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MACKENZIE VALLEY LAND AND WATER BOARD

PUBLIC HEARING
TOWN OF HAY RIVER

TYPE A WATER LICENCE APPLICATION FOR TOWN OF HAY RIVER

Board Members:

| | |
|----------|-------------------|
| Chairman | Willard Hagen |
| Member | Floyd Adlem |
| Member | Pat Laroque |
| Member | Elizabeth Biscaye |

HELD AT:

Hay River, NT
January 26, 2010
Day 1 of 1

APPEARANCES

1
2
3 Jamie Vangulck) MVLWB
4 Anne Umpleby)
5 Shannon Hayden)
6 Amanda Gauthier)
7 John Donihee) Board Counsel
8
9 Michael Richardson) Town of Hay River
10 Ron Kent)
11
12 Robert Jenkins) INAC
13 Catherine Mallet)
14 Jeanne Arsenault)
15 Wayne Starling)
16
17 Anne Wilson) Environment Canada
18 Mary Kelly)
19
20 Gerald Enns) ENR
21 Diep Duong)
22 Todd Paget)
23 Jamie Chambers)
24
25

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| | UNDERTAKINGS | | |
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| 2 | | | |
| 3 | 1 | For the Town of Hay River to provide | |
| 4 | | a copy of the Solid Waste Disposal | |
| 5 | | Facility Monitoring Report within | |
| 6 | | two weeks. | 30 |
| 7 | 2 | The Town of Hay River to provide details | |
| 8 | | within two weeks re terms of reference for | |
| 9 | | the contractor on the contents of the | |
| 10 | | current solid waste disposal facility | |
| 11 | | and its operations | 49 |
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1 --- Upon commencing at 1:06 p.m.

2

3 THE CHAIRPERSON: Okay, good afternoon.
4 If everybody could please stand for an opening prayer and
5 Mr. Joe Tambour will be leading us.

6

7 (OPENING PRAYER)

8

9 THE CHAIRPERSON: And thank you for that,
10 Joe. And good afternoon to everyone. My name is Willard
11 Hagen and I am the Chair of the Mackenzie Valley Land and
12 Water Board.

13 The Mackenzie Valley Land and Water Board
14 was established under Part 4 of the Mackenzie Valley
15 Resource Management Act, MVRMA in March of 2000. We
16 exercise authority over land use permitting and water
17 licensing in the Mackenzie Valley under the MVRMA and the
18 Northwest Territories Waters Act respectfully.

19 This panel which is responsible for
20 issuing the water licences and land use permits outside
21 of the settled claim areas was established in accordance
22 with Section 99 of the MVRMA, April of 2000.

23 Upon being established, the Mackenzie
24 Valley Land and Water Board took over responsibility for
25 land use permitting from the Department of Indian Affairs

1 and Northern Development and Water Licensing from the NWT
2 Water Board as required by the MVRMA.

3 Over the next day or two (2), the
4 Mackenzie Valley Land and Water Board will conduct a
5 Hearing into an application for a Type 'A' water renewal
6 licence renewal under the NWT Waters Act and the MVRMA as
7 filed by the Town of Hay River.

8 This Hearing has been constituted under
9 paragraph 21.2(a) of the NWT Waters Act and under Section
10 24 of the Mackenzie Valley Resource Management Act. The
11 Application for the water licence and the land use permit
12 were deemed complete on July 27th, 2009. The Application
13 and supporting materials were then circulated to
14 reviewers.

15 This Hearing was advertised in accordance
16 with subsection 23(2) of the NWT Waters Act; public
17 notices were listed in News North on November 23rd, 2009
18 and in the Hay River Hub on January 6th of 2010.

19 The Board held a technical session in
20 Yellowknife on November 13th, 2009. Board staff also
21 held a pre-hearing conference on January 11th, 2010. The
22 pre-hearing conference identified the procedures to be
23 followed at the Hearing. No issues arose including any
24 arguments of jurisdiction. The parties were instructed
25 to file their Hearing submissions on December 2nd, 2009.

1 The Town of Hay River responded to the interventions on
2 December 7th, 2009 and January 12 and 14, 2010. All
3 parties were to submit their presentations by January
4 18th, 2010.

5 So today we will sit from 1:00 to 5:00
6 with a break for coffee mid-afternoon. And tonight there
7 is a public session scheduled to be held from 7:00 to
8 9:00 p.m.

9 However, if there are no registered speakers by 7:30 this
10 evening, that portion of the Hearing will be adjourned.
11 So if necessary, begin again tomorrow morning at nine
12 o'clock and sit until the Hearing is complete and have
13 appropriate breaks for coffee and lunch.

14 There are a few housekeeping items. The
15 washrooms are out the door and to your right, and I guess
16 I see there's two (2) exits, but I know that there's four
17 (4) exits, so lots of places to run to.

18 This Hearing has been scheduled for two
19 (2) days; however, if the presentations are concluded
20 prior to 5:00 p.m. tonight, we may ask that the Proponent
21 and Intervenors present their closing statements after
22 our public session tonight. This will allow us to
23 adjourn the Hearing today and not be convened tomorrow.

24 The Board asks for your cooperation in
25 being prepared to make your presentations in the order

1 set out in the agenda and to be organized and focussed in
2 your questioning of other parties.

3 The order of proceedings will be as
4 follows: The Board will, first of all, hear from the
5 Town of Hay River regarding their Application before the
6 Board. Once they've completed their presentation, the
7 order of questions will be as follows. First will be
8 registered Intevenors, registered speakers, and the
9 general public, Board consultants, Board staff or
10 counsel, and then the Board members will have the last
11 opportunity to speak.

12 For the purpose of hearing questions from
13 the public, there is a standing mic in front of us there.
14 If you wish to speak, you can please come to the mic,
15 identify yourself for the record. When questions are
16 directed to the Applicant or completed, we will proceed
17 to the presentations from the registered Intervenors,
18 Environment Canada, The Government of Northwest
19 Territories, ENR, Indian Affairs and Canada. And there
20 will an opportunity for questions after each presentation
21 and order for those questions will be as I just
22 previously stated.

23 Those members of public who have
24 registered here today will also be given an opportunity
25 to address the Board after all the registered Intervenors

1 have done so.

2 The Board wants this Hearing to be an
3 informal as possible; however, as a quasi-judicial body
4 we are bound by the rules of procedural fairness. And as
5 the Chair, I am responsible for the conduct at that
6 Hearing, and I will ask that all comments and any
7 requests be addressed through the Chair.

8 Once everyone has the opportunity to
9 speak, the registered Intervenors and then the Applicant
10 will have an opportunity to present closing comments. So
11 we'll take a moment here to introduce the members of our
12 Board and staff. To my left is Elizabeth Biscaye, Sabet
13 to us. And to my right is Pat Laroque, Board member,
14 Floyd Adam, Board member.

15 Our staff members are to my right, Anne
16 Umpleby, she's a regulatory manager. Shannon Hayden, I
17 guess we're out of or -- you switched chairs on me here,
18 is the regulatory officer. John Donihee at the end is
19 our lead counsel. And Jamie, where Shannon is supposed
20 to be, is the technical consultant. Amanda Gauthier,
21 originally from Hay River, is our administrative clerk.

22 And our interpreter is, today, in the
23 Slavey language is Alec Tambour and Joe Tambour. Your
24 headsets channels are, number 1 is on the floor, number 2
25 is in English, and number 4 is in South Slavey. There's

1 no 3? 1, 2, 4, okay.

2 I ask that we be mindful that we have
3 interpreters and that these proceedings are to be
4 interpreted, so when speaking or presenting, please pace
5 yourself accordingly, precede your presentation with your
6 name and who you represent, and this is for the record,
7 so it's very important. And if you fail to do so, I will
8 remind you as many times as necessary for it to sink in.

9 Our court reporter is Mr. Sean Coleman, so
10 if you have any questions about the transcripts, you can
11 direct them to Sean at one of the breaks, and the
12 transcripts will be available on our website at a later
13 date.

14 Before we proceed with the presentations
15 by the applicant, I would like to call for appearances.
16 Would the counsel or the spokesperson for the Town of Hay
17 River please identify themselves. This is for the
18 record.

19 MR. MICHAEL RICHARDSON: Hi. This is
20 Michael Richardson with the Town of Hay River. I'm also
21 here with Mr. Ron Kent from FSC who is -- was hired as a
22 consultant on our behalf, so we'll both be speaking.

23 THE CHAIRPERSON: Okay, thank you. So
24 would counsel or spokesperson for the registered
25 intervenors please identify themselves for the record.

1 MS. ANNE WILSON: My name is Anne Wilson.
2 I'm with Environment Canada, and with me today is Mary
3 Kelly.

4 THE CHAIRPERSON: Okay, and for the GNWT-
5 ENR.

6 MR. TODD PAGET: My name is Todd Paget,
7 from Department of Environment and Natural Resources.
8 With me today is Diep Duong, Gerald Enns, and we also
9 have our original environmental protection office --
10 officer, excuse me, from the local office, Jamie Chambers
11 with us.

12 THE CHAIRPERSON: Okay, thank you. And
13 for Indian and Northern Affairs Canada.

14 MR. ROBERT JENKINS: Thank you, Mr.
15 Chair. It's Robert Jenkins. I'm with the Water
16 Resources Division of INAC. Today I have Ms. Catherine
17 Mallet and Ms. Jeanne Arsenault with Water Resources, and
18 Mr. Wayne Starling from the South Mackenzie District.

19 THE CHAIRPERSON: Okay, thank you. And
20 the next item on the agenda is opening statements by the
21 parties. If you have any, you're more than welcome.
22 We'll start first with the Town of Hay River, then
23 Environment Canada, the Government of Northwest
24 Territories, Indian and Northern Affairs Canada.

25 So for Hay River, opening statements.

1 OPENING COMMENTS BY THE TOWN OF HAY RIVER:

2 MR. MICHAEL RICHARDSON: I'd just like to
3 welcome everyone to the Town. Thanks for flying in if
4 you've flown in or drove in, and we hope you have a good
5 stay here and a safe trip back.

6 THE CHAIRPERSON: Okay, thank you.
7 Environment Canada...?

8

9 OPENING COMMENTS BY ENVIRONMENT CANADA:

10 MS. MARY KELLY: Yes, thank you, Mr.
11 Chair. This is Mary Kelly, with Environment Canada.
12 We'd just simply like to say thank you to the Board for
13 allowing us to be involved in this process and we look
14 forward to future collaboration with the Town.

15 THE CHAIRPERSON: Okay, thank you. For
16 ENR...?

17

18 OPENING COMMENTS BY ENR:

19 MR. TODD PAGET: Hi there. Todd Paget
20 here, from Department of Environment and Natural
21 Resources. Yes, we'd as well like to thank you very much
22 for the Board and the staff for having us here today.

23 We look forward to working with the Town,
24 technical experts, and anybody else that we may be able
25 to -- to help further their progress in this proceeding.

1 Thank you.

2 THE CHAIRPERSON: Thank you for that.

3 And INAC...?

4

5 OPENING COMMENTS BY INAC:

6 MR. ROBERT JENKINS: Thanks again, Mr.
7 Chair. It's Robert Jenkins, with INAC. I look forward
8 to a productive Hearing today and continuing our good
9 relationship with the Town of Hay River. Thank you.

10 THE CHAIRPERSON: Okay, thank you, all,
11 for that. And, as always, we would hope and wish that
12 everybody will treat everybody in a respectful manner
13 while questioning and making their presentation.

14 So I'll now turn it over to the Town of
15 Hay River.

16

17 PRESENTATION BY THE TOWN OF HAY RIVER:

18 MR. MICHAEL RICHARDSON: As I said
19 before, thanks for coming and I'll just get started right
20 into my presentation. I guess questions will come after
21 -- afterwards, so, I'll -- I'll just continue through
22 this here.

23 This is for I guess a renewal of our
24 licence. We're hoping to get a renewal for a period of
25 ten (10) years or more. Anyways, on behalf of the Mayor

1 and the Town, I'd like to welcome you.

2 For the outline of our presentation, I'll
3 go through -- we'll go through the location, water,
4 sewage, landfill and operations there, our SNP program,
5 as well as our O&M plans and other associated plans
6 related to our water licence. And we'll finish that off
7 with a summary of commitments and -- and responses to the
8 interventions we've received over this process.

9 So the Town is located on the south shores
10 of the Great Slave Lake at the mouth of the Hay River and
11 it's about 200 kilometres southwest of Yellowknife by air
12 and over a hundred kilometres from the Alberta border on
13 the Mackenzie Highway.

14 Based on the numbers provided by the NWT
15 Bureau of Statistics, the Town is comprised of 38 -- over
16 thirty-eight hundred (3800) people and an average -- annual
17 average growth rate of 1.2 percent between the period
18 1996 and 2007.

19 The Town is situated on an estuary of the
20 Hay River drainage system. The average elevation of the
21 Town is 160 metres above mean -- or sorry, average sea
22 level and the surrounding terrain is flat.

23 The original part of Town was developed on
24 Vale Island before major flooding in 1965. The airport
25 is located there. The island averages 3 metres or less

1 above the water level and is susceptible to flooding
2 during the spring breakup period.

3 Ancient water courses on the island become
4 active channels during flooding. The underlying bedrock
5 consists of shale, limestone and dolomite.

6 The surface material is a result of
7 glaciation, river development and shrinking of the -- of
8 the lake. A hard till can be found from 5.5 to 8.5
9 metres below the surface and this is covered by a layer
10 of compacted silty sand gravel overlain by water deposit,
11 deposited silts and -- and clays. And the organic
12 material on the surface has a maximum thickness of .6
13 metres.

14 Surface materials found such as fine
15 gravel, sand and silt are typical of deltaic
16 environments. These are susceptible to extensive erosion
17 in the absence of protection from root mats, human-made
18 structures.

19 The Town is situated within a
20 discontinuous permafrost zone and they range from 0. --
21 sorry, 0 to 9 metres in thickness depending on the cover
22 and location. Although its discontinuous, the permafrost
23 -- although discontinuous permafrost exist, frost action
24 is not a problem on a higher well-drained land where new
25 areas of Town are situated.

1 The forest is heavily treed, Jackpine,
2 Poplar, black Spruce, Tamarack and Willow are common.
3 Muskeg and swamp are indicated -- indicative of low lying
4 land. The Town receives an average of 34 centimetres of
5 precipitation, 18.4 of which is rainfall and I guess that
6 should be 16.5 centimetres is snowfall.

7 The mean temperature in July -- sorry, the
8 high and low temperatures in July respectively are 20.7
9 degrees Celsius and 10.8 degrees Celsius and the January
10 high and lows are negative 21 degrees Celsius and
11 negative 30.5 Celsius. And the winds are generally from
12 the northwest at a speed of 12.1 kilometres per hour.

13 The point of spring breakup is usually
14 around the 10th of June, and freeze-up is usually around
15 the beginning of November.

16 This map here shows some important points
17 of our infrastructure. Near the top -- top centre is --
18 is our intake line which stretches eight (8) kilometres
19 into the Great Slave Lake. Just below that is our water
20 treatment plant and pumphouse from which the water is
21 distributed through town. As you may -- as you can note,
22 there are five lift -- sewage lift stations, these
23 collect the sewage and pump it to our anaerobic lagoon
24 system; from the lagoon system the sewage is discharged
25 through the wetlands and eventually into the Great Slave

1 Lake.

2 As mentioned before, the source of water
3 is the Great Slave Lake. For potable water is the Great
4 Slave Lake. The intake is located near the mouth of the
5 Hay River in the -- in Great Slave Lake, eight (8)
6 kilometres in.

7 This -- this rung shows at the top left-
8 hand corner the location of our intake and water
9 treatment plant. And the lines that feed -- feed the
10 Town go from left to right.

11 For the water supply we have two (2) two-
12 hundred (200) millimetre submersible pumps rated at
13 sixty-three (63) litres per second. One is always
14 operating, and one is on standby. At the freshwater
15 intake facility, there are five and a half (5 1/2) miles
16 of twenty-four (24) inch intake line that are yellow
17 jacket coded welded steel pipe and cement lined. And the
18 operating capacity of the two (2) of the pumps -- sorry,
19 is twenty -- twenty-five hundred and thirty-two (2,532)
20 gallons per minute, and the intake screen is four (4)
21 foot diameter stainless steel.

22 The water quality is of good chemical
23 quality for domestic use. And based on the analysis --
24 chemical analysis the water is moderately hard, well
25 buffered, slightly alkaline, and moderately aggressive.

1 The water is better than the Guidelines for Canadian
2 Drinking Water Quality with the exception of turbidity.

3 The water is treated in the conventional
4 water treatment plant, consisting of coagulation,
5 flocculation, and settling. Before distribution it's
6 disinfected with chlorine and the personnel are trained
7 class 2 operators.

8 For our licence we're requesting an -- an
9 amount of seven hundred and fifty thousand (750,000)
10 cubic metres per year. On average, this would translate
11 to around ninety thousand (90,000) cubic metres per
12 month, and this is in step with what we've had in our
13 previous licence. For 2008 the water use was just under
14 forty -- four hundred and fifty thousand (450,000) cubic
15 metres.

16 In the area of concerns and commitments
17 related to our water, we don't have any. There is a
18 system of piped sewage connected to a system of anaerobic
19 lagoons, five (5) lift stations are used which discharge
20 through the forcemains to the lagoon for treatment.
21 There is also trucked sewage that is collected routinely
22 from residents along the -- the corridor.

23 The lift stations discharge sewage into a
24 four-celled anaerobic lagoon which was constructed in
25 2007. The combined area of lagoons is approximately two

1 thous -- or, sorry, two (2) million square metres. The
2 effluent flows into a 6.5 kilometre long drainage ditch
3 which directs the effluent to a wetlands and eventually
4 to the Great Slave Lake.

5 It may be noted that this has been --
6 we've corrected -- in the -- in the handout it -- it
7 refers to three (3) cells instead of four (4), and an
8 area of 1.5 million. These have been corrected in this
9 presentation. So, I'll continue on.

10 The lagoon sludge is removed as required
11 and disposed of in an approved area adjacent to the
12 lagoons. No sludge was removed in 2009.

13 This is a di -- diagram of our -- of our
14 lagoon system, the four (4) cells. And at the bottom of
15 the lower right cell is the containment area for the
16 sludge.

17 The treatment system was constructed in
18 the late 1960's and was studied by Dr. Hartland-Rowe.
19 His report in 1974 showed the effluent from the wetland
20 was no different from that of a controlled site nearby.

21 The Hay River wetland sewage system has
22 become a model for high quality sewage treatment
23 throughout the North. The Town continues to extend an
24 invitation to the Northern working group of Environment
25 Canada to study the Hay River wetland system.

1 Our system has been in continuous
2 operation for almost fifty (50) years and offers a unique
3 mature treatment site unlike any other.

4 In 2008, sewage production was 608 -- over
5 608,000 cubic metres as pumped from lift stations. The
6 discrepancy, as you might, note results from volume
7 estimates determined from pump run times notwithstanding
8 infiltration from other sources. Thirty-one thousand --
9 over 31,000 cubic metres was returned to the Great Slave
10 Lake at Station 53-6 which is water returned at
11 pumphouse.

12 I'll just go through a list of concerns
13 and commitments line by line. We've been requested by
14 Environment Canada and others to explain the discrepancy
15 between water and sewage volumes. We've done that and
16 agreed to do a calibration testing to determine
17 correction factors.

18 We've also been requested to provide all
19 the data from SNP Station 53-2. The info can be found in
20 our annual report.

21 We've been asked to -- okay, we've been
22 asked to, I guess, make changes to our scope and
23 definition of sewage disposal facilities. We've agreed
24 to that and we've reflected that in Part 'D' of our -- of
25 our licence.

1 We've also been requested to remove -- if
2 we remove two (2) cells, to notify INAC. We agreed to
3 that.

4 As far as solid waste goes, it's collected
5 twice -- twice per week by a two (2) person crew
6 operating a packer truck.

7 Bulky waste disposal is the responsibility
8 of the individual, although some larger items are
9 collected during spring cleanup.

10 The solid waste site is located 8
11 kilometres south -- southeast of Town on the north side
12 of Highway 5.

13 The 150 metre by 40 metre by 4 metre
14 municipal landfill site is compacted daily when possible.
15 Once per week the wastes are covered with clay material.
16 There's partial fencing around the site and access is
17 controlled. A separate 100 by 200 metre bulky waste
18 storage area is used for the disposal of large items and
19 metal waste.

20 Two (2) locations in the community outside
21 of the landfill are used for waste oils and are not part
22 of the Town -- Town's infrastructure.

23 This is a over -- sorry, orthophoto of our
24 landfill and -- and a picture at the entrance of our
25 signage.

1 As far as recycling goes, there's one (1)
2 private enterprise in Town, Tri R Recycling. They
3 collect beverage containers and return subsidies that are
4 generated by fees imposed by the -- the Territorial
5 Government. And some home composting is done by local
6 residents with gardens.

7 A contract was awarded in December '09 to
8 EBA to study the current site and its operations and we
9 expect them -- or we will get recommendations to extend
10 the life of the landfill.

11 The Town has taken notice of the comments
12 received from the Intervenors and will make sure these
13 are addressed as part of the study. The expectation for
14 delivery of the report is March 31st, 2010.

15 At the lagoon -- sorry, at the landfill
16 there's a bio-treatment pad that accepts contaminated
17 wastes and, in 2008, thirteen hundred (1,300) -- over
18 1,300 tonnes of soil was removed and used for cover at
19 the solid waste site. We accepted 96 tonnes of
20 contaminated soil in 2008 for treatment.

21 In 2008, the Contractor reports that no
22 leachate was collected in the sump, and as far as
23 standards go, this -- we abide by CCME tier 1 guidelines
24 for commercial sites and GNWT requirements for BTEX and
25 metals.

1 This is a design drawing of our bio-
2 treatment pad and concerns -- and commitments for plans.
3 I'll go through this line by line.

4 We have been requested by INAC to review
5 our snow disposal plan annually; we have agreed. We've
6 also been asked to refer to the 2007 -- April 2007
7 guidelines for spill contingency planning; we have
8 agreed. Also, to review our O&M plan annually and have
9 revisions approved by the Board, we agree.

10 To update our O&M plan to include the bio
11 pile treatment, hydrocarbon bio pile treatment; we have
12 agreed.

13 From Environment Canada we've been asked
14 to have our O&M plan as in working reference for
15 operators; we've disagreed.

16 We've been asked by INAC to report sample
17 results from leachate collected in the hydrocarbon bio
18 pile facility; we have agreed.

19 To submit a closure and reclamation plan
20 for the solid waste site for approval by INAC; we've
21 agreed.

22 To prepare a sludge management plan by
23 Environment Canada; we've agreed to that.

24 And also a QA/QC plan that would cover
25 sampling procedures; we've agreed to that.

1 Continuing the list, we've been asked to
2 submit an SNP station map. We've submitted a draft and
3 haven't yet prepared a final, but it's -- it's basically
4 the same document, so we'll -- we'll be getting that out
5 soon.

6 From INAC, we've been requested to add
7 CBOD sampling for three (3) years and to submit a trend
8 analysis; we've agreed.

9 From Environment Canada, we've been asked
10 to use CBOD and BOD as metrics; we've disagreed.

11 We've been asked to sample Station 53-2
12 monthly during periods of flow; we've agreed.

13 As far as bioassay testing and compliance,
14 we've -- we would like to maintain the same arrangement
15 with Environment Canada that currently stands and -- but
16 not have it in the licence, not have it as a condition in
17 the licence. Let me just make sure I mention that.

18 We've also disagreed to decrease bioassay
19 sampling to twice annually. We don't feel it should be
20 done at all.

21 To submit groundwater monitoring analysis
22 with the annual report, we agree. And we don't see any
23 value in sampling 53-3 in conjunction with 53-2.

24 Continuing on. Sorry, just one (1) second
25 here.

1 From ENR we've been asked about our
2 current -- our current solid waste site and the scope
3 that would be covered within the licence, and we'd like
4 to respond by saying that we'd like to operate the solid
5 waste site for as long as possible. Our report that will
6 be delivered by EBA will address that and present us with
7 recommendations on how to do that.

8 They've also asked us to submit an A&R
9 plan. This is part of the same -- same report, and will
10 be presented in -- as we receive it.

11 As far as terms, recommended terms for the
12 solid waste site, as far as signs, segregation, gate, and
13 attendant; we agree with signage, but disagree with the
14 rest.

15 We -- as far as fencing goes, we disagree
16 with having this condition in the licence, but have
17 committed to looking at addressing that issue. And this
18 would be looked at after we receive our March 31st
19 report.

20 The same thing for frequency of cover. We
21 disagree with having this condition in the licence but
22 could commit to having it studied and as part of the
23 report.

24 And hazardous materials, management, and
25 disposal; we also disagree with having this condition in

1 the licence but commit to using ENR guidelines.

2 So, in summary, the Town of Hay River
3 agrees, in principle, that there should be assurance of
4 good planning and good operations and there should be a
5 consistent basis for inspection enforcement.

6 We would request that in the interest of
7 cost-effective governance, items that do not relate
8 directly to compliance and enforcement be removed from
9 the licence, or failing that, be limited in their scope.

10 And we'd like to close by saying we commit
11 -- the Town of Hay River commits to working with all
12 regulatory agencies with a common goal of protecting the
13 health of the in -- the public, the environment, and the
14 public's purse.

15 We invite any agency to bring their
16 research project to us to see how we can make them work
17 together. Thank you.

18

19 QUESTION PERIOD:

20 THE CHAIRPERSON: Okay, thank you to the
21 Town of Hay River for their presentation. We'll now go
22 to the questions to the applicant. And order of
23 questioning, it will be Environment Canada, the
24 Government of the Northwest Territories, Indian and
25 Northern Affairs Canada, registered speakers, general

1 have to get back to you on that.

2 THE CHAIRPERSON: Okay, thank you for
3 that. John, would that be Undertaking number 1?

4 MR. JOHN DONIHEE: John Donihee, Board
5 counsel. Mr. Chairman, I'm just wondering whether
6 Environment Canada wants to see it and whether it's
7 actually going to help the Board to write the licence if
8 we see it before it -- it -- before we close the record,
9 because if it does, then we should take an undertaking.

10 MS. ANNE WILSON: Anne Wilson,
11 Environment Canada. I was interested to hear what the
12 parameters were because that would influence our
13 recommendation as to what parameters would go into future
14 groundwater monitoring.

15 Just to follow up on past results where
16 they had measured some high metals, some thenals, and
17 some ammonia. I just wanted to make sure that all those
18 groups of parameters were being looked at.

19 THE CHAIRPERSON: Okay, thank you for
20 that. John...?

21 MR. JOHN DONIHEE: Thank you, Mr.
22 Chairman. Perhaps then would the Town of Hay River
23 undertake to provide -- to file a copy of that report
24 with the Board say within the next two weeks? Is that
25 possible?

1 MR. MICHAEL RICHARDSON: This is Mike
2 Richardson with the Town. Yeah, within the next two
3 weeks I can commit to sen -- sending a copy to the Board.

4 MR. JOHN DONIHEE: Thank you, Mr.
5 Chairman. We'll call that Undertaking number 1 then.

6
7 --- UNDERTAKING NO. 1: For the Town of Hay River to
8 provide a copy of the Solid
9 Waste Disposal Facility
10 Monitoring Report within two
11 weeks

12
13 THE CHAIRPERSON: Okay, thank you. And
14 back to Environment Canada.

15 MS. ANNE WILSON: Anne Wilson, no further
16 questions. Thank you.

17 THE CHAIRPERSON: Okay. Thank you, then.
18 I will go to the Government of the
19 Northwest Territories, ENR.

20 MR. TODD PAGET: Hi, it's Todd Paget from
21 the Department of Environment and Natural Resources.
22 Just one question just for clarification if we may, Mr.
23 Chair, with respect to the summary statement.

24 We're just hoping maybe to get a little
25 further clarification of exactly what it means for a

1 consistent basis for inspection and enforcement.

2 So, the paragraph,

3 "The Town of Hay River agrees in
4 principle that should be assurance of
5 good planning and good operations [of
6 course] and there should be a
7 consistent basis for inspection and
8 enforcement."

9 I'm just wondering if maybe there could
10 just be a clarification? I'm just not quite clear on
11 what the intent of that statement is.

12 THE CHAIRPERSON: Okay. Thanks for
13 that. The Town of Hay River.

14

15 (BRIEF PAUSE)

16

17 MR. RON KENT: Ron Kent from FSC for the
18 Town. The Town recognizes that all levels of government
19 have a fiduciary responsibility to meet the requirements
20 of all of legislation regulations. And they agree that
21 the public needs to be assured that whatever's going on
22 is being done well, planned well, and done well.

23 And they agree that also there should be
24 a, as I said, a consistent basis for inspection
25 enforcement. That inspection enforcement shouldn't be

1 arbitrary based on who's inspecting or what -- what --
2 what agency is looking at the site. I hope that
3 clarifies the position.

4 THE CHAIRPERSON: Further for Todd...?

5 MR. TODD PAGET: Todd Paget. That's fair
6 enough for the moment. We can work with that for now.

7 THE CHAIRPERSON: Okay. Is that --
8 you're questioning is finished then. Okay. Thank you,
9 then.

10 We'll go to Indian and Northern Affairs
11 Canada.

12 MR. ROBERT JENKINS: Thank you, Mr.
13 Chair. Robert Jenkins with INAC. I have no questions at
14 this time.

15 THE CHAIRPERSON: Okay. Thank you.

16 Then anyone -- any registered speakers?

17 Any questions from the general public?

18 You could come up to the large mic if you
19 wish, or you can -- sure, not a problem.

20 MS. DARLENE LAMB: I'd rather hide.

21 THE CHAIRPERSON: Just identify yourself
22 then, please.

23 MS. DARLENE LAMB: Hi, my name is Darlene
24 Lamb I'm just a member of the public. I just had a
25 question, and I don't know if this has anything to do

1 with it, but about the water testing in Hay River.

2 I was just wondering if anybody's looked
3 into -- like, a lot of people I know have this thing
4 called Halicobacter. And I know they went and did a
5 bunch of tests up north at another community about the
6 same thing that was going on. But, I'm just quite
7 surprised in Hay River how many people actually have
8 that, and it's something, pylori. I've had it three
9 times, and I was told by doctors you can't get it again.

10 So, I'm just wondering if that has
11 anything to do with the water? Thank you.

12 THE CHAIRPERSON: Okay. Thank you for
13 that very important question. Do -- was it directed at
14 anybody -- any in particular?

15 MS. DARLENE LAMB: Well, the Town because
16 they're doing the testing. Sorry.

17 THE CHAIRPERSON: Okay. So, to the Town
18 of Hay River.

19 MR. RON KENT: Ron Kent for the Town.
20 Helicobacter Pylori is a water-born organism. It's
21 native to the Northwest Territories, it found in and
22 around the planet. There -- a large percentage of the
23 population who are over thirty (30) have it. It's part
24 of our natural flora in our system. Some types of the --
25 this organism cause gastrointestinal issues and can cause

1 cancer.

2 There was a study done in Aklavik a couple
3 of years ago. They had a large instance -- incidents of
4 H-Pylori there and a medial team went up to test for it
5 to see whether it was family related, genetically related
6 or where it came from. All those sort of things. They
7 found a larger than normal population of people with H-
8 Pylori but they weren't able to explain the reasons for
9 it.

10 The Town treats its water here. It's a
11 conventional treatment system that meets the Canadian
12 Drinking Water Standards. And they also disinfect their
13 water to -- to meet the Canadian Drinking Water Standards
14 and the Public Health Act. That said, that some of these
15 critters still get through and some people are more
16 susceptible to them than others.

17 It's not possible to treat and remove all
18 of the critters from the water. If you're on a trucked
19 system, the -- it's my personal opinion that you're --
20 you're more likely to have a potential for these
21 organisms because they can be retained in the water
22 storage system in your home.

23 And therefore, I recommend that you have
24 your water tank cleaned regularly - at least annually.
25 And then if you have a high instance of this organism,

1 that you should have your water tank cleaned more
2 frequently.

3 I'm not a doctor at all and I suggest that
4 you talk to your doctor more about this organism. Thank
5 you.

6 THE CHAIRPERSON: Okay. Thank you.
7 Further --

8 MS. DARLENE LAMB: Sorry, Darlene Lamb
9 again. I realize that a lot of people have it and -- but
10 it is debilitating like to myself and I know for others
11 too.

12 And I -- I know that the -- when they did
13 those tests up North, they didn't really have any
14 conclusions. I'm wondering -- this is addressed to
15 Environment Canada now, if -- sorry, if there's something
16 that they're looking into.

17 Because I have a feeling that there's
18 something in the water that we can't see. We don't know
19 about and that we need to look into it further to find
20 out where that's actually coming from, and -- and to find
21 out why there's so many people that have this. Thank
22 you.

23 THE CHAIRPERSON: Okay. Thank you for
24 the question. Environment Canada...?

25 MS. ANNE WILSON: It's Anne Wilson with

1 Environment Canada and I would have to refer that to the
2 Department of Health because our department doesn't deal
3 with drinking water and -- and human health issues in
4 this respect, so, I don't know if there is anyone from
5 Health here.

6 THE CHAIRPERSON: Okay. John, is there
7 any way we could get back on that?

8 MR. JOHN DONIHEE: John Donihee. Mr.
9 Chairman, we could take the question under advisement and
10 ask Board staff to contact the Department of Health and
11 see if they can get come further information.

12 I'm not sure it's going to have a direct
13 impact on the licensing process but if the Board wants to
14 undertake that, I'm sure we can do that to assist this
15 lady.

16 THE CHAIRPERSON: Okay. Thanks. Well, I
17 believe it's a very important questions that you have and
18 concerns. If you could give your name and contact
19 numbers to Amanda over here and we'll take that under
20 advisement. Thank you. Do you have further questions?

21 MS. DARLENE LAMB: No, that's it.

22 THE CHAIRPERSON: Okay. So we'll now go
23 to the Board staff, technical advisors and our legal for
24 their questions of either Proponents or -- Proponent.

25 MR. JAMIE VANGULCK: Thank you, Mr.

1 Chair. The Proponent talked about putting sludge from
2 the lagoon system into a separate --

3 THE CHAIRPERSON: You can identify
4 yourself, Jamie, thanks.

5 MR. JAMIE VANGULCK: Sorry, Mr. Chair.
6 Guilty of that. Jamie Vangulck, Board consultant. So
7 this is on the topic of sludge management.

8 So that you'd mentioned that you took the
9 sludge from the primary lagoon system and put it into a
10 separate cell adjacent to the -- the lagoons.

11 Could you provide a physical description
12 of what this lagoon -- sludge lagoon system looks like
13 and a description of how sludge and water is managed
14 within that lagoon cell?

15

16 (BRIEF PAUSE)

17

18 MR. RON KENT: Ron Kent of FSC for the
19 Town.

20 The -- sludge management is sort of done
21 ad hoc and -- and as and when necessary sludge is placed
22 into the lagoon for dewatering. When it is de --
23 generally just left there and it -- water evaporates or
24 seeps away. It's also in the watershed for the -- the
25 wetland, so any water that leaves this area will go into

1 the wetland for treatment.

2 The Town has asked FSC to provide them
3 with a letter, which we -- which we have done on -- on
4 sludge management. And, more recently, the Town has
5 received some budget funding to undertake a repor -- an
6 assessment of sludge management options and
7 recommendations for improving the sludge management
8 that's being done now.

9 So that contract hasn't been let yet.
10 They'll be calling for proposals in the next -- in the
11 next few months, when the budget gets firmed up. After
12 that, then we'll be able to -- the Town will be able to
13 provide a report on sludge management to the Board.
14 Thank you.

15 THE CHAIRPERSON: Okay, thank you for
16 that. Further, Jamie...?

17 MR. JAMIE VANGULCK: Thank you, Mr.
18 Chair. Jamie Vangulck. Just a follow-up clarification.

19 Could you just describe what the
20 dimensions of the cell would be, if it's lined at all,
21 and what its characteristics are?

22

23 (BRIEF PAUSE)

24

25 MR. MICHAEL RICHARDSON: Mike Richardson,

1 with the Town. Each -- so there are four (4) cells in
2 the lagoon. Each -- each cell is about 70 metres by 70
3 metres. The cells are lined.

4 And I don't know if I have any volumes
5 here. Oh, here we go. There's about 1 metre of
6 freeboard in the design, and the volume of each cell is
7 7,700 cubic metres. Thank you.

8 THE CHAIRPERSON: Okay, thanks.
9 Jamie...?

10 MR. JAMIE VANGULCK: Thank you, Mr.
11 Chair. Jamie Vangulck. Actually, I was referring to the
12 -- the sludge lagoon, where the sludge is actually
13 placed, if you could provide a physical description of
14 that facility?

15 MR. MICHAEL RICHARDSON: Mr. Chair,
16 sorry, I misunderstood the question. The location for
17 sludge disposal is approximately 100 metres long by 30
18 metres wide.

19 And I'm not entirely sure, but my feeling
20 is that it's an unlined cell.

21 THE CHAIRPERSON: And further, Jamie...?

22 MR. JAMIE VANGULCK: Thank you, Mr.
23 Chair. Jamie Vangulck. I'll move on to another
24 question. This question also has to do with the lagoon
25 system, the primary lagoons, I believe.

1 Is there an engineering design report that
2 demonstrates that the lagoon and wetland system are
3 capable of treating wastewater to regulated levels for
4 the future population of Hay River?

5 MR. MICHAEL RICHARDSON: Mr. Chair, there
6 is no such report.

7 THE CHAIRPERSON: Okay, further...?

8 MR. JAMIE VANGULCK: Thank you, Mr.
9 Chair. Jamie Vangulck.

10 What information exists to demonstrate
11 that the sewage treatment facility can treat wastewater
12 to regulated levels for the future population of the Town
13 of Hay River?

14

15 (BRIEF PAUSE)

16

17 MR. MICHAEL RICHARDSON: Mr. Chair, I'd
18 like to reply again with the same answer. There is no, I
19 guess, report available for that purpose.

20 THE CHAIRPERSON: Okay. And if you could
21 just identify yourself again for the record, sir.

22 MR. MICHAEL RICHARDSON: Michael
23 Richardson, with the Town. Mr. Chair, there is no report
24 for -- for that purpose.

25 THE CHAIRPERSON: Okay, thanks.

1 Further...?

2 MR. JAMIE VANGULCK: Thank you, Mr.
3 Chair. Jamie Vangulck. Has the Proponent completed an
4 as-built drawing for the lagoon and wetland system?

5 MR. MICHAEL RICHARDSON: Mr. Chair, it --
6 an as-built drawing has been completed and submitted to
7 the Board.

8 THE CHAIRPERSON: Further to that?

9 MR. JAMIE VANGULCK: Thank you, Mr.
10 Chair, yes. The -- are you referring to the drawing
11 that's in your water licence Application or is there a
12 separate drawing?

13 MR. MICHAEL RICHARDSON: Mr. Chair, I'm
14 referring to the drawing I submitted in our water licence
15 renewal.

16 THE CHAIRPERSON: Jamie...?

17 MR. JAMIE VANGULCK: Thank you, Mr.
18 Chair. Jamie Vangulck.

19 That drawing includes details of a plan
20 view for the lagoon system, but is there an as-built
21 drawing for the wetland system?

22 MR. MICHAEL RICHARDSON: Michael
23 Richardson with the Town. Mr. Chair, there is not an as-
24 built for the wetland, just the overall -- overall system
25 and lagoon cells.

1 THE CHAIRPERSON: Okay. Thank you for
2 that. Further...?

3 MR. JAMIE VANGULCK: Thank you, Mr.
4 Chair. Jamie Vangulck.

5 What characteristics of the wetland should
6 the Proponent submit to regulators to provide confidence
7 that waste is managed to achieve regulated limits?

8 MR. RON KENT: Ron Kent for the Town
9 here. First off, I'd like to clarify that the wetland
10 system is a natural system and wasn't built and it's
11 being used, so -- and secondly, I'd like to ask if the
12 question could be repeated, this just last question.
13 Thank you.

14 THE CHAIRPERSON: Jamie, could you repeat
15 the last question, please?

16 MR. JAMIE VANGULCK: Yes. Jamie
17 Vangulck.

18 What characteristics of the wetland should
19 a Proponent submit to regulators to provide confidence
20 that waste is managed to achieve regulated limits?

21 MR. RON KENT: Ron Kent for the Town.

22 The area of the wetland, any should be
23 submitted -- any -- the flow pattern through the wetland,
24 as well. Plant species and things like that really
25 doesn't matter as long as it's -- but -- but those two

1 (2) -- those two (2) things are important.

2 THE CHAIRPERSON: Okay. Thank you.
3 Further...?

4 MR. JAMIE VANGULCK: Thank you, Mr.
5 Chair. Jamie Vangulck. I'll move on to another
6 question.

7 This also has to deal with the sewage
8 disposal facility. If effluent discharge limits for the
9 sewage disposal facility are not achieved, what
10 operations and management practices are in place to
11 prevent discharge of noncompliant waters?

12 MR. RON KENT: Ron Kent for the Town. If
13 -- there isn't really any way to stop the water from
14 flowing. If it's discharged, it's discharged. We don't
15 learn about compliant -- noncompliance until the samples
16 come back a month later from the lab.

17 If noncompliance is found and it wasn't a
18 transient result, a study would be undertaken to
19 determine what's causing the -- the results, and a -- and
20 recommendations from that study would be followed. Thank
21 you.

22 THE CHAIRPERSON: Okay. Thanks for the
23 answer. Jamie, further?

24 MR. JAMIE VANGULCK: Thank you, Mr.
25 Chair. I'll move on to another question.

1 The trend analysis -- the phrase, "trend analysis," was
2 INAC's phrase and we understood it to mean graphing the
3 results. Thank you.

4 THE CHAIRPERSON: Okay. Further...?

5 MR. JAMIE VANGULCK: Thank you, Mr.
6 Chair. It's Jamie Vangulck. I got a few questions about
7 the solid waste disposal facility.

8 The Proponents stated in their
9 intervention response that the solid waste disposal
10 facility conducts groundwater monitoring annually and
11 surface water monitoring is also conducted during the
12 spring and during times of significant rainfall.

13 I was wondering if you could provide a
14 description of where the locations for groundwater and
15 surface water monitoring are within the solid waste
16 disposal facility?

17 MR. MICHAEL RICHARDSON: It's Michael
18 Richardson from the Town.

19 There are four (4) existing wells located
20 at the perimeter of the site in different locations. Two
21 (2) wells are located in the northwest corner of the site
22 outside of the perimeter of the landfill, maybe
23 approximately thirty 30 metres away from the boundaries
24 of the -- of the site towards the river.

25 There are another -- there's another

1 ground well -- groundwater monitoring well at the
2 entrance of the site off of Highway 5. And the last well
3 exists at the northeast corner of the landfill site,
4 approximately 30 metres from the boundary of the site
5 towards the river.

6 As far as surface monitoring, that is --
7 that is done from the boundary of the site towards the --
8 the Hay River.

9 THE CHAIRPERSON: Okay. Thanks.
10 Further from the Board staff?

11 MR. JAMIE VANGULCK: Thank you, Mr.
12 Chair. Jamie Vangulck.

13 The Proponent stated in their intervention
14 response that groundwater monitoring and surface water
15 monitoring is conducted in the spring during times of
16 significant rainfall. The Proponent also stated in their
17 intervention that they recommend a definition for
18 significant rainfall to trigger when surface water
19 monitoring is to occur.

20 What does the Proponent recommend to be
21 used as the definition of significant rainfall to trigger
22 surface water monitoring and why?

23 MR. MICHAEL RICHARDSON: Michael
24 Richardson from the Town. Mr. Chair, we haven't yet made
25 a determination. We expected to, I guess, engage

1 discussion on that specific issue.

2 THE CHAIRPERSON: Okay. Thanks.
3 Jamie...?

4 MR. JAMIE VANGULCK: Thank you, Mr.
5 Chair. Jamie Vangulck. Upon review of the annual report
6 in 2008, some terms and conditions for monitoring may not
7 have been achieved in the past.

8 What efforts is the Proponent taking to
9 achieve water licence terms and conditions in the future?

10

11 (BRIEF PAUSE)

12

13 MR. RON KENT: Ron Kent, for the Town.
14 Would you state the question again, please?

15 MR. JAMIE VANGULCK: Jamie Vangulck. The
16 question was: What efforts is the Proponent taking to
17 achieve water licence terms and conditions for monitoring
18 around the solid waste disposal facility?

19 MR. RON KENT: Thank you. Ron Kent, for
20 the Town. As noted before, the Town is having a study
21 done right now with a report expected by the end of
22 March. From that, we'll allow the Town to develop a
23 better operation and maintenance plan for this facility,
24 and from that will come a monitoring program.

25 And then the details of that can be worked

1 out with the technical committees here and through
2 consultation with the regulatory agencies. From there,
3 we'll -- the Town will be able to develop a suitable
4 monitoring program. Thank you.

5 THE CHAIRPERSON: Further from staff?

6 MR. JAMIE VANGULCK: Thank you, Mr.
7 Chair. Jamie Vangulck. I think this question will
8 partly build upon your last statement there.

9 The Proponents stated in their public
10 hearing presentation that a contract was awarded in
11 December of 2009 to study the current solid waste
12 disposal facility and its operations.

13 Could the Proponent provide details such
14 as the terms of reference for the contractor on the
15 contents of this study?

16 MR. RON KENT: Ron Kent, for the Town.
17 Yeah, the Town can provide these terms of reference.
18 It's the public -- it's the public money, so -- public
19 study. Certainly.

20 THE CHAIRPERSON: Is that an undertaking,
21 John?

22 MR. JOHN DONIHEE: John Donihee, Board
23 counsel.

24 Yes, Mr. Chairman, perhaps at the same
25 time as the material for Undertaking 1 is filed, so

1 within two (2) weeks. Undertaking number 2, terms of
2 reference for the study on -- perhaps Mr. Kent can tell
3 us what the terms of reference are for.

4 MR. MICHAEL RICHARDSON: Michael
5 Richardson, with the Town. It's -- Mr. Chair, it's a
6 report on the solid waste site. I guess we're looking to
7 extend the life of the landfill, and so it's a review of
8 our -- of our management of the -- of the landfill site.
9 And we can provide the terms of reference within two
10 weeks.

11 THE CHAIRPERSON: Okay, thank you.
12 John...?

13 MR. JOHN DONIHEE: Thank you, Mr.
14 Chairman. John Donihee. That would be Undertaking
15 number 2.

16
17 --- UNDERTAKING NO. 2: The Town of Hay River to
18 provide within two weeks
19 details re terms of reference
20 for the contractor on the
21 contents of the current solid
22 waste disposal facility and
23 its operations

24
25 THE CHAIRPERSON: And unless I didn't hear

1 right, you said you couldn't undertake it within two (2)
2 weeks?

3 MR. MICHAEL RICHARDSON: Michael
4 Richardson, with the Town. Mr. Chair, we can. We will
5 be able to submit the terms of reference within two (2)
6 weeks.

7 THE CHAIRPERSON: Okay, thank you.
8 Further to that then, Jamie?

9 MR. JAMIE VANGULCK: Thank you, Mr.
10 Chair. Jamie Vangulck.

11 How long of a water licence term does the
12 Proponent recommend or seek?

13 MR. MICHAEL RICHARDSON: Michael
14 Richardson, with the Town. Mr. Chair, we'd like to at
15 least have a five (5) year term, but preferably a ten
16 (10) year term would be suitable for the Town.

17 THE CHAIRPERSON: Okay, thanks.
18 Jamie...?

19 MR. JOHN DONIHEE: It's John Donihee,
20 Board counsel. Mr. Vangulck is finished, Mr. Chairman.
21 I have one (1) question.

22 THE CHAIRPERSON: Proceed.

23 MR. JOHN DONIHEE: Thank you, Sir. I
24 just have a question in respect of the summary to your
25 PowerPoint presentation, and in relation to the second

1 paragraph where it says that:

2 "The Town requests that in the interest
3 of cost effective governance, items
4 that do not relate directly to
5 compliance and enforcement be removed
6 from the licence."

7 And I just want to be clear. As I went
8 through the PowerPoint presentation, there were several
9 tables provided. One labelled "Concerns and Commitments
10 for Sewage" and then there were, I think, two (2) others
11 -- three (3) others, sorry, "Concerns and Commitments for
12 Plans," "Concerns and Commitments for SNP" and "Concerns
13 and Commitments for ENR."

14 So my question is really: In those tables
15 there are several items to which the Town has indicated
16 that it disagrees, that it does not want to provide the
17 information or to undertake the actions that are
18 recommended by Intervenors.

19 So I just want to be clear then, the items
20 with which you disagree are the things that, in the
21 opinion of the Town, are items that do not relate
22 directly to compliance and enforcement.

23 Is that correct?

24 MR. RON KENT: Ron Kent for the Town.

25 Yes, that's correct.

1 MR. JOHN DONIHEE: John Donihee. Thank
2 you, Mr. Chairman. That was my question.

3 THE CHAIRPERSON: Okay. Thank you all
4 for that then. We'll come to the Board Members. Sabet,
5 questions?

6 MS. ELIZABETH BISCAYE: Thank you, Mr.
7 Chair. Yes, I have a number of questions.

8 There's -- in the charts you make
9 commitments for providing reviewing the O&M plans,
10 updating O&M plans and there's been closure and
11 reclamation plans.

12 Just so I'm aware as a Board Member, what
13 are, like, the schedule of those submissions? Do you
14 have an idea how long it would take you to get some of
15 those things done?

16 MR. RON KENT: Ron Kent for the Town.
17 All of these plans are already submitted. The one that's
18 not submitted at the moment is closure plan, and that
19 will be coming with the -- for the -- for the municipal -
20 - MSW site.

21 All the other plans are submitted and
22 we'll be submitting modifications to them as they occur
23 and annually with the annual report as required by the
24 licences. Thank you.

25 THE CHAIRPERSON: Okay. Thank you for

1 that. Sabet...?

2 MS. ELIZABETH BISCAEY: Thank you, Mr.
3 Chair. Thank you for the response. In your PowerPoint
4 presentation you make note of the volume of water used
5 for 2008, and later on you also speak to the sewage
6 production.

7 And in your slide show presentation you
8 notice that -- you note that there's a discrepancy in the
9 water use and sewage production, but you don't note where
10 the actual discrepancy is.

11 Is it in the water use itself or in the
12 sewage production? Because it seems kind of strange that
13 you -- you're discharging more than -- or you -- you have
14 more sewage production than you actually have water come
15 -- being used.

16 MR. RON KENT: Ron Kent for the Town.
17 Yes, the -- the water use itself is metered so that
18 number is much more accurate. The water -- the sewage
19 that's produced is an estimate and when the estimates
20 were summed from the various pump run times for the lift
21 stations, this is what the answer was.

22 We've undertaken to figure out what the
23 problem is and figure out how to get the numbers closer.
24 Their concerns were held that we have a sig -- there's a
25 significant amount of infiltration; that's not so.

1 Concerns were held that there was an
2 industrial waste source that was discharging unregulated;
3 that's not so.

4 The -- the problem was the way that the
5 volume was estimated and that'll be improved in the next
6 submission. Thank you.

7 THE CHAIRPERSON: Okay. Thank you.
8 Sabet, further?

9 MS. ELIZABETH BISCAYE: Just one final
10 question. In reviewing the documentation, I'm assuming
11 the Hay River Reserve is not part of this treatment
12 program?

13 MR. MICHAEL RICHARDSON: Mike Richardson
14 with the Town. That's correct, the Hay River Reserve is
15 not part of this.

16 THE CHAIRPERSON: Further, Sabet...?

17 MS. ELIZABETH BISCAYE: No further
18 questions, Mr. Chair.

19 THE CHAIRPERSON: Okay. Thank you. Pat
20 Larocque...?

21 MR. PAT LAROCQUE: I have no questions
22 right now, Mr. Chair, thank you.

23 THE CHAIRPERSON: Okay. Floyd Adlem...?

24 MR. FLOYD ADLEM: Thank you, Mr. Chair.
25 Floyd Adlem. Just a couple. These could be answered

1 "yes" or "no." It's just my unfamiliarity with the site
2 and a couple of questions.

3 Is there any opportunity for the wetland
4 to be flooded?

5 MR. RON KENT: Ron Kent. If you mean by
6 the river? No, it's too far away.

7 MR. FLOYD ADLEM: Okay. Thanks. One (1)
8 other question, again to do with the solid waste site.

9 The -- its proximity -- in its proximity
10 to the Hay River, is there any possibility that erosion
11 or something like that would encroach upon the waste
12 management site in future years or down the way?

13 MR. RON KENT: Ron Kent for the Town.
14 It's pretty heavily treed there, so not likely, and it
15 doesn't seem to be an area in the river where there's a -
16 - this is a looping river, so it doesn't seem to be in an
17 area where there's a loop or there's going to be erosion
18 digging on the -- on that side of the shore.

19 MR. FLOYD ADLEM: Okay. So there's no
20 evidence of that, at -- at this time? Okay.

21 MR. RON KENT: No, none.

22 MR. FLOYD ADLEM: And just one (1) again
23 for my own information. I don't quite understand the bio
24 pad process, but would there ever be any leachate from
25 that released or that would need to be removed or pumped

1 or -- or is it basically a self-contained process?

2 And how much water -- for example, how
3 much leachate would the sump hold?

4 MR. RON KENT: Okay. The -- Ron Kent for
5 the Town. The bio pad is a system where hydrocarbon
6 contaminated fuel is placed and allowed to either have
7 the fuel burn off in the sunshine or the natural soil
8 organisms will consume it. Sometimes it needs a little
9 help and a littler fertilizer here and there and to be
10 turned every once in a while to get itself up -- get
11 itself up in the sunshine.

12 After a period of time, the hydrocarbon
13 contamination that's in it will decrease down and meet
14 criteria that will allow it to be used as cover for the
15 landfill.

16 The water that's there will come in with
17 the load, as they dig it out, and will also result from
18 precipitation. Generally, in this area the precipitation
19 and evaporation are about the same, so it'll go off in
20 the sunshine. It's not as -- it's not going to stay.

21 If it ever got really horrible and there
22 was, for some reason, some large amount of water
23 collected and it over -- and the -- and there's a fairly
24 large pad, and it depends how -- how much it will hold
25 for water depends on how much soil is in it.

1 So we can't say from one year to the next
2 how much capacity it has, but if it ever had a problem
3 with capacity and -- and water had to be removed,
4 generally what you do, first of all, is spray it back up
5 on top of the pile and let it run through the system
6 again and that will also -- the soil will soak it up a
7 little bit and reduce the volume.

8 But if you really get stuck, then you can
9 sat -- you can pump from underneath 'cause it'll have a
10 surface skim, and the water underneath will generally
11 meet the requirements that you'd be allowed to put it
12 into your municipal sewer and treat the water further
13 through the wetland system. Thank you.

14 MR. FLOYD ADLEM: Thank you. No further
15 questions.

16 THE CHAIRPERSON: Thank you, Ken, for
17 that. Perhaps then we can continue with Environment
18 Canada, if everybody -- the Board members, we could do
19 that and then have coffee after that. So Environment
20 Canada presentation.

21

22 (BRIEF PAUSE)

23

24 PRESENTATION BY ENVIRONMENT CANADA

25 MS. MARY KELLY: Thank you, Mr. Chair.

1 My name is Mary Kelly. I am joined with my colleague
2 Anne Wilson, and we will provide a joint presentation
3 today.

4 Just to provide an overview of the topics
5 that we will discuss, first of all, we'll start with our
6 mandate, Environment Canada's mandate, followed by our
7 recommendations about management plans including the
8 operation and maintenance plan, the sludge management
9 plan, and the quality assurance and quality control plan.

10 s Next we'll touch on annual reporting,
11 followed by bioassay testing, the surveillance network
12 program specifically site 53-3, as well as the landfill
13 leachate monitoring.

14 So to give you some understanding of where
15 we're coming from, Environment Canada's primary
16 legislation that has effected this intervention is the
17 Canadian Environmental Protection Act, CEPA, as well as
18 the Fisheries Act, specifically sections 36 to 42.

19 Now subsection 36(3) is the general
20 prohibition portion of the Fisheries Act. This
21 subsection prohibits the deposit into fish bearing waters
22 of substances that are deleterious to fish.

23 Now what does "deleterious mean"? Well,
24 legally it is a very broad interpretation, and any
25 substance that could be potentially harmful either

1 chemically, physically, or biologically to fish or fish
2 habitat is understood.

3 And how do we measure deleteriousness?

4 Well, one method of measuring is acute lethality as
5 measured by the ninety-six (96) hour fish bioassay test.
6 Further information on our mandate is included in
7 Appendix A of our intervention.

8 Now moving on to our recommendations, the
9 operation and maintenance plan, which has been already
10 discussed this afternoon, our recommendation is that the
11 O&M plan be submitted to the Board for approval, which my
12 understanding is that it -- it has not been so just yet.
13 It has been submitted as part of the renewal application,
14 but it has not been approved by the Board.

15 And some of the things that we would
16 expect are detailed in our intervention and I'll just
17 highlight -- highlight them here, but refer back to our
18 recommendation is simply that the O&M plan be submitted
19 to the Board -- to the Board for approval as one of the
20 water licence conditions.

21 So some of the things that we'd look for
22 is specific guidance on the operation of the engineered
23 treatment plan -- pad, sorry, the leachate control pond,
24 handling and disposal of hazardous material, et cetera,
25 as well, with the wastewater collection system, how it is

1 treated, and how the sludge is managed.

2 These are just basic due diligence items
3 that would assist the staff in operating their
4 facilities. These are -- are pretty normal conditions in
5 water licences.

6 A second management plan that we look for,
7 and we would recommend seeing as part of a condition in
8 the licence, and we are happy to hear that there are
9 steps taken to seek that sludge management plan, is the
10 sludge management plan as a condition of the licence.

11 In this plan, we would expect to see
12 estimates of the quantities of sludge, the frequency of
13 extraction, how to operate -- the operational procedures
14 developed for environmentally sound removal and disposal
15 which would include -- which would include
16 characterization of the sludge before it is disposed of.

17 A third plan that we -- oh, before I go to
18 the third plan, there's -- there are a couple of photos
19 here of sludge sampling that have been done by
20 Environment Canada. The left is a photo of a sludge
21 judge which contains sludge and measures the depth of the
22 sludge in the lagoon.

23 A third plan that we would seek is the
24 quality assurance/quality control plan that outlines not
25 only the analytical laboratory, but also information on

1 proper sample handling and documenting and ensuring that
2 the bottles do not get contaminated. This plan, the
3 QA/QC plan, as well as the sludge management plan, could
4 form part of the operation and maintenance plan. They do
5 not need to be standalone documents.

6 Moving on to reporting now, the annual
7 report, we would like to see that it be submitted for
8 approval for the reason of providing an opportunity to
9 provide missing or unclear or erroneous information, so
10 that tho -- that information can be verified. And I
11 should emphasise that this reporting has been agreed to
12 by the City -- or sorry, the Town, so has the QA/QC plan,
13 as well as the sludge management plan.

14 Now, we'll move on to bioassay testing and
15 SNP sampling.

16 MS. ANNE WILSON: It's Anne Wilson. I'll
17 take it from here on the bioassay testing. This has been
18 a licence condition since the 2002 licence renewal and
19 was required three (3) times a year in the expiring
20 licence.

21 The test organisms used were rainbow trout
22 and daphnia. They're very standard lab organisms. And
23 bioassay testing is a recognized tool for the Town to
24 demonstrate the effectiveness of their treatment in
25 achieving good effluent quality.

1 The requirement for a bioassay is very
2 common in licences both industrial and municipal across
3 Nunavut and the NWT. And one (1) of the benefits of
4 toxicity testing is that it integrates the whole
5 effluent, all the parameters of the effluent, into one
6 (1) sample that is tested for its toxicity. So, it's a
7 good overall effluent characterization tool.

8 It can help confirm that effluent quality
9 criteria are reasonable; that they're protective of the
10 environment. And if you do see some changes in the test
11 results, if you get some more mortality in your bioassay,
12 then that might indicate changes in the effluent quality
13 that would not be picked up by the limited number of
14 parameters that are compliance parameters, but they could
15 be of concern for any effluent going into Great Slave
16 Lake.

17 We do suggest some changes to the testing
18 for the renewal licence though. Currently, under section
19 D2 in the licence, it's a requirement that the effluent
20 shall be non-acutely toxic, and the way they're measuring
21 that is by a hundred percent survival of the organisms.

22 That is a little bit onerous in that it's
23 stricter than the stand method protocol, which allows up
24 to 10 percent mortality in your control organisms that
25 aren't exposed to any effluent.

1 We would suggest that the toxicity test
2 criteria be set between 50 and 90 percent survival in a
3 standard pass/fail static bioassay test.

4 We would be agreeable to dropping the
5 daphnia test and just going to the rainbow trout test.

6 And the sampling frequency can be reduced
7 from three (3) times a year to two (2) times a year, once
8 following the spring freshet and once before freeze-up.
9 This would still capture a range of conditions and
10 provide good indications of the effluent quality we feel.

11 We'd also like to suggest that SNP item B2
12 be amended to specify a pass/fail test rather than the
13 LC50 test. The pass/fail is a much simpler test. It
14 requires one (1) test concentration, the hundred percent
15 effluent, so a smaller volume of effluent is required to
16 be shipped and the costs are considerably lower.

17 The LC50 test is the one that has the
18 serial dilutions and has five (5) tanks of fish being
19 tested concurrently, including the control, so we're --
20 we're in favour of a simpler test.

21 And we would also support the samples
22 being sent to an outside accredited lab for testing.
23 Environment Canada has helped with the testing over the
24 past licence term, and we would be able to help for a
25 couple more years providing the testing, but it's not an

1 expensive test. It's about a hundred and fifty dollars
2 (\$150) per test, so that would be three hundred dollars
3 (\$300), plus shipping twice a year.

4 And I think that some of that is that I
5 don't have control over whether or not there are budgets
6 to provide the testing from Environment Canada. And we
7 don't want to have the Proponent put in a noncompliance
8 position by having -- like the current water licence
9 specifies that EC shall do the testing, and if we can't
10 then that's a little awkward, so.

11 I'm going to move on to the SNP at this
12 point. I apologize for the darkness of this map, but
13 just to familiarize with the site here, we've got the
14 compliance point is SNP 0053-2.

15 Now that is required to be sampled monthly
16 during periods of flow. Up at the top of the system here
17 we have four (4) lagoon cells, so we have two (2) primary
18 and two (2) downstream secondary lagoons that then join
19 in a flow path here at SNP 0053-3.

20 The expiring licence identifies this SNP
21 station but doesn't have any sampling requirements.

22

23

(BRIEF PAUSE)

24

25

MS. ANNE WILSON: We feel it would be

1 very useful to do such sampling in conjunction with the
2 compliance point sampling for several reasons which we've
3 listed here.

4 First off, you can figure out what your
5 lagoons are actually doing. What is your effluent
6 quality at the lagoon? Is it time to think about
7 removing sludge? Are there any treatment issues that you
8 wouldn't necessarily see at the wetlands, but you would
9 pick up at the lagoon.

10 So can reveal changes in the lagoon
11 treatment performance, so, that will help you plan for
12 future upgrades or identify any maintenance issues or
13 operational modifications that are needed.

14 Another point was eluded to previously in
15 that there are no control structures at the compliance
16 point. If you identify a problem earlier on at the
17 outflow of the lagoon, that gives a little bit of
18 response time if it's needed before it actually gets
19 closer to the -- the receiving environment.

20 I think this would also be useful in
21 identifying the treatment that's afforded by the
22 wetlands. We don't have a good understanding of the
23 capacity. And previously there was a question on how
24 they would assess the treatment capability of the
25 wetlands.

1 I think it's very important to monitor the
2 water quality going in as well as going out -- coming
3 out. And then if the effluent quality should change for
4 the worse, you can identify which system component is
5 needing -- is causing the problem; whether it's the
6 lagoon or the wetland.

7 Environment Canada's recommendation is
8 that SNP Station Number 0053-3 which is at the outflow of
9 the two (2) lagoon trains, should be sampled concurrently
10 with the 0053-2 samples.

11 Still on the SNP program, there were a
12 number of gaps in the sampling for the compliance point
13 0053-2. Previous years you had between three (3) and
14 five (5) samples collected.

15 We do recommend that this site be sampled
16 at a minimum monthly during periods of flow and that
17 would be for analysis of a full suite of parameters
18 including CBOD and CBOD would be a monitored parameter,
19 not a regulated parameter. And that all of these should
20 be reported fully in the annual report.

21 The next slide is to do with the landfill
22 leachate monitoring. There hasn't been a lot of
23 monitoring of leachate at the landfill or runoff at the
24 solid waste site and past inspections have identified
25 several elevated parameters which may be migrating from

1 the site.

2 The site is adjacent to the Hay River
3 which is down gradient and would receive shallow
4 groundwater flow. So we're very interested in what might
5 be migrating from the landfill.

6 We do recommend monitoring of runoff and
7 leachate at the solid waste site at least once a year.
8 We would like to see both surface and groundwater
9 monitored.

10 And we, as noted previously, are pleased
11 that the Town has located the groundwater wells and are
12 planning to sample them annually at the landfill.

13 And as far as runoff goes, we would need
14 to look at what would be appropriate SNP sites and
15 identify those.

16 Okay, I guess we're at our conclusion now
17 and we'd like to, again, thank the Board for the
18 opportunity to participate in this process and to present
19 our concerns and we will attempt to answer any questions
20 that are made of us.

21 THE CHAIRPERSON: Okay. Thank you both
22 for a formative presentation. So we'll go to some
23 questions then starting with the Town of Hay River.

24

25 QUESTION PERIOD:

1 MR. MICHAEL RICHARDSON: Michael
2 Richardson from the Town. At this time we don't have any
3 questions. Thank you.

4 THE CHAIRPERSON: Okay, thanks for that.
5 ENR...?

6

7 (BRIEF PAUSE)

8

9 MS. DIEP DUONG: Hi, this is Diep Duong
10 with ENR. I do have a question for Anne and Mary. The
11 Town has indicated that they have four (4) groundwater
12 monitoring wells at the landfill.

13 If these wells are, in fact, still
14 useable, do you feel that they are representative of the
15 site conditions considering that the Hay River is
16 approximately 150 metres away?

17 MS. ANNE WILSON: It's Anne Wilson with
18 Environment Canada. Earlier today we did go out and try
19 and locate the sampling sites. We were only able to spot
20 the one by the road.

21 So we -- I had the description from the
22 Town. We have not seen coordinates and would have to see
23 a site map with the elevations and drainage patterns in
24 order to assess that.

25 THE CHAIRPERSON: Okay. Further from

1 ENR...?

2 MS. DIEP DUONG: No, that's it. Thank
3 you.

4 THE CHAIRPERSON: Okay. Thank you. Who
5 are we missing here? Environment -- INAC, yes. Standing
6 in front of me.

7 MR. ROBERT JENKINS: Thank you, Mr.
8 Chair. Robert Jenkins with INAC. No questions at this
9 time.

10 THE CHAIRPERSON: Okay. Thank you.
11 Registered speakers?

12 Anyone from the general public?

13 Okay. Board staff, legal or technical?

14 MR. JAMIE VANGULCK: Thank you, Mr.
15 Chair. Jamie Vangulck. I have a few questions about the
16 sewage disposal facility to start with to Environment
17 Canada. Environment Canada recommended and the Proponent
18 has agreed to complete a sludge management plan for the
19 sewage treatment facility.

20 And part of that recommendation,
21 Environment Canada would like to see sludge chemical
22 composition testing to be completed on the sludge in
23 order to assist with its management.

24 Could Environment Canada recommend what
25 parameters to measure on the sludge and any other advice

1 to guide the Board?

2 MS. ANNE WILSON: It's Anne Wilson of the
3 Environment Canada.

4 This issue came up at the Yellowknife
5 Hearing and recently Environment Canada put in a short
6 recommendation document to the Board which outlined some
7 of the factors to do with sludge removal, timing, and
8 needs. And our conclusion was that we wouldn't be in a
9 position to provide hard and fast numbers or thresholds
10 for use.

11 That there would have to be aspects of the
12 sludge management plan which looked at monitoring the
13 water quality coming out, mainly for solids and for BOD
14 changes. And surveys of the sludge in the lagoon,
15 perhaps thinking about the amount time since they had
16 last desludged. Or things like, is there an odour being
17 generated, that might be an indication.

18 So I can provide that to the Board because
19 it would also apply in this case, if that would be
20 helpful.

21 THE CHAIRPERSON: Okay. Thank you for
22 that. John, is that an undertaking?

23 MR. JOHN DONIHEE: John Donihee. Mr.
24 Chairman, I'm just wondering if the Town of Hay River is
25 familiar with this document or if they've had a chance to

1 have a look at it? It's the document that was just
2 described by Ms. Wilson.

3 THE CHAIRPERSON: Town of Hay River, if
4 you could state -- state your name again, please, sir.

5 MR. RON KENT: Ron Kent here from -- for
6 the Town. We're not -- we haven't seen the document that
7 Anne's talking about.

8 And also I'd like to point out that the
9 Town is undertaking a sludge management process program,
10 and in that program will -- there will be criteria,
11 engineering criteria, recommended.

12 The Town will then submit the plan to the
13 Board, so, we ask that rather than rush ahead and put
14 down numbers without good engine -- without proper
15 engineering advice to begin with that, you please wait
16 and amend an SNP later or something like that. Do
17 something else; instead wait for this report to come out.
18 Thank you.

19 THE CHAIRPERSON: Okay. Thanks.
20 Further, Jamie or John...?

21 MR. JOHN DONIHEE: John Donihee, Mr.
22 Chairman. I'll -- I'll hand it back over to Mr.
23 Vangulck, but the concern I have is that the Town hasn't
24 seen it and I don't think at that we should take an
25 undertaking to have it filed if they haven't seen it and

1 had a chance to think about it.

2 So my suggestion is perhaps we'll let Mr.
3 Vangulck try to deal with this through the rest of his
4 questions.

5 THE CHAIRPERSON: Okay. Jamie...?

6 MR. JAMIE VANGULCK: Thank you, Mr.
7 Chair. Jamie Vangulck. Just to clarify on the question
8 a little bit. In your intervention it says that part of
9 the sludge management plan would, clearly, outline the
10 chemical composition of the sludge.

11 So it's not the chemical composition of
12 the water and -- and deciding when to remove, but what
13 specifically would you be -- would you recommend to test
14 for its chemical composition? And if you could elaborate
15 on that, that would be wonderful.

16 MS. ANNE WILSON: It's Anne Wilson. The
17 concern with the chemical composition of the sludge
18 itself would be in respect of its disposal. So, we would
19 be interested in are there high levels of metals in it,
20 are there bacteriological concerns with it or other
21 parameters that you would be concerned about.

22 Now, the Town does have a disposal pit, so
23 that is of less concern because it will be encapsulated
24 after it's removed is my understanding.

25 THE CHAIRPERSON: Okay, thank you.

1 Further...?

2 MR. JAMIE VANGULCK: Thank you, Mr.
3 Chair. I'll move on to another question. This also has
4 to do with the sewage disposal facility.

5 There was some discussions in the
6 interventions with regards to the operations of this
7 facility, and could Environment Canada explain if the
8 sewage disposal facility here in Hay River operates as a
9 intermittent or a continuous discharge facility?

10 MS. MARY KELLY: This is Mary Kelly, with
11 Environment Canada. I'm not sure why that question is
12 addressed to Environment Canada as the Town should be
13 able to answer that question, whether their system is
14 intermittent or continually discharging.

15 However, I was onsite today and I received
16 information from the gentleman who works for the Town,
17 and he indicated that it continuously flows out of the
18 system. As well, the Town has indicated that there is no
19 structure that stops the -- the water from flowing and,
20 therefore, it is my understanding that it is continuously
21 discharging.

22 THE CHAIRPERSON: Thank you for answering
23 that for the Town of Hay River. Jamie...?

24 MR. JAMIE VANGULCK: Thank you, Mr.
25 Chair. I'll move on to another line of questioning here.

1 Does Environment Canada consider the
2 current sewage disposal facility to be capable of
3 treating wastewater to water licence regulated levels for
4 the future population of the Town of Hay River?

5

6 (BRIEF PAUSE)

7

8 MS. ANNE WILSON: Anne Wilson, for
9 Environment Canada. I don't think I can answer that one
10 without speculating.

11 THE CHAIRPERSON: Okay, further...?

12 MR. JAMIE VANGULCK: Thank you, Mr.
13 Chair. Just to follow up on -- on that topic.

14 What -- what information gaps would be
15 needed to gain confidence in -- in understanding the
16 treatment capacity of the sewage disbur -- treatment
17 facility?

18

19 (BRIEF PAUSE)

20

21 MS. ANNE WILSON: It's Anne Wilson. It's
22 my understanding the last study on this system was about
23 1974. And I'm not sure that we have a good understanding
24 of how the wetlands function, so, that's why I think it's
25 important to keep the Monitoring Program very rigorous

1 and consistent and track what the lagoon performance is.

2 And I think they've got a good system
3 here. It looks like it's well engineered and good
4 capacity for the time being, but I don't have all the
5 information as to what the future populations are going
6 to be, or changes.

7 That's why I just -- I think a licence
8 that involves good monitoring requirements is going to be
9 critical to inform the Proponent of anything they're
10 going to need to do to be in that position of compliance
11 continuously.

12 THE CHAIRPERSON: Okay, thank you.
13 Jamie...?

14 MR. JAMIE VANGULCK: Thank you, Mr.
15 Chair. Jamie Vangulck.

16 Part of the additional monitoring for the
17 sewage disposal facility that Environment Canada
18 recommended was testing at the overflow point from the
19 lagoon into the wetland, and that samples should be
20 tested there, I believe it was during times of flow, or
21 at least monthly.

22 Is that -- is it EC's opinion that that is
23 enough to confidently understand if the performance of
24 the sewage treatment facility would operate? Is that
25 sufficient monitoring, is -- is another way of wording

1 it.

2 MS. ANNE WILSON: It's Anne Wilson. The
3 expiring licence has a broad suite of parameters which
4 are required at 0053-2, and if those were mirrored at
5 0053-3, then that would cover changes in effluent quality
6 coming out of the lagoon that could be anticipated.

7 So, I would say fairly confidently we
8 wouldn't -- shouldn't be missing too much if we used
9 what's in the existing licence.

10 THE CHAIRPERSON: Thanks. Jamie...?

11 MR. JAMIE VANGULCK: Thank you, Mr.
12 Chair. Just a follow-up question. It's Jamie Vangulck.

13 So, just to clarify, by testing at SNP
14 0053-2 and also dash 53 -- or 53-3, that would be
15 sufficient to understand the capabilities of the system?

16 MS. ANNE WILSON: Anne Wilson,
17 Environment Canada. That might be an over
18 simplification. That would give us a heads-up if we saw
19 something happening at the lagoons and help us understand
20 changes that we might see at the compliance point.

21 I don't know that we would necessarily
22 have a sense of what's going on in the wetlands whether
23 there were changes in the in-flows, loading changes that
24 were affecting the uptake in removal of contaminants.
25 So, it would be part of the puzzle.

1 THE CHAIRPERSON: Thanks. Further...?

2 MR. JAMIE VANGULCK: Thank you, Mr.
3 Chair. Jamie Vangulck. I have another question on the -
4 - the topic of sewage treatment facilities.

5 INAC and also Environment Canada
6 recommended a three (3) year study to develop a trend
7 between CBOD and BOD. We heard from the Proponent that
8 the trend analysis for CBOD they've agreed to.

9 Is that sufficient to satisfy Environment
10 Canada's recommendations?

11 MS. ANNE WILSON: It's Anne Wilson. I'll
12 just clarify that while EC does support the proposal by
13 INAC to track CBOD and BOD over three (3) years to
14 establish a ratio between the two (2), which is what I
15 understood their recommendation to be, our thought was
16 that they should have CBOD as a monitored parameter,
17 continue with BOD as a regulated parameter, and then
18 perhaps upon next licence renewal we'd know whether CBOD
19 was to be monitor -- sorry, to be regulated as a criteria
20 rather than BOD and then we'd have a pretty good idea of
21 what the system performance was for that parameter.

22 THE CHAIRPERSON: Thanks. Further...?

23 MR. JAMIE VANGULCK: Thank you, Mr.
24 Chair. Jamie Vangulck.

25 So, could Environment Canada please

1 clarify if a trend analysis between CBOD and BOD was
2 recommended to be completed?

3 MS. ANNE WILSON: It's Anne Wilson. We
4 didn't request that specifically, but we do support that
5 request.

6 THE CHAIRPERSON: Thanks. Further...?

7 MR. JAMIE VANGULCK: Thank you, Mr.
8 Chair. Jamie Vangulck. I'll move over to some questions
9 about the solid waste disposal facility. And you address
10 some of the -- some of Environment Canada's concerns
11 about monitoring, and the groundwater monitoring wells at
12 the solid waste disposal facility as well as the surface
13 water monitoring.

14 During your presentation you described
15 that you weren't able to locate all the wells when you
16 went out to visit the site today.

17 What information gaps are there to
18 understand the locations for monitoring at the facility?
19 And what information does Environment Canada recommend to
20 have on the record with regards to how and where water is
21 sampled?

22 MS. ANNE WILSON: It's Anne Wilson. As
23 briefly touched on earlier, it would be very useful to
24 have a plan view map of the site and have some indication
25 of the drainage paths and proximity to the river.

1 And also the potential sources of
2 contaminants identified on -- on the map which are
3 currently in -- in the system.

4 THE CHAIRPERSON: Okay. Thank you.
5 Jamie...?

6 MR. JAMIE VANGULCK: Thank you, Mr.
7 Chair.

8 On the topic of groundwater testing at the
9 solid waste disposal facility, does INAC -- or does
10 Environment Canada recommend groundwater level monitoring
11 as well as groundwater quality monitoring?

12 MS. ANNE WILSON: It's Anne Wilson. We
13 don't have a specific recommendation on that. Our
14 department doesn't really have a groundwater specialist
15 who would help me with that.

16 The concern would be if the water levels
17 are higher coming through, then there could potentially
18 be a larger flow into the down gradient areas. So I
19 don't think that information would be useless. I just
20 can't substantiate a solid recommendation for it.

21 So how about a solid maybe?

22 THE CHAIRPERSON: That sounds reasonable.
23 Jamie...?

24 MR. JAMIE VANGULCK: Thank you, Mr.
25 Chair. Jamie Vangulck. I have a question about the

1 surface water monitoring at the solid waste disposal
2 facility.

3 The Proponent has stated that they would
4 like to test for surface water monitoring after a
5 significant rainfall event.

6 Does Environment Canada have a
7 recommendation if -- well, I guess on the specific rain
8 event that should be exceeded before testing is
9 completed? Or do they recommend that method to determine
10 when surface water monitoring is to be completed?

11

12 (BRIEF PAUSE)

13

14 MS. MARY KELLY: This is Mary Kelly with
15 Environment Canada. We can't describe specifically a
16 significant rainfall event but what we're getting at with
17 those words is simply that there's flow at the position
18 of monitoring.

19 So if there's a rainfall and those sites
20 are visited after the rainfall and there is no flow, then
21 there's no point in sampling because there's nothing to
22 sample. But if there is flow, then it should be sampled.

23 THE CHAIRPERSON: Thanks. Further...?

24

25 (BRIEF PAUSE)

1

2 MR. JAMIE VANGULCK: Thank you, Mr.
3 Chair. Jamie Vangulck. Does Environment Canada
4 recommend a regulated effluent limit for runoff and
5 seepage waters from the solid waste disposal facility?

6 MS. MARY KELLY: This is Mary Kelly with
7 Environment Canada. No, we do not.

8 THE CHAIRPERSON: Thank you. Back to
9 you, Jamie.

10 MR. JAMIE VANGULCK: Thank you, Mr.
11 Chair. Jamie Vangulck. The Proponent has planned to
12 complete a study about the solid waste disposal facility
13 and its operations.

14 What information gaps, if any, has
15 Environment Canada identified with regards to the solid
16 waste disposal facility?

17

18 (BRIEF PAUSE)

19

20 MS. MARY KELLY: This is Mary Kelly, with
21 Environment Canada. As we've mentioned previously, flow
22 patterns, groundwater and surface water are key. Also,
23 future expansion of this site, will the boundaries be
24 pushed more towards the river or will they be pushed at
25 all? And also, if -- if another site is being sought for

1 the future.

2 Earlier in this process we understood that
3 there was an attempt to locate a more appropriate site.
4 Now we're hearing that they are planning to use the same
5 site as long as possible, so that should be clearly
6 stated in the report, as well.

7 THE CHAIRPERSON: Okay, thanks.
8 Followup, Jamie?

9 MR. JAMIE VANGULCK: Thank you, Mr.
10 Chair. Jamie Vangulck. I've got one (1) last question
11 for Environment Canada.

12 How long of a water licence term does
13 Environment Canada recommend?

14 MS. MARY KELLY: Mary Kelly, with
15 Environment Canada. Similar -- similar to what the Town
16 has requested, five (5) to ten (10) years. We'd be
17 comfortable with eight (8) to ten (10) years.

18 THE CHAIRPERSON: Okay, thank you. Any
19 further questions from staff counsel?

20 MR. JOHN DONIHEE: John Donihee. No
21 question from counsel, Mr. Chairman.

22 THE CHAIRPERSON: Okay, then to the
23 Board. Sabet...?

24 MS. ELIZABETH BISCAEY: Thank you, Mr.
25 Chair. Just one (1) quick question. In their Town

1 submission, they -- in the chart they provided, they
2 disagreed with the sampling of SNP 0053-3.

3 I'm -- I guess, you've recommended that be
4 done, and I'd like to ask you how much do you think
5 additional burden in terms of resources would be placed
6 on the Town to do the sampling for 0053-3. Thank you.

7

8 (BRIEF PAUSE)

9

10 MS. MARY KELLY: Mary Kelly, with
11 Environment Canada. We would request the same frequency
12 of sampling as 53-2, so it would be doubling the
13 analytical costs, but in terms of time, the site is
14 easily accessible.

15 THE CHAIRPERSON: Further, Sabet...?

16 MS. ELIZABETH BISCAYE: No further
17 questions, Mr. Chair.

18 THE CHAIRPERSON: Did the Town of Hay
19 River have a reply to that question?

20

21 (BRIEF PAUSE)

22

23 MR. RON KENT: Ron Kent, for the Town of
24 Hay River. I don't necessarily -- we don't have a
25 question specifically, but I would like to comment

1 briefly on sampling at station 53-3.

2 A monthly grab sample from station 53-3 is
3 -- will provide a number in -- of the various parameters
4 that you -- you have. Because of the -- because it's a
5 lagoon, a small lagoon system with a continuous flow, the
6 effluent quality that comes from that lagoon system is
7 not consistent.

8 And every -- we all know that sewage is
9 not homogeneous in this nature, and so taking a simple
10 grab sample will only tell you what passed that point at
11 that second.

12 And to then take that information and
13 expand it into the rest of the system and say that we can
14 use this information as assurance that we're working
15 well, or that we're not working well, or that we can
16 predict what's going to happen at the effluent, in my
17 experience as a professional engineer for over thirty
18 (30) years, you can't do that.

19 If there was noncompliance at the -- at
20 the effluent, the Town would, first of all, resample,
21 say, well, we got -- a lump of something came through and
22 it caused us to have noncompliance.

23 If there's still noncompliance, the next
24 thing to do is go back up the line and do a proper
25 sampling program with composite samples so that you know

1 exactly what's going on in the processes. It's not done
2 with labs with simple samples, with the simple -- simple
3 grab sample.

4 And in doing that, the -- you've -- report
5 this -- this number becomes a reportable requirement. So
6 it goes into the -- and -- and this is the number. And
7 everybody refers back to this number; good, bad,
8 indifferent, whatever it is, this is the num -- and it's
9 not a -- it's not a viable number. I would -- from an
10 engineering standpoint you can't rely on that number to
11 make any predictions at all about the effluent quality.

12 So in addition to the -- the financial
13 burden, okay, so it doubles the costs and maybe it's
14 another thousand dollars (\$1,000). The Town could use a
15 thousand dollars (\$1,000) doing something else, but they
16 can do -- spend the money there, but they're not going to
17 be able to use this result.

18 So I -- that's -- that's our main
19 complaint toward this. It doesn't meet our criteria of
20 stuff that allows us to provide a good compliance
21 analysis. Thank you.

22 THE CHAIRPERSON: Okay. Thanks for
23 that. Follow-up...?

24 MS. MARY KELLY: Yes, thank you, Mr.
25 Chair. This is Mary Kelly with Environment Canada again.

1 In terms of grab samples as opposed to composite samples,
2 water licence requirements continuously require grab
3 samples; that's what lagoon systems require for
4 monitoring. So I don't think this is out of the ordinary
5 to require a grab sample.

6 And in terms of its validity, I have seen
7 plenty of monthly lab samples from lagoons discharging
8 and the results don't jump around just because it's one
9 sampling event.

10 So, I disagree with the Town's position on
11 the validity of the grab sample and I do recommend that
12 this would provide some indication of what's happening
13 over the design life of the lagoon system. Thank you.

14 THE CHAIRPERSON: Okay. Thank you.
15 Sabet, do you have follow-up?

16 MS. ELIZABETH BISCAYE: No further
17 questions, Mr. Chair. Thank you.

18 THE CHAIRPERSON: Thank you. Pat...?

19 MR. PAT LAROCQUE: I have no questions,
20 Mr. Chair. Thank you.

21 THE CHAIRPERSON: Floyd...?

22 MR. FLOYD ADLEM: Thank you, Mr. Chair.

23 Just a quick -- this CBOD and BOD thing has got me
24 slightly confused but I guess, as I understand it, the --
25 I'm not sure it's your request, or INAC's request, or at

1 somebody's request that they do both of these for a
2 period of three (3) years to compare them.

3 And my question is: To whom is the
4 information gathered useful? So, who's -- who's going to
5 use this three (3) years trend analysis? Is this
6 something that the -- the community will use, or is this
7 something for the benefit of government?

8

9 (BRIEF PAUSE)

10

11 MS. ANNE WILSON: It's Anne Wilson.
12 Without having a crystal ball, I can only say that there
13 is a possibility, or a probability even, that this will
14 be a parameter of interest in the future. And by
15 learning now what the CBOD levels are compared to the --
16 the BOD levels, I think it would help the Town evaluate
17 what potentially imposed CBOD numbers might come their
18 way in the future. But INAC might have further to say on
19 this for their recommendation.

20 THE CHAIRPERSON: Okay. Thank you.
21 Does INAC want to add something to that, or are you
22 anxious to have coffee?

23 MR. ROBERT JENKINS: Mr. Chair, it's
24 Robert Jenkins. It's up to you, we can have coffee. I
25 can give a brief explanation right now without having the

1 time over coffee to think about it.

2 BOD and CBOD are two (2) parameters that
3 measure the quality of wastewater. It's related to the
4 breakdown of material and how it affects oxygen. So,
5 essentially, they both measure the same thing. CBOD is
6 now seeming to be the -- the way that this parameter is
7 now being measure. BOD can be measured through --
8 through other tests like ammonia and different things
9 like that.

10 So, essentially, the Town has been now
11 collecting BOD within its licence for some time. So
12 there -- they've been building a data set.

13 So with this again sort of a trend
14 towards, you know, this is the way that this -- this
15 parameter's going to be measured potentially in the
16 future, a small period of time to measure both of them,
17 you can look at a ratio between the two (2). So BOD
18 generally gives you a higher result. So generally, BOD
19 is about 20 percent higher than CBOD.

20 So if you measure the two (2) over a
21 period of time and we're requesting three (3) years, you
22 can create a -- a ratio between the two (2) so that if,
23 in the future, a CBOD is the parameter that's measured in
24 the licence, and this is sort of what -- what we're
25 anticipating probably will be in the future, the long-

1 term data set for BOD can be somewhat maintained because
2 you've created a relationship between the two (2) instead
3 of just simply going up to one point with BOD and then
4 the next day taking over with CBOD.

5 So I don't know if -- if the Board, Mr.
6 Chair, has a follow-up question on that or needs further
7 clarification.

8 THE CHAIRPERSON: Great. Thank you for
9 that very informative response. Floyd, do you want to
10 follow up?

11 MR. FLOYD ADLEM: Thank you, Mr. Chair.
12 I guess the question's still there. I'm -- I'm not --
13 Environment Canada's intervention it reads:

14 "This has been of interest in light of
15 ongoing discussions of Northern
16 performance standards for lagoons and
17 would provide helpful information."

18 And I have a note there. It says: "To
19 who?" To who is this helpful information? Is it to --
20 so that's my question. To who is this helpful?

21 I -- I guess what I'm after is, we have
22 the Town's collecting the information. Is it for their
23 benefit or is it for somebody else's benefit?

24

25 (BRIEF PAUSE)

1

2 MS. MARY KELLY: This is Mary Kelly with
3 Environment Canada. From the point of view of the Town,
4 taking a look at the CBOD/BOD trend of their site will
5 shed -- shed some light on whether that 20 percent is
6 appropriate, the 20 percent difference between BOD and
7 CBOD.

8 This is something that hasn't been tested
9 thoroughly in the North or in many situations and to take
10 the initiative to see what that relationship is at their
11 site will allow them to determine that appropriate
12 numbers are set for CBOD.

13 It's also of interest to Government but I
14 did want to highlight the benefit that it would be to the
15 Town.

16 THE CHAIRPERSON: Okay. Thank you.
17 Floyd, did you have --

18 MR. FLOYD ADLEM: No further questions.

19 THE CHAIRPERSON: Okay. Then I guess
20 we'll have a fast -- or come back at 3:30. I see there's
21 some coffee and some goodies over there. You're all
22 welcome to partake. Thank you.

23

24 --- Upon recessing at 3:12 p.m.

25 --- Upon resuming at 3:34 p.m.

1 THE CHAIRPERSON: Okay. We'll open the
2 presentation then from ENR.

3

4 PRESENTATION BY ENR:

5 MR. TODD PAGET: Thank you very much, Mr.
6 Chair. My name is Todd Paget. I'm an environmental
7 systems engineer that works as an industrial specialist
8 with the Department of Environment and Natural Resources.

9 I'll provide the overview presentation
10 today and -- and then following that we have a panel with
11 us to -- to help with whichever questions may come our
12 way to give our best to -- to help out in that regard.

13 We have Diep Duong with us who is a
14 professional environmental engineer with the Government
15 of Northwest Territories, our solid waste -- excuse me,
16 solid waste. Solid waste -- sorry, I'm not putting any
17 westerns in -- in this presentation. She's our solid
18 waste specialist. Excuse me.

19 Gerald Enns is at the end. He's ENR's
20 hazardous waste specialist. And then inside Gerald and
21 between Diep is Jamie Chambers who's the regional
22 environmental protection officer. So if I may, I'll just
23 go right into our presentation here.

24 Quick overview of what we're going to
25 provide here is a cover of ENR's mandate with respect to

1 our intervention and -- and where it's based from.

2 We'll give first a background -- secondly,
3 excuse me, a background to give some context to how our
4 recommendations came about. And then we'll give an
5 overview of the recommendations themselves, and then be
6 open for questions.

7 The environmental protection mandate of
8 the Government of the Northwest Territories, Department
9 of Environment and Natural Resources is to protect and
10 enhance the environmental quality in the North.

11 ENR's authority to manage wastes is
12 derived from the Northwest Territories Environmental
13 Protection Act, hereto referred to as the EPA, and the
14 Wildlife Act.

15 ENR directly applies its jurisdiction and
16 primary responsibility for environmental management on
17 lands where GNWT has direct administrative authority.
18 These are essentially communities and highways, otherwise
19 often referred to generally as commissioner's lands.

20 All land and water use authorizations,
21 however, are administered and issued by Federal
22 authorities, not the GNWT. Hence, to ensure that an
23 equivalent level and -- of environmental protection is
24 applied throughout the territory, ENR provides expert
25 advice and recommendations to these agencies, also to

1 proponents and other stakeholders and interested parties,
2 whenever possible, to ensure the land and water use
3 authorizations that are issued by the competent authority
4 contain terms and conditions which reflect the interest
5 of the Environmental Protection Act, and the Wildlife
6 Act, and relevant regulations, and guidance documents,
7 and policies.

8 So providing a background to the
9 development of our final recommendations, ENR staff met
10 with the Town of Hay River staff at the technical session
11 that was facilitated by the Mackenzie Valley Land and
12 Water Board staff on November 13th, 2009.

13 ENR's intent was to elaborate on the
14 intent of our recommendations and to come to some form of
15 understanding on a consolidated list of the
16 recommendations that eventually ENR would provide to the
17 Mackenzie Valley Land and Water Board, and help others
18 with their related issues as well.

19 Some of ENR's recommendations, as provided
20 to the Mackenzie Valley Land and Water Board in ENR's
21 letter of comments that was originally dated, October
22 7th, were resolved based on Town's commitments made at
23 this technical session and have been consolidated as
24 final recommendations that we've provided to the Board in
25 our submission.

1 However, there are some issues that do
2 remain outstanding. ENR submits the following
3 recommendations that we'll provide here to the Board of
4 its inclusion as specific terms and conditions for the
5 Town's water licence.

6 ENR has provided reference to the Town's
7 commitments, where applicable, in the ENR written
8 intervention document. An overview summary of the key
9 recommendations are as such: There's five (5).

10 Number 1 was hazardous waste management;
11 number 2 was the lifespan of the solid waste facility; 3
12 was closure and reclamation planning; 4 was fencing; and
13 5 was frequency of cover, specifically with respect to
14 the solid waste cells.

15 Number 1, hazardous waste management. To
16 provide a background, at the technical session the
17 following commitments were made by the Town and by the
18 Board staff. Number 1, Board staff committed that the
19 water licence could include instruction to use ENR
20 hazardous waste guidelines as components of the Hazardous
21 Waste Management Plan.

22 Number 2, there was a commitment by the
23 Town to begin using ENR's hazardous waste manifesting
24 tracking system in the immediate future.

25 And number 3, there was a commitment to

1 provide a hazardous waste management plan by March 31st,
2 2010.

3 So as the Town is committed to developing
4 and submitting a Hazardous Waste Management Plan by March
5 31st, 2010, that's very positive and an excellent
6 development. However, the commitments made by the Town
7 do not indicate if the Hazardous Waste Management Plan
8 will explicitly state which hazardous waste the Town will
9 accept and which it will not.

10 Hence, the ENR recommendation stands that
11 a site specific Hazardous Waste Management Plan should be
12 submitted to the Mackenzie Valley Land and Water Board by
13 this date, March 31st, 2010. And that it is developed
14 using an ENR document that we provided as guidance to how
15 to develop this plan called Developing a Community
16 Hazardous Waste Management Plan.

17 And ENR is willing to work very closely
18 with the Town in consultation to develop this plan. We
19 have also recommended as a component of this
20 recommendation for hazardous waste management that the
21 Town ensures it manifests hazardous waste in the future.

22 The second recommendation is specifically
23 with respect to the lifespan of the solid waste facility.
24 In the background, during the trech -- technical session,
25 the Town committed to providing a study of the current

1 site in a report that's been commonly referred today by
2 March 31st, 2010, which would include an analysis of the
3 lifespan or consideration of the solid waste facility.

4 Hence, the recommendation still stands for
5 the lifespan of the solid waste. ENR has recommended the
6 Town supply the study as they've stated and it include
7 the projected lifespan.

8 Number 3, Closure and Reclamation. ENR
9 has outstanding concerns regarding closure and -- and
10 reclamation planning for the solid waste facility, and
11 ENR understands the Town currently has no closure and
12 reclamation plan.

13 In response to the above referenced ENR
14 comments that was provided earlier to the Town and as an
15 original submission, ENR stated in its letter of comments
16 and the Town response was that there was an oversight in
17 editing with respect to the abandonment and reclamation
18 plan and that it, in fact, had not been provided when it
19 was stated that it was.

20 The Town stated if it was determined that
21 the site was to be closed within the life of the licence
22 that the Town would submit in an Abandonment and
23 Reclamation Plan, as is typically required by a licence.
24 However, it's ENR's position that the Town response and
25 the discussion at the technical session indicates that an

1 initiation of a closure and reclamation planning for the
2 solid waste facility has not yet occurred.

3 ENR is concerned that the initial steps of
4 developing a closure and reclamation plan, or we'll refer
5 to as a C&R plan from hereon in, are not in place and the
6 Town may be unprepared to meet a closure scenario. This
7 concern is augmented when considering the Town has not,
8 to this point, at least to ENR's understanding,
9 considered the projected lifespan of the solid waste
10 facility.

11 Hence, ENR provided a recommendation
12 specifically with respect to C&R planning. But before I
13 provide that recommendation, I'll just mention it, in our
14 intervention we did provide information for the Board's
15 purview with respect to three (3) steps of abandonment
16 and reclamation planning.

17 I don't want to belinger the subject now.
18 I think it's been brought up previously, and it helps to
19 explain our concern with respect to ensuring that the
20 initial steps are in place so that the subsequent steps
21 can be performed adequately in a timely fashion.

22 Step 1 is a preliminary C&R plan that's
23 prepared in conjunction with planning in the permitting
24 stage.

25 Step 2 is the interim Closure and

1 Reclamation Plan to identify uncertainties surrounding
2 certain closure options that guide corresponding areas
3 for reclamation during operations.

4 And step 3 would be the final Closure and
5 Reclamation Plan.

6 So it's ENR's understanding that all three
7 (3) of these steps have not yet been performed; however,
8 we do understand that the Town has now committed to
9 providing a preliminary C&R plan soon, and that it would
10 be -- the final plan would be submitted in the future.

11 Hence, ENR maintains its recommendation
12 that a preliminary Closure and Reclamation Plan be
13 submitted to the MacKenzie Valley Land and Water Board by
14 December 2010.

15 The fourth recommendation was with respect
16 to fencing. Background on this issue is that ENR has
17 serious concerns about this, at this point. We've
18 discussed this at length at the technical session, as
19 well.

20 Our concerns stem specifically around
21 wildlife issues related to the lack of adequate fencing,
22 which may require -- I caution on immediate attention,
23 but very soon attention. The risk of wildlife mortality
24 maybe unacceptable and may be immediate and the risk of
25 human interaction with carnivores on site may be

1 unacceptable and immediate.

2 At the technical session, November 13th,
3 2009, the Town acknowledged that fencing around the solid
4 waste facilities is a concern and it does take it
5 seriously and made a commitment to installing a fence
6 around the entire facility. However, there's still, at
7 this time, is no time line for installation of this
8 fence. ENR is concerned that an extended delay would do
9 little to address these immediate risks.

10 And C&R has recommended the Town develop a
11 plan that proposes a timely installation of a fence to
12 prevent carnivores from having access to the solid waste
13 facility; that it include a specific time line for its
14 completion; and we recommend that ENR would work closely
15 with the Town in development of that plan and recommend
16 that it, therefore, consults with ENR directly.

17 The fifth recommendation is with respect
18 to frequency of cover. In background, ENR has outside --
19 excuse me, outstanding concerns regarding the lack of
20 solid waste cell maintenance at the solid waste facility.
21 An ENR site visit to the facility in September 2009 noted
22 extensive volumes of waste that had not been maintained,
23 covered, and disposed of in a timely manner.

24 Undue delays in management and cover of
25 solid waste cells results in prolonged open exposure.

1 This results in an increased in windblown debris and
2 increases odours that may attract wildlife. Windblown
3 debris is unsightly and poses a health to public and
4 workers. Prolonged open exposure of waste increases risk
5 to both -- to both wildlife that have access to the waste
6 and compromises operational health and safety concerns
7 resulting from an increased risks to persons with
8 exposure to carnivores, in particular, bears that may be
9 frequently on site.

10 Hence, ENR recommends the Town develop a
11 schedule of frequency and criteria for applying cover to
12 the solid waste cells to ensure a timely management of
13 waste on the site. This information must be included in
14 an updated operation and maintenance manual.

15 And that is complete on the
16 recommendations that we provided in our summary, and
17 we're now open for any questions that may come our way.
18 Thank you.

19

20 QUESTION PERIOD:

21 THE CHAIRPERSON: Okay. Thank you for
22 your presentation then. We'll go with questions in
23 order, starting with the Town of Hay River.

24 MR. MICHAEL RICHARDSON: Michael
25 Richardson with the Town. Mr. Chair, at this time we

1 don't have any questions.

2 THE CHAIRPERSON: Thank you. We'll go
3 to Environment Canada.

4 MS. ANNE WILSON: Anne Wilson. No
5 questions from us, thanks.

6 THE CHAIRPERSON: Thanks. We'll go to

7 INAC. MR. ROBERT JENKINS: Robert
8 Jenkins with

9 INAC. No questions, Mr. Chair.

10 THE CHAIRPERSON: Thank you. To the
11 registered speakers.

12 To the general public.

13 And Board staff, technical and/or legal?

14 MR. JAMIE VANGULCK: Jamie Vangulck,
15 Board Consultant. I have a few questions to ENR on the
16 solid waste disposal facility.

17 Does ENR recommend a regulated effluent
18 limit for runoff and seepage waters from the solid waste
19 disposal facility?

20 MR. TODD PAGET: Todd Paget with ENR.
21 Mr. Chair, ENR did not develop any specific information
22 in regards to that in our intervention. We would not be
23 able to specifically address that, I think, here. I
24 think that being said, though, we do understand that
25 there is not currently any effluent criteria I think

1 that's been adopted in the Territory.

2 If there was such a discussion, we'd be
3 more than willing to be involved in that discussion if it
4 required technical follow-up from ourselves and other --
5 other Intervenors or applicable regulators, interested
6 parties, to help develop that if that was deemed to be
7 the appropriate path forward.

8 THE CHAIRPERSON: Thanks. Back to the
9 Board staff.

10 MR. JAMIE VANGULCK: Thank you, Mr.
11 Chair. Jamie Vangulck. ENR recommended a three (3)
12 stage approach to abandonment and restoration planning
13 for the solid waste disposal facility. The
14 recommendation was given to submit a preliminary plan by
15 December 2010.

16 Could ENR provide a recommendation and
17 perspective on when the interim and final abandonment and
18 restoration plans should be completed by the Board?

19 MR. TODD PAGET: It's Todd Paget with
20 ENR. Mr. Chair, I -- I think it's reasonable to suggest
21 at this point that there's information that still has to
22 be gathered.

23 The Town has suggested that they're going
24 to have a report that's going to be filed with them as
25 well. We've noted that the time lines for potential

1 closure or the lifespan of the facility have not been
2 figured out. Hence, we've had a recommendation
3 specifically to look at that.

4 I think when that information comes out, I
5 think it would tie directly into determining what the
6 appropriate time lines would be for subsequent step 2 and
7 3. And I would suggest that it be figured out at that
8 point.

9 THE CHAIRPERSON: Thanks. Board
10 staff...?

11 MR. JAMIE VANGULCK: Thank you, Mr.
12 Chair. Jamie Vangulck. The Proponent has planned to
13 complete a study on the current solid waste disposal
14 facility and its operations.

15 What information gaps, if any, has ENR
16 identified with regards to the solid waste disposal
17 facility?

18 MR. TODD PAGET: Todd Paget with ENR, Mr.
19 Chair. I think the -- the information gaps, as perhaps
20 they've been suggested, we would consider as, really, the
21 components of our recommendations.

22 In ENR's position, what we have provided
23 here, are our concerns with respect to primarily
24 operation and maintenance issues on the site. And if
25 those get satisfactory -- handled in a satisfactory

1 manner, that would go a long way to alleviating our
2 specific concerns.

3 Other than what we have in the
4 intervention right now, I'm -- I'm confident we wouldn't
5 be able to put forward any other information gaps that
6 we'd be able to speak to at this point.

7 THE CHAIRPERSON: Okay. Thank you.
8 Board staff...?

9 MR. JAMIE VANGULCK: Thank you, Mr.
10 Chair. One final question.

11 How long of a water licence does ENR
12 recommend? How long of a term of a water licence?

13 MR. TODD PAGET: Todd Paget with ENR, Mr.
14 Chair. Again, I -- I think it's fair to say at this
15 point, ENR's more concerned with the regular operation
16 and maintenance procedures at the site to ensure that
17 there's adequate protection of the environment and are
18 able to handle what's happening at the site on a day-to-
19 day basis more appropriately.

20 So our -- the focus of our intervention
21 and our attention right now is now specifically on the
22 length of the water licence per se than maybe more
23 important from an administrative function in respect to
24 when there would be a subsequent filing, et cetera.

25 But our position, basically, right now is

1 that if the operation and maintenance issues that we've
2 brought forward are addressed, I -- I think that that
3 would go a long way to putting everybody in a better
4 position regardless of what the lifespan of the current
5 water licence or the subsequent water licence would be.

6 So we're not really in a position to
7 confidently state one way or another what would be an
8 appropriate length of time for the licence.

9 THE CHAIRPERSON: Okay. Thanks for that.
10 Anything further from staff or counsel?

11 MR. JOHN DONIHEE: Thank you, Mr.
12 Chairman. John Donihee, Board counsel. I have just a
13 couple of questions.

14 Mr. Paget, it may just be the way you
15 organized the PowerPoint you just showed us. But, you
16 know, item number 1 talks about hazardous waste
17 management somewhat generically. And then you move on in
18 number 2 to talk about the solid waste facility. So, I'm
19 just looking at your recommendation about solid waste
20 management.

21 And you're recommending a site specific
22 Hazardous Waste Management Plan, you know, based on an
23 ENR document. And I suppose I want to ask the obvious
24 question first.

25 I presume that what you're talking about

1 and when you're talking about a site, is a Hazardous
2 Waste Management Plan for the solid waste site or the
3 dump. Is that what you're talking about? Is that where
4 this plan would apply?

5 MR. TODD PAGET: Todd Paget with ENR.
6 Yes, I believe so that is the case. "Site specific"
7 meaning site -- the facility, the solid waste facility.

8 THE CHAIRPERSON: Thanks further.
9 John...?

10 MR. JOHN DONIHEE: Thank you, Mr.
11 Chairman. John Donihee. I'm just curious, Mr. Paget,
12 perhaps -- I mean unless there's some risk of this waste
13 finding its way into water, I guess the question I have
14 is why this can't simply be managed under the other
15 regulatory authorities that are available to ENR, such as
16 your Environmental Protection Act.

17 MR. TODD PAGET: Todd Paget, with ENR,
18 Mr. Chair. We're of the understanding, of course, that
19 the regulatory authority under which this process is
20 being conducted is primarily under the Northwest
21 Territories Waters Act, which is being conducted under
22 Federal jurisdiction by the Federal authority.

23 The Environmental Protection Act, I
24 believe, has been referenced is -- is an Act of general
25 applicability that does cover the entire Northwest

1 Territories. However, for clarification, the Act does
2 not apply to any person who is authorized under an Act of
3 the Parliament of Canada or the Territories to do those
4 things that -- for such Act are in contravention of the
5 Act or Regulations.

6 So, in summary, basically, there is
7 another Act of parliament right here that's in play,
8 that, in -- in our eyes, is the responsible authority at
9 this point in time. The Act is not intended to duplicate
10 regulatory activities. It's not in the best interests of
11 the Government of the Northwest Territories to -- to do
12 that.

13 I don't think it's in anybody's interest
14 to duplicate activities. And we do understand that
15 hazardous waste is managed under specific terms and
16 conditions under the current licence -- excuse me, most
17 licences we would say that are applied generally across
18 to municipalities across the Territories.

19 So, it's reasonable to assume that our
20 intervention here and our expertise would help to focus
21 the development of terms and conditions to manage tha --
22 manage that under the current regulatory authority, which
23 is under the Territorial Waters Act.

24 THE CHAIRPERSON: Thank you. Further,
25 John...?

1 MR. JOHN DONIHEE: Thank you, Mr.
2 Chairman. John Donihee. Thanks for explaining that for
3 me. I just want to be sure that what ENR is -- that you
4 understand the scope of the Board's capacity, and that
5 relates to hazardous waste which might find their way
6 into water.

7 And I understand from your answer that --
8 that you see it that way. I do understand how that
9 exception works in the -- in the EPA, but -- so that's
10 just a comment on that.

11 I have one (1) more question, Mr.
12 Chairman, and it's the same -- same question, I suppose,
13 with respect to your fencing recommendation. You know,
14 the concerns that you raise with respect to fencing seem
15 mostly to relate to preventing human wildlife problems.

16 And I guess I'm wondering whether ENR has
17 any capacity to deal with that more directly through its
18 own wildlife legislation.

19

20 (BRIEF PAUSE)

21

22 MR. TODD PAGET: Todd Paget, ENR, Mr.
23 Chair. It's, again, our understanding that it's been
24 commonplace in other licences that have been issued for
25 the communities that terms and conditions have been

1 included with respect to fencing.

2 So, ergo, you know, it's logical that we
3 would be able to provide some advice specifically to help
4 in the development of terms and conditions that would be
5 proactive and would help both the intent, I believe, of -
6 - of what the licencing process is to help the community
7 and, also, to help us with our goals because, ultimately,
8 we're, of course, trying to all get to the same ends.

9 I can't speak specifically to the
10 applicability of a Wildlife Act in that particular area.
11 I'm not sure of it in -- in that regard and couldn't
12 speak to it specifically here.

13 THE CHAIRPERSON: Thanks. John...?

14 MR. JOHN DONIHEE: Thank you, Mr.
15 Chairman. Those are my questions.

16 THE CHAIRPERSON: Okay. Okay, thanks.
17 Then we will now go to the Board. Sabet...?

18 MS. ELIZABETH BISCAYE: Thank you, Mr.
19 Chair. I have just one (1) question.

20 In your recommendation you noted that with
21 regards to the fencing you wanted to be included in --
22 sorry, you wanted to be consulted with the fencing, or
23 when they decide to do the fencing.

24 Is there specific criterias in terms of
25 fencing that -- that you require, that's why you're --

1 they need to consult with you? I mean, a fence --
2 forgive me if I'm being naive but, to me, a fence is a
3 fence. It's to keep out the wildlife.

4 MR. TODD PAGET: Okay, Todd Paget, with
5 ENR, Mr. Chair. I'm going to just give a quick preamble
6 to that and I'm going to pass the microphone to our
7 regional Environmental Protection Officer who will be a
8 help to specifically answer that but, generally, I would
9 say that ENR has quite a bit of experience and background
10 working with variable aspects of this issue.

11 We have a lot of information that can be
12 offered that could really aid to help in the development
13 of any plan, any fence, and I believe it's safe to say
14 that it's often a site-specific issue that would not
15 generally have general rules or guidelines that might be
16 specifically applicable without appropriate context.

17 So that's just to preamble and then now if
18 I may pass the microphone over to Jamie Chambers?

19 MR. JAMIE CHAMBERS: My name's Jamie
20 Chambers with Environment Natural Resources, and I've
21 worked as a -- before I worked as an Environmental
22 Protection Officer, I worked as a Wildlife Officer for
23 about fifteen (15) or sixteen (16) years in Norman Wells
24 and Fort Smith and in both communities we have the same
25 problem that we have here with bears in the dump,

1 specifically.

2 And we set up fencing there and it -- it
3 was pretty successful. Before that, there was like
4 fifteen/twenty (15/20) bears at a time, and that's a
5 similar situation that we have here. And the legislation
6 that we would operate that under would be the Wildlife
7 Act.

8 I think that question came up a few -- a
9 little while ago, and I don't quite understand how that
10 part works in conjunction with what the legislation is
11 that we're dealing with here today, but I think our
12 department's been asked to make recommendations and this
13 would definitely be one that would -- there's a couple of
14 problems at the landfill site.

15 It's a risk to the public; people are
16 allowed into the site. They're unloading their garbage
17 and bears are sitting there receiving -- they're almost
18 giving it directly to the bears, so, there's a lot of
19 chance for human and bear contact.

20 And then, more recently that I've been
21 involved with the collection of hazardous waste, we've
22 had bears into the hazardous waste and it's causing some
23 problems that my -- my belief is that bears have eaten
24 some of this material, like glycol and corrosive
25 substances, and they're -- they're really -- they're

1 spilling that stuff, plus they're leaving the site and
2 possibly dying, you know, off the site, as well.

3 So I -- I've done a little bit of work
4 with fencing. I've made some recommendations to the
5 Town. I've looked at some pricing. I've identified some
6 companies that install fences, and I'm not sure how much
7 more I can elaborate on that other than I think it's a
8 really worthwhile thing that we should consider.

9 And there's just different options you can
10 use from a small scale fence at a reasonable price up to
11 the top of the line fence that'd be quite expensive, so
12 I'll -- I'll give it back to Todd, I think, and --

13 MR. TODD PAGET: Thank you, Jamie.

14 THE CHAIRPERSON: Okay. Thank you for a
15 very informative answer to Sabet's questions. Any -- any
16 further, Sabet?

17 MS. ELIZABETH BISCAYE: No, Mr. Chair.
18 Thank you.

19 THE CHAIRPERSON: Okay. Thanks.
20 Patrick...?

21 MR. PAT LAROCQUE: I have no questions,
22 Mr. Chair. Thank you.

23 THE CHAIRPERSON: Floyd...?

24 MR. FLOYD ADLEM: Mr. Chair, yeah. Just
25 clarification and maybe an additional -- I'm stuck on

1 fencing, too. And I guess the question that I have for
2 you, you mentioned that you'd done this fencing or
3 something in Normal Wells and some other communities.

4 My question is that: Was that criteria
5 included in those water licences for those communities?

6 MR. JAMIE CHAMBERS: Yeah. Jamie
7 Chambers, with Environment and Natural Resources. Each
8 time it's been a little bit different. In Normal Wells
9 it was a pilot project 'cause the problem was identified
10 and everybody agreed they wanted to do something about it
11 without going through this process. And the GNWT came up
12 with some funding with some other organizations to build
13 the fence.

14 In Fort Smith, it was more of an
15 enforcement action where there was some conditions --
16 like under the Environmental Protection Act and the
17 Wildlife Act, there was an -- orders put onto the
18 landfill site that you shall do this for safety, and for
19 environment, and for wildlife.

20 And it appears this time around we're in
21 sort of a third way of doing it, which hopefully this
22 works out, but each time it was slightly different.

23 MR. FLOYD ADLEM: Thank you. No further
24 questions, Mr. Chair.

25 THE CHAIRPERSON: Okay. Thank you, then,

1 Floyd.

2 So then we'll go to Indian and Northern
3 Affairs.

4

5 PRESENTATION BY INDIAN AND NORTHERN AFFAIRS:

6 MR. ROBERT JENKINS: Thank you, Mr.
7 Chair. My name is Robert Jenkins. I'm with the Water
8 Resources Division of INAC based in Yellowknife. To my
9 right I have Ms. Jeanne Arsenault, and to her right, Ms.
10 Catherine Mallet, both of the Water Resources Division.

11 I also have to -- to my far right, Mr.
12 Wayne Starling. He's a water resource officer based in
13 Fort Smith, so he's with the South Mackenzie District.

14 So today just I'll go through our
15 technical issues that we've identified with respect to
16 this water licence application and I'll provide our
17 twelve (12) recommendations that we -- we have in
18 response to the issues that we've identified.

19 We've grouped our recommendations under
20 three (3) headings: water licence conditions, wastewater
21 management, and solid waste facility. And after that,
22 I'll have a couple of brief concluding remarks.

23 So INAC believes the following two (2)
24 recommendations that we have with respect to water
25 licence conditions will provide some clarity within the

1 water licence respecting the Hay River's sewage treatment
2 facilities. Both recommendations are -- are
3 administrative in nature.

4 INAC recommends that in Part A, Scope and
5 Definitions, sewage disposal facilities should be changed
6 to comprised as facilities as defined in UMA engineering
7 drawing number 00-CM1003 on page 27 of the renewal
8 application package. A copy of the drawing should be
9 attached to the water licence.

10 We also recommend that in Part D, Waste
11 Disposal, the wording of condition 1 should be updated to
12 reflect new sewage lagoons constructed in 2007.

13 We suggest the following wording:

14 "The licensee shall direct all sewage
15 flow from the Town through the sewage
16 lagoons, as identified in the renewal
17 application drawing number 00-CM1003,
18 and then to Great Slave Lake via
19 wetland discharge."

20 Recommendation number 3, with respect to
21 water licence conditions, is in regards to sewage lagoon
22 maintenance. The Town currently performs maintenance on
23 its sewage lagoon periodically and on an as-needed basis.

24 It's INAC's understanding that the Town
25 only removes one (1) cell of the lagoon from service

1 during -- during maintenance, leaving three (3) cells in
2 operation for sewage treatment.

3 Removing more than one (1) cell at a time
4 would result in, obviously, a reduction in wastewater
5 treatment capacity. INAC recommends that the INAC
6 inspector be notified of maintenance activities to be
7 conducted at the lagoon.

8 And we feel that notification should occur
9 prior to the removal of any one (1) cell from service.
10 Such notification would allow the INAC inspector to
11 remain informed of site activities, as well as provide
12 knowledgeable feedback on the Town's proposed
13 maintenance.

14 However, should more than one (1) cell be
15 removed from service for maintenance activities, approval
16 of the INAC inspector should be required, as this
17 potentially represents a significant reduction in
18 treatment capacity at the site.

19 So to -- to summarize, INAC recommends
20 that the INAC inspector be notified prior to the removal
21 of one (1) treatment cell from service, and that approval
22 -- an approval of the INAC inspector be required before
23 removing more than one (1) treatment cell from service
24 for the purposes of conducting maintenance.

25 So recommendation 4 is in respect to a

1 snow disposal plan. The Town currently prepares such a
2 plan and it outlines the -- the areas for snow
3 collection, and -- and disposal, and -- and some other
4 operational procedures.

5 We recommend that that plan be reviewed
6 annually and any revisions be identified in the annual
7 report.

8 So our fifth recommendation with respect
9 to water licence conditions is in regards to spill
10 contingency planning.

11 In April of 2007, INAC released its
12 guidelines for spill contingency planning and these
13 guidelines are intended to help minimize the impacts of
14 spills of petroleum products and other hazardous
15 materials by establishing a predetermined line of
16 response and an action plan.

17 At the technical session held by the Board
18 in November, the Town demonstrated appreciation and
19 interest for the importance of -- of adhering to these
20 guidelines and subsequently, we forwarded them an
21 electronic copy of the guidelines.

22 We recommend that future versions of the
23 plan, of the Town's spill contingency plan, conform to
24 these guidelines. So INAC recommends that Condition 1
25 part (I) should refer to INAC's guidelines for spill

1 contingency planning, April 2007.

2 Recommendation number 6 is with respect to
3 operation and maintenance plan. Currently there is a
4 requirement for the Town to submit an O&M plan to the
5 Board for review and approval.

6 INAC maintains that defined operation and
7 maintenance procedures at the site, that the municipal
8 waste management facilities will contribute to successful
9 operation of the site by Town staff.

10 INAC stresses the importance of defining
11 routine inspection schedules and associated maintenance
12 of infrastructure within -- within the O&M plan.

13 INAC recommends that a requirement for an
14 O&M plan remain in the renewal licence and that the plan
15 be reviewed yearly and any revisions to the plan be
16 provided to the Board for review and approval.

17 So moving on, I'll now talk about our
18 recommendations relating to wastewater management, the
19 next two (2) recommendations relating specifically to
20 sampling requirements.

21 The Town currently tests for a biological
22 oxygen demand at SNP station 0053-2. Currently the CCME
23 municipal wastewater strategy for the treatment of
24 municipal wastewater effluent uses carbonaceous
25 biological oxygen demand as an indicator for the quality

1 of municipal wastewater.

2 INAC recommends that both parameters be
3 sampled for a specified period of time within the renewed
4 water licence. This would maintain the existing long-
5 term BOD data set collected by the Town but also have a
6 period of overlap with CBOD analysis which would provide
7 information relevant to potential CCME requirements, as
8 well as provide a relationship to the long-term BOD data
9 set.

10 INAC believes both parameters should be
11 tested for a minimum of three (3) years in order to
12 achieve a relationship. After three (3) years, it is
13 recommended that the Town provide a trend analysis or
14 look at a ratio between the two (2) parameters and submit
15 that to the Board for review and approval. At that time,
16 the sampling requirements should be revisited.

17 So INAC recommends that CBOD be added to
18 the list of parameters sampled at SNP 0053-2 in Part B
19 Section 1 of the current SNP portion of the licence for a
20 minimum of three (3) years. After that three (3) year
21 period, the Town should provide an analysis of the -- to
22 the Board for review and approval and the sampling
23 requirements should be revisited.

24 So recommendation number 8 is with respect
25 to toxicity testing. So under the current water licence

1 there is a requirement for the Town to collect and pass
2 toxicity testing. Toxicity testing, if conducted
3 properly using standardized protocols and using a
4 representative sample of the effluent, provides valuable
5 information on the toxicity of the effluent, its
6 potential effect on receiving waters.

7 It is also useful in evaluating the
8 appropriateness of associated effluent quality criteria.
9 However, INAC believes that the frequency of the toxicity
10 sampling as defined in the current water licence which is
11 three (3) times per year to be excessive.

12 Although INAC recognizes the purpose and
13 importance of this testing to indicate the toxicity of
14 the effluent on living organisms, INAC recommends that
15 the frequency of such testing be reduced to twice
16 annually.

17 Further, INAC recommends that such
18 sampling occur in the spring and the fall months.

19 Mr. Chair, the Town does not agree with
20 this recommendation. And there's been a lot of debate
21 over who should be responsible to -- to conduct this
22 testing, and it's -- it's linked to the past arrangements
23 between Environment Canada and the Town.

24 INAC feels that the -- the focus of this
25 issue should be on the appropriateness of conducting this

1 analysis within the Town's water licence and should not
2 really take into consideration past arrangements or any
3 sort of cost sharing.

4 The Town is applying for a water licence
5 for the use of water and deposit of waste. In the
6 issuance of a licence, the Board must ensure that the use
7 of waters or deposit of waste would not have significant
8 adverse effect on the receiving waters. And this is why
9 the Board prescribes such things as effluent quality
10 criteria, sampling requirements, plans, et cetera.

11 INAC maintains that the water licence
12 should contain a requirement for toxicity testing of
13 effluent, and feels that a pass/fail test is appropriate.
14 Such testing will provide confidence that effluent
15 discharge is protective of receiving waters.

16 So INAC recommends that the frequency of
17 sampling contained in part B section 2 of the SNP be
18 changed to twice annually to occur in the spring and fall
19 months.

20 INAC has four (4) recommendations relating
21 to the solid waste facility.

22 Recommendation 9 is in regards to
23 groundwater monitoring. It is INAC's understanding that
24 the town currently has groundwater monitoring wells in
25 place to characterise the -- the sub-service drainage

1 patterns at the solid waste facility.

2 INAC's pleased that such monitoring
3 stations have been installed and maintained by the Town.
4 Monitoring groundwater at the site will provide valued
5 information on some surface drainage patterns and quality
6 of leachate, information imperative to proper management
7 and future closure of the facility.

8 INAC recommends all groundwater monitoring
9 analysis conducted at the solid waste disposal facility
10 be submitted annually to the Board within the water
11 licence annual report.

12 Recommendations 10 and 11 relate to the
13 hydrocarbon bio pile treatment facility. The Town is
14 currently operating a contaminated soil treatment
15 facility. It was confirmed during the technical sessions
16 that leachate was being collected and reapplied to the
17 pile if quality did not meet acceptable criteria for
18 discharge.

19 INAC recommends that the Town update its
20 O&M manual to include operations from the hydrocarbon --
21 hydrocarbon bio pile treatment facility. The plan should
22 include how the Town will manage future increases in
23 contaminated soil volume, how leachate will be tested and
24 analysed, how results will be reported, and how leachate
25 will be discharged or stored.

1 INAC also recommends that all sampling
2 results of leachate from the hydrocarbon bio pile
3 treatment facility be reported within the water licence
4 annual report.

5 Mr. Chair, our final recommendation
6 relates to the provision of a closure and reclamation
7 plan. INAC believes that the development of a closure
8 and reclamation plan is an important aspect of any
9 undertaking as it will define the activities that will
10 take place to achieve adequate reclamation/remediation of
11 the site.

12 Throughout the lifespan of a project there
13 are three (3) stages of development of a Closure and
14 Reclamation Plan. There's a Preliminary Closure and
15 Reclamation Plan, otherwise called a conceptual plan, an
16 Interim Closure and Reclamation Plan, and a Final Closure
17 and Reclamation Plan. Each stage of planning becomes
18 more refined with respect to closure activities at the
19 site.

20 The Town's facilities have been operating
21 for some time and, accordingly, some areas may be slated
22 for closure earlier than others and would require more
23 definition on proposed closure activities within the
24 plan. INAC recommends that the Town submits a Closure
25 and Reclamation Plan for review and approval by the

1 Board.

2 So, Mr Chair, in conclusion, INAC would
3 like to commend the Town for actively discussing our
4 technical concerns and reaching agreement on most of our
5 recommendations to the Board.

6 The Town did not agree with -- with
7 several of our recommendations, but INAC respectfully
8 submits to the Board that all our recommendations be
9 included within the terms and conditions of the water
10 licence.

11 So, Mr. Chair, thank you for the
12 opportunity to speak today, and we are open to any
13 questions that the Board or any other parties may have.

14 THE CHAIRPERSON: Okay, thank you for
15 that then. So we'll go to the order of questioning then.
16 First will be the Town of Hay River.

17

18 QUESTION PERIOD:

19 MR. MICHAEL RICHARDSON: Michael
20 Richardson, with the Town. At this time, we have no
21 questions, Mr. Chair.

22 THE CHAIRPERSON: Thanks. Environment
23 Canada...?

24 MS. ANNE WILSON: Anne Wilson,
25 Environment Canada. No questions, thanks.

1 THE CHAIRPERSON: Thank you. ENR...?

2 MR. TODD PAGET: Todd Paget, with ENR.
3 Mr. Chair, we have no questions, thank you.

4 THE CHAIRPERSON: Okay, thanks, Todd.
5 Then registered speakers...?

6 General public...?

7 Okay, Board staff, technical advisors,
8 and/or legal, you're on.

9 MR. JAMIE VANGULCK: Thank you, Mr.
10 Chair. Jamie Vangulck, Board consultant. I have a few
11 questions about the sewage disposal facility for INAC.
12 It was described that sludge is removed from the primary
13 lagoons and deposited in the sludge lagoon adjacent to
14 the -- the primary lagoon system.

15 Does INAC recommend any SNP locations to
16 be associated with the sludge lagoon within the water
17 licence?

18

19 (BRIEF PAUSE)

20

21 MR. ROBERT JENKINS: Mr. Chair, it's
22 Robert Jenkins, with INAC. We didn't have any
23 recommendations on proposed SNP monitoring stations for -
24 - for the sludge, but we do understand the -- the Town
25 has committed to a Sludge Management Plan and we are

1 assuming that there will be aspects of monitoring and
2 analysis in that plan, so I think we would provide
3 comments after we receive the Sludge Management Plan from
4 the -- from the Town.

5 THE CHAIRPERSON: Thanks. Board
6 staff...?

7 MR. JAMIE VANGULCK: Thank you, Mr.
8 Chair. Jamie Vangulck. One (1) of INAC's
9 recommendations was that the new water licence reference
10 a 2006 UMA engineering drawing to reflect the sewage
11 disposal facilities.

12 This drawing was provided in the water
13 licence application. This drawing only reflects select
14 details of the lagoon system, and no details are provided
15 in this drawing for the wetland.

16 Does INAC consider the engineering details
17 of the wetland to be important in wastewater treatment?

18

19 (BRIEF PAUSE)

20

21 MR. ROBERT JENKINS: Mr. Chair, it's
22 Robert Jenkins. Yes, I mean, we feel the -- the wetland
23 is a part of the treatment system utilized by the Town,
24 so in answer to that question, yes, we do feel it is
25 important.

1 To clarify our recommendation, in the
2 current water licence it refers to a drawing, which has
3 now been, as we understand, updated, so that is simply an
4 administrative change which we felt should be reflected
5 in the new renewal licence.

6 THE CHAIRPERSON: Okay, thank you. Does
7 the Town have questions of that? Okay. Back to Board
8 staff.

9 MR. JAMIE VANGULCK: Thank you, Mr.
10 Chair. A follow-up question on that topic.

11 What advice does INAC provide -- or can
12 provide on capturing the wetland treatment area in the
13 description of the sewage disposal facilities within the
14 water licence?

15

16 (BRIEF PAUSE)

17

18 MR. ROBERT JENKINS: Mr. Chair, it's
19 Robert Jenkins. To give me some more time to think about
20 it, I'd like if you could ask me the question again and
21 then I can stall.

22 THE CHAIRPERSON: Okay. So, Jamie, you
23 could ask that question again at the end? Would you?

24 MR. JAMIE VANGULCK: Thank you, Mr.
25 Chair. I -- I'll try to rephrase it because I don't know

1 exactly the -- the words I used.

2 I'll -- I'll start with the initial
3 recommendation from INAC was to reference the 2006 UMA
4 drawing to reflect the sewage disposal facilities. That
5 drawing shows the lagoon aspects -- the characteristic
6 details for the lagoon aspects but not for the wetland.
7 So the -- the question was related to: How do you
8 capture the aspects of treatment in a wetland within the
9 water licence?

10 That drawing alone doesn't depict the
11 wetland. So what is the advice that INAC has to overcome
12 that?

13

14 (BRIEF PAUSE)

15

16 MR. ROBERT JENKINS: Mr. Chair, it's
17 Robert Jenkins. I mean, I guess to -- to sort of attempt
18 to answer this question, it is quite easy, I guess, to
19 attach a drawing of an engineered structure but a little
20 more difficult to characterize that for a natural
21 wetland.

22 But if the Board is attempting to define
23 that, then they could -- could include, obviously, maps,
24 direction of flow, any details that they would have on
25 sort of the rate of flow, these -- these sort of items.

1 THE CHAIRPERSON: Thanks. Further from
2 staff...?

3 MR. JAMIE VANGULCK: Thank you, Mr.
4 Chair. I have another follow-up question with regards to
5 the wetland and your past response there may have
6 partially answered this.

7 Could INAC provide advice on the
8 characteristics of the wetland that should be submitted
9 to regulators to provide confidence that this waste is
10 managed to achieve regulated limits?

11 MR. ROBERT JENKINS: Mr. Chair, it's
12 Robert Jenkins again. I think that one thing that --
13 that the Town has shown over the past duration of the
14 licence is that the system that they have in place is
15 capable of meeting the effluent quality criteria.

16 So I -- I don't know what other details we
17 could provide. I mean, at this point in time, the -- the
18 system as it is in place right now and at the current,
19 you know, level of use, not looking into the future about
20 ten (10), fifteen (15) years from now because I can't
21 guess at what the population of this Town may be, they
22 have been able to meet their -- meet their effluent
23 quality criteria as defined in their licence. At least
24 that's my understanding.

25 THE CHAIRPERSON: Thanks. Further,

1 Jamie...?

2 MR. JAMIE VANGULCK: Thank you, Mr.
3 Chair. Jamie Vangulck.

4 Is it -- does INAC recommend that the
5 sewage disposal facility to be designed and performed to
6 accommodate the future population of the Town of Hay
7 River? And what I mean by future population, the
8 population within the terms of the water licence
9 duration.

10

11 (BRIEF PAUSE)

12

13 MR. ROBERT JENKINS: Mr. Chair, it's
14 Robert Jenkins. I mean, obviously in -- in -- when
15 you're the operator of a facility you would -- you would
16 look at -- or plan properly. So it would be in the best
17 interests of the Town to -- to look at what they
18 anticipate the population growth to be and to plan
19 accordingly.

20 So if the Town expects that in the
21 duration of this licence, be it ten (10) years or -- or
22 more, they're anticipating a huge increase in -- in
23 population growth, and subsequently a huge increase in --
24 in wastewater flow, then they may need to have some sort
25 of analysis done on whether or not their current

1 facilities need to be expanded, and whether or not they
2 could meet -- I guess at this point in time they could
3 only look at the current licence limits that they have
4 laid out in their licence and assume that those won't
5 change.

6 So, I mean, I would -- I would think it's
7 in the best interests of the Town, yes, to -- to examine
8 that.

9 THE CHAIRPERSON: Thank you. Further
10 from staff?

11 MR. JAMIE VANGULCK: Thank you, Mr.
12 Chair. Jamie Vangulck.

13 Can INAC -- INAC provide any advice if the
14 current sewage disposal facility can achieve regulated
15 water licence effluent discharge criteria for a future
16 population?

17 MR. ROBERT JENKINS: Mr. Chair, it's --
18 it's Robert Jenkins with INAC. I guess a simple answer
19 to that question would be no. I'm wondering if I'm being
20 warned to stop there.

21 But -- but I think that, you know, in the
22 past duration again, going back to the past duration of
23 this licence, which I believe was a term of eight (8)
24 years, and -- and I don't know if the Town has grown
25 substantially over that eight (8) year time frame, but

1 they have been able to meet their effluent quality
2 criteria.

3 Again, not knowing what the -- what the
4 anticipated population growth of the Town is, you know,
5 the Board -- the Town would need to look at whether or
6 not they feel that their system is capable of handling a
7 substantial increase or a gradual trend.

8 But I think just going on what they've
9 been -- been doing over the last eight (8) years, they've
10 been meeting their -- their criteria. So as it stands
11 right now they can do that, but they need to take a look
12 at whether or not in the future they could -- could
13 handle what they anticipate the Town would grow to.

14 THE CHAIRPERSON: Thanks. Further from
15 the Board staff?

16 MR. JAMIE VANGULCK: Thank you, Mr.
17 Chair. Jamie Vangulck. I'll move on to a different type
18 of question.

19 INAC recommended a three (3) year study to
20 develop a trend between CBOD and BOD. It was INAC's
21 recommendation that CBOD be included in addition to BOD
22 as a parameter to monitor in the water licence for the
23 sewage disposal facility.

24 Could INAC provide perspective on the time
25 frame needed to complete a report on the study, and when

1 it could be submitted to the -- the Board?

2 MR. ROBERT JENKINS: Mr. Chair, it's
3 Robert Jenkins at INAC. Yeah, I mean, obviously a three
4 (3) year -- we've defined a three (3) year sort of
5 sampling regime with sort of a look after that and we
6 don't believe it's a onerous task to create a ratio
7 between the two (2) parameters.

8 As it stands right now, by adding CBOD I
9 believe they take five (5) to six (6) samples in the --
10 in the open water season, so it would be, you know,
11 fifteen (15) to twenty (20) samples that they'd have to
12 compare. So, I mean, three (3) years sampling regime,
13 perhaps a six (6) month period after that for them to
14 provide something to the Board.

15 THE CHAIRPERSON: Thank you. That's not
16 an undertaking, is it, John?

17 MR. JOHN DONIHEE: No.

18 THE CHAIRPERSON: I didn't think so.
19 Okay. Jamie, continue.

20 MR. JAMIE VANGULCK: Thank you, Mr.
21 Chair. It's understood that a berm failure had occurred
22 at the sewage disposal facility sometime in 2007. I
23 believe it was for the sewage lagoon.

24 Does INAC recommend that a regular
25 frequency of geotechnical inspections by an engineer of

1 earthworks be specified in the water licence?

2

3

(BRIEF PAUSE)

4

5 MR. ROBERT JENKINS: Mr. Chair, it's
6 Robert Jenkins. Yeah, I mean, I don't think that having
7 a geotechnical inspection would be a -- would be a bad
8 idea. I think the frequency would have to be -- if you
9 were to establish a frequency in the water licence, it
10 would have be appropriate. You wouldn't want something
11 to be too onerous on the -- on the municipality.

12 And if the Board were to -- to say that
13 such an inspection is necessary, there -- there should be
14 some sort of, obviously, results from that that -- that
15 do get provided to the Board.

16 THE CHAIRPERSON: Okay. Thank you.
17 Board staff...?

18 MR. JAMIE VANGULCK: Thank you, Mr.
19 Chair. A followup. Could INAC provide advice on the
20 frequency at this time for a geotechnical inspection?

21

22

(BRIEF PAUSE)

23

24

25

MR. ROBERT JENKINS: Mr. Chair, it's
Robert Jenkins of INAC. I mean, this is not a -- a

1 significant structure, so we wouldn't be suggesting that
2 this would be something that would require, you know, an
3 annual inspection, but I think you'd -- you'd need to
4 take into consideration the -- the length of the licence,
5 as well as what you see in that initial inspection by the
6 engineer.

7 And -- and then it -- might -- you know,
8 those things would be useful in determining an
9 appropriate -- appropriate frequency.

10 THE CHAIRPERSON: Thank you. Further
11 from staff?

12

13 (BRIEF PAUSE)

14

15 MR. JAMIE VANGULCK: Jamie Vangulck,
16 Board consultant.

17 THE CHAIRPERSON: Just one (1) second,
18 please, Jamie. The Town had something.

19 MR. RON KENT: Thank you. Ron Kent, for
20 the Town. The Town would agree to routine maintenance
21 inspection of their facility by a professional engineer.
22 We don't believe it necessarily to be a geotechnical
23 engineer. We believe it be a qualified engineer.

24 No engineer who isn't qualified will stamp
25 a report saying that they've -- so that allows a number

1 of different engineers to be able to do this, instead of
2 a single. There's a few geotechnicals in -- yeah, up
3 here.

4 Mr. Richardson is in engineer. He could
5 inspect his own. And if he require -- if he believes he
6 needs a geotechnical to help him, then he'll call him in,
7 but other than that, I think you should rely on things
8 like that, as well. Thank you.

9 THE CHAIRPERSON: Okay, thanks for that
10 clarification. Back to Jamie.

11 MR. JAMIE VANGULCK: Thank you, Mr.
12 Chair. I'll move on to another line of questioning here.
13 INAC recommended completing groundwater monitoring in the
14 vicinity of the solid waste disposal facility.

15 Is INAC of the opinion that there's
16 sufficient groundwater and surface monitoring locations
17 at the solid waste disposal facility?

18

19 (BRIEF PAUSE)

20

21 MR. ROBERT JENKINS: Mr. Chair, it's
22 Robert Jenkins. Yeah, we're -- I mean, we are happy that
23 the -- the Town is -- is monitoring for groundwater at
24 their solid waste facility.

25 I think before we could provide a

1 recommendation to the Board that it's -- it's adequate,
2 there's a lot of things that would need to be considered,
3 so sort of a clear definition of where those locations
4 are, where just to be -- to confirm that these are the --
5 still the same locations, what they're seeing in those
6 from their results.

7 So I think we'd need a little bit more
8 information before you could -- could give a full thumbs
9 up that -- that the site is covered for all subsurface
10 drainage patterns.

11 THE CHAIRPERSON: Thank you. Further
12 from Board staff?

13 MR. JAMIE VANGULCK: Thank you, Mr.
14 Chair.

15 Is it INAC's advice that these information
16 gaps about the sufficiency of groundwater and surface
17 water monitoring locations be included in the current
18 water licence?

19 THE CHAIRPERSON: For the record, Jamie,
20 if you could let us know who you are again.

21 MR. JAMIE VANGULCK: Sorry, Mr. Chair.
22 Jamie Vangulck, Board consultant.

23 MR. ROBERT JENKINS: Mr. Chair, it's
24 Robert Jenkins. Yes, I mean, we had a recommendation on
25 groundwater monitoring and that that information be

1 provided. I believe we also had -- just let me check
2 here...

3

4 (BRIEF PAUSE)

5

6 MR. ROBERT JENKINS: No, actually that's
7 the only recommendation we had that they provide
8 information on the -- the monitoring of the groundwater
9 on the site and that would provide information on
10 subsurface drainage patterns, quality, leachate, which we
11 felt it's important to not only managing that site but
12 closing it at some point in the future.

13 THE CHAIRPERSON: Thank you. Further...?

14

15 (BRIEF PAUSE)

16

17 MR. JAMIE VANGULCK: Thank you, Mr.
18 Chair. I was wondering if INAC could just state once
19 again that last part there.

20 Which recommendation were you referring to
21 on this?

22 MR. ROBERT JENKINS: We're talking about
23 recommendation 9 where you had on groundwater monitoring.

24

25 (BRIEF PAUSE)

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THE CHAIRPERSON: Okay. Back to you, Jamie. And I guess in the opening remarks, you're supposed to be organized and focussed in your questioning of other parties. So the floor is yours.

MR. JAMIE VANGULCK: Thank you, Mr. Chair. Jamie Vangulck.

Does INAC recommend groundwater monitoring in the vicinity of the solid waste disposal facility to include groundwater level measurements?

MR. ROBERT JENKINS: Mr. Chair, it's Robert Jenkins. We didn't specifically recommend that in our intervention but we don't feel that that is something that would be that onerous to collect and then could be useful in -- in helping to characterize the -- the drainage and the -- the subsurface water patterns at the solid waste facility.

THE CHAIRPERSON: Thank you. Board staff...?

MR. JAMIE VANGULCK: Thank you, Mr. Chair. Jamie Vangulck. I've got a question about the bio treatment pad. In one of your recommendations it was stated that leachate quality from the bio treatment pad is to be reported in the annual report.

What sampling and analysis requirements

1 does INAC recommend for the bio treatment pad?

2

3

(BRIEF PAUSE)

4

5 MR. ROBERT JENKINS: Mr. Chair, it's
6 Robert Jenkins with INAC. As the Town had mentioned
7 earlier, often the leachate that they have would be
8 reapplied to the pile and INAC is not recommending that
9 if the leachate is simply reapplied to the pile and --
10 and still contained within the facility, that it -- that
11 it be subject to -- to sampling and analysis.

12 The -- what we would ask, though, is that
13 if -- if for some reason the leachate is required to be
14 either deposited in the lagoon, which the Town did
15 mention could be a possibility, then they would want to
16 obviously sample for things such as BTEX, petroleum
17 hydrocarbons, metals, pH. These things are, as we
18 understand, already -- we believe they might already be
19 contained within the water licence.

20 But again, just to be clear, we -- we
21 wouldn't be asking for that if they're just putting the
22 water back on the pile and it's still contained. It's
23 only if it would be released somewhere else.

24 THE CHAIRPERSON: Thank you. Board
25 staff...?

1 MR. JAMIE VANGULCK: Thank you, Mr.
2 Chair. A followup on that. Is an SNP station required
3 or needed for the bio treatment pad?

4

5 (BRIEF PAUSE)

6

7 MR. ROBERT JENKINS: Mr. Chair, it's
8 Robert Jenkins with INAC. Within the -- the current
9 water licence there is a -- an SNP station for
10 groundwater monitoring from the bio-treatment pad, and
11 the rationale that the Board had in that -- in the
12 previous licence was to monitor water quality associated
13 with any sort of runoff or seepage from the pad itself,
14 so that there is, in essence, a -- a station already
15 established.

16 I don't believe that there's a -- sort of
17 a frequency defined, but -- but there is a -- there is a
18 station there.

19 THE CHAIRPERSON: Thank you. Follow-
20 up...?

21 MR. JAMIE VANGULCK: Thank you, Mr.
22 Chair. Jamie Vangulck.

23 So in the event that there was leachate
24 collected in the sump of the bio-treatment pad and it had
25 to be discharged to a location, is there an SNP

1 requirement or need for the sump of the bio-treatment
2 pad?

3 MR. ROBERT JENKINS: Mr. Chair, it's
4 Robert Jenkins again. I mean, there could be a
5 requirement for a SNP station right there. Again, there
6 is a -- there is an existing SNP and there is a
7 requirement for -- for some of the groundwater monitoring
8 from the bio-treatment pad.

9 And they do lay out within the current
10 licence a bunch of parameters so the Board, you know,
11 could use those again. We -- we feel that -- that those
12 are appropriate and that's some of the parameters that
13 are taken at station 0053-7 in the current water licence.

14 But, yes, if it -- it has to be discharged
15 to a lagoon or -- or say, for example, it's being
16 discharged to the -- the land or something, then -- then
17 an SNP station for that could be appropriate.

18 THE CHAIRPERSON: Thank you. Further...?

19 MR. JAMIE VANGULCK: Thank you, Mr.
20 Chair. Jamie Vangulck. INAC provided recommendations on
21 abandonment and restoration planning for the solid waste
22 disposal facility. Part of the recommendations included
23 context of completing a -- a preliminary, interim, and
24 final closure plan as a stage management approach.

25 Could INAC provide clarity if they

1 recommend completion of a preliminary, interim, and final
2 abandonment and restoration plan for this facility and
3 the time frame for the submission of these reports to the
4 Board?

5 MR. ROBERT JENKINS: Mr. Chair, it's
6 Robert Jenkins again with INAC. Well, the -- the
7 creation of a Closure and Reclamation Plan through the
8 lifespan of a project as we defined a preliminary plan,
9 interim plan, and final plan, that is something that you
10 would do when you start -- start new.

11 So you'd start a project from scratch and,
12 essentially, you would then provide a preliminary details
13 on closure, which would be quite a ways off in the
14 future. And then throughout time you would submit
15 perhaps several versions of what's called an interim
16 plan, and these get sort of -- get updated through the
17 life of a project.

18 And then generally, the final plan is
19 submitted, you know, six (6) months to a year before
20 closure of the site. So where this is an existing
21 operation and it has been from some time, I think that we
22 might be past a preliminary plan unless there are -- a
23 new site to be selected or something like that.

24 But I -- I think we're sort of more in the
25 -- the interim plan stage, and the level of detail on --

1 on closure is -- is dependent on the -- the stage at
2 which different facilities are -- are in. So if -- for
3 example, if you have part of your facility which is -- is
4 -- has looming closure, then you'd want to have some
5 pretty tight and defined details on -- on closure for
6 that area, whereas other areas might be simply in several
7 years in and you just want to provide details on what you
8 anticipate closure to be potentially ten (10) years down
9 the road.

10 So I guess to -- to summarize it, I think
11 we're probably in the, sort of the interim plan stage and
12 the -- but the level of detail on closure is -- is really
13 dependent on the -- on the -- the phase that different
14 facilities are in.

15 THE CHAIRPERSON: Thank you for that.
16 Board staff...?

17 MR. JAMIE VANGULCK: Thank you, Mr.
18 Chair. Jamie Vangulck. The Proponent's 2008 annual
19 report provided water quality results for their SNP
20 locations. There was not an analysis of the results or a
21 comparison to the water licence regulated limits or a
22 comparison to the sampling analysis requirements of the
23 water licence.

24 Could INAC recommend methods on how to
25 present this information to better -- to be a better use

1 to the Board?

2 MR. ROBERT JENKINS: Mr. Chair, it's
3 Robert Jenkins. So as I understand your question, you're
4 asking us how the Town should present its -- the sampling
5 results that it collects through the licence, what's the
6 best way to report those.

7 Is that what you're asking?

8 MR. JAMIE VANGULCK: Jamie Vangulck.
9 Partly. So just to clarify, analytical results were
10 included in the annual report, but analysis of the
11 analytical results were not completed, comparison of the
12 analytical results to the water licence regulated limits,
13 as well as comparison of the analytical results to -- or
14 the -- the testing requirements to the water licence was
15 not completed.

16 So is there advice that INAC can provide
17 to better package this information to be of better use to
18 the Board?

19 MR. ROBERT JENKINS: Well, I think the --
20 the annual report -- sorry, Mr. Chair. It's Robert
21 Jenkins, with INAC. The annual report should -- you do
22 have to provide details on -- on your sampling that
23 you've conducted throughout the year.

24 It would be useful to -- to have, at a
25 minimum, identification of any exceedances above the --

1 the effluent quality criteria, those parameters that are
2 defined in the licence, so it'd be -- be useful there.

3 It might be useful to provide a summary of
4 -- of -- you know, by -- by month of the information, you
5 know, that could be provided in -- in charts, different
6 ways to interpret it.

7 But I feel that, you know, the -- one (1)
8 of the key things is to identify whether the -- the Town
9 has been -- remained in compliance with their -- with
10 their licence.

11 So one (1) of the big things that they
12 should present to the Board is -- is have they seen any -
13 - any exceedances above their defined regulated criteria.

14 THE CHAIRPERSON: Thank you. Board
15 staff...?

16 MR. JAMIE VANGULCK: Thank you, Mr.
17 Chair. One (1) final question. How long of a water
18 licence term does INAC recommend?

19 MR. ROBERT JENKINS: Mr. Chair, it's
20 Robert Jenkins, with INAC. We didn't have a specific
21 recommendation on the term of the licence, but one of the
22 things that we had mentioned to the Board last week
23 during the City of Yellowknife Hearing is that we would
24 encourage that, you know, the licence term be sufficient
25 and appropriate.

1 We would encourage -- the Town has
2 mentioned a ten (10) year licence. We're not -- we would
3 not be against such a term, keeping in mind that if there
4 are substantial changes to the -- to the activities that
5 the Town wants to carry out, which would result in a
6 change to -- to the licence. This is a Type A water
7 licence, it would require again another public hearing
8 and it would require ministerial approval.

9 So -- so, you know, if -- you know, we're
10 not opposed to -- we encourage terms of longer duration,
11 recognizing that if there are substantial changes to --
12 to the activities, we need to go through the process
13 again and everybody gets a chance to provide input.

14 THE CHAIRPERSON: Thank you. Board
15 counsel...?

16 MR. JOHN DONIHEE: John Donihee. Thank
17 you, Mr. Chair. I have no questions.

18 THE CHAIRPERSON: Okay. Thank you. Was
19 there a question that you were supposed to repeat to
20 INAC, or was that dealt with?

21 MR. JAMIE VANGULCK: Jamie Vangulck. I
22 believe we clarified -- clarified that issue.

23 MR. ROBERT JENKINS: It's Robert Jenkins.
24 I'm pretty sure we answered all the Board's questions
25 appropriately.

1 THE CHAIRPERSON: Okay. Great exchange.
2 And we'll go to the Board members. Sabet...?

3 MS. ELIZABETH BISCAYE: I don't have any
4 questions, Mr. Chair. Thank you.

5 THE CHAIRPERSON: Pat...?

6 MR. PAT LAROCQUE: No questions, Mr.
7 Chair. Thank you.

8 THE CHAIRPERSON: Floyd...?

9 MR. FLOYD ADLEM: Thank you, Mr. Chair.
10 Just a couple of easy ones.

11 Is the melt water from the snow disposal
12 location sampled, and if not, should it be?

13 MR. ROBERT JENKINS: Mr. Chair, it's
14 Robert Jenkins with INAC. As we understand it the snow
15 melt water is not sampled. The question of whether it
16 should be or shouldn't be, well, it's never a bad idea to
17 potentially characterize what might be in the snow melt
18 water, it does -- it does release into the environment.

19 But, I think again -- sort of, any sort of
20 sampling regime, you'd have to -- to find out what's in
21 it first before you would define if anything else needs
22 to be done.

23 THE CHAIRPERSON: Thank you. Further,
24 Floyd...?

25 MR. FLOYD ADLEM: Yes, Mr. Chair. In

1 Environment Canada's intervention they talked about an
2 Operation and Maintenance Plan, and you also went along -
3 - also recommended that. In their submission they said
4 the plan should include practical guidance on the
5 operation, engineering, all of that sort of stuff.

6 And I guess -- I don't mean to spend a lot
7 of time on this, but I think there's a difference between
8 an O&M plan and an O&M manual, or something.

9 And the question I guess I have is --
10 maybe it's more a question of experience from the -- from
11 INAC, is sort of, if you have a plan that is so detailed,
12 is there -- does it cause problems with, say, enforcement
13 or modification of the plan?

14

(BRIEF PAUSE)

15

16
17 MR. ROBERT JENKINS: Mr. Chair, it's
18 Robert Jenkins. Yes, a -- an Operation and Maintenance
19 Plan would sort of be sort of larger in scope and define
20 what -- what generic things are done at different
21 facilities.

22 A -- a specific manual would -- would be
23 tailored towards the operator itself and define what that
24 person has to do. It could include such things as check
25 lists, you know, these are the day to day or monthly

1 sampling requirements, these sort of things.

2 THE CHAIRPERSON: Thank you. Further,
3 Floyd...?

4 MR. FLOYD ADLEM: Thanks, Mr. Chair. So
5 I guess just -- the question I have is that the -- the
6 items listed by Environment Canada in their intervention,
7 the sorts of things, are they manual or plan?

8 I -- I mean, I can sort of read them out
9 here. It says:

10 "Practical guidance on the operation of
11 the engineered treatment pad, the
12 leachate control pond, recycling,
13 handling, disposal of hazardous
14 material, treatment of contaminated
15 drainage from landfill.

16 All aspects of waste water collection,
17 the treatment should be covered as well
18 including cell..." and so on and so
19 forth.

20 And then it says:

21 "The description on how the facilities
22 are operated and maintained, how often
23 tasks are performed and who's
24 responsible for their completion..."
25 and so on.

1 I just thought it was -- I just need your
2 guidance as to whether those are manual issues or plan
3 issues. Is there a -- there's probably no definite
4 cutoff but you're -- you're...

5 MR. ROBERT JENKINS: Mr. Chair, it's
6 Robert Jenkins. There -- there is a bit of a I guess a
7 grey area between what would be included in a plan and
8 what would be included in a manual.

9 An example might be a plan could include
10 these are the sampling requirements set up and imposed on
11 us throughout the year. In -- in that manner, it clearly
12 defines for -- for the public, for, you know, government,
13 different agencies what -- what the Town's required to
14 do.

15 The -- the manual then could -- could
16 build on that and say things such as -- not only tell you
17 what your sampling requirements are, but actually how to
18 take your sample, these sort of things.

19 So -- so I -- I guess I don't have an
20 answer for you on the specific items for -- for --
21 Environment Canada proposed because it's sort of -- it's
22 more of a level of detail than a -- than an actual
23 subject.

24 THE CHAIRPERSON: Okay. Thanks.
25 Anything further, Floyd?

1 MR. FLOYD ADLEM: Just one thing. Floyd
2 Adlem. Closure describes preliminary closure, interim
3 closure, final closure. But it doesn't discuss
4 progressive closure.

5 And I'm thinking that -- that each one of
6 those should describe how they would progressively get to
7 those points and it's not really clear in the submissions
8 that that's thought about.

9 So I just ask, is that the intent?

10 MR. ROBERT JENKINS: Mr. Chair, it's
11 Robert Jenkins with INAC again. That's a -- that's a
12 great point. Progressive reclamation is definitely
13 something that -- that should be included in -- in a
14 Closure and Reclamation Plan.

15 And as I mentioned earlier, there are
16 often several, what we call, interim plans depending on,
17 of course, the lifespan of a project.

18 So each one of those plans would become
19 more refined as progressive reclamation is undertaken.
20 As well, each plan should have a section as you mentioned
21 on, you know, over the next three (3) to five (5) years,
22 ten (10) years, again, depending on how long this project
23 is expected to occur, what we are going to do
24 progressively.

25 So -- so it's definitely an important

1 point and it definitely should be included in -- in
2 different versions of a Closure and Reclamation Plan.

3 THE CHAIRPERSON: Any response from Hay
4 River?

5 MR. RON KENT: Ron Kent for the Town.
6 One of the things the contractor -- consultant who's
7 looking at it was asked to do as part of the scope is
8 close as you go out kind of design so that as the thing
9 moves forward, it's continuously closed.

10 That's normal practice and I believe in --
11 in good and well managed facilities and the intent of
12 this report is to have a well-managed facility. Thank
13 you.

14 THE CHAIRPERSON: Floyd, anything
15 further?

16 MR. FLOYD ADLEM: No further questions,
17 Mr. Chair.

18 THE CHAIRPERSON: Okay. Thank you for
19 those very interesting questions, and -- so we will now
20 go to -- thank you for your presentation.

21 All registered speakers, those without
22 presentations, if there's any, and then any other parties
23 wishing to speak?

24 Okay then, in the opening address then we
25 had mentioned that we may ask for the Proponent and

1 Intervenor to present their closing statements after our
2 public session tonight. This will allow us to adjourn
3 the meeting today and not reconvene tomorrow, so is that
4 okay with Proponent and Intervenor that we do our
5 closing statements after the session this evening? I
6 don't see --

7 MR. MICHAEL RICHARDSON: Michael
8 Richardson with the Town. Yes, that's agreeable to us.

9 MS. ANNE WILSON: Anne Wilson,
10 Environment Canada, and we're fine with that as well.

11 THE CHAIRPERSON: All right. How about
12 Indian -- or sorry ENR?

13 MR. TODD PAGET: Todd Paget with ENR.
14 Yes, we'd be perfectly fine with that as well. Thank
15 you, Mr. Chair.

16 THE CHAIRPERSON: Thank you. And
17 INAC...?

18 MR. ROBERT JENKINS: Thank you, Mr.
19 Chair. It's Robert Jenkins of INAC. That's fine with
20 us.

21 THE CHAIRPERSON: Okay. Thank you all
22 for your cooperation in that then, so then, we will look
23 for your closing remarks then after our public session
24 this evening. If there is no one going to register by
25 7:30, then that session will be cancelled and we'll go

1 into closing arguments. Thank you all. It's been a long
2 day, and we'll see you back here at seven o'clock.

3

4 --- Upon recessing at 5:12 p.m.

5 --- Upon resuming at 7:28 p.m.

6

7 THE CHAIRPERSON: Good evening, one and
8 all, for returning. We gave till 7:30 and there's no
9 intervenors, so what we'll do then is go into closing
10 remarks from the intervenors and we'll start with
11 Environment Canada.

12

13 CLOSING COMMENTS BY ENVIRONMENT CANADA:

14 MS. ANNE WILSON: Thank you, Mr.
15 Chairman. It's Anne Wilson with Environment Canada. I
16 just wanted to thank the Board for a well run hearing,
17 and it's been a very constructive process.

18 I feel that all the questions asked and
19 the interactions have really contributed to, hopefully, a
20 good draft licence coming out that will work for all
21 parties involved. And so just thank you for the
22 opportunity to participate.

23 THE CHAIRPERSON: Thank you very much for
24 that. And, Michael, I just got word here that you wanted
25 to make a correction. Perhaps you would like to do that

1 beforehand?

2 MR. MICHAEL RICHARDSON: Michael
3 Richardson with the Town. Yeah, I -- Mr. Chair, I
4 realized I erred in a comment I made earlier. There was
5 a question directed to me from the Board regarding the
6 disposal of solid waste -- or, sorry, sewage.

7 The Board member asked if sewage was
8 dumped in our landfill from the neighbouring Hay River
9 Reserve, and in my statement I said that they didn't, but
10 I -- I erred and, in fact, the Hay River Reserve does
11 contribute to our sewage volumes in our lagoon system.

12 So I wanted to clarify and -- and I
13 apologize for that error, and just wanted to make sure
14 that gets on the record.

15 THE CHAIRPERSON: Very good. Thank you
16 for that clarification. John, is there any problem with
17 that?

18 MR. JOHN DONIHEE: No, sir. That just
19 clarifies the record. That's fine. Thank you.

20 THE CHAIRPERSON: And much appreciated.
21 Sorry for the interruption there. So thank you for your
22 remarks. So we'll go to ENR.

23

24 CLOSING COMMENTS BY ENR-GNWT:

25 MR. TODD PAGET: Thank you very much, Mr.

1 Chair. Todd Paget, Department of Environment and Natural
2 Resources. We'd just like to take this opportunity,
3 actually, to follow up very quickly on a couple of
4 questions to provide further clarification, I think,
5 which will help out with perhaps the intent of the line
6 of the questioning.

7 One was with respect to fencing. There
8 was a question in regards to ENR legislation,
9 specifically the Wildlife Act, and if there had been
10 other specific terms and conditions that had been
11 incorporated in other licences in regards to that.

12 The -- the discussion, perhaps, maybe
13 didn't pinpoint it right down. Our regional
14 environmental protection officer had mentioned that we
15 have had an issue of an order previously with respect to
16 that. That is confirmed. However, we just wanted to
17 make sure that it was understood that issuing orders is a
18 last resort, and the Wildlife Act does not have a
19 specific tool to enable the implementation of a permit or
20 licence or something in that regard that would require
21 the implementation of a fence.

22 It's -- it's really a reactionary
23 mechanism that's after the fact, really with respect to a
24 failure. So the intent of our recommendation is really
25 to ensure that there is not a failure, and to ensure that

1 the appropriate planning and operation and maintenance
2 requirements are in place to prevent that from happening.

3 The comparison to, for example, the fences
4 in some of the other communities was valid. However, we
5 must just maintain the focus here that we're relating
6 that it's a serious issue here with respect to the
7 heightened level of interaction between wildlife and
8 people at the facility. So just to clarify that.

9 Part 2, I guess, to that is also to
10 remember that we wouldn't want to -- to really be in a
11 position to be hogtying anybody here. The Town clearly
12 has operation and maintenance requirements they need to
13 facilitate within their own planning mechanism. There's
14 other requirements for a fence that may be in place as
15 well. Controlling access, for example, might be one of
16 them, windblown debris, et cetera.

17 So we would just be offering one component
18 of the consultation effort or the expertise to help them
19 with respect to how they need to design their fence.
20 Hence, the recommendation to have an overall
21 recommendation of a plan that we tie into but, clearly,
22 they will probably need to integrate a lot more into that
23 plan, so hence, again, the recommendation to be part of
24 the Operation and Maintenance Plan.

25 Also in respect to specific examples, ENR

1 has, in the previous slew of water licence applications
2 that have been coming through in making this
3 recommendation on a consist -- consistent basis, the
4 recent example where that recommendation was integrated
5 into a term and condition was actually in Fort Liard's
6 recent water licence. So that would be an example of
7 something that's recently been used.

8 And we are aware of a water licence that
9 was issued within the last couple of years, I believe, by
10 the Sahtu Land and Water Board for Fort Good Hope. It
11 also included a similar term and condition.

12 So I hope that clarifies the intent of the
13 answer that we had before and more accurately targets the
14 question as -- and specifically targets that question.

15 Secondly, with respect to hazardous waste,
16 there was also a discussion about the regulatory
17 jurisdiction and to clarify once again, the Department of
18 Environment and Natural Resources did not have a specific
19 regulatory tool or an ability to enact a permit or a
20 licence of any form that would require a hazardous waste
21 management plan per se. We do offer our guidance
22 documents that are with the intent of helping so that
23 people in communities can more accurately be able to
24 manage these wastes.

25 However, again, as similar with the

1 Wildlife Act, we may have a hammer with respect to an
2 enforcement mechanism if there's a violation but we would
3 consider that, again, to be really a failure. And we
4 would propose that a more appropriate way to manage these
5 wastes is to be proactive, to plan upfront and ensure
6 that the management processes are in place to prevent
7 there being a problem that we have to worry about.

8 If there is a concern about the
9 relationship or the connection between hazardous waste
10 and impacts to water, I think that's fairly well
11 qualified. Hazardous waste mismanagement can, clearly,
12 be a direct influence on water quality and potentially
13 have a detrimental effect to any leachate that may be
14 generated on site.

15 So in the end, again, our recommendations
16 are for the intent of supplying the expertise and our
17 help for the community to be able to develop a Hazardous
18 Waste Management Plan that we think would meet the intent
19 of the Board's overall requirement to ensure that the
20 licence is containing terms and conditions that, you
21 know, are going to accurately be able to protect the
22 environment and maintain the intent of the Act, and hence
23 the management plan which we believe is available as a
24 tool to the Land and Water Board is an avenue in which to
25 do that.

1 So I hope that clarifies perhaps a little
2 clearly and more clearly perhaps how ENR interacts with
3 our jurisdiction and why we specifically make those
4 recommendations and why we feel that they're very
5 appropriate for this circumstance and, hopefully, we can
6 facilitate any further work that we can in that regard to
7 get the ends that everybody is looking for, which is
8 ensuring an adequate level of environmental protection
9 and security for both communities, people in Northwest
10 Territories.

11 That being said, we'd also like to thank
12 the Board and the staff and the Town of Hay River and the
13 chef who makes this great cake, and we look forward to
14 working with anybody else in the future.

15 If there's any follow-up questions that we
16 may be able to offer, if there's any other way that ENR
17 can offer its expertise or help to both the community in
18 development of plans to working towards the -- an ends of
19 us all cooperating and working together, please give us a
20 call. We're open and we're in the book and we're
21 available for consultation anytime anybody wants.

22 So on behalf of myself, Todd Paget,
23 Department of Environment and Natural Resources, Diep
24 Duong and Gerald Enns, we thank you very much for
25 allowing us the opportunity to come here today and we

1 look forward to working with you closely again in the
2 future. Thank you.

3 THE CHAIRPERSON: Thank you very much for
4 that clarification. It's well noted. And thank you and
5 your staff for participating so effectively and we'll no
6 doubt run into each other again.

7 INAC, last but not least.

8

9 CLOSING COMMENTS BY INAC:

10 MR. RON JENKINS: Mr. Chair, it's Robert
11 Jenkins with INAC. I just want to thank the Board for
12 organizing this Hearing today and running it quite
13 effectively and efficiently.

14 Our issues and recommendations are laid
15 out in our written evidence and we -- we ask that the
16 Board consider those when they draft the terms and
17 conditions of the water licence.

18 We'd like to thank the Town for discussing
19 our issues with us and resolving pretty much all of them
20 and I think that was -- that was a great -- great
21 progress in -- in that regard.

22 So we look forward to seeing the draft
23 licence which will go to the Minister and working with
24 everybody to -- in this Renewal Application. Thanks.

25 THE CHAIRPERSON: Okay. Thank you for

1 you and your staff and when I meant "last," I meant last
2 of the Intervenors so don't leave yet. So we will now go
3 to closing remarks from the Town of Hay River.

4

5 CLOSING COMMENTS BY THE TOWN OF HAY RIVER:

6 MR. MICHAEL RICHARDSON: I'd like to
7 thank everybody for their attendance here and coming to
8 our Town and it's going to be a short visit but we'd like
9 to have you nonetheless and may you have a safe trip
10 back.

11 In our presentation we summarized our -- I
12 guess we summarized it as follows:

13 The Town of Hay River agrees, in
14 principle, that there should be assurance of good
15 planning and good operations and that there should be a
16 consistent basis for inspection enforcement.

17 The Town requests that in the interest of
18 cost effective governance, items that do not relate
19 directly to compliance and enforcement be removed from
20 the licence or, failing that, be limited in their scope.

21 The Town has submitted several technical
22 documents that outline our position on several areas,
23 although we have not gone into the details of those
24 submissions at this Hearing.

25 We hope that the Board will also consider

1 those documents and those arguments as part of their
2 deliberations.

3 There have also been several technical
4 discussions discussed today. Of them, the relationship
5 of BOD, and COD (sic) seems to remain outstanding. The
6 Town requests the opportunity to submit a short paper on
7 the subject to clarify the technical aspects.

8 In the course of this project, the Town
9 has received many requests for info and/or actions
10 dealing with the various aspects of management of water
11 and sanitation infrastructure.

12 The Town has also -- has taken all of
13 these requests under advisement and, in most cases, has
14 agreed to an undertaking with that agency.

15 The Town continues to extend an open hand
16 to any and all agencies that wish to conduct research on
17 any of our systems and agrees to work toward -- toward
18 this with an agency to meet the common good.

19 However, the Town has not agreed in all
20 cases that many of these undertakings should be part of
21 the conditions in a water licence. The Town requests
22 that only these -- those aspects that are related
23 directly to compliance and enforcement be placed as
24 conditions in the water licence. Thank you.

25

1 CLOSING COMMENTS BY THE BOARD:

2 THE CHAIRPERSON: Thank you for your
3 closing remarks then and go to our closing comments. And
4 on behalf of the Board, I'd like to thank all of you for
5 participating in the Town of Hay River Type "A" Water
6 Licence Renewal Hearing.

7 The Board does appreciate all the efforts
8 made by the Town of Hay River, the Intervenors and
9 participants to prepare the Application and all the
10 technical and other evidence necessary to help us make a
11 water licensing decision.

12 We must remind you that there is still a
13 lot of work to be completed before a water licence can go
14 to the Minister of INAC. Time lines are very tight. We
15 ask you to be diligent in reviewing the record,
16 commenting on the draft licence and assisting the Board
17 to make a good decision.

18 As you know, this is a Type "A" Water
19 Licence Renewal Application and the final decision is
20 made by the Minister of INAC. All parties will have
21 access to the Board's work plan.

22 Staff will prepare and distribute a draft
23 water licence for your review and comment by February
24 16th, 2010.

25 The Board will review all comments on the

1 draft water licence and we will make a decision on the
2 final licence at a meeting near the end of March 2010. A
3 final water licence and reasons for decision will be sent
4 to the Minister of INAC for approval.

5 The Board relies on all parties to prepare
6 thoroughly and come to its Hearings prepared to address
7 any issues within their mandate. The Board process
8 enables that there is every opportunity to work
9 collaboratively to find solutions, but, the Hearing
10 process is not designed to be a collaborative experience.

11 The Hearing process is an inquiry process
12 to assist the Board in making the best licensing decision
13 possible. All parties must understand that when they ask
14 the Board to do something or make a recommendation that
15 they have the onus or responsibility to produce enough
16 evidence to convince the Board to accept their
17 recommendations.

18 No matter what the Board's views may be,
19 the legal framework means that the Board cannot make
20 decisions on trust alone. If a party does not provide
21 enough evidence to convince the Board, they are not going
22 to succeed with their recommendations.

23 So in closing, we'd like to thank the Town
24 of Hay River, Environment Canada, ENR-GNWT and INAC. And
25 we'd also like to thank the -- our interpreters, Joe and

1 Alex, for their patience and hard work in translating. I
2 would also like to thank our court reporter Sean and
3 Peter, technicians. All their work today is much
4 appreciated.

5 And many thanks to, of course, our staff,
6 the consultants -- I even got legal counsel down here and
7 our caterers for the fine food, lunch, and I guess the
8 chocolate cake. I didn't try it but I heard it's awful
9 good.

10 So we'd like to thank all of you, again,
11 for your courtesy and your respect for all, each other.
12 And in particular, I'd like to thank the Board here for
13 their dedication and hard work that makes everybody's
14 jobs easier and mine, in particular, a little easier.

15 So thank you. Safe journeys home. And no
16 doubt we'll probably see you in other hearings within the
17 year. Thank you very much.

18

19 --- Upon adjourning at 7:44 p.m.

20

21 Certified Correct,

22

23 _____

24 Sean Coleman

25