and a very costly substructure for the bridge. Secondly, the west abutments for the 2 bridges are proposed to be located in the back channel, and not back into the riverbank. This will require infilling the west side behind the abutment, thus blocking the back channel. This requires relocating the back channel by excavating a part of the island to create a new back channel, and believe me, if you load that mud behind the abutment, you are going to cause the mud to squeeze up between the next pier and then you’ll have to excavate that too, so you’ll be excavating God knows how much.

I cannot believe that in this sensitive estuary, you are going to make the river fit the bridge. If you want to mitigate damage to the estuary, you must make the bridge design fit the river.

Thirdly, the abutments proposed in the report, and the piers, are shown perpendicular to the highway centerline. To avoid disturbance to the estuary and high flows, the abutments and piers should be parallel to the river. So the proposed construction access road to the bridge piers, the installation of the west abutment in 14 meters of till, the infilling of the back channel, and the excavation of the island to provide a new back channel, will cause massive damage to the estuary, no matter what your report says. Given a major storm during the construction period, the whole area could be destroyed. At the first open house in Antigonish in 1997, a map was circulated which crosshatched all the areas north of the existing bridge with the caption in big, bold letters, ‘Avoid’. Why was this overruled and the South River crossing placed in this sensitive area?

The proposed new route is on the south side of the existing Highway 104 all the way from Addington Forks to Dunn’s Loop, where it crosses to the north side, which throws it into this environmentally sensitive area of the South River. This places Route 316 interchange over 400 m north of the business area in the village of Lower South River. The whole route from the new bridge to Taylor’s Road obscures vision of the village because of the highway cuts and the woodland. A route to the south of the village from approximately 8+00 to Taylor’s Road will eliminate the cost of the overpass/underpasses at Dunn’s Loop at Taylor’s Road, the extremely expensive river crossing of the South River, and provide a more

visible location for the Route 316 interchange in relation to the business area of the village of Lower South River.

In addition to the huge environmental advantages of the southern route, there are huge economic advantages to the businesses and construction savings in the millions of dollars. I hope this hearing will consider these monetary items as valued socioeconomic components, which should be weighed heavily in considering this alignment. The mitigations of these VSCs, as well as the valued environmental components, I feel, justifies studying a southern route from Station 8+00 to Taylor's Road.

One new factor that also should be considered is the new connector road to the Goldrow industrial complex. This roadway could be part of an alternate southern route from Station 8+00 to Taylor's Road, providing further savings of taxpayer's money. In a time when all we hear from government is how difficult it is to find the money required for healthcare, education, highways, etc., I believe it is incumbent upon this body to more fully investigate if a southern route will protect the environment and save money at the same time.

Mr. Dunn: The third environmental concern that I have with this project is it's location in relation to karst topography. In Section 2.4.13 of the environmental assessment on Page 18, it states, "A walkover survey of the alignment on October 10 and 11, 2002, was carried out and observances were made for evidence of karst topography. There were no areas noted where evidence of karst occurred along this alignment". I would like to point out that along the alignment at Station 10+850, settlement continually occurs in the agriculture field. The owner on several occasions hauled in truckloads of material to fill in areas that have suddenly collapsed. Also, in the area of the proposed overpass structure at Station 10+550, limestone is present within 1 foot of the surface.

I would like now to comment on Page 220 of this environmental assessment report, where I am quoted as identifying an area of concern within the study area alleged to have supported a large Mi'kmaq encampment from approximately 1890 to 1940. On Page 221, my information seems to be dismissed out of hand. The study also says there were no Mi'kmaq people recorded for Antigonish in the 1891 census. I would like to report that I informed Heather MacLeod Lesley and Laird Niven, who were doing the archaeological survey for this study, about the encampment on July 29, 2002. I did not say it was a large camp. I passed on information as a courtesy to help them identify any possible features, but they gave me the impression that they did not believe me.

To correct this impression that my information was a fabrication, I offer the following for the record; my grandmother, who lived at Dunn's Loop from 1888 to 1956, told many stories about the Indians from that location coming down to her home in the 1890s and 1900s during long, cold winters to get food. I hunted in the area of the encampment many times with my father in the 1940s and 50s. When we were in that area, he would talk about the Indian camp. Enclosed is a copy of the 1881 census for that area, which lists the family of Peter Thomas and Frank Thomas, and included in Frank Thomas' household a John Prosper, age 2. John Prosper was a friend of my father who hunted and trapped on our property, had a long-standing agreement with my father to hunt ash trees for ax and other implement handles that Mr. Prosper manufactured. I pass on as a point of information other Indians listed in the 1881 census, including Families No. 276-288 and in the 1891 census for Antigonish County, it includes at least 74 Mi'kmaq.

I also enclose, for your information, a copy of a portion of a map by the Geological Survey Department of Canada, Part P, Annual Report Volume 2, 1886 for Antigonish County. The map shows the location of Indians at the location I described. One final point of clarification, under Appendix D, sub-appendix B and F, entitled Archaeological Resource Impact Assessment, I, Fraser Dunn, am mentioned because of my interview with Davis Archaeological Consultants Ltd. I would like to clarify that the old Dunn family residence mentioned should have read 'the old Fraser family residence'. Incidentally, this old heritage building could be saved from destruction by this highway if the horizontal curve between Station 10+350 and Station 10+950 was adjusted to a gentler curve. This slight adjustment would provide a safer road alignment and eliminate destruction of the old building.

Again, I thank you for the opportunity to present my concerns about this project. I look forward to your recommendations to the Minister, especially in respect to the protection of the South River Estuary. Thank you again.

Tony Blouin: Thank you very much, Mr. Dunn, for an extensive and very well prepared presentation. While we have Mr. Dunn at the microphone, I would ask if anyone has any questions for Mr. Dunn about his presentation?

Dwayne Cross: I'm just wondering if there was any particular design speed that you were using during the development of the profile that you have presented tonight?

Mr. Dunn: No, I'm using the information that Mr. Croft gave me of 5.8% and you can take 20 combinations there, if you want, for an underpass. You don't have to take the red one that I outlined; you can go with any combination in between.

Dwayne: Just for clarification for the panel, the grade he is referring to is the grade on what I would consider tangential portions of the grade and not the actual vertical curvature.

Mr. Dunn: The vertical curvature will depend on what you want for sight distance.

Dwayne Cross: Yes, and that's what I'm wondering, with regards to sight distance, it's directly related to the design speed.

Mr. Dunn: You can get any sight distance you want there, depending on how you want to put in your vertical curve. There is very little difference between the 5.8% and the 4 point, whatever it is from there to the top of the hill, I can't see it from here, but I think that it would probably be harder for you to get sight distance on your overpass than it would be on the underpass.

Tony Blouin: Just for clarification, the sight distance you're referring to, how far ahead on the road you can see, is that essentially it?

Mr. Dunn: Yes. You have requirements for what, 600 feet?

Dwayne Cross: It's a particular distance of meters that's requiring for viewing, based on driver eye height and object height, that we need to maintain with the horizontal design.

Tony Blouin: Okay.

Bonnie Rankin: If I may, what is the proposed speed limit for the highway, I believe in the report, it refers to 110, is that…?

Dwayne Cross: I did mention it during the presentation, the highway is designed for 120 km/h initially it will be posted at 100, but as the twinning expands adjacent to this project, it will be increased to a posted speed of 110.

Mr. Dunn: Mr. Chairman, could I ask you a question?

Tony Blouin: Yes, sure.

Mr. Dunn: This afternoon, Mr. Corkum outlined that the preferred method of crossing that is an underpass. It's safer, better grade. He didn't particularly talk about Dunn's Loop, but he just said in general, this afternoon, when you had a question from the panel, so I'm wondering, what is the reason for insisting on an overpass? This is about the fifth time that I've requested you look at the underpass. I know it's cheaper; it's certainly going to do less damage to my property, so I don't understand the problem.

Phil Corkum: I just want to clarify the use of underpasses, meaning the main line, or the major road, goes under a minor road, and I think, as a general rule, as a rule of thumb, that's what we always try to do; however, in some cases, due to other factors, a balance of quantities, for instance, if we have large cuts and large fills, you have to balance your quantities, that's not possible, and I think that's the case here, the fact that whenever you build a road, you really don't want to have a lot of material that you cut out, you don't want to have to waste a lot of material that you pay a contractor to cut out. You want to be able to use that material in an embankment where you need material, and if you run short of that material, then you go to a borrow pen on the side and you truck material in, that's a much better, a much more economical way of construction than having waste material, paying somebody to dig it out and then having too much of it and wasting it, that's not something that we normally want to do. So you try to balance those cuts and fills as much as you can, and in so doing, in some cases, you have to put your main line over a minor road.

Mr. Dunn: But if I may, Mr. Corkum, in this case if you go over, you have to go to a borrow pit. You need 700,000 cubic meters. You don't have that in the cuts, so you will have to pay a contractor to go someplace else and find fill and haul it in. That's 700,000 cubic meters that you're going to pay for. If you go under, you are only going to move 500,000. That's 200,000 cubic meters less. Whether you waste it or whether you put it in the roadway, it's still 200,000 less. You seem to be suggesting that because you're wasting some material, that it's cheaper to go to borrow. It's not. We've had this discussion before, incidentally. I've met with Mr. Corkum on this and he does not seem to understand the point I'm making. If you go over, you have to pay the contractor to move 700,000. If you go under, you have to pay the contractor to move 500,000. But, you may have to waste 100,000 of that 500,000, but you're only paying to move 500,000. The other way, you're paying to move 700,000. That's my point.

Dwayne Cross: With regard to design speed, we took Mr. Dunn's report and did a calculation to determine the crest factor, which we call, it's a K-factor, it's for crest curves and sag curves. For a design speed of 120 km/h, our minimum crest curve value, the K-value, is 105. The minimum sag curve value is 55, and what K-value is, it's a ratio of the length of the vertical curve, so from the end of one grade, in this case,

just for visual purposes, the top curve of the profile, the horizontal length, it's that divided by the difference in grade of the two approaching tangents, or straight sections. So as I said, 105 for the crest and 55 for the sag, when we calculated Mr. Dunn's values, they were 40 for both, the maximum was in the vicinity of 40 for the crest and the sag, which, and particularly for the crest, is a significant shortfall. How that relates to sight distance for 120 km/h, which reflects the 105 K-value, minimum stopping sight distance is 240 m. For a crest curve of 40, which our table would place us between 80 and 90 km/h design speed, our stopping sight distance would be between 140 and 170, so based on the overall design that we're using for this highway, in this case, the minimum design values, this profile would be significantly below standard.

I have prepared a profile for both going over and under, I have it in hard copy here, and I can show it to everybody, I'm not sure what the best method of conveying the message is, whether we pass the map along and I show you, or how should we best address that? With that, I want to show the grades on the road and how the curves sit, both the crest and the sag, and with my calculation, with using our minimum design standards, we would be looking at about 1.1 million cubic meters of cut material generated from going under the existing highway. If we go over the existing highway, we require 500,000 cubic meters, which can be generated from the requirement of the crest curve at the top of the hill, as you see on the left side of Mr. Dunn's profile.

In addition, by going through a cut, and we can see this on the profile, we would actually be cutting into one of the streams, and I don't have… we could show that to you on the map as well, there's a stream between the existing Highway 104 and the top of the hill, Mike's just pointing to it right there. By following our minimum design standards, we would actually be into a cut as we passed through this watercourse. This would result in terminating flow from that point downstream for that watercourse. In addition, the water that gets to that point from upstream would end up being diverted down the ditch of the new highway into the river. Right there in itself, that's a significant no-no when we're going through our planning process. We're certainly not willing to entertain building our highway in a cut scenario, crossing existing watercourses. Any of those situations, we want to cross with the new highway in a fill situation to maintain the existing path and flow and all of those types of features.

Tony Blouin: Um, I guess, could I ask in regard to the map that you referenced, that you only have a hard copy of that, is that correct?

Dwayne Cross: With me today, I just have the hard copy print.

Tony Blouin: I guess at this point, probably the best thing to do is if you could just pass it along to the panel, we'll have a look at it, we'll enter it into the record, and perhaps we'll just, we'll have it available here if other people at some point later on, perhaps after the session, want to come and have a look, we can do that.

Dwayne Cross: What I plan to do is prepare a formal response to the presentation and within that, detail the profile and the other points that I'm touching on here tonight.

Tony Blouin: Okay.

Mr. Dunn: If I could just make one point?

Tony Blouin: Yes.

Mr. Dunn: No matter what you use for a crest curve, you simply carry it around and you're going to go off on a tangent on your fill scenario, or you're going to carry the crest curve a little further and continue down for the underpass. Underpass or overpass, it has no bearing on your crest curve. Whatever curve you're using, you just use it and then continue it a few feet further, and you'll roll off on the tangent going on the underpass.

Dwayne Cross: I agree that the profile could potentially be matched… the crest curve could be matched. Unfortunately, we are still in a cut situation from that point…

Mr. Dunn: Correct.

Dwayne Cross: …in a easterly direction under the existing highway, and on our way down towards the Lower South River, as we will see on the profile, so this is a continued accumulation of material that we need to find a spot to either dispose of it, or build it into the highway and in this case, increase the elevation of the highway in a given section, which I have shown for illustrative discussion with the profile.

Mr. Dunn: But you're talking about moving all that cut from the top of the hill at Station 9+50 or whatever it is, east. You have a huge need for fill to the west. In behind Central Supplies, you have a very bad soft area, you could easily lose 50 to 100,000 cubic meters of swamp in there that you are going to have to replace with fill, and most of that fill at the top of the hill that goes there should go west. And how do you propose to get the 5 or 600,000 that you need on the east side of the overpass?

Dwayne Cross: When, at this point in the process, we're early in the process relative to construction, and once we're into detailed field surveying, we can identify various pockets, such as wetlands and those things that are directly impacted that will require material. At this point, we can't make that determination. That's something that needs to be refined as we move on. At this point, with our mapping, as I referred to earlier, with the level of accuracy, is it's major material decisions that we have to make and we can make those with respect to decisions such as this.

Phil Corkum: With respect to moving material from one side of the 104 to the other, we have done, we have actually done that during the twinning of the 101, we have moved material from one side of the 101 to the other with off-highway vehicles, and so that's not really not an issue, having to move material from one side of the road to the other. We do not have to use the new structure to move it; we can actually use off-highway vehicles moving across the existing highway.

Mr. Dunn: That's right. (unclear) …big traffic jams there.

Phil Corkum: Well, we did on Highway 101, and the volumes on the 101 are substantial, so I mean, it is an accepted method with proper traffic control, if it's acceptable on Highway 101, I have no doubt it would be acceptable here to move the excess material from one side of the 104 to the other side to use in an embankment.

Mr. Dunn: And it adds cost.

Phil Corkum: Well, it doesn't really add that much cost, when you consider that to waste that material would be very costly as opposed to using it in an area where you can use it.

Mr. Dunn: You're going to have to move so much more material. It's still going to cost you more for the overpass. I will bet any money on it. You cannot build that overpass for less money than you can build the underpass.

Dwayne Cross: Something else to keep in mind, if we were to build the new 104 under the existing highway, we would be into some sort of a detour on the existing highway and in that location, as we're coming up from the river into a 3-lane cross-section, we have a climbing lane, where quicker traffic is passing slower and in most cases, heavy truck traffic, as they're climbing the hill, and our crossing occurs along this climbing lane, so if we were to build the new highway under and get into a detour, basically what the detour would be is a short realignment around the site because we would have to be building a structure where the highway is right now. We would have to move that traffic out of the way and certainly, there are costs and safety implications with that.

Mr. Dunn: Mr. Chairman, if you can do that at Route 7, Dunn's Loop would be a cakewalk compared to Route 7, what you're planning to do there. You're planning to do the same thing. You're going to raise Route 7 up, so you'll have to detour all that traffic in a very confined space. You have all kinds of space out at Dunn's Loop.

Phil Corkum: We would have a significant amount of space generated at Trunk 7 due to the acquisitions required for the highway and the interchange itself. In addition, there's a significant difference between the traffic and the speeds and the function of Trunk 7 at that point compared to the existing Highway 104.

Mr. Dunn: I just can't understand why you are you so set on destroying a person's property when, for less money, you can save it. It doesn't make sense.

Dwayne Cross: We're certainly not set on destroying people's properties…

Mr. Dunn: You are.

Dwayne Cross: …we certainly make every effort possible…

Mr. Dunn: No, you haven't made any effort, I've met with you 3 times.

Dwayne Cross: …to minimize land impacts and…

Tony Blouin: I think at this point, I don't want to continue in argument between the two parties, obviously there's a difference of opinion here. I'm just going to ask, we have Mr. Dunn's material, you're going to submit some additional material, I think the panel will just take that under advisement and we'll give it further consideration and we will make what we can of it.

Mr. Dunn: I'm going to make one final point.

Tony Blouin: Yes.

Mr. Dunn: They can certainly… they have the computer programs to generate all kinds of information, and it's very difficult for me to come back and refute that. I can give you a hundred different curves across that hill, a hundred different quantities, and we can argue all day. So you have me at a disadvantage. You can quote all kinds of figures, you can determine to move all the fill east and say that's why you have

to go over, when you know you need a lot of fill to the west, and you refuse to acknowledge that. You can use 2 to 300,000cubic meters in behind Central Supplies and Station 8+50 to 9+1. You're going to be short of material. You're going to be going and borrowing material, and you're going to cost the taxpayers at least a half a million dollars extra by going over, and you refuse to acknowledge that, and you twist figures and come up with profiles to prove anything you want, but you allow me to come in and look at your profiles and work with you, and I can show you that no matter what you come up with on that crest curve, I can show you how you can save money. But you won't give me the opportunity to do it.

Phil Corkum: I'd just like to say, Mr. Dunn, that you're welcome to come in and look at our profiles anytime, you know, and we can explain, I think it's helpful here as well for us to maybe not hear it, because we don't have the profiles here, but explain to the panel as well, the profile's not just in this one isolated location, because it's difficult, when you're doing a project like this, it's difficult to pick out one piece, one small piece of the profile and really argue one way or the other. You really have to look at a much longer piece of the profile.

Mr. Dunn: I looked at the whole thing.

Tony Blouin: I think I just have to clarify for the participants, the panel is not able to consider material that's going to be further developed and submitted at a later date unless it's in specific response to a question asked here, within 7 days. That's the only provision for submission of additional materials, so we would not be able to entertain further discussions with either party, really, in regard to specifics following the hearings, that's just not provided for.

Phil Corkum: Within 7 days…(inaudible)

Tony Blouin: You can respond to questions in writing with 7 days, yes.

Mr. Dunn: Mr. Chairman?

Tony Blouin: Yes.

Mr. Dunn: One final thing. Is it possible that your panel could come out to Dunn's Loop and actually look at the situation?

Tony Blouin: Well, we certainly have been to Dunn's Loop as part of the site visit that we undertook a couple weeks ago.

Mr. Dunn: But, I would give you my perspective on it, so that, I know when they present the stuff to you in 7 days, I'll be at a disadvantage. So I would love if I could show you what I'm talking about and you could see it, to make more sense.

Tony Blouin: I'm going to ask our solicitor if that would be within the scope of the regulations to do that?

While he's considering the regulations there, Mr. Dunn, maybe I could just ask a question. If my understanding of your presentation is, your preference would be to simply relocate the alignment further south to the alternate crossing location that you had recommended in your proposal, but barring that, then your preference would be for the undercut, or the underpass, rather, at this location.

Mr. Dunn: Well, I'm concerned about the South River Estuary. So if there was some way that I could be sure that construction standards would be better on this than it has been in the past, I would be satisfied with the South River crossing. But from what I've seen in this report, all the things that you're going to do, putting that abutment in the back channel, filling the back channel, cutting the island out to create a new back channel, you know? It doesn't give me much confidence that you have any concern for the environment.

Tony Blouin: Do you have an answer on the…?

Stephen McGrath: Mr. Chair, I think it certainly would be up to the panel's discretion to do that, the proponent would also have to be in attendance at any visit, not just Mr. Dunn.

Tony Blouin: Okay. I think we'll have to consider the question, then. We can't give you an undertaking to do that to either party right at this moment, but we'll consider that and give you an answer as soon as we can.

Mr. Dunn: I'd like Mr. Corkum and Mr. Cross to look at that picture, where I've shaded in the fill in front of my house, you know. Carla Homoka only got 7 years, and she got out of her barrier. I'm going to have that barrier forever, and I just don't think it's reasonable that you would spend a half a million or more of taxpayer's money to do something to somebody's property when you can do better for less.

Dwayne Cross: And for the record, I do want to thank Mr. Dunn for such a detailed submission and a lot of work, definitely recognized, went into that and please be assured that we, as a department, have also taken that seriously and put a serious amount of effort into addressing your concerns.

Mr. Dunn: You have to realize the disadvantage I'm at. I don't know the grades that you're planning on setting. I had to guess them. I had to hand calculate everything because I don't have a computer program to do it like you do, so I hand calculated quantities every 50 feet, I did it the old way, the way we used to do it when I was with Highways back in the 1960s, so…

Dwayne Cross: We're certainly willing to…

Mr. Dunn: They're not figures I picked out of the air.

Dwayne Cross: We're certainly willing to have you come in and we can show you what some people think is the magic with the computers, but certainly, the logic and the engineering that goes back right to the grassroots of highway engineering that apply to that. So we're certainly willing to meet with you in the office and go through that, if you would like.

Mr. Dunn: I would love it.

Tony Blouin: Okay, thanks very much. Were there any other questions for Mr. Dunn, or Mr. Dunn, did you have any further questions you wanted to ask?

Mr. Dunn: Not at this time.

Tony Blouin: No. Okay, thank you very much.

Mr. Dunn: Thank you.

Dwayne Cross: There were several other points in Mr. Dunn's report, and one in particular was the realignment to a southerly crossing. We did have somewhat of a verbal response for that. Is this something that would be preferred to reserve for the overall formal submission for the reply for the panel, or is it something you'd like to hear, get some additional discussion on it?

Tony Blouin: No, I think if you got a response, we would probably rather hear it now, get it on the record now at this point.

Dwayne Cross: Okay. Mike?

Mike Croft: Actually, I think you probably have a lot of it already on the record from an answer that I gave to a question this afternoon. I'll just briefly go over some of the points that I already talked about. The Department did look at what we call a crossover from the blue route to the brown route. This crossover would have started probably about a kilometer or so to the west of Dunn's Loop, it cuts to the south and joins up with what was the brown route before you cross over the South River, and then it essentially follows the brown route to its terminus to the east of Taylor Road.

Mike Croft: The crossover alignment is about half a kilometer longer, I'm not sure what the cost per kilometer is these days for a highway, but I believe it's around 2 million dollars per kilometer, so the length alone would add about a million dollars to the cost of the project. There were some, the cost estimate to go one route or the other was determined that it would be approximately the same cost, so there was really no cost savings involved in going to the crossover to the brown route. The terrain that you have to go over to get onto the brown route is very rugged terrain, very hilly terrain, and on average, your grades on your highway were higher and there were some issues with regards to the interchange location if you did go over to the brown route on the south side with an interchange on Route 316, as I mentioned this afternoon and the fact that it would turn Route 316 into a connecter road to a freeway, there are a fair number of homes located on Route 316 and you would have a dramatic increase in traffic volumes on 316. Typically, we try not to use existing developed roadways as a connecter road to a freeway.

Staying on the north side, we have the advantage with the relocation of the South Side Harbor Road that we would have a newly built connector road with no accesses on it. There was also the issue with regards to the interchange design on 316 and the fact that the acceleration and deceleration ramps would extend onto your structure over South River, so essentially, instead of having a 4-lane structure, you would have a 6-lane structure, which would dramatically increase the cost, and one of the biggest concerns that I had when I looked at it was from a safety perspective and it was with regards to the grades; as you're approaching South River from the west, you're coming down a very, very steep grade, in the range of 5.5-6% for quite a distance, and just the way the topography is structured and so on, you would be coming down a steep grade, you would hit the crossing at South River and you'd be on a curve. It's just not a good combination; I mean, we probably have situations like that in the province, but it's not an ideal design, and I believe Mr. Dunn referred to the costs associated with the proposed crossing at South River that we're looking at now, and there's no doubt that there's going to be a substantial cost, I think the estimate was in the range of 5.5-6 million dollars, and that was a few years ago, it's probably higher than that.

The cost to go over South River with the brown alignment, there was never a detailed cost estimate done, but it's fair to say that you would probably be in the same range, cost-wise, and that one of the complicating factors there is you have Dunmore Road, which runs parallel to the river, right adjacent to the river, so you'd have to deal with that roadway somehow. It would be a challenge from an engineering perspective. I'm not saying it couldn't be done, but it would be fairly expensive as well. I don't think there's such a thing as any crossing on the South River that's going to be cheap, no matter where you cross, it's going to be very expensive.

We were concerned… when I did the comparison of the crossover route to the proposed route the big concern was the environmental impacts at the tidal marsh. We recognize that as a concern, and we did hire a consulting firm to come in and they did a very detailed assessment of that crossing at the tidal marsh. They looked at it from the fish habitat perspective and also they looked at it from wildlife, waterfowl, they looked at the geology of the area, and these are experts that are well known in the field and that's why we hire these people for their expertise and their advice to us was that the crossing point that we selected to the north was an acceptable crossing site. They didn't see any significant long-term impacts to the environment, and in fact, their recommendation to us was that compared to a crossing point to the south or a crossing point to the north, that this was probably one of the better places to cross. I mean, we have to rely on that information, we're not the experts, they are the experts, and we hire them for that information, so…

Dale Smith: Just a point of clarification there, the reference to a crossing point to the north and to the south, what was the range that was looked at there?

Mike Croft: I believe… you mean the actual study that was done, what was the study area that was looked at?

Dale Smith: Well, it was preferable, you indicated it was preferable to a crossing point to the north or to the south; I'm just wondering how far north or south…

Mike Croft: Oh, well, the crossing point that we looked to the south was the brown alignment, which I believe is about 2 km south of the existing 104. The crossing point to the north was only a couple hundred meters, I think in the range of 200-300 m to the north of the existing structure.

End Tape 2

Tony Blouin: For the audience, do we have any further questions that you would like to raise? Mr. Dunn, yes?

Mr. Dunn: …got a question…

Tony Blouin: Could you use the microphone, just so we capture it on the record, please?

Mr. Dunn: I would like to question Mr. Croft on the location of the crossing to the south. You are suggesting that you're going to be crossing the Dunmore Road and the river at the same point, and that you have a steep slope to the west. Now if you moved another 500 m to the south, you would have a good grade up through there, and you would cross Dunmore Road separately, you would cross the river separately, and you could realign the 316 to give you ramps after you completed the bridge.

You would not have to build a bigger bridge to get your ramps in, because you're just looking at that one route and you didn't explore that total area. You just looked at the brown route, and naturally where they picked the brown route, it's not the best spot, and it would be costly to get your ramps in, no doubt. But move 500 feet to the south, and you can clear the bridge before you start your ramps, and you have a real good location to put the 316 interchange in.

Phil Corkum: I'd just like to clarify for the panel that the brown route, there was extensive work done to locate the brown route as well as the other two routes earlier on in the process, so it wasn't as though the brown route was just pulled out of the air. There was some good work done around locating that crossing for the brown route. Mike, I think, worked on that, I don't know if you had anything to add to that, Mike.

Mike Croft: I'll just reiterate what Phil was saying, that the crossing point for the brown route, there was a lot of analysis that went into this and it's hard to go through all the factors that you consider when you're looking at an alignment. There are a lot of constraints in this area. One of the biggest constraints that we had to deal with is farmland. We tried as hard as we could to avoid farmland. You also have to look at the alignment of the river, and there's just so many factors, you almost have to bring out the constraint map that we developed originally that showed all of the constraints that we have to deal with, and to just say that you can move the alignment 500 m one way or the other, it may look or appear that way on the surface, but when you get into it in detail and realize all the implications of doing that, then it doesn't always work out as easy as you think.

Phil Corkum: I'd just like to add to that, that it's difficult for us to sit here and explain this without a map, but if you look at the map, you will notice that if the brown alignment is moved further south, you're into, the river actually becomes closer to 316, the river is actually on a greater angle, which means your structure is even longer than where it is, so, you know, it's not just a matter of moving it a few hundred meters here and there, there was a lot of thought put into these alignments, where the best costing would be during our route location process for these crossings. So I just want to make sure the panel is aware of the amount of work that was put into this. These crossings of this river are about the best place to cross the river, and you've got to have a lot more detail, contour maps and actually look at it in order to understand that, so I just want to make that clear.

Mr. Dunn: Can I ask one more question?

Tony Blouin: Yes.

Mr. Dunn: In the 1997 open house, I mentioned in my report that the map presented crosshatched everything to the north of the existing bridge and said 'Avoid'. Why was that overruled?

Dwayne Cross: With the original consultation, that was based on and we refer back to the presentation I gave on the in-house preliminary screening that we do, which is based on known information and mapping and those types of things that we gather. As Mike is saying, and in particular with the study that was done on the river, certainly a lot more detail was done on that, to the point of identifying that the crossing that we have is an ideal location. I would like to read in the record from Appendix E of the EA report, which is the South River Impact Study, and it's on the second page of the executive summary, it says within the South River, areas upstream and downstream of the study site provide more critical habitat, especially

spawning habitat for fish and breeding habitat for birds. The true salt marsh area downstream of the study site is definitely more important in terms of waterfowl. Above the head of tide, spawning habitat for salmonids, especially the increasingly threatened Atlantic salmon, occurs in many areas, so this is, as Mike mentioned, this is the words of the experts that we've hired to help us in identifying a crossing location and it's what we based our work on, especially in this situation.

Tony Blouin: Okay, thank you. Any other questions from the audience that you wanted to bring forward? Did the panel members have any additional questions at this point? No?

If there's nothing else, then I guess at this point we will adjourn until our next session, which is at 1:30 p.m. tomorrow afternoon.

Stephen McGrath: Mr. Chair, just one final point while Mr. Dunn is still in the room. I've done some further looking through the regulations about taking a view of the site, and the regulations speak to a view prior to the hearing, but not during or after the hearing. They're silent on that point, which I suppose leaves open the possibility, but the regulations also require that any evidence be presented by way of a transcript or be available in transcript following, and it may be difficult to do that, to deal with evidence, on a site visit once the hearing has commenced, so that would have to be given some further review, too, as part of your deliberations.

Tony Blouin: Okay, thanks. We'll have to consider that, then, further.

Okay. We're adjourned. Thank you very much.

Environmental Assessment Board
Highway 104 at Antigonish Public Hearings

Friday, June 24, 2005 – Afternoon Hearing

Tony Blouin: Okay, ladies and gentleman, we will get underway here. Thanks very much to the participants and the audience for coming in today.

Just to introduce the process for those who have not been here before, my name is Tony Blouin and I am the Chair of the Nova Scotia Environmental Assessment Board and I will be chairing the hearings that we are conducting here yesterday and again today on the Highway 104 relocation project at Antigonish. On my left is Dale Smith, a member of the Nova Scotia Environmental Assessment Board and also a member of the hearing panel today. On my right is Bonnie Rankin, also a member of the Board and the panel. On Bonnie's right is Jim Gordon, he is the administrator for the Nova Scotia Environmental Assessment Board and on Jim's right is Stephen McGrath, who is with the Department of Justice, and he is the legal advisor for the Board.

The hearings are a matter of public record. It is the chance for the public to appear to have their questions asked and answered by the project proponent which is the Department of Transportation and Public Works. It is also a chance for the hearing panel to hear information, to ask questions and have answers given. This is a public process. The proceedings are recorded and a full set of transcripts will be produced within about a week from today and those transcripts will be available in the local Department of Environment and Labor office in Antigonish as well as in Halifax. The hearings are mandated under the Nova Scotia Environmental Assessment Act. This highway is a Class 2 undertaking, which means it has to be referred to the Board for hearings and for a report from the Board back to the Minister.

The process that we use is not a judicial process in a sense of a court proceeding but there is some structure. We do have time limits, for instance, for presenters and so on. Once we have concluded the hearings, the role of the panel is that we will prepare and present a report back to the Minister of Environment and Labor. The members of the panel are volunteers. We are not provincial employees so we operate at arms length from government. Our role is to make recommendations back to the Minister regarding the project and regarding what we have heard during the hearing. A report can recommend that the project proceed, that it proceeds with whatever terms and conditions that the panel deems appropriate, or in fact, that it not proceed. The final decision is the Minister's so that it is made by the Minister of Environment.

On the side table here there are some handouts, there is the agenda for the 4 different sessions that we are holding, two yesterday, there is this present one this afternoon and another one at 7 p.m. this evening. There is also a handout of the Nova Scotia Environmental Assessment Board regulations, which govern the process that we are conducting, and there is a shortened summary version of that with the key points of the procedures that we follow. There is also a handout on critical timelines.

The whole process is laid out in legislation and there are certain time frames that have to be met for the review process and that is indicated on the handout as well. In preparing for the hearings a site visit was conducted by the panel members,

three of us here, with the proponent as provided for in the regulations and that was just a chance for us to familiarize ourselves with the various locations that are involved in this 15 km right-of-way. The format of the procedure is that we begin with a presentation by the proponent. It is just about a 20-minute outline of the project for those who are not familiar with some of the details.

The process provides for presentations by formal interveners and we do have one scheduled this afternoon by Mr. John Chisholm of the St. Ninian's Cemetery Company. His presentation will follow the Department of Transportation and then we will open it up for questions either from the panel members or from the floor from the audience participants. Just to note that people who are giving substantial testimony for the hearings must be sworn in. This does not apply to members of the audience but for the formal presenters, for example, Mr. Chisholm today would need to be sworn in. The people appearing on behalf of the proponent were sworn in for the hearings yesterday and that would still apply today.

The final report from the panel to the Minister will be due by August 6 so we will prepare the report and submit it within that time frame and then it is up to the Minister, as I said, to make the final decision. The other thing that I wanted to mention is that this is the provincial Environmental Assessment process. There is also a federal Environmental Assessment process that applies to this project. That is operated separately by federal authorities, but there is an attempt made to have the requirements of both processes coordinated so that the Environmental Assessment Report that they have prepared for the province also addresses the concerns and issues that were raised by federal authorities, so essentially they only have to go through one process, not replicate the Environmental Assessment for both levels of government.

There was one item from yesterday's proceedings that I did want to deal with, sort of business held over, before we get under way today. We did have a presenter yesterday, Mr. James Dunn, who in the context of his presentation had made an invitation to the panel to accompany him on a site visit for his particular property to deal with some issues that he had and the panel has given that some consideration and just for the matter of the public record, it is a brief response to that, but I wanted to read it into the record just to have some closure on that issue so I will do that now before we get underway.

During the public hearing last evening, the hearing panel received a request from Mr. James Fraser Dunn to view his property at Dunn's Loop. This was in the context of his presentation and questions to the component in support of his position that an underpass should be constructed at that location rather than the overpass that is proposed by the proponent. This is a public hearing of the Environmental Assessment Board under the authority of the Environment Act. The hearing panel is required to conduct the hearing in accordance with the procedure established by the Nova Scotia Environmental Assessment Board regulations, Section 15.1 of the regulation states the hearing panel may request one or more meetings with the proponent prior to the hearing for the purpose of visiting or inspecting the site of the undertaking under review. Under this authority, the panel visited the site of the proposed undertaking including the Dunn's Loop area on June 14, 2005. Section 15.1 of the regulations could be interpreted as limiting the panel's authority to visit or inspect a site to before the hearing starts but because this section does not expressly address the request made by Mr. Dunn, the panel reviewed this request in detail. The panel understands Mr. Dunn's desire to show us what he is concerned about in addition to his written comments and oral

presentation at the hearing however the panel has some concerns about accommodating the request. This is a public hearing and there may be other parties in addition to Mr. Dunn or the proponent who have an interest in this issue. If a site visit was made at this point in time, the panel would have to be satisfied that other potentially interested parties were aware of this and that any party who had an interest in attending was accommodated. In addition, all the testimony given at this public hearing is required by the regulations to be recorded and transcribed. There is no practical way to record and transcribe any evidence that would be given by parties as they explained their positions on the site.

Tony Blouin: As a result, the panel could do nothing more than attend the site for a simple viewing of the area. As noted, this has already been done. The panel has decided that it would not be feasible to undertake a further view of the site at this point, given the scope of the regulations, the concerns that we have noted and because the site has already been visited. Having said that, the panel wants again to thank Mr. Dunn for his presentation and comments, the details, photographs and drawings in his submission obviously took some considerable time and care to produce these materials, and Mr. Dunn's comments will be given careful consideration by the panel along with all the other information presented during this public hearing when we prepare our report and recommendations. So with that, I will ask a representative of the Department to introduce himself and make his presentation.

Dwayne Cross: My name is Dwayne Cross. I am a highway planning engineer with the Department of Transportation and Public Works and I would like to introduce those who have accompanied me today. We have Phil Corkum who is the Manager of Highway Planning and Design. Other TPW representatives we have are Lester Tingley, he is our Acquisition and Disposal officer, Mike Croft, he is our access management engineer, and Elizabeth Pugh is our environmental engineer. We also have three representatives from Jacques Whitford today, the company that produced our EA report. We have Robert Federico, Shannan Murphy, and Lesley Griffiths.

So with respect to the project, obviously we have several priorities throughout the province and several existing projects and new projects and obviously there are problems that will initiate the start of a project and in this case, there are several factors which have brought about the planning process for the Highway 104 through Antigonish, and the first one I wanted to touch on is traffic volumes. With an annualized daily traffic volume of up to 14,400 to 15,000 vehicles a day currently, the summertime average daily traffic is nearing 20,000 vehicles a day and it is good to keep in mind that we, as a department, start considering our 100-series 2-lane highways as candidates for twinning once they reach about 10,000 vehicles a day, so we are well over the threshold of that. We have the second highest volumes in the province on the highway through here and that is for 100-series 2-lane highway and a large percentage of truck traffic, up to 20% and that is a significant number and a number to be concerned with.

Access: there are numerous residential and commercial driveways along the existing road at great intersections. The posted speed is as low as 60km/h and varies up to 100km/h, which results in a mix of some local slower traffic and the faster through traffic with destinations beyond Antigonish. Further to touch on that, speed differential results from those mixes and it is the difference in speed between vehicles on the main roadway versus those entering and exiting and a high-speed differential increases the likelihood and severity of collisions.

Finally, touching on safety overall, a combination of high volumes, uncontrolled access, local versus through traffic has resulted in the highest collision rates in the province for 100-series highways. That is No. 1. We have up to 13 times the provincial average for 2-lane 100-series controlled access highways and up to 15 times that for 4-lane divided highways and that is in relation to the section along the existing roadway with the highest statistics. This figure shows a relationship between the speed differential and crashes and as you see, as you move to the right on the slide, as the speed differential increases, the relative crash rate significantly increases along with that. For example, somebody pulling out of an establishment, making a left turn and attempting to accelerate conflicting with rapidly moving through traffic through the area results in these types of conflicts. This slide shows statistically the type of collisions that occur at an intersection with about 75% resulting from left turn movements. Again, the conflict is between the two moving paths so some serious safety concerns and there is evidence of these situations throughout the existing roadway.

Here is one good example at Mother Webb's, people visiting this establishment who, when it is time to leave, have to back out onto our Trans-Canada Highway which is a significant no-no. Certainly it is undesirable. Another shot of the general Lower South River area, it is almost hard to believe the Trans-Canada Highway goes through here. It is just a huge expanse of asphalt and there is a major intersection hidden in that clutter that would be Route 316.

So we see all the concerns, the problems, the safety issues. What is the solution? Well, we need to identify a routing including access locations for the new highway that best meets the transportation and economic needs, not only of the local community. It is not just an Antigonish project, it is a project of concern with the entire province and we need to make attempts to satisfy both needs and we do this through securing a corridor through corridor preservation, which basically means land purchase. So then when the time comes, when funding is available, we have the approvals in place, we have the land purchased and we can proceed with construction. It is important to note that Highway 104 through the area here is part of the national highway system and is required. This project is eligible for cost sharing with the federal government.

This being a sample of what the national highway system looks like. There are no driveways or at-grade intersections and this is an example of how you would get on and off the new highway. We call it a grade-separated interchange and basically what grade-separated means is, in this case, 102 is the primary highway and is separated from the local traffic so that both people utilizing both roads do not interfere with each other.

There is quite a significant project chronology. We started the project back in 1996, initiated our planning steps. We developed three alignment options. With those alignment options, we were refining them down to one. We had three consultations with the public through this period. We conducted a safety review following the second consultation based on certainly the recognition of safety issues that we spoken to at the consultation and within our department. We have also conducted a peer assessment and both the safety review and peer assessment were carried out by an independent consultant, or two independent consultants in this case. Just excuse me for a second. This is an example of why you should only have one copy of your presentation on the laptop because I was using the wrong one. This was a third picture following the Lower South River

photos and I want to show here the fact that there is a signalized intersection on the Trans-Canada highway, another extremely rare case that we would see on the Trans-Canada and again another safety issue and even in this picture an example of the truck traffic that rolls through the area.

I suspect that something was up when I did not see this slide. I had mentioned the national highway system and the slide in red you can see all of the highways, the 100-series highways in the province that make up the national highway system. It is a network of highways of national significance to the federal government and it does not only include Nova Scotia but all of the provinces and territories across the country and we can see Antigonish, although very critical, is one small piece of that puzzle. That puzzle of which there is about 600-800 million-dollar deficit within. Again showing what the national highway system ultimately looks like. This is back to the two studies: the safety review and the peer assessment, which brought us to a point where our Minister approved the alignment to the registered formal environmental assessment.

We had our third public information session. Generally, people were quite pleased at that time and certainly anxious to get on with the process. So our project was registered for environmental assessment in 2001. The final terms of reference for that study was completed in February 2002 and we hired the consultant who we have here today, Jacques Whitford. Our final report was submitted this past April and the administrator of DEL referred the report to the Environmental Assessment Board, which brings us here today with the panel and our public hearings.

I am just going to take an opportunity to quickly pan through the project to give everybody an opportunity to see in detail what the proposal is for those that may not be familiar with it. So as we approach from the west as we are nearing Antigonish we have a speed reduction down to, I believe it is, 80 and then 70km/h. At this point, at Addington Forks Road, we would branch away with the highway providing a new diamond interchange at Addington Forks Road. So we continue on east in behind the site of the new Wal-Mart and Superstore in this vicinity and the fuel stations here, McDonald's and Tim Horton's down in this area. We continue crossing under an upgraded Trunk 7. Trunk 7 will be built up and over the new highway and we will provide access through a diamond interchange. With this proposal, the way the interchange ramps would have to be built would provide a natural sound barrier for adjacent particularly an adjacent residential development here.

We continue to the east to the Church Street Extension and at the time of the… for the balance of the project and through the development of the report and the consultations, we were proposing a service road which would connect the severed portion of Church Street Extension, severed because of the new highway barring the existing roads, providing access again with that service road. We have given that further consideration, we are now looking at providing a tunnel under the new highway at this location and abandoning the service road idea so that people living on the south side of the highway will be able to enjoy continued access from one side to the other as they do today.

So I will continue east crossing Beach Hill Road, going over Beach Hill Road and providing a new diamond interchange and at this point, we have identified an opportunity to phase the project; basically it is an opportunity that we can build half the project separate from the other half. By doing this we take a project that the estimated construction costs currently at $89 million and we can cut that in half and

hopefully make it more attractive to receive federal and provincial funding to see the construction happen sooner than later.

So we continue to the east showing the crossing of existing Highway 104 at Dunn's Loop, we will be crossing over the existing highway, crossing the river and at this point we would be extending Route 316 to the north, realigning South Side Harbour Road into a new diamond interchange on the new highway; this area being the Mother Webb's area, and then for the balance of the project continuing to the east tying into the existing highway at the point where you leave town and you get onto the section where there are no driveways and no immediate adjacent development providing a connection of tailored road into what is the existing highway right now by crossing over.

So with traffic volumes these ones here for 1998, 2010 and 2030 would be for the highway not being constructed for any of those time periods and you can see that in 2030, we are up to almost 40,000 vehicles a day on the existing highway which is about 2.5 times what is there today. When we build the highway, if the highway were to be constructed, you see the numbers here for traffic volumes that would be on the existing highway at 8,800 and 16,000, these would be the traffic volumes for 2010 and the year 2030 on the new highway. So for example, in 2030 there would be up to 30,000 vehicles per day on the new highway and up to 16,000 on the existing.

I had mentioned earlier about the safety review. We had gone through a safety review that looked at a variety of scenarios of the three alignments at the time, and I guess just from memory's sake, the three alignments being the blue, the red, and the brown from the original discussions. And from that the blue alignment came out on top. Similarly with the peer assessment, it was an opportunity to have a senior professional engineering group outside of the department to examine the work to date and they too supported the blue route. Our third consultation we had 200 attendees and 27 completed comment forms. The atmosphere seemed quite positive and the comment form results were also quite positive and as I had mentioned earlier there seemed to be an interest to get on with things and get this highway to a point where it can be constructed.

Socio-economic consideration was a significant issue presented to us. We were aware of and we chose to go over and above the requirements of the terms of reference and asked our consultant to do a significant amount more work and in recognition of the business impacts and as part of that work, we had met with the regional development agency and at the time, was Profile Antigonish and I believe now it is the Antigonish Area Partnership who had provided input to us. Things like interchange beautification, appropriate signage on the new highway and locating the Tourist Information Centre at an appropriate site were a few of the key points that we heard from those meetings. We have quite an extensive roadside-signing program for 100-series highways.

I am going to quickly step through some of the samples just to familiarize everybody with what we do provide or can provide. We have guide signs, industrial business park signs, community identity signs, motorist service symbol signs, business logo signs, major tourist attraction signs, scenic travel way identity signs, and large service business area loop signs. Of course with all of these, eligibility would need to be assessed within the guidelines of each respective program, and at that point for those opportunities where there may be eligibility, it

would be up to the town, municipality or the businesses to make the decision to choose and participate when possible.

I am doing a lot of talk about the highway itself but the environment plays a significant role all the way along our process right from square one and for us square one is this. We will do an in-house preliminary screening. We look at 63 individual constraints and we do that by contacting various agencies and groups for known information. We develop a constraint map, identify areas that we need to avoid and then make our first steps in locating the alignment. Another huge undertaking would be the environmental assessment report. There is a significant amount of fieldwork and detailed information that goes into this and it provides us with an opportunity to tweak our alignment based on information that we might not have known about prior to the fieldwork so we can make adjustments to the alignment accordingly. There were a couple of opportunities, occasions where tweaking was examined based on the detailed fieldwork. These were considered with the alignment.

The report recommends mitigation and followup work and these would occur during the design and construction phases and this completed this phase of the planning process, it is a significant milestone and it gives us the green light to proceed towards construction. Finally to touch on the Environmental Protection Plan, we have a generic Environmental Protection Plan, which is nearly complete, and it gets customized as needed on a project-by-project basis. There are site and project specific things obviously to do and also followup and monitoring if those are required.

So our next steps with the project, the deadline for submission of report and recommendations to the Minister will occur in August, the month after next and we anticipate a decision from the DEL also in August. At that point, the field survey and detailed design can proceed and of course this is pending approval of the project. We have to go through the process of purchasing the corridor and at this point the earliest possible start date for construction would the spring of 2008 and this is our best guess for a date right now. Obviously it can change and it could change significantly based on the availability of funding. Thank you.

Tony Blouin: Thanks Mr. Cross. So at this point we have one scheduled intervener presentation by Mr. Chisholm so if I could ask him to come forward and be sworn in and we will hear his presentation.

End Tape 1

Stephen McGrath: Do you swear that the evidence you about to give shall be the truth, the whole truth and nothing but the truth, so help you God?

John Chisholm: I do.

Stephen McGrath: Before we proceed Mr. Chair, it might be appropriate to mark Mr. Chisholm's June 8, 2005 letter as I mentioned, Exhibit #8 on our list, so we do not have to interrupt him during the course of his presentation.

Tony Blouin: Okay, thanks.

John Chisholm: Shall I read?

Tony Blouin: Yes please.

John Chisholm: Thank you. St. Ninian's Cemetery has been in use for over 150 years and serves the needs of over 2,000 families in our parish. The proposed alignment of this new highway cuts through our land, resulting in both short-term and long-term implications for us. In the short term, the proposed northern boundary of the highway cuts through a charted block we are currently using for burials. As a result, we have had to stop burying in part of this area because of this boundary. In the long term, and more seriously, the proposed route splits the cemetery in two cutting off most of the cemetery lands from the area currently being used. We will lose 19 acres of the cemetery lands to the highway right-of-way. We will be left with a section we are currently using and a section of 23 acres to the south of the highway which will be severed from our existing lands and which will not have direct access from the lands we are currently using.

St. Ninian's Parish has gathered its existing cemetery land with a view to having sufficient land in one continuous location to look after burials for a long time into the future. This is crucial for our parishioners. Losing 42 acres will not allow us to do this. These are serious issues and neither has been mentioned in the environmental report. Quoting from page 24, "Two cemeteries were noted as constraints however during field reconnaissance it was noted that they were outside the study area." This issue is more than a constraint and should not have been outside the study area. To overcome this problem, we are requesting that the approximate 42 acres we are losing to this highway project be replaced with an equivalent amount of land adjacent to our cemetery to allow us to continue to have all our holdings accessible to us in one block.

Tony Blouin: Okay, thank you Mr. Chisholm. Does anyone have any questions for Mr. Chisholm at this point? Sorry, could I ask you, I should have made this clearer, if you have a question would you please use the microphone so that we have your comments on record and if you would identify yourself, please.

Kate Chisholm: I am Kate Chisholm, the Mayor of Antigonish. Is there an alternative route, Mr. Chisholm?

John Chisholm: I do not think that is for me to comment.

Kate Chisholm: Alright, Okay, to you then. Is there an alternative route? Maybe we can find one in the future.

Tony Blouin: Okay, I think I am going to ask the proponent to respond to that and give their view.

Speaker: At this point in time, no there is not an alternative route. We have investigated over the last several years, three routes of the highway and this is the route that has been approved for the environmental assessment and this is the current route that is the subject of this hearing.

Tony Blouin: Mr. Chisholm do you have any questions, specific questions that you wanted to address to the proponent.

John Chisholm: I do not, no.

Tony Blouin: Okay, maybe on behalf of the panel, if I could just ask the Proponent to respond to the issue. Is there any specific measures or mitigations that you contemplate to address?

Lester Tingley: Well, we are certainly willing to negotiate settlement of this issue if possible and we have taken some steps in that direction a while ago but we have been sort of dormant the last year and I apologize to St. Ninian's Cemetery Company for that. But we are certainly willing to start on Monday again to relook at this issue and to try to find a settlement both meets our needs and theirs.

Speaker: If I may, may I just add to that. We received a letter on April 8 or was dated April 8, 2005 where we requested or I guess we have not requesting or corresponding with the department and over this issue and our proposal to satisfy our requirements and it is a letter from Stephen McKenzie, manager of acquisition and disposal. And it is further to our discussion of April 7 and your letter of February 9 explaining your position. We have reviewed your methods of settlement. The first one is direct access to the severed lands via a tunnel or multiplate or two, acquire the 19 and 23-acre sections and replace the adjacent lands totaling 42 acres. Both methods were not acceptable to the department however we would like to negotiate the purchase of the 19-acre site so this is the last correspondence we have had from the department on this issue.

Speaker: We are certainly willing to relook at both of those. I might defer to Dwayne or Phil on the particulars of the multiplate or the tunnel but I never like to say that the issue is a dead issue when it comes to negotiating a settlement regarding land and the adjacent lands as well. I would certainly like to relook at that.

Tony Blouin: Okay, well I guess that the understanding is there will be further negotiation between the department and representatives of St. Ninian's.

Speaker: That is true.

Tony Blouin: We have a question from the audience, please.

Hugh McDougall: My name is Hugh McDougall. Are their lands available to the adjacent to the graveyard that could be purchased and handed over to the Cemetery Corporation?

Speaker: Well, yes there is and we have been looking at that with the intent of purchasing it but we have ran into difficulties with price, values and whatnot, but again I would like to reiterate that I never like to say an issue is dead until it is and I do not think it is yet.

Speaker: I think the wisest move would be to purchase that property and do a tradeoff…

Speaker: It certainly…

Speaker: Because once the land is gone, it is gone.

Speaker: Yes, it is gone.

Speaker: Yes, it is gone. It is finished.

Speaker: Thank you.

Speaker: I agree with that.

Tony Blouin: Okay, thank you Mr. Chisholm.

John Chisholm: Thank you.

Tony Blouin: At this point, I wanted to open it up for questions from the audience in regard to any aspect of the project if there is anything. Yes, please

Shawn Day: Shawn Day at Time Planning. Two questions that I had. When we are looking at the economic impact in the area, in particular we are looking at the first interchange close to the town, which now I understand the highway is going to go underneath and the Route 7 is going to go overtop. Coming down from the lands of Nova Construction, there may or may not be views of the James St. area and this is an area that serves the motoring public. It has got McDonald's, Snow Queen Restaurant, Subway and so I was wondering when we submitted I think our final comments some while ago we talked about the need for people from the highway to be able to see this area with enough time to make a decision to pull off that ramp and come into this area because it is the kind of area that draws on that sort of, ah, gee, you know, a refreshment would be great right now so I wanted to know whether or not, I think there was some sort of studies done looking at this issue in terms of what you can see from different positions along the highway. So that was number one. The other question I want to know about had to do, actually no I am forgetting it. That is bad. Maybe I will just keep it to number one for now.

Tony Blouin: Let us get an answer for number one and maybe it will reoccur.

Shawn Day: Okay.

Tony Blouin: Yes, I will ask the Department to respond to that however they wish to.

Mike Croft: Yes, there was. A view plane study was done by a firm environmental design management and they did look at the view planes on the blue alignment as you go by the town of Antigonish. Coming from the west what the study showed was you do not really get a lot of good views of James Street. What you do, you get a very good view of the university itself, which is sort of the centerpiece I guess for the town. And also what has happened since that study was completed is you have the construction of the Wal-Mart, Superstore which will be very visible from the highway so it does, there will be enough view planes there that people can tell that there is a town and that there will be amenities there. You will not be able to necessarily see specific businesses to know exactly what is, you know, you will not be able to read the signs on the businesses but there will be enough information to know that there is a community there and you certainly will see the new development that has gone in.

Phil Corkum: One thing I would like to add to Mike's comments is that there is going to be a considerable amount of time until the highway is constructed. We are trying to have it ready to be constructed in 2008. It is in all likelihood possible that when the highway is built there will be other development between the new highway and the existing Trunk 4 that would obscure any view from the highway to James Street. So that is a distinct possibility although that would be something probably in the control of the town. The other point is that we do having signing programs as well, that will, that businesses can use to get people off the main highway onto to Trunk 7 and as Dwayne mentioned in his presentation, you know, there is eligibility

around some of those programs and we will be talking to the communities as the process continues to determine what signs, what businesses and what organizations are eligible for those signing programs and the placement of those signs because they have to be placed at certain locations on the highways. So those are details that as we go through the process we will be talking to the community about.

Michael Croft: Another point that I would like to add too and Shawn referred to the fact that 104 is going underneath of Trunk 7 and what is critical as far as view planes is what you can see a ½ km to a km in advance of the interchange and whether the alignment goes underneath of Trunk 7 or goes overtop of Trunk 7 the grades ½ km to a km to the west would be the same so it really does not affect your view planes of the town. Okay, coming from the east is another issue altogether. The view planes coming from the east particularly to the east of Beach Hill are actually quite good and you get a very, almost a panoramic view of the town itself. You will not, again, be able to see specific businesses but you will certainly see the whole town or much of it and you will know that there is quite a substantial community there that would have services that, you know if you were looking for a place to eat or for gas or for a hotel or whatever so I mean it is very good views from the east. Once you get past Beach Hill Road and you are coming across South River, you sort of go into a hollow area but you do not see the town quite as good, actually you do not really see the town at all because you are cutoff by the topography. And again, the critical views coming from the east are what you see before you get to Beach Hill Road and are coming down the hill and it is quite good. Yes, you see the views probably for ½ km to a km to the east as you are coming down the hill so there would be ample time to make a decision to get off at that interchange.

Tony Blouin: Mr. Day, excuse me, could I just ask you to use the microphone. I want to make sure that we do get that recorded.

Shawn Day: Last time, coming from the west.

Michael Croft: Coming from the west, you do not get quite as a panoramic view of the town. You do get quite a good view of the university and you will get the views, you will obviously see the new Wal-Mart and the Superstore and whatever and you see them far enough in advance that you will have enough reaction, you know, perception and reaction time that if you do want to take that interchange at Trunk 7, you will have time to get off.

Shawn Day: My other question had nothing to do with what I have to do with the town. It has to do with where I live. I live out in South Side Harbor and I was interested in finding out why the proponent chose to cross the South River estuary which seems like a fairly, kind of, epic bit of construction that will have to go on there and also it is a very scenic estuary as well as oppose to go on the other side of Lower South River which would be more of a flat land crossing and would not involve vaulting over such a large estuary.

Tony Blouin: Okay, I think we did have some discussion on that issue yesterday but for the purposes of the discussion today, just the department to respond to that as well.

Dwayne Cross: Just one minute. We are going to pull out the reference we made last night.

Tony Blouin: Okay.

Dwayne Cross: I am going to make reference to the EA report, appendix E which is the final report, Highway 104, Antigonish, South River impact study carried out by Neil and Gunter Limited. The date on the report is February 5, 2001. On the second page of the executive summary, they note, within the South River, areas upstream and downstream of the study site provide more critical habitat especially spawning habitat for fish and breeding habitat for birds. The true salt marsh area downstream of the study site is definitely more important in terms of waterfowl. Above the head of tide, spawning habitat for salmon it is especially the increasingly threatened Atlantic salmon occurs in many areas. So in summary the study identifies the crossing site as the point of least environmental impact.

Speaker: Okay. We had a supplementary question here.

Shawn Day: We just wanted to ask a supplementary question on that. I am still unclear in my mind what the study area was, what the dimensions, what the boundaries of the study areas was for that study. I know it focused on the crossing but when we say upstream or downstream, it is unclear in my mind where the limits are.

Speaker: I do realize I asked it yesterday so it is still my question.

Mike Croft: It is Mike Croft again. If I recall correctly the boundaries of the study were from about 200 meters to the west of the river, the edge of the river to about 200 meters to the east of the river and the boundaries along the river were from the existing 104 crossing to about 500 meters to the north.

Speaker: The question, just for the record, the question just for the record was how far does it extend to the south.

Mike Croft: To the south it went as far as the existing 104 crossing.

Speaker: So it did not go south of the 104?

Mike Croft: No I did not.

Speaker: Okay, that was my confusion. I had thought it had gone to the brown route based on our discussion yesterday.

Mike Croft: No the study area was very focused for this. We were just looking at the one crossing point.

Tony Blouin: Okay, thank you. Any other questions from the audience?

Shawn Day: I guess if I could understand why it did not go further to the south so that it would not have had to cross the existing highway and go in behind and over the estuary but rather go on the other side of Llower South River.

Speaker: We had the route that the current crossing is on. That route had been defined as the alignment that we were going to proceed with so the idea was to determine if that, where in that specific corridor would be the best crossing for the alignment. The alignment had already been, you know, been determined based on other factors so that, you know, it was to move the crossing anywhere else on the river would have been, you know, sort of outside the bounds of an alignment that was already determined. And Mike I do not know if you had anything to add.

Mike Croft: The only thing I would add there is if we were to move the alignment to the south of the existing 104, because of all of the other constraints that we were dealing with, the next feasible crossing location was approximately 2 km to the south which was the crossing location identified for the brown route.

Speaker: Okay, thank you.

Tony Blouin: Yes, please.

Fraser Dunn: Mr. Chairman, it is Fraser Dunn. Last night the impression was given when I asked the question about that river crossing that the study area went 2 km to the south so I am very glad that Mr. Day has asked this question to clarify it so the discussion last night certainly left the impression in my mind that you had studied the effects to the river crossing for 2 km to the south. Thank you.

Tony Blouin: Anything else from the audience at this time? The panel does have a couple of things to raise, I guess. The first being, we have received four different written submissions from other sources which have been either provided to or copied to the board and I just wanted to identify those for the purposes of the record and we are going to give them exhibit numbers. These are comments received from the Canadian Environmental Assessment Agency in the form of a memo to Jim Gordon from Helen McPhail, no sorry, a copy to Helen McPhail. It is from Mark McLean of the Canadian Environmental Assessment Agency and it is a summary of federal agency comments. We have a similar summary of provincial agency comments in a memo to Jim Gordon, this one from Helen McPhail. We have a set of municipal comments from the municipality of the county of Antigonish in a memo from Joyce Levange, I believe, to Jim Gordon.

Speaker: Actually the correspondence in that case was signed by Allan Bond and the email was forwarded through Joyce Levange.

Tony Blouin: Right, okay, thank you. And the forth written submission was from a Mi'kmaq authority and I apologize for the pronunciation here which is almost certainly wrong but it is from the Nitookooin commission and that is in a letter to Jim Gordon and it is signed by Roger Hunke of that commission.

Speaker: Jim Gordon again, the terminology we may use for the record here for expediency would be the Native Council of Nova Scotia.

Tony Blouin: Okay, thank you.

Speaker: Just according to my notes, the Canadian Environmental Assessment Agency comments would be exhibit 9, the provincial comments would be 10, the municipal comments, exhibit 11 and then the comments from Roger Hunke, Exhibit 12.

Tony Blouin: Okay, thank you. So on behalf of the panel then our request to the proponent would be given that these comments have been submitted in writing to the board, the panel would ask that the proponent provide a suitable written response to any of the issues raised in those comments that you feel need to be addressed so we will leave that with you to put that in a written format in a written format for submission to the board at a later date. And in particular then we do have some specific questions on a few of the items or a few of the issues raised in those written comments that we did want to ensure that we have a response to and I

invite you, when we propose the questions, you can either give a verbal response now or undertake to provide those in writing at later.

Speaker: Yes, just a couple of questions. In one or two of the submissions there was reference made to transplantation and propagation as a method of mitigation and I believe it was Nova Scotia Museum comments and, natural resources, I guess and federally as well, there was a suggestion that was not an accepted method of mitigation so I am just wondering what your comments might be and what alternatives you might see if you were considering alternatives.

Robert Federico: We understand the Department of National Resources position on transplantation of rare species as not, certainly not a desirable form of mitigation. It is, I guess, standard practice in these cases that as a last resort where avoidance is not practical and other mitigation is not practical that it has been our experience that transplantation or propagation of species is considered as a last resort and is something that is practiced in fact. There, and I think that in some cases that is proposed here. One of the other things too that can be done is sometimes we do not have the full, we do not understand the full extent of the distribution of the species so we may find out sometimes after further review that in fact the species is more widely distributed that we originally thought so there are a number of things that in terms of an overall mitigation plan that can be worked out that usually are successfully negotiated with the regulators, DNR being the primary one.

Speaker: I guess in that regard there was a specific comment asking. It was from a federal authority but asking the proponent to consult with DNR in order to clarify the appropriate methods and I understand that will be done.

Speaker: That commitment can be made, yes.

Tony Blouin: Okay, thank you.

Speaker: Just further to that, is there any expectation, probability of success? I think I read somewhere that 5 generations were required in some cases to kind of establish the successful transplantation.

Speaker: I think that depends on the particular species. I think some species are more readily can be transplanted or propagated more readily than others so I think it really depends. A monitoring program would routinely be part of the overall program as you say to ensure that the species has successfully repropagated.

Speaker: A belated question again in regard to the rare plants. There was a comment by both a federal authority as well as provincial natural resources whether there would be a commitment on the part of the Proponent to purchase habitat for further preservation and I am wondering if that commitment is being made. Can you comment on that?

Speaker: I think that commitment was made with respect and maybe we can find the page reference with respect to the…

Speaker: Page 160.

Speaker: 160. I think the specific references, where, and this is with regard to the west river enhancement, habitat enhancement program that where possible the Proponent will consider purchasing the intervale land immediately north and south of the right-

of-way which would be restored and protected. I am not what if any investigations have been done as far as the possibility of that to date but that is the commitment.

Speaker: So, it is a commitment to do it if possible.

Speaker: Yep.

Speaker: Okay.

Speaker: Alright thanks.

Tony Blouin: We had a question both from federal authorities as well as provincial environment department as to whether there would be any site disturbances contemplated outside of the identified right-of-way. This was in relation to activities such as waste disposal sites, development of new pits or quarries, that sort of thing. So to understand whether there would be site disturbances as a result of this project outside of the right-of-way corridor that has been studied.

Speaker: I think that just a comment on some borrow material would be required for this project, maybe I am not sure if the quantities are provided or can be estimated now but I guess the and that would result in pit development or outside of the right-of-way presumably in some cases where material has to be imported. Those pits or quarries that material would be sourced from a licensed or approved facility. Those facilities under the terms of their licenses or permits would be obliged to follow certain kinds of environmental requirements for example the types provided in the Nova Scotia pit and quarry guidelines.

Robert Federico: For example the types provided in the Nova Scotia Pit/Quarry Guidelines. We believe that environmental protection would be afforded to that, I guess that area of disturbance that would be outside of the right-of-way through those existing regulations and guidelines.

Elizabeth Pugh: I would just like to add to what Robert just said. The department has recently developed an erosion sediment control plan for borrow pits which actually came out form a disturbed site that was causing some problems on a project a few years ago and that plan is not part of our standard specifications or at least the special provisions and has been looked at by the federal, some of the federal agencies that are interested and all their comments are incorporated.

Tony Blouin: Okay, thank you. We had a question or a question was raised I should say by Environment Canada in regard to whether there would be a commitment to consult with them in preparation of the wetland compensation plan. Are you able to comment on that?

Speaker: I am not sure if that commitment was made…

Tony Blouin: No, apparently it was not. I guess what they are asking is would you make that commitment.

Speaker: The Department of Natural Resources is the primary regulator of the wetland protection in the province and they in addition and they normally provide the expertise. Department of Environment regulates through its permitting process under the Environment Act so normally if there are any negotiations to be made

with regard to technical issues or regulatory issues, those would be made with the two provincial, with the two provincial agencies.

Tony Blouin: The two being are…

Speaker: And the Department of Environment. There could be cases where it may be necessary to consult with some of the federal departments, the federal departments in areas where there is a specific jurisdiction but that is not always the case, I would suggest.

Tony Blouin: Okay, so it is not always a blanket commitment to necessarily do that.

Speaker: No.

Tony Blouin: Okay.

Speaker: Yes, I have another question. The federal submission makes reference to the South River crossing study, appendix C, and it indicates that the study did not include any flow measurements and use of historical water survey of Canada. Flow data considered mean monthly maximum values and they raise the question of maximum daily flow rates. I am wondering if you can comment on that.

Speaker: I think we would have to get back on that one.

Speaker: There was a comment or I guess a question both from a provincial agency as well as from the municipality of the loose county of Antigonish. In regard to groundwater monitoring and contingency plans and the question is whether the department would make a commitment to provide those in advance of construction. In the case of the municipality they specifically sited the area around Beach Hill and the Lower South River municipal well field.

Speaker: This is a contingency plan for ground water protection.

Speaker: Monitoring and contingency plan, yes for protecting those wells. And their request is that you make a commitment to provide that planning prior to beginning construction.

Speaker: So you said this is to the municipality.

Speaker: Well, it was both from a provincial agency as well as the municipality.

Elizabeth Pugh: I believe and I may have to just clarify this later if I may that doing at least baseline studies of all wells that are within an agreed upon or standard again I am not quite sure of that, wells that are within a certain area of construction, we always get a baseline monitoring study done as part of a standard procedure and then of course if there are any issues we have that information to help us know whether or not it is part of the highway development or not.

Tony Blouin: Okay, thank you. I think, I guess the question is whether the follow-up monitoring, will that be the subject of a plan? Will there be a document, I guess produced prior to initiating the project?

Elizabeth Pugh: I believe that follow-up monitoring would be more an onus of people who think they have problems to come to us and say things are not right. You know if nobody has

any problems there is probably not much point in going out and doing a lot of testing just sort of for the sake of testing. So again I will clarify that but I believe that is the case.

Tony Blouin: Okay, thank you.

Speaker: We found some text in the Environmental Assessment I think that addresses that. I think it is addressed, that issue is addressed under Section 5.2.4 and just an excerpt is that the wells in the lower South River well field area will be monitored during construction on accordance with a Section 5.2.6 and there is a contingency plan will also be developed for the area of the well field protection zone. The contractor will implement a contingency plan to provide temporary water during construction and to repair or replace any wells found to be permanently damaged or permanently affected by the project. So like, that commitment is currently in the document. I do not know that there is a specific commitment to provide that in advance to any of the interested parties though.

Tony Blouin: Okay. Okay, I will just ask the department if you do have any further follow-up that you want to provide, that would be fine.

Elizabeth Pugh: I also had another question. It was included in the provincial response regarding karst topography. I believe Mr. Dunn raised that yesterday. I think in the EA report it says that there is really no, there was no evidence observed of Karst topography in the area but the provincial response is that a more detailed borehole study should be conducted especially in site of, where structures are being placed to ensure that there is no possibility. If you could respond to that.

Speaker: Thank you. There, we I guess had prepared a follow-up to Mr. Dunn's comment from last night and maybe this is the time to kind of get into it just a bit. That, in Section 2.4.13, there is a discussion of the potential for karst topography. The concern is that karst is really associated with often with sinkhole formation and that is a concern for development of projects such as the highways or pipeline and that type of thing in terms of the potential for subsidence that there was a review of the potential for karst to occur in the study area and that review is summarized in that section of the Environmental Assessment but just to summarize there was a review of geological mapping. There was consultation with Department of Environment and Natural Resources, experts during the environmental screening process and the development of the terms of reference for the Environmental Assessment. There was some borehole testing done at the proposed South River crossing. There was also a walkover reconnaissance by professional geologists looking for evidence of karst development. The conclusion that that in fact there was, that there is in fact some risk of subsidence features developing along the alignment due to the underlying bedrock however the observations of the current surface conditions suggest that active karst development has not occurred within this area. There, we appreciate the additional information provided by Mr. Dunn. I think there was some anecdotal information that was provided I think related to a farmer having to fill-in repeatedly a sinkhole or what was thought to be sinkhole developments, this was by the way, outside of the right-of-way as far as we can understand. I think given that additional information and what we have already identified as the risk for Karst that the department is planning to do a borehole testing certainly at the location of the structures and to do additional investigations in areas where risk from Karst development has, or sinkhole development has been identified so there may be in addition to the borehole testing of the structures

there may be additional investigations and that could include further walkovers, aerial photo interpretation, further interviews with residences, that type of thing.

Tony Blouin: I think we have a question on that subject.

Fraser Dunn: This is Fraser Dunn again. To follow-up on that karst topography, in addition to the farmer filling in the holes, if you wish to go out there today, I can show three new holes that formed in the last six months right on your centerline and incidentally the subsidence that I talked about last night is not clear of the right-of-way. It is very close to your centerline so just for clarification. Thank you.

Tony Blouin: Okay, thank you.

Speaker: And I just want to add and thank Mr. Dunn for that. This is the sort of information that we will be asking people in the area about when we do, before we do build the road. This is always a concern to us when we build a highway, topography such as this so it is very important for us to get all that information and make sure the adequate testing is done before we build the road.

End Tape 2

Tony Blouin: There was one further issue that I had noted in the submissions and this one was from the Mi'kmaq Commission and basically they raised a few issues but as I understood it, I think their request was simply for a commitment to undertake further consultation with them and I am just wondering if the department is able at this time to comment on that.

Speaker: Just for clarification, is this Roger Hunca's letter of the native council?

Tony Blouin: Yes, it is, yes, okay.

Speaker: There, I would just like to draw the panel's attention to the, there was a Mi'kmaq Knowledge Study that was included in the environmental assessment. I am not sure about the section reference. It is an appendix in the EA document that was commissioned by NSTPW with respect to a number of highway projects that were, are ongoing or in the planning stages. Excerpts were drawn from that with respect to that alignment. I guess Mi'kmaq Knowledge Study is a kind of a, it is sort of an involving way of sort of identifying traditional knowledge and first nations interests. It is not specifically, not specifically required normally under the provincial EA process but is something that the practice is evolving in that direction and typically the way to do that is to contract with an aboriginal consultant who is expert in this area. That was undertaken, a consultant from the confederacy in mainland Mi'kmaq was contracted to develop this study. That information was gathered and incorporated into the assessment. I guess it is the department's view that that really satisfies the requirement for incorporation of a first nation's information and traditional knowledge. We understand that Mr. Hunca's organization is, he also you know desires to be consulted and I guess that is something that needs to be considered further by the department.

Tony Blouin: Okay, so subject to further consideration but not a commitment at this time.

Speaker: Correct.

Tony Blouin: Okay, thank you. Yes, please.

Chuck McKennan: I just had a question for you. My name is Chuck McKennan. I am a property owner in the county and my question may be outside the privy of the assembly here today but it relates to the safety of the existing highway and the intervening period between now and whenever it is that it gets constructed and my point of concern is the rather abrupt nature of the ramp that goes, leads off James St. to the existing highway on the way up to Central. And if I am not mistaken, somebody mentioned there may have been an accident there just recently but I know people who have talked to me about how they have had close calls there so if there is anything that can be done, I guess in the intervening period, that would be, if the province would consider it and I do not know if this question is, I know you are dealing with the construction of the new highway here but in any event I would like to make that comment.

Tony Blouin: Okay, thank you. Well, as you state, you know it is outside, I guess the scope of this particular assessment but given that the question is asked, I will give the opportunity for the department if they want to respond to that.

Speaker: Mr. McKennan, I would suggest that perhaps you contact our district director for the eastern district. That is the process that normally issues pertaining to safety and other maintenance issues come into head office to be dealt with and certainly the extent to what, the extent of the work the department will do on the old road will depend on when the new highway is built. Obviously the traffic is going to keep increasing on the existing 104 and you know the longer the new highway is postponed or delayed you know the more acute I guess the problem of the speed deferential of the type of traffic on the existing road is going, going to be. So I guess you know it is hard to say what we will do pertaining to safety on the old road but certainly you know pertaining to this specific issue that would probably be the best course of action for you to take, and then, and then we can deal with it in the normal process.

Tony Blouin: Okay, thank you. I wanted to ask if, do the other panel members have any further questions that arose out of those, the four written submissions that we have obtained.

Speaker: Yes, I have one more concerning the spanning of the South River flood plane. I think this was raised in the federal submission and I am wondering what the merits and demerits are of single span versus multiple span and I am looking at the South River impact study and there is some reference there in 6.1, page 28 but there is not information given as to the underlying rationale.

Speaker: Perhaps it is elsewhere.

Speaker: It is the last paragraph on 6.1 that I, that comes closest to or makes reference to the decision or the preference.

Dwayne Cross: You make a reference to the statement, it was decided that a maximum span of the length of 60 meters was preferable?

Speaker: Yes and the basis for that.

Dwayne Cross: Okay, spans of course, as we increase our span, we increase the costs of the structure and it gets to a point where this cost starts becoming relatively speaking a remedial add-on to the cost continues to escalate at a greater rate and 60 meters

is seen as, I guess, the top cutoff and I believe this type of structure would be a steel box type cross-section. If we were for example to consider free-spanning the entire west or South River crossing I think the span is about 200-250 meters, we undoubtedly be into some type of a suspension-type bridge or that type of magnitude or cable stay type bridge with a significant cost to it and it is something I passed on to one of our structural engineers in our office just for discussion purposes and he indicated that you probably would not even think we would do well that 30 million dollars as a starting point and could be significantly greater than that so it if we were considering that, it pretty much puts the project out of the scope of being able to fund it. So…

Speaker: I would just like to add to what Dwayne said. The other aspect pertaining to span, structural spans is the amount of weight on footings. The longer a span is, obviously the more weight you are going to have on the footings if you are going with spread footings, big pieces of concrete as spread footings. It means the spread footings could be much larger which means your disturbance of the natural ground would be much greater if the ground is such that you cannot support a structure on spread footings then you may have to go to piles in which case, you would have to drive more piles and cause more disturbance so it does, you know, the number of spans, that has to be weighed to the type of, how much soil you want to disturb. Shorter spans mean less of a footing and maybe less disturbance although maybe in several different areas as oppose to less spans and more disturbance in fewer areas so it is sort of a balancing. And I guess another clarification about this. This study is not a structural design study. You know, there is more detailed analysis that would go into a structure when, before a structure is actually designed so the mandate of the consultant was not to design a structure but to look at, you know, various alternatives to that particular structure in a high-level way.

Speaker: Just referring again where the report says the maximum would be preferable ideally from a cost perspective shorter than 60 meters would be the most cost effective method but obviously it would be a trade-off in that case of constructing more piers as you cross the river which would result in more impacts so through that method be a way of mitigating impacts to the channel.

Speaker: Typically when a structure is designed, I mean this is a typical process when a structure like this is designed, the structural designer will go through many different scenarios as to what, you know, taking into account load spans, widths and disturbances, number of piers and all this and actually sometimes they will give us 3 or 4 or 5 different, you know, different alternatives to the structure so there is a lot of detail goes into a design, particularly one this complicated.

Tony Blouin: Okay, any…

Fraser Dunn: I appreciate what you are saying that this is not a design, this is a concept but can you commit that you will not allow the abutment to be built in the back channel. The abutment should be back into the bank on solid ground. That proposal that is in the report will devastate that estuary. All I am looking for is a commitment that you will not try to build the abutment in the back channel.

Speaker: We cannot make that commitment at this point. We cannot state at this point where those piers or where those abutments would be located. That is going to have to be part of the detail design.

Fraser Dunn: But…

Speaker: But at this point we just cannot make that commitment.

Fraser Dunn: But have you ever seen a bridge abutment in the river?

Speaker: Well, we have bridge abutments, we have bridge abutments in rivers all over the province.

Fraser Dunn: It should not be allowed.

Speaker: Well, no, I mean, I, we cannot comment on or commit to where abutments should be placed. We just do not, we are just not at that stage yet, you know.

Fraser Dunn: But this is what has happened in this procedure all the way along for 7 years we have been doing this and every time we get the same answer. At this stage, we cannot commit and then at the next stage, it gets a little more firm and then first thing you know, this is it.

Speaker: Yes.

Fraser Dunn: The abutment is going in the back channel.

Speaker: A project…

Fraser Dunn: We need to have some way of at least getting an option from somebody that they will not put the abutment in that, you know you have 42 feet of mud there and if you fill behind that abutment, you know what is going to happen when you surcharge that soft material, it is all going to squeeze up in, in between the abutment and the pier and you will destroy everything there. All that mud on the bottom will be now up on the surface and you will be trying to dredge it out to clear out the back channel. You will destroy it.

Speaker: These are all considerations that are normally taken into account when the structure is built across the river.

Fraser Dunn: But I would love for somebody to say that they will keep that abutment out of the back channel.

Speaker: Yes, and, you know, we cannot make that commitment at this point. We just do not have the information, we are not to the point where we are designing a bridge. If we were to the point where we were designing a bridge, it would be a different story but at this point and I would just like to add that a project of this complexity bits and pieces of information will become available as we go through the process. We know much more today than we did a year ago, two years ago. It just, I mean it is not possible to have all the information upfront to a project to this complexity so, and it is a slow, very frustrating process for, you know, a lot of people but we want to make very sure that before commitments are made, that we have all the information to make that commitment and at this point, we simply do not pertaining to this structure. We simply do not have the detailed information to make any commitments around the detailed design.

Fraser Dunn: Then you should not have the assessment people said that and not say this is the design because it gives you the impression when you read this that you are getting

four 60 meter spans with the abutment in the back channel and they say they are going to dredge the island to replace the back channels. So it is pretty clear that this is what we are going to get.

Tony Blouin: Is the department able to comment on that?

Speaker: The consultant would have gone through an analysis to come up with the most likely structure that would be feasible at that point however the consultant themselves at that point that would obviously be, although they did do some testing, there would be further information that they would not have at that point to make a definitive recommendation for the final structure. They did what they had to do to come up with the most likely structure for the crossing at that particular point. However and I will repeat before a detailed design is done for a structure, the designer will obviously take into account all studies that have been previously but there will be additional boreholes done and additional analysis done before another consultant will do a detailed design of the structure. They simply will not take the results of a study, that by the time this structure is designed, it could many years down the road before the detailed design is actually done for the structure. By that time, this study I think was done in, what, 2001, was it, by that time any study that is done that far ahead of the detailed design will have to be reviewed because you know, things change over time. So, you know, although it will be taken into consideration, there will have to be a new set of analysis, a new set of testing done at that time when the detailed design is done.

Elizabeth Pugh: I would just like to add another point again. A crossing of this magnitude, I guess this is the evolution of the environmental approval process. A crossing of that magnitude still needs to get environmental approval from, sorry, I should not say environmental approval, approval from natural waters and from the department of fisheries under that HAD process which I mentioned yesterday. So if there is further environmental detailed information that is required at that time, those two agencies will be coming to us to look for that. Now, at this stage in the process, you know, it sort of recognized that an environmental assessment at this stage is preliminary information and that more detailed information will be possibly needed further down the road as this design proceeds because it is an evolutionary process. So if these things come out as environmental issues, they will probably be picked up by those two agencies and our design will be forced to be modified accordingly.

Tony Blouin: Okay, so I think, if I could summarize and see if I state this fairly. At this point, you are not far along enough in your design process to be able to give any specific commitments as to the final design, number of spans and locations of the piers but you are indicating that the plan or the concept level design that is shown in the environmental assessment report is not necessarily the final design.

Speaker: It seems very reasonable but it will be not necessarily the final design, it may be but it may not necessarily be the final design.

Tony Blouin: Okay and further study will be undertaken before you arrive at a final design.

Speaker: Yes, that is correct.

Tony Blouin: Okay. Thank you. Did the panel have anything else that was arising out of those four written submissions?

Elizabeth Pugh: Yes I just had one other note. It was part of the federal response and it is about the wood turtle. In the federal response, they noted that the wood turtle is not currently listed in Schedule I of the Species at Risk Act however the suggest a precautionary approach is taken when establishing the risk management plan and I would wonder if you could comment to that.

Speaker: Wood turtle, the potential for wood turtle and protection of wood turtle habitat within the study area was carefully investigated as we note in Section 5.4.2, the section being rare herpetiles and these, we looked during our field surveys. We looked for direct evidence of wood turtle and they are, did not find any but they are a cryptic species. They are difficult to find when you are looking for them. Regardless of the specific status in terms of this regulatory listing, they sort of, they are considered definitely a species of concern and there was, I guess, a significant amount of, I guess, discussion was provided around risk to wood turtles, the types of habitat that could be affected and a specific mitigation plan for wood turtles so I think, and that is all provided in the EA document. I am not sure if there is anything specific, any further information that you would be looking for but I guess suffice to say it is kind of, we have given kind of the wood turtle protection that is sort of highest level of priority in terms of protection in this document at least and forward planning for wood turtle protection.

Elizabeth Pugh: Thank you.

Tony Blouin: Okay, so I will just emphasize that our expectation is that you will respond to any issues that you see within these four written submissions that you feel needs to be addressed. You have answered our specific questions verbally on certain items that we identified but if you wish to add anything in regard to those particular items in your written response, we would certainly ask you to do that as well.

Speaker: Would the verbal responses stand instead of written responses in this case or would you like…?

Tony Blouin: No, that is at your discretion. A written response would certainly supplement the verbal response if you wish to provide further written response to those.

Speaker: But the verbal response is on the record obviously?

Tony Blouin: It is, yes. Did we have any further questions from the audience or from the panel members? Okay, we do have a, oh, did you want to make a comment?

Speaker: We would like to comment on the CLC issue that was brought up yesterday. I am not sure if this is the right point in time.

Tony Blouin: Sure we can do it now.

Speaker: Okay, Lesley.

Lesley Griffiths: This is in response to a question raised by the chair yesterday and this referred to Section 6.1.6 on page 205 and the statement in. Follow-up and monitoring. And the section reads in the report, monitoring during project of operations of long-term affects on local businesses and the economy as a result of the new highway will be conducted by the CLC. It goes on to say that the committee will periodically report their findings to NSTPW and municipal officials who will jointly determine if any remedial action is warranted and then it gives examples. And your question, I

believe, was whether there is a commitment made with respect to resources for that monitoring so…

Tony Blouin: Yes.

Leslie Griffiths: If I can provide a little clarification around the role of the CLC and that section in particular. Nova Scotia Transportation and Public Works does commit to developing a community liaison committee as an important part of an ongoing public involvement and information program to identify issues and concerns and that commitment is included in the environmental assessment report. The environmental assessment report also indicates that the CLC is intended to carry out the following functions and this list is drawn from the statements that are made in the report. The CLC will provide a forum for liaison between local stakeholders and TPW. It will receive and disseminate timely project information. It will provide a forum through which landowners, businesses and other stakeholders can bring their concerns to TPW. It will discuss scheduling, temporary and permanent alternate access roads and other project elements. CLC will discuss mitigative measures, will discuss conflict resolution and have input into ongoing monitoring and mitigation. As specific reference on page 205 and then this reference is echoed again in a table on page 275 of the report says that, "monitoring during project operations of long-term affects on local businesses and the economy as a result of the new highway will be conducted by the CLC. TPW anticipates that such monitoring would likely take the form of periodic feedback from businesses and business and economic development organizations in the area rather than in the form of formal studies." And then based on the Proponents experience with a similar CLC that was created for the Highway 104 Cobequid Pass, TPW anticipates that a CLC will in fact be most active during the earlier stages of the project, in other words, the final design and the construction stages of the project and then perhaps during the first one or two years of operation. And on a longer-term basis, it indeed may be more appropriate to address the monitoring and mitigation of affects on the business and economy through a liaison between the department and the municipalities and the economic development agencies such as the Antigonish regional development agency or the Antigonish area partnership. In other words, it is quite likely and experience at the Cobequid Pass was that the CLC may not in fact continue to operate for years and years and years. There is a limit to what you can expect of people in terms of their time that is available. It is also possible that CLC might wish to continue on the longer-term basis but this is an alternative route for liaison between the department and the community interest. Funding, and your question was specifically on funding.

Tony Blouin: Yes, it was.

Leslie Griffiths: I will just add to that. Again in terms of resources provided to the CLC, what has happened in the past with the CLC, the CLC of the Cobequid Pass was that the department did provide funding to assist the CLC in its operations in terms, you know, providing meeting space, providing refreshments and incidental expenses and I believe they provided some mileage expenses for travel for members of the CLC and then in terms of any additional funding for studies that might be suggested by the CLC as being necessary then that was something that would be decided at that time on a specific basis.

Tony Blouin: Okay, okay, thank you. We had one additional question here.

Speaker: A question that goes to the overview presentation by the Proponent and I am thinking of the phasing of the project and the considerable discussion we have had about the overpass and/or underpass, I guess or underpass as it crosses over the existing 104. When would that structure be built? Would it be built as part of phase one, whatever structure is decided on or would some interim arrangement or design be required at the end of phase era to complete the phase one?

Speaker: That particular structure I think you refer to is the crossing of Trunk 4. That would be in phase 2, phase 2 of the project.

Speaker: So what would happen in phase one, what kind of, could you give some indication what kind of relationship between the two roads would, convergence or whatever…

Speaker: Sure, yes. The new highway will be a 4-lane highway, built as a 4-land highway and obviously the old highway is a 2-lane road and there will be a transition between 4-lane and 2-land properly signed. We use lighting overhead lighting at those transitions. I am just thinking of an example. We have one in existence at highway 103 near, I guess, just on the Halifax side of exit 4 and highway 103 there is a transition between 2-lane and 4-lane. There was one on highway 101 at Mount Uniacke. They are very typical where you build 4-lane highways and have to join back into 2-lane highways.

Speaker: I guess I am wondering about where going easterly on the existing highway, what would happen at that point?

Speaker: Going easterly.

Speaker: I think it relates to the fact that…

Speaker: Would you like me to bring it up on the slide and then…

Speaker: It is where the end of phase one would remerge with the existing 104.

Speaker: I just could not visualize that, I guess.

Speaker: And how would traffic who is on the existing 104 then meet up with the new highway as it merges?

Speaker: And Mr. Chair there was another point that we wanted to comment on to Mr. (?) while we are firing up the overhead.

Tony Blouin: Oh yes, sure, okay.

Robert Federico: There was an item yesterday that we wanted to follow-up on from Mr. Dunn's presentation with respect to his concern that information that he provided to the professional archeologists that were working as part of the EA study team with regard to the potential Mi'kmaq encampment was not duly considered in the environmental assessment and I guess we wanted to assure the panel and Mr. Dunn that first of all information from local knowledgeable people is really a critical part of the research that we do and is really a valued information. We just wanted to assure everyone that that information in this particular case was duly considered and follow-up on in fact. There were a number of, I guess, just looking at Section 6.3.2, the methodology for researching the potential for archeological and heritage resources is laid out and includes a number of sources including

archival research and review at the Nova Scotia Museum, interviews with people knowledgeable in the area, visual reconnaissance and so forth. In particular, Mr. Dunn provided some information related to the potential Mi'kmaq encampment. That information was in fact follow-up on with the local Mi'kmaq spokesperson and then there was some other follow-up that was conducted as well. There was some difficulty in getting access to, direct access to the site, to continue the site investigation but the, I guess, the information that was provided and the level of confidence that the investigator had led to the, I guess, the conclusion that there would be no likely significant affects on archeological or heritage resources as a result of this information. Because sometimes the record of, you know, the historical record, the archeological record is not readily apparent. Sometimes it is buried, there is a contingency plan that will be place that will be part of the environmental protection plan and that is also summarized in Section 6.3.5.1 of the document that says, "in the unlikely event that Mi'kmaq archeological deposits are encountered during construction, work will be halted and immediate contact will be made with the Nova Scotia Museum and the confederacy of mainland Mi'kmaq so provisions are in place that even if there were, there was a valuable record of an encampment or a Mi'kmaq settlement that if those were encountered during construction that there is a process in place to basically halt and investigate further.

Tony Blouin: Okay, thank you. Mr. Dunn, could we do with a question from Mr. Dunn before we go ahead with that. Okay, thank you.

Fraser Dunn: It is really not a question. Just want to give you some further information and that I checked with the curator of the Antigonish Museum and she has done extensive research trying to find information on local Mi'kmaq encampments in the area and for some strange reason, all the records of Mi'kmaq activities in Antigonish county are missing in Halifax so it is very difficult to get anything.

Tony Blouin: Okay, thank you. And, Mr. Dunn, I just wanted to give you, for your information, I understand you came in after we had begun this afternoon and I was providing a response to your suggestion and invitation that the panel undertake a site visit. You heard the answer, okay. I just wanted to offer though if you have any questions about that and the rationale or reasoning for it, our solicitor, Stephen McGrath is available to you. Okay, thank you. Okay, please go ahead.

Speaker: Okay, so here we are at Beach Hill Rd. with the new highway 104 going over Beach Hill Rd. I guess in more detail you see the two lines here. This would be, what this represents is the outside of the roadway so we would have two lanes within this pair of blue lines westbound, two lanes eastbound and the interchange ramps, the exit ramp and the entrance or onramp. Looking at the existing highway, this is one of the sections that was built, I believe, was in the 50's or 60's as part of the development of the 104. It has a limited controlled access, limited of level of access control on it coming along here and then we tie back into the conventional area here that shows the multitude of driveway accesses and this being the first access into Antigonish town coming from the east at this intersection. When you are driving west on the existing highway, you get into a truck climbing lane so that this point, we are looking at three lane cross section, two lanes headed west, one lane headed east along the existing highway. The phasing opportunity goes as such. We would at this point realign our twinning on a tangent or straight line, transition down from our wide median with the depressed grassed median into a narrower type jersey barrier type cross section which a visual cue to drivers that things are changing. You are now leaving a 4-lane divided wide median highway transition in and down; we would be transitioning from the two lanes eastbound

down to one lane eastbound to match into the existing. Similarly coming the other way, at this point, we have the climbing lane already established so we have our two lanes established. The two lanes would continue and in effect become the westbound lanes of the twinning so a seamless transition from existing to new. Something else worth noting as you travel east at this point provides you substantial site distance in fact down to about this area so again more visual cues that you are departing from the type of highway that we desire with design cues, visual cues, transitioning you down into what exists right now. So we see this as probably the safest opportunity that we have and coincidentally it falls in a location that quite evenly balances cost-wise between phase one and phase two. You also have in mind; it is conceptual. It is not a final design so this could be massaged and changed in various ways as we get to a detailed design but certainly identifies a good opportunity.

Speaker: So as you have it there, it would not be an interchange in the sense that eastbound traffic would only have the option of continuing east. They would not be able to reverse and go west on the existing 104.

Speaker: Correct. If you wanted to get back to the existing highway you would make use of the interchange.

Speaker: Right, yes.

Speaker: So ultimately when, as part of this stage, let us say phase one is built, this is built, and this part of the existing highway in effect from the existing intersection back to here is a dead-end road.

Speaker: Oh, so it would not continue.

Speaker: In the interim.

Speaker: Okay.

Speaker: But when we step to phase 2, when this is constructed, this will be removed, this piece reinstated as the secondary road network.

Tony Blouin: Could I ask, maybe you have already answered this or addressed this, if so I am sorry but has a decision been made yet whether to divide this project into two phases?

Speaker: Yes. This is really the only way we see it, presenting this highway project to get funding. It is, as we stated, it is up to almost $90,000,000 now. We have typically getting federal agreements that are actually recently much less than that. So the idea of funding it with a federal agreement, you know, becomes less and less likely unless we can present the project in a way that, in a reasonable fashion that it can be funded with the type of funding that we seem to be getting. And as we stated earlier, I think a project of this size is contingent upon federal funding. If we do not get the federal funding then the project is probably not going to go ahead because it is just too expensive. So you know, again we are forced to build a top grade 100 series highway system in this fashion in these very small pieces because we simply cannot get the funding, the huge amount of funding that it needs for these highways so you know it does force us into cutting these sections up into small pieces.

Tony Blouin: Okay. Are you able to comment on the likelihood then that phase 2 would be delayed in other words if you cannot build it all as one project, does that mean that the second phase would follow later than it would have if you had been able to do it all at once?

Speaker: Probably not. Our anticipation is that we would get funding for phase 1 and before phase 1 is completed we would have funding in place for phase 2. The way this, that is the way it is going to be presented. The problem with highway 104, the existing highway 104 does not stop at Beach Hill Rd. You know, as we stated the problem goes all the way through so the splitting up of the project is to get, to make it doable and not to continually have it delayed because we cannot fund a $90,000,000 project. You know, and what we can fund a $40,000,000 project. Great, we will do half and then negotiate to get the further funding to complete it but this has been typical of the way we have been funding these major highway-funding projects in small pieces. But like I said, the idea is that it is one project from Adding Forks to Taylor Rd. It is one project and done in basically being done in two phases.

End Tape 3

Tony Blouin: I had one question that was leftover on my list from yesterday that I never got to, and I'll just take this opportunity to ask it. On Page 214 of the assessment report, you make a statement that in your experience or, your experience indicates that there should be no loss of property value for adjacent properties, based on experience, I think, in this and other jurisdictions, and I'm just wondering if you can provide any further information that would justify that statement? The source of the information isn't really indicated.

Phil Corkum: Mr. Chair, if I may, would it be okay if we gave the panel a written response later on?

Tony Blouin: That would be fine, yes, thanks. We have a question, yes, please?

Marilyn Milner: My name is Marilyn Milner, and I live on Cunningham Road right down the way where the road is supposed to go through and thank you very much for asking that question. My neighbor and I just kind of stumbled into this meeting by way of introduction to you all. We didn't see the announcements in the paper, but we have tried to follow the issue very closely locally, because it affects us and our property. My property is located, will be adjacent to property that will be purchased for the highway, but it is not, itself, in the path of the highway. I guess I'm really glad that you asked that question, and I am going to ask that perhaps that some kind of an, also a written or a public answer to that question could be given to us, the people who are affected by this, because I just got my tax bill today, and again, it went up 4000 dollars and I keep thinking, you know, my property value is going to go down when this highway goes through, and again, I'm just saying, could some kind of a response to us be given on how we can increase our property value when this highway goes through? Thank you.

Tony Blouin: I just want to make clear that any written responses that they will provide, and they have undertaken to answer my question in writing, those responses will certainly be available publicly, but in response to your question, I'll ask if the Department wants to say anything in particular regarding property values of adjacent properties and…?

Phil Corkum: Well, if we can address that in the written response, that would be our preference, in the written response to the panel, since it is going to be public.

Marilyn Milner: Okay, and may I ask one more question?

Tony Blouin: Yes.

Marilyn Milner: You seem to indicate, and again, this is kind of new to me, so excuse me if I'm asking the wrong question, but it seemed to me it was said that some sort of monitoring situation would be going on in Lower South River about the quality of the land and the water, etc., and I'm wondering if a commitment could be made to also do that same area for the people who are near the West River interval, down on Cunningham Road. We, too, have a spring-fed well, and we are down in the hollow, and the highway is to go up and over, so naturally, anything from the highway will come right down to our water supply, so will some kind of a commitment to the people in that area on monitoring our water will also be made?

Phil Corkum: I believe our well monitoring program extends throughout the entire project, so yeah.

Marilyn Milner: Thank you very much.

Phil Corkum: Thank you.

Jim Gordon: I just wanted to clarify to the speaker that the information, the supplementary information, will be available at the Department of Environment and Labor office here when it's provided? It will be available there.

Robert Federico: I'll just add a little bit to the previous question. On Section 5.2.6, this is followup monitoring for ground water, there is a commitment to monitor wells and those would include those within any residential wells found within 500 m of any blasting, dug wells within 50 m of a major cut, and that's basically it.

Jim Gordon: For the record, was that 50 m or 500 m from a major cut?

Robert Federico: Dug wells within 50 m of a major cut, any wells within 500 m of blasting.

Jim Gordon: Thank you.

Tony Blouin: Any further questions from the audience? Mr. Dunn, yes?

Fraser Dunn: Fraser Dunn again. I'll get out of your hair after I ask this. Last night, Mr. Cross asked me some questions on the crest vertical curvature for stopping distance, and I would just like to verify with him, so that when I do my recalculations, I'll be on the right page. I understand that you're using a K of 105, is that correct?

Dwayne Cross: Correct, for a crest curve.

Fraser Dunn: So that's a speed design of 120 km/h?

Dwayne Cross: Correct.

Fraser Dunn: Okay. One other question. I would like to know from the authors of the report why they referenced 8 times an 18.5 m cut at Dunn's Loop? That intrigues me that such a deep cut would be mentioned 8 separate times.

While they're looking it up, maybe I can ask a third question, a last question…

Tony Blouin: Sorry, Mr. Dunn, I don't think they're going to be able to hear it while they're conferring, maybe we will just hold it for a minute, please.

Dwayne Cross: I'm just referring to Page 11 of the report, Table 2.1, Major Cut and Fill Operations, No. 11, or No. 12, sorry, identified as a cut, start chainage at 10+270 to end chainage 11+190 makes reference to the 18.5 m cut. 10+270 actually begins in advance of the crossing of the existing highway, so in particular, I was going to look at your plan, which is gone…

Fraser Dunn: That's right at the little stream.

Dwayne Cross: Where even on your profile, where at the left end of your profile, you're in a cut, that would be the cut referred to…

Fraser Dunn: You people are in a fill situation at that point. You're going overpass.

Dwayne Cross: Perhaps we can refer to your profile and make it clear, here.

Fraser Dunn: Incidentally, I listed all those references to the report where it did list the 18.5 m cut.

Jim Gordon: Mr. Dunn, is this the same evidence that we submitted yesterday, or is it an earlier version?

Fraser Dunn: It's an earlier version.

Dwayne Cross: We will refer to the evidence as submitted yesterday.

Stephen McGrath: That would be Exhibit 7.

Fraser Dunn: I agree it's a different profile than yours, but if you're going ot have an overpass, you can't be 18.5 m down.

Dwayne Cross: What station would it be?

Fraser Dunn: 10+250, 10+270.

Phil Corkum: Perhaps we'll refer to the plan at the back of the room, which would accurately indicate the chainage. Has that been entered?

Fraser Dunn: The chainage is 10+550 for the overpass.

Phil Corkum: Yes, but this is your profile. I think we'd better refer to our profile with reference to the report?

Fraser Dunn: Fine. I agree.

Phil Corkum: Because the report references our profile, not this profile.

Tony Blouin: Well, I guess I'll ask Transportation and Public Works to respond, and if you can make it clear as to what location you're referencing?

Dwayne Cross: Do we have an extra…?

Fraser Dunn: But it puzzles me how you can be 18 m down, and yet going over the road?

Tony Blouin: Okay, we'll try to get an answer for you.

Phil Corkum: Good question.

Stephen McGrath: Mr. Chair, the plan at the back of the room has not been entered as an exhibit. It would probably be appropriate to do that now that we're going to be referring to it.

Tony Blouin: Okay, well, we'll enter that as an exhibit and assign it the proper number…

Stephen McGrath: 13.

Tony Blouin: 13?

Fraser Dunn: If you wish, you can answer that in writing later, I don't need it today.

Tony Blouin: Okay, well, perhaps since it appears to be a somewhat complicated issue, maybe that would be best, if I could ask them, the Department, the proponent will answer that question in writing?

Fraser Dunn: Yes, it just puzzles me how you could be 18 m down but yet going over?

Tony Blouin: Okay, so to clarify whether there, in fact, is a cut at the location they indicate, and if so…

Phil Corkum: Yes, we will clarify the correlation of the profile with the plan to properly identify where the cut is.

Tony Blouin: Okay.

Fraser Dunn: My last question is, it says here in your instructions, a participant at the hearing may, within 14 days of the close of hearing, present written arguments for submissions. Does that mean I can summarize what I gathered from this and submit…?

Tony Blouin: I believe it does, but I will ask for confirmation on that?

Stephen McGrath: I've had some discussion with representatives from Transportation and Public Works on the timing and filing of closing arguments. The regulations certainly do permit that, Mr. Dunn is correct, and they give a date, which is 14 days from the close of hearing, for participants to file written arguments. Transportation and Public Works has requested, and there is discretion in that section, Mr. Chair, that they be permitted to file later and in effect, respond to any other comments that may have been filed, which is, I think, a reasonable request from my perspective, Mr. Chair, although it may be that some of the other parties might also want to respond. What is typically done is first file is the last to speak, so they'd be filing a response and a reply, although I suspect that the time frames might not permit that.

As a compromise, it might be that we would have, and I haven't raised this possibility with either of the parties at this point, but the possibility of a final written argument being filed in 14 days by everyone who wants to file a final written argument with the right of everyone to reply to each other's within 1 week from that day.

Tony Blouin: I think at this point, I'm probably not able to give a definitive response to that. I'm going to have to look at the timeframe that the panel has available in order to prepare and submit a report, which is fairly tight, August 6 is our deadline, so I think, let me say at this point, we'll leave it with a 14-day deadline for all participants to file final materials. If it emerges, I guess, in that intervening time that there is a need for an extension and if the panel determines that it's justified, then we will entertain that further, but at this point, let's just leave it at 14 days.

Fraser Dunn: Thank you very much.

Tony Blouin: Okay, thanks.

Is there any other business, any other comments or questions from the audience or from the panel? Okay, that being the case, then we'll adjourn for now and there will be a final session this evening at 7 p.m., and thanks very much to all the participants.

Environmental Assessment Board
Highway 104 at Antigonish Public Hearings

Friday, June 24, 2005 – Evening Hearing

Tony Blouin: My name is Tony Blouin, I am the Chair of the Nova Scotia Environmental Assessment Board and I will be the Chair of the panel for the hearings. This is the fourth session of hearings on the Highway 104 project at Antigonish. We've had 4 sessions over the last 2 days. On my left is Dale Smith, another member of the Assessment Board and a member of the panel for tonight. On my right is Bonnie Rankin, also a member of the Board. To Bonnie's right is Jim Gordon, he is the administrator for the Board, and on Jim's right is Stephen McGrath, who is with the Department of Justice and he's the legal advisor for the Board for these hearings.

The process that we follow is set out in regulation; it's a public process. We are recording the proceedings, and a full transcript will be made available within about a week from today, and that will be available at the Department of Environment offices here in Antigonish, as well as in Halifax. The purpose of the hearings is, just as it says, it's a hearing to hear the public, to have your chance to present your views, to have your questions asked and answered regarding the project. Also a chance for the panel to hear information from the proponent, from the public, and for us to ask questions about the project. The process is mandated under the Provincial Environment Act and the Environmental Assessment regulations. Under those regulations, this is a class 2 project, which means it must be referred to the Assessment Board for hearings.

We do have copies on the side table there of the Assessment regulations, and there's also a shorter version which summarizes them and pulls out the important points. There's a schedule of the hearings that we've had over the last 2 days. There is also a handout there which sets out the important dates in the process up until now and following this session of hearings.

The process is, it's not a judicial process, we don't follow exactly the same procedures that a court would, but there are certain regulations ad procedures that we do have to follow; for example, those making presentations or substantial testimony to the hearings must be sworn in. Those people who have appeared over the last 2 days have already been sworn in, and that still applies, but the presenter tonight would need to be sworn in. Other than that, it is a fairly informal process. For the session where we will ask if there are any questions, if anyone wants to pose a question, I would ask you to please come to the microphone, just so that your comments will be captured for the record, and to please identify yourself.

The format is that we begin with a presentation by the proponents, the Department of Transportation and Public Works, for those who have been here at earlier sessions, it will be repetitive, but I know there are some people who haven't seen this yet. That will take about 20 minutes. Following that, we will have the formal presentation from the Blue Route Realignment committee, and then the floor will be open for questions, either from members of the audience or from the panel members.

At the close of this, being the final session, the proponent will have a chance to summarize and present their final arguments in response to things that have been raised during the 2 days of hearings, and then I will close the proceeding with just a

final couple of comments from the chair. Media are allowed and we do have someone here, I understand, recording the proceedings tonight as well. There is also, this is the provincial environmental assessment process. There is a federal environmental assessment process for those who may not be familiar with it. Both levels of government do have similar processes, and the requirements that have been defined for preparation of the report and for the hearing process we're going through, there's been an attempt to make that consistent with both levels of government's requirements, so in other words, we won't have to duplicate processes, the project doesn't have to go through 2 separate assessments.

Tony Blouin: Depending on the timing tonight, we will take a break if we feel we need one at the mid point of the proceedings, if we go that long. I would ask if you have cell phones or pagers, that sort of thing, please turn them off. With that, I guess I'll ask the Departmental representative to introduce himself and the team they have and go ahead with his presentation, please.

Dwayne Cross: Thank you. My name's Dwayne Cross, I am a highway planning engineer working with the Highway Planning and Design group with the Nova Scotia Department of Transportation and Public Works. With me tonight, from TPW is Phil Corkum, he is the Manager of Highway Planning and Design, Mike Croft is our Access Management Engineer, and Elizabeth Pugh is our environmental engineer. Representing the creators of the environmental assessment report from Jacques Whitford, we have Robert Federico, Shannan Murphy, and Lesley Griffiths.

So Highway 104 Antigonish, why have we chosen this project to carry out the planning work? Well, there's numerous problems which have evolved over time and many of us agree exist. First of all, traffic volumes. The annualized average daily traffic volumes, which we call AADTs, are up to 14,400 vehicles per day currently. The summer daily traffic volumes hit nearly 20,000, and keep in mind for 2-lane 100-series highways, we begin to seriously look at them as candidates for twinning once they reach about 10,000, so quite a contrast compared to what exists through Antigonish today. They're the second-highest volumes in the province for a 2-lane, 2-way, 100-series highways, and there are a large percentage of trucks, up to 20%, so that's a significant value.

Accesses… there's numerous residential and commercial driveways along the existing highway, several at-grade intersections, speed varies greatly. The post speeds range from as low as 60 up to 100 km/h, and this poses a problem where we have local traffic that travels at a slower speed mixing with the through traffic, who are trying to get through as quickly as they can and onto destinations beyond Antigonish, which brings me to speed differential, and this is the difference in speed between vehicles on the main roadway versus those entering and exiting. So leaving Mother Webbs and turning out onto the highway conflicting with rapidly moving traffic passing through the area. The increasing speed differential exponentially increases the likelihood and severity of collisions, so the greater the differential, it's not a doubling factor, it increases quite considerably.

So with the combination of high volumes, uncontrolled access and local versus through traffic has resulted in the highest collision rates in the province for 100-series highways. Up to 13 times the provincial average for a 2-lane highway, and up to 15 times that for a 100-series, 4-lane, controlled access highways, so it's a significant issue that needs to be dealt with here.

This shows a statistical analysis of collisions at intersections, and about 75% are attributed to left-turn movements, that would be turning left off of the main road or turning left onto the main road. An example we have here at Mother Webbs, the patrons visiting this establishment have to back out onto the Trans-Canada Highway, that's a serious thing. This has the Trans-Canada Highway going through this massive expanse of asphalt and as well, there is a major intersection in there being with Route 316. Another unique characteristic to the Trans-Canada through Antigonish are signalized intersections, this is a rare thing to see, and also, you may take note of the truck traffic passing through the area.

Dwayne Cross: So we know all about the problem, what's the solution? We need to identify the routing, including the access locations, for a new highway, that best meets the transportation and economic development needs of the local community and the province. That's important to keep in mind, that it's a provincial highway, it needs to satisfy traffic moving from, for example, Yarmouth to Sydney, and in fact, we need to satisfy the needs of traffic moving to and from or within, North America, but also be considerate of the needs of the local community. We developed a solution by securing the alignment, and we do this through corridor preservation, which basically means land purchases. Then, when funding is available, we can proceed with the construction. This highway is part of the national highway system, so it is eligible for cost sharing with the federal government.

This slide shows the national highway system. What the national highway system is, it's a network of roads across Canada of national significance, of significance to the federal government, hence their interest in cost sharing on it. They're all shown in red here, and we can see that Antigonish is an important piece, but it is one small piece of the overall pie, and currently we are looking at a 600-800 million dollar deficit in our national highway system alone.

This slide shows how you would get access to and from the new highway. We call it a grade-separated interchange, and you can see in this case Highway102 is passing over the local road, so that traffic on each roadway do not interfere with each other and you make your transition between the roadways using the interchange ramps, as you see traffic sitting on them in the picture.

To quickly skim through the project chronology, we started work on this project back in 1996. It's hard to imagine it was 9 years ago. We went through a constraint identification, where we identify known environmental features that need to be considered, compiled this into a first public consultation. We followed this with the development of alignment options and there were 3 identified options, you may recall they were called the red, blue and the brown. There was further analysis of the options, a second consultation. We moved into a commissioned a safety review by an independent consultant; the blue route came out of that study as being the safest route. We put this forth to our Minister. We chose to do additional study through a peer assessment where a senior and well-experienced engineering body independent to our department, looked at the project and also identified the blue route as the proper choice. We sought approval from our Minister for the alignment at that point for movement into the environmental assessment process.

Our third consultation with the public was an information session where we showed what the final alignment looked like, and the access points. There was overwhelming support at the time, and of course, we know we can't satisfy everybody with any highway project, but we certainly strive to do our best. A

project description was developed as part of the federal and provincial environmental assessments, and the project was registered for environmental assessment. The terms of reference were issued and a consultant was hired in 2002, the consultants that are with us today. The final report was submitted in April of this year, and the Minster of Environment and Labor referred the report to the EA board, of which tonight we have panel members from that board.

Dwayne Cross: I'm going to quickly go through the alignment itself to show you how all of the components fit together. So at the western end of the project, I'll bring this up as I may be in everybody's way. We come off the existing highway into the speed zone, the 80 km/h speed zone at Addington Forks Road. At this point, we would be providing the first diamond interchange. So we will continue to the east, in behind the new Wal-Mart and Superstore, and in fact, I believe the Wal-Mart is almost back to the edge of the right-of-way for the new highway, past gasoline alley here, in behind we cross Trunk 7 at this point and we provide a new diamond interchange. At this point, we'll be reconstructing Trunk 7 so that it's built up and over the new highway, and what this provides us is with interchange ramps, which have a secondary effect of being a natural sound barrier for any adjacent developments, and in this case, there is a residential development here.

As we proceeded with the project and through the development of the report, we were going to provide access to the end of Church Street via the service road that's shown on the map here. This was due to the fact that the existing way of getting back there would be buried by the new highway. Since then, we have carried out some work and reexamined this option, and are planning on going forward with a tunnel option, so we would provide a tunnel to provide access from the north side to the south side, so that people who currently use this road can continue to do so, rather than, so in this case, the service road would not be built and people wouldn't have to take a potentially much longer path, so the tunnel option is a change at this point.

So we continue to the east and cross Beech Hill Road, we would be crossing over and providing our third diamond interchange. So what's shown in blue is part of the proposal. Something else we've looked at, with the project currently estimated at nearly 90 million dollars, it puts it at a level that makes it very difficult to fund with the size of the cost-share agreements that we have currently been experiencing. So this point provided us an opportunity to split the project into 2 phases, making the initial phase about 45 million dollars, much more attractive and potentially able to fund and this is what's shown in green, just the transition point that we had looked at.

So we continue on to the east, in behind the manufactured home community, and the development here, crossing over the existing highway at this point at Dunn's Loop, as we continue down to the river crossing. What we show here is an extension of Route 316 up to the new highway, realignment of South Side Harbor Road also to the same point and providing a fourth diamond interchange, and this is the area where Mother Webbs would be. Then we continue east, tying back in to the existing highway just past Taylor Road and Taylor Road will be reconstructed up and over the new highway and tying back into the existing highway, as shown here.

It's important to note traffic volumes and with our studies, we use historical traffic data to predict and project where the traffic volume is going to be in the future, so in the first column here, I show the scenario for traffic growing on the existing

highway without the new highway being built, and as you see, by the year 2030, that we would be up to 39,000 vehicles a day on the existing highway, which, when you look at the 15,000 is about 2.5 times what is experienced out there right now, so just a really significant increase. On the right, we show with the highway being constructed, and both highways identified. For 2030, we see that it's greatly reduced to 16,000 vehicles in a day, so by 2030, we'd be at about the same level of traffic that's out there now, but as you notice, there'd be up to 30,000 vehicles a day out on the new highway.

Dwayne Cross: Socioeconomic consideration was very important with this project. We went over and above what was required within the terms of reference for the EA to consider the business community. To that extent, we met with the Regional Development Agency and Profile Antigonish, and they had provided us input. A few of the key items that they had noted that should be considered are interchange beautification, appropriate signage, and the relocating of the Tourist Information Center at one of the new interchanges, which at the time, it was discussed at either Trunk 7 or Addington Forks Road. We have an extensive package of roadside signing programs and some of these programs, the eligibility would need to be determined, whether they apply, on a case-to-case basis, and at that point, it's up to the town and the municipality and the businesses to choose which programs to participate in when the eligibility is there.

Next steps for the project, the deadline for submission of the report and recommendations to the Minister will occur in August, as well as a decision from Environment and Labor. Following this, we will proceed into field survey and detailed design, and of course, this is pending the environmental approval. We need to purchase the corridor, and this brings us to a point where we could be ready for construction in the spring of 2008. It's important to note that this is strongly dependant on funding, the establishment of the funding, the identification of the funding, will ultimately dictate when the start of construction will occur. Thank you.

Tony Blouin: Thanks very much. The next item on the agenda, before any questions, would be a presentation by one of the identified interveners, Mr. Hugh MacDougall, representing the Blue Route Realignment Committee. I would just ask Mr. MacDougall to come up to be sworn in.

Stephen McGrath: Do you swear that the evidence that you are about to give shall be the truth, the whole truth and nothing but the truth, so help you God?

Mr. MacDougall: Yes.

Stephen McGrath: Mr. Chair, the Blue Route Realignment Committee had previously filed written submissions for the proceeding and it may be appropriate to mark those as an exhibit and I believe No. 14 is the next on our list?

Tony Blouin: Okay, thank you. Please, go ahead.

Mr. MacDougall: Okay, my name is Hugh MacDougall, I'm a chairperson of the Blue Route Realignment Committee, and I've been asked by members of our committee to fill you in with a little bit of history and some other items. First of all, I'd like to thank the members of the panel for a chance to speak about how the proposed bypass will affect Antigonishers, and by that, I mean both the residents of the town and

county. Not withstanding the importance of the environment, my comments will focus on the socioeconomic and sociopolitical factors.

Mr. MacDougall: I take it that you folks may be aware that we had quite a public debate on whether the blue, red or brown route should be built, and I'd say that debate is an understatement, but I'd like to let you know that the debate almost didn't take place at all. For a few years before we had even heard about the bypass, the Atlantic Expressway Committee had met secretly with the Department of Transportation and Public Works to negotiate the "best solution". It appeared that they had an arrangement with the Department whereby no details of their discussion were to be revealed until the deal was more or less done for the red route. The Atlantic Expressway Committee had convinced the Department of Transportation that their representative committee spoke for the entire community. It is our opinion that the Department of Transportation was fooled and why wouldn't they be? The Atlantic Expressway Committee consisted of representatives of the town of Antigonish, the County, St. Francis Xavier University, St. Francis Hospital, the Chamber of Commerce, James Street Merchant Association, the Antigonish Shopping Mall and other business people. Because of rumors that the decision had been made to twin the highway more or less over the top of the existing route, we as property owners became concerned as to what affect this would have on our investment, being our properties.

In subsequent discussions with the Department of Transportation, we learned that they were under the impression that everybody in the town and county wanted the red route, and the deal was just about done subject to a few procedural public sessions. We wondered how could they be so sure about this when virtually nobody in the town or the county even knew about the alternatives? Once we got to see the options, it took us about a minute to figure out that the red route was dangerous. The blue route was safer and offered numerous other advantages over the red route and that the brown route was probably the best of all, since it would be the safest, the cheapest and would provide the most room for long-term development.

Not long after our first meeting with the Department staff, we started the Blue Route Realignment Committee, and although we believe the brown route was the best option for strategic reasons, we chose to lobby for the blue route. Simply put, the brown route worried too many people and to defeat the red route, we needed an option that would be more appealing. Now some would say that the safety audit proved us wrong, it concluded that the brown route was more dangerous than the blue route, but once we had time to review the safety audit, it seemed that the analysis didn't go far enough. The experts claimed that the brown route was more dangerous than the blue route because it would not divert enough local traffic off the old highway. Because of this, the experts claimed there would be more accidents when you account for what happens on both the new and the old remaining highway, but what they didn't consider was the severity of the accidents.

While it may be true that the brown route would result in more total accidents, the majority of those would be of low fender-benders taking place on the old highway. It is also our opinion that for far too long now, the major decisions in Antigonish have been made behind closed doors by the powers that be. Not surprisingly, what they deemed to be in the best interests of the community also benefits existing local businesses and prevents competitors from getting a foothold in Antigonish. The red route maintained the status quo, thereby limiting opportunities for new businesses to locate.

Mr. MacDougall: The members of the Blue Route Realignment Committee wanted to make sure that the bypass decision would not be made in the same old way. We actively participated in the first public information session held, we challenged the Atlantic Expressway Committee in dozens of editorials, we met and corresponded with four successive Transportation Ministers, we conducted surveys, we held numerous meetings and conference calls, we attended a second public information session, we organized a public debate with hundreds in attendance and we launched a radio campaign. We worked tirelessly to ensure that the people in Antigonish town and county knew the facts.

In the end, common sense prevailed and the blue route was identified as the preferred option. But if the Blue Route Realignment Committee hadn't worked so hard to get the facts out to the community, we are certain that the red route would have been chosen in the same old way. So what now?

We should now worry about delay tactics that seek to maintain the status quo for as long as possible. We have already noticed the leadership vacuum in our community since Minister Ron Russell announced his government's decision to go with the blue route. None of our leaders, political or otherwise, have been pushing for construction to begin, at least publicly. Because of this lack of interest, the Antigonish Bypass has gone from being the province's No. 1 infrastructure priority to rarely being mentioned, and money that could have gone to Antigonish for the bypass was diverted to other highway projects with no apparent opposition from our local leaders.

So I caution the panel not to accept any reason for delay. Proponents of the red route predicted dire economic consequences should the blue route be chosen. Look around at what has happened since Minister Ron Russell identified the blue route as the preferred options. The dire economic predictions did not happen; in fact, the very opposite is true. The Antigonish area is undergoing the largest construction boom in recent history. This includes new business startups and expansion of existing operations. The economic development is occurring at such a fast pace that eh present Highway 104 has become not just dangerous, but rather an accident waiting to happen. The development in the Antigonish area demands that construction of the blue route begin as soon as possible. During the May 30, 1998 Transportation and Public Works open house, it was stated that the earliest possible start date was the year 2001. During the May 23, 2001 Transportation and Public Works open house, it was stated that the earliest possible start date was the spring of 2006, and lately, Transportation and Public Works information has stated 2008 as the earliest start date.

Over 5 years has passed since Minister Ron Russell's decision. The people have been and will continue to be killed, injured and maimed because the highway project is stalled. I respectfully insist that the panel not consider any request that will result in further delay. No further studies, no further meetings, no further lobbying. Let's get on with the task of twinning our highway and ensure that Antigonish becomes a safe driving destination and a safe place to live. Thank you.

Tony Blouin: Thank you, Mr. MacDougall. At this time, does anyone have any questions for Mr. MacDougall? No? Okay, thank you very much.

End Tape 1

Tony Blouin: Okay, yes please?

Marilyn Milner: I'm Marilyn Milner and I live on Cunningham Road. It used to be Church Street Extension, but it's now Cunningham Road. My question's this: this afternoon, you were talking about the span of the highway as it crosses over the South Side Harbor. Could you please go into a bit more detail for me on how it's going to span the West River on the Church Street Extension area, how big it's going to be? How are you going to manage it over the interval? We've lived there 20 years and we see that every spring when the ice, there's a right angle turn in the river there, when the ice jams there, it's always flooded, so there's going to be a constant pressure on whatever it is that you put up there. Also, we're very concerned about the natural habitat, and I realize that studies have been done on this, but for the eagles and the osprey and the other natural animals that live there, what kinds of considerations are you going to give to them?

Tony Blouin: I could ask the Department to respond, please?

Phil Corkum: Crossings such as both of the river crossings in this project are major crossings in themselves and require a lot of pre-engineering work before the design is actually decided on, so as far as details with respect to the structure, we don't have those details yet. They'll be part of the detailed design when the time comes to do the detailed design of the crossings. There is a floodplain there; our experience has been in similar crossings that floodplains are often spanned completely by a bridge. In some cases, it's deemed okay to put some fill out onto a floodplain, but to determine that, you need some fairly detailed studies as to flooding, ice movements and other considerations, so all these details would be part of the study that's required during the detailed design of the structure.

As with the South River crossing, there will also be a requirement from other agencies, navigable waters being one, a federal agency, and so there's quite a bit of work, I mean, the project is a complicated project in itself. When you deal with major river crossings like this, they in themselves are complicated projects, so there's a lot of work and a lot of detail yet to happen around these crossings. So I'm sorry I can't be more specific, but that's really all the information we have at this point.

Tony Blouin: Okay. Did you want to respond any further in regard to the second part of the question, which I think dealt with impacts on some of the natural wildlife, that sort of thing?

Robert Federico: There were a number of, during the vegetation study associated with the environmental assessment, there were a number of uncommon plant species and plant communities in the intervale habitat on the West River. There will be consideration to, in the bridge design, to try and attempt to minimize the disturbance of this particular habitat, which is considered valuable. Some of the things that will be taken into consideration will be, for example, I'll just quote a little bit from Section 5.7.4 of the environmental assessment document, that if the bridge abutments are placed on the banks of the river and the approaches to the bridge are constructed by infilling the intervale habitat on the east side of the river, the population of the coffee tinkers weed, which is an uncommon plant species, closest to the bridge will be lost. If the bridge abutments are located at the base of the slopes on either side of the river and the intervale habitat is left intact, it would be possible to save some of these populations. In general, construction activity will have to be monitored closely to ensure that the rich intervale habitat found under and adjacent to the bridge is disturbed as little as possible. Particular care would need to be taken during the

placement of the bridge piers. So in addition to the careful attention to the bridge design and the location of the piers, there is a commitment to undertake a habitat enhancement program to increase the abundance of this uncommon plant and other uncommon species at the site. The report goes on to describe what that habitat enhancement program would include, but some of the things would be, for example, where possible look to purchasing some of the land immediately north and south of the right of way, which would be restored and protected, and then planting some of the rare species in this location and there are several other things that are mentioned as sort of an attempt to kind of preserve these vegetative communities of interest in this area. So it's a combination of bridge design and replanting to try and protect that area.

Marilyn Milner: And wildlife?

Robert Federico: Well, this is with regard to the vegetation. With regard to the wildlife, we'll have to check into that, look further into that. Is there any particular species that you were interested in?

Marilyn Milner: Eagles, blue herons, and osprey. I'm very proud of (inaudible). One of the…

Tony Blouin: I'm sorry, they're not able to hear you on the recording, there.

Marilyn Milner: My question was, and what about the natural habitat, such as the eagle, the osprey and the heron there, because these are very prevalent in that area and things that come back, and certain species come back every year to this place, and well, they're quite a tourist attraction for no other reason, but certainly add to the beauty of the people who live around there and the residents of Antigonish.

Robert Federico: There was also a study of potential effects of the project on rare and sensitive bird species in the study area, and I don't believe that there were any adverse effects on those species that you mentioned. In fact, there weren't any real adverse effects on bird species of concern on the West River. There were mitigative measures that will be commitments related to protection of bird species such as not clearing or cutting vegetation within the breeding season, for example, and that's to comply with the Migratory Birds Protection Act, for example.

Tony Blouin: Okay, thanks. Any other questions? From panel members? No?

Bonnie Rankin: I did have one. I did have a question, this relates more to scheduling. I'll refer you to Page 106 of the EA report. I believe it's the first full paragraph on that page. It's in the section dealing with fish and fish habitat, and from my reading, the language of the paragraph seems to indicate that where scheduling permits, it seems to be that the construction scheduling is given priority, yet the scheduling is also indicated as a key mitigative measure to minimize impacts on fish and fish habitat, so I would like a little clarification on that?

Robert Federico: The window that is suggested for in-stream work, or the preferred window is, as mentioned in that section that you just referred to, approximately June 1 through Sept 30. That is the optimum, the preferred time to do in-stream work such as culvert installations. That's not always possible. That is the preferred time. If that's not possible, then sometimes it's necessary to do some additional, there is additional permitting work that takes place related to culvert installations, for example, and the level of, the type of regulatory application that's required, it can vary depending on the season of installation. So in general, there's a higher level of additional study or

justification that's required to support the regulatory application for a culvert installation, for example, if it's done outside of that time. So I'm not sure if that answers your question.

Bonnie Rankin: Yes, I think it does.

Robert Federico: So, you're better off doing it within that window, and the regulatory process is less severe, you might say, whereas if you did it outside of that window.

Bonnie Rankin: Okay.

Elizabeth Pugh: I think I would just like to add to that. Robert's absolutely correct. However, it's a little stronger than what, I think, Robert came across. The Department of Fisheries and Oceans, as well as the Department of Environment and Labor, are pretty adamant that culverts are only installed within that time period, and to get permission to go outside is getting more and more difficult. It's really only in extreme circumstances and we know that, and there's really no excuse not to be able to schedule properly. It's really more in cases where things happen, say in an existing road, if there's a failure or something in October, obviously you have to fix it in October or November, but it's definitely our preference, because it's easier and cheaper and it's regulatory preferences as well.

Tony Blouin: Okay, thank you. Um, I had one final question. In going through the report, I noted that in various places there are mentions of a number of plans or programs that are to be developed subsequent to the environmental assessment process, and I thought it would be useful just to note them for the record. I have a list that I will go through, and I guess my question in relation to that would be just to ask the Department if you're able to now, or in writing later, confirm if this is, in fact, the right list and if it is complete? So I'll just mention them in order as they appear throughout the report.

There's a well field contingency plan mentioned on Page 85. I'll just go through slowly so that you can make note of them. A wood turtle risk management plan, reference Page 122. Interval enhancement program, Page 166. Wetland compensation plan, Page 173. The Fraser House mitigation plan, Page 224. A spill contingency plan, Page 245. A preconstruction herpetile survey. Herpetiles are reptiles and amphibians. That's on Page 120. The rare plant habitat enhancement program, Page 160. The wetland monitoring program, Page 181. Preblast survey program, Page 265. The environmental compliance monitoring program, Page 266. Environmental effects monitoring program, Page 267. The public information program and creation of the community liaison committee on Page 271. Each of these may have other page references; those are the ones that I did note, though. So, yeah, if you want to respond, I don't know if you're able to confirm that at this point.

Robert Federico: There's just one point of clarification, perhaps, with regard to the Fraser House mitigation plan, Page 224, the statement is a mitigation plan will be developed if necessary, at the direction of the Nova Scotia Museum. So, I think the commitment is there, that as directed by the Museum, who would be the relevant regulator in this case, or an authority, that such a plan would be developed. Otherwise, it says, and it does go on to say that no recommendations related to the house have been proposed to date by the Nova Scotia Museum, but it could come from the work done on this report. That's not a hard commitment.

Tony Blouin: Okay, that's fine. But the commitment is to consult with the Nova Scotia Museum.

Robert Federico: Typically, the Museum responds to the archaeological report that's filed, that would have been filed as part of this. I think we need to go back and check.

Tony Blouin: But they would have the information.

Robert Federico: Yes.

Tony Blouin: Okay.

Robert Federico: Sorry, one more point of clarification. It seems that the intervale enhancement program, Page 166, and the rare plant enhancement, 160 is probably the same thing.

Tony Blouin: Oh, okay, that may be the case.

Robert Federico: I think so.

Tony Blouin: Did you want to respond any further to that list, or did you want to leave it for a written response?

Phil Corkum: Yes, Mr. Chairman, I think what we'd like to do is provide a written response to the panel.

Tony Blouin: That's fine, okay, thank you.

Any other questions, audience, anything to do with the project?

Yvonne Ailey: My name's Yvonne Ailey, and I as well live on the Church Street Extension – Cunningham Road section of this highway plan. You mentioned that the final detailed plans of the structures weren't finalized. We're talking about a possible start date of 2008. When do they finalize those plans, and do those detailed plans then go back to the environmental study to be approved? And also, just curious, what is the span of that bridge that crosses at that point?

Dwayne Cross: I'll answer the second half. We don't know what the span is yet, simply because we don't have the details that will have to be worked out, and again, that will depend on where the abutments are going to be, where the piers are going to be, if it's going to be a single span, if it's going to be 2 spans, 3 spans… those are really details around the detailed design of the structure that we simply don't know at this point, so we can't commit to anything at this point with respect to details of the structure.

The design typically, phase 1 of the project, actually, we're trying to get the whole project ready for 2008. Based on the information that we have now, we think that we can get it ready for 2008. However, that doesn't mean that the design of that particular structure will be ready for 2008. It means that some part of the project will be ready to begin construction that summer, if funding is available. Typically, these projects are, you may start one part of the project, for instance, at one end of the project and still be doing the detailed design on some other pieces such as structures, for instance. Things don't go, sometimes, as you would like, that you would have everything all designed before you start the beginning and have everything on a shelf to pull it off the shelf. It's hard to pin down a time as to when the design would be done. The situation we're in now is such that it's very seldom

that major designs like this are done years in advance of actual construction. You know, they're done maybe a year before they're constructed, that the detailed design would be done and then the bridge would be called the next year and built. So there's not, typically, when you're dealing with detailed designs, they're not done that far in advance of the actual construction.

Tony Blouin: And I guess I can respond to the second part of the question as to whether those designs would enter back into the Environmental Assessment process and the answer would be no. This process that we're engaged in now, the public hearings, is the final stage of the provincial assessment process. The panel's report will go to the Minister of Environment by August 6, is our deadline. The Minister then makes a decision based on that report and any other information that he wishes to consider. Once the project has been approved under Environmental Assessment, then that is the conclusion of that process. So anything that happens subsequently may still be subject to regulatory controls, approval processes that they would have to go through, but it does not come back to an Environmental Assessment process, no.

Bonnie Rankin: As the chair mentioned at the beginning of the session, we are undergoing a theoretical joint review with this with the federal government, and the federal process enters in now, so that we can really find if there is any significant adverse effects to the environment, or what we might coin as 'show-stoppers'. However, with bridges, we are subject to further approval under the federal government, the bridge structures will require Navigable Waters approval, they'll also require approval under the Department of Fisheries and Oceans, and they will also require provincial water approval. All 3 of those particular approvals do have to meet more stringent environmental review than what we need to undergo at this time, so while we don't enter back into the provincial Environmental Assessment process per se, there is more looking and more working with the regulatory agencies to make sure that the final designs are done in a way that minimizes any impacts on the environment. We're just confident at this stage that we can do it in a way that won't cause significant effects.

Tony Blouin: Okay, thank you. Anything further? Okay. At this point, the process does provide for the opportunity for the proponent to make a final summation and response to any issues that have arisen during the course of the hearings.

Phil Corkum: Mr. Chairman, I would like to make just a few comments, to make a few points in closing. Highway 104 from Addington Forks Road to Taylor road is one of the most deficient sections of 100-series highway in the province. Highway 104 is a tiny segment of the national highway system serving through traffic to and from Cape Breton, Newfoundland and the rest of North America. However, in terms of project delivery, it is a huge, important project for us.

The primary purpose of Highway 104 as part of the 100-series highway system is for safe, efficient mobility of people and goods over long distances. This project has been studied extensively by department staff and independent consultants to determine what we believe is the best alignment. We have had 3 public consultation and countless stakeholder meetings and conversations over the years. We expect this interaction with stakeholders to continue throughout the planning design and construction of the project.

The alignment is close enough to the existing Highway 104 to divert most of the high-speed through traffic away from the old highway onto the new highway, leaving the hold highway for slower-speed local traffic. The alignment is far enough away

from the existing Highway 104 to allow communities to develop and implement well thought out, strategic growth strategies. Numerous case studies have shown that communities adopting a positive approach to change, as well as strong leadership and a strategic growth strategy have been most successful in taking advantage of the opportunities presented by the construction of a major highway near their community. Case studies have also shown that the perceived impacts of a major highway project are often exaggerated and short-term in nature.

Phil Corkum: We are making every reasonable effort to minimize the environmental and socioeconomic impacts of this project, while at the same time balancing the need for public safety and physical responsibility. We take our responsibility very seriously when developing a project like this. We are very aware that people's lives will be impacted. We will continue to work with people in an effort to reach acceptance and understanding, if not agreement.

I want to thank Mr. Dunn, Mr. Chisholm, and Mr. MacDougall for their presentations, and everyone else who spoke. I want to thank our colleagues from Jacques Whitford, Lesley, Shannan and Robert, and I want to thank my colleagues from the Department, Elizabeth, Lester, and especially Dwayne and Mike for their efforts in the planning process. Thank you.

Tony Blouin: Thanks very much. Um, in conclusion then, I'll just make a few brief closing remarks. I would just remind all the participants that we have been keeping track of a list of undertakings. These are instances where the Department has undertaken to provide a response in writing to questions that have been asked, for which they have asked for the opportunity to take the questions away, respond in writing. The normal deadline for such responses is 7 days. However, in this particular instance, 7 days from today falls on a statutory holiday, so provincial regulation does provide for interpreting that sort of an instance to mean that the deadline will be the next working day, so that would be the following Monday. So a week from next Monday, I don't have the date of that day, July 4th, we think it is. Anyway, a week from next Monday would be the deadline for written responses to questions that have been asked, or for provision of documents that have been requested.

I had also made an undertaking to the proponent, on the first day of the hearings, I had gone through a long list of questions which all related to apparent commitments that were made or may have been made, in the report, and I had asked the Department to address each of those. They did some of them verbally, others they indicated that they would respond in writing, and I had undertaken to provide them a list of those instances where the verbal response covered the question and the ones that needed further written response, and so I will do that through Mr. Gordon, the administrator, and we will undertake to get that to you by Monday of next week. Responses to those, yes.

There is then another provision in the regulations for all of the participants to submit final closing argument within 14 days of the close of the hearing, so that would be 2 weeks from today. The closing argument should consist of your final statements and arguments in relation to matters or issues that have already been raised in the context of the hearings. It is not an opportunity to introduce new evidence, or in other words, to raise new issues or things that have not been dealt with under the hearings, but it does provide a chance for you to summarize your final arguments in relation to matters dealt with at the hearing, and that applies to any of the participants. You may do that within 14 days, and those submissions, if you make them, should go to Mr. Gordon.

Tony Blouin: Finally, I just wanted to thank all of the participants. From my point of view, there was a great deal of professionalism and courtesy shown, and that made my job very easy, so I just want to thank all of the participants for that. Thank you for your interest and for coming out and these hearings are adjourned.