

From: Shannon Hayden - MVLWB [shayden@mvlwb.com]
Sent: December-08-09 4:19 PM
To: 'Janna Ward'
Subject: FW: Nov 12 and 13th pdf files
Attachments: MVLWB-CITYOFY-NOV-12-09.pdf; MVLWB-TOWNOFHR-NOV-13-09.pdf

Hey Janna,

Can you please put the attachments on the registry, specifically the Hay River one please?!?!?!?

Thanks!

From: Brenda Backen [mailto:brenda@mvlwb.com]
Sent: Tuesday, November 17, 2009 9:29 AM
To: lcarter@mvlwb.com; 'Shannon Hayden - MVLWB'
Cc: 'Anne Umpleby'; permits@mvlwb.com
Subject: FW: Nov 12 and 13th pdf files

Hi Ladies,

I have forwarded this to permits as well!

Cheers!

Brenda Backen
Manager of Finance & Administration
Mackenzie Valley Land & Water Board
867-669-0506 – P
867-873-6610 – F
867-766-7452 – D

From: Wendy Warnock [mailto:warnockw@tscript.com]
Sent: November-15-09 8:46 PM
To: Brenda Backen
Subject: Nov 12 and 13th pdf files

Please note: I corrected 2 spellings in Nov 12 pdf file so replace your old one with this one.

Sorry for the trouble

Cheers!

Wendy Warnock, CEO
Digi-Tran Inc.
101 Royal Birch View NW
Calgary, Alberta T3G 5J9
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MACKENZIE VALLEY LAND AND WATER BOARD

TECHNICAL MEETING

TOWN OF HAY RIVER

MUNICIPAL LICENCE - MV2009L3-0005

Facilitator:

Shannon Hayden MVLWB

HELD AT:

Yellowknife, NT
November 13, 2009
Day 1 of 1

APPEARANCES

1
2
3 Shannon Hayden) MVLWB
4 Lynn Carter)
5 Anne Umpleby)
6
7 Kelly Schofield - Mayor) Town of Hay River
8 Terry Molenkamp)
9 Ron Kent)
10 Michael Richardson)
11
12 Robert Jenkins) INAC
13 Jeanne Arsenault)
14 Wayne Starling)
15
16 Mary Kelly) Environment Canada
17
18 Todd Paget) ENR
19 Wendy Bidwell)
20 Gerald Enns)
21
22 Frederick Beaulieu) Hay River Metis Council
23 George Lafferty)
24
25

	TABLE OF CONTENTS	
		Page No.
1		
2		
3	List of Commitments	4
4		
5	Opening Comments	6
6		
7	Presentation by Town of Hay River	
8	re Municipal Licence - MV2009L3-0005	10
9		
10	Question Period	
11	re: Solid Waste	20
12	re: Sewage Disposal	104
13	re: SNP	179
14	re: Management Plans	183
15	re: Recommended Studies	184
16		
17		
18		
19	Certificate of Transcript	193
20		
21		
22		
23		
24		
25		

1	COMMITMENTS		
2	NO.	DESCRIPTION	PAGE NO.
3	1	To use ENR's manifesting system in future	28
4	2	To demonstrate that the bio pad is actually	
5		being operated and designed with respect	
6		to how it was intended	39
7	3	To advise where leachate SNP site is	
8		located on the map	62
9	4	For the Board to accept the comments and	
10		consider requesting a revision for the	
11		O&M Plan as submitted in the Water	
12		Licence Application (Taken Under	
13		Consideration)	94
14	5	To indicate what the 31,000 cubic metres of	
15		sewage that goes to the lake represents and	
16		how it was achieved	104
17	6	To give clarification on the waste water	
18		annual volume usage of approximately	
19		600,000 cubic metres	105
20	7	To clarify whether or not the ditch running	
21		alongside the road by the sewage lagoon was	
22		moved to the other side of the road	108
23		(Satisfied on page 111)	
24			
25			

	COMMITMENTS (Con't)		
	NO.	DESCRIPTION	PAGE NO.
1			
2			
3	8	To confirm there was only one (1) day that	
4		included all the parameters requested in	
5		the water licence or is there additional	
6		information to review.	114
7	9	To map all the SNP locations	115
8	10	Regarding the disposal of sludge, to	
9		indicate if the Board has reviewed the	
10		method, if it is okay to apply sludge	
11		without testing it to the edge of the	
12		lagoon, or if that is something that is	
13		in discussion right now through this	
14		water licence Application	157
15	11	Robert Jenkins to provide the guidelines	
16		for spill contingency planning to the	
17		Town	184
18			
19			
20			
21			
22			
23			
24			
25			

1 --- Upon commencing at 9:03 a.m.

2

3 THE FACILITATOR: Okay. So I think
4 everybody's here. Thanks for coming and fill up every
5 chair. That's good.

6 My name is Shannon. I'm the RO on the
7 file for the Hay River water licence renewal. Just a
8 couple of things before we start. The washrooms and the
9 emergency exit are just out to the left. And this
10 meeting is being recorded, so if you want to speak or ask
11 questions, just use the mic and state your name before
12 you start, so that they can get it recorded.

13 So just an overview. This technical
14 session, the purpose is to talk about some of the
15 technical issues, as much as possible, in an attempt to
16 resolve any problems, comments, or concerns, prior to the
17 Hearing, and possibly shorten the length of the Hearing
18 if it goes ahead.

19 A little update on the file. I have
20 copies of the work plan up at the front there and I've
21 made a couple little changes. I don't even know if I
22 have one here in front of me.

23 The changes I made are highlighted.
24 Basically, Lynn and I both noticed that some of the dates
25 were pretty quick after Christmas, like pretty much the

1 Monday after the holidays, so we decided to give you a
2 few more days.

3 So intervention IRs, Information Requests,
4 if they're required, they're due now January 7th instead
5 of January 4th. I've extended the written interventions
6 until December 2nd. I think they were originally late
7 November.

8 And then everything after that January 7
9 date, the pre-hearing conference, Proponent's response,
10 and hearing presentations and intervention IRs, they're
11 all -- have been postponed about three (3) to four (4)
12 days, just to give everybody a little bit more time after
13 Christmas.

14 I'll e-mail a copy of this out after this
15 meeting, just in case anybody else had anything they
16 wanted to add.

17 So we'll carry out this technical meeting
18 today, and then on November -- or sorry, December 25th,
19 that's when the written interventions are due, before the
20 public hearing. The interventions are -- just -- we want
21 to make sure that you stress what recommendations that
22 you want to highlight, that go with your comments that
23 you send in.

24 After the interventions is the pre-hearing
25 conference. And the purpose of the pre-hearing

1 conference is to identify and discuss any preliminary or
2 legal issues, develop a list of issues that you intend to
3 address -- address at the public hearing, identify your
4 witness or representative, letting us know how much time
5 you think you're going to need for your presentation, and
6 other matters that might need clarification. And if the
7 hearing goes ahead, it's going to be January 26th and
8 27th in Hay River.

9 So I have an agenda that I provided today.
10 We'll start with the presentation from the Town of Hay
11 River, based on the Application they submitted. And then
12 we're going to kind of split it up into the solid waste
13 portion, the sewage portion, and then I'll give some time
14 to talk about plans and studies, probably associated with
15 the water licence right now.

16 I don't really know -- yesterday we did
17 the Yellowknife technical session, and we only went as
18 far as noon, so if things go by pretty quick, we'll just
19 move on in the agenda, we won't follow it too strictly.
20 So once the Applicant is finished with his presentation,
21 then we'll just open it up for questions based on those
22 topics, and that's it.

23 Did we want to go around the room and do
24 introductions? Start with Ron, maybe? Thanks.

25 MR. RON KENT: Yes, I'm Ron Kent. I'm

1 the environmental engineer from FSC Architects and
2 Engineers, and the consultant to the commun -- to the
3 Town of Hay River.

4 MR. MICHAEL RICHARDSON: Michael
5 Richardson, Town of Hay River, Director of Public Works.

6 MR. TODD PAGET: Todd Paget, Department
7 of Environment and Natural Resources, Environment
8 Division.

9 MS. WENDY BIDWELL: Wendy Bidwell, with
10 Environment and Natural Resources. I'm the Regional
11 Environmental Coordinator for the South Slave region.

12 Mr. GERALD ENNS: My name is Gerald Enns.
13 I'm the Hazardous Waste Specialist for the Department of
14 Environment and Natural Resources.

15 MS. MARY KELLY: I'm Mary Kelly, with
16 Environment Canada, Waste Water Researcher.

17 MR. KELLY SCHOFIELD: Kelly Schofield,
18 Town of Hay River, Mayor.

19 MS. TERRY MOLENKAMP: Terry Molenkamp,
20 Town of Hay River, Senior Administrative Officer.

21 MR. FREDERICK BEAULIEU: Fredrick
22 Beaulieu, Hay River Metis Council.

23 MR. GEORGE LAFFERTY: George Lafferty. I
24 sit on the IMA Environment Steering Committee, plus the
25 Vice President of the Hay River Metis Council.

1 MR. WAYNE STARLING: Wayne Starling, with
2 Indian & Northern Affairs, in Fort Smith.

3 MR. ROBERT JENKINS: Robert Jenkins, with
4 INAC Water Resources.

5 MS. JEANNE ARSENAULT: Jeanne Arsenault,
6 with INAC Water Resources.

7 MS. SHANNON HAYDEN: Shannon Hayden,
8 Mackenzie Valley Land and Water Board.

9 MS. ANNE UMPLEBY: Anne Umpleby,
10 Mackenzie Valley Land and Water Board.

11 MS. LYNN CARTER: Lynn Carter, Mackenzie
12 Valley Land and Water Board.

13

14 PRESENTATION BY THE TOWN OF HAY RIVER:

15 MR. RON KENT: Good morning, everybody.
16 This is Ron Kent, for the record here. We're going to go
17 ahead -- I'll go ahead with our presentation for the
18 Town, if I can make this thing work. Enter, there we go.

19 The Town of Hay River is on the south
20 shore of Great Slave Lake, at the mouth of the Hay River.
21 It's 200 kilometres south of Yellowknife and 134
22 kilometres from the Alberta border, just so everybody
23 knows where it is. There are three thousand eight
24 hundred and thirty-one (3,831) people as of 2008. And
25 the Department of -- NWT Bureau of Statistics says

1 there's a 1.2 percent growth rate between 1996 and 2006.

2 The Town is situated on the estuary of the
3 Hay River drainage basin. It's 160 metres above sea
4 level. It's fairly flat around there.

5 Vale Island has the airport and a lot of
6 the Town's earlier developed area is a delta structure.
7 The island is -- averages 3 metres or less above the
8 water level, sometimes less, usually in the spring, and
9 it's susceptible to flooding. There's ancient water
10 courses on the island and they become active channels
11 during floods.

12 The underlying bedrock is shale,
13 limestone, and dolomite. The surface material is a
14 result of glaciation, river development, and the
15 shrinking of the Great Slave Lake.

16 There's a hard till found at -- between 5
17 1/2 and 8 1/2 metres and were covered with sandy silty
18 gravel which is overlain again by water deposited slate,
19 clays, and silt, so it's a fluvial area. The surface
20 organic material has a -- is quite thin and only 0.6
21 metres.

22 The surface materials that are found
23 there, fine gravel, sand, and silt are typical of deltaic
24 environments and they're susceptible to extensive
25 erosion, so there's a little bit of erosion happening

1 there.

2 Hay River is within a discontinuous
3 permafrost zone. The permafrost is sporadic and may
4 range from zero to 9 metres in thickness, depending on
5 the organic cover and the location. Although there is
6 discontinuous permafrost, frost action is not generally a
7 problem on the higher well drained land where the --
8 where the new town is.

9 The surrounding boreal forest is treed
10 with jack pine, poplar, black spruce, and tamarack and
11 willow. There's muskeg and swamp that are indicative of
12 low lying land.

13 Hay River receives 34 centimetres of
14 precipitation annually, a hundred and sixty-five (165) of
15 that is snowfall. July, the main temperature is twenty
16 (20), the high, and low is ten (10). In January it's
17 minus twenty-one (21) and thirty (30) and the winds are
18 generally from the northwest.

19 The spring breakup is around June the 10th
20 and freeze-up is usually in the beginning of November.
21 And here's some pictures of the 2009 flooding that --
22 that happened at the -- the west channel bridge. And the
23 floodings are a result of ice damming at the Great Slave
24 Lake, and there's some pictures at the bottom left there
25 of ice damming.

1 This is an overall picture of the -- where
2 all the bits and pieces of infrastructure are located
3 that we're interesting in starting, at the top in the
4 north there with the water intake, the water treatment
5 plant and then the various pumping stations to collect
6 sewage. There's a water reservoir and pump house farther
7 along as part of the system. They don't use a system of
8 loops like we do in Yellowknife; it's a straight pipe
9 system.

10 The sewage is collected in five (5) lift
11 stations, and then pumped to the wetland, the sewa --
12 series of primary sewage lagoons, followed by a wetland
13 treatment area with a wetland discharge.

14 There's copies of this map here. I should
15 pass it around because we'll be referring to it
16 frequently along the way.

17

18 (BRIEF PAUSE)

19

20 MR. RON KENT: Okay. You probably notice
21 that I have titles, and they start one (1) and two (2).
22 So I've numbered them if there's more than one (1). It's
23 got nothing to do with the Number 1 water supply, it's
24 the list of the number of slides I have hear.

25 The source for potable water is the Great

1 Slave Lake and the intake is located near the mouth of
2 the Hay River but it's about 8 klicks out to where the
3 actual intake structure is. But -- however, it's still
4 influenced by the Hay River.

5 This is one of the maps that shows where
6 the water treatment plant is in relationship to the
7 community and referring back again to the -- that first
8 figure, the -- from UMA you can see where that is in
9 relationship to this one here. Stop me if I'm going too
10 fast, or if I say something that you don't understand.

11 Some of the information that was asked for
12 in the supplement -- in the supplementary questionnaire:
13 the operating capacity of the pumps, the fresh water
14 intake, the operating capacity of the pumps and the
15 intake screen. That information was provided to you in
16 the first submission.

17 Hay River's water sup -- supply is good
18 chemical quality. It's moderately hard, well buffered,
19 slightly alkaline and moderately aggressive, and it's
20 better than the guidelines for Canadian drinking water
21 guidelines, with the exception of the raw water turbidity
22 which fluctuates and is influenced, as I said, by the Hay
23 River itself. I have a picture a little later on; you'll
24 see how the Hay River will influence it.

25 Water is treated in a conventional

1 treatment plant, consisting of coagulation, and
2 flocculation, and settling, disinfected with chlorine,
3 and the water-treatment personnel are trained Class 2
4 operators. The water requirements to the Town will be
5 requesting to continue with the same amount of water that
6 they had in their -- have in their current licence, which
7 is 750,000 cubic metres a year, 90,000 cubic metres a
8 month. In 2008 they used, well, 450,000 cubic metres of
9 water. We have it right down to the last litre here.

10 Okay. So in sewage collection here we
11 have pipes -- a pipe sewage system connected to a system
12 of anaerobic lagoons. There are five (5) lift stations
13 which discharge sewage through the force mains directly
14 to the lagoon system for treatment. There's also trucked
15 sewage from residents who are along the highway there,
16 and it's -- it's collected as necessary and discharged
17 into this treatment process.

18 I don't know why it says three (3) cell
19 there, it should say four (4). The lift station
20 discharged sewage into a four (4) celled anaerobic lagoon
21 system. The combined area of the four (4) lagoons, it
22 should be, is -- is 1.5 square metre -- million square
23 metres.

24 And the effluent flows into a 6.5
25 kilometre drainage ditch, as you can see on your mapping

1 there, eventually discharging into the Great Slave Lake.
2 Lagoon sludge is removed as required and disposed in an
3 approved area adjacent to the lagoons. There was no
4 sludge removed in 2009. That was one (1) of the
5 questions that was brought forward by the Intervenors and
6 thought we'd answer it here.

7 So this is an earlier drawing of where the
8 lagoons are and showing their location and their
9 configuration in 2001. And here's the system now with
10 this interlocking four (4) cell system.

11 Yeah, okay. Now these cells are
12 interconnected so that one (1) or more can be taken out
13 of service, so that the lagoon sludge can be removed when
14 they become full.

15 The -- none of them are shut -- not -- not
16 all -- the whole system is not shut down if lagoon sludge
17 is being removed. Only one (1) lagoon, one (1) system,
18 one (1) of the lagoons is taken out of service at -- at a
19 time.

20 The lagoon sludge is put in that approved
21 sludge lagoon and the -- any liquid that comes from that
22 then goes directly to trea -- the wetland treatment area.
23 The system was originally constructed in late 1960s and
24 has been studied by Dr. Hartland-Rowe and published in
25 1974.

1 His report showed that the upland quality
2 from the wetland was no different from that of a control
3 site nearby, so it was as good as it was running -- what
4 was running off the land. Has -- it's become a model for
5 high quality sewage treatment throughout the north and
6 has led to the development of most of the wetlands that
7 are now used north of sixty (60), this was the first
8 model of them.

9 One (1) of the questions -- there's been a
10 question about sampling at the lagoon and sampling unit
11 processes, and I'll discuss that later when we get into
12 the sewage treatment itself, but the Town of Hay River
13 wants to extend an invitation to the northern working
14 group of Environment Canada, which is studying wetlands
15 across the North and lagoon systems, to study this
16 system.

17 It's been in continuous operation for
18 almost fifty (50) years and it offers a very unique and
19 mature site unlike any other in the North. So I think
20 it's worth -- I think it's worthwhile that Environment
21 Canada puts this one on their list.

22 The sewage production there was, right
23 down to the last litre again, 2 -- 610,000 cubic metres
24 pumped from the lift stations, of which approximately
25 31,000 cubic metres returned to the Great Slave Lake, so

1 the -- the rest of it has gone through evaporation
2 transpiration from the wetlands.

3 Solid waste is collected twice a week with
4 a packer truck. The bulky waste disposal is the
5 responsibility individual. Some -- well, they do have an
6 annual spring cleanup. The solid waste management site
7 is located about 8 klicks southeast of the Town on Highway
8 5. The -- it's compacted daily when possible.

9 The -- once a week the wastes are covered
10 with a clay material and a lot of these clay materials
11 are salvaged from their bio pad treatment process. There
12 is some -- there is partial fencing around the site,
13 access is controlled.

14 They have separate bulky waste storage
15 area used for the disposal of large items and metal
16 wastes. And the used oil that's generated in Town is
17 collected and used for heat by two (2) businesses. This
18 is a -- it's better on my screen here than it is on
19 yours, but anyway, it's a Google Earth picture of the
20 landfill site, and the sign there is -- shows that the
21 site's controlled. This is UMA's drawing of the landfill
22 site, which was also provided in the initial information.

23 There's some recycling in Town that do the
24 liquor bottle and -- and cans and things like that that
25 are through the ENR's program, and there's some home

1 composting by local residents who have gardens.

2 I guess we should start these ones around,
3 too, then, Michael.

4 There is a -- there was quite a few
5 comments from reviewers on the state of the current
6 landfill site and on things that they would like to see
7 done there. So recently the Town -- or the Town has put
8 out an RFP and will be awarding a contract by December of
9 this year to study the current site, its operation, and
10 recommend methods to extend its life.

11 The Town has taken notice of the various
12 comments from the reviewers and will address those as
13 part of the study. The Town expects this final report by
14 March the 31st. And the Town thanks the reviewers for
15 their comments, and they'll be -- as I say, they'll be
16 addressed further in the -- in -- in that report.

17 So the bio treatment pad, we have pictures
18 of it but there are questions. These are, again,
19 questions that were asked by reviewers. How much soil
20 was treated and removed in the MSW site? And we have it
21 down to the last gram there, it looks like, 1,300 tonnes.

22 How much contaminant soil was accepted for
23 treatment in 2008? And it was 97 tonnes. How was
24 leachate dealt with in 2008? Now the contract reports
25 that no leachate was collected in the sump during that

1 period.

2 And what are the acceptance and rejection
3 standards for soil and water there? And the CCME tier 1
4 for the commercial sites and GNWT requirements for BTEX
5 and heavy metals are the standards that are used.

6 So this is the one that you just got
7 passed around here. It shows the pad itself. It's lined
8 with clay at the bottom there. This is a plan view of
9 it, a profile view of it, showing the sump. This one
10 wasn't passed around, but it's -- but it is in the -- in
11 the information that was provided to you in the
12 Application. And this is the area showing where the sump
13 is.

14 One (1) of the comments was that it's --
15 there's no as-built. The proposed Hay River bio pad was
16 stamped by the -- an engineer, but the as-built was not
17 provided, so the Town will be dealing with that in the
18 next submission. And that's it.

19 So I'm pleased to answer any questions, or
20 at least try to, for -- on this presentation.

21

22 QUESTION PERIOD RE SOLID WASTE:

23 THE FACILITATOR: Okay. We can just open
24 it up to anybody who wants questions, and we'll start
25 with the solid waste disposal discussion.

1 MR. RON KENT: Oh, we're going to do it
2 that way? All right.

3

4 (BRIEF PAUSE)

5

6 MR. GERALD ENNS: It's Gerald, from ENR.
7 We're going right into the discussion about the solid
8 waste facility? I guess just one (1) question about the
9 presentation, the drawing here, Ron?

10 MR. RON KENT: Yeah.

11 MR. GERALD ENNS: This one (1)?

12 MR. RON KENT: Yes.

13 MR. GERALD ENNS: This is not the as-
14 built drawing?

15 MR. RON KENT: No.

16 MR. GERALD ENNS: Okay, so where did this
17 drawing come from?

18 MR. RON KENT: That was the proposed
19 drawing that was used for construction.

20 MR. GERALD ENNS: Okay. And so the --
21 the treatment pad has changed over time?

22 MR. RON KENT: No. An as-built was just
23 not prepared.

24 MR. GERALD ENNS: Okay.

25 MR. RON KENT: I mean, it might be --

1 is registered as a receiver for hydrocarbon contaminated
2 soils, and that CCS Midstream (phonetic) is the
3 contractor on site, operating the treatment pad.

4 Are they still retained by the Town to
5 operate the treatment pad?

6 MR. MICHAEL RICHARDSON: Yes, they are
7 the contractor for the pad.

8 MR. GERALD INNS: Okay. And they test
9 the soils to meet CCME criteria before they're deposited,
10 or used as cover?

11 MR. MICHAEL RICHARDSON: Yeah, we have
12 the -- justification is provided in terms of analysis
13 before any soil is removed from the bio pad.

14 MR. GERALD ENNS: Okay. One (1) of the
15 things we've noted is that we also keep a -- a database
16 of all the movements, or the consignments of hazardous
17 waste in the NWT. And one (1) example would be in the
18 Town of River -- Hay River, there's also another
19 treatment pad, Carter's (phonetic) Treatment Pad, and
20 they track the movement on federally produced movement
21 documents.

22 In Yellowknife, all the soil going into
23 the treatment pad at the City of Yellowknife is also
24 tracked on movement documents. And it basically -- we
25 track it up and to -- in practice we've been tracking it

1 up and to the point where it gets to the receiving
2 facility, especially in the case of Yellowknife. And at
3 that point, the treatment is also carried out by a
4 contractor, and that is scoped under their water licence.

5 What we don't have with the Town of Hay
6 River is a record of the soil coming into the -- into the
7 facility. We have -- I checked the database yesterday,
8 and we have one (1) consignment of contaminated soil.

9 So, in other words, CCS tracks the
10 movement also. They have a fairly rigorous acceptance
11 protocol, which is good. But the contaminated soils that
12 they receive are not -- they don't necessarily require a
13 movement document. They're used to operating in Alberta
14 under a different regulatory system probably, is what I
15 suspect.

16 However, the GNWT -- or we feel that these
17 movement documents are beneficial to communities. They
18 are essentially a chain of custody that -- it's a legal
19 form, and it explains that contaminated soils came from
20 either Person A, or Company A, and on this date, 'X'
21 amount of soils were brought to the receiving facility.

22 And then on that form it also explains who
23 carried it and, as well, the receiver -- in this case the
24 Town of Hay River is a registered receiver -- signs off
25 and says, Yes, we've accepted the contaminated soil. So

1 it's a clear chain of custody that says the Town of Hay
2 River has accepted the liabilities associated with
3 contaminated soil.

4 And I guess to -- my final question would
5 be will the Town of Hay River utilize federally produced
6 movement documents for collecting hydrocarbon
7 contaminated soil, or has it been considered?

8 MR. RON KENT: Gerald, it's Ron Kent
9 here.

10 The -- the Town does have a movement
11 system. They -- they have a -- under their water licence
12 they're required to track and count the amount that comes
13 in the location in -- that is in the -- where it is in
14 the treatment pad, and then make sure that the -- it
15 meets the quality standards before it's removed. And any
16 leachate is also treated.

17 So they -- they don't use your system.
18 They have their own paper system. That information is
19 available to you. I can -- I've got it on here and I can
20 give it -- and I can -- when I get back to the office
21 I'll email it to you, so you can see what's been tracked
22 and moved for the last little while. The --

23 MR. GERALD ENNS: Mm-hm.

24 MR. RON KENT: -- and the -- and the --
25 this -- as far as using the system I have a question for.

1 How easy it is to get the TDG (phonetic) generator
2 numbers and all that sort of stuff for all of this? It's
3 easy in Town here 'cause you're here, but is it going to
4 be as easy in Hay River for them to do that using a
5 similar system?

6 MR. GERALD ENNS: I believe so. It
7 happens here in Yellowknife. It happens in Inuvik.

8 MR. RON KENT: Okay.

9 MR. GERALD ENNS: For example, if a
10 homeowner has a spill or a business has a spill, they
11 call in and say, "We have X amount of contaminated soils
12 and it has to the Hay River dump."

13 Registering the generator is fairly
14 straightforward. It's a phone call. It requires taking
15 a name and an address, and that's all there is to it.
16 And we provide moving documents at no charge.

17 MR. RON KENT: Okay. Well, then I'm sure
18 that the Town can comply with that fairly straightforward
19 piece of -- bit of paperwork then.

20 MR. TODD PAGET: Todd Paget here. If I
21 may? Is the Town registered right now?

22 MR. GERALD ENNS: Oh, yeah. The Town, we
23 registered the Town back in 1994 as a generator, and at
24 that point it was for the storage of dangerous goods, and
25 we updated that registration when the treatment pad was

1 developed.

2 And I believe Harvey Galka (phonetic) at
3 the time made a presentation to say that this was a good
4 thing, and we registered them accordingly. So the Town
5 of Hay River is registered as a receiver.

6 MR. TODD PAGET: Todd Paget here. If I
7 may just before you cut in. I guess, just to cut to the
8 chase really, the main point, I guess, is the Town is
9 registered as a generator/receiver and we're not
10 receiving any documentation through that, so there is no
11 record of that accountability that's, I guess, on our
12 files.

13 But if there is a record within the Town
14 itself then that would be very useful to going back and
15 providing some diligence with respect to that. And, of
16 course, we would hope that we could follow through with
17 more official paperwork in the future.

18 MR. RON KENT: Yes. The -- the Town is
19 staffing up now and they now have a Director of Public
20 Works. They were missing one for quite a bit of time.
21 So I'm sure some of the paperwork got left behind as some
22 of the -- as the -- as the work commenced.

23 So now that Michael is there it shouldn't
24 be too difficult to keep up with the -- keep up with the
25 necessary paperwork. And as I said, I do have a copy of

1 the information that was provided to me for this, and I
2 will send it to you guys. Gerald, I'll send it to you
3 and -- and you'll have it for your records.

4 MR. GERALD ENNS: Yeah. Thank you. And,
5 yeah, I think I have -- I have some -- I have contacted
6 CCS directly myself and so I do have some, but it would
7 be good to see where it's come from. Especially straight
8 from the Town, that would be --

9 MR. RON KENT: Yeah. Okay.

10 MR. GERALD ENNS: -- the best.

11 MR. TODD PAGET: So -- Todd here -- just
12 to clarify then, are we asking for the commitment then
13 for the Town to use our manifesting system in the future
14 for --

15 MR. RON KENT: Yeah.

16 MR. TODD PAGET: -- soils just to be
17 clear?

18 MR. RON KENT: Yeah.

19

20 --- COMMITMENT NO. 1: To use ENR's manifesting
21 system in future

22

23 MR. WAYNE STARLING: Wayne Starling from
24 INAC. If I could just comment, as well, on that. There
25 is this whole process that GNWT has for licensing and

1 tracking this material.

2 And I -- I wonder why you don't do that
3 under separate cover as opposed to including it in the
4 water licence where clearly the transportation and -- and
5 movement and that sort of thing has very little or
6 nothing to do with water that I -- I can understand?

7 MR. TODD PAGET: Todd Paget here. If I
8 may help with that?

9 There is no licensing. There are Federal
10 transportation dangerous good manifests that are used
11 under federal legislation. It's simply to track
12 hazardous materials that are moving to ensure that it's
13 appropriately being managed and that the risks associated
14 with that are acknowledged.

15 If there is hazardous materials, for
16 example, that are going into a solid waste landfill, it
17 seems reasonable to expect that the usefulness of these
18 documents would be well-founded for everybody to ensure
19 that if those materials are going into a solid waste
20 facility, there's this accountability for what's going in
21 versus what's going out.

22 If those materials were to go in and they
23 were not to come out, then, clearly, it would be a
24 concern for potential water contamination in the future
25 in that facility. So the usefulness of them I think is

1 pretty clear in that regard.

2 With respect to just simply the licensing
3 of it, there is no licensing, per se. It's just simply a
4 manifesting system that's required under the federal
5 legislation that ENR has responsibility for
6 administering.

7 MR. WAYNE STARLING: Wayne Starling
8 again. And that's all well, except that I believe that
9 the water licence should deal with water related
10 contaminants that the Town accepts under their waste
11 facilities.

12 And once it is received there, I -- I
13 agree that there should be accountability for that
14 material. I'm just wondering how far it goes in terms of
15 the paper exercise and the tracking and the permitting
16 and all that, being that it's done under a separate
17 jurisdiction. Thank you.

18 MR. TODD PAGET: Again, it's not a
19 separate jurisdiction. It's just a accountability
20 process on federal manifest for tracking the movements of
21 materials. The issue specifically, I guess, if it's in
22 regard to who's controlling hazardous waste at the
23 landfills, I think, you know, clearly of the interest of
24 this group, it's within the water licence requirements,
25 it's within the scoping of the water licence

1 requirements. It's not a separate jurisdiction.

2 I think we're just talking devil in
3 details here perhaps maybe just with the accountability
4 of the movement of the materials, and we wouldn't wish to
5 bog down the process here with that.

6 It's just simply an accountability that
7 allows all stakeholders to be aware of the amount of
8 materials going in and out, which I think is a useful
9 component of the overarching hazardous waste management
10 jurisdiction that the Board has at the landfill.

11 MR. WAYNE STARLING: Well, I guess we can
12 agree to disagree on that. But, again, the legislation
13 we're working under is the Northwest Territories Waters
14 Act, and there's an awful lot of other legislation that
15 is part and parcel to that. But when we reach very far,
16 there's a lot of other components that come into it.

17 And I think we -- I'm just saying we
18 should be careful in how far we go with the requirements
19 under the water licence for the Town. I -- I agree with
20 you that this information is important and it's useful to
21 your department, but under the auspices of which
22 legislation and -- and what umbrella it should be
23 collected may be something for debate. Thank you.

24 MR. TODD PAGET: Thank you. Yeah and,
25 again, just to clarify, nobody is here to challenge or to

1 demonstrate any one (1) jurisdiction over another, just
2 simply to -- if the commitment is to, from the Town, to
3 facilitate the recording on manifest documents of the
4 hazardous wastes going in and out of the facility, that
5 fulfills some of our concerns with respect to
6 contamination from the site, which I think pretty clearly
7 would fulfill the concerns of a lot of people, including
8 the Town, with respect to accountability and accounting
9 for contamination potentially going in and out of the
10 site, which is in the best interests of everybody here
11 and is, I think, in a high level jurisdiction and
12 understanding of the Board and the licensing process.

13 So not to bog it down, we don't want to
14 talk about whose jurisdiction is whose. It's just simply
15 a point of operation and conduct, which I think goes a
16 long ways to helping to solve potentially some concerns
17 along those materials being handled.

18 MS. TERRY MOLENKAMP: Wayne Starling
19 covered what I had to say about the tracking of the waste
20 in and out. I do believe that it is important, but if
21 it's not part of the licensing process then I was
22 wondering why that's -- that's being addressed here.

23 MR. TODD PAGET: I don't want to confuse
24 anybody, so just to verify again, the specific discussion
25 we talked about here was in respect to hazardous waste

1 going in and out of the site.

2 I'm not sure about tracking in respect to
3 the water licence, but I -- I'm pretty sure there are
4 considerations within the Applications and the water
5 licensing for an accountability of the amount material
6 going in and out of the site.

7 MR. GEORGE LAFFERTY: George Lafferty,
8 Hay River Metis Council. I've got a couple of questions.

9 As a receiver for the bio pad, where does
10 the material come from? Is it territorial wide or -- or
11 is it just the surrounding area?

12 MR. RON KENT: It's -- it's just local
13 material that's collected that's within, you know,
14 reasonable driving distance.

15 MR. GEORGE LAFFERTY: Okay. Why I'm
16 saying that was, a few years back, when I was monitoring
17 the pad, and where the material was coming -- coming
18 from, there was stuff from Tuktoyaktuk in crates that
19 come on the barge and were stockpiled at the -- at the
20 area.

21 MR. RON KENT: It's Ron here. That was
22 part of the DEW cleanup, and they brought stuff and they
23 marshalled it there, and then it was shipped south from
24 that point, so it was just a marshalling point because it
25 came down on the barges.

1 MR. GEORGE LAFFERTY: Okay.

2 MR. RON KENT: And then they would --
3 then they trucked it out of there since then.

4 MR. GEORGE LAFFERTY: And who -- who
5 monitors the bio pad if it's, you know, overfilled or --
6 because, at one (1) time, I think it was three (3) or
7 four (4) years ago, I went over there, like it was in the
8 spring, and they had the material right over the berm and
9 was thawing at that time.

10 And then the spring runoff, it runs right
11 into the river system, the water system there. So, you
12 know, who monitors this? And, you know, I brought it up,
13 and they said it was a lack of communication with, you
14 know, whoever, I don't know, but, you know, that was a
15 concern for us.

16 MR. RON KENT: Well, it's -- it's
17 operated by the contractor, and then the Town engineer
18 monitors the -- and -- and Town staff monitor the
19 operation of it routinely if there's an issue there. If
20 there was an issue there before, there won't be an issue
21 there now because they're -- they're -- as I say, they're
22 staffed up now and they'll be able to look after it
23 better.

24 And also, one (1) more thing is that if
25 there's a whole, the -- this -- it's -- this pad is

1 designed for a certain amount of soil. And then it takes
2 three (3), four (4) years of -- of management there for
3 that soil to get to a quality that it can be reused for
4 cover material, which is primarily what it's being used
5 for right at the moment.

6 If they have a rash of spills like we've
7 had in the last few years up here, they're going to end
8 up with more soil in there than necessarily it's designed
9 for. In that case, what they'll do is you'll build it up
10 higher, and it takes longer, and it's going to be above
11 the berms but not necessarily running over them or
12 becoming a problem.

13 It becomes then a treatment, a management
14 issue in place. So deal with Michael on that in the
15 future, and there shouldn't be a problem there.

16 MR. GEORGE LAFFERTY: Okay, thanks.

17 MS. MARY KELLY: This is Mary -- Mary
18 Kelly.

19 I was wondering, what are the steps for
20 assessing that the bio pile is ready to be used as cover?

21 MR. RON KENT: It's Ron here.

22 The -- the area that is -- as I say, the -
23 - each load that goes in there comes from a particular
24 source. So let's say ESSO had a spill, so all that
25 material is located in a specific mapped location within

1 the bio pad.

2 It's managed over a period of time. And
3 after -- then they follow the GNWT and Alberta guidelines
4 for sampling. Material is sampled. It's checked against
5 the CCME tier 1 requirements. If it meets them, then
6 it's being -- they can remove it and use it for cover.
7 If it doesn't, treatment continues.

8 MS. MARY KELLY: Okay, thank you.

9 MR. GEORGE LAFFERTY: George Lafferty
10 again.

11 So how long does it take before you can
12 reuse this material because I know you got to turn it and
13 add whatever. And if you burn it, you got to burn it at
14 1,400 degrees before it can be used again, and with added
15 material.

16 MR. RON KENT: Yeah. The -- these bio
17 piles are -- are -- well, I won't go into the mechanisms,
18 but it can take somewhere between three (3) and five (5)
19 years for it to -- for each pile of soil to be treated.
20 We were able to treat a major spill here in Town in -- in
21 one (1) I constructed in -- in three (3) summers, so --
22 and that was on quite a bit of dirt in that one.

23 And in that -- in that case, we only had a
24 small area to build in. I ended up with piles that were
25 over 3 metres high instead of 1 metre high like you'd

1 like to design it at, and we were still able to, by
2 turning it, knock it down to commercial values, which is
3 what the tier 1 requirements are for the Town, in three
4 (3) years.

5 So it'll take quite a significant amount
6 of fuel to -- to get it to go much past that, but I'm --
7 I'm going to say three (3) to five (5) years roughly of --
8 - of treatment.

9 MR. TODD PAGET: Todd Paget here.

10 Actually, if I may ask a follow-up
11 question, in respect to the -- the bio pad design. It
12 was mentioned that there is going to be a further study
13 done, a report, RFP out by the Town to look at the state
14 of the site and operations, et cetera.

15 Would it be reasonable to ask if it's
16 being considered to see if the as-builts are within a
17 certain degree of accuracy, or at least -- maybe not
18 accuracy is the best term, but to -- to demonstrate that
19 the -- the bio pad is actually being operated and
20 designed with respect to how it was intended?

21 MR. RON KENT: The Town will be -- this --
22 - this summer they're -- this winter they're doing this
23 study, planning study. It's a desktop study. They're
24 required under the water licence to provide as-builts,
25 and they haven't provided an as-built yet.

1 sorry. All we can go is with the contractor's report,
2 that there was no leachate collected. So...

3 MR. ROBERT JENKINS: This is Robert
4 Jenkins again.

5 So can you describe the collection system
6 for the leachate?

7 MR. RON KENT: You can see there's a --
8 on this sketch that's up on the -- there's a cell where
9 the leachate's collected. Generally the leachate would
10 be allowed to evaporate from there. If the sump becomes
11 full, then what the contractor can do is pump it back up
12 on top of the -- on top of the pile again, and have it go
13 through it again, which it'll promote more evaporation
14 and also water the bugs that are in there that are
15 chewing on this stuff. So it doesn't get disposed of
16 anywhere, it just cycles around and around.

17 The climate is such that the evaporation
18 exceeds precipitation, so it's easy to manage that way.

19 MR. ROBERT JENKINS: So -- it's Robert
20 Jenkins again.

21 So just a follow-up question then, so was
22 there any leachate observed in the sump over the year and
23 it just had -- they didn't report it because they didn't
24 have to actually pump it back up, or just your report
25 just isn't...

1 MR. RON KENT: I -- I can't answer that.
2 But I can tell you that we have -- and I'll provide it to
3 everybody here, I'll -- I'll send the results that we
4 have to Shannon, and she can send it out to the group.
5 There are BTEX results for the -- for the leachate from
6 previous years. So it was -- there was -- observed and
7 it was tested in previous years.

8 My information that I have is that there
9 was none observed or collected in 2008.

10 MR. ROBERT JENKINS: Thank you.

11 MR. WAYNE STARLING: Wayne Starling,
12 again, from INAC, again.

13 I can help answer that because I have been
14 at the site and made observations, and, yes, there was
15 leachate collected. I believe what probably is reported
16 is that there wasn't any leachate pumped or removed from
17 the facility, but the sump in the northwest corner does
18 almost always, since the -- the facility was built, has
19 always had some -- some water in it. So, yes, it was
20 wet.

21 MS. MARY KELLY: Mary Kelly. Just some
22 clarification.

23 This leachate, is it tested before it's
24 reapplied to the pile? Is it supposed to be, not has it
25 been?

1 MR. WAYNE STARLING: Wayne Starling. Not
2 to my knowledge. I'm not aware of that.

3 MS. MARY KELLY: So it's not necessary to
4 -- to test the leachate before it's reapplied?

5 MR. WAYNE STARLING: Not that I'm aware
6 of.

7 MS. MARY KELLY: Okay.

8 MR. WAYNE STARLING: But just in follow-
9 up to that, if it's hydrocarbon contamination it -- it's
10 visible. So it -- it's -- it's generally easier to see
11 it than it is to test for it. So that -- depending on
12 where they pumped it from and the depth of the water
13 column would change things as well.

14 MS. MARY KELLY: Right. I guess a
15 concern that Environment Canada has is that if the
16 quality of that water is such that it's -- it's toxic or
17 that it could deter the bio remediation process then that
18 is a problem. And if there's no testing then we don't
19 know whether it's of that nature.

20 MR. WAYNE STARLING: Wayne Starling
21 again.

22 I -- I can't answer completely on behalf
23 of the Town, but you're right, if this moisture was
24 heavily laden in hydrocarbons it would be
25 counterproductive to put it back on the bio pile and --

1 and have to retreat that, too.

2 The bottom line is the soil has to meet
3 the criteria before it's -- be able to be reused and
4 wouldn't make much sense to contaminate it further and
5 then have to treat it further, but you're right.

6 MR. TODD PAGET: Todd Paget here. And
7 just, yeah, to maybe help out, too, I guess.

8 It's in the best interest, I suppose, of
9 the Town and the operators to understand, as well, that
10 if it's better understood the efficiencies of the system
11 and how well it's working, too, you can, I guess, preempt
12 certain operating issues that can really help out to
13 speed up the process and make it more efficient, and
14 that's one (1) example.

15 It's possible, of course, that reapplying
16 the leachate will actually apply more persistent
17 organics, et cetera, that actually resister bio
18 remediation and that would slow down your bio remediation
19 process, which would have a -- an undesirable impact of
20 making it less efficient and -- and would actually cause
21 operational problems.

22 Also, something that might be worth
23 considering, as well, is tracking each year the amount of
24 leachate that's collected that comes from the bio pile
25 and comparing it to previous years, and also comparing it

1 to the amount of material that goes in there each year to
2 determine, you know, the trends that are coming from it,
3 and to see -- well, there's a few different valuable
4 pieces of information you can get that.

5 You could figure out your efficiencies.
6 You could find out if there's alternative forms of
7 contamination in there. You could determine whether the
8 leachate itself maybe is getting offsite or there is
9 alternate sources of liquid getting into the pond or
10 leachate that shouldn't be there -- or, excuse me, into
11 the bio pile that shouldn't be there.

12 So I -- I guess the point I'm making is
13 just that it's in the best interests of -- of the
14 community and the operators and contractors to -- to
15 really have a good handle on the amount of information
16 that you can take from that so that each subsequent year
17 your analysis will be a lot easier and it'll actually
18 reduce a lot of the operating costs subsequently, as
19 well, down the line, which is, of course, I'm sure in the
20 best interests of the Town.

21

22 (BRIEF PAUSE)

23

24 MR. GERALD ENNS: It's Gerald from ENR
25 here. Wayne, about -- actually the initial question

1 earlier about sort of how far does ENR's jurisdiction
2 with respect to haz-waste impact a water licence earlier
3 on.

4 Maybe just for -- I'd just like to say
5 something for clarification if it isn't already clear.
6 With respect to the Hay River disposal site and
7 contaminated soil, ENR will track the movement up and to
8 the point it gets to their receiving facility. And at
9 that point, for example, the contamination is within the
10 treatment pad. The criteria for treating the soil for
11 cover material is then covered under INAC or the Water
12 Board's water licence.

13 So in other words, GNW's (sic)
14 jurisdiction would go as far as the soil getting into the
15 treatment pad, and then once it's there the remediation
16 and the testing is carried on under the juris -- under
17 the juris -- jurisdiction of its water licence.

18 MR. TODD PAGET: Todd here again, too.
19 Maybe just to -- to help with that too, to offer -- with
20 respect to this idea, just to clarify so folks have the
21 right idea.

22 I mean, the -- the real point here, I
23 guess, is to make sure that everybody has the same
24 information and, you know, that regulators in the Town
25 are aware of what's occurring on the site so they can

1 better manage the site. And -- and that's better for
2 everybody, and it's going to reduce costs.

3 The manifesting, not to get bogged down,
4 is a real useful tool, with respect to not only being in
5 compliance of course with the overall water licence, but
6 for the Town, as well, to be able to know and be able to
7 track how much material is going in and out of the site,
8 so they can actually determine if the processes are
9 working according to plan or not.

10 If there is material that shouldn't be
11 going in there you can find out because it's not being
12 manifested properly. That could be bringing undue
13 liabilities to the Town. That could increase your
14 operating costs, which have not been factored into the
15 yearly budget. So there's many ways to skin the cat, so
16 to speak, to use this information to your advantage.

17 And it's not just -- I don't want people
18 to think it's an onerous idea, with respect to tracking
19 this information for the sake of meeting some regulatory
20 requirement that somebody might think is not required. I
21 mean, there's a real value to that information.

22 And as we see here, I think it ties right
23 into the bio pad itself and it demonstrates that there
24 are ways to -- to more accurately determine what's going
25 on at site and improve operation maintenance

1 requirements, which is also a plus for hiring contractors
2 and -- and monitoring their performance and determining
3 what is appropriate cost for fees, et cetera, as well.
4 So it overall helps to tie together the operation and
5 maintenance requirements and cost in a much tighter
6 manner, which gives a -- much more flexibility and
7 control for the Town on the facility.

8 MR. FREDERICK BEAULIEU: Frederick
9 Beaulieu here, Metis Council.

10 When you said the -- the waste coming in,
11 to me it seems like you said that the volume of the waste
12 coming in is higher than -- than that could be treated.

13 Is that what you're saying?

14 MR. TODD PAGET: Are you speaking to me?
15 Sorry. Todd -- Todd here.

16 No. No, not at all. No. I'm not sure
17 what maybe I said that might have triggered that, but
18 alls I'm saying is that the -- the amounts and volumes
19 that are going in and out of the Town can be tracked with
20 the manifests. Whether or not it's above or beyond
21 whatever you wish it to be would be determined based on
22 your analysis of -- of what you find out, I guess, at the
23 end of the day, right?

24 MR. FREDERICK BEAULIEU: Right.

25 MR. TODD PAGET: So ultimately, whether

1 it's reporting to the Board, for example, with respect to
2 the water licence requirement or that it's useful to the
3 Town to be able to determine what's going on onsite, I --
4 I think that would be the point.

5 MR. FREDERICK BEAULIEU: Thank you. I
6 got it now.

7 MR. ROBERT JENKINS: It's Robert Jenkins,
8 with INAC.

9 Yeah. I mean, talking a lot about
10 requirements for the Town. I mean, let's -- let's try to
11 make it a little clear here for people.

12 You know, there's a water licence, there's
13 requirements for the GNWT. We're not saying that in a
14 water licence there's an annual report. Annual report
15 asks for a lot of general things that go on at the
16 landfill and at the sewage treatment facility; the amount
17 of waste, you know different things like that. So there
18 is a requirement in the water licence.

19 What we're trying to say, and I think what
20 -- what Wayne is trying to say is that there can't be a
21 requirement in a water licence to provide manifests to
22 the GNWT. That's outside the jurisdiction of the Board,
23 to start directing someone to provide things to someone
24 else.

25 So let me finish, Todd. I mean, I think

1 nobody's arguing over that --

2 MR. TODD PAGET: No -- nobody --

3 MR. ROBERT JENKINS: -- right? So --

4 MR. TODD PAGET: I don't think anybody's
5 mentioned that, so that would not be --

6 MR. ROBERT JENKINS: But I -- I think
7 we're getting confused here on what -- what we're asking
8 the Board to consider here. And so there's -- you know,
9 I'm confused. And -- and so what -- I guess what I'm
10 trying to say is that there's a line. Things that get
11 transported around the Territory, that's not something
12 that -- you know, if it leaves the site, then, yeah, the
13 Town of Hay River has to provide a new manifest which
14 says where it's going.

15 But there doesn't need to be a line in the
16 water licence which says, if something leaves the Town of
17 Hay River, the Town is required, under their water
18 licence, to provide you a manifest. I guess, that's what
19 we're trying to --

20 MR. TODD PAGET: Oh, yeah, no problem,
21 Rob. Todd here.

22 And just to clarify, we understand that
23 this is a technical session with Intervenors and the Town
24 to work out some of these issues so that they're not
25 going to hashed up at the Hearing. We would not -- and I

1 wouldn't suggest, hopefully, that anybody think that we
2 are suggesting that the water licence has a term or
3 condition that says, "though shall manifest." All we're
4 saying is part of the intervention concerns that have
5 come up by variable Intervenors can be appeased, probably
6 by the Town committing to use the Federal manifest
7 process for hazardous materials so that there's an
8 accountability to itself for the control of those
9 materials going in and out.

10 I'm not saying -- and, again, just to
11 reiterate, nobody here, and we never have before, said
12 that a water licence should have that term or condition,
13 so let's not confused -- get confused with that. The
14 point of this session is to have a frank open discussion
15 to eliminate technical concerns between Intervenors and
16 the Town, so that it -- it doesn't have to be dealt with
17 at a water licence hearing in front of the Board. The
18 Board doesn't need to hear this, as far as I'm concerned.

19 If -- if the Town was to come and say, You
20 know, we commit to using the hazardous manifest system to
21 track materials going in and out, just to reiterate
22 again, that would go a long way to probably just getting
23 a lot of Intervenors, in respect to that concern, to drop
24 it off, right, so it wouldn't come up in the water
25 licence, otherwise, it might.

1 MR. RON KENT: It's Ron here, at -- with
2 the hope of putting an period to this.

3 MR. TODD PAGET: Thank you.

4 MR. RON KENT: The Town has committed to
5 using the manifest system and requests that ENR's
6 environmental officer, local environment officer, meet
7 with Town officials and staff to instruct them on the TDG
8 forms and the procedures to be followed. Yeah.

9 Okay. And the -- the sooner -- the sooner
10 the better, and -- and that should -- that should lay
11 everybody's concerns then.

12 MR. GEORGE LAFFERTY: George Lafferty
13 here. Like do you have that contingency plan, say if
14 something went wrong with the bio pad, or, you know, if
15 there -- usually there's a contingency plan for -- for a
16 lot of the applications.

17 Is there one (1) for the bio pad?

18 MR. RON KENT: We have -- the Town has
19 submitted a spill contingency plan for spills that
20 happen. The -- anything that happens within the bio pad
21 is already contained because it's -- it's a lined
22 facility. So if it -- if something happens within the
23 bio pad, it'll have to be dealt with by the -- the
24 operation of that pad.

25 By definition, it's already full of

1 contamination, so -- does that help you?

2 MR. GEORGE LAFFERTY: Yeah.

3 MR. RON KENT: Yes, okay.

4 MR. GEORGE LAFFERTY: Yeah, there's a
5 plan.

6 MR. RON KENT: There's a plan, yeah.

7

8 (BRIEF PAUSE)

9

10 MR. GEORGE LAFFERTY: Yeah, I would just
11 like -- you know, I -- I went through a lot of
12 applications before and there's always a contingency plan
13 --

14 MR. RON KENT: Yeah.

15 MR. GEORGE LAFFERTY: -- in case of an
16 emergency, and --

17 MR. RON KENT: Yeah.

18 MR. GEORGE LAFFERTY: -- and that was
19 fine.

20 MR. RON KENT: A spill contingency plan
21 --

22 MR. GEORGE LAFFERTY: Yes.

23 MR. RON KENT: -- was submitted with the
24 original documentation.

25 MR. GEORGE LAFFERTY: Yes.

1 MR. RON KENT: Okay.

2 MR. GEORGE LAFFERTY: Yes.

3 MS. MARY KELLY: This is Mary Kelly. I
4 have a question about leachate outside of the bio pad.
5 Let's put the bio pad aside and talk about the rest of
6 the landfill.

7 What is currently being done to manage the
8 leachate? And is there leachate?

9 MR. RON KENT: Yes, there's leachate.
10 There's monitoring wells for the leachate and samples are
11 collected when -- when the -- when they're on a routine
12 basis and -- and when the monitoring wells are -- got
13 liquid in them.

14 The actual operation of the -- the
15 leachate from that is going to be looked at in this -- in
16 -- as part of this procedure that's going on, starting
17 December the 1st with a new contractor. And so that will
18 be addressed through that study. And the Town is
19 committed to putting out a report in some format, by the
20 31st of March, so that -- that those questions can be
21 answered in -- in there.

22 If you -- we've taken notice of
23 Environment Canada's and others comments on the supplied
24 information, so -- and we'll be instructing the
25 contractor to -- consultant to address those.

1 MS. MARY KELLY: Thank you for that
2 information. Please correct me if I'm wrong, but
3 currently the water licence does not contain objectives
4 for -- or criteria -- criteria for the leachate when
5 samples are collected.

6 Is that right, or did I misunderstand?
7 It's simply a monitoring point?

8 MR. RON KENT: (NO AUDIBLE RESPONSE).

9 MS. MARY KELLY: Okay. Then that
10 clarifies for me that we will request specific numbers
11 for that leachate.

12 MR. WAYNE STARLING: Mary, Wayne
13 Starling, from INAC, just to help describe and understand
14 the physical area, I have walked along the riverbank
15 between the landfill and the river personally and with
16 Town staff, following heavy runoff events and during the
17 spring melt, and we've never been able to locate a stream
18 or anything other than just wet spots along the bank to
19 sample.

20 So that's the physical characteristic of
21 that area.

22 MS. MARY KELLY: Thank you. What about
23 within the facility itself, ponded water, that sort of
24 thing?

25 MR. WAYNE STARLING: No, I haven't --

1 Wayne Starling again. No, I haven't looked within the --
2 the landfill area, but can say that there would be low
3 spots which the -- standing water at times until it
4 seeped away --

5 MS. MARY KELLY: Okay. And just so that
6 I best understand what you're saying, from your
7 observations you haven't noticed what could be detected
8 as leachate leaving the dump site, the landfill site?

9 MR. WAYNE STARLING: Wayne Starling.
10 That's correct.

11 MS. MARY KELLY: And then my next
12 question is: What is being sampled?

13 MR. WAYNE STARLING: Wayne Starling. To
14 my knowledge there hasn't been any, because there's been
15 nothing to sample.

16 MS. MARY KELLY: Okay. Thank you, very
17 much.

18 MR. WAYNE STARLING: You're welcome.

19 MR. TODD PAGET: Todd Paget. If I can
20 follow up.

21 Has there been a geophysical combined
22 topographical study at all on the site, with respect to
23 drainage pattern, seepage, leachate versus surface
24 runoff, and how will they interact?

25 MR. RON KENT: I'd have to go back --

1 it's Ron Kent here.

2 I'd have to go back through -- I know
3 Dillon was in there a number of years ago, as UMA was in
4 there a number of years ago -- and have to go through all
5 of the studies that were produced on the -- on that to
6 determine -- but I'm sur -- sure that leachate and
7 groundwater movement has been -- has been considered.
8 But I'd have to -- we'd have to go through the studies
9 and see what's there.

10 MR. TODD PAGET: Okay.

11 MR. RON KENT: And that's going to be
12 part of what the -- the contractor -- the consultant
13 who's doing it is going to have to do, is go back through
14 the history of it before they move on to -- to
15 recommendations.

16 MR. TODD PAGET: So part of the -- Todd
17 here again. So part -- let me just back up actually.
18 You were saying it was a desktop study probably
19 primarily, right, so --

20 MR. RON KENT: This one is, yeah.

21 MR. TODD PAGET: Okay. So it'd be going
22 back and looking at the reports, and what has been done
23 to determine what has been done?

24 MR. RON KENT: Well, yeah, that -- that,
25 but it also -- the -- the focus of this study is to

1 better operate the system and extend its life in place.

2 MR. TODD PAGET: Okay. Just -- thanks,
3 Wayne.

4 Just to follow up too, because one (1) of
5 the things that may come up as well is -- I mean, we're
6 aware that traditionally in the Northwest Territories
7 there's been a -- a high emphasis on surface monitoring,
8 water surface drainage runoff. And, you know, of course
9 it's logical one would question, well, you know, where is
10 the delineation between what surface runoff and -- and
11 leachate, which is of a different beast all together.

12 So part of the concern, of course, would
13 be surface pattern drainage, conditions on a heavy
14 rainfall event, or snow melt event. That being said,
15 there's also penetration of the water into the waste
16 that's in the cells. And what happens is there's some
17 nasty stuff that ends up in there from the materials that
18 are in the landfill, and that can work its way out, and
19 that will not always be evident in the form of a surface
20 discharge. It could be coming out in various other
21 locations, which could be a risk to local people,
22 environment, water resources, et cetera.

23 So -- and just to -- to be clear, I mean
24 it's recognized that historically in the Northwest
25 Territories we haven't seen, I would say, a really in-

1 depth study, or regulation, or management, whatever I'm
2 trying to get to, on that specific issue. And in modern
3 waste control, it's considered to be a significant issue,
4 so it may come up.

5 And maybe it's something to keep
6 specifically on -- eye for with desktop studies, et
7 cetera, that are done to determine what level of
8 subsurface knowledge there is, to find out if there's
9 seepage groundwater patterns which would be above and
10 beyond what you'd see on the surface. Because, clearly,
11 of course, that information has to be combined so that
12 experts can look at it and say, Okay, they're confident
13 that the controls are in place, or it's well understood,
14 at least, what's coming from the site.

15 If it's not understood, then, of course,
16 there's uncertainties and -- and then there's increased
17 risks accordingly. So just to put that on the table so
18 that people can understand that's probably where a lot of
19 those com -- comments may come from.

20 MR. RON KENT: So I would just like to
21 direct your attention to the screen there. Michael's got
22 some statements.

23 MR. MICHAEL RICHARDSON: Well, here's the
24 -- this is part of our report that was prepared by UMA in
25 2001, I believe. It is a topo-map of contours showing

1 the general drainage onsite. I don't think we've passed
2 it out here, but I -- I think it is -- it has been
3 submitted before as part of any correspondence.

4 Also in this drawing bore hole monitoring
5 wells are -- are shown. In the next, we hope, couple
6 weeks we will have a consultant come out and sample these
7 bore holes. And the purpose of these bore holes is to
8 test to make sure that leachate doesn't escape the
9 perimeter of the berm of the site.

10 So, based on the original question about
11 leachate escaping the site, we are planning to undergo
12 testing of the monitoring wells to verify that there is
13 no leakage from the landfill site.

14 MR. TODD PAGET: Todd here. Thanks,
15 Mike. That's excellent.

16 One (1) of the things you should be wary
17 of, of course, is that testing the -- the bore hole sites
18 is -- is positive. However, it also must be demonstrated
19 that they're actually identifying any groundwater
20 movement.

21 So the -- the que -- quest will be to
22 determine whether the research was done before these were
23 put in there to determine whether they actually
24 delineated the subsurface groundwater movements.

25 If somebody just stood on top -- and I'm

1 not saying this is what happened, but just to put it in
2 context so people understand. If somebody stood on the
3 surface and looked around and said, Put one (1) there,
4 put one (1) here, put one (1) there, put one (1) there,
5 and then studied them and said, Okay, is there any
6 leachate in there?

7 And then if you didn't get any leachates
8 that were safe, that's not necessarily going to give you
9 the picture, because you have to be able to know with
10 confidence that you're putting the groundwater well in a
11 spot that's actually capturing where there's groundwater
12 movement.

13 So -- so part of the groundwater
14 monitoring well job is actually to determine direction of
15 flow, the amount of flow, so that can you map it
16 subsurfacely and say, Okay, we're confident that we know
17 water is moving this direction in that way, so that you
18 know your groundwater monitoring wells are actually in
19 the right place so you can pick it up.

20 If there's not a defendability to the
21 location of those wells, then it's challenged based on
22 that, right? Somebody can easily tear it apart and say,
23 Well, if it's not demonstrated that those wells are
24 actually in a spot that has been clearly shown to be in a
25 location of groundwater, well, of course you're not

1 getting any leachate there because there's no gon --
2 groundwater moving through there, right.

3 So that's just something to keep in mind
4 when you're -- when you're doing your research and -- and
5 doing your background report. Okay.

6 MR. MICHAEL RICHARDSON: Mike Richardson
7 here.

8 I understand what you're saying, and as
9 part of our -- our process here over the next couple
10 months, we'll -- we'll take that into account and, I
11 guess, make our actions according -- accordingly.

12 MS. MARY KELLY: This is Mary Kelly. I
13 just wanted to bring attention to that map that's on the
14 screen and that we each have in front of -- has
15 delineated groundwater flow patterns from 1999. And so
16 for Todd's sake, I would say that they would be verified.
17 But it does show evidence that a study has been done in -
18 - about ten (10) years ago. But, yes, they should be
19 verified.

20 My next question is: Since we have this
21 map in front of us, I know that there's a leachate SNP
22 site. I'm wondering if could be noted on this map where
23 that is, if it's a specific location or if it's just
24 generally wherever leachate is noticed?

25 MR. MICHAEL RICHARDSON: Mike Richardson

1 here. We don't know where it is at the moment. If it
2 corresponds to one (1) of the bore holes sites, we can do
3 our homework and find that out, and if it doesn't
4 correspond to a -- to a well, then make some changes
5 accordingly.

6 MS. MARY KELLY: Thank you. That would
7 be very beneficial for us reviewers.

8

9 --- COMMITMENT NO. 3: To advise where leachate SNP
10 site is located on the map

11

12 MR. TODD PAGET: And Todd here again.
13 I'm going to ask you a question of clarification, if I
14 may, with respect to these sites.

15 They're SNP sites, is that what they're
16 referred to as?

17 MR. RON KENT: In the licence, yeah.

18 MR. TODD PAGET: In the licence? Can
19 just it be clarified exactly what an SNP site is defined
20 as?

21 MR. WAYNE STARLING: Wayne Starling from
22 INAC. Surveillance Network Program.

23 MR. TODD PAGET: So is it for surface
24 water, for ground water, for both? How --

25 MR. WAYNE STARLING: Wayne again. They

1 are specific stations and some are for surface water,
2 some are for groundwater, some are for raw sewage before
3 they get to the sewage treatment facility, some at the
4 end of the cells in the sewage treatment facility, some
5 at the discharge from the swampland effluent, the raw
6 water coming into the water treatment plant. So a whole
7 spectrum of stations, and each one is specific.

8 MR. TODD PAGET: Okay. And they're
9 defined specifically as such in the program, and what
10 they're testing for, whether it's surface or groundwater,
11 that's --

12 MR. WAYNE STARLING: Correct.

13

14 (BRIEF PAUSE)

15

16 MS. ANNE UMPLEBY: Is there any further
17 questions?

18 MR. TODD PAGET: Not on leachate. Are we
19 off leachate?

20 MS. ANNE UMPLEBY: We're still talking
21 about the landfill, at this point.

22 MR. TODD PAGET: Yeah. We have more
23 questions, but is it -- is it coffee time?

24 MS. ANNE UMPLEBY: Anne Umpleby. Yes.
25 It is coffee time. So we'll break for ten (10) minutes

1 and then we'll reconvene. Thanks.

2

3 --- Upon recessing at 10:23 a.m.

4 --- Upon resuming at 10:42 a.m.

5

6 THE FACILITATOR: Ready? Okay. So we
7 can just start where we left off, I guess. We'll stick
8 with the solid waste for now, and whoever has the next
9 question, go ahead.

10

11 (BRIEF PAUSE)

12

13 MR. TODD PAGET: If I -- it's Todd Paget
14 here. I'll continue again, if -- if I may. It goes back
15 on a couple things we were discussing earlier, so this
16 helps to -- to bring together a few issues.

17 One (1) of the things that ENR brought
18 forward in a comment letter was the issue of the -- the
19 lifespan of the facility, and some of our technical
20 reviewers were trying to figure out exactly the scope of
21 the current licence and the facility, I guess, and to see
22 if they lined up. And I guess what it came down to --
23 well, actually let me back up. It -- it goes partly to
24 what was discussed earlier about tracking waste in and
25 out.

1 So just to clarify that the discussion
2 about hazardous waste going in and out is hazardous waste
3 and there is an official tracking system for that.
4 That's part of the overall waste stream, of course, but
5 there is a lot more in other wastes that go in and out of
6 there, as well. So, I mean, from what I understand there
7 is, obviously, some tracking of the volumes of waste
8 going in and out of the facility.

9 Now the reason why I'm bringing this up is
10 because it -- it directly will impact the ability to plan
11 ahead and to have not only appropriate environmental
12 protection measures in place but also to be able to
13 adequately project how much money it will cost to operate
14 a facility over the long term is knowing how long the
15 facility potentially will be existence.

16 So the -- the point of our question was,
17 it wasn't clear whether the Town was aware of the
18 potential for basically the time to run out on this
19 facility, is there potential for time to run out in the
20 facility and has that been factored into the long-term
21 planning. And that also, of course, ties into the length
22 of a -- a water licence, we feel, because it should
23 adequately reflect that.

24 There's certain plans, for example, in the
25 water licences, like eventually there might be a

1 reclamation closure plan of some form, and that would
2 have to align up, of course, with plans for how long to
3 run the facility. So that's just background information.

4 So I guess more specifically is, we are
5 asking that the -- the Town understand that we hope that
6 there's a desire to be able to take the -- the mass
7 balance information, I'll call it, which is basically
8 the amount of waste going in and out a facility, and try
9 to correlate it to the size of the facility and how long
10 that facility will be able to accommodate those waste
11 streams. And that demonstrates an ability to -- to plan
12 ahead and understand the various implications that that
13 may have on other operational requirements of the
14 facility. Maybe it's updating the design for the bio
15 pile or, you know, the hazardous waste sorting facility.

16 So I -- I give all that discussion just to
17 -- to ask if that has been considered, I guess, and
18 whether or not, you know, the reviewers here, I guess,
19 think that's a reasonable expectation and whether that's
20 something the Town is -- is willing to do or whether it
21 has and we're just not aware of it, I guess?

22 MR. RON KENT: As I've mentioned -- it's
23 Ron here -- as I mentioned earlier, the Town has let a --
24 letting a contract the 1st of December to look at those
25 exact points and is committed to a desktop study on it

1 and report by March the 31st.

2 MR. TODD PAGET: Okay. So the part -- so
3 part of the desktop study will also be to project the
4 length --

5 MR. RON KENT: Yes.

6 MR. TODD PAGET: -- life span of this
7 currently facility?

8 MR. RON KENT: Yes.

9 MR. TODD PAGET: And the goal is to use
10 this current facility --

11 MR. RON KENT: Forever, if they can.

12 MR. TODD PAGET: -- forever if they can?

13 MR. RON KENT: Yeah. Well, you know,
14 when you pick a solid waste site you now have a
15 contaminated site, it's the very best site at the time.
16 The next site after that is not going to be the very best
17 site, right, because you picked the very best site the
18 first time. So you want to stay there as long as you
19 possibly can until you can't put another paper cup in it,
20 and then you move. You close it up and you move.

21 You don't want to be having abandoned
22 sites and new contaminated sites all over the place, so
23 you want to stay as long as you can. They're hoping to
24 get another five (5) to ten (10) years out of this one at
25 minimum.

1 And they can do -- they'll do that by
2 understanding the waste streams in and out, by
3 understanding the generator of -- potential by looking
4 into re -- recycling opportunities beyond the -- the
5 current ones that they're -- they're available now. All
6 these things are part of the -- are part of the
7 consultant's scope of work and that will be reported on.

8 MR. TODD PAGET: Okay, thank you for
9 that, Ron. So --

10 MR. RON KENT: Yeah.

11 MR. TODD PAGET: -- right now it's, I
12 guess, thought that perhaps it'll be a five (5) to ten
13 (10) year lifespan just based on what you understand
14 right now, you're just kind of throwing that number out
15 or is --

16 MR. RON KENT: Yeah, those are nice round
17 -- those are nice planning numbers, five (5) to ten (10)
18 years, are nice planning numbers. If you can get twenty
19 (20) out of it, great.

20 MR. TODD PAGET: Of course, that -- and -
21 - and it's understandable, of course, that economically
22 it's always desirable to maintain the same site in the
23 same spot, and you don't want to have two (2) different
24 contaminated sites, but there's also other issues
25 involved in that, in respect of figuring out if some of

1 the local conditions are actually favourable to
2 maintaining certain controls on the site.

3 There we're talking about groundwater
4 pattern, surface water patterns, et cetera, and in -- of
5 course, you have to be able to adequately design the site
6 to be able to adequately facilitate any of those
7 restrictions that might be there.

8 Now, okay, so -- so that's very helpful.
9 So five (5) to ten (10) years. So then I -- I guess it
10 would be put forward, just as a sake of interest for the
11 Town and for others, that if five (5) years or ten (10)
12 years, five (5) years is pretty quick, right.

13 So if -- if there's potential that there's
14 a five (5) year limitation, or even ten (10) for that
15 matter, it's reasonable, I think, to put forward that
16 some thought should start be going into what type of
17 exact restriction is on that and should there be
18 consideration of another site or measures at this site in
19 order to -- to lengthen that, because that will have a
20 direct impact, obviously, on the amount of money that can
21 be spent on its operation maintenance requirements and,
22 obviously, environmental protection measures, as well.

23 MR. RON KENT: This is Ron here.

24 Well, my understanding of the history of
25 this site is it's been there for almost thirty (30)

1 years. It's been studied by numerous professional
2 engineers and -- and companies, and none of those
3 companies told them to move it, said, This is not a good
4 site, you should get out of here, you should -- no -- no
5 one told them that. So that's why they're still at the
6 same site.

7 Because I'm sure that if they had have
8 found that they were polluting the river or there was
9 other issues of -- that -- that were affecting the health
10 -- the health of the community or the environment, that
11 those previous studies would have identified those and
12 suggested they close it up and move somewhere else.

13 So, as I say, they've been there for
14 twenty (20) plus years and -- and hope to continue there.
15 This study will tell them what their planning -- what
16 their planning cycle is.

17 I mean, the -- all the governments work in
18 five (5) year planning cycles. That's why I use the --
19 the word fi -- that's why I said five (5) years. If it's
20 determined that -- going back to, like, Yellowknife, for
21 example, that site there, that was supposed to have been
22 closed ten (10), fifteen (15) years ago. It's still
23 operating.

24 They're able to continue to use it by --
25 because they've been able to put in different procedures

1 and do a bit more recycling and that kind of stuff, yeah,
2 use a baling -- use a baler facility. Those things have
3 extended that life far beyond what anyone thought the
4 first time it would ever be used for.

5 So here we have this -- these
6 opportunities here at this one to look at the -- the
7 facility itself, its size, shape, what it's going to
8 take, new technology, other opportunities. All these
9 things can be looked into to see what can happen at the
10 site.

11 If the site is found that, oh, yeah, we're
12 in -- in -- there's absolutely no way we're getting past
13 five (5) years, it's impossible, then the Town is going
14 to start looking for a better -- a new site. It's going
15 to take them that long to find one and get it through the
16 regulatory process so they can start using it.

17 If the -- if the consultants say, Oh, no,
18 you're all good for another ten (10) years or so, then
19 why would the Town spend the money looking for a new
20 site? We'll just sit back and wait and watch, and see
21 what's happening here.

22 I mean, I'm sure that the local people
23 down there have got sites sort of in the back of their
24 head already identified, we're going to go there, and we
25 know that we have to have a certain setback, and when we

1 finally get there, we'll start -- we'll do all the
2 necessary studies, but they have those -- have those
3 things in the back of their head.

4 And -- but, at the moment, what they want
5 to do is optimize this site and get as many more years
6 out of it as they possibly can.

7 MR. TODD PAGET: Thanks, Ron. It's Todd.

8 Yeah, absolutely. I mean, and I think
9 everybody would understand that. That's -- that's clear.
10 And I -- I guess just -- just to make sure that, you
11 know, it's understood that, you know, historically, I
12 don't think there's any secret that methods that were
13 done previous to date are always not to the same standard
14 as the expectations today. I think that's a historic
15 certainty. So the fact that something's been somewhere
16 for a long period of time doesn't necessarily mean that
17 it was put there for the right reasons.

18 And as we start to determine more
19 information over time, we start to figure out what are
20 more restrictions or limitations on a particular site or
21 location.

22 Now I'm not saying that there's anything
23 wrong with this site. I'm just saying that, you know, we
24 have to be cognisant to the fact that modern operational
25 procedures are not the same as they were thirty (30),

1 forty (40) years ago. And once we get to an
2 understanding that we might have holes in some of our
3 operational procedures that are really more historic,
4 then they're -- they're not a point of anybody, you know,
5 being -- not doing their job or whatever.

6 People are doing the best they can within
7 their understanding. I mean, I -- I firmly believe
8 everybody's doing the best the job -- excuse me, best job
9 they can within the toolkit environment they have always.

10 But we must recognize, as well, that, you
11 know, some of the standards today are not, of course,
12 going to meet the standards of twenty (20), thirty (30)
13 years ago. So if we did something for twenty (20) years,
14 it's not necessarily going to hold up today.

15 So also, the location of that facility and
16 the operating constrictions on it, if it's going to be
17 operated and maintained within the standards of today
18 sometimes you have to factor that into your -- your long-
19 term thinking because there might be a location that's
20 actually going to be cheaper to run in the future taking
21 into consideration that or there might be limitations.

22 And I'm not saying to move, I'm just --
23 and it might not even be the location. Just consider the
24 operational restrictions that you may have on a
25 particular location. The expectations, again, are going

1 to be higher today than they -- they are previously.
2 And, of course, it's going to be expected that any
3 reporting or any analysis done on it is going to
4 acknowledge that, right?

5 So that -- that's all. Just to put it in
6 context, I think. And I don't know if it just helps what
7 Ron just said, so...

8 MR. MICHAEL RICHARDSON: I guess, I'd
9 like to remind everyone so that we don't keep talking
10 about what could or could happen -- I don't know, I -- I
11 feel like we're going on about the -- the waste site
12 without keeping in mind that we're having a study done to
13 address these things that will acknowledge the -- the
14 present day standards and -- and operational factors.
15 And I guess that's all that needs to really be said.

16 The -- the report that comes out at the
17 end of that study will take care and acknowledge
18 everything that you -- you have talked about or might
19 want to talk about relating to the -- the remaining life
20 of our facility. So I just wanted to remind you about
21 that.

22 MR. TODD PAGET: Todd here again.
23 Thanks, Mike.

24 And that's -- you know that's very valid.
25 The challenge, of course, is going to be that Intervenors

1 are dealing with a water licensing Hearing right now.
2 So, of course, the concerns are right here right now. If
3 we had that report here right now we wouldn't be having a
4 lot of the discussion, right?

5 So it's difficult, and I understand, you
6 know, the position that you're in, but it also has to be
7 understood that the specific Intervenors right here don't
8 have that information right now, and -- and one (1) of
9 the purposes of a water licence Hearing is to
10 specifically figure out these issues and determine what
11 terms and conditions or measures are going to be adequate
12 to -- to safely protect everybody's interest involved.

13 So without having that information right
14 now though, it's kind of left in a vacuum to a -- a
15 certain extent, and that leaves us with, of course, a
16 certain amount of uncertainty that is going to be
17 uncomfortable for a lot of people to contend with during
18 this process.

19 MR. ROBERT JENKINS: It's Robert Jenkins
20 with INAC.

21 Just a question on your -- the study
22 you're doing. It's great that you guys are moving
23 forward with that. So you're going to be looking at your
24 lifespan of your -- of your current facility.

25 And are you guys going to be looking at

1 sort of these are the areas we're going to be closing off
2 over the next five (5), ten (10) years, potentially
3 capping first or -- or do enclosure first, here are areas
4 which we might want to expand on? Just sort of wondering
5 if that's going to be included in there?

6 MR. MICHAEL RICHARDSON: As far as I
7 understand, the scope is going to be examine the
8 suitability of the -- the site as it is right now. And
9 then basically on those findings if it is found that
10 changes need to be made to accommodate a longer lifespan
11 and if -- if it possible to lengthen the lifespan of the
12 site, to acknowledge potential options to lengthen that -
13 - that time frame.

14 I guess first the evaluation of the time
15 frame, as is, would be the -- the starting point and the
16 development of any alternatives or changes would be
17 explored after that time frame has been determined.
18 Yeah, I'll just leave it at that there.

19 MR. ROBERT JENKINS: Yeah. It's Robert
20 Jenkins again.

21 I mean, I guess, you're probably going to
22 have a requirement in your water licence for a closure
23 and reclamation plan, so it's -- it's I guess something
24 that you guys would want to start thinking about in the
25 sense of, okay, we're going to -- you know, it's -- it's

1 operation of your site, which I'm sure you guys are --
2 are -- are all over.

3 But it's a -- sort of a -- you know,
4 putting it down on paper to say, okay, this is how we're
5 going to, you know, address the site, so we might want to
6 -- we're going to put some stuff here and this -- we're
7 going to cap this area here.

8 Probably within the next couple years it's
9 going reach the maximum that we want it to get to, you
10 know, sort of the details which you'll probably be
11 required to submit in the future as -- like under that
12 plan.

13 MR. MICHAEL RICHARDSON: I'll take your
14 comments and be sure that we -- we address them in our
15 solid waste revision, and I guess to use them as they --
16 as they best fit depending on the valuation of our
17 consultants. And I guess that's it.

18 MR. GEORGE LAFFERTY: George Lafferty
19 here. I don't think that area is the best place. You
20 know, maybe thirty (30) years ago, but now today, you
21 look at any application -- like, even if you're going to
22 build a cabin, you got to build it from 100 feet from the
23 high water mark, and we're talking about a big, you know,
24 solid waste site that's, you know, it -- it could be the
25 best, but it's not going to be 100 percent.

1 You know, there's going to be leakage into
2 the ground -- groundwater. And then however long that
3 takes, you know, you're not that far from the river. So
4 I don't know if there's studies done but it's not the
5 best place. Thanks.

6 MR. MICHAEL RICHARDSON: I'd just like to
7 thank you for your comments, and as I mentioned before,
8 those comments will be factored into our study. We will
9 -- we are under the -- in the process of choosing a
10 proponent to perform a study for us. And this study will
11 be based on what we know today to be best practice, et
12 cetera.

13 MR. GEORGE LAFFERTY: Just one (1) more
14 comment -- George Lafferty, again.

15 I've been in Hay River since 1996. I've
16 seen the difference from 1996 until today in the volume
17 of, you know, what's there. I've seen the change. So,
18 you know, you're talking, you're saying ten (10), twenty
19 (20) years, I don't think that's going to happen.
20 Thanks.

21 MR. TODD PAGET: It's Todd Paget. Maybe
22 I'll take the opportunity then to also offer ENR to put
23 forward a couple other points.

24 They're fairly high on the radar with
25 respect to -- to what we think is prudent right now, and

1 -- and experienced right now, and -- and what's occurring
2 at the site right now. And one (1) of them is fencing,
3 and one (1) of them is -- is control over certain waste
4 stream sorting, labelling, storage, et cetera.

5 Gerald is here, will help, I guess, to --
6 to address the issue with sorting and control of certain
7 wastes on site, and how that's done. And it does tie in
8 partially, as well, to this discussion about the
9 location, where it is. And again, as I repeated -- I'll
10 repeat, rather, as I said earlier, there's, of course,
11 the understanding based on a location.

12 There's certain measures that need to be
13 in place to be able to adequately manage that, because
14 that location is responsible for certain measures having
15 to be in place to a large extent, for example, proximity
16 to water, wildlife access, et cetera.

17 So the response that came to the comments,
18 specifically in respect to that fencing, and the
19 hazardous waste control, was that this is a different
20 jurisdiction and it's not under the Board's jurisdiction.

21 So without getting into a debate about
22 that, I think that, you know, we know that fencing, for
23 example, is a -- a standard term and condition, or option
24 in question, actually, in fact, in the Application, most
25 landfills.

1 So I think it's safe to say it's not an
2 issue of whether or not it's in somebody's jurisdiction
3 in -- in respect to hazardous waste. I think we talked
4 about this earlier, as well, that I think it's pretty
5 clear hazardous waste, and there's -- it's in the
6 applications, as well, is a component of the water
7 licensing.

8 So that being said, it was said there is
9 fencing in the Application and -- and then the
10 presentation said there's partial fencing. I guess in
11 the end what it comes down to is, ENR's primary concern
12 is with respect to wildlife access to the facility and
13 the ability to keep wildlife out of the facility.

14 So I guess what we're hoping to -- to get
15 is an acknowledgement that that's the case, and that
16 we'll have a commitment to have a fencing, you know,
17 around the facility that's going to prevent wildlife from
18 -- from access, particularly as we know bears are -- are
19 a common customer.

20 That would be one (1) main component that
21 we would hope would be addressed. And it would be
22 preferable, of course, for the Town to just, you know,
23 come out and -- and say, Yeah, that's the commitment,
24 that we'll have a fencing appropriate for the entire --
25 around the entire facility to prevent access by wildlife,

1 and that would, of course, prevent us from having to go
2 forward with it at the Hearing and -- and not necessarily
3 go through a lengthy debate on it.

4 MR. MICHAEL RICHARDSON: Thank you, Todd.

5

6 (BRIEF PAUSE)

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8 MS. MARY KELLY: This is Mary Kelly.

9 If there isn't anything more to say on
10 that matter, I'll ask a different question, for
11 clarification. I asked earlier about Sampling Site 53-5,
12 whether there's a specific location and that there hasn't
13 been sampling of leachate in recent years.

14 In the water sample -- the annual water
15 report it's stated that at that specific site there was
16 bacterial testing done and, therefore, I inquire again
17 where that site is.

18 Maybe this discussion will be carried over
19 to the later section of the agenda, but samples were
20 taken and it's unclear where those samples were taken
21 from and, therefore, it's unclear how we can interpret
22 those numbers.

23 MS. ANNE UMPLEBY: Anne here. I think
24 that Hay River has indicated that they are going to
25 provide the location of that SNP point, and they'll have

1 to do that at a later date because they don't know at
2 this point.

3 MS. MARY KELLY: Thank you.

4 MR. TODD PAGET: And I'm going to regress
5 back in time. I guess maybe I -- I didn't explain myself
6 quite clear, but I was putting forward a point here to
7 ask a commitment from the Town to put fencing around the
8 facility, around the entire facility.

9 I'm not sure who could speak for that --
10 to that, or if there's a will to speak to that right now,
11 or...

12 MR. MICHAEL RICHARDSON: This is Mike
13 Richardson.

14 I don't think there's -- this is the right
15 forum for a commitment to be made on that point, so I'll
16 reserve that to a later date, later time.

17 MR. GERALD ENNS: Okay. It's Gerald,
18 from ENR here.

19 Todd had alluded to the -- or acknowledged
20 that we're anticipating, I guess, a more comprehensive
21 plan for some of our outstanding questions in March 2009.

22 MR. RON KENT: Ten (10).

23 MR. GERALD ENNS: Or, sorry, 2010, you're
24 right. March has gone by.

25 With respect to the hazardous waste that

1 is stored at the facility, on my site observations, and I
2 think people in the Town are aware -- I know, Terry,
3 we've communicated about the hazardous waste.

4 Earlier in August we had a -- or ENR
5 helped the Town with a household hazardous waste
6 collection event and we had an inventory of materials
7 that were packaged and put in drums and pails, and they
8 were segregated at the Town of Hay River Public Works
9 yard. The Public Works yard then moved the materials to
10 the landfill.

11 And I guess we went -- no, we had the
12 collection event in May and went back in August. Cleanup
13 in May, that's right, the spring cleanup, and we went
14 back in August to check in on the inventory and, well,
15 there were bears in the landfill facility.

16 I believe on Thursday we saw a sow and
17 three (3) cubs. We went back on Friday to look at our
18 inventory and there was a bear milling about in the
19 hazardous waste area. The bear -- we wanted to go check
20 our inventory. The bear advanced towards us and wasn't
21 afraid.

22 Jamie Chambers (phonetic), a wildlife
23 officer, was prepared to kill the bear; however, the bear
24 moved in front of the propane tanks. So, at that point,
25 the bear was simply a hazard on the site. Eventually,

1 the bear ran off. And I'm -- I'm getting to a point
2 here. And we went to go check our inventory, and we
3 found pails of some of the hazardous waste that we had
4 collected strewn about. Pails of glycol, pail of
5 solvents had been punctured, had been ripped open. The
6 bears had been messing around with the haz-waste.

7 As I looked at the ground, I could put my
8 finger to the ground and pick my finger up and the -- the
9 ground is oil stained. There's hazardous materials that
10 are strewn about in that area, they're not segregated,
11 and it's a situation that's less than ideal.

12 We believe that part of the problem here
13 is a lack of a plan for hazardous waste. And again,
14 we're broaching the topic of what is within the scope of
15 the water licence and what is not. But, I would like to,
16 in fact, bring this forward as a point of clarification,
17 as well.

18 So when we met with you in August there
19 was -- we outlined -- we provided some guidance, detailed
20 guidance, on what would be good decisions to make with
21 respect to developing a hazardous waste management plan.

22 And we notice that in the water licence,
23 hazardous waste is mentioned. As part of an O&M plan, it
24 mentions how is it going to manage hazardous waste with -
25 - along with a list of other considerations, like typing,

1 and source of cover materials, consideration of altered
2 drainage patterns.

3 So how a community manages hazardous waste
4 is a part of a water licence. However, the NWT, and just
5 like other provinces throughout Canada, provide
6 regulations and guidance, specific guidance and
7 regulations, to how a hazardous waste is managed. And so
8 we have provided that kind of guidance outside the scope
9 of the water licence directly to the proponent.

10 So I guess I have two (2) questions. Does
11 the Town still intend to develop a plan to manage haz-
12 waste according to the guidance provided? And to what
13 extent does the Water Board provide oversight on the
14 contents of that plan?

15 Because we feel that, I guess, in section
16 3.7 of the Water Licence that that kind of plan is not
17 adequate in detail, and will result in a continuation of
18 the lack of accountability around the hazardous materials
19 in the hazardous -- in -- in the landfill site.

20 So do I need to repeat the two (2)
21 questions?

22 MR. MICHAEL RICHARDSON: Sure, you might
23 as well.

24 MR. GERALD ENNS: Okay. One (1), will
25 the Town develop a plan, a comprehensive hazardous waste

1 management plan?

2 MR. MICHAEL RICHARDSON: I'll answer to
3 that right now.

4 MR. GERALD ENNS: Okay.

5 MR. MICHAEL RICHARDSON: The intention is
6 to be, as part of the study being commissioned in
7 December, that that is a part of the study. So the Town
8 will -- will visit that as part of the study. And also,
9 the recommendations put forth by you in correspondence,
10 as well, will be included in consideration of a study.

11 And your second question?

12 MR. GERALD ENNS: Okay, that's good. We
13 do feel that a lack of planning is what results in these
14 types of situations, and that developing a plan does not
15 necessarily cost money, and there's a lot of things that
16 can be done to prevent this type of situation; and
17 preventing the Town from incurring liabilities, like oil
18 soaked ground or having wildlife coming in and messing
19 around with -- or creating a hazardous situation.

20 The second question, I don't know who here
21 can answer this, possibly -- please, anybody? To what
22 extent will the Water Board review a haz-waste management
23 plan in a water licence?

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25 (BRIEF PAUSE)

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MS. ANNE UMPLEBY: Anne Umpleby here,
just give us a second.

(BRIEF PAUSE)

THE FACILITATOR: Okay, I'll try to
explain. So Part H, Item 1 of the current water licence
that explains the O&M plan, which includes or can
include, at least, a hazardous waste management plan and
that this operation and maintenance plan goes out for
review for reviewers and they can provide comments on the
plan that's included in the O&M plan. And I guess, yes,
we -- we could give them instruction of -- include the
guidelines that GNWT has for developing that plan.

MR. GERALD ENNS: Okay.

(BRIEF PAUSE)

MS. MARY KELLY: This is Mary. Gerald,
does that satisfy your questions currently?

I had another question about the O&M but I
don't want to sidetrack the conversation.

MR. TODD PAGET: Okay. Just one (1) more
point maybe that's directly related to help provide

1 closure on -- on this item, I guess. There's more than
2 just hazardous waste, as well, that was noted as having a
3 challenge with respect to its maintenance coverage
4 disposal and that it clearly, of course, also has an
5 impact on not only potential runoff quality but, you
6 know, windblown, you know, debris and -- and, of course,
7 wildlife attraction, as well.

8 So just to clarify, of course, the
9 hazardous waste management component is a big part of
10 that and that's a specific concern, of course, for
11 obvious reasons. We don't want bears or anyone chewing
12 on glycol, right?

13 And more than that, of course, as well, is
14 the bigger picture of the overall maintenance of the site
15 and control of various debris and waste streams that are
16 there. So that, I guess, will come up with the overall
17 O&M plan. It probably is going to be discussed by Mary
18 right away.

19 But also it ties back into, as well, the
20 fencing issue. So the -- the fencing is not just
21 hazardous waste, it's obviously a concern for the overall
22 maintenance of the site. I think it's in the best
23 interests of everybody to understand its importance.

24 And it also can be engineered or designed
25 or considered, however we want to couch it, as a

1 component of being able to -- to -- to control some of
2 the windblown debris, as well, which is, you know,
3 commonly. So I'm not suggesting I'm a -- a fence
4 engineer but I think that, you know, there's
5 opportunities maybe to think about how maybe to
6 coordinate the two (2) together somehow to -- to utilize
7 economies of scale and kill two (2) birds with one (1)
8 stone, so to speak.

9 MR. KELLY SCHOFIELD: Kelly Schofield. I
10 do want to assure everyone here that this is a very
11 important issue for us in Hay River. This is something
12 that we are taking very seriously. The fencing issue is
13 going to be addressed. We can't make a commitment at
14 this time because we don't know if this site is going to
15 be used -- will it be developed more, will it be larger,
16 are we going to have to build a fence accordingly or --
17 to the new size or are we going to be building a fence to
18 shut this one down?

19 So there will be a fence in place but what
20 type of fence, we can't commit to just at this time.
21 This has to be brought forward to council after the study
22 is done.

23 As for the hazardous waste, that too is a
24 very serious issue. We do not want wildlife in our
25 facility, so this fence will help that, but there also

1 needs to be some sort of structure in place that we will
2 be dealing with with this proposal to make sure this
3 hazardous waste will not be in contact with the ground,
4 that it will be in some sort of shelter, is what I
5 foresee. But that's something that will be addressed in
6 this study.

7 And I just wanted to make sure that you
8 are under the understanding that the Town of Hay River is
9 treating this very seriously. This is something that was
10 brought up not only by the Government, but by the
11 constituents of Hay River. So this is something we will
12 address and we are not going to let slip through the
13 cracks, so to speak. Thank you.

14 MR. TODD PAGET: Todd here. Thank you
15 very much. So maybe just to -- to nail this down too
16 specifically, I guess logically is one (1) of the
17 concerns that will come up is, okay, there's going to be
18 a study done.

19 The study will be done, let's say it comes
20 in in March and there's time to evaluate it, so
21 regardless of whether or not, you know, there's a larger
22 fence or smaller fence, I guess what, you know, would
23 give a lot of comfort is -- is that commitment to say,
24 well, regardless of what it looks like and, you know, its
25 content and its specific design, there's going to be a

1 fence there, PDQ type thing, to control it one (1) way or
2 the other.

3 There is obviously a -- an understanding
4 that, you know, it takes time to figure this out and
5 design it accordingly. I mean, that's well understood.
6 But at the same time people don't want to have it sit
7 another year or two (2) years or something while somebody
8 waits for that and watching maybe there may be a
9 continuing problem.

10 So just balance that maybe into your
11 thought and your discussion of -- of how to address that
12 kind of concern, because I think it will come up, you
13 know, of course that while it's understood, again, to --
14 I'm repeating myself, but it's complicated and you have
15 to factor in a lot of things. There's also an immediate
16 concern that has to be dealt with there, as well.

17 So it'll be a tough sell if we're putting
18 off the immediate concern to try to have one (1) solid
19 fence built in two (2) years, type of thing. So I -- I'm
20 not sure how that's going to be dealt with. I'm just
21 saying that that would be something you're going to have
22 to probably be able to answer to in some form or other.

23 MR. KELLY SCHOFIELD: We will address the
24 fence issue when the time comes. It is something that is
25 important. I'm not denying that. I don't want it to be

1 in two (2) years. I want it to be sooner than later, but
2 in a time context I can't commit to a certain specific
3 time at this juncture in time.

4 MR. TODD PAGET: Fair.

5

6 (BRIEF PAUSE)

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8 MS. ANNE UMPLEBY: Anne Umpleby here. I
9 think Mary had a question.

10 MS. MARY KELLY: Thank you, Anne. I'm
11 requesting clarification from the Board on the use of the
12 O&M Plan. Currently as it states:

13 "The O&M Plan is to be provided to the
14 Board for approval."

15 My understanding is that the O&M Plan goes
16 to the Board, the Board provides is to people like us
17 around the table for review, comments, and then approval.
18 This O&M Plan that was submitted was reviewed apparently
19 by the INAC inspector for approval, which is good, but
20 not thorough enough, as I'm sure the Board noticed from
21 all the comments that were received back on the O&M Plan.

22 Can the Board please provide some
23 indication on how an O&M plan is approved, and also what
24 the intention of that O&M Plan is, whether it's for the
25 Board and the inspector or if it's for use by the Town.

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(BRIEF PAUSE)

MS. ANNE UMPLEBY: Anne Umpleby here. We can't really speak as this point to how this OM Plan -- O&M Plan was approved. The person who had this file previously is -- is gone and so it's a little bit of catchup on some of the points.

Normally, what does happen with an O&M plan is that it is submitted to the Board, Board staff will circulate it out for review, as you had mentioned, and we'll take all those comments into consideration and either have the -- the Town of Hay River revise their plan or if it's sufficient enough to proceed to the Board for approval.

And that's how it would be approved. And then it would be used as a tool with the Board and the inspectors, but also for the Town, as well, to know how to operate their facilities.

MS. MARY KELLY: Thank you. Environment Canada is of the opinion that the O&M Plan is used -- is a tool for the hamlet to reference and know how to manage their facilities, and it provide assurance to people like Environment Canada that these facilities will be managed accordingly.

1 This O&M Plan did not receive reviews by
2 Environment Canada, as it -- except through this water
3 licensing process. And I would like to -- I would
4 request that the Board accept the comments and consider
5 requesting a revision for the -- the O&M Plan as
6 submitted in the Water Licence Application.

7 MS. ANNE UMPLEBY: Anne Umpleby here.
8 We'll take that into consideration. Thanks, Mary.

9
10 --- COMMITMENT NO. 4: For the Board to accept the
11 comments and consider
12 requesting a revision for the
13 O&M Plan as submitted in the
14 Water Licence Application
15 (Taken Under Consideration)

16
17 MS. MARY KELLY: Thank you. And I --
18 just to finalize, a revised O&M plan would definitely
19 answer a lot of the questions that are currently being
20 discussed.

21 MR. WAYNE STARLING: Wayne Starling, from
22 INAC.

23 If I could, just a comment for Mary and
24 maybe some of the others. I did see some documented
25 misleading information in some of this material that was

1 circulated, where it was said, I think, in a table or a
2 comment review, some -- in some document, that the INAC
3 inspector approved a pla -- the O&M plan. And just for
4 your information and knowledge, I don't have the
5 authority or the mandate to approve that plan, and that
6 wasn't done.

7 So this is the plan that is submitted to
8 the Board. It's clear in the licence that the Board
9 receives it. The Board is the only agency and -- and
10 group that can approve it.

11 So there's probably some misunderstanding
12 somewhere along the line, but just for your knowledge and
13 information, I don't approve, unless it says in the
14 licence. There are certain conditions in the water
15 licences that provide certain responsibilities and
16 powers, if you like, to the inspector, but this isn't one
17 (1) of them. Thanks.

18 (BRIEF PAUSE)

19
20 MS. ANNE UMPLEBY: Okay, if that is
21 everything for the solid waste facility, I think maybe we
22 can move on to the so -- sewage disposal discussion, if
23 there's no other questions.

24 MR. TODD PAGET: I'm not -- I'm not sure
25 how this has been brought up before or not. Please

1 forgive me if I'm missing a piece of this, but there has
2 been various landfill dump sites in the Territory that
3 have been experiencing problems as of late with
4 unauthorized access and dumping.

5 I think it's pretty clear that there's an
6 increase in economic development opportunities for the
7 north from industrial operators of various degrees:
8 mineral exploration, oil and gas, construction
9 demolition, construction projects, highways. And there's
10 been, I guess, a different level of waste development and
11 transportation contracting that's going on in the north
12 that probably hasn't really happened before. So with
13 that comes, I guess, the challenge of being able to -- to
14 control access.

15 I don't think it's a secret that the north
16 has not as tight of controls on this waste streams as has
17 happened in the south. I'd say directly because of the
18 fact that we just don't have the mature regulatory
19 development policy, funding, infrastructure, et cetera,
20 et cetera, that they have in other regions. So the --
21 the point, I guess, is that there's an increasing problem
22 with production and transport of these types of wastes.
23 And with that, of course, there's an increasing problem
24 with disposal for operators and contractors.

25 Operators have been contracting individual

1 per -- individuals, or companies, for that matter, to
2 take waste off their hands, then move them and transport
3 them. Part of the challenge that I've been seeing, and
4 our division has -- has been seen directly, is that
5 there's -- I don't think as comparatively to the south,
6 and Gerald could probably speak better, but in -- in the
7 southern jurisdictions there's actually licensed
8 operators that are specifically licensed for the purpose
9 of picking up and transporting wastes to appropriate
10 locations.

11 I don't believe we have that here. In
12 fact, a lot of them are just, you know, folks that kinda
13 do this because it's an opportunity, so -- and that's
14 good. But the challenge with that is there's pretty
15 loose control on it, and we've seen that this is
16 resulting in adverse impacts.

17 And the reason why is, well, generally
18 people take the shortest distance between two (2) points.
19 That's the easiest way to do something. People are like
20 electricity in that regard. And the same is -- is with
21 waste transport.

22 So, what's happening is contractors are
23 taking waste, and then they're just taking it to the
24 closest location. So, with that becomes the concern,
25 obviously, of access. And it's a concern, not only from

1 our point of view with being able to, you know, know that
2 operators are operating within what's common sense,
3 Number 1, for environmental protection, but obviously for
4 Occupational Health and Safety, for people that are
5 working at these facilities. They don't know what
6 they're getting into, or what they're wading around in.
7 There's contractors not knowing what they're dumping.

8 And there's liabilities all around the
9 table associated with this. The Town can end up with
10 increased waste streams that it's unaware of, unable to
11 adequately handle. This can increase operating costs,
12 liabilities, financially, for contamination, potential
13 clean-up, violations of -- of legislation. There's a
14 whole slew of issues associated with this. And that's
15 why I explained this quite clearly, because I just came
16 from Ottawa where there's a huge discussion on this, and
17 there's a major acknowledgement that there's not the
18 waste management infrastructure in the Territory to
19 accommodate a lot of the industrial activity that may be
20 coming down the pipe, so to speak.

21 So with that, obviously, is a -- is a
22 heightened awareness that there has to be controlled
23 access, so that you're not stuck with a position where
24 people are just running in with a truck and dumping
25 whatever they want, and basically, dumping their costs

1 and liabilities. Because let's be seri -- let's be
2 honest here, if it's gonna cost somebody a million
3 dollars to transport something 1,600 kilometres, right,
4 and there's no control on it, why wouldn't they just take
5 it to the local spot? I mean, that's just logical,
6 that's what people will do.

7 And, you know, I'm not saying they're
8 intentionally transferring liabilities, or intestinally
9 contaminating, but the reality is, this is what's
10 happening.

11 So, with that, comes that concern of
12 control over access for the facility, whether or not
13 there's a gauge or not, and what type of ability to -- to
14 see what's coming into that facility, and being able to
15 have an understanding of, you know, the liabilities
16 associated with that coming in.

17 Because sometimes, people will just say,
18 Well, here's a tipping fee. Well, a tipping fee is fine,
19 but a tipping fee is more practical if it's understood
20 exactly what it's paying for. So if you don't know
21 what's coming in, it's pretty tough to be able to
22 adequately determine a tipping fee; pretty tough to
23 adequately determine potential liabilities and cost. It
24 might not be today; it might be five (5), or ten (10)
25 years from now when somebody else that might be in the

1 Town has to deal with this, and has to deal with a huge
2 clean up cost.

3 So, I guess, the main point is, we're --
4 we're looking to -- to see that the Town, of course,
5 would demonstrate the understanding that, that's a
6 potential problem, and to -- to almost see it as -- as
7 important as a fencing issue, so to speak, with respect
8 to how important it is for wildlife and Town, but to
9 access to outside waste suppliers or transporters. And
10 without that, there's obviously increased concern over
11 the types of contaminants. And this obviously can affect
12 the lifespan of the site, et cetera, as well too, because
13 you want to know what's going in and what's going out.

14 And that's it. So, I guess, we're just
15 looking for a commitment, and whether it's today or not
16 that, that's understood, and there's gonna be a tighter
17 control on access to the facilities, so -- so that,
18 that's managed, or it gives the ability to manage it,
19 because it might not be as high on the radar right now,
20 but I assure it's probably going to be, especially in the
21 location of where Hay River is.

22 MS. TERRY MOLENKAMP: Terry Molenkamp,
23 Town of Hay River. I don't know if you had talked to
24 Jamie lately, but we have met Jamie, with respect to
25 demolition the Town had done, and found out that there

1 was asbestos in the old building.

2 So after meeting with Mr. Chambers, we
3 committed to him that whenever we do issue a development
4 permit for a demolition permit they will receive it, so
5 that they will know, and be able to go and inspect the
6 demolition, and find out what kind of material is in
7 there, so that we will know before it enters our landfill
8 site -- if it does, in fact, go into our landfill site --
9 what is there.

10 So, we have done a bit of work with ENR,
11 with respect to -- to that. As far as controlling the
12 gate, no, we haven't. But, as far as trying to -- to
13 catch material that could end up in our landfill site
14 before it actually -- we find it in the landfill site, we
15 have done that. So, just so you know, we have taken some
16 steps for that.

17 MR. TODD PAGET: Thank you. Todd Paget.
18 Thank you, very much.

19 Yes. And absolutely -- and -- and that's
20 a big step in respect of course understanding what's
21 going on in the Town and the construction demolition in
22 the Town, and that's a large piece in itself. I'm also
23 bringing to your attention, there's the outside sources.

24 So outside the Town there's large
25 construction demolition projects that are going to be

1 occurring. There's large mineral development, oil and
2 gas development projects are going to be occurring, and
3 there's going to be an inherent desire for contractors to
4 take that waste to the loc -- closest location, and they
5 won't have a development permit, or a construction
6 demolition permit, in order to give you an opportunity to
7 see what the waste stream is. Somebody is just going to
8 show up with a truck at your gate.

9 MS. TERRY MOLENKAMP: I agree, and we
10 will look into that. But the other fact too, I -- I did
11 point out to Jamie as well, a lot of times that ends up
12 in the bush if your gate's locked. And I'm not saying
13 that we need to leave the gate open, so that we can take
14 everybody's waste, but there is a problem as well,
15 outside of our own landfill site, and I -- I really don't
16 know how, you know, anybody can address that happening.
17 And I see it happening in the north, I think because you
18 can get away with it.

19 MR. TODD PAGET: Well, that's another
20 issue all in itself. If -- if contractors are in a
21 position where they feel that they can get away with
22 dumping waste in a ditch, that's something else that has
23 to be dealt with. But allowing somebody, frankly, to
24 transfer a liability to somebody else, or not be
25 accountable to existing regulation or law, or water

1 licence requirements under another jurisdiction, to
2 transport something, I mean, that's another issue all
3 together.

4 I think -- I believe thoroughly in the
5 "build it we will come." If everybody's operating within
6 an understanding of what their limitations are,
7 constraints are, and they know what their costs are, and
8 their liabilities are, you're in a lot better position
9 than anybody to determine on a case-by-case basis, who's
10 trying to transfer liability to you.

11 And if somebody wants to say, Well, if we
12 can't dump in your dump, we're going to go dump it in the
13 ditch, we'll have to deal with that at that time. I
14 don't think those people will get away with that very
15 long when we're aware of it. There's individuals that
16 may do that.

17 On a large industrial operation, the
18 quantities of waste we're dealing with are quite
19 significant. I'd be pretty surprised if any of these
20 operators would -- would use a contractor ever again if
21 they found out that a contractor was dumping wastes in
22 the ditch, instead of taking it anywhere, let alone a
23 proper facility, so...

24 THE FACILITATOR: Okay. So this is a
25 little bit outside the scope of the water licence, so

1 let's just move on to the sewage -- sewage waste.

2

3 QUESTION PERIOD RE SEWAGE DISPOSAL:

4 MS. MARY KELLY: I have just a couple of
5 preliminary questions regarding the recorded volumes of
6 sewage. In the opening presentation -- my first question
7 about the volumes of sewage relates to the 31,000 cubic
8 metres that I believe was indicated goes to the lake.

9 Can I receive clarification on what that
10 number represents and how it was achieved?

11 MR. MICHAEL RICHARDSON: It's Mike
12 Richardson here. We'll have to sort through our -- our
13 information that we provided to Ron Kent, to provide this
14 presentation and find out where that number came from,
15 and confirm what that represents for you. At this point
16 we don't know, other than it came from some documentation
17 provided to our consultant. Other than -- other than
18 that, I -- I couldn't comment at this time.

19 MS. MARY KELLY: Thank you. That
20 information would be very beneficial for assessing the
21 waste stream.

22

23 --- COMMITMENT NO. 5: To indicate what the 31,000
24 cubic metres of sewage that
25 goes to the lake represents

1 and how it was achieved

2

3 MS. MARY KELLY: More information that I
4 would expect would be delivered in the same means is,
5 there was a waste water annual volume usage of
6 approximately 600,000 cubic metres, that's 200,000 cubic
7 metres more than the water use, and that's very, very
8 different then what I see in every other municipality.
9 So either there's something -- either there's extra water
10 going into this system that is undisclosed or the
11 calculation is wrong, and I would request that that be
12 reviewed.

13

14 (BRIEF PAUSE)

15

16 MR. MICHAEL RICHARDSON: Thank you for
17 your point. Again, like the last point, we'll have to
18 revisit the numbers to -- to confirm that they are in
19 fact correct. And if they aren't, issue a -- issue a
20 correction. At this point, we can't comment further.

21 MS. MARY KELLY: That's fine. Thank you.

22

23 --- COMMITMENT NO. 6: To give clarification on the
24 waste water annual volume
25 usage of approximately

1 happened to that ditch?

2 MR. MICHAEL RICHARDSON: This is Michael
3 Richardson. I'll have to look into that for you here.
4 I'm not -- okay, well, I'll leave that to a later date
5 with all the other additional info that I can provide to
6 you, and I'll try to get that to you in a timely manner.

7 MS. MARY KELLY: Thank you very much.

8

9 --- COMMITMENT NO. 7: To clarify whether or not the
10 ditch running alongside the
11 road by the sewage lagoon was
12 moved to the other side of
13 the road (Satisfied on page
14 111)

15

16 MR. WAYNE STARLING: Wayne Starling, from
17 INAC. If you like, I could provide a bit of information
18 on that event for the Board.

19 There was a drainage ditch that drained
20 the north industrial area of Hay River that flowed past
21 the sewage lagoons. And in January 2007, there was a
22 flow from the wetland into this ditch that runs alongside
23 of a road that goes out towards the lake. That ditch was
24 blocked off. And part of the recovery and rehabilitation
25 for that -- that area involved relocating that ditch to

1 the opposite side of the road to isolate the wetland from
2 any drainage that might be coming from the other part of
3 Hay River.

4 And so the way it's structured now there's
5 no connection from the wetland and this other runoff type
6 drainage -- is that it comes from the area between that -
7 - that access road, the north industrial area and the
8 west channel of -- of Hay River.

9 So it's a -- a much better physical setup
10 than what it was prior to this event in that any leakage
11 from the wetland treatment area is now completely
12 isolated from the other regular runoff drainage.

13 MS. MARY KELLY: Thank you, Wayne, that
14 definitely clarifies.

15 And I agree that that would improve the
16 system to isolate the industrial drainage that could
17 impact the wetland treatment. Can you provide
18 clarification on when that happened? Was that last
19 winter?

20 MR. WAYNE STARLING: Wayne again. No, it
21 was the winter before, so the winter of 2007.

22 MS. MARY KELLY: Thank you.

23 MR. WAYNE STARLING: You're welcome.

24 MR. GEORGE LAFFERTY: George Lafferty
25 here. I got pictures of that when the berm broke loose

1 and what was visible, like, the runoff from the -- the
2 dykes was about two (2) kilometres, I -- I measured it,
3 and that was just what I could see.

4 And what -- you know, was there a cleanup
5 ever done all the way down that drainage ditch down
6 towards the lake? Because, like I said, I -- you know, I
7 measured it myself, it was two (2) kilometres what I can
8 see but there must've been, you know, runoff under the
9 snow where we couldn't see. So was that ever cleaned up?

10 MR. WAYNE STARLING: Wayne Starling
11 again.

12 Yes, George, it was. Through that winter,
13 this occurred in the first week in January, and the Town
14 blocked off this drainage ditch. It's about a couple of
15 metres wide and a metre deep type thing. So there were
16 several blocks put in the ditch to prevent runoff from
17 going toward the lake and then a pumping station set up
18 to pump water, that was in the ditch but still not
19 frozen, back into the wetland area.

20 So that happened through until spring. So
21 I -- there was a -- a sump set up and as water would
22 drain back it was pumped into the wetland, and then
23 continued through the melt period until sometime in early
24 May, and water samples were collected and that runoff was
25 analysed right up until the finish of -- of the spring

1 melt.

2 And at the final period in -- in mid --
3 mid to late May, the analysis showed bacterial and water-
4 quality parameters to be less than the criteria outlined
5 in the water licence for disposal. So any of the runoff
6 that was residual met water licence requirements.

7 So there was quite an extensive period of
8 work done, probably five (5) months, during that time
9 frame to ensure that as much of the spilled material or
10 escaped material as possible was returned to the wetland,
11 and that following that, the residual was within the
12 quality requirements. Okay?

13 MR. GEORGE LAFFERTY: Thanks.

14 MR. WAYNE STARLING: You're welcome.

15 MS. ANNE UMPLEBY: Anne Umpleby here.

16 Mary, you asked for clarification on the -
17 - on that ditch. Does the clarification that Inspector
18 provided, is that sufficient or do you still want Hay
19 River to provide clarification?

20 MS. MARY KELLY: I guess I'm satisfied to
21 know that the ditch is now not running along the side
22 that has the wetland but rather on the other side, and if
23 that's a con -- confirmed situation then that satisfies
24 me.

25 MR. WAYNE STARLING: Wayne again. Just

1 to carry on from that, Mary, about 50 metres, I'll say,
2 off of that roadway there is a berm that directed the
3 wastewater from the -- after the sewage treatment
4 facilities into the wetland. And it was that -- that
5 berm that -- that failed, essentially.

6 So once the ditch was abandoned and
7 replaced to the other side of the road, the cleanup and
8 reclamation plan provided from the Town indicated that in
9 time they will fill that ditch so that it doesn't just
10 have blocks in it to -- to prevent runoff, but they'll
11 fill the ditch and actually make -- make it a berm
12 instead of a ditch so that there'll be a second level of
13 -- of containment, if you will.

14 So I encourage that to -- to happen. It
15 will take time as fill is available to -- to move all the
16 way down that ditch and actually tie it in with the far
17 end of the wetland drainage structure. So I think that
18 will be a much better facility in time partly because
19 it'll be a better berm, and secondly, because it'll be
20 much easier to inspect and -- and to maintain and -- and
21 observe.

22 MS. MARY KELLY: Thank you, Wayne. This
23 is Mary again. So currently that berm that was isolating
24 the runoff ditch from the wetland effluent, currently
25 that berm is still functioning as a berm.

1 Can you confirm that?

2 MR. WAYNE STARLING: That's correct, yes.

3 MS. MARY KELLY: So as of now, as --
4 like, since that incident and the five (5) months of
5 working to correct it, the wetland effluent is being
6 processed and flowing in the same pattern as it was prior
7 to the berm failure, correct?

8 MR. WAYNE STARLING: That's correct,
9 yeah.

10 MS. MARY KELLY: Thank you.

11 MR. WAYNE STARLING: You're welcome.

12 MR. GEORGE LAFFERTY: George Lafferty
13 here again.

14 When they repaired that berm I think there
15 was a outer berm that was built around it, wasn't it?
16 And was there liners used to -- no? Okay.

17 MR. WAYNE STARLING: Wayne Starling
18 again. No, none of that berm is lined with any geotech
19 style type of material.

20

21 (BRIEF PAUSE)

22

23 THE FACILITATOR: Are there any other
24 questions?

25 MS. MARY KELLY: One (1) question about

1 additional information to
2 review.

3

4 MS. MARY KELLY: And again, we request a
5 specific location indicated for the SNP site.

6 Can I just make a general request that all
7 the SNP sites be mapped or indicated the specific
8 location? I request it specifically for the wetland
9 because it is rather unclear where that sample is being
10 taken.

11 MR. WAYNE STARLING: Wayne Starling,
12 again. Mary, I do have water quality data that may not
13 have been -- would not have been reported with the UM
14 (phonetic) report from my collection with INAC, so you're
15 welcome to that if you wish.

16 MS. MARY KELLY: Thank you, Wayne.

17 MR. MICHAEL RICHARDSON: Mike Richardson
18 here. I'd to also -- or to commit to mapping all SNP
19 stations for Environment Canada.

20

21 --- COMMITMENT NO. 9: To map all the SNP locations

22

23 MS. MARY KELLY: Thank you. I have a
24 question for clarification from the Board.

25 When there are sample sights indicated in

1 the SNP monitoring program that don't have specific
2 numbers to -- to meet, there are simply monitoring
3 points. Are those SNP sites expected to be sampled?

4 And I'll give the specific example of 53-
5 3, which is at the end of the lagoon for monitoring but
6 not for compliance.

7

8 (BRIEF PAUSE)

9

10 THE FACILITATOR: Yeah, those SNPs are
11 supposed to be sampled whether they have values
12 associated with them or not.

13 MS. MARY KELLY: Thank you.

14 MR. WAYNE STARLING: Wayne Starling again
15 from INAC. Yes, they're supposed to be sampled if
16 they're directed so -- to be done so in the Surveillance
17 Network Program. But there are a number of sample
18 stations in the Surveillance Network Program identified
19 for evaluation, say, of a -- of a system that don't have
20 sampling requirements in the -- in the -- in the licence.

21 So that particular station that you
22 referred to, 53-3 is identified as a -- as a point, but
23 it isn't required to be sampled. And as is 53-4. For
24 those not familiar, 53-3 is the location following the
25 treatment in the sewage lagoons. 53-4 is raw sewage from

1 the lift station. And the reason these were identified
2 initially many years ago in the water licence was so that
3 there would be documented points available if there was a
4 requirement for efficiency monitoring of the treatment
5 system.

6 If sampling was done at -- at the lift
7 station and at the outflow from the sewage lagoons, for
8 example, one could calculate and measure the
9 effectiveness of the treatment in the lagoon system.
10 Likewise, if samples were collected there and at the
11 discharge from the wetland, then efficiency could be
12 calculated as to the treatment of that particular aspect
13 of -- of treatment.

14 So some of these stations were designed in
15 the system so that if they wanted to be looked at in
16 isolation, they -- they could be done so in a specific
17 point. But as far as the compliance monitoring is
18 concerned, the wastewater from the wetland treatment
19 area, 53-2 is the station that's sampled.

20 MS. MARY KELLY: Thank you for that
21 information, Wayne. And I believe that this discussion
22 about the specific SNP sites and their use will be an
23 ongoing discussion.

24 I'm not looking for -- to make any
25 statements right now about that. But I do request that

1 the Board speak to what Wayne was saying, just to make
2 sure we're -- we're all clear that -- that 53-3 does not
3 require sampling, which is different than what you just
4 told me.

5

6 (BRIEF PAUSE)

7

8 MR. WAYNE STARLING: Wayne again. Just
9 further to that, you may see in -- in other water
10 licences where conditions are such that a station no
11 longer exists, but it'll still be recorded in the water
12 licence so that it maintains its historical location
13 because we may wish to go back fifteen (15) or twenty
14 (20) years ago and look at -- at some data.

15 And if that -- if that station number has
16 changed or isn't there anymore, it -- it would be very
17 confusing to those who are reviewing that information.
18 And that's why these numbers generally, especially in
19 water licences that are long-term, are assigned and they
20 don't change.

21 So if there's a new one, a new location
22 established, it'll get another number, but that way the
23 data is -- is consistent and clear throughout the term,
24 not the term of the licence but the term of the life of
25 the -- of the community.

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(BRIEF PAUSE)

THE FACILITATOR: With regard to 53-3, I know it's been requested that it be sampled, and there is no real requirement, actually, in the SNP part of this licence that they sample it right now.

So with, I guess, justification for reasons why they should start sampling, and then it can be considered to be included for this renewal.

MS. MARY KELLY: Thank you.

(BRIEF PAUSE)

MS. MARY KELLY: I have a question about -- oh, were you going to say something?

MR. RON KENT: I was going to ask the same question you did.

MS. MARY KELLY: Okay.

MR. RON KENT: And that I'm not sure that it's clear yet. They only discussed the one (1) -- the one (1), so if I could just do that again. Could the Board please clarify that it -- simply because a station exists in the water licence, it doesn't necessarily mean that it needs to be sampled.

1 The only ones that need to be sampled are
2 the one (1) here, and I -- as in Section B, the ones that
3 are defined as what -- as what are required to be sampled
4 and the parameters that are required to be sampled.

5 MS. ANNE UMPLEBY: Anne Umpleby. Yes,
6 that is correct. The -- the sample points are listed
7 under 'A', and then under 'B' is a sampling, an analysis
8 requirements. If there's nothing there under for that
9 specific SNP station, there's no requirements.

10 MS. MARY KELLY: In 1974, there was a
11 study done, you mentioned. Ron, can you provide
12 references to that study?

13 MR. RON KENT: Well, it's Hartland Roe.
14 I don't think -- the paper should be in somebody's
15 library.

16 MS. MARY KELLY: If someone else has that
17 in their file system, can they make it available?
18 Otherwise, I'll look for it myself.

19 MR. RON KENT: I'm trying to remember if
20 I still have a copy of it. It was -- it's -- it's been
21 precised. There's a more recent document, excuse me, by
22 Gary Hankey (phonetic) and Felix Quay (phonetic), I think
23 -- I think it's Quay and Hankey -- the potential for
24 wetlands in the Northwest Territories. You probably have
25 that right on your shelf, and it's been precised in

1 there. I know that.

2 So that -- if -- if that -- if it's not
3 available as a paper unto itself, that is the -- it's
4 been precised in one (1). There's a whole bunch of other
5 information in that too, and that's from about '93-ish,
6 that paper.

7 MS. MARY KELLY: Thank you.

8 MR. RON KENT: You're welcome.

9 MS. MARY KELLY: I just also wanted to
10 mention that I appreciate that this wetland study has
11 been done, and it shows that some thought was put into
12 the actual location of dumping sewage.

13 That was thirty-five (35) years ago. The
14 situation might be drastically different. And with all
15 the con -- the waste that has been put into that system,
16 it might be functioning differently.

17 So I just want to put that on the table,
18 that the study done, though helpful, may not reflect the
19 current hydrology and the current volume of waste input.

20

21 (BRIEF PAUSE)

22

23 MR. GEORGE LAFFERTY: George Lafferty
24 here.

25 Like, if there is an operation for three

1 (3) to five (5) years, is -- you know, the wetland still
2 has the same filtration that it had thirty-five (35)
3 years ago? Like today?

4 MR. RON KENT: I understand there's been
5 some modifications done to the hydrology around it.
6 There's been some -- before, when it was first started
7 out, it -- it wasn't as defined as it is now, so there's
8 been some modifications to it. And I believe that also
9 the -- the -- the final point where it discharges was
10 eventually shaped into where -- a point where the people
11 are collecting the -- the samples now. But it's been --
12 it's been operating there since the '60s, yeah.

13 MR. TODD PAGET: Todd Paget. Just a
14 quick question on that. I had a similar thought.

15 So the study was done in '74, so of course
16 it's been a long time. What was the, I guess, original
17 context of that study, i.e., how many people were in the
18 Town at that time and has it been considered that a
19 follow-up comparison to determine whether or not the
20 original design criteria remain the present use of that
21 site?

22 MR. RON KENT: I'm not sure there was
23 actually a -- it's only been recently -- this is the
24 technical discussion, right? Where this has --

25 MR. TODD PAGET: Yeah.

1 MR. RON KENT: -- only been recently that
2 there's actually been actual engineering models developed
3 for wetland design, and it's only in the last twenty (20)
4 years and even in the last ten (10) that there's actually
5 any been used.

6 And the one that's -- the ones that are
7 used up here are ones that Alberta developed a number of
8 years ago and the -- and I -- and I looked at a whole
9 bunch of different models personally and I ended up
10 choosing Alberta's because it had a -- a value in it
11 where I could juggle it for temperature. And none of the
12 other models had that. The one in Alaska didn't,
13 anything else didn't have that. So I could juggle it for
14 temperature. And we've used that model ever since all
15 over the north.

16 And I can give you a copy of it if you
17 like, it's just a spreadsheet. And I think most of the
18 designers up here who design wetlands use that model
19 specifically because it's a nice arithmetic algorithm and
20 you're able to adjust it for temperature so you can
21 adjust it for location.

22 And right now the -- under another process
23 the -- I can't -- Flemming College (phonetic) is into the
24 -- is in the Cavalic (phonetic) region doing a great big
25 study on all the wetlands that we put in there to look

1 at. And it's going to be developed into, as part of an
2 international program, into a model called "Subwet 2.0"
3 (phonetic) or something like that, which looks at all
4 this modelling. And Mary knows all about this stuff.

5 So -- but we haven't gone back in the
6 Territories, there's never been any money available to do
7 it, go back into the Territories, in any of the wetlands
8 we have here, and compare and contrast into existing
9 models, or to look at the effects of time over -- like
10 this -- this -- this -- we offered that this is a very
11 mature site as opposed to a lot of the other ones that
12 have been operating for ten (10) or fifteen (15) years.

13 As a matter of fact, it was interesting,
14 the one (1) I designed for Arviek two (2) years
15 afterwards was meeting the effluent quality requirements
16 that I had designed it for. Now and -- and it was a
17 beach basically and they had to -- and -- and it -- and
18 it star -- it's -- it's still developing itself, it's
19 still developing bits and pieces of flora in there so
20 that it -- to treat the waste water.

21 As I say, this is a mature one. We don't
22 have many mature ones up here that -- except for
23 Yellowknife's -- Yellowknife, and it's not the same at
24 all because it's a series of lakes. It's not like this
25 where it's spread out across the land where this is more

1 of an overland flow combined system. So it'd be really
2 interesting to do a major study on it.

3 So now I'm coming to the point of sampling
4 53.3. Sewage is not a homogeneous mixture. It comes out
5 in bits and pieces and particles and all sorts of stuff,
6 and if you go and sample it you have to go and sample it
7 in a certain way so that you can say that the effluent
8 that I have in this bottle fairly represents the effluent
9 that's coming in here, not the effluent that's come at
10 this moment in time.

11 And to -- and then to, say, take a grab
12 sample -- like most of the samples that are required
13 under the sampling programs are grab samples -- to then
14 come and say that I can use this sample and say that the
15 ef -- and the -- when I took the grab at the end of this
16 one (1), and say this is the efficiency of the system,
17 well, you're right, no you're not, because it took weeks
18 for that particle of sewage to get from there to there,
19 so you really don't -- what you're looking at is -- in
20 that end, the -- the discharge end, the historical sewage
21 that came out, and you're -- you're not really get
22 anything proper.

23 So the resources really are unavailable
24 around to do that kind of a level of study. However,
25 Environment Canada has them, and they're -- and they're

1 doing this whole northern working groups and they've got
2 all this stuff happening.

3 I just finished designing one (1) for
4 Alert. I understand Environment Canada's interested in
5 that because it's starting from zero. So there's a --
6 there's one (1) -- we've got one (1) that's sixty (60)
7 years old and that'd be interesting to look at. We've
8 got one that's a -- minute's old. That would be
9 interesting to look at. Plus all the ones in between.

10 So -- but these require pro -- a proper
11 study and not random samples taken now and then on some
12 sort of monthly basis because that's going to just cloud
13 up what the actual efficiencies are. There should be a -
14 - a more of a scientific process done.

15 The -- these water licences and the
16 samples that are taken for them are for compliance and
17 responsibility, not -- and not for study. That's my
18 summary. Okay. Thank you.

19 MS. MARY KELLY: I appreciate your
20 comments, Ron, and I -- I suppose it's time for me to
21 speak to the Environment Canada study. We're not at a
22 stage of saying "yes" or "no." We're still developing
23 our work plan. We can't go to every site.

24 Also, Hay River falls into the climatic
25 zone of Northern Alberta, which if we didn't choose the

1 territorial lines of distinguishing where we're going to
2 do our northern research program, Hay River wouldn't have
3 fallen in -- in that zone where we're considering
4 different standards. So that -- that changes our mind
5 about whether this is a system that we should devote so
6 much time and money to study.

7 So there is a possibility, and we
8 definitely are thankful that we're welcome to study there
9 and we -- that we would receive support in the Town. But
10 I think for the sake of our water licence review, we need
11 to put that aside and simply address that there's a -- a
12 lagoon system that is discharging to wetland, like so
13 many others in the north, that stipulate that wetlands
14 treat wastewater and therefore we're providing adequate
15 treatment.

16 And so Environment Canada puts forth that
17 the monitoring and compliance should -- should occur at
18 the front end of the wetland system where control can
19 happen so that, as you said, Ron, it's not two (2) weeks
20 later that it's -- it's downstream and we're only
21 catching two (2) weeks later and all this water is
22 already in the system.

23 Well, if -- if -- if something goes wrong
24 at the front-end, there should be a -- a method to
25 control what's going on there. And that's why we request

1 that the compliance be at the front-end and that
2 monitoring happen at the back end.

3 I agree that scientific -- scientific
4 sampling and a thorough research on the wetland would be
5 wonderful, and it would be wonderful if everyone had the
6 time and the money to do that at all the systems. So we
7 -- we don't -- of course we'd hope that the Town could do
8 this, but we don't request that the Town do this; we
9 request that a few points of compliance and monitoring
10 occur to ensure that it's -- the system is running
11 efficiently, and not necessarily to prove beyond a reason
12 -- reasonable doubt that the wetland is providing
13 efficient treatment.

14 MR. RON KENT: I'd like to speak to that
15 a little bit more, but we're -- it's ten (10) after 12:00
16 now, and I wonder if we could break for lunch and I can
17 come back and talk about that a little bit more?

18 THE FACILITATOR: Thank --

19 MR. RON KENT: Please and thank you.

20 THE FACILITATOR: Thanks. I didn't want
21 to interrupt your -- yeah. But at what time? Like
22 quarter past 1:00? Quarter past 1:00 come back from
23 lunch.

24

25 --- Upon recessing at 12:13 p.m.

1 --- Upon resuming at 1:25 p.m.

2

3 MS. ANNE UMPLEBY: Hi. Good afternoon.
4 If everyone wants to have a seat, and we can get started.
5 I think what we're going to do here is ENR -- Todd has
6 requested to make one (1) additional statement regarding
7 the solid waste facility. So what I'd like to do here is
8 just finish up our discussion on the sewage disposal, and
9 then give it over to Todd for a few minutes and he can
10 say what he needs to say.

11 So Mary had the floor when we last left.
12 I don't know if you have any more questions.

13 MS. MARY KELLY: I'm not sure where we
14 left off, but I think Ron had more discussion to put at
15 the table.

16 MR. RON KENT: I wanted to talk a bit
17 about a word that Mary used, and that the point of
18 control.

19 And when we look at a sewage treatment
20 facility, such as this one, or other ones that we have up
21 north that involve lagoons and wetlands, that's an entire
22 treatment facility. And anything in -- anything between
23 the out -- the -- the inlet pipe to the facility and the
24 final discharge point is the treatment process, okay?

25 So taking samples somewhere along the line

1 Edmonton and I go to the Gold Bar Treatment Plant, where
2 would you sample their effluent? At the river, right?
3 You wouldn't sample it midterm, except for unit process
4 analysis to determine how each of these individual
5 processes are -- are operating, okay?

6 So Hay River knows -- and -- and the other
7 thing about it is that -- this point of control is that
8 one assumes that, oh, if we can't meet an effluent
9 quality, we should be able to turn it off. Well you
10 can't turn it off, not even in Edmonton. If you do,
11 it'll overflow somewhere else. You can't stop the sewage
12 from coming. You have to sort of put up with the fact
13 that it's out of compliance for that particular moment in
14 time.

15 And so as an engineer, we try to design a
16 -- a facility that has additional capacity in it, and
17 acknowledges the fact that at some point in time we're
18 going to have a high strength waste water enter it.
19 Whether it happens from the truck itself, or from the
20 pipe, or whether we have a breach in the lagoon like
21 we've had a couple of years ago, it'll be able to take up
22 that extra little flush, and -- and also look after the -
23 - the increase in population in the community.

24 We worked on, together with ENR, on
25 guidelines a number of years ago on what would be

1 acceptable to be discharged from a -- an industry coming
2 into Town, or a commercial entity coming into Town for
3 the first time. How much -- what effluent quality would
4 we accept from them into municipal sewers so that it
5 would protect our downstream infrastructure, which is
6 basically a carbon treatment process.

7 So I wanted to -- on behalf of this -- the
8 Town, and any other town up here, say, Please don't put
9 interim sampling compliance requirements on these
10 facilities. They're not designed to do it that way.
11 They're designed to have an influent and an effluent, and
12 the -- the vagaries of carbonaceous treatment up north
13 is, you know, under various circumstances and -- and
14 environmental conditions of snow and wind and rain and
15 everything else don't allow you to really do that and
16 have any -- and make any sense of the information that
17 you're getting.

18 Now this facility, I understand, has had a
19 couple of non-compliance issues. And generally, as I
20 understand it, the non-compliance issues have been
21 ammonia related, or they've been related from high
22 suspended sol -- elevated suspended solids, and that is a
23 result of -- of wildlife activity in -- in the treatment
24 process itself. So we have to get the Hunters and
25 Trappers Association, I suppose, to get the beavers out

1 of there so that we can have -- have more consistent
2 effluence.

3 Anyway, so that's what I wanted to talk
4 about with -- with control, and ask the Board not to be
5 doing things like that. It -- they don't make any sense,
6 and you're going to be putting people out of compliance
7 for no reason at all. That isn't -- that isn't their
8 treatment process to have interim sampling pro --
9 location. Thank you.

10 MS. MARY KELLY: Just a couple of things.
11 First of all, the Gold Bar Treatment Plant I have no
12 knowledge of, so I can't compare it as for a point of
13 compliance.

14 Second of all, the effluent standards that
15 we would request add a compliance point at the end of the
16 lagoon as opposed to the end of the wetland, would
17 certainly reflect the fact that it has only received
18 primary treatment at that stage. So I just wanted to
19 make that clear. We wouldn't request ridiculous numbers
20 at that stage.

21 But at the end of the wetland it would be
22 monitoring to make sure that between the point where it
23 comes out of the lagoon and the point where it's --
24 wherever the SNP site is, or at the receiving water, the
25 -- something different has -- has occurred that there has

1 -- there's better water quality downstream.

2 The difficulty with the wetland is that,
3 as you said, Ron, the discharge path is so variable,
4 perhaps, or the point where the compliance is -- is set
5 is not necessarily reflective of the effluent that's rece
6 -- that's entering into, eventually, the lake. And so
7 that SNP point is an important point to establish what
8 its purpose is, and what's it's really telling us, and
9 where -- again, where is that point?

10 So -- so there's more control over what's
11 -- okay, what does this sample represent higher up in the
12 system when it's leaving the lagoon? We know -- we can
13 have some control over what is leaving that lagoon
14 system, whereas when it's flowing diffusely through the
15 wetland, the 60 hectare wetland, who knows where it's
16 going, and what quality it is when it eventually reaches
17 the lake, maybe in that ditch, or maybe a kilometre
18 downstream.

19 So I don't think Environment Canada is
20 prepared right here right now to state what we will and
21 will not request, but that's -- those are some comments
22 from Environment Canada at this stage.

23 MR. TODD PAGET: Todd, here. Just one
24 (1) quick question in regards to this discussion. And it
25 may not pertain, actually, to this lagoon specifically.

1 But is there any kind of sampling to check
2 for trace contaminants that may actually disrupt the --
3 the bio activity in there, like, for example, at the
4 influent where it does come in, to see if there is
5 potentially something that would disrupt the natural bio
6 in there?

7 MR. RON KENT: Well, I can't say that
8 there's sampling per se. Again, as I mentioned before,
9 raw sewage is not homogeneous in -- in its nature. But
10 we do know that there's no major industrial or commercial
11 discharges into that lagoon.

12 So all that's coming there is normal
13 domestic sewage. The worst that we would get from that
14 is people not buying green at the grocery store and
15 putting down domestic cleaners that are highly toxic.
16 And even those would be so dilute by the time they got
17 there that -- that they wouldn't cause any damage in the
18 lagoon.

19 So because of the nature of the system and
20 the knowledge of up -- of the upstream, those kind of
21 things haven't been done. At one (1) point in time, when
22 -- when Hay River was contemplating that -- that
23 abattoir, the piggery they were going to have there as an
24 abattoir, they did contemplate putting in very stringent
25 sewer bylaws that would protect this infrastructure from

1 that -- from that piggery that was going to be there.

2 So they had -- they didn't do it because
3 that enterprise folded, but, at the end of the day, you
4 know, the only time you -- you would -- you would put in
5 a sewer bylaw to protect your infrastructure if you had a
6 noticeable or a large percentage of -- of commercial
7 industrial wastewater going into it, and that doesn't --
8 isn't the case here in Hay River.

9 MR. ROBERT JENKINS: It's Robert Jenkins,
10 of INAC.

11 So, Ron, just with the sort of having a
12 sampling point, you know, as we move down through the
13 system, you were saying that, you know, there's no value
14 added, but, correct me if I'm wrong, but you were sort of
15 looking at that from a compliance point of view, not from
16 a knowledge of the system point of view?

17 MR. RON KENT: Well, again, we're -- I
18 tend to wear different hats when I'm talking here, and
19 the reason is that I'm focussing this as -- and this is a
20 water licence. So we need to have compliance with the --
21 with -- with what is necessary to protect the environment
22 and -- and people's pub -- and the public health, and we
23 need confirmation that that's being done.

24 So we need to make sure that the effluent
25 that's being discharged to the environment is being

1 discharged at a rate, and -- and in a location, and at a
2 quality that meets those requirements.

3 That's the need to know. Everything else
4 is kind of nice to know. And for the Board to ask for
5 stuff that's nice to know seems to -- to me to be, as a
6 member of the public, and also as a member of -- of the
7 engineering profession, to -- to be so -- sort of
8 overstepping what they -- what they -- their
9 responsibilities.

10 And -- and I would like to say that the
11 Town of Hay River is a professional organization and that
12 they will -- if they're starting to feel that things are
13 going bad, they're going to go in and study it, and
14 they're going to say, oh, we have a problem, we need to
15 do this. But that comes from -- that comes from within
16 and not necessarily from -- from without.

17 And I agree that twenty (20) years ago we
18 needed more of a big brother to look after these things
19 and make sure things were happening, but not -- not now.
20 The -- the organizations are much more professional than
21 they were twenty (20) odd years ago, and have the
22 ability, the financial ability to -- to do this when it's
23 needed.

24 To do it just because it's nice to know
25 doesn't seem to right to me, doesn't seem a proper

1 expenditure of -- of municipal funding when there's so
2 many other things that need to be looked after.

3 MR. ROBERT JENKINS: It's -- it's Robert
4 Jenkins again.

5 So -- so what you're saying is that, from
6 a -- if you have a problem downstream with your
7 compliance point before it exits the system completely,
8 then that sampling would be useful to understand at what
9 point you might be -- sort of how things are moving
10 through and at what point, you know, as it leaves the
11 lagoon, what the treatment level is as it enters into the
12 wetland, and then vice-versa.

13 MR. RON KENT: I'm -- I'm sorry, I didn't
14 understand your question.

15 MR. ROBERT JENKINS: I guess what I --
16 I'm trying to sort of understand what you just -- what
17 you just mentioned by saying it's a nice to know versus a
18 need to know.

19 So the way that I sort of heard you, which
20 could be wrong, is that -- is that if there is a point at
21 which you're -- you're having a problem with your system,
22 then those nice-to-knows become a need to know. And
23 maybe it's just better for you to explain --

24 MR. RON KENT: Okay.

25 MR. ROBERT JENKINS: -- that again.

1 MR. RON KENT: Well, what I'm suggesting
2 is that if -- if the Town finds that they're out of
3 compliance, in the springtime, well, you know, with
4 spring runoff and a bunch of other things and it bumps a
5 little bit here and there, but if they're out of
6 compliance in July then they're going to -- that's going
7 to twig them right away, I'm going to say -- I'm speaking
8 for you here -- that they're going to start looking into
9 what's the problem, we're out of compliance.

10 And they're going to -- and if they're out
11 of compliance again in August then they're going to start
12 bringing in some outside help probably to look at their
13 system in a more -- in a more diligent manner than just
14 looking at compliance samples because interim sampling
15 along the way is -- is nice, but where are those points
16 and how do we set them up and how does this -- but you
17 need a whole hydrological understanding of this wetland.

18 And that's part of the work that the
19 Flemming College is doing, for example, that you're aware
20 of, to look at the hydrology of the wetland. Those
21 things have to be established before you start sampling
22 them.

23 The other thing is that there's lots of
24 stuff that can be done in th interior to a wetland to get
25 it to treat a little bit better. If it starts to channel

1 so the water's going through faster, you can divert that,
2 you can clear brush, you can do -- clear beavers, you can
3 do things to adjust it and -- and make some changes to
4 it. You wouldn't do that if it's working properly. It's
5 sort of, you know, if it's -- if it's working -- you
6 know, if it's fine, don't touch it, kind of thing, leave
7 it alone. When you find yourself going out of
8 compliance, then you're -- then you'll know.

9 And to have an -- an interim -- like this
10 sewage lagoon, for example. So you take a sample. Let's
11 say the number's supposed to -- I'm going to make them up
12 -- let's say the number's supposed to be a hundred. It's
13 a hundred and twenty (120). What are you going to do?
14 Seriously, what are you going to do?

15 If we can turn this back on again, I have
16 it up on the -- can we turn this back on again?

17 This is this four (4) cell UMA drawing
18 that I have here. I don't know if you guys still have it
19 with you or with -- in -- in your handouts?

20 No, they don't? Okay. It's coming --
21 it's -- it's coming up in a second here, eventually.

22

23 (BRIEF PAUSE)

24

25 MR. RON KENT: Okay. Well, there's half

1 of it, anyway. So let's say it's a -- it's a hundred and
2 twenty (120). What are you going to do? Well, I'm going
3 to suggest you sample it again, to start with, see if the
4 number's right. Because it's a one (1) time only sample
5 there could've been a lump of material that fell out of
6 the pipe while you were sampling, it could've been the
7 wind was blowing in that direction that day. There's all
8 kinds of things.

9 It's a -- sampling this thing is not
10 really going to tell you much, and, of course, it's all
11 going to -- it's going to function based on how much
12 material is collected at the bottom of it. You know, the
13 -- and all of these things are -- are done by the
14 operators themselves and the managers themselves of these
15 things.

16 So just having a -- a sample that's out of
17 -- that seems strange here doesn't necessarily mean that
18 the wetland is not going to be able to handle it. Okay?
19 It's got -- it's got capacity or potentially has capacity
20 to -- to deal with something that's, you know, a little
21 bit over.

22 If you were getting out four hundred (400)
23 out of here when you're only putting in two hundred (200)
24 at the front, then, yeah, you got a problem and -- but
25 you'd be able to see that. The operator looking at this

1 thing would be able to see that visually with all of the
2 crud that'd be coming out with it.

3 So, say, unless you -- and unless you go
4 in here and do what I'm going to call composite sampling
5 where you sample a little bit every fifteen (15) or
6 twenty (20) minutes and end up with a big bucket of -- of
7 liquid just to -- and analyze, you are not really going
8 to know what's coming out of that daily, anyway.

9 Those kind of machines are pretty
10 expensive, and the analyses are difficult, and all that
11 sort of stuff. So I'm not sure where I'm going with all
12 of this, but anyway, all I'm saying is that those type --
13 the sampling has to be done in a certain manner in order
14 for you to have understanding of what's actually
15 happened.

16 And then you have to have triggers of
17 that. What am I going to do if I see such and such a
18 number? If it's part of your compliance sampling, then
19 all of sudden this number goes to someone sitting at a
20 desk in Yellowknife, who has never run a situation --
21 never run a system like this before, has no knowledge of
22 it, all they see is the numbers out of compliance with
23 what you were aiming for, and bells ring, and things
24 happen.

25 And they have to -- you know, those kind

1 of things -- and what I'm try -- I'm trying to help with
2 -- with not have future problems for the Town in dealing
3 with technical questions that really don't -- they're not
4 going to help the Board itself in deal -- in licensing.
5 Thank you.

6 MR. TODD PAGET: It's Todd, here. I just
7 -- I'm going to delve in just for a sec, just because I
8 picked up on something here. So not knowing the basis
9 completely of this discussion, there's a lot of
10 background here clearly, and I understand, as well, that
11 it's going to require a significant amount of technical
12 analysis to determine appropriate sampling criteria
13 technique in a system.

14 But that being said, I -- I think it's a
15 point to make that there is a difference, of course,
16 between reactionary compliance, and proactive. So I
17 think in the context of part of what's being discussed,
18 at least to my understanding, is the ability. It's not
19 just for regulators, it's for the Town to be able to
20 proactively see ahead of time when there might be
21 disruptions in the system, and to be able to make
22 proactive changes to that so that you would be in
23 compliance at the end, rather than wait until you're out
24 of compliance at the end to figure out you're not in
25 compliance, and then have to knee-jerk do something to

1 fix it.

2 So I -- I'm not suggesting that I support,
3 you know, a real detailed proactive sampling strategy
4 throughout the whole lagoon system, but I think it's
5 important to -- to put forward that, you know,
6 traditional end point sampling to determine compliance is
7 one (1) thing, but allowing opportunity to actually
8 determine if there's upsets in the system along the way
9 is very important to being able to fix a problem before
10 there's a problem at the end.

11 That's why there would be monitoring or --
12 or preemptive sampling, so to speak, and not that maybe
13 it's practicable in this circumstance again --

14 MR. RON KENT: Ron, here. Is it -- is it
15 -- but is it up to the Board? That's the question.

16 Is it up to the Board to require unit
17 process analysis and preemptive sampling, or are they
18 going to have a little faith in the fact that the people
19 who are trained to operate these systems know how to do
20 it, and they're going to be able to diagnose a problem
21 immediately and take proactive action on it, even though
22 two (2) weeks later it shows up as a non-compliance?

23 MR. TODD PAGET: Todd, here. Yeah,
24 that's a very good point, and -- and I think maybe that's
25 what needs to be discussed is, you know, more so, I think

1 treatment system, or it could be monitoring the way waste
2 comes into the facility and is segregated and controlled
3 too.

4 MR. ROBERT JENKINS: Yeah, it's Robert
5 Jenkins, again.

6 I mean, I'm not suggesting that there be a
7 compliance point. And -- and I guess in the questions I
8 posed to you, Ron, I'm just sort of -- just sort of
9 trying to prod a bit about the -- the usefulness, to get,
10 you know, your knowledge on what the usefulness of -- of
11 taking samples throughout the system would be.

12 And not looking at it from a compliance
13 point of view, but from a -- if you have a, you know,
14 experience a problem at your final discharge point, you
15 know, what would be the -- the usefulness of having that
16 sort of information available to you? And that's sort of
17 what I was looking at. And to have that, I guess, from --
18 - from what I'm hearing from you, these are sort of the
19 things that would be put into a routine, sort of
20 operations and maintenance. You know, if we have a -- if
21 we have a problem with our final discharge, obviously we
22 have a problem, how are we going to deal with that?

23 So, you know, does that -- you know, we
24 need to think about additional sampling. We need to
25 think about this, we need to do this.

1 MR. RON KENT: From a sys -- this -- from
2 -- for this system, I wouldn't -- and I want to talk
3 about the lagoon and wetland system. For this system,
4 having interim sampling points along the way, in my
5 experience over thirty (30) years up here, if you sample
6 along the way the way normal samples are done, you're
7 going to end up with a whole bunch of really confusing
8 results that don't really mean much to you.

9 And there -- so unless you do a really
10 full sci -- full and scientific study with the all the
11 controls, those -- those samples raise alarm where they
12 don't -- it doesn't need to, or those samples will not
13 raise an alarm where they -- where they should have
14 because you weren't standing there at the right time of
15 the day kind of thing.

16 So your best bet -- well, for -- for this
17 case, if it was -- if it was a completely different
18 treatment system, I would be saying, no, no, you need to
19 do this, and you need to do this, and you need to do
20 this, because there's control of that system. This one
21 doesn't have that sort of level of control.

22 So I'm saying, for the licence, that you
23 should -- you should have -- have a compliance at the
24 end, put the numbers there, accept those samples, have
25 them at a frequency that's acceptable to the -- the Board

1 and the public, and then you should be -- and -- and meet
2 those things.

3 Your operation and maintenance plans, I
4 didn't want to talk about that but since you brought it
5 up, there's two (2) of them. One (1) is the one that you
6 give to the Board.

7 It was originally designed back fifteen
8 (15) or twenty (20) years ago when we first started doing
9 these things. Before, they didn't have them. And
10 before, there was lots of problems in the communities
11 with -- dealing with INAC inspectors, so that INAC
12 decided -- or the -- the Board decided that they would
13 ask for O&M plans and they would approve the O&M plans,
14 and these would be what the INAC inspectors used to
15 inspect each facility, and this sort of becomes a
16 checklist process. And, Wayne, you were involved in that
17 with me years ago when we first came up with these ideas.

18 And then there's the training one (1) that
19 Environment Canada would like to see. Well, that's a
20 completely different document that trains the operators
21 and trains the -- the staff and the community on how
22 things are going to be done in this particular community.

23 So the first one is general. That's the
24 one (1) for compliance with the Board that deals with --
25 with the inspector and how -- what he should be loo --

1 he/she should be looking for when they're onsite, making
2 sure things are done properly.

3 Then there's the training one. That's a
4 separate -- that's a separate issue, I believe, and --
5 and it's a very separate document. And I hope that the
6 Board isn't going to be getting into the nitty gritty of
7 -- of greasing -- greasing nipples and tightening bolts
8 on machinery, and that's -- because that's the level
9 those ones are at.

10 So, I mean, you certainly can change
11 yours, the -- the requirements of the -- of the
12 compliance O&M manual to include some of that if you
13 really want to, but I'm saying that it's not -- it's not
14 in -- in the interest of -- of the -- because this goes
15 to the inspector. That's what happens.

16 Whatever you write into the licence, okay,
17 that has to be inspected. There's an administrative cost
18 for that. There's an administrative cost in the
19 community. There's an administrative cost for INAC.
20 There's an administrative cost for -- for every agency to
21 see each -- each word in -- in a licence.

22 So how much is enough? I don't know.
23 That's -- I'm not on the Board. But I suggest that --
24 that there's -- there's lots of opportunity to let people
25 operate, and -- and be responsible, and do things

1 without, you know, watching them all -- watching over
2 their shoulder all the time.

3

4

(BRIEF PAUSE)

5

6 MR. TODD PAGET: I guess my -- Todd here.
7 Just a quick question. Is there issues with historic
8 compliance problems? Is this why this is --

9

MR. RON KENT: No.

10

MR. TODD PAGET: -- specifically coming
11 up? Okay. So it's just more along the lines of -- more
12 along modern standards of testing perhaps or...

13

MR. ROBERT JENKINS: It's Robert Jenkins.
14 I mean, for me, it's more I'm just -- I'm just -- we're
15 asking the question of whether or not -- you know, I'm
16 asking Ron if he feels that that's useful.

17

I mean, I'm getting -- and I'm getting
18 answers from him, so I mean, that's -- that's -- that's
19 all I'm doing. I'm not -- I'm not arguing right now it's
20 imperative to have a, you know, a point right there. I
21 mean this is a technical session and we're just -- we're
22 -- we're talking about things.

23

And, you know, as long as, at the final
24 endpoint of where the system is it meets the effluent
25 quality criteria and those effluent quality criteria are

1 protective of the receiving environment, then it's a moot
2 point.

3 So I -- I mean, I'm -- this is just a sort
4 of a -- a discussion we're having and, you know, my
5 biggest thing is to -- to ask of -- you know, is that --
6 would it be useful to have something there if we
7 experienced, you know, a noncompliance in the future?

8 Would it be something that, you know, if
9 there was a noncompliance and, you know, had this long
10 data set, would it be -- would it be useful to -- to
11 identify what might need to be rectified. That's -- I
12 mean, that's the question I'm throwing out, essentially.

13 But again, if -- you know at the end of
14 the system it's meeting the EQC's then we don't have a
15 problem and everybody's happy.

16 MS. MARY KELLY: This is Mary. I guess
17 the question was raised is this a compliance issue, and
18 some people at the table said, no, absolutely not.
19 However, the material provided does not prove -- does not
20 support that. There was one (1) sample taken in the last
21 year.

22 So I don't know if this facility is in
23 compliance or not. Maybe -- and that will be part of my
24 homework moving on in this session, but I just want to
25 make that clear that if samples aren't taken how do we

1 know whether it's -- and the numbers are falling in
2 compliance.

3 And another question. Ron, you put forth
4 a -- a situation that if the numbers were out of
5 compliance at the end of the lagoon, what would happen.
6 And that was -- this was a question raised. If the
7 numbers at the end of the wetland system were out of --
8 out of compliance, what would happen there in that
9 situation?

10 And this is question that maybe can be
11 answered here, but I don't have information on what would
12 happen if that number was out of compliance, and in --
13 and, in my view, in Environment Canada's view, having an
14 O&M manual in place that details what would happen in
15 such a situation assures us that the people running the
16 facility, you have the tools and the expertise to address
17 a situation like that.

18 And that's why I stress that that O&M in
19 Environment Canada's view is not for the inspector and
20 the Board, but rather for the Hamlet to assure us as
21 reviewers that the individuals who are operating the
22 system are adequately equipped with information and
23 reference material and instruction.

24

25

(BRIEF PAUSE)

1 MR. RON KENT: I don't know. That seems
2 to not have any faith in humanity at all to have, you
3 know, the -- the -- make sure that Joe's got his rubber
4 boots on and he's doing his job there.

5 That's the -- you -- the Town has got a
6 responsibility under various acts to provide services to
7 it's citizenry. And there's a whole bunch of people
8 elected and hired and -- and who are -- who -- who are
9 confident municipal employees and they come out and they
10 do their job every day, and they do their job at forty
11 (40) below in the dark, too, three hundred and sixty-five
12 (365) days a year usually on Christmas Eve when there's a
13 blowout at the sewage -- at the lift station and doesn't
14 -- and people's sewage isn't going away.

15 So I've a lot of faith in -- in the guys
16 who -- in the guys and girls who run these systems. And
17 the second thing is if -- you cannot possibly come up
18 with every single scenario and -- and have it properly
19 detailed. I remember seeing these things from a -- the -
20 - the Americans do this a lot -- and I see saw these
21 stuff -- stuff coming from Alaska and seeing operational
22 and maintenance manuals that were five (5) volumes thick
23 and weighed -- you know, they were like an environmental
24 assessment folder. Nobody's going to look in them.

25 The guys who run these things know how to

1 run them, and they know their system intimately, and they
2 can go into them and they can fix them if there's a
3 problem. So for you to be assured that they -- as
4 Environment Canada, be assured that they have the tools
5 and the expertise and all that, you can be assured they
6 have because the community's going to make sure that the
7 -- the person running this has that.

8 He's properly trained. He's -- he's
9 properly outfitted. He has the right tools. He has all
10 of that stuff. He can go out and he -- she -- he or she
11 could go out and do this work. I don't think that it
12 needs to be monitored from Yellowknife or Ottawa.

13 That's -- but this is a technical session,
14 right? We're just chatting here.

15 MS. MARY KELLY: I do appreciate your
16 comments, Ron.

17 I think at the end of this discussion we
18 really need direction from the Board on what the purpose
19 of this O&M plan is because there's confusion, I know, by
20 many parties here, myself included.

21 MR. WAYNE STARLING: Wayne Starling, from
22 INAC again. The problem with O&M plans and having a
23 document that's going to solve all our -- our problems,
24 as Ron said, we can't -- we can't cover every scenario.

25 But just for knowledge of those around the

1 table, this is a very simple system and so we shouldn't
2 be misconstruing it with something that we can tweak here
3 and tweak there that's going to fix a compliance problem.

4 Water -- wastewater comes into the lagoon,
5 goes through the lagoon, and goes into the wetland. And
6 there's biological activity that takes place and some
7 physical activity that treats this -- this waste.

8 And we, as operators, or people, or
9 inspectors, don't have a whole lot of control over that.
10 So I don't want to have people misconstruing this as,
11 technically, we can adjust it.

12 If it was a mechanical treatment plant,
13 that's a lot of different, but we have to, essentially,
14 have faith that the heavy particles are going to settle
15 and biological activity is going to take place where
16 bacteria eat certain constituents, and plants in the
17 wetland are going to use the nutrients to grow. And
18 beyond that, we don't have very much control over that.

19 So I would say that if the community is
20 out of compliance, the solution to that is a bigger
21 wetland or bigger lagoons, but it's not we direct it a
22 little differently here or we turn a valve there. It's
23 that those are not the kinds of things that we can
24 manipulate in the system.

25 So it's -- it's not as simple as having a

1 document that says, if the BOD in this particular month
2 is twenty (20) parts per million over the guideline -- or
3 the criteria, we'll adjust the system slightly to fix
4 that, because we can't. Thanks.

5

6 (BRIEF PAUSE)

7

8 MS. ANNE UMPLEBY: Anne Umpleby. Is
9 there any other further questions?

10 MS. MARY KELLY: This is Mary. I have
11 further questions about the sewage system. Regarding the
12 sludge cell, it is stated that the sludge is -- when --
13 when the sludge has settled out, the liquid has been
14 removed, the sludge is then applied to the edge of the
15 lagoons -- the -- the berms at the lagoon.

16 I'm wondering if this is an approved
17 method, if the Board has reviewed this, if it is okay to
18 apply sludge without testing it to the edge of the
19 lagoon, or if that is something that is in discussion
20 right now through this water licence application.

21

22 (BRIEF PAUSE)

23

24 MS. ANNE UMPLEBY: Anne Umpleby. We
25 would have to get back to you on that one.

1 MS. MARY KELLY: That's fine. I guess,
2 to reiterate, just that it was stated the method of
3 disposing of sludge, and that raised concerns at
4 Environment Canada, but if the Board has reviewed and
5 approved it that puts it in a different situation. So
6 I'll wait to hear from you what -- what has been reviewed
7 through your office. Thank you.

8
9 --- COMMITMENT NO. 10: Regarding the disposal of
10 sludge, to indicate if the
11 Board has reviewed the
12 method, if it is okay to
13 apply sludge without testing
14 it to the edge of the lagoon,
15 or if that is something that
16 is in discussion right now
17 through this water licence
18 Application

19
20 MS. MARY KELLY: And just for the record,
21 I know that there are questions relating to bioassay
22 sampling.

23 To -- to give a little bit of background
24 bioassay samples were made part of the previous licence,
25 I believe it was an initiative that Environment Canada

1 requested that this formed part of the licence. The
2 bioassay sample is a very evident test on the toxicity of
3 the water that is leaving the system and therefore its
4 effect on the receiving environment.

5 And in -- in the past Environment Canada
6 was part -- was a player in getting the samples done, and
7 recently we've requested that the Town now take over that
8 responsibility. And the rest of Canada this is a regular
9 requirement in water licences, and it's possible that
10 this will be seen more in the Territories in the future.

11 High -- Hay River has it on the file
12 specifically because it's a Class A and because of the
13 volumes and because of the receiving water that is very
14 clearly fish-bearing waters. And so Environment Canada
15 has requested that -- or has allowed that three (3) in a
16 year is not necessarily required, that we would put it
17 down to two (2) at spring break-up and in the fall again,
18 and also that the test to be changed from an LC-50 to a
19 pass or fail test for toxicity. That change reduces the
20 cost and reduces the volume required. As I understand,
21 the volume flow in the system has not been high enough to
22 collect enough sample, but the pass or fail test requires
23 half as much water and also costs half as much.

24 Therefore -- that just provides some more
25 information on what we're seeking. I'm sure there is

1 discussion on whether the Town would like to continue
2 having this in the licence or not, but I just leave it at
3 that for now.

4 MR. RON KENT: It's Ron here. We -- the
5 Town appli -- provided information on -- on its -- on SNP
6 stations in the response to Environment Canada's
7 comments, saying that the new Canadian-wide standards
8 would not require bioassay for a town of this size. And
9 so we would re -- the Town requests that those samples
10 not be required, yes. Go ahead.

11 MS. MARY KELLY: And also along those
12 same lines, for clarification, the -- there are standards
13 being established in -- as national standards, and in
14 five (5) years time the north will be part of that --
15 that -- that program of having very specific effluent
16 quality standards. At this stage for the north, there is
17 no clear sense of what those numbers will be and how it
18 will be applied.

19 And so I don't think it is fruitful for us
20 to evaluate Hay River in comparison with what is being
21 applied currently to the rest of Canada, but simply to
22 verify, for the purpose of this water licence at this
23 stage, what is appropriate for water quality monitoring,
24 not reflecting it to the standard that is currently being
25 applied to the rest of Canada, because it does not --

1 it's not the current situation in the north.

2 MR. GERALD ENNS: It's Gerald, from ENR,
3 here. I guess I just have a question about the bioassay
4 test and what kind of information it would provide. In
5 other words, it's a parameter that, as you said, measures
6 toxicity.

7 And is that toxicity resulting from
8 strictly sewage, in other words, faeces and urine, or is
9 it intended to measure the effects of, like
10 pharmaceuticals being dissolved or other types of
11 contaminants that wouldn't normally be considered sewage
12 that end up in the sewage system anyways?

13 MS. MARY KELLY: This is Mary. Gerald is
14 addressing that question to me. I can tell because he's
15 looking at me. And I don't know the answer.

16 MR. GERALD ENNS: Okay.

17 MS. MARY KELLY: I -- I know a partial
18 answer. I know that if -- that the bioassay tests
19 general toxicity in terms of if the fish survives, then
20 it's good quality, and if it doesn't then there's
21 something wrong, or the substance is deleterious, that
22 the substance is toxic.

23 There are a variety of reasons why this
24 could be, and I can't address the specific parameters
25 that you just inquired about. The one I am very familiar

1 with is the nutrient one of ammonia. If ammonia is very
2 high, then the fish -- it's not suitable for fish and
3 it's considered a deleterious substances to the
4 environment.

5 Does that satisfy you for now?

6 MR. GERALD ENNS: Yeah, a little bit. I
7 guess, like ammonia is a parameter that's associated with
8 like -- with urine, and faeces, and grey water, so it's
9 not like a toxic chemical that you would find in, like
10 sumps in -- in garages. Sometimes vac trucks, they just
11 -- they just suck out whatever's in the -- the sump at a
12 garage and it goes as normal sewage. And that -- we can
13 imagine that would be fairly toxic if -- you know, but it
14 somehow gets diluted with the rest of the sewage, is my
15 understanding of sewage systems.

16 So I was wondering if it was targeting
17 certain parameters outside of -- of faeces, and urine,
18 and grey water. So -- but I -- I can look into that
19 later on my own. Thanks.

20 MS. MARY KELLY: But to directly answer
21 your question, in -- in regular household sewage there is
22 -- there is ammonia, and if it's not properly treated,
23 then it will de -- it will result in deleterious toxic
24 substance. There are other factors in the system that
25 could cause the same outcome, but just, as you said,

1 ammonia from urine will cause that as well.

2 MR. RON KENT: It's Ron here. Since
3 we're just talking technically, it's well known that the
4 -- the toxicity of ammonia, which is the primary toxicity
5 of sewage effluents, is the -- is the -- in most cases,
6 the agent that causes toxicity. It's also known that
7 it's been very well studied.

8 So if I ne -- if I had an ammonia level
9 of, say Level 4, I would know that it would be toxic. If
10 I had a level of -- of say 1.5, then I would know that it
11 was not toxic. Why would I need then to go and kill a
12 whole bunch of fish to prove what I already know from the
13 literature?

14 MS. MARY KELLY: That's an excellent
15 question, Ron. There are times when Hay River has
16 sampled and their ammonia has been less than one (1) and
17 the fish have died.

18 MR. RON KENT: All of them?

19 MS. MARY KELLY: There have been more
20 than 50 percent.

21 MR. RON KENT: Okay.

22 MS. MARY KELLY: And so that because
23 there's this history of failing the bioassay test, we --
24 we suggest that bioassay testing should continue. And
25 because there's been a lack of bioassay testing, there's

1 no indication that the system is discharging water that
2 is not toxic.

3 MR. RON KENT: So let's talk about the
4 bioassay test itself for a minute, if we can. Is it a
5 static bioassay or is it aerated?

6 MS. MARY KELLY: I don't know.

7 MR. RON KENT: Okay. Because that makes
8 a big difference. If you're going to ha -- put fish in a
9 low oxygen environment they're going to die, regardless
10 of what's in there. It could be pure water.

11 So the testing procedures are important to
12 know, and -- and if the -- if the Board's going to have
13 them do bioassay testing, well first of all, I'm sure the
14 Town would offer as much water as Environment Canada
15 would like to take away; come and collect it and have --
16 analyze it as much as you like.

17 If the Board wants the -- the bioassay
18 testing done, then they should stipulate a protocol,
19 okay? We shouldn't just have it just done. It's needs
20 to be -- a protocol needs to be stipulated. Do you
21 require, for all of your other samples, a qualified
22 laboratory to do it? And you -- and from that the -- the
23 Cale (phonetic) approved laboratory follows certain
24 standards that are approved by the Board, and by other
25 government agencies.

1 We also need to know what these things
2 are, so that if there's an issue with the test procedure,
3 that's -- that's showing otherwise compliant effluent to
4 be non-compliant with the bioassay, then the -- we need
5 to know that so that we can address it.

6 If we're -- you know, I didn't see
7 anywhere in the lit -- anywhere at all in any of the --
8 the -- we went through tonnes of data to get this to
9 where we are here, even though we don't seem to have all
10 -- enough of it. And I didn't see a single letter from
11 Environment Canada saying, Gosh, your bioassays aren't
12 passing, you guys should do something about that. Have
13 you -- ask them for additional testing of -- offering any
14 assistance?

15 I mean, what's the point of doing it if
16 it's not going to come back and if -- if -- like we're
17 all supposed to be on the same page. We're all supposed
18 to be doing the same job. We're all supposed to have --
19 be wanting the same outcome. And yet, there's stuff that
20 -- that's not happening.

21 We're not getting good discussions from
22 various agencies, and we get -- you know Wayne does
23 wonderful feedback with the community and helps them
24 along, but Environment Canada: Well, I need this and I
25 need this, and they want this and they want that. And

1 then after that, nothing.

2 So can we have a discussion, technical,
3 fruitful, forward going discussion about these bioassays
4 and this -- the test procedure that's being used and what
5 the potential problems are with why -- why are these fish
6 dying. That kind of stuff. That would be very useful.

7 MS. MARY KELLY: This is Mary. I think
8 some clarification that is required right now is that
9 Environment Canada is not currently doing the bioassay
10 sample. That's why I don't have the information on the
11 procedure. It would have to be a -- a Cala (phonetic) or
12 Cale accredited lab that would run the bioassay sample,
13 and that's something we requested to be reflected in the
14 new licence.

15 As a condition of the licence, if the
16 bioassay failed -- I -- I'm saying this under assumption,
17 I don't know what has happened in the past, but I would
18 assume that an INAC inspector would receive the sample
19 results from a bioassay.

20 Can you make it clear for me, Wayne?

21 MR. WAYNE STARLING: Wayne, again from
22 INAC.

23 This bioassay activity was all coordinated
24 through Environment Canada, and they did the scheduling.
25 The Town of Hay River collects a sample, sends it to the

1 lab, and the lab then deals with Environment Canada
2 directly. So that information comes directly back to the
3 -- to your department. Ron Bugot (phonetic) is the
4 fellow who was coordinating it.

5 And since we're speaking about that issue,
6 there were times where bioassays weren't collected
7 because there wasn't any flow from the -- from the
8 system, noticeable flow. It was stagnant water. And
9 Ron's communication to the Town, from what I understand,
10 was that that wasn't a suitable sample condition, so
11 don't take one.

12 I don't -- I -- I'm just getting that
13 secondhand, because it says in the water licence that a
14 bioassay is required. So Wayne goes and looks, no
15 bioassay. Where is it? And that's the communication
16 that -- that I had gotten back.

17 So that's a -- a concern that I have also,
18 is that, again, it's a requirement, so I have to try to
19 encourage that it be done. But there are -- there are
20 conditions where the sampler is directed not to bother --
21 of course, this is very costly and a big venture. These
22 -- these require about 15 gallons of water, and there's
23 transportation issues, and -- and a big demand for the
24 analysis at the lab, so it's -- it's quite a coordinated
25 activity. And so we don't necessarily want to collect

1 samples that aren't suitable, to start with. So -- so
2 that's another aspect of it, is -- is the frequency and
3 when samples should be taken.

4 And since we're on the topic, it was, as
5 Mary had mentioned, a request from Environment Canada for
6 the Town to cooperate in this collection process. From
7 what I understand, in speaking with Environment Canada
8 staff, it wasn't anticipated or planned that this
9 requirement be contained in the body of the licence. It
10 was to be directed and -- and guided in the surveillance
11 network program.

12 But through administrative conditions, it
13 -- it was placed into the body, which is a big difference
14 in terms of enforcement. But aside from that, if we --
15 we still have some discussions to -- to have as to
16 whether or not bioassays are continued, but if they are,
17 I would prefer that it be a requirement in the
18 surveillance network and sampling aspect.

19 So that's a few answers to the initial
20 question, but that data, I do have copies but I get it
21 secondhand. It comes back to Environment Canada, from
22 what I understand, through the lab.

23 MS. MARY KELLY: Thank you, Wayne, for
24 that information. And I think the sharing of information
25 right now is indicating that I don't have enough

1 information to say anything further about bioassay at
2 this stage.

3 MR. ROBERT JENKINS: It's Robert Jenkins.
4 The one (1) -- the one (1) point we did have in our
5 letter to the Board on bioassay was on the clause that
6 it's -- the way it's written now, and it -- it wasn't so
7 much a -- to sort of clarify, because I know the response
8 that came back, Ron, from you on our -- on our comments
9 sort of stated that, you know, we agree that bioassay
10 should not be a part of the new licence.

11 Well, I think we weren't really saying
12 that we were -- there should be no bioassays done. We
13 wanted to sort of have more time to think about that and
14 -- and further discussion.

15 But what we were saying was that the
16 clause, as it was written, needed reworking if the Board
17 decided to continue with bioassays. And, essentially,
18 the way that the clause is written is, it says the Town
19 shall take the samples and give them to Environment
20 Canada and sort of -- so from a compliance point of view,
21 speaking on behalf of -- of Wayne, it would be quite
22 difficult for him to ensure that somebody who's not named
23 on the licence conducts analysis, so kind of not a -- not
24 appropriate in our minds.

25 MS. MARY KELLY: And this is Mary. Just

1 as I've already stated, our intention is not that
2 Environment Canada be the person -- or be the agency to
3 run the bioassay. That's something that we submitted in
4 our initial comments, but to reiterate it to make it
5 abundantly clear.

6 MR. WAYNE STARLING: Wayne Starling
7 again. Mary, this is -- that's quite new to me, in that
8 when this -- the existing licence was discussed and --
9 and drawn up, it -- it was, at that time, Environment
10 Canada's intent to -- to just have the -- the licensee
11 collect the sample and for you to then take care of the
12 analysis and -- and for your knowledge and information.

13 Now it sounds like that's changed, and
14 correct me, is that correct? Thanks.

15 MS. MARY KELLY: This is Mary. Yes, that
16 has changed, and my understanding, again, though limited,
17 my understanding of the history of the bioassay in the
18 licence is that Environment Canada step forward to
19 facilitate the collection or the analysis of the bioassay
20 as a means of supporting the community.

21 But the intent was that bioassay samples
22 would be -- would continue to be collected as part of an
23 evaluation of the water quality in the system. But the
24 initial involvement of Environment Canada was as a means
25 of moving it forward and actually seeing that it would

1 get done.

2

3

(BRIEF PAUSE)

4

5

6

MS. ANNE UMPLEBY: Okay, moving on. Any other questions for sewage disposal?

7

8

(BRIEF PAUSE)

9

10

11

MS. ANNE UMPLEBY: Okay, Todd, did you want to address your point?

12

13

14

15

16

17

18

MR. TODD PAGET: Thank you. Just to follow up briefly on something this morning to -- to make sure we close the circle, so to speak, there was a discussion about outsourced waste and I -- I just felt that it was kind of left hanging and I wanted to make sure it tied back properly so everybody understood what the focus of ENR's concern is.

19

20

21

22

23

24

The part I was discussing, of course, was access and control over outsourced waste. What I mean by outsourced waste is not people on the trail and such, it was more along the lines of industrial projects that have large waste streams that potentially can come into the communities for reasons I stated earlier.

25

One (1) of the -- it -- it's not just a

1 scope of the licence and it is an important issue
2 because, again, it's something that hasn't really been
3 looked at very closely, traditionally, and it's not of
4 the fault of the Town of Hay River or anybody else, it --
5 it's, again, part of the history of the North.

6 Now with this aggressive pursuit of
7 northern development, there's going to be an increasing
8 pressure on local communities to provide waste disposal
9 infrastructure and facilities for industry from outside
10 sources. And some of these waste sources dwarf the
11 wastes in volumes and type that are sourced by the
12 community.

13 So just to close back on this, our concern
14 with respect to control over outsourced waste is more
15 than just, obviously, our direct concern over adequate
16 protection of the environment from potential
17 contaminants. I mean, there's a possibility for the
18 operation and maintenance requirements of the local Town
19 to not be adequate enough if there's going to be large
20 outsourced wastes come in, whether intended or not.
21 It'll have implications for the life span of the facility
22 which will have direct implications, not only on
23 environmental protection, but on costs and liabilities
24 for the Town.

25 It'll throw off projections for -- for

1 five (5) or ten (10) years or whether or not the facility
2 will be able to stay open for that long. You could see
3 it fill up a lot faster than that. That's happened in a
4 couple other communities where there's a big problem
5 right now where industry has been allowed really to have
6 access to community landfill sites and have frankly
7 filled them up and now the communities are busted for
8 money and expertise to try to do something about it.

9 So I think that the main point we want to
10 maybe just come back is that the control over outsourced
11 waste is both not only the Town knowing when it's coming
12 in, and under what circumstances, but -- but it -- but
13 it's also to understand that the onsite operation of
14 maintenance requirements and segregation facilities need
15 to be adequately designed to handle that waste stream,
16 whether it's internal or external or both.

17 And if it's not going to be external then
18 you don't need to have to have specific requirements in
19 place. If it is going to include external you have to
20 have specific requirements in place, or, frankly, people
21 are going to get in trouble. And just -- and I don't
22 mean trouble meaning, you know, regulatory compliance, I
23 mean, in trouble with respect to our plans not working
24 out, and it creates all kinds of complications and
25 clearly creates money complications.

1 for the Towns to also be cognisant of some of the
2 activities that are happening around their areas and put
3 pressure on regulatory authorities. And I feel safe in
4 saying that, even ourselves, Land and Water Boards, INAC,
5 to make sure that the larger operators are being held
6 accountable for the types of waste streams that they're
7 producing, and where they're going to go to, so that the
8 Towns aren't left holding the bag at the end of the day;
9 and so that it also doesn't end up in a bag in a ditch.

10 So -- so that's the context in that, just
11 to bring it back around, so that I'm clear that, you
12 know, the outsourcing issue and understanding is a mass
13 balance difference here. Again, it's different between
14 what the community is responsible for generating and what
15 goes in there and what can come in from outside. And
16 those can be completely different values that can really
17 throw off your projections and plans, and your costs.

18 MR. FREDERICK BEAULIEU: I'd like --
19 Frederick Beaulieu, from Metis Council, Hay River.

20 I'd like to know how long the filtration
21 of a natural filtration lasts from the time -- say it's
22 being used and the wetlands being used? The lagoon is
23 drained into there, and from -- and then from then, to
24 the time it gets to the lake, how long will the -- will
25 the filtration last because I know about -- lots about

1 filters; it's gotta fill up sometimes. Like, Hay River
2 has what, 35 years already? That must be pretty close to
3 all plugged up now, and have to move some place else for
4 filtering it. Thank you.

5 MR. RON KENT: I can tell you that the --
6 the wetland treatment process is not a filter. It's a
7 process where -- you know that when -- when you're at a
8 stream that has -- and you feel the rocks on it, and its
9 got -- the rocks are all slimy? That's a -- those are
10 bacteria organisms that -- that eat the -- the material
11 that's in the water. Those organisms grown on -- on the
12 trees, on the -- in -- in the -- in the wetland. So
13 they're -- those organisms are -- that bacteria and other
14 critters that live there, they consume the components of
15 the sewage, which is carbon and ammonia and things like
16 that.

17 Then we have the trees and the plants
18 themselves, and they take water, and they take nutrients
19 from more ammonia, phosphorus, and other things like
20 that, and take that up into the tree so the tree can grow
21 and the grass can grow.

22 It's not a filter where -- like an air
23 filter in your car, where it plugs up with dirt and then
24 it doesn't work anymore. The water continues to flow
25 past these things in a -- in a manner where it gets to

1 touch them all the time, and there's -- bacteria grows on
2 the surface, and on the trees and the grass, and -- and
3 then the -- the vegetation itself takes up the rest.

4 MR. FREDERICK BEAULIEU: Thank you.

5 MR. RON KENT: Okay.

6 MS. MARY KELLY: This is Mary. I just
7 would like to qualify that by stating that if solids are
8 dumped -- dumped, I use the word dumped loosely --
9 discharged into a wetland, at the beginning the solids
10 will stay upstream, and -- but if it's inundated with
11 solids over time the quality at the end will be lesser
12 than it was at the start of the -- of using that system;
13 similar to a filter, there will be too much solid in the
14 system.

15 I don't know if that's the situation of
16 Hay River. I'm just speaking generally about wetlands.

17 MR. TODD PAGET: Todd here. Just to help
18 to -- to veri -- verifying, just also put into even
19 simpler terms, instead of the filtration analogy, it's
20 often a conversion analogy. A lot of those wastes that
21 go in there are actually converted to other types of
22 gasses, which will go into the atmosphere.

23 For example, carbon dioxide, which
24 actually converts a lot of the mass, a lot of the volume
25 that's there is now reduced to a point of just a fraction

1 of what it was, because now it's an inert gas that is --
2 is not as toxic, of course, as -- as what otherwise would
3 be the case. So that's one (1) of the reasons why it
4 doesn't clog up.

5 MR. FREDERICK BEAULIEU: If it evaporates
6 in -- into the air, will the air from the water goes up
7 in the air too? Or -- yeah, the air?

8 MR. TODD PAGET: Todd. No, the -- the
9 carbon -- the carbon in a lot of the solids that they're
10 referring to, that's -- that comes in as waste will be
11 actually converted to carbon dioxide, which will go into
12 the air. So it's actually just -- it's an oxidation in
13 chemistry they call it, where it'll convert the solid
14 carbon into a gaseous form, and then makes it inert,
15 frankly makes it safer than otherwise it would be.

16 MR. FREDERICK BEAULIEU: The reason I
17 asked that is because I -- I know at Travellant Lake
18 (phonetic) up in Inuvik there was a -- I got some fish
19 there, and you'd go and get the fish, it was just like
20 spongy. You put your -- your hand right through it.
21 They were -- they were very weak, because it was low on
22 air because they were overpopulated. When the spring
23 flood comes the water comes in and fills it up, and the
24 fish get stuck in there.

25 There wasn't enough food, and there wasn't

1 enough air for them. So I thought when they say, well,
2 50 percent of the fish dying, maybe I thought the air was
3 depleted -- was less air inside the water what might have
4 caused that.

5 MR. TODD PAGET: Okay. Well that's a
6 different scenario. So in a lake, of course, it's a
7 specific environment for fish. In a treatment lagoon
8 it's a specific environment to treat the waste, and fish
9 aren't supposed to be in there living. And if they are,
10 they're pretty darn hardy, and there might be a few in
11 there.

12 But the specific bioassay test they're
13 talking about is taking water out, and then a specific
14 test designed just to see if that water did happen to be
15 going into a lake where there's fish, how dangerous would
16 it be. So it's -- it's different, but it's related.

17 MR. FREDERICK BEAULIEU: Thank you.

18 MS. ANNE UMPLEBY: Okay. We're a little
19 bit behind schedule, so we'll just keep going. We'll go
20 -- move into the SNP discussion. I know some of it's
21 been discussed a little bit, as we've gone forward over
22 the day. If there's any further questions, and then
23 we'll move from there. Thanks.

24

25 QUESTION PERIOD RE SNP:

1 MS. MARY KELLY: This is Mary. I'm
2 taking this opportunity to ask a question related to SNP,
3 but it really is not my priority to know this.

4 My priority is to know what is happening
5 in the winter, but the SNP says during periods of flow
6 the wetland will be sampled, and right now periods of
7 flow are stated as when there's no ice which is May to
8 October.

9 I'm curious to know what happens to all
10 that sewage from November to May when there's 1,500 cubic
11 metres going into the system every day?

12 And further to inquire, if there is any
13 flow during those shoulder months, un -- perhaps under
14 the ice?

15 MR. RON KENT: Well, of course, it
16 freezes. So that's the obvious. Is there flow under the
17 ice? I don't know. We -- that's -- and we don't have
18 any current --

19 Wayne, do you know? Have you been there
20 in the winter?

21 MR. WAYNE STARLING: Wayne, from INAC.
22 It glaciates in the wetland and in my observations,
23 there's -- there has been no flow out to the lake. And
24 that area is used in the winter, the -- the roadway for
25 access out onto the lake. And to my knowledge there's no

1 -- no overland flow through that ditch. It's froze to
2 the bottom. But possibly some of the Hay River people
3 could verify that or confirm it. That's my knowledge.

4 MR. FREDERICK BEAULIEU: I don't think
5 there would be any flow, because it's too shallow. It's
6 -- the ground -- the ice is -- must be what, about 2 or 3
7 feet, and it goes out for what, maybe a quarter of a
8 kilometre. That's why you see all that ridge. That's
9 how -- that's how -- that's how far the -- it's low
10 water, shallow water. From there it's deeper so it
11 doesn't freeze right away. So I don't think it flows
12 anywhere.

13 MR. WAYNE STARLING: And Wayne again.
14 And that's referring to the lake, Great Slave Lake. And
15 so, of course, if we saw any flow to the lake, it would
16 have to come on top of the ice because, as you mentioned,
17 it's frozen to the bottom, and that doesn't seem to be
18 happening, so by deduction, the glaciation takes place
19 before it gets past the wetland.

20 MS. MARY KELLY: This is Mary. Thank you
21 for that information.

22 I know that sometimes the -- the volume of
23 water and the temperature of the water would see that it
24 would continue running under the ice. So I just wanted
25 to verify that the ditch freezes to the bottom, and

1 there's nothing flowing out. So thank you.

2

3 (BRIEF PAUSE)

4

5 MS. ANNE UMPLEBY: Anne Umpleby. Is
6 there any further questions regarding the SNP?

7

8 (BRIEF PAUSE)

9

10 MS. ANNE UMPLEBY: Okay, at this point,
11 I'm not quite sure what time it is. Anyone have the
12 time? Twenty-three (23). Let's take a short break, and
13 then we'll move into management plans. Thanks. Fifteen
14 (15) minutes.

15

16 --- Upon recessing at 2:40 p.m.

17 --- Upon resuming at 3:00 p.m.

18

19 THE FACILITATOR: Once you take a seat,
20 we'll get ready and try to finish up.

21 So we'll move on. I've provided a little
22 bit of time at the end, and we've kind of touched on them
23 already, to talk about some of the plans that are
24 highlighted in the water licence already.

25 So we've discussed the O&M plan quite a

1 bit, but this is just another opportunity to bring up
2 something that maybe you didn't bring up already and,
3 again, the studies, and there's some -- again, the
4 reference to the bioassay tests and other studies that
5 came in with the comments and stuff. So if you just
6 wanted to -- to have a few minutes if there's anything
7 more you wanted to say.

8 Our transcriber has to leave for four
9 o'clock, so just keep that in mind. Thanks.

10

11 QUESTION PERIOD RE MANAGEMENT PLAN:

12 MR. ROBERT JENKINS: It's Robert Jenkins,
13 with INAC. I -- I have one (1). It's -- it's on the --
14 we have guidelines for spill contingency planning.

15 I don't know if the Town has seen those
16 and whether they've had an opportunity to sort of look at
17 the guidelines that we have with respect to the plans
18 that you guys have right now.

19 MR. MICHAEL RICHARDSON: I'm not sure if
20 I have seen that document directly, but I'd like to
21 revisit it if I have. If you can get that over to us,
22 that would be great. We can have a look at it and
23 incorporate it into our upcoming study.

24 MR. ROBERT JENKINS: Yeah, it's Robert
25 Jenkins again. We'll -- we'll -- I can email you a copy.

1 I'll get your email after.

2

3 --- COMMITMENT NO. 11: Robert Jenkins to provide the
4 guidelines for spill
5 contingency planning to the
6 Town

7

8 THE FACILITATOR: Is that everything for
9 the management plan or any plans referenced in the water
10 licence? We're good?

11 Did anybody have anything else to bring up
12 for any studies, any further studies that they would like
13 to see aside from the bioassay and the testing of 53-3?

14

15 QUESTION PERIOD RE RECOMMENDED STUDIES:

16 MR. TODD PAGET: It's Todd here. I'm
17 just going to just repeat something maybe for -- for the
18 -- the sake of combining a couple of points here.

19 We were talking this morning again about
20 this study on the desktop Ron was mentioning, with
21 respect to it's going to be done, and -- and talking
22 about lifespan of facility. Maybe just a suggestion that
23 also to consider in there, if there's going to be waste
24 generation studies that are done from the Town, and I
25 don't know how this will be done, but maybe consider

1 whether or not there's going to be a component of
2 outsourced waste streams that would come in that would
3 impact the longevity of that. So that study -- I don't
4 know how exactly that could be put together with that,
5 but something for consideration, perhaps.

6 MR. RON KENT: Yeah, during the break I
7 spoke with the Mayor. We -- my experience is that in --
8 in the past you have to watch the licensing procedures
9 and the land-use permits because the land-use permits and
10 some of the licences that have come out have actually
11 told companies to take their waste to the nearest
12 community and dump it there. So that puts a big onerous
13 -- on -- onus on the community to watch what's happening
14 around it.

15 But also I'd like to -- because we know
16 this is such a big problem and all we have to do is look
17 at Tuk to start with for that issue, that I would
18 request on behalf of the Town that ENR and INAC and
19 Environment Canada and others look at the licences that
20 are coming out with -- with the view of protecting the
21 municipality from this kind of waste. And I would
22 suggest that you're going to not see them try to estimate
23 an outsource waste stream; they're just going to prohibit
24 it in this assessment.

25 And the Town will probably do its best at

1 trying to monitor the -- the -- the activity in its area
2 but that requires, you know, another whole person to
3 review all the data that -- you know how much stuff comes
4 in from the Boards and the land use permits and stuff
5 like that. I'm sure they'll do their best at it but I
6 would challenge the ENR and -- and others to -- to look
7 at the Town's interest when they're reviewing things
8 where an outsourced waste stream may impact on the Town
9 and them not know.

10 I know that I've had -- I've reviewed a
11 number of -- of the -- of things and I've told, like the
12 City of Yellowknife, did you know that you -- that this
13 is happening? They goes, No, we didn't know. Well, you
14 better do something about it or either that or have a --
15 up your tipping fees or something. So this is coming in.

16 So that's -- I -- but I -- as -- to answer
17 your question directly, based on the discussion we just
18 had a few minutes ago with the Mayor, you're probably not
19 going to see an outsource waste stream estimated for the
20 Town of Hay River, if you're just going to look at what's
21 going on in the municipal boundary.

22 MR. TODD PAGET: Yeah, and, in fact --
23 Todd here -- just to clarify, and we do bring that up
24 repeatedly on the review of water licence lineage permits
25 for outside operators that we have concerns over that and

1 fully expect that there needs to be an accountability
2 because of the liabilities inherent in -- in transferring
3 unknown waste streams to the various locations in the
4 Territory.

5 That being said, also there are
6 opportunities for economic, you know, realizations here,
7 as well. I mean, there's nobody saying that this can't
8 be done and I -- I don't want to -- to be on the record
9 as anybody thinking that that's what we're suggesting.
10 What we're suggesting is it has to be responsibly done.
11 And if that's going to be the case then, you know,
12 appropriate facilities need to be designed and managed
13 accordingly, similarly to what happens down south,
14 there's no question that waste management facilities
15 south of 60 in Canada often will commingle both waste
16 streams.

17 But they're often specifically designed
18 and scoped and reviewed specifically to handle those
19 separate waste streams. It's well understood, the
20 volumes, liabilities associated with it.

21 So that being said, you know, if it's
22 desired to -- that that's the case that no outside waste
23 streams are coming in, well, that's the Town's, you know,
24 prerogative, obviously. But there's also opportunities
25 to coordinate and organize and seek economic funding,

1 perhaps even, as well, for opportunities, because there's
2 clearly a requirement. Whether or not that facility is
3 appropriate or not is another question. Clearly not
4 under its current status but it doesn't mean it wouldn't
5 be in the future and that might be something that could
6 be considered in a desktop study.

7

8

(BRIEF PAUSE)

9

10 MR. GERALD ENNS: It's Gerald here. And
11 just further to the haz-waste component, more of a recap,
12 it is my understanding that the Town of Hay River tends
13 to develop a comprehensive haz-waste management plan.
14 According to some of the discussions and the guidance
15 provided to the Town, I really believe, or we really
16 believe that this will -- is one of the first steps in --
17 is getting a handle on some of the -- or getting a handle
18 on the situation at the dump currently, which I think
19 everybody agrees with respect to haz-waste is
20 unacceptable.

21 And from -- as -- I'll just take this
22 opportunity -- like ENR, from my position, I can do about
23 two (2) things with respect to helping the community with
24 respect to haz-waste, and that is take time to help
25 clarify what may be required in a plan and assist with

1 household hazardous waste collection events with the
2 Town, where the residents have an opportunity to dispose
3 of the hazardous waste that they accumulate throughout
4 the year.

5 So I'd like to build on the success or
6 some of the -- build on the event that we started on last
7 year. Hopefully that can continue. Thanks.

8 MR. MICHAEL RICHARDSON: Mike Richardson
9 here. I'd like to say going forward that we'd like to
10 commit to working with the GNWT and any other interested
11 stakeholder or vested stakeholders in our upcoming study
12 and in further -- further, I guess, business going
13 forward.

14 MR. TODD PAGET: Thank you. Todd here.
15 Just one (1) last point -- oh, excuse me, one (1) last
16 point, haz-waste, and this came up in our review.

17 I think we submitted a comment to -- and
18 maybe it's worth giving clarification here, and it may
19 tie into something for this reporting and the scoping of
20 -- of what you guys RFP, that there's a question about
21 knowing how much certain hazard materials are there and
22 the volumes or economies of scale -- I'm not sure how
23 we'd word it -- but to get to a critical point where you
24 know you have to start transporting the stuff off and --
25 and to have some kind of way to plan for that.

1 And -- and, again, that ties into some of
2 the manifesting and being able to calculate and -- and
3 count as you go along, and -- and that would go a long
4 ways probably to helping reduce costs and -- and help in
5 organizing the site.

6 And those types of commitments, as well,
7 will also probably help to take some additional concerns
8 off the table with respect to hazardous waste control
9 onsite.

10 THE FACILITATOR: Okay. If that's it, I
11 just wanted to take a minute before we left to kind of go
12 through everything we kind of agreed to come back with
13 before we all take off. And hopefully, if you notice I
14 might be missing something, you can bring it to my
15 attention.

16 THE FACILITATOR: So the first one (1),
17 just going back through my notes, was that Hay River said
18 that they would provide the tracking or movement
19 documents and records that the Town keeps for their
20 contaminated soil that's received from the City or from
21 the Town.

22 The next one (1) I have...

23 MS. TERRY MOLENKAMP: I was talking to
24 Ron Kent after that came up, and I just wanted to know,
25 is it the tracking documents that -- just internally in

1 the municipality, or are you talking about when it comes
2 from outside of the municipality and goes to the bio pad,
3 or are you talking about both of those things?

4 MR. GERALD ENNS: Both of those things.

5 MS. TERRY MOLENKAMP: Okay.

6 MR. GERALD ENNS: We -- the best thing
7 that ENR can do is apply its guidelines and rules
8 consistently throughout the regions. And while it may be
9 a bit more paperwork, we believe that, in the long run,
10 it'll show clear accountability about who's in charge of
11 management control of -- of contaminants, so within and
12 outside.

13 If there is -- there are certain details,
14 for example quantities, in which we make exceptions for
15 contaminated soils, which is different than the rest of
16 hazardous waste. And we have made those exceptions in
17 other regions, so it's probably a detail for further
18 discussion.

19 MS. TERRY MOLENKAMP: Yeah. One (1) more
20 question?

21 MR. GERALD ENNS: Yeah. Yes.

22 MS. TERRY MOLENKAMP: Does that include
23 the bio pad that doesn't belong to the municipality as
24 well? Do you want us -- will we talk about that, too?
25 CARS (phonetic).

1 MR. GERALD ENNS: Yeah, they utili --
2 they utilize moving documents.

3 MS. TERRY MOLENKAMP: Okay.

4 MR. GERALD ENNS: So they do track their
5 stuff on moving documents.

6 MS. TERRY MOLENKAMP: Okay, so it'll just
7 be us.

8 MR. GERALD ENNS: Yeah.

9 MS. TERRY MOLENKAMP: Okay. Thank you.

10 THE FACILITATOR: Okay. And we're
11 actually going to wait until we get the transcription
12 back to go through the rest, and I can send out an e-mail
13 on Monday with everything that's highlighted there. And
14 then, I don't know if Friday would be enough time to try
15 to get the information that people committed to provide.

16 Not enough time?

17 MR. RON KENT: I won't be here all next
18 week so it could be next Friday --

19 MS. ANNE UMPLEBY: Anne Umpleby here. We
20 do -- we would need some of this information prior to
21 the Intervenors providing their -- their interventions to
22 us, which is due on December 2nd. So, we would need to
23 get this information to them before that.

24 MR. MICHAEL RICHARDSON: In his absence
25 I'll work with administration to get everything we've con

1 -- confirmed and agreed to.

2 THE FACILITATOR: Okay. Okay, I'll send
3 an e-mail out on Monday, and I'll include the -- the
4 revised Strathport Plan (phonetic). So, just remember
5 that the interventions are due December 2nd. Thank you.

6

7 --- Upon adjourning at 3:14 p.m.

8

9

10

11 Certified correct,

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16 _____
Wendy Warnock, Ms.

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