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1		INTERVENERS:
2		
3		INDIAN AND NORTHERN AFFAIRS CANADA (INAC)
4		Mr. I. Parsons (Iqaluit)
5		
6		DEPARTMENT OF FISHERIES AND OCEANS CANADA (DFO)
7		Mr. G. Cooper Fish Habitat Biologist
8		
9		ENVIRONMENT CANADA (EC)
10		Ms. P. Smith Environmental Assessment Coordinator
11		
12		INTERPRETERS/TRANSLATORS:
13		Ms. M. Hunt Inuktitut Language
14		Mr. B. Suluk
15		
16		
17		Mr. T. Bourque Sound Technician
18		
19		Ms. K. Schumann, CSR(A) Court Reporter
20		
21		
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3	NUNAVUT WATER BOARD PANEL (NWB):
4	
5	Mr. T. Kabloona Chair
6	Mr. S. Omik Member
7	Mr. R. Mrazek Member
8	
9	
10	NUNAVUT WATER BOARD STAFF:
11	
12	Mr. D. Hohenstein Director of Technical Services
13	Mr. S. Joseph Technical Advisor
14	Ms. D. Filiatrault Executive Director
15	Mr. R. Dwyer Licencing Administrator
16	Ms. K. Tunaley Technical Consultant
17	Ms. T. Meadows Legal Counsel
18	
19	
20	APPLICANT:
21	
22	DEPARTMENT OF COMMUNITY AND GOVERNMENT SERVICES (CGS),
23	GOVERNMENT OF NUNAVUT (GN)
24	
25	Mr. J. Walls, P.Geo. (Nuna Burnside)
26	

<p style="text-align: center;">5</p> <p>1 CLOSING STATEMENT BY DFO 177</p> <p>2 CLOSING STATEMENT BY CGS-GN 179</p> <p>3 Closing Remarks by NWB Board Chair 183</p> <p>4 Reporter's Certificate 185</p> <p>5 Exhibits 186</p> <p>6</p> <p>7</p> <p>8</p> <p>9</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p> <p>26</p>	<p style="text-align: center;">7</p> <p>1 Government of Nunavut, Department of Community and</p> <p>2 Government Services for a Type A water licence in</p> <p>3 accordance with the <i>Nunavut Waters and Nunavut Surface</i></p> <p>4 <i>Rights Tribunal Act</i>.</p> <p>5 Pursuant to Section 13.3.6 of the Nunavut Land</p> <p>6 Claims Agreement and Section 29 of the <i>Nunavut Waters</i></p> <p>7 <i>and Nunavut Surface Rights Tribunal Act</i>, the Board has</p> <p>8 delegated its power to dispose of all matters relating</p> <p>9 to the Type A licence Application 3AM-ARV for the</p> <p>10 Hamlet of Arviat water supply facility, sewage</p> <p>11 treatment facility, and solid waste disposal facility,</p> <p>12 including the conduct of this public hearing to a panel</p> <p>13 of the Board.</p> <p>14 I am chairing this Panel, and with me today are</p> <p>15 Members of the Panel: Board Members Ross Mrazek, on my</p> <p>16 right and, to my left, Sam Omik.</p> <p>17 I would also like to acknowledge Dave Aglukark,</p> <p>18 who is a member of the Nunavut Water Board. We would</p> <p>19 like to clarify that to avoid a perceived conflict of</p> <p>20 interest with David as a resident of this community and</p> <p>21 Member of the Board, he has not been appointed to the</p> <p>22 Arviat NWB Panel for this hearing, and he will not</p> <p>23 participate in this decision in any way. It is,</p> <p>24 therefore, important for community members to</p> <p>25 participate in this hearing to ensure that they have</p> <p>26 expressed their comments and concerns directly to the</p>
<p style="text-align: center;">6</p> <p>1 (PROCEEDINGS COMMENCED AT 9:11 AM)</p> <p>2 THE CHAIR: Good morning, everyone. Good</p> <p>3 morning, my name is Thomas Kabloona. I'm the Chairman</p> <p>4 of the Nunavut Water Board. Before we proceed with the</p> <p>5 hearing, let's begin with a prayer, and I would like to</p> <p>6 ask Bobby Suluk to do the opening prayer.</p> <p>7 (OPENING PRAYER)</p> <p>8 <u>OPENING REMARKS BY NWB BOARD CHAIR:</u></p> <p>9 THE CHAIR: Thank you, Bobby.</p> <p>10 In order to be fair to the community members, we</p> <p>11 will adjourn for about another 20 minutes or so to give</p> <p>12 community members a chance to be here, and we'll talk</p> <p>13 to you in about 20 minutes. Thank you.</p> <p>14 Is that okay with the parties?</p> <p>15 (ADJOURNMENT)</p> <p>16 THE CHAIR: Once again, I'd like to thank</p> <p>17 you for your patience. We will carry on.</p> <p>18 The Nunavut Water Board is an institution of</p> <p>19 public government created under Article 13 of the</p> <p>20 Nunavut Land Claims Agreement and is responsible for</p> <p>21 the use, management, and regulation of fresh water in</p> <p>22 the Nunavut Settlement Area.</p> <p>23 On behalf of the Water Board, I welcome you to</p> <p>24 Arviat.</p> <p>25 The purpose of this public hearing is to review</p> <p>26 the application filed for the Hamlet of Arviat by the</p>	<p style="text-align: center;">8</p> <p>1 Panel.</p> <p>2 Several Staff members and NWB consultants, who</p> <p>3 have contributed the NWB's technical review of the</p> <p>4 application, are present, and I will introduce key</p> <p>5 individuals attending today: Dionne Filiatrault,</p> <p>6 Executive Director; Sean Joseph, Technical Advisor;</p> <p>7 Richard Dwyer, Licencing Administrator; Karlette</p> <p>8 Tunaley with Tunaley, Lines & Associates, Technical</p> <p>9 Consultant to the Board; and David Hohenstein, Director</p> <p>10 of Technical Services; Teresa Meadows with Miller</p> <p>11 Thomson LLP, Legal Counsel to the Board.</p> <p>12 In addition, we have two interpreters available</p> <p>13 for simultaneous translation, Mary Hunt and Bobby</p> <p>14 Suluk.</p> <p>15 For audio support, we have Trevor Bourque with us.</p> <p>16 If you experience any difficulties with your headsets,</p> <p>17 he should be able to provide assistance.</p> <p>18 To ensure an accurate record of this proceeding,</p> <p>19 we have with us a court stenographer, Karoline</p> <p>20 Schumann. To assist Karoline, I ask that all parties</p> <p>21 to please state their name before speaking.</p> <p>22 We also have a local page with us, Jonathan</p> <p>23 Kigusiutnak. Please do not hesitate to ask him for</p> <p>24 assistance.</p> <p>25 In the past, parties in other proceedings have</p> <p>26 approached the media prior to the release of the</p>

<p style="text-align: center;">9</p> <p>1 Board's decision, suggesting comments about what the 2 Board's going to do either procedurally or in terms of 3 the final result.</p> <p>4 Since the Board cannot comment on pending matters 5 either by confirming or denying the accuracy of other's 6 statements to the media, the Board would appreciate if 7 all parties would refrain from any such comments that 8 may imply a certain action or decision by the Board.</p> <p>9 Board Members will not discuss the hearing or the 10 matters before the Board with any of the parties or the 11 media.</p> <p>12 If you have questions about the Board and its 13 practice or procedure, please speak to the Executive 14 Director, and she will assist you.</p> <p>15 Prior to identifying and introducing all the 16 parties in attendance today, I will provide a brief 17 summary of the application before the Board.</p> <p>18 The NWB issued on January 9th, 2004, a Type B 19 Licence NWB3ARV0308 to the Hamlet of Arviat, which 20 allowed for the use of water and disposal of waste. 21 This was the Hamlet's first Type B licence, and it 22 expired on December 31, 2008.</p> <p>23 On January 5, 2009, the NWB received a licence 24 renewal application and supporting documentation from 25 the Hamlet of Arviat for a water supply facility, solid 26 waste disposal facility, sewage disposal facility. The</p>	<p style="text-align: center;">11</p> <p>1 The NWB determined that the new application, which 2 is assigned a number of 3AM-ARV, is that for a Type A 3 water licence, as per Schedule 6 of the Northwest 4 Territories Waters Regulations, where there is a 5 "deposit of waste by means of a sewage collection or 6 treatment system serving a population of 2,000 or more" 7 and where, based on the 2006 Census, the Hamlet's 8 population was estimated at greater than 2,000. In 9 addition, pursuant to Section 52 of the <i>Nunavut Waters 10 and Nunavut Surface Rights Tribunal Act</i>, (NWNSTRTA or 11 Act), a public hearing is required for a Type A 12 application.</p> <p>13 As part of the standard procedures, the NWB 14 conducted an initial internal review of the application 15 and identified some deficiencies in the administrative 16 requirements of the Type B Water Licence NWB3ARV0208. 17 The Board noted the Applicant's commitment to providing 18 outstanding documentation and requirements.</p> <p>19 On May 15, 2009, the Board requested that the 20 Applicant provide estimated submission dates for 21 outstanding documentation and administrative 22 requirements of the licence for compliance purposes. 23 The Board also advised the Hamlet of Arviat that 24 processing of the application will be suspended pending 25 the receipt of outstanding documents.</p> <p>26 On August 6th, 2009, the NWB acknowledged receipt</p>
<p style="text-align: center;">10</p> <p>1 application was prepared and submitted by the 2 Government of Nunavut-Community and Government Services 3 with the support of its consultant, Nuna Burnside 4 Engineering and Environmental Limited.</p> <p>5 The following documents were received on January 6 5, 2009: A cover letter; Water Licence Renewal 7 Application Form; Supplemental Questionnaire For 8 Municipal Undertakings; an Executive Summary in English 9 and Inuktitut.</p> <p>10 The following submissions were received after 11 January 5, 2009: Hamlet of Arviat Annual Report for 12 2008; Operations and Maintenance Plan for the Arviat 13 solid waste management facility; Operations and 14 Maintenance Plan for the Arviat sewage treatment 15 facility; Operations and Maintenance Plan for the 16 Arviat water supply facility; an Environmental 17 Emergency Contingency Plan for the Hamlet of Arviat; an 18 Environmental Monitoring Program and Quality 19 Assurance/Quality Control Plan for Arviat.</p> <p>20 Copies of the above-mentioned submissions are 21 available on NWB's FTP site: 22 http://www.nunavutwaterboard.org/en/public_registry. 23 Also Richard Dwyer, our Licencing Administrator, 24 has made available for public viewing paper copies of 25 all the final submissions that the Board has received 26 to date for this proposal.</p>	<p style="text-align: center;">12</p> <p>1 of additional application documents.</p> <p>2 On December 8th, 2009, the NWB asked the Nunavut 3 Planning Commission (NPC) and the Nunavut Impact Review 4 Board to confirm their requirements under the Nunavut 5 Land Claims Agreement (NLCA).</p> <p>6 On December 21, 2009, interested parties were 7 asked to check the application for completeness and 8 begin their technical reviews.</p> <p>9 By January 12, 2010, the Board received comments 10 on the completeness of the application from INAC, 11 Environment Canada, and DFO. Based on the comments 12 received, the application was considered complete from 13 a regulatory perspective.</p> <p>14 On January 25, 2010, the Board gave notice of the 15 application in accordance with Section 55(1) of the 16 Act, and interested parties were asked to continue 17 their technical review of the application in time for a 18 technical meeting and pre-hearing conference set 19 tentatively for March 10, 2010.</p> <p>20 On January 28, 2010, the NPC stated in its 21 decision that the project conforms to the Keewatin 22 Regional Land Use Plan.</p> <p>23 On February 25, 2010, the Board received written 24 submissions from INAC, EC, and GN-DOE with respect to 25 technical reviews conducted on the Application Number 26 3AM-ARV.</p>

<p style="text-align: center;">13</p> <p>1 On March 3, 2010, the Board issued its decision to</p> <p>2 hold an in-person technical meeting and pre-hearing</p> <p>3 conference in the Hamlet of Arviat on March 30, 31,</p> <p>4 2010. Some parties indicated that they could not</p> <p>5 attend in person but confirmed participation through</p> <p>6 teleconference, if available.</p> <p>7 March 23, 2010, Nuna Burnside Engineering and</p> <p>8 Environmental Limited responded on behalf of the Hamlet</p> <p>9 of Arviat to comments made by the various parties on</p> <p>10 issues for further discussions at the technical meeting</p> <p>11 and pre-hearing conference.</p> <p>12 On the morning of March 30, 2010, the Board's</p> <p>13 Technical Staff held the informal technical meeting and</p> <p>14 pre-hearing conference in which the Applicant,</p> <p>15 interveners, and community members participated. On</p> <p>16 the evening of the same day, a community session was</p> <p>17 held at the same venue. Approximately 83 people had</p> <p>18 signed the registry and participated in the session.</p> <p>19 It should be noted that the current Panel Members</p> <p>20 did not attend or participate in these technical and</p> <p>21 pre-hearing sessions, but they were briefed by the</p> <p>22 technical staff on their outcome and recommendations</p> <p>23 resulting from these sessions. This information was</p> <p>24 relied on by the Board later in the preparation of the</p> <p>25 pre-hearing conference decision.</p> <p>26 The following morning, March 31, 2010, a post TC</p>	<p style="text-align: center;">15</p> <p>1 bulletin boards in affected communities. On the week</p> <p>2 of July 4, 2010, television and radio advertisements</p> <p>3 began airing on local stations in Arviat.</p> <p>4 On June 2, 2010, Nuna Burnside Engineering and</p> <p>5 Environmental Limited provided the following revised</p> <p>6 documents in response to questions, concerns, and</p> <p>7 issues identified during the technical meeting and</p> <p>8 pre-hearing conference: Operations and Maintenance</p> <p>9 Plan for the Arviat solid waste management facility,</p> <p>10 revised May 2010; Sewage Treatment Facility Operations</p> <p>11 and Maintenance Plan for Arviat, revised May 2010;</p> <p>12 Operations and Maintenance Plan for the Arviat water</p> <p>13 supply facility, revised May 2010; Environmental</p> <p>14 Emergency Contingency Plan, Hamlet of Arviat, revised</p> <p>15 May 2010; Environmental Monitoring Program and Quality</p> <p>16 Assurance/Quality Control Plan, Hamlet, revised May</p> <p>17 2010; and Water Supply Facility Operations and</p> <p>18 Maintenance Plan, Hamlet of Arviat, revised May 2010.</p> <p>19 Based on the application, written submissions of</p> <p>20 the parties, and the information exchanged at the</p> <p>21 TM/PHC, the NWB Staff identified the following issues</p> <p>22 to be addressed at the hearing: 1) drawdown of Wolf</p> <p>23 River; 2) water intake; 3) solid waste disposal; 4)</p> <p>24 bulky metal waste storage; 5) contaminated soil</p> <p>25 storage; 6) hazardous waste storage; 7) sewage disposal</p> <p>26 and treatment; 8) sludge management; 9) discharge</p>
<p style="text-align: center;">14</p> <p>1 and PHC session was held in which the Applicant,</p> <p>2 community members, and interveners also participated.</p> <p>3 On April 23, 2010, the NIRB stated that the</p> <p>4 project proposal was exempt under 12.1.3 and does not</p> <p>5 require a screening.</p> <p>6 On May 7, 2010, the NWB issued a pre-hearing</p> <p>7 conference decision in which it extended a deadline for</p> <p>8 the submission of additional information, as committed</p> <p>9 to by the Applicant, to June 2, 2010, and set a</p> <p>10 deadline of July 2, 2010, for the receipt of final</p> <p>11 submissions for the public hearing (PH). In its</p> <p>12 decision, the Board also confirmed July 20-22, 2010, as</p> <p>13 the dates for the public hearing.</p> <p>14 As a result of the pre-hearing, the parties agreed</p> <p>15 that a site visit could be beneficial and proposed that</p> <p>16 a site visit be scheduled in conjunction with this</p> <p>17 hearing. In addition, the Board committed to confirm a</p> <p>18 site visit at the same time that the agenda for the</p> <p>19 hearing was issued. Upon further consideration and to</p> <p>20 ensure procedural fairness, the Board has recently</p> <p>21 re-assessed benefits and need for a site visit, and a</p> <p>22 site visit will not be held. Any motions or objections</p> <p>23 to this course of action can be brought forward under</p> <p>24 Agenda Item Number 7.</p> <p>25 The Notice of Public Hearing was issued officially</p> <p>26 on May 17, 2010, in local newspapers and May 19 on</p>	<p style="text-align: center;">16</p> <p>1 criteria; 10) abandonment and restoration; 11)</p> <p>2 monitoring.</p> <p>3 Written submissions for this hearing have been</p> <p>4 received from Indian and Northern Affairs Canada</p> <p>5 (INAC), Environment Canada, Department of Fisheries and</p> <p>6 Oceans (DFO), the Government of Nunavut-Department of</p> <p>7 Environment (GN-DOE), and Government of</p> <p>8 Nunavut-Community, Language, Elders, and Youth</p> <p>9 (GN-CLEY). If I have missed a written submission of</p> <p>10 any intervener, please let me know.</p> <p>11 <u>ROLL CALL:</u></p> <p>12 THE CHAIR: If there are no concerns, I</p> <p>13 would now like to move on to a roll call. I will begin</p> <p>14 the roll call with the Applicant, Government of</p> <p>15 Nunavut-Community and Government Services (GN-CGS) and</p> <p>16 then go on to intervening parties, Indian and Northern</p> <p>17 Affairs Canada (INAC), Environment Canada (EC),</p> <p>18 Department of Fisheries and Oceans (DFO).</p> <p>19 It is with regret that I must inform those of you</p> <p>20 who are here today that GN-DOE will not be in</p> <p>21 attendance.</p> <p>22 If any other interveners would like to speak,</p> <p>23 please identify yourself.</p> <p>24 It is our tradition to give respect to our elders;</p> <p>25 therefore, at any time, an elder may speak to the</p> <p>26 application on file.</p>

<p style="text-align: center;">17</p> <p>1 Are there any members of the general public who 2 would like to identify themselves?</p> <p>3 Are there any representatives from agencies, 4 associations, et cetera, who have not submitted 5 interventions but would like to speak?</p> <p>6 Before proceeding, I would like to request that 7 all parties register with Richard Dwyer, NWB's 8 Licencing Administrator, at the side table.</p> <p>9 I will now proceed with the identification of any 10 motions or any other objections to the application that 11 is before the Board.</p> <p>12 According to the information I have, there's no 13 motions or objections before the Board. Let us proceed 14 Item 8 of the agenda, the presentation by the 15 Applicant. The Applicant is requested to make a brief 16 presentation on the application before the Board.</p> <p>17 Mr. Walls, how long will you need? And please 18 swear in or affirm the witness.</p> <p>19 MS. FILIATRAULT: Mr. Chairman, just to 20 identify, you did indicate in your opening remarks that 21 you did a roll call for the various parties. Before 22 you proceed to the presentation of the Applicant, it 23 would be beneficial to have the representatives of the 24 organizations that are here present today to advance to 25 the mic and actually introduce themselves by party 26 before you proceed to the presentation by the</p>	<p style="text-align: center;">19</p> <p>1 you need for your presentation?</p> <p>2 MR. WALLS: Probably about 20 minutes, 3 Mr. Chairman.</p> <p>4 THE CHAIR: Thank you.</p> <p>5 My apologies again, we have people on the floor 6 here that can come up to the microphone and introduce 7 themselves.</p> <p>8 MR. KIGUSIUTNAK: James Kigusiutnak. I came as 9 an observer. Back in 1957, March, I remember that the 10 Government first came to Arviat. That time when I 11 first attended meetings, I started supporting decisions 12 made by the committees. That was 1956.</p> <p>13 My mother was asked about her concerns, and I 14 remember that time the Government came to my mother 15 because that time my two brothers drowned, and two 16 officials came to the community, so that is how the 17 committees and organizing committee started in Arviat. 18 My mother Margaret Aniqsaq (phonetic).</p> <p>19 I remember that time the Government was named DNA, 20 Department of Natural Affairs -- Northern affairs. 21 They first came to Arviat in 1958. There was a school 22 established.</p> <p>23 I understand the purpose of the boards and 24 committees. Thank you.</p> <p>25 THE CHAIR: Qujannamiik. I believe Trevor 26 has the microphone.</p>
<p style="text-align: center;">18</p> <p>1 Applicant.</p> <p>2 THE CHAIR: Well, we should really take a 3 10-minute break so that we will all have a chance to 4 stretch our legs and wake up.</p> <p>5 (ADJOURNMENT)</p> <p>6 THE CHAIR: We shall carry on, and I would 7 like to go back and do the roll call. I'm used to 8 everybody, so I will now begin with the roll call 9 beginning with INAC. Walk to the microphone and 10 introduce yourself.</p> <p>11 MR. PARSONS: Mr. Chairman, Ian Parsons, 12 Indian and Northern Affairs Canada.</p> <p>13 THE CHAIR: Thank you. Environment 14 Canada?</p> <p>15 MS. SMITH: Mr. Chairman, Paula Smith, 16 Environment Canada.</p> <p>17 THE CHAIR: DFO?</p> <p>18 MR. COOPER: Mr. Chairman, Gary Cooper 19 representing Fisheries and Oceans Canada.</p> <p>20 THE CHAIR: Thank you. I think I have the 21 Applicant.</p> <p>22 MR. WALLS: Jim Walls, Mr. Chairman, of 23 Nuna Burnside Engineering and Environmental, retained 24 by Community and Government Services of the Government 25 of Nunavut on behalf of the Hamlet of Arviat.</p> <p>26 THE CHAIR: Thank you. Now, how long will</p>	<p style="text-align: center;">20</p> <p>1 MR. MUKJUNIK: Thank you, I just came to the 2 meeting to observe. My name is Leo Mukjunik. I was 3 raised in Arviat, and if this meeting is about the use 4 of water, I believe the community members can say what 5 they think even though I don't have that much to say.</p> <p>6 It is very important for meetings like this. The 7 environment and the use of water and the ocean are very 8 important up north for improvement, and I support the 9 Board even though I have never attended these kinds of 10 meetings that has to do with water, the environment, 11 and the land, but I just came to observe and listen 12 because this is of use to the community. Thank you.</p> <p>13 THE CHAIR: Qujannamiik. Do you have any 14 questions?</p> <p>15 MR. MIHEEUNGAK: I am glad you will be coming 16 back to the community this month, I am glad, and I am 17 here as an observer. My name is Peter Miheeungak.</p> <p>18 THE CHAIR: Qujannamiik. I would now like 19 to proceed with the swearing in.</p> <p>20 JIM WALLS, Sworn:</p> <p>21 THE CHAIR: Thank you, Mr. Walls, please 22 proceed with your presentation, and in fairness to all 23 parties concerned, if you can give your presentation to 24 the audience as well.</p> <p>25 <u>PRESENTATION BY CGS-GN:</u></p> <p>26 MR. WALLS: Good morning, Mr. Chairman,</p>

<p style="text-align: center;">21</p> <p>1 Members of the Board, Nunavut Water Board Staff, Madam 2 Reporter, translators, technical staff, members of the 3 community of the Hamlet of Arviat, and regulatory 4 agencies. 5 My name is Jim Walls. I am a professional 6 geoscientist. I work for Nuna Burnside Engineering and 7 Environmental Limited. I've been retained by the 8 Government of Nunavut-Community and Government Services 9 on behalf of the Hamlet of Arviat to assist them in the 10 preparation of the application for their Nunavut Water 11 Board licence renewal, and this presentation is a 12 technical presentation that outlines the content of the 13 application process so far and some recommendations in 14 the request for the application for a new licence. 15 I'm here representing Community and Government 16 Services on behalf of the Hamlet of Arviat. The 17 Community and Government Services staff wanted to be 18 here today; however, Mr. Wayne Thistle, the regional 19 projects manager was called away at the last minute to 20 a meeting in Iqaluit. Mr. Bryan Purdy, the project 21 officer on this project for the past six months entered 22 retirement a few weeks ago, and Mr. Brian Duguay, 23 another project officer who worked on this project for 24 over two years moved on to a different job with the 25 Airports Department, and another project officer 26 recently left the CGS, so CGS is having staffing issues</p>	<p style="text-align: center;">23</p> <p>1 land and the water that are the jurisdiction of the 2 Nunavut Water Board. There are some things that it 3 could impact that are not the jurisdiction of the Water 4 Board, such as the deep marine environment. 5 A technical meeting and pre-hearing conference was 6 held in late March here in Arviat. We had members of 7 the public that attended, NWB technical staff, and 8 representatives of regulatory agencies. The meeting 9 discussed a compilation of issues that had been put 10 together in the months leading up to that meeting, and 11 most of them revolved around unresolved issues with 12 regards to the infrastructure. 13 In response to the compilation of issues and the 14 findings and discussions that occurred throughout the 15 pre-hearing and technical conference, revised 16 application support documents were submitted in May 17 2010. They included additional technical data that we 18 managed to get from CGS archives and from other 19 sources, as-built drawings, support documents that were 20 not available or couldn't be found in the original 21 submission, responses to various questions that the 22 agencies had asked. Responses resolved issues where 23 possible, and others, as we go through this 24 presentation, you will find, have not been resolved. A 25 work plan was prepared for Community and Government 26 Services that outlined a program to address the</p>
<p style="text-align: center;">22</p> <p>1 right now, and fortunately, I've been working on this 2 for quite a long time, and with their direction, I have 3 a mandate of what to do today, and if I run into any 4 problems where I don't have the authority to comment or 5 respond, I will let you now. 6 As I mentioned, Community and Government Services 7 of the Government of Nunavut has retained our company 8 on behalf of the Hamlet of Arviat to prepare and submit 9 the Nunavut Water Board licence application for renewal 10 of the Arviat water use and waste disposal licence. 11 The initial submission was made in December of 12 2008. In the submission, there was a number of support 13 documents including an annual report for 2008, 14 operations and maintenance plans for the solid waste 15 sewage treatment facility and water supply facility, as 16 well as two other documents that were mandated in the 17 original water licence, that being an environmental 18 contingency plan and a monitoring program and QA/QC 19 plan. What we noticed when we did the initial 20 submission is that a lot of the requirements from the 21 initial water licence which expired had not been 22 fulfilled. 23 The focus of the application is the primary areas 24 of Hamlet infrastructure, solid waste, sewage 25 treatment, and water supply, and specifically those 26 activities of that infrastructure that could impact the</p>	<p style="text-align: center;">24</p> <p>1 outstanding issues, and CGS has been reviewing that. 2 This technical presentation will describe the 3 current condition of the facilities and discuss 4 regulatory deficiencies. There are some aspects of 5 some of these -- of the sewage treatment plant, the 6 water supply facility, and the waste management 7 facilities that are out of compliance with regulations, 8 and we'll outline how we'll go about addressing these 9 deficiencies. Community and Government Services has 10 directed us to prepare a list of what we're going to do 11 to address them and a time line to do that. 12 In the interim, we propose that the water licence 13 application include recommended conditions on the new 14 licence, recognizing that all the issues can't be 15 resolved at this time, and what conditions need to go 16 on the licence as work to be done in the future to be 17 addressed to bring all the facilities into compliance 18 with regulations. 19 General layout of the Hamlet of Arviat and the 20 location of the infrastructure in question: The main 21 part of the Hamlet, the water intake from Wolf Creek. 22 Also some people call it Wolf River. Active sewage 23 lagoon in this area, and the landfill next to it. 24 Bulky metals and material storage in the central part. 25 Solid waste management consists of three primary 26 components: The landfill site, the bulky metals area,</p>

<p style="text-align: center;">25</p> <p>1 and the hazardous waste storage area. In future, it 2 could include a landfarm. There is contaminated soil 3 currently stored at the bulky metals area. The 4 location of the solid waste facility next to the sewage 5 lagoons and the bulky waste storage area on the road 6 between the sewage lagoons and the solid waste and the 7 main part of the Hamlet.</p> <p>8 The landfill site is reaching capacity, and it's 9 within the take-off and approach pass of the runway for 10 the airport, and even on Hamlet planning diagrams, it 11 shows that there's a conflict of land use between the 12 landfill and the airport. A bird hazard study to 13 aircraft prepared by LGL Limited as part of our work in 14 locating a new landfill for the Hamlet indicated that 15 the landfill site as it currently sits is a potential 16 hazard because it attracts birds in the vicinity of the 17 runway, especially in the take-off and landing pass, so 18 it does not comply with Transport Canada regulations 19 for siting a landfill.</p> <p>20 This is the layout of the current landfill. It's 21 a fenced area, and it's mainly placed by just a dump 22 and moving ahead, a tipping phase, and intermittent 23 covering of the waste over time.</p> <p>24 Operational issues at the landfill: Lack of 25 cover; the fencing's been damaged, and litter is 26 allowed to blow on the tundra; there's some leachate</p>	<p style="text-align: center;">27</p> <p>1 site, and some of it was just bladed into the ground. 2 The amount has not been delineated, and the quality of 3 the soil has not been tested in a number of years. The 4 bulky metals area is not well defined. It's scattered 5 over a wide area, and there's very limited control of 6 what goes into it. There's some contaminated 7 materials, batteries and waste oil. The vehicles 8 aren't drained. So there needs to be some more control 9 on how the bulky metals area is operated.</p> <p>10 Recent picture of the bulky metals. Quite a 11 variety of materials. Some of it could be landfilled 12 as it's no longer needed for reuse and recovery.</p> <p>13 Hazardous waste storage is the third component of 14 a solid waste management facility. Right now it's a 15 combination of storing materials in the bulky metals 16 area and next to the Public Works garage. Barrels are 17 stacked haphazardly. There's no containment, and it's 18 not complied with Nunavut hazardous waste storage and 19 control regulations.</p> <p>20 This is what it looked like a year ago. Barrels 21 of materials, some on skids, some not. There's some 22 staining on the ground where there's been some spillage 23 and leakage.</p> <p>24 A landfarm might be needed in order to treat the 25 contaminated soils that are known to be stockpiled at 26 the bulky metals facility and may be needed to</p>
<p style="text-align: center;">26</p> <p>1 ponding outside the fence; and to date, there's been 2 very little monitoring. INAC inspections in 2008 and 3 2009 noted that compliance monitoring, as required by 4 the original licence that expired, has not been 5 satisfactorily undertaken.</p> <p>6 Also I mentioned bird hazards to aircraft. 7 There's a lot of birds attracted to the exposed waste. 8 You see the birds and the large areas of exposed waste. 9 I've talked to the Public Works foreman, and he says 10 that efforts are underway to try and address some of 11 these issues.</p> <p>12 Outside the fence in some periods of the year, 13 there's leachate ponding, so it's a dark purple water 14 with a strong odour from infiltrating rainwater into 15 the waste and leaching contaminates out and through the 16 berm and into the environment.</p> <p>17 The fencing in some sections of the landfill site 18 have broken down, and it allows waste and airborne 19 materials to blow out into the tundra. This is a 20 lagoon, an abandoned sewage lagoon that is next to the 21 landfill, and there's indications there's some leachate 22 possibly seeping through the berm. This has not yet 23 been confirmed; there's been no studies to date.</p> <p>24 The bulky metals area, there's some buried waste 25 out there. We don't really know how much. 26 Hydrocarbon-contaminated soil was piled out on the</p>	<p style="text-align: center;">28</p> <p>1 remediate soils from the hazardous waste storage area 2 and other places in the community. Right now there's 3 no landfarm in this community to handle contaminated 4 soil.</p> <p>5 In 2008, CGS retained Nuna Burnside to locate a 6 new solid waste management facility, with the intention 7 that the new facility would be in place and up and 8 running at the time that the water licence application 9 was going in, so the issues regarding the current solid 10 waste facilities and bulky metals and contaminated 11 soils could be addressed at this stage by a new 12 facility.</p> <p>13 A site was chosen. Mayor and Council approved it 14 and gave CGS the go-ahead to go into detailed design, 15 which was done. However -- and the site was 6.5 16 kilometres outside the Hamlet to the west along the 17 Dionne Road, and it would include landfill, hazardous 18 waste storage, bulky metals storage, and a landfarm, so 19 all the items that would be needed to address the 20 current issues with solid waste management.</p> <p>21 Public consultation for the new landfill site 22 occurred in 2008 and 2009. In early 2009, the Hamlet 23 indicated to CGS that they could not reach a consensus 24 on the location, and they wanted to complete their 25 community planning process first, and that's scheduled 26 for sometime this year.</p>

<p style="text-align: center;">29</p> <p>1 The Hamlet has also indicated to CGS that they're 2 interested in looking at alternative waste disposal 3 options other than landfilling. That could be 4 incineration, plasma reduction, non-oxygen consuming 5 reduction of waste. There's a variety of technologies 6 that are out there under different terminologies, but 7 in general, you're talking about some form of 8 incineration. Incinerators for this size of community 9 are easily in the area of 4 to \$6 million, and right 10 now CGS says they don't have the funding to do that. 11 So the issue of where the landfill site will go and 12 whether it will be incineration rather than landfill 13 along with some waste segregation is still up in the 14 air and needs to be resolved.</p> <p>15 So for the purpose of this application, we're 16 going to look at what we can do to make the best use of 17 the facilities that exist and bring them as close to 18 compliance with regulations as possible until the new 19 facility is designed and up and running.</p> <p>20 So it will take at least two years for a new site 21 to be approved and constructed and operational and the 22 old site to be decommissioned, and it may even take 23 longer than that if alternatives to landfills are going 24 to be the method of waste disposal the Hamlet selects.</p> <p>25 Compliance with the regulations: The existing 26 facilities do not meet regulatory requirements, so what</p>	<p style="text-align: center;">31</p> <p>1 including the leachate and the soil quality in the area 2 of the bulky metals and soil and runoff quality around 3 the hazardous waste storage area; determine the need 4 for a landfarm based on the quality of the soil that's 5 out there; and prepare a landfill site plan to maximize 6 the remaining capacity -- nobody's looked at the 7 landfill site in quite a number of years, so we don't 8 really know how much capacity is still out there -- and 9 prepare abandonment and restoration plans for all the 10 facilities; so over the next few years, as they are 11 decommissioned, how that will be done and how they will 12 be cleaned up and closed in a fashion that's 13 environmentally conscious. And submit the results of 14 this study with recommendations for whatever 15 engineering needs to be done by December 31st, 2010.</p> <p>16 At this point, I'd like to offer into exhibit a 17 work plan that CGS approved. It's dated June 23rd, 18 2010, and it's entitled "A Work Plan to Address INAC, 19 DFO, and NWB Licence Compliance Issues, GN File 20 08-3025", from Nuna Burnside to Mr. Bryan Purdy of the 21 Government of Nunavut-Department of Community and 22 Government services. And this is a work plan that was 23 approved by Community and Government Services for the 24 work that I will outline in this presentation today to 25 address the issues.</p> <p>26 At the pre-hearing and technical conference in</p>
<p style="text-align: center;">30</p> <p>1 we suggest is that the water licence reflect this with 2 conditions requiring specific upgrading to the sites to 3 get them as close to compliance as possible in 4 realistic terms until a new facility is constructed 5 that does meet the regulatory requirements. And the 6 water licence conditions recognize this may take 7 several years, so the idea is to focus on improving the 8 facilities right now until new facilities are 9 constructed.</p> <p>10 Suggestions for the conditions include improving 11 the landfill site operations and maintenance. A new 12 operations and maintenance plan was issued in May 2010, 13 and the Hamlet has yet to be trained on how to operate 14 that. Improved monitoring; improved hazardous waste 15 storage and handling; maybe moving the drums into a 16 central location; perhaps putting a temporary liner 17 down and storing materials on that. That has to be 18 resolved. In addition, an environmental assessment of 19 the waste disposal and storage areas just to see what 20 impact they're having on the environment at the moment.</p> <p>21 To address some of these issues, CGS, as of a few 22 weeks ago, approved Nuna Burnside conducting some of 23 this work this summer. So they've approved preparing 24 as-built plans for the bulky metals and the hazardous 25 waste storage areas; conducting environmental 26 assessment and sampling of the solid waste facilities,</p>	<p style="text-align: center;">32</p> <p>1 March, many of the issues that were talked about there 2 will be addressed in this work plan, and then I'll go 3 through them in this presentation today. I'm sorry we 4 didn't give you earlier notice, but CGS only approved 5 it recently.</p> <p>6 Sewage treatment facility: Truck sewage to a 7 single lagoon; seepage/exfiltration to a wetland 8 treatment area. There is limited data available how 9 the sewage treatment lagoon was originally designed and 10 how it was supposed to operate. We do have some 11 designed drawings, but we don't have any description 12 from the engineers who designed it of how it was 13 supposed to work or any pre-designed description of 14 what impact it would have on the environment, how many 15 years it would be suitable to remain in service, and no 16 indication on what the environmental impact would be to 17 the ocean and to the wetland area. So these are things 18 that we have to find out.</p> <p>19 This is the current in-use sewage lagoon 20 constructed in 2005. These are two older lagoons, and 21 the landfill is over here. The wetland treatment area 22 I've marked out is just this area where the 23 exfiltration out of the lagoon occurs. Apparently it 24 extends over a wider area in this region out here. 25 There are a number of furrows that have been created on 26 the tundra to direct flow over a long flow path before</p>

<p style="text-align: center;">33</p> <p>1 it exits into the ocean and out into the environment.</p> <p>2 When this was designed, the wetland treatment area</p> <p>3 was never defined. There was no modelling to determine</p> <p>4 just how big an area was needed, how long a flow path,</p> <p>5 and what would happen in it. Monitoring has been</p> <p>6 really sporadic, so the -- there's very little</p> <p>7 information on exactly how effective the wetland</p> <p>8 treatment area is having on the waste water that's</p> <p>9 exfiltrating from the lagoon.</p> <p>10 MS. MEADOWS: Mr. Chairman, if I might just</p> <p>11 interrupt for a second. Mr. Walls, you have provided</p> <p>12 the plan to the other interveners, have you not, this</p> <p>13 plan, the detailed plan?</p> <p>14 MR. WALLS: I have not, no.</p> <p>15 MS. MEADOWS: Okay, so you will follow up</p> <p>16 and provide them with the plan after the -- at the</p> <p>17 conclusion of your remarks?</p> <p>18 MR. WALLS: Yes. It's being entered as an</p> <p>19 exhibit. There's an electronic copy entered.</p> <p>20 MS. MEADOWS: Okay.</p> <p>21 MR. WALLS: And a hard copy.</p> <p>22 MS. MEADOWS: Okay, can you provide it in</p> <p>23 electronic form for the parties so that they'll be able</p> <p>24 to provide comments to you by tomorrow?</p> <p>25 MR. WALLS: Sure, absolutely.</p> <p>26 MS. MEADOWS: Thank you.</p>	<p style="text-align: center;">35</p> <p>1 At this point in time, over the next five years,</p> <p>2 we're requesting that the licence include conditions to</p> <p>3 conduct the studies and provide findings and</p> <p>4 recommendations by December 31st, 2010. Until we have</p> <p>5 a clear understanding of how the lagoon is operating</p> <p>6 and what impact it's having on the wetland, it's</p> <p>7 impossible to say whether it's an issue or not. So</p> <p>8 further action after that would be contingent on the</p> <p>9 findings of these studies.</p> <p>10 There's two out-of-service abandoned lagoons, as I</p> <p>11 pointed out, in between the landfill and the active</p> <p>12 lagoon. We looked at it in 2000 -- we looked at both</p> <p>13 of them in 2009 and did not see any environmental</p> <p>14 issues. However, no scientific study's been done, and</p> <p>15 that is something that needs to be done this year.</p> <p>16 Regulations require an appropriate abandonment and</p> <p>17 restoration plan for those two out-of-service lagoons.</p> <p>18 So we suggest that an abandonment and restoration plan</p> <p>19 be a condition of the licence, and that those plans be</p> <p>20 prepared by December 31st, 2010. That's the</p> <p>21 out-of-service lagoons.</p> <p>22 So Community and Government Services on behalf of</p> <p>23 the Government of Nunavut working on behalf of the</p> <p>24 Hamlet of Arviat has made the following commitments for</p> <p>25 2010 in the work plan that I referenced as an exhibit a</p> <p>26 few minutes ago, and that is to update the as-built</p>
<p style="text-align: center;">34</p> <p>1 MR. WALLS: As I mentioned, there's a lack</p> <p>2 of information on how the lagoon was supposed to</p> <p>3 operate prior to it being constructed. There's very</p> <p>4 limited monitoring data on how it is operating, and the</p> <p>5 impact to the environment, the predicted impact, was</p> <p>6 never done, and some studies of sewage lagoons in</p> <p>7 Nunavut by Fleming College and the University of</p> <p>8 Waterloo included sampling the discharge from the</p> <p>9 Arviat sewage lagoon into the wetland in 2008. So some</p> <p>10 data is around, but none of it is sufficient to really</p> <p>11 make an appraisal of how the lagoon is operating, and</p> <p>12 how it's going to operate in the next 20 years as the</p> <p>13 Hamlet grows.</p> <p>14 This is the fenced area of the lagoon, the main</p> <p>15 part of the lagoon. Apparently the levels in the</p> <p>16 lagoon don't get very high because it operates by</p> <p>17 continuous exfiltration, rather than annual discharge</p> <p>18 as it gets filled. So we don't have a good</p> <p>19 understanding of the retention time of the sewage in</p> <p>20 the lagoon. Another picture of the lagoon.</p> <p>21 So licence conditions: An evaluation of the</p> <p>22 lagoon, as I mentioned, is required. We have no idea</p> <p>23 how it's going to work in the long-term and whether the</p> <p>24 wetland is of sufficient size to accommodate the lagoon</p> <p>25 when the community is twice the size it is now in 30</p> <p>26 years.</p>	<p style="text-align: center;">36</p> <p>1 drawings and include the wetland treatment area as part</p> <p>2 of the sewage treatment system; conduct an</p> <p>3 environmental assessment of both the active and</p> <p>4 abandoned lagoons and determine what the impacts are on</p> <p>5 the environment, and that would include sampling the</p> <p>6 wetland treatment area, collecting sludge samples in</p> <p>7 the abandoned lagoons and in the active lagoons, and</p> <p>8 testing the water in all three lagoons and making an</p> <p>9 assessment of what we should do with the two abandoned</p> <p>10 lagoons and submit the results with recommendations by</p> <p>11 December 31st, 2010.</p> <p>12 So the findings of the study and recommendations</p> <p>13 would include what kind of engineering is needed to be</p> <p>14 done to improve the facility to meet regulatory</p> <p>15 requirements. There may have to be a liner put in,</p> <p>16 berm improvements, increase in the wetland treatment</p> <p>17 area, some alteration to how the system is operated,</p> <p>18 but until we study it effectively, we can't really</p> <p>19 comment at this time.</p> <p>20 The third item of the water licence is the water</p> <p>21 supply facility, and the water supply facility focus</p> <p>22 for the licence is not so much the quality of water</p> <p>23 that humans are drinking, it's more the focus is what</p> <p>24 impact is the facility of taking water out of Wolf</p> <p>25 Creek having on the environment. So the focus of the</p> <p>26 NWB, DFO, and EC is to determine what impact the water</p>

<p style="text-align: center;">37</p> <p>1 withdrawals are having on Wolf Creek and, in 2 particular, fish and fish habitat.</p> <p>3 The pumping to fill the reservoirs is conducted in 4 the late summer, and I believe they start in late 5 August and go into early September, and that's a point 6 in time when the creek levels are low and most 7 susceptible to impacts from water taking. Our initial 8 assessment is that it's highly unlikely that the water 9 takings that are happening now are affecting fish or 10 fish habitat in any significant manner, but until we 11 get out there and we have a really close look at the 12 morphology of the pond where the intake is and the 13 intake screens and the type of fish there, we can't say 14 for sure.</p> <p>15 This is the location of the intake out at Wolf 16 Creek, and you can see there's a large pond from -- in 17 this area. Again, the levels of water will vary 18 seasonally, and so what we need to do this summer is 19 determine the amount of flow through this area during 20 the pumping period and what effect that has on the -- 21 the overall effect on the river, on the quality of the 22 water in the river, and the fish habitat and fish.</p> <p>23 That's a visual of the pond, the pump house, a 24 fuel storage tank, and where the intake goes in.</p> <p>25 In this case, until we -- we have some as-built 26 drawings for the pump house that we've included in the</p>	<p style="text-align: center;">39</p> <p>1 and monitoring stations for river or creek level. It 2 may be that during pumping, it has to be stretched over 3 a longer period of time and pumped at lower rates in 4 order not to affect water levels. This is something we 5 need to find out. Submit the results with 6 recommendations by December 31st, 2010. So that gives 7 us the last half of the year and the summer period to 8 look at all these facilities and make some 9 determination of what's happening and provide the 10 results.</p> <p>11 Monitoring and reporting: The 2008 annual 12 monitoring report was submitted with the application. 13 It was somewhat deficient because there hadn't been 14 sampling conducted during the period, the five-year 15 period of the licence before that, and an INAC 16 inspection in 2008 and in 2009 noted monitoring and 17 reporting deficiencies.</p> <p>18 So CGS on behalf of the Hamlet has made the 19 following commitments for 2010: That CGS will retain 20 Burnside to assist in collecting the samples as 21 required by the licence and conduct additional sampling 22 of the environmental assessments of the facilities as 23 described earlier and train Hamlet staff to follow the 24 O & M plans and the monitoring plan. So, hopefully, we 25 can set up arrangements with Hamlet staff and the new 26 SAO this year so that, in future years, the Hamlet can</p>
<p style="text-align: center;">38</p> <p>1 new submissions, but we don't have enough information 2 to determine whether the pumping is actually impacting 3 fish or fish habitat, so we suggest that the water 4 licence be granted with the following conditions to 5 address the issues of pumping water from Wolf Creek, 6 including: Determining creek conditions, morphology, 7 and annual recharge, the presence of fish and fish 8 habitat, the impacts of the withdrawal, and the 9 long-term impacts based on the water requirements for 10 the next 20 years.</p> <p>11 As an engineering firm, we're always looking 20 12 and 30 years ahead to see whether these facilities are 13 sustainable over the long term and gain some idea of 14 when they need to be updated or replaced, so this 15 licence is a five-year licence, but we will be looking 16 longer than that. So the studies with recommendations 17 for action should be completed by December 31st, 2010. 18 That's a suggested condition for the licence.</p> <p>19 CGS on behalf of the Hamlet of Arviat has approved 20 the following work in the work plan I discussed 21 earlier: To update the as-built drawings and assess 22 the intake area morphology; evaluate the impacts of 23 pumping according to DFO guidelines, both their screen 24 intake guidelines and potential impacts to fish and 25 fish habitat; conduct sampling and establish monitoring 26 stations, both monitoring stations for water quality</p>	<p style="text-align: center;">40</p> <p>1 do the monitoring on their own. However, for 2010, 2 Nuna Burnside has been retained by CGS to conduct this 3 work. Also submit the results with recommendations by 4 December 31st, 2010.</p> <p>5 Agency comments and input: Throughout this 6 process, various regulatory agencies have been 7 providing their input and have been extremely 8 cooperative and quite helpful in providing advice and 9 recommendations to -- for CGS to practically meet the 10 mandatory -- the mandate of their regulatory 11 requirements in light of the seasons that we're dealing 12 with in Nunavut and the time lines here to do a study, 13 come up with results, and then proceed to engineering, 14 if needed.</p> <p>15 A compilation of issues, as I discussed earlier, 16 was provided prior to the technical meeting and 17 pre-hearing conference, and they were discussed 18 throughout the technical meeting and pre-hearing 19 conference. So most of those issues that could be 20 addressed were addressed in the revised documents 21 issued in May, and the rest of them are here on the 22 table to discuss today, and the additional comments 23 provided in June 2010 have been reviewed, and most of 24 the issues that they brought up will be addressed in 25 the proposed work plan that we've set for this summer. 26 So as I mentioned, the work plan of June 23rd,</p>

<p style="text-align: center;">41</p> <p>1 2010, that's been entered as an exhibit is a series of 2 steps, environmental assessments, as-builts, 3 abandonment and restoration plans to evaluate the 4 facilities and the outstanding issues identified by the 5 regulatory agencies, and what can be addressed this 6 year will be addressed and brought into compliance, and 7 outstanding issues will be part of the conclusions and 8 recommendations to be submitted by December 31st, 2010, 9 for future engineering and future work that may need to 10 be done. I can't commit to future engineering or 11 future work at this point, all I can commit to is the 12 environmental assessments and as-built drawings and the 13 work that I've described that we'll do this year. So 14 the work plan has been approved, and these are the 15 items that will be conducted, as I mentioned, this 16 year.</p> <p>17 So in summary, CGS on behalf of the Hamlet 18 recognizes there are issues out of compliance with 19 various regulatory agency requirements. The current 20 situation does not comply with NWB mandate, but we feel 21 that CGS on behalf of the Hamlet has demonstrated 22 considerable efforts to work towards compliance, both 23 in finding out what needs to be done and putting 24 together some of the background history and what we do 25 know, and developing the current work plan for 2010 26 will address many of the issues and identify what needs</p>	<p style="text-align: center;">43</p> <p>1 MS. TUNALEY: Thank you, Mr. Chair. I just 2 would like to go over the list of exhibits that have 3 been submitted so far.</p> <p>4 So the first is the PowerPoint presentation in 5 hard copy provided by Jim Walls, entitled "Public 6 Hearing Type A Water Licence Renewal Application 7 3AM-ARV, Hamlet of Arviat Technical Presentation".</p> <p>8 The second exhibit is the PowerPoint presentation 9 I just mentioned in electronic version also provided by 10 Jim Walls.</p> <p>11 The third exhibit is the letter from Jim Walls of 12 Nuna Burnside Engineering and Environmental Limited, 13 "Re: Work plan to address DFO and NWB licence 14 compliance issues, GN File 08-3025, Hamlet of Arviat, 15 Nunavut, File Number N-0-15746-1", dated June 23rd, 16 2010, in hard copy.</p> <p>17 And the final one is Exhibit Number 4, which is an 18 electronic version of the letter I just mentioned 19 provided by Jim Walls.</p> <p>20 Thank you, Mr. Chair.</p> <p>21 THE CHAIR: Thank you.</p> <p>22 EXHIBIT 1 - HARD COPY POWERPOINT PRESENTATION 23 PROVIDED BY JIM WALLS, ENTITLED "PUBLIC HEARING 24 TYPE A WATER LICENCE RENEWAL APPLICATION 3AM-ARV, 25 HAMLET OF ARVIAT TECHNICAL PRESENTATION". 26 EXHIBIT 2 - ELECTRONIC VERSION OF POWERPOINT</p>
<p style="text-align: center;">42</p> <p>1 to be done to bring the facilities into compliance, and 2 hopefully achieve full compliance throughout the 3 five-year period of the licence that's currently being 4 applied for.</p> <p>5 So the Hamlet of Arviat requests that the water 6 licence be issued for five years with conditions, and 7 the conditions to include: Conducting the recommended 8 work as outlined in the work plan of June 2010 that has 9 been approved by CGS to be conducted this summer and 10 delivered by December 31st, 2010. The condition also 11 to conduct further studies and engineering as required 12 and as recommended in those reports to be delivered at 13 the end of this year to achieve compliance over the 14 long term.</p> <p>15 Thank you, Qujannamiik. Any questions?</p> <p>16 THE CHAIR: Thank you, Mr. Walls. Before 17 we get into that, we will take a 15-minute break. 18 (ADJOURNMENT)</p> <p>19 THE CHAIR: We're just waiting for a 20 couple more individuals to come back from their 21 errands, and we will proceed after they get back. 22 Thank you.</p> <p>23 (ADJOURNMENT)</p> <p>24 THE CHAIR: Let's reconvene, and before we 25 get back to the agenda, I do believe we have some 26 housekeeping items.</p>	<p style="text-align: center;">44</p> <p>1 PRESENTATION PROVIDED BY JIM WALLS, ENTITLED 2 "PUBLIC HEARING TYPE A WATER LICENCE RENEWAL 3 APPLICATION 3AM-ARV, HAMLET OF ARVIAT TECHNICAL 4 PRESENTATION".</p> <p>5 EXHIBIT 3 - HARD COPY OF A LETTER FROM JIM WALLS OF 6 NUNA BURNSIDE ENGINEERING AND ENVIRONMENTAL 7 LIMITED, "RE: WORK PLAN TO ADDRESS DFO AND NWB 8 LICENCE COMPLIANCE ISSUES, GN FILE 08-3025, HAMLET 9 OF ARVIAT, NUNAVUT, FILE NUMBER N-0-15746-1", DATED 10 JUNE 23, 2010.</p> <p>11 EXHIBIT 4 - ELECTRONIC VERSION OF A LETTER FROM JIM 12 WALLS OF NUNA BURNSIDE ENGINEERING AND 13 ENVIRONMENTAL LIMITED, "RE: WORK PLAN TO ADDRESS 14 DFO AND NWB LICENCE COMPLIANCE ISSUES, GN FILE 15 08-3025, HAMLET OF ARVIAT, NUNAVUT, FILE NUMBER 16 N-0-15746-1", DATED JUNE 23, 2010.</p> <p>17 MS. FILIATRAULT: Mr. Chairman, Dionne 18 Filiatrault.</p> <p>19 Just in relation to the exhibits that were filed, 20 the June 23rd Nuna Burnside letter from Jim Walls to 21 Bryan Purdy does have within the content of it new 22 evidence. We have provided copies to the parties, the 23 official intervening parties. If those parties will 24 allow -- recognize that there's going to need to be a 25 period of time to allow them to review the information, 26 and, Mr. Chairman, I would suggest allowing that</p>

<p style="text-align: center;">45</p> <p>1 opportunity and proceeding with the questioning of the</p> <p>2 Applicant based on his presentation that he's provided,</p> <p>3 but recognizing to Mr. Walls that additional</p> <p>4 questioning either later today or tomorrow following</p> <p>5 some clarification from the parties. There may need to</p> <p>6 be additional time set aside for questioning to the</p> <p>7 Applicant based on the Exhibits 3 and 4.</p> <p>8 THE CHAIR: Thank you. Do we have any</p> <p>9 objections from the parties? Thank you.</p> <p>10 Moving on to -- back to the agenda. We have</p> <p>11 questioning of the Applicant by parties. The first</p> <p>12 part we will begin with INAC, questions from INAC to</p> <p>13 the Applicant.</p> <p>14 <u>INAC QUESTIONS CGS-GN:</u></p> <p>15 MR. PARSONS: Mr. Chairman, Ian Parsons,</p> <p>16 INAC.</p> <p>17 I've just got one question for the Applicant.</p> <p>18 Your work plan there for this year, it's a lot of work,</p> <p>19 and INAC was just wondering the time lines and if the</p> <p>20 time lines can't be met, how early would you be able to</p> <p>21 identify that and give us some information as to when</p> <p>22 the extension of those time frames will be given to us?</p> <p>23 MR. WALLS: Jim Walls, Nuna Burnside on</p> <p>24 behalf of CGS.</p> <p>25 I don't think we have a problem with the time</p> <p>26 lines. It's only the 20th of July, and the work's been</p>	<p style="text-align: center;">47</p> <p>1 that's a possibility.</p> <p>2 MR. PARSONS: Mr. Chairman, Ian Parsons,</p> <p>3 INAC.</p> <p>4 Those responses are great. Thank you. Thank you,</p> <p>5 Jim Walls, Nuna Burnside. No more questions at this</p> <p>6 time.</p> <p>7 THE CHAIR: Thank you. Environment</p> <p>8 Canada?</p> <p>9 MS. SMITH: Mr. Chairman, this is Paula</p> <p>10 Smith, Environment Canada.</p> <p>11 I don't have any questions or comments to the</p> <p>12 Proponent at this time.</p> <p>13 THE CHAIR: Thank you. We have DFO.</p> <p>14 <u>DFO QUESTIONS CGS-GN:</u></p> <p>15 MR. COOPER: Mr. Chairman, Gary Cooper,</p> <p>16 DFO.</p> <p>17 I have one question, Jim. It's similar to INAC's</p> <p>18 question. So are you planning to send something out to</p> <p>19 all the agencies kind of -- especially, you know, in</p> <p>20 relation to our mandate? Would you be sending</p> <p>21 something out on what you're actually going to collect</p> <p>22 this summer?</p> <p>23 MR. WALLS: Jim Walls, Nuna Burnside.</p> <p>24 Our plan would be, once we get ready to go in the</p> <p>25 field, that we would talk to you or the various</p> <p>26 agencies that had questions just to make sure that what</p>
<p style="text-align: center;">46</p> <p>1 approved, so we're already scheduling fieldwork, and as</p> <p>2 I mentioned to you, would like to line up one of our</p> <p>3 field days to coincide with the INAC inspector's visit,</p> <p>4 and because of seasonal conditions, we have to have all</p> <p>5 the seasonal work done, you know, well before, say,</p> <p>6 mid-September, and then it would just be a matter of</p> <p>7 reporting before Christmas, and I don't see that as an</p> <p>8 onerous task either, so we think that the work is</p> <p>9 easily do-able and deliverable as outlined.</p> <p>10 MR. PARSONS: Mr. Chairman, Ian Parsons,</p> <p>11 INAC.</p> <p>12 That response is fine, but just in case something</p> <p>13 happens that it can't be, is there a backup plan or --</p> <p>14 as such?</p> <p>15 MR. WALLS: Jim Walls, Nuna Burnside.</p> <p>16 If we run out of season, there's no backup plan</p> <p>17 until next season, and so I think what we would do is</p> <p>18 we'd identify that in our final reports at the end of</p> <p>19 the year, and we could probably alert agencies ahead of</p> <p>20 time.</p> <p>21 If there was an issue with deliverables of the</p> <p>22 reporting part of it after the field season is over, we</p> <p>23 can certainly identify that as soon as we were aware of</p> <p>24 any issues regarding deliverables, and then the</p> <p>25 deliverables would -- may be postponed into January or</p> <p>26 February of 2011. I don't see that as an issue, but</p>	<p style="text-align: center;">48</p> <p>1 we're planning to sample has got the parameters that</p> <p>2 make sense.</p> <p>3 I mentioned that Environment Canada had a toxicity</p> <p>4 testing that we weren't quite clear on what exactly</p> <p>5 they were looking for, so we'll get that one sorted out</p> <p>6 before we go.</p> <p>7 And then when we're in the field, we'll let you</p> <p>8 know what we're finding and just make sure that, you</p> <p>9 know, before we end our field season that we've got</p> <p>10 everything we think we need in order to address the</p> <p>11 issues. And if we see anything that's untoward or that</p> <p>12 we can't deal with, we'll let you know. And that will</p> <p>13 be in the final reports, but we'll give you a heads-up</p> <p>14 ahead of time.</p> <p>15 We want to make sure that what we collect during</p> <p>16 the field season meets the needs. So we don't want to</p> <p>17 go out and do our work in complete isolation from</p> <p>18 talking to the regulatory agencies. We want to make</p> <p>19 sure that we go once, do it once, and get it all.</p> <p>20 MR. COOPER: Mr. Chairman, Gary Cooper,</p> <p>21 DFO.</p> <p>22 Thank you, Nuna Burnside. No further questions at</p> <p>23 this time.</p> <p>24 THE CHAIR: Thank you. Before I begin</p> <p>25 with the public, I'd like to acknowledge the presence</p> <p>26 of the two elders, Annie Sewoee and Mary Tulugak.</p>

<p style="text-align: center;">49</p> <p>1 Welcome to the public hearing.</p> <p>2 And I would like to now move on to questions from</p> <p>3 the public to the Applicant.</p> <p>4 <u>PUBLIC QUESTIONS CGS-GN:</u></p> <p>5 MS. TULUGAK: I would just like to ask a</p> <p>6 question if they can ask anything they want to ask. I</p> <p>7 just came in and was listening to the local radio, and</p> <p>8 I wasn't really sure what the meeting was about because</p> <p>9 there's different names of the board, and I wasn't</p> <p>10 really sure what the meeting was going to be about, but</p> <p>11 Mrs. Aglukark went on the radio and explained properly</p> <p>12 about this meeting, so hopefully at lunchtime, someone</p> <p>13 could go on the radio and explain the purpose of this</p> <p>14 meeting as residents of the community, especially the</p> <p>15 older people.</p> <p>16 I had in mind that when Dorothy went on the radio</p> <p>17 about the water we get, if the reservoirs would be</p> <p>18 moved or the water will be obtained from -- maybe from</p> <p>19 another river, but if we can get a different source of</p> <p>20 water because we all know that many of the lakes are</p> <p>21 drying up and that we would know that we have to make</p> <p>22 sure that where we get the water from doesn't dry up in</p> <p>23 coming years, so I think it's better to get our own</p> <p>24 water from a creek or a river.</p> <p>25 I came here one time when the housing was holding</p> <p>26 a meeting, and I usually like to attend meetings</p>	<p style="text-align: center;">51</p> <p>1 would like to thank the Nunavut Water Board for giving</p> <p>2 me something to eat and for giving me tea. We all have</p> <p>3 stomachs and that they provided us with an apple to</p> <p>4 eat. And also that I would wish the work -- I would</p> <p>5 encourage the Water Board for the work they do because</p> <p>6 we would -- I would encourage the Water Board to do</p> <p>7 their work properly, and that I was given the</p> <p>8 opportunity to eat and to have something to drink.</p> <p>9 Thank you very much.</p> <p>10 That's all I have, and I thank you.</p> <p>11 THE CHAIR: Qujannamiik, Annie. Any more</p> <p>12 questions to the Applicant by the public?</p> <p>13 MR. KIGUSIUTNAK: Regarding the Wolf Creek, the</p> <p>14 water we get from there, I think that area is going to</p> <p>15 be used for a few more years because it is very</p> <p>16 shallow, and there is a bigger lake about 13 miles from</p> <p>17 the community, and there's a river about 15 miles from</p> <p>18 the community, and also the Maguse River is about 30</p> <p>19 miles that won't run dry. I think the Wolf Creek might</p> <p>20 be good enough for five years, but after five years,</p> <p>21 maybe there won't be enough water to get from that</p> <p>22 creek, and it's also getting contaminated every year.</p> <p>23 And also the garbage and the sewage are too close</p> <p>24 to the airstrip, and I just believe that those areas</p> <p>25 are too close for the plane when it's landing. Arviat</p> <p>26 doesn't have proper heavy equipment, so maybe if the</p>
<p style="text-align: center;">50</p> <p>1 because you get a good idea about what is being talked</p> <p>2 about in the community, so I would think that it would</p> <p>3 be better to get water from a creek.</p> <p>4 Thank you. My name is Mary Tulugak.</p> <p>5 THE CHAIR: Thank you, Mary. Jim Walls?</p> <p>6 MR. WALLS: Thank you, Mary, for your</p> <p>7 input. I agree climate change has been shown to be</p> <p>8 affecting some of the lakes and rivers in Nunavut, and</p> <p>9 we have looked at some issues in Arviat with a climate</p> <p>10 change study done on Arviat over the past year, and one</p> <p>11 of our planning staff participated in that.</p> <p>12 One of our roles this summer is to look at Wolf</p> <p>13 Creek and where the water is coming from and whether</p> <p>14 that is sustainable over the next -- at least for the</p> <p>15 period of the water licence, five years, and in the</p> <p>16 future. So we intend to look at that this summer to</p> <p>17 see how much water is in Wolf Creek, and whether taking</p> <p>18 water from Wolf Creek is sustainable in the long term.</p> <p>19 I will be talking to elders in the community later</p> <p>20 this summer when we're out looking at the creek and get</p> <p>21 their input. Thank you.</p> <p>22 THE CHAIR: Thank you. Do you have any</p> <p>23 more questions, Mary?</p> <p>24 MR. SULUK: She doesn't have anything to</p> <p>25 say.</p> <p>26 MS. SEWOEE: My name is Annie Sewoee. I</p>	<p style="text-align: center;">52</p> <p>1 community can get proper heavy equipment. And also we</p> <p>2 have to move that metal dump to another area, and also</p> <p>3 we have to consider the growth of the community and</p> <p>4 that the community seems to be moving towards the</p> <p>5 south.</p> <p>6 And also I was born in the community and a local</p> <p>7 resident. I know that it's very -- community -- the</p> <p>8 land around Arviat is very slushy. We even have a</p> <p>9 house closer to the garbage area. Even I realize that</p> <p>10 the landfill is sinking because maybe we have to start</p> <p>11 thinking of an area for houses to be built maybe</p> <p>12 further north where the land is more solid.</p> <p>13 I think some lakes can be drained for the</p> <p>14 community, and maybe the reservoir that we have right</p> <p>15 now might be too close to the community for all the</p> <p>16 houses that are being built.</p> <p>17 I think somehow all things have to be properly</p> <p>18 planned because Arviat is a beautiful community.</p> <p>19 And also the sewage lagoon does not seem to be in</p> <p>20 order because it seems to be too close to the ocean</p> <p>21 where we set our nets. And also the garbage dump and</p> <p>22 that sewage lagoon seem to be too close to the sea, to</p> <p>23 the ocean. And also they seem to be too close to that</p> <p>24 airstrip because we have lots of seagulls and geese in</p> <p>25 that area. And in the winter time, there's ravens,</p> <p>26 crows that are always flying around in the winter time.</p>

<p style="text-align: center;">53</p> <p>1 There are always that many even in the winter time. 2 The garbage -- lots of birds even in winter. 3 So I think something has to be done so that the 4 community should be in a better position and also the 5 land towards -- north of Arviat can become an airstrip 6 because that area is very smooth, and it's not that 7 mushy, so I believe that area can be -- can become an 8 airstrip. Because when you go to another community, 9 some airstrips are further from the community, so I 10 think that area would be suitable for an airstrip. 11 Somehow Arviat has to become properly planned. I 12 believe in the future, it's going to become crowded. I 13 believe something has to be done to correct all these 14 problems, the garbage, the sewage lagoon, and the water 15 reservoir have to be properly put in place. 16 There's a lake further up north that can be 17 accessed using proper heavy equipment if the Arviat 18 community can be given a proper loader, dump trucks. 19 Right now the heavy equipment are too small and that 20 they don't have enough to do all the work needed in the 21 community. 22 So I believe something has to be done in the near 23 future. Thank you. That's all I have. My name is 24 James Kigusiutnak. 25 THE CHAIR: Thank you. Mr. Walls? 26 MR. WALLS: Thank you, James, for your</p>	<p style="text-align: center;">55</p> <p>1 shallow all the way down. Maybe it would be nice to 2 trench some areas by acquiring gravel from under the 3 ocean. I watch the work that they do on TV. So I 4 would like to see in the future something be done about 5 trenching the bay. I have heard that our bay is too 6 shallow, so it would be useful to trench our bay. 7 Our community will be around for many more years 8 in the future for the -- our next generation, and I 9 would like to see something done about the port 10 facilities, so that's what I have in mind, and that I 11 have heard these issues from the local community and to 12 obtain better port facilities. 13 So I remember back in 1957 when the Government 14 came into the community, I remember two area 15 administrators that they have come to the community to 16 help, and that there was a famine that time, and they 17 came to talk to my mother and that the Inuit from the 18 land were brought into the community. And I remember 19 the community helped a lot of the people back in 1957 20 when the Department of Northern Affairs came into the 21 community. I believe they came in from Inuvik or 22 somewhere. 23 I remember they came to ask my mother if she would 24 agree, and I remember when they came in, I was 9 years 25 old, and now that I am 65 years old, I am a retired 26 person. I remember when Department of Northern Affairs</p>
<p style="text-align: center;">54</p> <p>1 comments. I've taken some notes on your comments here, 2 and I don't have a direct answer. There's quite a 3 number of issues that you've identified, and we agree 4 that those are issues, especially with the community 5 growing, I see a lot of children in this community, and 6 planning for the future is definitely very important. 7 And later on in the summer, we'll be back two more 8 times doing fieldwork, so if it's possible, we'll try 9 and talk to you then and get some of your ideas when 10 we're collecting information on the sewage lagoon and 11 the water intake from Wolf Creek. Thank you. 12 THE CHAIR: Is it understandable? Do you 13 have any more questions? Do you have any more 14 questions? 15 MR. KIGUSIUTNAK: I have a question about if -- 16 I support what will be done to that community. 17 Also the docking area of the ships is very 18 shallow. Even some ships and barges that come to the 19 communities seem to be in a situation where this -- the 20 bay is very shallow, and even some ships don't even 21 come close to the community, and I think I've watched 22 on TV that some try and make it deeper. So maybe in 23 the future, looking at 30 years, we have heard that 24 something was going to be done, so somehow the docking 25 facilities has to be done. Maybe improve the docking 26 facilities for boats and other -- our bay is very</p>	<p style="text-align: center;">56</p> <p>1 came back in 1969. I have been involved in different 2 areas of departments. I have been a janitor for many 3 years. I worked with the health centre and worked with 4 the Government for many years. I have retired due to 5 my problems. I am now unemployed. 6 But what I have heard being discussed by different 7 groups and committees that the community is kind of 8 messy and dirty and that the community's too close to 9 the point, and we have to start doing something about 10 our water and other areas like the dump. 11 I like to eat mammals, so I would like nothing 12 done about them, and that our hunting ground not be 13 damaged or disturbed, and I eat a lot of country food. 14 I hardly eat southern food, and that I mostly eat 15 mammals and other land animals. So I would like 16 wildlife and the environment to be properly looked 17 after, so I would agree what the plans are for the 18 benefit of community. 19 Thank you, Chairman. 20 THE CHAIR: Qujannamiik. Mr. Walls? 21 MR. WALLS: No particular response, other 22 than thank you very much for your input, and it's 23 appreciated. 24 THE CHAIR: Thank you. I see by my clock 25 here that it's 11:56. We will now break for lunch and 26 reconvene at 1:30 this afternoon. Thank you.</p>

<p style="text-align: center;">57</p> <p>1 (LUNCHEON ADJOURNMENT AT 11:56 AM) 2 (PROCEEDINGS RECOMMENCED AT 1:41 PM) 3 THE CHAIR: Welcome back, everyone. We 4 will reconvene. 5 Next on the agenda is questions by Staff to the 6 Applicant. 7 <u>NWB STAFF QUESTION CGS-GN:</u> 8 MR. HOHENSTEIN: Thank you, Mr. Chair, David 9 Hohenstein, Water Board. 10 We've got about eight questions for the Applicant, 11 and I'll start off with a couple of general questions 12 and kind of a follow-up to INAC's initial question on 13 the work plan and whether or not the Applicant feels 14 that the work plan for the summer will be adequate to 15 assess the facilities, given that, you know, there's a 16 dynamic system out there with the sewage treatment and 17 the wetland, and I guess whether or not, you know, 18 there's any indication for -- or from the Applicant, 19 GN-CGS, as to funding for follow-up seasons, if 20 required. Thank you. 21 MR. WALLS: Jim Walls, Nuna Burnside for 22 CGS and the Hamlet of Arviat. 23 First of all, the adequacy of the work, given the 24 seasonality that we're dealing with up here, I honestly 25 don't know. I believe we will be able to get 26 sufficient information, but until we get in it and</p>	<p style="text-align: center;">59</p> <p>1 MR. HOHENSTEIN: Thank you, Mr. Chair. A 2 follow-up question I guess to the answers that 3 Mr. Walls presented. 4 With regards to the approval of the work plan for 5 2010, it's unfortunate we don't have the GN-CGS here 6 present to be able to answer the questions directly, 7 but we were wondering if there's actual written 8 confirmation from the GN-CGS confirming approval of the 9 work plan. We looked at the document that was 10 submitted this morning, and it's the work plan itself, 11 but as far as confirmation from the CGS that it's been 12 approved, would there be a possibility of acquiring 13 that before hopefully the end of the hearing? 14 MR. WALLS: Jim Walls, Nuna Burnside. 15 Yes, we have an approved change order to an 16 existing contract for the work described therein, and 17 last week, I just confirmed it verbally that everything 18 was in place with Wayne Thistle, the regional projects 19 manager, before he headed to Iqaluit because I wanted 20 to make doubly sure that what I was presenting today 21 was, in fact, true, and he reiterated that, yes, it had 22 been signed off and that -- and we were approved to 23 start work, and we're approved to deliver the work plan 24 and announce CGS having approved the work at the 25 hearing today. 26 A follow-up from that, I could arrange for Wayne to</p>
<p style="text-align: center;">58</p> <p>1 start doing some of the scientific work and see some of 2 the results, I can't say for sure. 3 With regards to the wetland, there's a new model 4 that's become available to evaluate wetlands in Arctic 5 environments, and we plan to use that. So that remains 6 to be seen, and the results, our conclusions, and our 7 recommendations for either engineering or more work 8 will be in our report. By the time we get all the 9 results back, it will be late in the season, and we 10 won't be able to do too many more sampling rounds. We 11 hope to be out there to do two sampling rounds this 12 summer, and we'll see what we can work on from there. 13 That's an answer to the first question, so we'll 14 do the best we can, but we think we'll be able to get a 15 very reasonable answer this year on what the situation 16 is. We have a lot of experience with wetlands in these 17 type of situations, so we feel pretty positive that we 18 can come up with an answer. 19 The second part of your question was commitments 20 from CGS beyond 2010. There are no commitments. The 21 only commitment we have is the work plan that we laid 22 out to provide them the findings and give them 23 recommendations on what to do in future years to 24 address whatever issues remain noncompliant, but they 25 indicated that there's been no funding set aside to do 26 any further work after that time.</p>	<p style="text-align: center;">60</p> <p>1 send you an e-mail to that effect maybe tonight. 2 THE CHAIR: Staff? 3 MR. HOHENSTEIN: Thank you, Mr. Chair. I'll 4 turn the questions over to Sean Joseph, Technical 5 Advisor. 6 MR. JOSEPH: Thank you, Mr. Chairman. 7 My first question goes to Nuna Burnside, Jim 8 Walls. In your presentation, you actually mention that 9 a bird hazard to aircraft study was done by LEL (sic) 10 Limited, and I'm wondering whether or not -- prior to 11 going on to that, that study has said, indicated that 12 the site is a potential hazard, and I'm wondering 13 whether you would be able to provide the Board with a 14 copy of that study. 15 MR. WALLS: Jim Walls, Nuna Burnside on 16 behalf of CGS and the Hamlet. 17 Yeah, the work was done by LGL as part of our 18 landfill site assessment project to locate a new 19 landfill for the Hamlet. I believe it was finished in 20 2008, and yes, we can provide a copy. 21 There was two different studies done, if I 22 recall -- no, there was only one, and yes, we can 23 provide it. It's in CGS archives. I can arrange to 24 have it provided, but it's pretty definitive in that 25 the landfill site does not meet Transport Canada 26 guidelines in its present location with respect to the</p>

<p style="text-align: center;">61</p> <p>1 proximity to the airport.</p> <p>2 In fact, I have it here, so I can provide it to</p> <p>3 you today. I have it in electronic form.</p> <p>4 MR. JOSEPH: Yeah, that would be fantastic</p> <p>5 if we were to get a copy of that study today.</p> <p>6 The second question I have, it's with regard to</p> <p>7 authorization of the licencing requirement that</p> <p>8 regulates the distance between the airstrip and the</p> <p>9 waste site. Do you know of any set of existing</p> <p>10 authorization or regulation that stipulate the</p> <p>11 requirements for those -- the distances that the</p> <p>12 airstrip should be -- that an airstrip should be with</p> <p>13 respect to the waste site?</p> <p>14 MR. WALLS: Jim Walls, Nuna Burnside.</p> <p>15 Yes, there are. There's planning issues. The</p> <p>16 Hamlet's community plan, of which I have a copy here,</p> <p>17 dictates, I believe, 450 metres from the waste site to</p> <p>18 conflicting land uses, such as residential and</p> <p>19 airports. So on their land use plan, there is an</p> <p>20 obvious conflict showing, and I can put the poster up</p> <p>21 in a few minutes.</p> <p>22 The Federal Department of Transportation</p> <p>23 regulations do not specify specific distances, but they</p> <p>24 specify how studies should be done, and what's to be</p> <p>25 taken into consideration when the studies are done as</p> <p>26 far as proximity of landfills to airports. Essentially</p>	<p style="text-align: center;">63</p> <p>1 the scope of the report, and the guidance document</p> <p>2 itself is referenced, and the guidance document, I</p> <p>3 believe, is on line, so you can download it if you want</p> <p>4 to read the guidance document.</p> <p>5 MR. JOSEPH: My final question has to do</p> <p>6 with the old site with respect to abandonment and</p> <p>7 restoration. We want to know if an assessment will be</p> <p>8 done on that particular site, on the old dump site;</p> <p>9 will you conduct an environmental assessment on it?</p> <p>10 MR. WALLS: Jim Walls, Nuna Burnside.</p> <p>11 Yes, in our June 23rd, 2010 work plan you probably</p> <p>12 haven't had an opportunity to scrutinize, we outline</p> <p>13 that we will be doing an environmental assessment on</p> <p>14 the old dump site, on the bulky waste site, and on the</p> <p>15 hazardous waste storage area, and we also will be doing</p> <p>16 an assessment of the remaining capacity in the old</p> <p>17 landfill and determining what we can do to eke out a</p> <p>18 few more years of capacity before it has to be closed</p> <p>19 because we know it's going to be a few years before</p> <p>20 something can be put in place to replace it.</p> <p>21 MR. JOSEPH: Maybe I wasn't as specific as</p> <p>22 I ought to have been there, but when I say "old dump</p> <p>23 site", I'm referring to basically the ones that are</p> <p>24 historical, you know, the ones that are no longer in</p> <p>25 use. For example, we have the former Honey Bag site,</p> <p>26 for example. We have a former middle camp (sic) here</p>
<p style="text-align: center;">62</p> <p>1 anything within 8 kilometres has to be evaluated. You</p> <p>2 have to do a bird hazard to aircraft study. And of</p> <p>3 course, the landfill that's out there right now and, in</p> <p>4 fact, any of the sites that we were looking at for the</p> <p>5 Hamlet of Arviat are well within the 8 kilometre radius</p> <p>6 of the airport.</p> <p>7 So anything for this Hamlet would have to be</p> <p>8 scrutinized with a -- first, a desktop or a Phase 1</p> <p>9 bird hazard to aircraft study, and then depending on</p> <p>10 the findings, go to Stage 2. So the report that I will</p> <p>11 be providing you from LGL will have in the introduction</p> <p>12 and preamble a description of the Federal guidelines.</p> <p>13 And the document -- I can't remember the exact title,</p> <p>14 it's something about hazards in the skies or whatever,</p> <p>15 the DOT document that referenced -- that that</p> <p>16 document -- that the report is designed to comply with,</p> <p>17 so all the answers to that question will be in that</p> <p>18 document.</p> <p>19 MR. JOSEPH: You also mention that</p> <p>20 Transport Canada has -- it didn't provide specific</p> <p>21 distances; however, it provided some guidelines. Would</p> <p>22 that guideline be included in that document as well, or</p> <p>23 will it just be referenced?</p> <p>24 MR. WALLS: Jim Walls again.</p> <p>25 The -- a brief outline of what the guidance</p> <p>26 document dictates is in the report because that sets</p>	<p style="text-align: center;">64</p> <p>1 as well. So I'm talking about more or less the sort of</p> <p>2 legacy sites, as opposed to, you know, the sites that</p> <p>3 you have sort of semi-active at this point.</p> <p>4 MR. WALLS: Jim Walls, Nuna Burnside.</p> <p>5 No, that wasn't part of this mandate. We did look</p> <p>6 at them previous, and I believe -- and I would have to</p> <p>7 confirm this -- that one of our earlier reports on</p> <p>8 evaluating potential landfill sites, potential new</p> <p>9 landfill sites, may have commented on the potential use</p> <p>10 of those sites or their existence.</p> <p>11 I know I have personally traversed them and looked</p> <p>12 at them to see whether there were any issues when I was</p> <p>13 doing some community reconnaissance in 2008 and in 2009</p> <p>14 with Brian Duguay of CGS, and we didn't see anything of</p> <p>15 concern in those areas. And given the age of the</p> <p>16 waste, we didn't think that they needed any work. So</p> <p>17 our current work plan does not include any of those</p> <p>18 sites, and none of those sites have been included on</p> <p>19 the Water Board licence or have been raised in issue to</p> <p>20 date.</p> <p>21 MR. JOSEPH: Mr. Chairman, I would like to,</p> <p>22 if you don't mind, I would like to pass it on to</p> <p>23 Karlette Tunaley.</p> <p>24 THE CHAIR: Go ahead.</p> <p>25 MS. TUNALEY: Thank you, Mr. Chairman. I</p> <p>26 have three questions for Mr. Jim Walls.</p>

<p style="text-align: center;">65</p> <p>1 My first question has to do with the water use. 2 Currently the licence or the previous licence allowed 3 for 81,000 cubic metres annually, and the application 4 documents suggest that within the requested five-year 5 term, by 2014, 83,700 cubic metres would be required to 6 satisfy the community. So I just wanted to clarify 7 whether the application was requesting an increase in 8 water use for the requested five-year term. 9 MR. WALLS: Jim Walls. 10 I would -- I have not changed the original 11 application, so I'm sorry, I don't get your question. 12 You're asking whether we want to change the 83,000 that 13 we're suggesting or -- I guess if you could restate 14 your question, sorry. 15 MS. TUNALEY: No problem. The licence as 16 it's currently written allows for 81,000 cubic metres 17 per year. The application suggests that 83,700 cubic 18 metres will be required by 2014. So I'm asking whether 19 you or CGS would require an increase in the amount of 20 allowable water use or whether the renewed 21 application -- if 81,000 would be enough. Does that 22 make sense? 23 MR. WALLS: Jim Walls. 24 So what you're saying is the original licence that 25 has expired in 2008 was 81,000 and that our projection 26 show the requirements for the Hamlet by 2014 would be</p>	<p style="text-align: center;">67</p> <p>1 MS. TUNALEY: Thank you. My last question, 2 I'd just like to ask you to comment on the ability of 3 the sewage treatment facility to comply with the 4 current effluent quality limits that are set in the 5 licence. 6 MR. WALLS: Jim Walls, Nuna Burnside. 7 I don't know about its ability to achieve those 8 guidelines. That's one of the things that we're going 9 to try and find out. 10 MS. TUNALEY: Thank you, Mr. Walls. That's 11 all my questions, I think there's just one more 12 question from Dionne. 13 MS. FILIATRAULT: Thank you, Mr. Chairman. This 14 is more of a procedural/administrative type of 15 question, Jim. Under the Board's jurisdiction, under 16 its legislation, the <i>Nunavut Waters Act</i> and the <i>Nunavut</i> 17 <i>Surface Rights Tribunal Act</i>, there's conditions under 18 which the Nunavut Water Board is able to issue a water 19 licence, and I'm referring to Section 57 for your 20 future reference. 21 And it says that the Board is unable to issue a 22 licence unless the Board is satisfied that the 23 Applicant has the financial responsibility for the 24 undertaking, can actually complete the undertaking, 25 taking into account an Applicant's past performance. 26 Through your presentation this morning, you spoke</p>
<p style="text-align: center;">66</p> <p>1 83,000, and over the five-year licence, it would be 2 83,000 that we would be looking for. 3 MS. TUNALEY: Thank you for the 4 clarification. 5 My next question is about the limits of discharge 6 of accumulated impacted water, and I would like to 7 reference page 15, Section 4.6 of the Solid Waste 8 Facility Operation and Maintenance Plan. In this plan, 9 you mention that any direct discharges of accumulated 10 impacted water from the solid waste facilities would 11 only be discharged to the environment if they met 12 specific water quality guidelines. I'm just wondering 13 if you could elaborate on what those guidelines, 14 parameters, and limits might look like. 15 MR. WALLS: Jim Walls, Nuna Burnside. 16 Typically, we would go with CCME discharge quality 17 for whatever environment we're discharging into, so it 18 would be -- if we're discharging directly into a water 19 body, it would be that quality or a discharge onto the 20 land. And if I remember correctly, it might have to 21 meet drinking water guidelines if it was going directly 22 into a water body. I would have to exactly confirm 23 that, but in general, it would be the CCME guidelines 24 for whatever environment or whatever situation that the 25 water was being discharged into, whatever the receiving 26 environment guidelines are under CCME.</p>	<p style="text-align: center;">68</p> <p>1 a lot about areas where there's a recognition of not 2 being in compliance with the previous water licence 3 that was issued by the NWB. So I guess -- and also 4 that the Applicant is seeking a five-year water 5 licence, and yet from what has been provided as 6 evidence this morning, there's only sort of an 7 indication of the financial ability to undertake work 8 only accounts up to December 31st or the 2010 work plan 9 season. 10 So if you're asking if -- what is being 11 contemplated as a five-year licence, how and what are 12 your thoughts on how the Board looks at its 13 jurisdictional responsibilities, that it has to take 14 into account your past performance, your financial 15 ability, and issue a licence for more than or for the 16 full five-year term; what are your thoughts on how 17 they're able to do that and move forward with that? 18 MR. WALLS: Jim Walls, Nuna Burnside. 19 That is a challenge and a challenge in a lot of 20 hamlets in Nunavut and certainly a challenge here in 21 Arviat. I cannot make any promises on behalf of CGS 22 beyond 2010 because that's all that they have mandated 23 me to do. 24 As for the Hamlet of Arviat, who is the ultimate 25 Applicant and the ultimate responsible party for seeing 26 that the conditions of the licence are fulfilled, the</p>

<p style="text-align: center;">69</p> <p>1 past history has been dismal. Part of it is financial, 2 part of it is technical ability and resource. 3 Part of our mandate in this particular work plan 4 for 2010, as outlined, is training a person in the 5 community, and I was just talking to the SAO of who 6 that person would be, and they have a young woman here 7 who did receive some training last year, and we hope to 8 continue that this year so that the task of doing the 9 sampling and doing the reporting will be much easier in 10 future years after they get trained. And the documents 11 that we've prepared, the O & M manuals, they've never 12 had before, so they will be starting 2011 with some 13 technical training and some resources they've never had 14 before as far as instructions. We will also have 15 assessed the sites themselves and actually posted 16 sampling locations out in the field to make it a lot 17 easier for them to take the sampling. 18 So at this moment, I can't speak for the Hamlet, 19 but the idea is that we're setting them up in such a 20 way that it will be a lot easier for them to comply 21 with a licence without enduring significant costs like 22 having a consultant come up and do the work. We would 23 be able to send them up the lab bottles and just 24 arrange for the person to do the sampling, take the 25 measurements, put them on the plane, send them to the 26 lab, and then we could look at the results.</p>	<p style="text-align: center;">71</p> <p>1 if the work plan doesn't get completed, that the 2 additional requirements of the work plan can then be 3 done next summer, if need be, or is it a 4 time-restrictive contract, that if you don't get it 5 done by December 31st, as committed to in the work 6 plan, that you're no longer a contractor for CGS? Do 7 you follow what I'm trying to get at? 8 Thank you, Mr. Chairman. 9 THE CHAIR: Jim Walls? 10 MR. WALLS: Jim Walls, Nuna Burnside. 11 Usually how these contracts work is that they're 12 for the fiscal year, so the fiscal year would end March 13 31st, 2011, and that would be a contingency period 14 after our December 31st delivery date that we stated 15 here, and if we hadn't completed the work by March, 16 then that would require a CGS extension. I have no 17 authority to comment on that, and probably the CGS guys 18 don't even have a comment -- wouldn't be able to 19 comment on that for 2011. 20 So I know we'll spend the budget that we've been 21 issued, barring unforeseen circumstances, and get the 22 work that we've been commissioned to do done. As I 23 mentioned earlier, there's no guarantee that our 24 findings will solve all the problems. Our findings 25 may, in fact, say more work is needed in this area, 26 more study is needed in that area. We're not going to</p>
<p style="text-align: center;">70</p> <p>1 One of the things that CGS asked us to do would 2 prepare a template of the monitoring report, so in 3 future years, they could do it a lot easier in sort of 4 a fill-in-the-blank process. So this is what we hope 5 to do. 6 So with the resources and mechanisms we're putting 7 in place, the idea is to make it a lot easier and have 8 some skill and some ability in the community so that it 9 isn't such an onerous task. And ultimately, I believe 10 the Hamlet has to take that responsibility, and beyond 11 that, I couldn't add any further, other than we're 12 setting them up for success. Thanks. 13 MS. FILIATRAULT: Mr. Chairman, just one 14 follow-up. 15 So a lot of the implementation that you're 16 proposing is to have a lot of this work done by 17 December, and this is sort of follow-up from the 18 questions from the parties and looking towards 19 contingencies. As you know, things in the north move 20 fairly slowly in getting things done, and there always 21 needs to be built-in contingency of whether or not time 22 lines can be met that are, I would say, somewhat 23 optimistic, to have all that work done that's being 24 proposed by December. 25 Based on the way that you are contracted by CGS, 26 are you contracted to complete the full work plan, and</p>	<p style="text-align: center;">72</p> <p>1 resolve, you know, the sewage lagoon issues if there is 2 a fundamental flaw in the berm or fundamental flaw in 3 the design or the wetland treatment area is of 4 insufficient size. So that will be an issue to be 5 addressed in the future. 6 THE CHAIR: Any more questions from Staff? 7 MR. HOHENSTEIN: Thank you, Mr. Chair. 8 Just a follow-up question, Jim, on the training I 9 guess and that of -- you mentioned one of the residents 10 in the community. Is there any plans to involve any of 11 the -- I guess this particular person or any others 12 that are looking at training, any plans to involve them 13 in the study work that's going on this summer, just as 14 I guess an immediate training, and you know, sort of a 15 preempting to the work that they'd have to do, you 16 know, going on from here? 17 MR. WALLS: Jim Walls, Nuna Burnside. 18 Yeah, that's usually our method is to involve 19 people when we're here and doing hands-on work, and so 20 that they participate and get their hands dirty right 21 along with us, so that when we're doing it with them 22 remotely, they already have some familiarity. 23 We're planning two field trips this summer as a 24 minimum, and so in both those occasions, there will be 25 an opportunity to work with the people in the Hamlet 26 and then to reiterate the lessons in the second field</p>

<p style="text-align: center;">73</p> <p>1 trip.</p> <p>2 And with the wetland treatment area in particular,</p> <p>3 we know that conditions change, so we'd be looking at</p> <p>4 multiple sampling events to get some idea of what's</p> <p>5 happening in the wetland treatment area.</p> <p>6 MR. HOHENSTEIN: Thank you, Mr. Chair. I</p> <p>7 believe that's all.</p> <p>8 THE CHAIR: Any more questions from Staff?</p> <p>9 Any questions from Board Members? Thank you.</p> <p>10 And next we have INAC, who's been patiently</p> <p>11 waiting since this morning. This is your lucky day.</p> <p>12 You will get sworn in or affirmed, and the floor is</p> <p>13 yours.</p> <p>14 IAN PARSONS, Sworn:</p> <p>15 THE CHAIR: Whenever you're ready.</p> <p>16 <u>PRESENTATION BY INAC:</u></p> <p>17 MR. PARSONS: Good afternoon, Mr. Chairman,</p> <p>18 Members of the Board, the Nunavut Water Board, Nuna</p> <p>19 Burnside, Mr. Walls, other interested parties, as well</p> <p>20 as members of the public. My name is Ian Parsons, and</p> <p>21 I'm representing INAC in the water licence 3AM-ARV for</p> <p>22 the Hamlet of Arviat.</p> <p>23 Just a brief outline. I'm going to go over INAC's</p> <p>24 roles and responsibilities, also INAC's areas of</p> <p>25 concern, which are the sewage lagoon, the municipal</p> <p>26 solid waste facility, the water quality monitoring and</p>	<p style="text-align: center;">75</p> <p>1 volume are approximately (76 million litres in 2009) is</p> <p>2 about 208,000 litres per day.</p> <p>3 As well, the operation and maintenance plan also</p> <p>4 states that the calculated retention time in the lagoon</p> <p>5 is 149 days during unfrozen conditions. INAC feels</p> <p>6 that the 149 days is a lot considering the daily</p> <p>7 reported output, and to date, there have been no</p> <p>8 studies conducted to determine if the lagoon is</p> <p>9 operating as it should.</p> <p>10 Monitoring stations should be strategically placed</p> <p>11 to determine if the lagoon and the wetland area are</p> <p>12 effectively treating the sewage effluent as it should.</p> <p>13 At this time, INAC recommends a geotechnical</p> <p>14 inspection of the lagoon, including its berms, for</p> <p>15 integrity to ensure that the sewage lagoon is working</p> <p>16 effectively, and that there will not be a catastrophic</p> <p>17 failure of the facility in the future.</p> <p>18 There are also two discontinued sewage lagoons</p> <p>19 that are no longer in use. At this time, INAC</p> <p>20 recommends that these facilities are to be abandoned --</p> <p>21 if they are to be abandoned, then an abandonment and</p> <p>22 restoration plan should be submitted.</p> <p>23 Next I'm going to talk about the solid waste</p> <p>24 facility. Again, according to the operation and</p> <p>25 maintenance plan, the current landfill has capacity</p> <p>26 issues, and the solid waste facility will reach maximum</p>
<p style="text-align: center;">74</p> <p>1 reporting, as well as outstanding issues related to the</p> <p>2 application. A brief summary, and then if there's any</p> <p>3 questions, I'll do my best to answer them.</p> <p>4 INAC's role and responsibility in this water</p> <p>5 licence review is INAC participates in the Nunavut</p> <p>6 Water Board licencing process as an intervener with</p> <p>7 interest in conserving and protecting Nunavut's</p> <p>8 freshwater resources. INAC participates by reviewing</p> <p>9 and assessing water-related applications, reports,</p> <p>10 studies, and designs. INAC also provides</p> <p>11 recommendations and technical advice to the Nunavut</p> <p>12 Water Board on projects involving water as well as</p> <p>13 waste water. Monitoring and compliance of the water</p> <p>14 licence holders with the terms and conditions of the</p> <p>15 licence is also part of INAC's role.</p> <p>16 INAC's areas of concern, as stated in the outline,</p> <p>17 are with the sewage lagoon, the solid waste facility,</p> <p>18 water quality monitoring and reporting, and outstanding</p> <p>19 issues related to the application.</p> <p>20 First up, the sewage lagoon. Within the operation</p> <p>21 and maintenance plan of the sewage lagoon -- or the</p> <p>22 sewage treatment facility I should say, it is stated</p> <p>23 that the sewage lagoon never rises or falls. This</p> <p>24 indicates that the seepage rate out of the lagoon</p> <p>25 equals the sewage input. The daily input and the</p> <p>26 assumed output calculated from the annual reported</p>	<p style="text-align: center;">76</p> <p>1 capacity in two years.</p> <p>2 The monitoring program, which at present is not</p> <p>3 carried out as per Part H of the water licence, would</p> <p>4 verify if contaminants were entering the environment</p> <p>5 from the solid waste facility. According to INAC's</p> <p>6 last inspection report, ponding and runoff from the</p> <p>7 solid waste facility have not been prevented or</p> <p>8 controlled from entering the environment.</p> <p>9 INAC notes that in the Hamlet's solid waste</p> <p>10 facilities operation and maintenance plan that a new</p> <p>11 site has been selected but has yet to be approved for</p> <p>12 disposal of all wastes, including bulky metals,</p> <p>13 hazardous wastes, contaminated soil, and domestic</p> <p>14 wastes.</p> <p>15 Solid waste facility continued: At present, the</p> <p>16 Hamlet of Arviat controls two other waste areas, the</p> <p>17 bulky metal waste area, which includes piles of</p> <p>18 contaminated soil for landfarming, and the second waste</p> <p>19 area for hazardous wastes that's located next to the</p> <p>20 Hamlet's Public Works garage.</p> <p>21 There's no mention of a separate site for bulky</p> <p>22 metals and/or contaminated soil for landfarming</p> <p>23 throughout the Licence 3BM-ARV0308, which has just</p> <p>24 expired. INAC recommends this site be included in the</p> <p>25 new licence along with new sampling points for the</p> <p>26 monitoring program. INAC also recommends that</p>

<p style="text-align: center;">77</p> <p>1 appropriate soil testing for contaminants be undertaken 2 prior to using any of the contaminated soil. 3 Like the bulky metal waste site, there's also no 4 mention of a separate site for hazardous wastes 5 throughout Water Licence 3BM-ARV0308. INAC recommends 6 that this site also be included in the new licence, 7 along with proper procedures for the storage and 8 containment of hazardous wastes. In the event that the 9 new solid waste landfill area is approved, then an 10 abandonment and restoration plan for the old solid 11 waste facility, bulky metal waste area, and hazardous 12 waste area should be submitted. 13 Next is the water quality monitoring. As part of 14 any water licence, water quality monitoring and 15 reporting are required as per the conditions of the 16 water licence. In the past, these conditions were met 17 sporadically. 18 The carrying out of the monitoring program 19 contained within the water licence, as stated earlier, 20 would verify how effective the sewage treatment 21 facility, including the wetland area, are at treating 22 the sewage effluent, as well as verifying if 23 contaminants are entering the environment from the 24 other waste sites. 25 Outstanding issues related to the application: 26 Throughout the renewal process, the Proponent was</p>	<p style="text-align: center;">79</p> <p>1 THE CHAIR: We'll take a short 10-minute 2 break, and we'll have some questions to INAC. 3 (ADJOURNMENT) 4 THE CHAIR: Are there any questions to 5 INAC from the Applicant? 6 <u>CGS-GN QUESTIONS INAC:</u> 7 MR. WALLS: Jim Walls, Nuna Burnside. 8 Ian, thanks for your presentation, and you know, I 9 appreciate the frank discussions that we've had over 10 the past six months or so in trying to make sure that 11 we bring Arviat into compliance as soon as we possibly 12 can. 13 You noted the sewage lagoon retention time of 149 14 days. That was a calculation that we used initially, 15 and we have since admitted that we really don't have a 16 real good understanding of what's going on out there. 17 So that 149 days was, let's say, a bit of a 18 best-efforts guess based on the information that was 19 available, and I know you appreciate that, and so 20 that's not exactly a question. 21 Are there any items that you've noted that we 22 haven't talked about that need to be addressed this 23 summer that are not included in our work plan that you 24 would like to see done? For the record, I don't see 25 anything here that we weren't intending to cover off. 26 I'm not sure whether we can answer all the questions in</p>
<p style="text-align: center;">78</p> <p>1 advised about errors and omissions with the renewal 2 application and associated operation and maintenance 3 plans. The revised operation and maintenance plans 4 have been -- recently been placed on the Nunavut Water 5 Board public website. As for the other omissions in 6 the renewal application, Nuna Burnside acting on behalf 7 of the Hamlet of Arviat stated that the application was 8 completed based on the records that were available to 9 them. INAC notes that some items remain outstanding. 10 So a brief summary: INAC has a responsibility for 11 management of northern water resources. INAC's primary 12 concern is with the sewage lagoon. The data suggests 13 that at the current rate of seepage, the sewage lagoon 14 may not be treating the effluent effectively. More 15 diligence has to be given to the monitoring plan 16 contained within the water licence. 17 Preventative and containment controls should also 18 be in place to control ponding and runoff within the 19 solid waste facility. Bulky metal s and hazardous 20 wastes areas should be included in the new licence, as 21 well as them having restricted access, example, 22 fencing, and proper storage facilities for the 23 hazardous wastes. As well, the final two discontinued 24 lagoons should have an abandonment and restoration plan 25 associated with them. 26 Questions? Thank you.</p>	<p style="text-align: center;">80</p> <p>1 our work, but you know, we're certainly going to try 2 and address them. 3 THE CHAIR: INAC? 4 MR. PARSONS: Mr. Chairman, Ian Parsons, 5 INAC. 6 Thank you, Jim. I haven't really had a close look 7 at the work plan, but just glancing through it, 8 everything looks good. Basically our big concern is 9 with the sewage lagoon, and as we talked this morning, 10 you indicated that there was no liner in the sewage 11 lagoon, so maybe some of the seepage -- maybe the berms 12 are doing great, just that it might be going through 13 the bottom of the sewage lagoon. So that's why we're 14 recommending a geotechnical inspection just to make 15 sure everything is working the way it should. 16 THE CHAIR: Applicant? 17 MR. WALLS: Jim Walls, Nuna Burnside. 18 I agree, and until we get out there, and we see 19 what's going on, but you're aware that the berm is 20 designed to leak. It has -- 21 MR. PARSONS: (NO VERBAL RESPONSE) 22 MR. WALLS: Yeah, okay, it has aggregate 23 in it that it's designed to leak out the side, so we're 24 going to take some sludge samples and see what the 25 bottom consists of, and maybe we'll get some idea of 26 whether -- I think the effluent would follow the path</p>

<p style="text-align: center;">81</p> <p>1 of least resistance, and as near as I can tell, the 2 least resistance is through the berm, but again, that's 3 all predicated on what we find when we get out there 4 and really have a close look, so we'll let you know as 5 soon as we find out. 6 MR. PARSONS: Mr. Chairman, Ian Parsons, 7 INAC. 8 Yeah, that's fine, Jim. The only other thing is 9 that you have no control over is that if the monitoring 10 was done beforehand, we would have a great indication 11 of what exactly was going on right now. But as we said 12 in both our presentations, it was met sporadically, so 13 now we need to just figure out if everything's working 14 the way it should, and if not, what are the 15 alternatives to fixing it. Thank you. 16 THE CHAIR: Applicant? 17 MR. WALLS: No more questions. Thank you. 18 THE CHAIR: Thank you. Questions to INAC 19 from Environment Canada? 20 MS. SMITH: Mr. Chairman, Paula Smith, 21 Environment Canada. 22 I don't have any questions for INAC today. 23 THE CHAIR: Thank you. Questions to INAC 24 from DFO? 25 MR. COOPER: Mr. Chairman, Gary Cooper, 26 DFO.</p>	<p style="text-align: center;">83</p> <p>1 MS. FILIATRAULT: Thank you, Mr. Chairman, 2 Dionne Filiatrault. 3 In your written submission, you make reference 4 that Comment Number 3 needs to be resolved prior to the 5 issuance of the licence. This refers to the seepage 6 and calculation of seepage amounts and the need for 7 abandonment and restoration plans for the two 8 discontinued sewage lagoons. And I'm just trying to 9 understand how those comments -- what INAC's 10 expectation is that those comments be resolved prior to 11 the issuance of the licence, and how that's going to be 12 done or how they expect the Board to follow through on 13 that. 14 MR. PARSONS: Mr. Chairman, Ian Parsons, 15 INAC. 16 With respect to the abandonment and restoration 17 plan, that was for the discontinued lagoons, the two, 18 and we were under the impression that they've been 19 abandoned for some time now, so we would have already 20 thought that there could have been some abandonment and 21 restoration plans out there that weren't submitted as 22 of yet. 23 As far as the seepage goes, because there's very 24 limited monitoring done and we're under the impression 25 that something is not working right, whether or not the 26 seepage is out through the bottom because there's no</p>
<p style="text-align: center;">82</p> <p>1 We have no questions for INAC at this time. 2 THE CHAIR: Thank you. Questions to INAC 3 from the public? Questions to INAC from the public? 4 Any questions from Staff to INAC? 5 <u>NWB STAFF QUESTION INAC:</u> 6 MR. HOHENSTEIN: Thank you, Mr. Chairman. 7 Just I've got one question for INAC leading into a 8 few others from the rest of the Staff. Just leading up 9 to the public hearing that we're at right now, I was 10 wondering, the Staff was curious as to what the 11 schedule for inspections was for the Hamlet of Arviat, 12 and if one had been done prior to the public hearing, 13 if any results are available from that, or if not, when 14 the next inspection would be planned. 15 THE CHAIR: INAC? 16 MR. PARSONS: Mr. Chairman, Ian Parsons, 17 INAC. 18 I know the inspection schedules are out. I also 19 know that they haven't been here yet this summer, so 20 nothing was done prior to the public hearing, but it is 21 scheduled for sometime this summer, but I'm not sure of 22 the exact dates. 23 THE CHAIR: Staff? 24 MR. HOHENSTEIN: Thank you, Mr. Chair. I'll 25 pass it back to Dionne. 26 THE CHAIR: Dionne?</p>	<p style="text-align: center;">84</p> <p>1 liner, then we're hoping that something could have been 2 done prior to the issuance of a licence. But as 3 Mr. Walls indicated, it is going to be in their work 4 plan with regards to the sewage treatment facility, so 5 that's a step in the right direction, so we're okay 6 with that for now. 7 THE CHAIR: Dionne? 8 MS. FILIATRAULT: Thank you, Mr. Chairman. 9 I just want to clarify that, by indicating that 10 you're okay, are you implying now that those and the 11 requirement to fulfil those recommendations be put if, 12 not presuming a board's decision, if the Board decides 13 to issue a water licence that it would be built into a 14 water licence moving forward? 15 THE CHAIR: INAC? 16 MR. PARSONS: Mr. Chairman, Ian Parsons, 17 INAC. 18 Yes, we would like that to be built in as 19 conditions of a new water licence. 20 THE CHAIR: Staff? 21 MS. FILIATRAULT: Thank you, Mr. Chairman. 22 Two questions. One relates to effluent discharge 23 criteria. Under the previous water licence, there's 24 established standards from the effluent, sewage 25 effluent lagoon. Wondering if you can speak to 26 compliance to those discharge criteria. And I noted in</p>

<p style="text-align: center;">85</p> <p>1 the written submission and in the -- your presentation, 2 there is no recommendations from INAC on what discharge 3 criteria should be put into a water licence and where a 4 final discharge point would be considered. 5 THE CHAIR: INAC? 6 MR. PARSONS: Mr. Chairman, Ian Parsons, 7 INAC. 8 At this time, I don't know which criteria we 9 should follow for the effluent measures. I know CCME 10 criteria are out there for freshwater aquatic effects. 11 That's a good minimum start. 12 As well, with regards to effluent discharges, 13 since there's not much monitoring done, our inspectors 14 over the last couple of years have done some of the 15 sampling, and they have reported that it has been over 16 CCME guidelines, the effluent, that is, from the sewage 17 lagoon. 18 As for different monitoring points, the ones for 19 the sewage lagoon that are in place now as per the 20 expired licence are fine, but we would also like to see 21 maybe one for the bulky waste, bulky metals areas, to 22 see if there's -- with regards to contaminated soil, if 23 there's any leachate coming from that and the bulky 24 metals as well. 25 And as well, with regards to the ponding and 26 runoff that's not being controlled through the</p>	<p style="text-align: center;">87</p> <p>1 The Applicant right now is asking for a five-year 2 licence, and I note that INAC is silent in their 3 submission, their written submission, and in their 4 presentation for a recommendation on what term of 5 licence the Board should be considering, and I'd 6 welcome your input and thoughts on what term of licence 7 this Board should be considering, especially in light 8 of the new work plan that's been filed. 9 THE CHAIR: INAC? 10 MR. PARSONS: Mr. Chairman, Ian Parsons, 11 INAC. 12 In light of the new work plan, INAC is still 13 somewhat sceptical about the time lines and everything 14 getting finished. However, it's a great initiative, 15 and we think it's a step in the right direction, and if 16 they can somehow confirm that the monitoring at the 17 approved stations will be done year after year, we are 18 in agreement with the Applicant and recommend a 19 five-year licence. 20 THE CHAIR: Staff? 21 MS. FILIATRAULT: Thank you, Mr. Chairman. No 22 questions. 23 THE CHAIR: Any more questions to INAC 24 from Staff? Thank you, INAC. Thank you. 25 Next we have Environment Canada. 26 MR. PARSONS: Thank you.</p>
<p style="text-align: center;">86</p> <p>1 inspection report, there's a couple of areas of 2 significant runoff, so maybe another monitoring point 3 could be in that general area. 4 MS. FILIATRAULT: Mr. Chairman, just to 5 follow-up to his response, and then a final question. 6 There's noncompliance to the current regulated 7 discharge parameters in the expired water licence. Am 8 I correct in assuming that you're suggesting the Board 9 continue to, at least, impose those minimum standards 10 in any renewed water licence even though there's 11 noncompliance? 12 MR. PARSONS: Mr. Chairman, Ian Parsons, 13 INAC. 14 Well, until we get some monitoring, we have to 15 do -- we had to put in some minimum requirements in the 16 water licence, so yes. 17 THE CHAIR: Staff? 18 MS. FILIATRAULT: Mr. Chairman, a final 19 question, and it's along the same vein as my final 20 question to the Applicant, and it relates to the 21 Board's jurisdiction for the condition of the issuance 22 of the licence. The Board has to take into account 23 financial responsibility. It has to take into account 24 past performance. INAC is responsible for assessing 25 compliance and past performance, and we rely heavily on 26 INAC's information for that.</p>	<p style="text-align: center;">88</p> <p>1 PAULA SMITH, Sworn: 2 THE CHAIR: Just go ahead with your 3 presentation. 4 <u>PRESENTATION BY EC:</u> 5 MS. SMITH: Good afternoon, Mr. Chairman, 6 Members of the Board, Board Staff, Nuna Burnside, other 7 interveners, and members of the public. My name is 8 Paula Smith, and I am presenting today on behalf of 9 Environment Canada. 10 I have a brief presentation. These are the main 11 points. I'll begin with the Environment Canada 12 mandate, followed by general comments, comments on the 13 sewage disposal facility, solid waste facility, and 14 finally a brief conclusion. 15 In summary of Environment Canada's mandates, the 16 primary relevant legislation and standards administered 17 or adhered to by Environment Canada which influenced 18 the contents of this submission are the <i>Canadian</i> 19 <i>Environmental Protection Act</i>, and Section 36(3) of the 20 <i>Fisheries Act</i> Pollution Prevention Provisions. If 21 anyone has any questions relating to the Environment 22 Canada intervention regarding mandate, more information 23 is presented under Appendix A of the full intervention. 24 General comments: Overall, Environment Canada is 25 pleased with the format of the water licence 26 application materials, while review by Environment</p>

<p style="text-align: center;">89</p> <p>1 Canada has identified several areas needing further 2 work or clarification, and wherever possible, 3 Environment Canada has suggested how the water licence 4 may address such concerns and provided recommended 5 water licence conditions for the Board's consideration. 6 The two main areas of concern for Environment 7 Canada are the sewage disposal facility and the solid 8 waste facility, and I'll be discussing those further 9 now, starting with the sewage disposal facility. 10 Concerns with the sewage facility arise from the 11 need to have a good understanding of the system, its 12 design and treatment capacity and capability. This is 13 important to know how well the system will be able to 14 treat waste water over the life of the facility. 15 With that, we have several recommendations. 16 First, Environment Canada agrees with the GN-CGS's 17 recommendation that an evaluation of the lagoon and its 18 current and predicted long-term impacts of the 19 environment be undertaken, and Environment Canada 20 suggests a time line of 12 months beyond the issuance 21 of the licence. 22 Environment Canada recommends the licence include 23 a condition to provide as-built drawings of the lagoon 24 and engineered features of the wetland within 12 months 25 of issuance of the licence. 26 Environment Canada recommends that the licence</p>	<p style="text-align: center;">91</p> <p>1 quality. 2 And my next slide will look at the management of 3 sludge in the lagoon. One of the factors affecting how 4 well a sewage lagoon works is the accumulation of 5 sludge and periodic removal of and disposal, if 6 necessary. 7 Sludge management: Environment Canada recommends 8 that the licence include the condition that the 9 Proponent develop a sludge management plan by December 10 31st, 2010, and Environment Canada also recommends that 11 the licence require sludge management assessment and 12 disposal techniques be detailed in the sewage facility 13 operation and maintenance plan for the -- and be 14 submitted for Board approval. 15 My next slide deals with the closure of the 16 abandoned cells. There are currently two abandoned 17 lagoon cells near the active lagoon, and these will 18 need to be properly closed. The Hamlet will need to 19 plan for dealing with the liquids and sludges in the 20 old lagoons and decommissioning of the berms. 21 Environment Canada agrees with GN-CGS's recommendation 22 of a time line of 12 months following the issuance of a 23 licence to provide an abandonment and restoration plan 24 to the Board for approval. 25 And next I'll discuss the solid waste facility. 26 Hazardous wastes are something that every community has</p>
<p style="text-align: center;">90</p> <p>1 include a condition to provide the Water Board with a 2 sewage lagoon and wetland design plans and drawings 3 within six months of issuance of the licence. 4 The other aspect of understanding a system is 5 monitoring of performance, and that will be my next 6 slide. Environment Canada recommends that the 7 Proponent complete a thorough lagoon discharge and 8 wetland hydrology study within 12 months of issuance of 9 the licence. Submission of a study design to the Board 10 for approval could be set as a licence condition with 11 the implementation of the approved study to follow 12 Board approval. Study results should be used to 13 optimize operation of the system, and the sewage 14 operation and maintenance plan should be updated to 15 reflect best practices for operation in order to 16 maximize treatment. 17 And my next slide will deal with effluent 18 monitoring. Effluent bioassay testing is a way to 19 monitor the whole effluent toxicity and can be used to 20 indicate the potential for harm to the receiving 21 environment. Environment Canada recommends including a 22 pass/fail bioassay test at an appropriate sampling 23 location prior to effluent discharge to the receiving 24 environment. Both rainbow trout and Daphnia tests are 25 used, and this is a recognized tool to demonstrate the 26 effectiveness of treatment in achieving good effluent</p>	<p style="text-align: center;">92</p> <p>1 to deal with and include a range of substances that 2 must be kept out of the environment. By properly 3 planning for handling and disposal of such wastes, the 4 Hamlet can prevent contamination from occurring. 5 Environment Canada recommends that there be a licence 6 condition requiring the Proponent to plan for and 7 implement appropriate hazardous waste containment and 8 segregation. Planning should include how such wastes 9 will be disposed of. 10 Moving on to bulky metals storage. A disposal 11 site for bulky wastes such as vehicles, heavy 12 equipment, tires, appliances, and drums has been 13 designated just south of the community. Rain and 14 runoff which drain through the site can pick up 15 contaminants that are carried to surface waters. To 16 determine if there is the potential for pollutants to 17 come out of the bulky waste site, runoff should be 18 sampled and tested. 19 Environment Canada recommends the licence include 20 a condition requiring monitoring of leachate from the 21 bulky waste site, with an additional surveillance 22 network program sampling site to be sampled twice 23 annually. Environment Canada also recommends that the 24 solid waste facility operation and maintenance plan 25 include a section specific to the bulky waste site. 26 The other activity at this site is the disposal of</p>

<p style="text-align: center;">93</p> <p>1 contaminated soils. The spills of fuel and other 2 hydrocarbons have resulted in contaminated soil which 3 will need to be remediated. Landfarming is one way to 4 remediate contaminated soils, but effective remediation 5 requires planning and ongoing management. 6 Environment Canada agrees with the GN-CGS's 7 recommendation to include a licence condition to 8 conduct an inventory and assessment of all contaminated 9 soil in the community and develop a plan for treatment 10 and disposal. Environment Canada also recommends this 11 inventory, assessment, treatment, and disposal plan be 12 submitted to the Board for approval within six months 13 of issuance of the licence. 14 And that wraps up Environment Canada's 15 presentation today. 16 Environment Canada would like to thank the Nunavut 17 Water Board for this opportunity to comment on the 18 Hamlet of Arviat's new Type A water licence 19 application. 20 Any questions? 21 THE CHAIR: Thank you. Questions to 22 Environment Canada by the Applicant? 23 <u>CGS-GN QUESTIONS EC:</u> 24 MR. WALLS: Thank you, Mr. Chair. Jim 25 Walls, Nuna Burnside. 26 Yeah, just a couple of general questions. I</p>	<p style="text-align: center;">95</p> <p>1 to be done out there and whether long-term surveillance 2 sampling is needed and have those conditions put in the 3 licence, if that would be okay with you. 4 MS. SMITH: Mr. Chairman, Paula Smith, 5 Environment Canada. 6 I can't speak of changing recommendations at this 7 time. I mean, I agree that further work needs to be 8 done just to determine what we're dealing with at the 9 bulky metal storage site. I'd like to just leave the 10 recommendations as is and then, hopefully, in 11 conjunction with your comments, the Water Board can 12 proceed as they see reasonable. I don't ... 13 THE CHAIR: Applicant? 14 MR. WALLS: Jim Walls, Nuna Burnside. 15 Yeah, I have no objection to that approach. My 16 comments are on record regarding that comment. 17 And with regard to the effluent bioassay testing, 18 I just want to get an exact protocol. Who in your 19 organization, you or whoever, could refer me to that? 20 Because in previous comments, they also made a comment 21 about that bioassay pass/fail testing using rainbow 22 trout or Daphnia, and I just want to make sure that 23 we're using an officially recognized, standardized 24 protocol for doing that testing. So would somebody be 25 able to give me that protocol so I can pass it on to 26 our lab to make sure we're doing it in the appropriate</p>
<p style="text-align: center;">94</p> <p>1 notice in most cases, your recommendations are that we 2 develop a management plan such as for the sludge and 3 that we investigate and evaluate. 4 The one comment that sticks out is the bulky 5 metals storage. EC recommends a licence include a 6 condition requiring the monitoring of leachate from the 7 bulky waste site with additional surveillance network 8 program sampling, site to be sampled twice annually. 9 I think it may be premature to put that in the 10 licence at this time just because we don't have any 11 real good understanding of what's going on out there, 12 so I prefer to wait and evaluate the site, evaluate the 13 condition of the materials and the contaminated soils 14 and evaluate the hydrology of the area and the runoff, 15 what might be moving through the active layer, and 16 determine from that what action and what 17 recommendations may come out of that study for future 18 sampling or monitoring. 19 I don't think Environment Canada and we certainly 20 don't have an understanding of what's going on out 21 there right now to define a sampling plan. I wouldn't 22 even know where to start. So I'm just wondering in 23 this case, whether we could just modify that comment a 24 little bit to follow with the tone of your other 25 comments and recommend that the issue be evaluated and 26 a determination made of what kind of the sampling needs</p>	<p style="text-align: center;">96</p> <p>1 fashion? Thanks. 2 THE CHAIR: Environment Canada? 3 MS. SMITH: Mr. Chairman, Environment 4 Canada, Paula Smith. 5 Definitely. I think that is generally a standard 6 procedure consistent throughout the labs that actually 7 process, so we could -- Environment Canada could 8 definitely help you find manuals, protocol for that. 9 THE CHAIR: Applicant? 10 MR. WALLS: Thank you. I have no more 11 questions at this moment. Thanks. 12 THE CHAIR: Thank you. Next we have INAC 13 questions to Environment Canada. 14 MR. PARSONS: Mr. Chairman, Ian Parsons, 15 INAC. 16 I have no questions for Environment Canada at this 17 time. 18 THE CHAIR: Thank you. Thank you, 19 Environment -- next in line is DFO, sorry. 20 MR. COOPER: Mr. Chairman, Gary Cooper, 21 DFO. 22 We have no further questions for Environment 23 Canada at this time. Thank you. 24 THE CHAIR: Thank you. Questions from the 25 public to Environment Canada? Questions to Environment 26 Canada from the public? Questions to Environment</p>

<p style="text-align: center;">97</p> <p>1 Canada by Staff?</p> <p>2 MR. HOHENSTEIN: Thank you, Mr. Chair. I was</p> <p>3 wondering if there's a possibility that we might be</p> <p>4 able to take a 10-minute break here to organize a few</p> <p>5 questions. We do have a few questions for Environment</p> <p>6 Canada, and just looking for a few extra minutes.</p> <p>7 Thank you.</p> <p>8 THE CHAIR: Can you take 15?</p> <p>9 (ADJOURNMENT)</p> <p>10 THE CHAIR: Welcome back, everyone. I</p> <p>11 believe we are on questioning by Staff to Environment</p> <p>12 Canada. Questions to Environment Canada by Staff?</p> <p>13 MR. HOHENSTEIN: Thank you, Mr. Chair. I</p> <p>14 believe Karlette's got a few questions for Environment</p> <p>15 Canada.</p> <p>16 <u>NWB STAFF QUESTION EC:</u></p> <p>17 MS. TUNALEY: Thank you, Mr. Chair.</p> <p>18 My first question is in regards to the</p> <p>19 recommendation from Environment Canada to conduct</p> <p>20 effluent bioassay testing. EC recommends including a</p> <p>21 pass/fail bioassay test at an appropriate sampling</p> <p>22 location prior to effluent discharge to the receiving</p> <p>23 environment. I was just wondering if Environment</p> <p>24 Canada could clarify whereabouts that location should</p> <p>25 be.</p> <p>26 MS. SMITH: Mr. Chairman, Paula Smith,</p>	<p style="text-align: center;">99</p> <p>1 MS. FILIATRAULT: Mr. Chairman, so I would just</p> <p>2 like to follow-up from a -- the response to Karlette's</p> <p>3 question. So it's Environment Canada's view that the</p> <p>4 final discharge point is at the end of the wetland,</p> <p>5 ARV4?</p> <p>6 THE CHAIR: Environment Canada?</p> <p>7 MS. SMITH: Mr. Chairman, Paula Smith,</p> <p>8 Environment Canada.</p> <p>9 Correct, I think the -- and the sampling location</p> <p>10 would be ARV4 for the pass/fail bioassay testing.</p> <p>11 THE CHAIR: Staff?</p> <p>12 MS. FILIATRAULT: I'm assuming, Mr. Chairman, to</p> <p>13 clarify, so the final discharge point applies to the</p> <p>14 bioassay testing but also as it applies to general</p> <p>15 freshwater aquatic life in any effluent discharge to</p> <p>16 the receiving environment?</p> <p>17 THE CHAIR: Environment Canada?</p> <p>18 MS. SMITH: Mr. Chairman, Paula Smith,</p> <p>19 Environment Canada.</p> <p>20 Yes, ARV4 would be the location I think at this</p> <p>21 time, unless there's changes that would need to be made</p> <p>22 once there's been the assessment of the actual sewage</p> <p>23 lagoon and the outfall.</p> <p>24 THE CHAIR: Staff?</p> <p>25 MS. FILIATRAULT: Thank you, Mr. Chairman.</p> <p>26 A similar question that I posed both to the</p>
<p style="text-align: center;">98</p> <p>1 Environment Canada.</p> <p>2 To clarify the location of the effluent bioassay</p> <p>3 testing, Environment Canada recommends that it is at</p> <p>4 ARV4.</p> <p>5 THE CHAIR: Staff?</p> <p>6 MS. TUNALEY: Thank you. It's our</p> <p>7 understanding -- my second question is similar to a</p> <p>8 question that was asked earlier to INAC in that</p> <p>9 Environment Canada hasn't provided any recommendations</p> <p>10 as far as effluent quality limits, and we understand</p> <p>11 that there's some compliance issues in meeting</p> <p>12 discharge limits or some unknowns. Can Environment</p> <p>13 Canada comment on what effluent quality limits should</p> <p>14 be put in any licence?</p> <p>15 THE CHAIR: Environment Canada?</p> <p>16 MS. SMITH: Mr. Chairman, Paula Smith,</p> <p>17 Environment Canada.</p> <p>18 At this time, we can only -- we can't speak of</p> <p>19 upcoming municipal waste water effluent regulation</p> <p>20 changes. We think at this point, CCME regulations</p> <p>21 would be followed, like INAC suggested. Beyond that,</p> <p>22 we don't have any comments or recommendations at this</p> <p>23 time.</p> <p>24 THE CHAIR: Staff?</p> <p>25 MS. TUNALEY: Thank you.</p> <p>26 THE CHAIR: Dionne?</p>	<p style="text-align: center;">100</p> <p>1 Applicant and to prior presenters, the Board's</p> <p>2 jurisdiction as it relates to financial responsibility</p> <p>3 and compliance and past performance. The Board has to</p> <p>4 take into account past performance and financial</p> <p>5 ability.</p> <p>6 Based on the current work plan from the company</p> <p>7 and their request to this Board is for a five-year</p> <p>8 licence, can Environment Canada comment on the proposed</p> <p>9 term that's being requested and any recommendations</p> <p>10 they may have for the term of the water licence?</p> <p>11 THE CHAIR: Environment Canada?</p> <p>12 MS. SMITH: Mr. Chairman, Paula Smith,</p> <p>13 Environment Canada.</p> <p>14 For the term of the licence, I think Environment</p> <p>15 Canada's most concerned that the conditions of the</p> <p>16 licence are adhered to within the first, is it, 6 to 12</p> <p>17 months depending on, again, the conditions. Beyond</p> <p>18 that, we don't have any comment as to the full duration</p> <p>19 of the water licence.</p> <p>20 THE CHAIR: Staff?</p> <p>21 MS. FILIATRAULT: Thank you, Mr. Chairman.</p> <p>22 It would also, Mr. Chairman, if I could I guess</p> <p>23 ask for a follow-up that I'm not sure that Environment</p> <p>24 Canada will be able to answer right now, recognizing</p> <p>25 that the work plan was only provided to them this</p> <p>26 morning, if they could confirm, based on their</p>

<p style="text-align: center;">101</p> <p>1 recommendations that they've provided in your 2 presentation and your written submission, if your 3 recommendations are contemplated in the work plan, and 4 if you're satisfied that they're found within the work 5 plan and possibly easier to highlight which 6 recommendations may not have been contemplated in the 7 work plan, if you could come back to the Board and 8 provide that information, it would be very helpful. 9 THE CHAIR: Environment -- 10 MS. FILIATRAULT: Before the close of the 11 hearing. 12 THE CHAIR: Environment Canada? 13 MS. SMITH: Mr. Chairman, Paula Smith, 14 Environment Canada. 15 I haven't had a chance to fully review the work 16 plan that was provided this morning. I don't think 17 that should take too long, just to review that and 18 compare with our recommendations that were in the 19 presentation, so we should be able to provide comments 20 back before the end of -- before the closure of the 21 hearing. 22 THE CHAIR: Staff? 23 MS. FILIATRAULT: Thank you, Mr. Chairman, no 24 further questions. 25 MR. WALLS: Mr. Chairman, I apologize, may 26 I intercede with a comment?</p>	<p style="text-align: center;">103</p> <p>1 of leachate. 2 That's why I'm curious that it's the sewage lagoon 3 and not the landfill. It would be my recommendation 4 that it be done on the landfill, and that was why our 5 work plan reflects ARV2, the landfill, for that 6 testing. If it is, in fact, the sewage lagoon that 7 Environment Canada wants it, then I don't have any 8 problem in changing the sampling point. So we can get 9 that resolved over the next little while. 10 My question to Environment Canada, based on the 11 conversations here, is are they looking for this 12 pass/fail bioassay toxicity test, regardless of whether 13 it's on the landfill or the sewage lagoon, are they 14 looking for that to be an annual implementation as part 15 of the monitoring program, or is this a one-time 16 assessment to determine the impact, and if it passes, 17 it won't have to be done again; if it fails, then there 18 would be some requisite action to follow? 19 THE CHAIR: Environment Canada? 20 MS. SMITH: Mr. Chairman, Paula Smith, 21 Environment Canada. 22 I'm referring to page 7 of the full intervention 23 on behalf of Environment Canada. Under Section 2.2(d), 24 "Effluent Bioassay Testing": (As Read) 25 Under EC's recommendation, EC recommends the 26 licence include a condition requiring annual</p>
<p style="text-align: center;">102</p> <p>1 THE CHAIR: Go ahead. 2 <u>CGS-GN QUESTIONS EC:</u> 3 MR. WALLS: Thank you, Mr. Chairman. I 4 guess there's been some back-and-forth questions about 5 the actual location of the sampling for the bioassay 6 toxicity. It was my understanding, it was ARV2. I'm 7 sure somewhere I have some understanding from 8 Environment Canada that they were looking at sampling 9 on the pass/fail bioassay toxicity test from the 10 landfill, which would be ARV2, not the sewage lagoon, 11 which is ARV4. 12 Most of the parameters to test effluent quality 13 from a sewage lagoon are pretty standard and pretty 14 well known, so it seems kind of unusual that a 15 cumulative impact effect testing would be done on 16 sewage effluent, which is very well known and generally 17 benign. Usually that type of testing is done on a much 18 more wider range, greater parameter, and a much more 19 poorly understood effluent discharge, especially ones 20 that may have interacting toxicity parameters that may 21 cause strange effects, and that's why it's usually 22 something that we see tested on landfill leachate, 23 which is not well understood, and you have a 24 multiplicity of contaminants acting in concert 25 together. So a pass/fail bioassay toxicity test lumps 26 everything together and determines sort of the toxicity</p>	<p style="text-align: center;">104</p> <p>1 sampling of effluent between June and 2 September at ARV4 or when flow volume is not 3 sufficient ... 4 In the section prior to that too, it kind of 5 discusses the evaluation of effluent quality and how 6 the bioassay testing integrates all measured parameters 7 and provides the Proponent with an indication of 8 overall effluent characterization with respect to 9 deleteriousness. 10 I'm not sure if any of that answers your question, 11 but again with the monitoring, it should be done twice 12 annually onwards just to, again, monitor the 13 deleteriousness of the effluent. 14 MR. WALLS: Thank you. Jim Walls, Nuna 15 Burnside. 16 So I take it to understand that you wish this, the 17 bioassay toxicity testing, to be included as an annual 18 requirement in the licence twice annually for the 19 period of the licence, not just a single event? 20 THE CHAIR: Environment Canada? 21 MS. SMITH: Mr. Chairman, Paula Smith, 22 Environment Canada. 23 That's correct. Again, annual sampling between 24 June and September at ARV4, or when -- or at a 25 different location when flow volume is not adequate. 26 MR. WALLS: Thank you. Jim Walls, Nuna</p>

<p style="text-align: center;">105</p> <p>1 Burnside.</p> <p>2 I've not seen this anywhere in any other</p> <p>3 requirement. Is this a new Environment Canada policy,</p> <p>4 or have you recommended this on other municipal waste</p> <p>5 discharge in Nunavut; do you happen to know?</p> <p>6 THE CHAIR: Environment Canada?</p> <p>7 MS. SMITH: Mr. Chairman, Paula Smith,</p> <p>8 Environment Canada.</p> <p>9 I can't speak of other municipal files where this</p> <p>10 has been implemented. I know it is used for other</p> <p>11 areas of discharge or other points of discharge. I'm</p> <p>12 not sure about municipal. I could check back with Mary</p> <p>13 Kelly; she's the municipal waste water expert that</p> <p>14 suggested this, so based on her area of expertise, I</p> <p>15 would assume that it's been used in other -- if not in</p> <p>16 Nunavut, in other areas.</p> <p>17 MR. WALLS: Thank you. No further</p> <p>18 questions. I would just add a comment that, in my</p> <p>19 experience, this is unusual, and maybe it's a new</p> <p>20 trend. I'm -- okay, thank you.</p> <p>21 THE CHAIR: Thank you, Environment Canada.</p> <p>22 If there are no further questions to Environment</p> <p>23 Canada, next we have DFO.</p> <p>24 GARY COOPER, Sworn:</p> <p>25 THE CHAIR: Please go ahead with your</p> <p>26 presentation.</p>	<p style="text-align: center;">107</p> <p>1 inland waters. It applies to all Canadian fishery</p> <p>2 waters. It's binding on Federal, Provincial, and</p> <p>3 Territorial governments.</p> <p>4 The <i>Fisheries Act</i> defines fish as fish, shellfish,</p> <p>5 crustaceans, marine mammals, and any parts of those, so</p> <p>6 eggs, sperm, spawn, larvae, spat, juvenile stages.</p> <p>7 Essentially it's everything from small fish to even</p> <p>8 your big fish. They lump it all into one definition</p> <p>9 obviously for legislation.</p> <p>10 It also defines fish habitat. It defines fish</p> <p>11 habitat as spawning grounds and nursery, rearing, food</p> <p>12 supply, migration, and any other areas on which fish</p> <p>13 depend directly or indirectly in order to carry out</p> <p>14 their life processes.</p> <p>15 Section 30 of the <i>Fisheries Act</i>: This section's</p> <p>16 relevant to the application as it relates to fish</p> <p>17 screens on your end of pipe. This -- it's a</p> <p>18 requirement of the <i>Act</i> to have a screen at the end of</p> <p>19 the pipe; however, it is a discretionary approval. We</p> <p>20 have a fish screen guide, which I'll mention again</p> <p>21 later, that proponents or applicants can use to help</p> <p>22 guide them in what they need to put into the fish</p> <p>23 screen to make sure it's adequate.</p> <p>24 So Section 35, this is the section that we use</p> <p>25 most often in our day-to-day business. Section 35</p> <p>26 prohibits the harmful alteration, disruption, or</p>
<p style="text-align: center;">106</p> <p>1 <u>PRESENTATION BY DFO:</u></p> <p>2 MR. COOPER: Thank you, Mr. Chairman. Good</p> <p>3 afternoon, everybody. My name's Gary Cooper. I'm a</p> <p>4 fish habitat biologist with the Department of Fisheries</p> <p>5 and Oceans Canada.</p> <p>6 Today I'm going to go over the role of the fish</p> <p>7 habitat management program in the Type A water licence</p> <p>8 application for the Hamlet of Arviat. I'll go over</p> <p>9 some of the background on what the fish habitat</p> <p>10 management program does, a little summary of our</p> <p>11 comments for this Type A water licence application, and</p> <p>12 then I'll speak to the next steps.</p> <p>13 DFO fish habitat management program: We</p> <p>14 administer the fish habitat protection provisions of</p> <p>15 the <i>Fisheries Act</i>. We also administer provisions of</p> <p>16 the <i>Species at Risk Act</i> as they pertain to aquatic</p> <p>17 species. The habitat program participates in</p> <p>18 territorial environmental assessments, also Canadian</p> <p>19 environmental assessments in Nunavut, but they're rare,</p> <p>20 regulatory reviews, such as Nunavut Water Board licence</p> <p>21 applications, and we're providing specialist/expert</p> <p>22 advice related to our mandate.</p> <p>23 The <i>Fisheries Act</i>: This is our piece of</p> <p>24 legislation that we use most often. It's used to</p> <p>25 manage and protect Canadian fisheries resources. It</p> <p>26 applies to all fishing zones, territorial seas, and</p>	<p style="text-align: center;">108</p> <p>1 destruction of fish habitat, also known as a HADD, but</p> <p>2 it is actually three distinct, separate aspects.</p> <p>3 Section 35(2) actually provides the Minister of</p> <p>4 Fisheries and Oceans with the ability to authorize a</p> <p>5 HADD. When an authorization is issued, we have a</p> <p>6 policy or policies that requires that we also get</p> <p>7 compensation in that situation.</p> <p>8 So the two areas of interest that we had in the</p> <p>9 water licence application was the water taking from</p> <p>10 Wolf Creek or Wolf River and how a potential drawdown</p> <p>11 could result in a HADD. The other aspect we had was</p> <p>12 the water intake, also which can result in a potential</p> <p>13 HADD, and then the entrainment or impingement of fish.</p> <p>14 The information we requested in our intervention</p> <p>15 comments was a detailed assessment of the proposed</p> <p>16 volume of water to be withdrawn from Wolf Creek against</p> <p>17 a total annual recharge and the potential ramifications</p> <p>18 of drawdown of the creek. Along with this, we agree</p> <p>19 with the Proponent is another important time to take</p> <p>20 information would be during the actual water taking</p> <p>21 because it happens over a short period of time. And</p> <p>22 then we also ask for a detailed description of the</p> <p>23 proposed water intake with the understanding that there</p> <p>24 is a water intake screen there, a fish screen there.</p> <p>25 We just want to make sure that it is adequate and meets</p> <p>26 the guidelines of DFO.</p>

<p style="text-align: center;">109</p> <p>1 The other thing we asked for was some baseline 2 information on the fish and fish habitat in Wolf Creek. 3 We haven't got much information, and the Applicant 4 acknowledges that, so we just ask that we could get 5 some more information on the fish species that actually 6 inhabit the creek, and then what sort of habitat is 7 there. 8 The next steps forward: The GN has indicated that 9 DFO fish screens will be used to determine the most 10 appropriate screen for the intake. So depending on 11 what's there, if they need a new screen, then they will 12 be following this, but if the screen is adequate, then 13 we would be satisfied. They also agreed to undertake 14 some studies through 2010 to assess potential impacts 15 on the aquatic environment resulting from water 16 withdrawals from Wolf Creek. 17 This is some of the available online resources, so 18 I mentioned our policy for the management of fish 19 habitat, we have operational statements, our freshwater 20 intake guide, which is relevant here as well, and our 21 practitioners guides to risk management framework. 22 That's the end of our presentation. I'd like to 23 thank the Board and the Hamlet of Arviat for having us. 24 Thank you. 25 THE CHAIR: Thank you. Questions to DFO 26 from the Applicant?</p>	<p style="text-align: center;">111</p> <p>1 DFO. 2 I had a quick look at it. I mean, I haven't gone 3 through it. I'd like to go through it tonight and have 4 a quick look at it. I mean -- I think most of the 5 things are there. Like I'd asked Nuna Burnside earlier 6 if there's a possibility that they're going to chat 7 with the, you know, different agencies to make sure 8 that they're collecting all the information we'd want. 9 So I think if that's done, I think if there's any minor 10 things missing in here, we can clear that up. 11 THE CHAIR: Staff? 12 MS. FILIATRAULT: Thank you, Mr. Chairman. 13 This is the last time I'm going to have to ask 14 this question, but anyway, taking into account the term 15 of the licence that's being requested by the Applicant, 16 the question I've posed to all the other intervening 17 parties, I'd just like to get DFO's thoughts regarding 18 the work plan, the term based on the Board's 19 jurisdiction over assessment of financial 20 responsibility and ability to perform the undertaking 21 on their past performance, if DFO has any thoughts on 22 that matter. 23 THE CHAIR: DFO? 24 MR. COOPER: Mr. Chairman, Gary Cooper, 25 DFO. 26 At this point for us, it's tough because we're not</p>
<p style="text-align: center;">110</p> <p>1 MR. WALLS: The Applicant has no questions 2 for DFO, thank you. 3 THE CHAIR: INAC? 4 MR. PARSONS: Mr. Chairman, Ian Parsons, 5 INAC. 6 INAC has no questions for DFO at this time. 7 THE CHAIR: Thank you. Environment Canada 8 to DFO? 9 MS. SMITH: Mr. Chairman, Paula Smith, 10 Environment Canada. 11 I don't have any questions or comments for DFO at 12 this time. Thank you. 13 THE CHAIR: Thank you. Questions to DFO 14 from the public? Thank you. Questions to DFO from 15 Staff? Staff? 16 <u>NWB STAFF QUESTION DFO:</u> 17 MS. TUNALEY: Thank you, Mr. Chair. 18 I just have one question for DFO, and I just 19 wanted to ask you to consider whether or not the work 20 plan provided as Exhibits 3 and 4 by Jim Walls earlier 21 today satisfies your recommendations. And if you can't 22 answer that now, if you would have a chance to review 23 that work plan and respond to the question before the 24 close of the hearing. 25 THE CHAIR: DFO? 26 MR. COOPER: Mr. Chairman, Gary Cooper,</p>	<p style="text-align: center;">112</p> <p>1 sure what the screen -- what the fish screen is. It 2 may already be adequate, so for us then, there may not 3 be an issue with that at this point. Unfortunately, we 4 don't have that information to provide today. 5 And then with the water taking, I mean some of the 6 preliminary numbers I've seen, it probably isn't going 7 to be enough that would probably have an impact on fish 8 and fish habitat in Wolf Creek. However, we don't have 9 information based on that 30 days of withdrawal. 10 That's -- to me, that's where, with low water in 11 August, and you're taking all that water at one span, 12 it's hard to say, Yeah, over an annual basis for sure. 13 It's a very small amount. However, maybe during that 14 time, it could be enough that we would have a concern. 15 Based on the term of the licence, I mean, I think 16 from DFO's perspective, a five-year licence is okay. 17 If the fish screen is not adequate, and they would be 18 required to have an adequate fish screen, obviously, we 19 would work with the Proponent, the Government of 20 Nunavut, to try and have a reasonable time frame that 21 that would be done in. So obviously, I guess, we 22 wouldn't be expecting perhaps it would be in this year. 23 Let's say, we find out it's not, we wouldn't -- it 24 wouldn't be expected this year, but perhaps by the 25 following year, the next season of water taking, we may 26 be expected to have that in there.</p>

<p>113</p> <p>1 THE CHAIR: Staff?</p> <p>2 MS. FILIATRAULT: Thank you, Mr. Chairman, no</p> <p>3 questions.</p> <p>4 THE CHAIR: Questions to DFO from Board</p> <p>5 Members? Thank you. DFO, thank you. I do believe you</p> <p>6 have housekeeping items.</p> <p>7 MS. TUNALEY: Thank you, Mr. Chair. I'd</p> <p>8 just like to go over the exhibits that have been</p> <p>9 submitted since we did the last list of them earlier,</p> <p>10 starting with Exhibit Number 5, which was a report by</p> <p>11 LGL, which Jim Walls committed to providing in both</p> <p>12 hard copy and electronic copy before the close of the</p> <p>13 hearing. So that's Exhibit 5 and Exhibit 6.</p> <p>14 Exhibit 7 is a hard copy of the PowerPoint</p> <p>15 presentation entitled "Water Licence Number 3AM-ARV</p> <p>16 Hamlet of Arviat, Kivalliq Region, Renewal</p> <p>17 Application", provided by Ian Parsons from Indian and</p> <p>18 Northern Affairs Canada.</p> <p>19 Exhibit Number 8 is the electronic version of the</p> <p>20 presentation.</p> <p>21 Exhibit Number 9 is a PowerPoint presentation in</p> <p>22 hard copy, entitled "Environment Canada's Intervention</p> <p>23 on the Hamlet of Arviat's New Type A Water Licence"</p> <p>24 provided by Paula Smith from Environment Canada.</p> <p>25 Exhibit Number 10 is the electronic copy of that</p> <p>26 presentation.</p>	<p>115</p> <p>1 EXHIBIT 10 - ELECTRONIC VERSION OF A POWERPOINT</p> <p>2 PRESENTATION ENTITLED "ENVIRONMENT CANADA'S</p> <p>3 INTERVENTION ON THE HAMLET OF ARVIAT'S NEW TYPE A</p> <p>4 WATER LICENCE", PROVIDED BY PAULA SMITH FROM</p> <p>5 ENVIRONMENT CANADA.</p> <p>6 EXHIBIT 11 - HARD COPY OF A POWERPOINT PRESENTATION</p> <p>7 ENTITLED "HAMLET OF ARVIAT TYPE A WATER LICENCE</p> <p>8 APPLICATION, ROLE OF FISH HABITAT MANAGEMENT,</p> <p>9 FISHERIES AND OCEANS CANADA, EASTERN ARCTIC</p> <p>10 REGION", PROVIDED BY GARY COOPER OF THE DEPARTMENT</p> <p>11 OF FISHERIES AND OCEANS CANADA.</p> <p>12 EXHIBIT 12 - ELECTRONIC VERSION OF A POWERPOINT</p> <p>13 PRESENTATION ENTITLED "HAMLET OF ARVIAT TYPE A</p> <p>14 WATER LICENCE APPLICATION, ROLE OF FISH HABITAT</p> <p>15 MANAGEMENT, FISHERIES AND OCEANS CANADA, EASTERN</p> <p>16 ARCTIC REGION", PROVIDED BY GARY COOPER OF THE</p> <p>17 DEPARTMENT OF FISHERIES AND OCEANS CANADA.</p> <p>18 <u>NWB STAFF QUESTION CGS-GN:</u></p> <p>19 MS. TUNALEY: And I was also wondering if I</p> <p>20 could just clarify something that was discussed earlier</p> <p>21 with Jim Walls. During the questioning of the NWB</p> <p>22 Staff to Nuna Burnside, we discussed what the effluent</p> <p>23 quality limits would be for any accumulated impacted</p> <p>24 water within the solid waste disposal facilities, and</p> <p>25 Jim had mentioned that they would meet the CCME</p> <p>26 guidelines.</p>
<p>114</p> <p>1 Exhibit Number 11 is a PowerPoint presentation in</p> <p>2 hard copy entitled "Hamlet of Arviat Type A Water</p> <p>3 Licence Application, Role of Fish Habitat Management,</p> <p>4 Fisheries and Oceans Canada, Eastern Arctic Region",</p> <p>5 provided by Gary Cooper, Department of Fisheries and</p> <p>6 Oceans Canada.</p> <p>7 Exhibit 12 is the electronic copy of that</p> <p>8 presentation.</p> <p>9 EXHIBIT 5 - A HARD COPY OF A REPORT BY LGL LIMITED,</p> <p>10 SUBMITTED BY JIM WALLS.</p> <p>11 EXHIBIT 6 - ELECTRONIC VERSION OF A REPORT BY LGL</p> <p>12 LIMITED, SUBMITTED BY JIM WALLS.</p> <p>13 EXHIBIT 7 - HARD COPY OF A POWERPOINT PRESENTATION</p> <p>14 ENTITLED "WATER LICENCE NUMBER 3AM-ARV HAMLET OF</p> <p>15 ARVIAT, KIVALLIQ REGION, RENEWAL APPLICATION",</p> <p>16 PROVIDED BY IAN PARSONS FROM INDIAN AND NORTHERN</p> <p>17 AFFAIRS CANADA.</p> <p>18 EXHIBIT 8 - ELECTRONIC VERSION OF A POWERPOINT</p> <p>19 PRESENTATION ENTITLED "WATER LICENCE NUMBER 3AM-ARV</p> <p>20 HAMLET OF ARVIAT, KIVALLIQ REGION, RENEWAL</p> <p>21 APPLICATION", PROVIDED BY IAN PARSONS FROM INDIAN</p> <p>22 AND NORTHERN AFFAIRS CANADA.</p> <p>23 EXHIBIT 9 - HARD COPY OF A POWERPOINT PRESENTATION</p> <p>24 ENTITLED "ENVIRONMENT CANADA'S INTERVENTION ON THE</p> <p>25 HAMLET OF ARVIAT'S NEW TYPE A WATER LICENCE",</p> <p>26 PROVIDED BY PAULA SMITH FROM ENVIRONMENT CANADA.</p>	<p>116</p> <p>1 Jim, could you just clarify which guidelines those</p> <p>2 were, and whether the discharge from that facility was</p> <p>3 intended to be a planned discharge or emergency</p> <p>4 discharge?</p> <p>5 MR. WALLS: Jim Walls, Nuna Burnside.</p> <p>6 The discharge from the solid waste facility was</p> <p>7 expected to be -- was not expected at all. It would</p> <p>8 have to be an unexpected event. The landfill was</p> <p>9 designed to operate without any liquid discharge, and</p> <p>10 an unexpected event would be having to pump out a low</p> <p>11 area of the landfill in order to move ahead to fill a</p> <p>12 new cell, or a serious storm event where the amount of</p> <p>13 water that was contained within the landfill berms</p> <p>14 started to threaten the integrity to the berms and it</p> <p>15 would be decided that it might be better to pump out</p> <p>16 the landfill rather than incur the catastrophic</p> <p>17 destruction of the berms. So only in unusual events</p> <p>18 would we expect the landfill to have a liquid</p> <p>19 discharge.</p> <p>20 When it did, ideally the liquid that would be</p> <p>21 discharged from the landfill would be tested and</p> <p>22 compared to CCME environmental quality standards for</p> <p>23 freshwater aquatic life and for surface water</p> <p>24 reception, and if it didn't meet that, it would need</p> <p>25 remedial action, and if it did meet that, then it could</p> <p>26 be direct discharged to the tundra environment.</p>

<p style="text-align: center;">117</p> <p>1 MS. TUNALEY: Thank you, Mr. Chair.</p> <p>2 THE CHAIR: Any more questions? Thank</p> <p>3 you.</p> <p>4 This concludes the first part of the hearing. We</p> <p>5 will now adjourn until 7:00 tonight, same place, for</p> <p>6 the community session tonight. Thank you very much.</p> <p>7 We'll see you at 7:00.</p> <p>8 (AFTERNOON ADJOURNMENT AT 3:55 PM)</p> <p>9 (PROCEEDINGS RECOMMENCED AT 7:05 PM)</p> <p>10 <u>COMMUNITY INFORMATION SESSION:</u></p> <p>11 THE CHAIR: Good evening. My name is</p> <p>12 Thomas Kabloona, and I'm the Chair of the Nunavut Water</p> <p>13 Board. Before we proceed with the hearing, I'd like to</p> <p>14 begin with a prayer, and I would like to ask David</p> <p>15 Aglukark to do the opening prayer. There's a</p> <p>16 microphone over there.</p> <p>17 (EVENING PRAYER)</p> <p>18 <u>OPENING REMARKS BY NWB BOARD CHAIR:</u></p> <p>19 THE CHAIR: Thank you, David. The Nunavut</p> <p>20 Water Board is an institution of public government</p> <p>21 created under Article 13 of the Nunavut Land Claims</p> <p>22 Agreement and is responsible for the use, management,</p> <p>23 and regulation of freshwater in the Nunavut Settlement</p> <p>24 Area. On behalf of the Water Board, I welcome everyone</p> <p>25 to Arviat, and thank the members of the community for</p> <p>26 joining us tonight.</p>	<p style="text-align: center;">119</p> <p>1 Panel.</p> <p>2 Several Staff members of the Nunavut Water Board</p> <p>3 Staff are assisting with us today: Dionne Filiatrault,</p> <p>4 Executive Director; David Hohenstein, Director of</p> <p>5 Technical Services; Sean Joseph, Technical Advisor;</p> <p>6 Richard Dwyer, Licencing Administrator; Karlette</p> <p>7 Tunaley with Tunaley, Lines & Associates, Technical</p> <p>8 Consultant to the Board; Teresa Meadows with Miller</p> <p>9 Thomson, Legal Counsel to the Board.</p> <p>10 In addition, we have two interpreters available</p> <p>11 for simultaneous translation: Mary Hunt and Bobby</p> <p>12 Suluk.</p> <p>13 For audio support, we have Trevor Bourque with us.</p> <p>14 If you experience any difficulties with your headsets,</p> <p>15 he should be able to provide assistance.</p> <p>16 To ensure an accurate record of the proceeding, we</p> <p>17 have with us a court stenographer, Karoline Schumann.</p> <p>18 To assist Karoline, I ask that anyone speaking, please</p> <p>19 state their name first.</p> <p>20 We also have a local page with us, Jonathan</p> <p>21 Kigusiutnak. Please do not hesitate to ask him for</p> <p>22 assistance.</p> <p>23 In the past, parties in other proceedings have</p> <p>24 approached the media prior to the release of the</p> <p>25 Board's decision, suggesting comments about what the</p> <p>26 Board is going to do either procedurally or in terms of</p>
<p style="text-align: center;">118</p> <p>1 The purpose of this public hearing is to review</p> <p>2 the application filed by the Government of</p> <p>3 Nunavut-Department of Community and Government Services</p> <p>4 for a Type A water licence in accordance with the</p> <p>5 <i>Nunavut Waters and Nunavut Surface Rights Tribunal Act</i>.</p> <p>6 Pursuant to Section 13.3.6 of the Nunavut Land</p> <p>7 Claims Agreement and Section 29 of the <i>Act</i>, the Board</p> <p>8 has delegated its power to dispose of all matters</p> <p>9 relating to the Type A licence application 3AM-ARV for</p> <p>10 the Hamlet of Arviat water treatment facility, sewage</p> <p>11 treatment facility, and solid waste disposal facility,</p> <p>12 including the conduct of this public hearing to a panel</p> <p>13 of the Board.</p> <p>14 I am the Chair of this Panel, and with me today</p> <p>15 are members of the Board and Panel: Ross Mrazek to my</p> <p>16 right, and to my left is Sam Omik.</p> <p>17 I would also like to acknowledge David Aglukark,</p> <p>18 who is also a member of the Nunavut Water Board. We</p> <p>19 would like to clarify that, to avoid a perceived</p> <p>20 conflict of interest with David as a resident of the</p> <p>21 community and Member of the Board, he has not been</p> <p>22 appointed to the Arviat NWB Panel for this hearing, and</p> <p>23 he will not participate in this decision in any way.</p> <p>24 It is, therefore, important for community members to</p> <p>25 participate in this hearing to ensure that they have</p> <p>26 expressed their comments and concerns directly to this</p>	<p style="text-align: center;">120</p> <p>1 the final result.</p> <p>2 Since the Board cannot comment on pending matters,</p> <p>3 either by confirming or denying the accuracy of other</p> <p>4 statements to the media, the Board would appreciate if</p> <p>5 all parties would refrain from any such comments that</p> <p>6 may imply a certain action or decision by the Board.</p> <p>7 Board Members will not discuss the hearing or the</p> <p>8 matters before the Board with any of the parties or the</p> <p>9 media.</p> <p>10 If you have a question about the Board and its</p> <p>11 practices or procedure, please speak to the Executive</p> <p>12 Director, and she will assist you.</p> <p>13 The NWB issued on January 9th, 2004, a Type B</p> <p>14 licence NWB3ARV0308 to the Hamlet of Arviat, which</p> <p>15 allowed for the use of water and disposal of waste.</p> <p>16 This was the Hamlet's first Type B licence, and it</p> <p>17 expired on December 31st, 2008.</p> <p>18 On January 5, 2009, the NWB received a licence</p> <p>19 renewal application and supporting documentation from</p> <p>20 the Hamlet of Arviat for a water supply facility, solid</p> <p>21 waste disposal facility, sewage disposal facility. The</p> <p>22 application was prepared and submitted by Government of</p> <p>23 Nunavut-Community and Government Services with the</p> <p>24 support of its consultant, Nuna Burnside Engineering</p> <p>25 and Environmental Limited.</p> <p>26 The following documents were received on January</p>

<p style="text-align: center;">121</p> <p>1 5, 2009: A cover letter, a water licence renewal 2 application form, a supplemental questionnaire for 3 municipal undertakings, and an executive summary in 4 English and Inuktitut.</p> <p>5 The following submissions were received January 5, 6 2009: Hamlet of Arviat annual report for 2008, 7 operations and maintenance plan for the Arviat solid 8 waste management facility, operations and maintenance 9 plan for the Arviat water supply facility, the 10 environmental emergency contingency plan for the Hamlet 11 of Arviat, and environmental monitoring program and 12 quality assurance/quality control plan for the Hamlet.</p> <p>13 Copies of the above-mentioned submissions are 14 available on NWB's FTP site: 15 Http://www.nunavutwaterboard.org/en/public_registry.</p> <p>16 Also, Richard Dwyer, our Licencing Administrator, 17 has made available for public viewing paper copies of 18 all the final submissions that the Board has received 19 to date for this proposal.</p> <p>20 As Arviat's population has more than 2,000, NWB 21 determined that the new application, which is assigned 22 the number 3AM-ARV, as a Type A licence, "where there 23 is a deposit of waste by means of a sewage collection 24 or treatment system serving a population of 2,000 or 25 more". In addition, pursuant to the <i>Act</i>, a public 26 hearing is required for a Type A application.</p>	<p style="text-align: center;">123</p> <p>1 On January 25, 2010, the Board gave notice of the 2 application in accordance with the <i>Act</i>. Interested 3 parties were asked to continue their technical review 4 of the application in time for a technical meeting and 5 pre-hearing conference set tentatively for March 10, 6 2010.</p> <p>7 The NPC had provided this Board with confirmation 8 that the project conforms to the Keewatin Regional Land 9 Use form. The NIRB also stated that the project 10 proposal was exempt under 12.1.3 and does not require a 11 screening.</p> <p>12 On February 25, the Board received written 13 submissions from INAC, Environment Canada, and GN-DOE 14 with respect to technical reviews conducted on the 15 application.</p> <p>16 On March 3, 2010, the Board issued its decision to 17 hold an in-person technical meeting and pre-hearing 18 conference, PHC, in the Hamlet of Arviat on March 19 30-31, 2010. Some parties indicated that they could 20 not attend in person but confirmed participation 21 through the teleconference, if available.</p> <p>22 March 23, 2010, Nuna Burnside Engineering and 23 Environmental Limited responded on behalf of the Hamlet 24 of Arviat to comments made by the various parties on 25 issues of further discussions at the PHC.</p> <p>26 On the morning of March 30th, 2010, the NWB held</p>
<p style="text-align: center;">122</p> <p>1 As part of its standard procedure, the NWB 2 conducted an initial internal review of the application 3 and identified some deficiencies in the administrative 4 requirements of the Type B water licence. The Board 5 noted the Applicant's commitment to providing 6 outstanding documents and requirements.</p> <p>7 On May 15, 2009, the Board requested that the 8 Applicant provide estimated submission dates for 9 outstanding documentation, administrative requirements 10 of the licence for compliance purposes. The Board also 11 advised the Hamlet of Arviat that processing of the 12 application will be suspended pending the receipt of 13 outstanding documents.</p> <p>14 On August 6th, 2009, the NWB acknowledged receipt 15 of additional application documents.</p> <p>16 On December 8, 2009, the NWB asked the Nunavut 17 Planning Commission, NPC, and the Nunavut Impact Review 18 Board to confirm their requirements under the Land 19 Claims Agreement, NLCA. Interested parties were asked 20 to check the application for completeness and begin 21 their technical reviews.</p> <p>22 By January 12th, 2010, the Board received comments 23 on the completeness of the application from INAC, 24 Environment Canada, and DFO. Based on the comments 25 received, the application was considered complete from 26 a regulatory perspective.</p>	<p style="text-align: center;">124</p> <p>1 the informal technical meeting in which the Applicant, 2 interveners, and community members participated. On 3 the evening of the same day, a community session was 4 held at the same venue. Approximately 83 people had 5 signed the registry and participated in the session.</p> <p>6 It should be noted that the current Panel Members 7 did not attend or participate at these technical and 8 pre-hearing sessions, but they were briefed by the 9 Technical Staff on the outcome and recommendation 10 resulting from these sessions. This information was 11 relayed on by the Board later in preparation of the 12 pre-hearing conference decision.</p> <p>13 The following morning, March 31, 2010, a 14 pre-hearing conference session was held in which the 15 Applicant, community members, and interveners 16 participated.</p> <p>17 On May 7, 2010, the NWB issued a PHC decision in 18 which it extended a deadline for the submission of 19 additional information as committed by the Applicant to 20 June 2, 2010, and set a deadline of July 2, 2010, for 21 the receipt of final documents for the public hearing.</p> <p>22 In its decision, the Board also confirmed July 20-22, 23 2010, as the dates for the public hearing. The Notice 24 of Public Hearing was issued officially on May 17, 25 2010, in local newspapers, and on May 19, 2010, on 26 bulletin boards in affected communities. On the week</p>

<p style="text-align: center;">125</p> <p>1 of July 4th, 2010, television, radio advertisements 2 began airing on local stations in Arviat. 3 On June 2, 2010, Nuna Burnside Environmental 4 Limited provided various revised documents in response 5 to questions, concerns, issues identified during the 6 technical meeting and pre-hearing conference. 7 Based on the application, written submissions of 8 the parties, and the information exchanged at the 9 TM/PHC, the NWB Staff identified the following as 10 issues to be addressed in the hearing: 1) Drawdown of 11 Wolf River; 2) Water intake; 3) Solid waste disposal; 12 4) Bulky metal waste storage; 5) Contaminated soil 13 storage; 6) Hazardous waste storage; 7) Sewage disposal 14 and treatment; 8) Sludge management; 9) Discharge 15 criteria; 10) Abandonment and restoration; 11) 16 Monitoring. 17 Written submissions for this hearing have been 18 received from Indian and Northern Affairs Canada, INAC, 19 Environment Canada, EC, Department of Fisheries and 20 Oceans, DFO, and the Government of Nunavut-Department 21 of Environment, and the Government of Nunavut-Community 22 Language Elders and Youth, CLEY. 23 Earlier today, the Board's hearing commenced and 24 presentations and evidence was presented by Nuna 25 Burnside on behalf of the Applicant, Indian and 26 Northern Affairs Canada, INAC, Environment Canada, EC,</p>	<p style="text-align: center;">127</p> <p>1 THE CHAIR: Thank you. 2 The Board regrets that the Government of 3 Nunavut-Department of Environment is not in attendance 4 at this hearing. 5 It is our tradition to give respect to our elders, 6 therefore, at any time, an elder may speak to the 7 application on file. 8 Before proceeding, I would like to request that 9 everyone attending this community session to register 10 with Richard Dwyer, NWB's Licencing Administrator, at 11 the side table. 12 Are there any members of the general public who 13 would like to identify themselves? 14 Are there any representatives from agencies, 15 associations, et cetera, who have not submitted 16 interventions but would like to speak? 17 I will now proceed with the identification of any 18 motions or any objections to the application that is 19 before the Board. 20 According to the information I have, there are no 21 motions or objections before the Board. 22 Let us now proceed with Item 19 of the "Order of 23 Events", a presentation by the Applicant. 24 We will now proceed with a short presentation on 25 the application by Mr. Jim Walls on behalf of the 26 Hamlet and the Government of Nunavut-Community and</p>
<p style="text-align: center;">126</p> <p>1 Department of Fisheries and Oceans, DFO. 2 I would now like to ask the Applicant and the 3 parties to come forward to the microphone and introduce 4 themselves to the community. 5 Let us begin with the Applicant, the Hamlet of 6 Arviat, Government of Nunavut-Department of Community 7 and Government Services as represented by Nuna 8 Burnside. Please step over to the microphone, 9 introduce yourself. You already have one there I see. 10 MR. WALLS: Thank you, Mr. Chairman, 11 Members of the Board. Good evening to Staff of the 12 NWB. Mr. Chairman doesn't want me to speak, okay. Jim 13 Walls, Nuna Burnside. 14 THE CHAIR: I would like to say something 15 to that respect, but I'm going to stay within my 16 boundary. 17 Next we have Indian and Northern Affairs Canada. 18 MR. PARSONS: Mr. Chairman, Ian Parsons, 19 representing Indian and Northern Affairs Canada. 20 THE CHAIR: Thank you. Environment 21 Canada? 22 MS. SMITH: Paula Smith, Environment 23 Canada. 24 THE CHAIR: Thank you. DFO? 25 MR. COOPER: Mr. Chairman, Gary Cooper, 26 representing DFO.</p>	<p style="text-align: center;">128</p> <p>1 Government Services. 2 I would like -- I would remind participants to 3 state their name prior to speaking to assist the 4 stenographer in keeping an accurate record. Thank you. 5 Mr. Walls, please proceed with your presentation. 6 <u>COMMUNITY PRESENTATION BY CGS-GN:</u> 7 MR. WALLS: Thank you, Mr. Chair. I 8 apologize for jumping the gun, so fascinated by my 9 topic I didn't hear the question. 10 My name is Jim Walls, I work for Nuna Burnside 11 Environmental and Engineering Limited. I've been 12 retained by Community and Government Services of the 13 Government of Nunavut on behalf of the Hamlet of Arviat 14 to assist them with preparing the water licence 15 application and subsequent documentation to apply for a 16 new Type A five-year water licence. 17 So good evening to Mr. Chairman and Members of the 18 Board, Technical Staff of the Nunavut Water Board, 19 Madam Reporter, our capable interpreters, technical 20 staff, agencies representing regulatory authorities, 21 and members of the community of Arviat. Welcome. 22 I'd like to point out that we have Mayor Bob 23 Leonard in attendance. We also have the SAO for the 24 Hamlet of Arviat, Mr. Eddie Murphy, in attendance 25 tonight. 26 As I mentioned, Community and Government Services</p>

<p style="text-align: center;">129</p> <p>1 of the Government of Nunavut has retained Nuna Burnside 2 to do the application for renewal of the water licence 3 on behalf of the Hamlet. The focus of the application 4 is three areas: Solid waste management, sewage 5 treatment and disposal, and water supply, and the areas 6 of jurisdiction of the Nunavut Water Board that apply 7 to these. So it does not include things like human 8 health and safety; it's mainly focussed on protecting 9 the environment within the jurisdiction of the Nunavut 10 Water Board.</p> <p>11 A technical meeting and pre-hearing conference, as 12 mentioned in the opening remarks, was held in March 13 here in Arviat at the school, and it was attended by 14 NWB Technical Staff, various regulatory agencies, and 15 we had some public attendance and input as well. And 16 as part of that, we discussed a compilation of issues, 17 and these were concerns raised by the agencies due to a 18 lack of information and concerns with the 19 infrastructure and potential impacts to the 20 environment.</p> <p>21 As a result of that meeting, revised supporting 22 documents were prepared. The Government of Nunavut 23 managed to dredge up some missing data, as-built 24 drawings for the sewage lagoon, some information on the 25 water supply facility that was needed to support the 26 application and flesh out some of the concerns the</p>	<p style="text-align: center;">131</p> <p>1 Hamlet of Arviat infrastructure: The sewage 2 lagoons and solid waste, water supply intake from Wolf 3 Creek. Solid waste management is one of the big 4 concerns in the community right now. The landfill site 5 is nearing capacity. The bulky metals area is pretty 6 scattered and doesn't have any defined boundaries. The 7 hazardous waste storage area is kind of a mixed mash. 8 There's some hazardous waste stored out at the bulky 9 waste area. A lot of the vehicles out there haven't 10 had their oil and antifreeze drained and things like 11 that to protect the environment, so there's some work 12 that needs to be done. There's also contaminated soil 13 stored out at the bulky metals area, and it should be 14 assessed and put in a landfarm.</p> <p>15 The solid waste area, two abandoned sewage 16 lagoons, and the existing sewage lagoon, and over at -- 17 once in a while, we've noticed ponds of leachate. This 18 is water that oozes from the landfill and gets onto the 19 tundra out at the other side of the landfill in an 20 uncontrolled fashion.</p> <p>21 So as I mentioned, the landfill is reaching 22 capacity and is also, according to Transport Canada 23 guidelines, within the -- too close to the flight path 24 for landing and an aircraft taking off, so the birds 25 that are attracted to the landfill are actually a 26 hazard to aircraft. A bird hazard aircraft study was</p>
<p style="text-align: center;">130</p> <p>1 regulatory agencies had regarding the potential of 2 these facilities and activities to impact the 3 environment.</p> <p>4 We also prepared a work plan for the -- for CGS, 5 outlining what the next steps would be to try and bring 6 some of these facilities into compliance and address 7 some of the agency concerns.</p> <p>8 So this presentation will address the current 9 condition of each of the facilities and where they're 10 deficient according to regulations and what needs to be 11 done to upgrade them to protect the environment and 12 bring them into compliance with the regulations.</p> <p>13 And we recognize that it will take a while for 14 some of these facilities. I mean, you've seen your 15 landfill, the bulky waste area, some of the storage of 16 drums of hazardous waste by the Public Works garage. 17 There are issues in the community that can't be 18 resolved overnight, and it will take some time.</p> <p>19 So right now we're applying for a water licence 20 that can be granted up to a five-year period, and what 21 we'd like to do is request that the NWB put conditions 22 in the licence so that some of these issues that are 23 outstanding can be addressed and repaired over the 24 course of the licence because it's impossible to do 25 them right now. It will take time to do studies, time 26 to do engineering, and fix them up.</p>	<p style="text-align: center;">132</p> <p>1 conducted by LGL a year ago, and they determined that 2 the landfill should be closed to reduce the 3 attractiveness to birds and the hazard to aircraft. As 4 the Hamlet grows, and more and more aircraft come in 5 and out of the Hamlet, there's a greater concern that 6 there could be a bird strike.</p> <p>7 So CGS, in 2008, hired Nuna Burnside to evaluate 8 the existing landfill and determine whether it could be 9 expanded or whether a new landfill had to be sited and 10 constructed. This is the existing landfill right now, 11 and there's some ponded water in this end of it. It's 12 mainly a tip-and-fill type landfill. The level of 13 waste is getting up to near the top of the berms, and 14 it's getting close to the end of its useful life.</p> <p>15 There's some issues with the landfill. A lack of 16 cover over the waste. Typically not too much cover's 17 been applied. Some of the fencing's been damaged. 18 There's leachate ponding, and monitoring to date has 19 been quite limited. The expired NWB licence required 20 that samples be taken annually, and the landfill 21 monitored to determine what impact it may be having to 22 the environment, and most of that has not been done. 23 There's also the issue of bird hazards to aircraft, as 24 I mentioned.</p> <p>25 So the bulky metals area, there's buried waste out 26 there, hydrocarbon contaminated soil that was placed</p>

<p style="text-align: center;">133</p> <p>1 there on purpose in order to store it. The metals are 2 scattered over a wide area, and to date, there's been 3 no set pattern of how things should be disposed of, and 4 materials that are no longer of any use to anybody just 5 remain sitting on the tundra.</p> <p>6 Hazardous waste storage in the community, there's 7 no specific plan at the moment. Batteries, waste oil, 8 waste antifreeze, and various hazardous wastes are not 9 stored in a manner to protect the environment, so 10 they're out of compliance with regulations, and they're 11 not segregated and shipped out of the community on a 12 regular basis.</p> <p>13 As I mentioned, there was contaminated soil stored 14 at the bulky waste area, and that's out of compliance 15 with regulations. A landfarm facility is needed, and 16 this is a type of containment area that's lined that 17 the contaminated soil can be put into, and over time, 18 the contaminants can be gradually broken down in a 19 controlled fashion until the soil is suitable for some 20 other purpose such as cover of the landfill.</p> <p>21 We were retained by CGS to find a new landfill 22 site, and a site was identified 6.5 kilometres west of 23 the community along the Dionne Lake Road. We had some 24 public consultation about that site and trying to get 25 approval of that site or another site in the community. 26 That was scheduled to be built a year ago, and it's</p>	<p style="text-align: center;">135</p> <p>1 scientifically controlled circumstances basically 2 combust and destruct the waste. So if an alternative 3 like that is developed in the Hamlet, then you wouldn't 4 need a landfill. You would still need bulky metals and 5 hazardous waste storage, but it would be a different 6 facility.</p> <p>7 So compliance with regulations, it's currently -- 8 the facilities that are currently in place do not meet 9 regulations. The proposed new development would, but 10 it's going to be a couple of years before that can ever 11 be implemented. So we suggest, for the sake of getting 12 the water licence, that conditions be added to the 13 licence to address the issues at hand because we know 14 they can't be addressed for a couple of years, and we 15 want to have a licence in place for the Hamlet to 16 operate under. So the conditions would be requiring 17 upgrades over the next few years, improved handling 18 practices, and addressing some of the things that can 19 be addressed in the short term.</p> <p>20 Some of these conditions would include continuous 21 improvement of the current operations, stockpiling some 22 of the hazardous waste, getting the batteries out of 23 the vehicles in the bulky metals area, and time lines 24 to achieve specific milestones, so commitments made to 25 the NWB to improve things and what things to improve 26 and exactly when.</p>
<p style="text-align: center;">134</p> <p>1 been delayed.</p> <p>2 The landfill would have had -- or the solid waste 3 management facility would have had an area for 4 hazardous waste, would have had an area for a landfarm, 5 would have had an area for bulky metals storage, and a 6 solid waste landfill facility. So it was designed to 7 solve all the solid waste issues in the community, but 8 as I mentioned, it hasn't been developed yet. Public 9 consultation couldn't reach a consensus.</p> <p>10 We had some public consultation last year, and 11 some of you may remember me being in the Hamlet talking 12 to people about where they would like a landfill, what 13 kind of a landfill it would be, and where to put it.</p> <p>14 So so far, there's no consensus, and the community is 15 undergoing some community planning studies right now, 16 and it's hoped that, as part of the community planning, 17 a decision can be made of where to locate the new 18 landfill.</p> <p>19 The Hamlet has also indicated they're interested 20 in alternative waste disposal options. These are 21 things like incineration, oxidation, plasma 22 destruction, and basically, there's a number of 23 technologies with different terms that can be roughly 24 lumped into the term "incineration". This means a 25 facility where you take your waste, you put it in, and 26 using a high temperature and controlled --</p>	<p style="text-align: center;">136</p> <p>1 O & M and bulky wastes: O & M is operations and 2 management, so it would be methodologies to drain 3 fluids and materials out of vehicles before they're 4 stored in the bulky metals area, and conducting an 5 environmental assessment of both the waste disposal 6 site, the hazardous waste storage area, and the bulky 7 metals area. We know there's some contamination out 8 there, and we need to define how big it is, and what 9 impact it's having on the environment.</p> <p>10 So these are the commitments that CGS has made on 11 behalf of the Hamlet to accomplish in 2010. This is 12 work that CGS has recently approved that we undertake, 13 Nuna Burnside undertake, in 2010 to meet some of the 14 regulatory requirements: Prepare as-built plans for 15 the bulky metals and hazardous waste storage areas. 16 Since the new facility is not going to be built for the 17 next couple of years as planned, then we have to 18 develop plans to use what is currently existing in the 19 most environmentally friendly way as possible. It's 20 not going to be perfect, but it's going to be the best 21 we can do.</p> <p>22 Determine the need for a landfarm, so that means 23 sampling the soil out at the bulky metals area, 24 sampling some of the soil where the waste oil is 25 stored, and soil that's contaminated needs to go into a 26 contained facility and landfarmed.</p>

<p style="text-align: center;">137</p> <p>1 So prepare a site plan to maximize the use of the</p> <p>2 existing landfill. We need to go out and survey the</p> <p>3 landfill, see how high we can raise the level of waste,</p> <p>4 and see how much capacity remains and figure out the</p> <p>5 best way to use that capacity to maximize the life of</p> <p>6 the landfill in an environmentally sound manner until a</p> <p>7 new replacement facility can be built.</p> <p>8 Prepare abandonment and restoration plans for the</p> <p>9 facilities that are there to have them in place when a</p> <p>10 new facility is built. And submit the results of these</p> <p>11 studies with recommendations by the end of 2010.</p> <p>12 Sewage treatment facility: A single lagoon that's</p> <p>13 designed as an exfiltration lagoon. That means as you</p> <p>14 put the sewage into it, it exfiltrates, it filters out</p> <p>15 through an area in the berm that's designed to let the</p> <p>16 sewage escape. There isn't much data available of why</p> <p>17 it was designed the way it is, why the site was sited</p> <p>18 where it is, how fast it's supposed to exfiltrate, and</p> <p>19 what impact it should have on the environment. Usually</p> <p>20 before you build a facility like that, you do some</p> <p>21 planning of why you're doing it the way you're doing</p> <p>22 it, but that work was never done. So it was basically</p> <p>23 built, it operates, and nobody really knows what impact</p> <p>24 it's having on the environment. The proximity to the</p> <p>25 ocean and the discharge from the lagoon is a concern.</p> <p>26 So the current sewage lagoon and two abandoned</p>	<p style="text-align: center;">139</p> <p>1 further action is needed depending on the findings of</p> <p>2 the studies. Maybe nothing is needed, we just don't</p> <p>3 know, so our recommendation is to approve the licence</p> <p>4 with these conditions.</p> <p>5 The two abandoned sewage lagoons, regulations</p> <p>6 require that they have abandonment and restoration</p> <p>7 plans, and if there are environmental issues, that they</p> <p>8 be addressed. We did a visual inspection in 2009 and</p> <p>9 didn't see any issues of concern. There were birds</p> <p>10 floating around in the abandoned lagoons. They seemed</p> <p>11 happy, the grass was happy, you know, everything was</p> <p>12 growing. If you didn't know that they were former</p> <p>13 lagoons, you would just think they were tundra ponds.</p> <p>14 So we haven't seen any issues out there, but until</p> <p>15 we go out and take some samples of the sludge from the</p> <p>16 base of the lagoon, we test the water, and evaluate</p> <p>17 what impact they're having on the environment, we can't</p> <p>18 really come up with an abandonment and restoration</p> <p>19 plan. Maybe the best way is just to leach them as it</p> <p>20 is, but until we do the work, we don't know. So again,</p> <p>21 this is a -- would be a condition of the licence that</p> <p>22 this be done, and it would be done by the end of 2010.</p> <p>23 So this is -- CGS has also funded us to do these</p> <p>24 studies, update the as-built drawings for the wetland</p> <p>25 treatment area, which have never -- and lagoon, which</p> <p>26 haven't been finished, an environmental assessment of</p>
<p style="text-align: center;">138</p> <p>1 lagoons next to it, which are no longer in use, and the</p> <p>2 exfiltration comes out at this end and travels in a</p> <p>3 wetland area over here. Exactly how it moves has not</p> <p>4 been documented. The area has never been surveyed, so</p> <p>5 we don't really have a good understanding of what's</p> <p>6 moving under the ground, what's moving on the ground,</p> <p>7 and this is contrary to regulations because we can't</p> <p>8 let the regulatory agencies know what exactly is</p> <p>9 happening and what impact is occurring because it's</p> <p>10 never been studied.</p> <p>11 There's a general lack of information, and the</p> <p>12 predicted impacts to the environment are unknown. Some</p> <p>13 studies have been undertaken. In 2008, Fleming College</p> <p>14 came up and collected a variety of samples from that</p> <p>15 wetland area, so we have some data, but they never</p> <p>16 really figured out what it all meant.</p> <p>17 Licence conditions: Again, we -- assessing and</p> <p>18 repairing and addressing whatever issues are associated</p> <p>19 with the lagoon and the impact on the environment is</p> <p>20 going to take some time, and right now we want to get</p> <p>21 the water licence in place, so we're suggesting that</p> <p>22 the water licence be issued with conditions, that we</p> <p>23 conduct studies and provide the findings to the</p> <p>24 regulatory agencies by the end of this year and make</p> <p>25 recommendations on what should be done to the wetland</p> <p>26 area, what should be done to the lagoon, and what</p>	<p style="text-align: center;">140</p> <p>1 the active and abandoned lagoons to see what impact</p> <p>2 they're having on the environment, and conduct an</p> <p>3 assessment and a sampling program of the wetland</p> <p>4 treatment area to just determine is it working, is it</p> <p>5 treating, and what impacts is the sewage that's</p> <p>6 discharging into the wetland area having on the</p> <p>7 environment and submit the results of this work by the</p> <p>8 end of 2010.</p> <p>9 The water supply facility is the pumping -- the</p> <p>10 pump house at Wolf Creek, and the mandate of the NWB is</p> <p>11 not so much the quality of water for human consumption,</p> <p>12 it's are you harming the environment by taking the</p> <p>13 water, are you harming fish and fish habitat, are you</p> <p>14 harming the environment in some fashion.</p> <p>15 So the particular concern that DFO has is fish and</p> <p>16 fish habitat. When the water -- the water takings</p> <p>17 occur in the late summer when water levels are low, so</p> <p>18 does taking all that water impact fish habitat, does</p> <p>19 the intake screen -- is it sized properly in order to</p> <p>20 protect from sucking up fish and impacting maybe larvae</p> <p>21 and various marine or -- stream and pond inhabitants.</p> <p>22 So in order to address those issues and concerns</p> <p>23 of DFO and Environment Canada, we'll have to do some</p> <p>24 study, just check the morphology and the depths of the</p> <p>25 water, determine from talking to people in the</p> <p>26 community and the elders what types of fish live in</p>

<p style="text-align: center;">141</p> <p>1 here, and how many of them are moving and what they're 2 doing at the time of year that pumping is occurring. 3 This system is pretty benign for most of the year 4 except during the time when it's pumping to fill the 5 reservoir, so we have to make sure that it's not 6 affecting fish or fish habitat. 7 We also want to look at whether taking water from 8 that creek is sustainable over the long term. This 9 water licence is for five years, but we also want to 10 make sure that if in five or ten years that creek is 11 not suitable to take water from, there's not enough 12 water in the creek, we understand there's some climate 13 change issues in the area, and people are worried that 14 the creek is drying up and doesn't have quite the 15 quantity of water it once did, so we want to make sure 16 that there's a sustainable long-term supply for the 17 Hamlet of Arviat. 18 So we're suggesting in this case -- again, we 19 don't know all the impacts that pumping is having on 20 the environment at the moment, so we're suggesting that 21 conditions be added to the licence, issue the licence 22 with these requirements, that we study the pumping 23 effects, we determine the presence of fish and fish 24 habitat and determine the impacts of withdrawing water 25 from the creek at the time of year that the withdrawals 26 happen, evaluate the fish -- the intake screen to</p>	<p style="text-align: center;">143</p> <p>1 monitoring results, preparing the annual monitoring 2 report and getting it submitted. As part of this 3 process, we'll train some Hamlet Staff. We've prepared 4 operations and maintenance plans and monitoring plans 5 and how all this work is supposed to be done. We'd 6 like to work with a representative of the community to 7 train them in how to collect the samples, so in future 8 years, the knowledge is in the community, and they can 9 do the work, and it's less expensive overall than 10 bringing in high priced consultants. So again, do the 11 monitoring, submit the results, and the annual report 12 for 2010 by the end of 2010. 13 So in summary, CGS and the Hamlet recognize that 14 there are issues with compliance with these 15 infrastructures, infrastructure components, and there 16 has been effort on behalf of CGS and the Hamlet to 17 upgrade documents, submit information, provide as-built 18 plans that are in CGS archives, and submit these in 19 support of the water licence application. 20 The current work program for 2010, again, we'll 21 continue with more studies and submit more 22 documentation and address a lot of the issues that 23 Environment Canada and DFO have identified. And it's 24 also recognized that any construction, major 25 engineering, and even complicated studies that may be 26 recommended by this work will happen in subsequent</p>
<p style="text-align: center;">142</p> <p>1 determine whether or not it meets DFO guidelines for 2 fish screens, provide these studies and recommendations 3 for any action, should it be needed, such as a new 4 screen by the end of 2010. 5 And Community and Government Services have already 6 retained us to address some of these issues, to update 7 the as-built drawings, assess the intake, evaluate the 8 impacts of pumping, and to conduct sampling and 9 establish monitoring stations to see what impact the 10 withdrawals are having on the creek. And CGS has given 11 us a deadline of December 2010 to complete these 12 studies and submit the reports to the regulatory 13 agencies. 14 Monitoring and reporting: Historically the annual 15 monitoring required by the expired licence, and is 16 required in most licences, has not been done, and if 17 it's been done, it's been done very sporadically. So 18 the Nunavut Water Board wants to see the annual 19 monitoring requirements of the licence done on a 20 regular basis, and INAC inspections in 2008, 2009 were 21 quite critical of the lack of monitoring. 22 So in order to get this year off to a good start, 23 CGS has retained us to conduct the reporting and 24 monitoring commitments required by the licence for the 25 period of 2010 on behalf of the Hamlet, so it will 26 assist in collecting the samples and getting the</p>	<p style="text-align: center;">144</p> <p>1 years, depending on what we find. 2 Again, licence conditions, so we're recommending 3 that the water licence be issued with these conditions, 4 and we're recommending that the licence be issued for 5 five years, recognizing it will take several years to 6 get these issues addressed, and whatever engineering is 7 needed put in place. 8 And that summarizes CGS's and the Hamlet's 9 presentation for the licence application. 10 Thank you, and is there any questions? 11 THE CHAIR: It's time for members of the 12 community to ask questions of the Applicant. If you 13 wish to speak, and someone will bring the microphone 14 over to you. Please remember to state your name before 15 speaking. 16 <u>PUBLIC QUESTIONS CGS-GN:</u> 17 MR. MCLINTOCK: Good evening, everyone. My 18 name's George McLintock. 19 Sorry I missed the start of the presentation. It 20 looks like a great plan, and I think the whole Hamlet 21 of Arviat's doing a great job. We need a second 22 source; the key thing you need is a second source of 23 water. Wolf Creek is running out. We're looking at a 24 population of Arviat in 10 years, 20 years of being 25 twice the size we are now. 26 Having learned from the Inuit, I suggest we do</p>

<p style="text-align: center;">145</p> <p>1 what our pioneers did, our ancestors all over Canada, 2 we take ice out of the freshwater lakes in the middle 3 of winter, and we store it in an ice house during the 4 summer. That's what our -- my ancestors did in 5 Alberta, all through Ontario. It's freshwater, and 6 that keeps you a nice reserve through the summer. Just 7 a suggestion.</p> <p>8 Thanks very much. Sorry, mutna.</p> <p>9 MR. KIGUSIUTNAR: Okay, I'd just like to say the 10 people from Baker Lake, Chesterfield Inlet, Whale Cove, 11 Rankin, if their applications have been approved about 12 the water, I know that from way up there, the water is 13 flowing from that area down to Arviat, and in Baker 14 Lake, there's a water monitoring system in Baker Lake. 15 I think there's a house that is used -- a building used 16 to monitor the water, and I'd just like to know why 17 there isn't a monitoring station in Arviat somewhere 18 close to the community, so I think that would help 19 to approve water applications.</p> <p>20 Many of us elders are getting too old to get some 21 water, ice water, and if we happen -- for us to get 22 water, it would be really hard to get water from 23 contaminated lakes, and that would be dangerous because 24 we would start going to the health centres, we start 25 getting sick.</p> <p>26 So I'd just like to know that water is flowing</p>	<p style="text-align: center;">147</p> <p>1 and other habitat. I think Dionne Lake and other 2 bigger lakes around Arviat (sic) have any fish. 3 They're probably about 12 to 15 miles from town, but 4 the ones closer to the community don't have any fish 5 because they're too shallow, but the -- some lakes are 6 quite deep, but they're not too deep, they're all quite 7 shallow.</p> <p>8 So I think the area around Arviat has to be fixed 9 because it's not drying up. It's really hard to 10 improve things like sewage and garbage, landfill, so I 11 think even there's a small lake just close to this 12 meeting hall, and it's just flowing down to the ocean, 13 and there should be a way to make a trench so that all 14 the small creeks can start flowing to one direction.</p> <p>15 So unless the small rivers and creeks are not 16 fixed up, there's always going to be spring runoff. 17 Even there's a river not far from the community. 18 There's also one small river that is flowing down to 19 the ocean not far from the community. I think if the 20 land around Arviat can be inspected and fixed up, so I 21 think -- because it's too wet around Arviat, and 22 there's the people that keep their dog teams tied up 23 are close -- too close to the community. I believe 24 those areas are too close. I think we cannot -- the 25 land can only be improved when the land can be filled 26 with gravel.</p>
<p style="text-align: center;">146</p> <p>1 down from the north of Arviat, and I know on the 2 rivers, I remember I used to be a trapper. Some of the 3 land that I am able to tell the name of any lake or the 4 name of the land, so I would be happy if everything 5 goes according to plan. So some are able, but some of 6 us are getting too old, so I am happy that there's 7 other people that are at the meeting.</p> <p>8 THE CHAIR: Anybody else from the public? 9 If you have any questions, a mic is available, or if 10 you have any questions directly to the Applicant or to 11 the person who was making the presentation.</p> <p>12 MR. KIGUSIUTNAK: My name is James Kigusiutnak. 13 The community of Arviat, they -- a dry community. 14 I think there are small rivers around the community, 15 and like small rivers or creeks. Maybe if they can be 16 need flow to one area, I think that is the only way the 17 community will start to clean up. There's so much 18 slush and mud around the community. I think that is 19 why it is hard for the area to be cleaned up. There's 20 a lot of small creeks that are flowing from the north 21 of the community, and those are flowing from Dionne 22 Lake and other lakes north of Arviat.</p> <p>23 So I think with proper heavy equipment, it would 24 be possible to fix the creek and other rivers around 25 the community. That way the land would become more dry 26 because all these creeks and rivers don't have any fish</p>	<p style="text-align: center;">148</p> <p>1 That's all, thank you, Mr. Chairman.</p> <p>2 THE CHAIR: We are going to have a 3 10-minute break, and if you have any more questions, do 4 not hesitate to ask, thank you.</p> <p>5 (ADJOURNMENT)</p> <p>6 THE CHAIR: Welcome back to the public 7 hearing. Are there any questions to the Applicant from 8 the public? This is your opportunity to ask questions.</p> <p>9 MR. KAYAVINIK: I'm just going to speak in 10 Inuktitut. First of all, thank you for coming to the 11 community and to get more information, and also the 12 Staff of the Water Board, the DFO, and other.</p> <p>13 I forget to mention my name; it's Basil Kayaviniuk.</p> <p>14 Just a while ago someone was talking about the 15 creeks and shallow water around Arviat. I truly 16 believe what he was talking about because there's a lot 17 of small lakes around the community; some of them just 18 dry up in the summer time. There's water coming 19 through, around the community, and sometimes the water 20 is dirty, and it gets really muddy at times, so I would 21 not want to drink contaminated water where it is muddy. 22 I think we're all like that; we wouldn't like to drink 23 contaminated water, but we all like to drink clean, 24 refreshing water, so we all like to drink clean water.</p> <p>25 And also the sewage level, I'd just like to ask 26 the sewage facility made too large, or do some of them</p>

<p style="text-align: center;">149</p> <p>1 run off if the berm is too small, and what does it take 2 to replace a sewage facility? Thank you. 3 MR. WALLS: Jim Walls, Nuna Burnside. 4 What does it take to replace a sewage facility if 5 this one is not suitable or not operating properly? I 6 guess the first thing we do is to find a proper 7 location for a new one, if a new location is needed if 8 that site is not suitable, and that would involve 9 studying the flow of water, where we can build roads, 10 and where the sewage would go after it goes out of the 11 lagoon through like a wetland area before it discharges 12 into the ocean or a river somewhere out on the tundra. 13 So that would be the first phase is to find a 14 location, and then based on how big the community is 15 going to grow in the next 30 years, then we have to 16 figure out how much waste water's going to be generated 17 by the community and size the lagoon according to that. 18 As part of the process, there would be a community 19 consultation, consulting with elders, and getting 20 traditional knowledge as part of the input. Just like 21 the landfill site, we don't build anything in the 22 community without the community's approval, and that's 23 why the landfill site has not been built yet until the 24 community's happy with a type and a location. 25 So that's what would happen with the sewage 26 lagoon, and hopefully this year, we'll figure out how</p>	<p style="text-align: center;">151</p> <p>1 to protect the environment. 2 MR. ATKAK: Thank you. Regarding the 3 garbage disposal, if the present site it going to be 4 moved, I think it -- this new location has to be 5 reconsidered because in a few weeks, the caribou are 6 going to be starting to migrate very close to the 7 community, and I think -- and also the Wolf Creek 8 water, and every winter, the water tanks are always 9 filled with mud. If -- I think there's an access road 10 north of Arviat, I think water should be up-tanked from 11 the Maguse River instead. 12 The present dump, I do not support the new 13 suggested location of the sewage and garbage dump 14 facility. 15 MR. WALLS: Thank you for your suggestions 16 and input, and I agree, the location of a new landfill 17 has been a controversial issue in Arviat, and it looks 18 like it will take a little while until the Hamlet 19 figures out exactly where they would like it to go. 20 Thank you for your suggestions and input. 21 THE CHAIR: Thank you. Understandable, 22 makes sense? Did you understand? 23 MR. ATKAK: (NO VERBAL RESPONSE) 24 THE CHAIR: Anybody else from the public? 25 Let's try that again, citizens from Arviat? 26 MS. MCLINTOCK: I don't know whether it's been</p>
<p style="text-align: center;">150</p> <p>1 it's operating and then make a determination whether it 2 needs to be replaced or whether it just needs to be 3 modified or maybe it's working fine the way it is. We 4 just don't know at this point. 5 THE CHAIR: Thank you. Any more 6 questions? Is it understandable? 7 MR. ATKAK: Thank you. My name is Charlie 8 Atkak. My question is what exactly is the meeting 9 about? Is it whether -- about the reservoir or a 10 garbage treatment facility? 11 MR. WALLS: Thanks for your question. The 12 focus of the meeting is to renew the Hamlet's Water 13 Board licence, which is the licence for disposal of 14 waste and waste water within the Hamlet, so that means 15 the landfill, the bulky metals area, the sewage lagoon 16 and wetland, as well as the effect of taking water from 17 Wolf Creek and putting it in the reservoir, what effect 18 taking the water has on the environment. 19 So the Water Board licences operations that could 20 impact the environment, that could cause a damage to 21 the environment, so this licence hearing is to 22 determine whether those items, sewer, water, and waste 23 water are damaging the environment or could damage the 24 environment, and what kind of conditions need to be put 25 on the Hamlet when operating those facilities so that 26 they don't damage the environment. So it's a licence</p>	<p style="text-align: center;">152</p> <p>1 addressed in here or not, but the -- looking to the 2 future, I'm just wondering if now would be a good 3 time -- 4 THE CHAIR: Please state your name. 5 MS. MCLINTOCK: Oh, sorry, I'm Elizabeth 6 McLintock. I'm a teacher here in Arviat. I've lived 7 here for the past 20 years, and I'm just wondering if 8 it's time to start looking at doing some garbage 9 separation so that we can get some of the recyclable 10 stuff out of our garbage that's taking up space. I 11 know it's expensive to ship it out of here, but I 12 really think something could be negotiated not just for 13 this community but for all the Nunavut communities, to 14 have some of the empty barges that are -- and empty sea 15 lift vessels that are going back taking a batch of 16 recyclables out of each community. I know in this 17 community even, the amount of pop cans is just amazing. 18 I'm just thinking, it's not specific to where the 19 landfill's located or what, but it seems to me if we 20 started the practice of getting some of the things that 21 could be reused or recycled out of the waste before it 22 even goes to the landfill, we'd have more space in the 23 landfill that would last longer, and some of the things 24 potentially could have even -- some of the waste metals 25 and things potentially could have some monetary value. 26 So I'm just wondering if it's something to be</p>

<p style="text-align: center;">153</p> <p>1 considered or thought about in the overall planning. 2 And I guess I would just like to say that I've had 3 concerns about the sewage being -- lagoon being so 4 close to the ocean for quite a while. I think that 5 that is a problem. 6 THE CHAIR: Thank you. Jim? 7 MR. WALLS: Thank you very much for your 8 input. We did some -- there was some back-hauled out 9 of Rankin a couple of years ago of waste metal, and it 10 never -- nobody could ever figure out how to make money 11 at it, so so far in most of the hamlets, there hasn't 12 been much back-haul, but I understand some hamlets do 13 segregate their -- especially their pop cans and the 14 aluminum, because they're the most expensive, and they 15 find ways on empty vessels going back to get those out 16 of the community, but it takes a lot of, you know, 17 community effort and input to make that happen. 18 And I agree that the more materials that are kept 19 out of the landfill, there's more space in the 20 landfill, and it takes up less capacity, so that's a 21 good option. 22 And we're seeing more focus on green initiatives 23 in Nunavut, separating organics and things like that 24 for other purposes, hoping that, sooner or later, these 25 things come to fruition, but it is difficult in this 26 climate and these communities.</p>	<p style="text-align: center;">155</p> <p>1 landfill, and there's quite a number of other hamlets 2 in Nunavut that have been discussing getting some 3 incineration technology, whether it's anoxic or 4 bio-digesters that operate only in the summer or -- a 5 variety of technologies that are being developed to do 6 just what you suggest. 7 And over the next year or so, I guess, the Hamlet 8 has to decide whether it's going for a landfill or for 9 some technology like that or a combination of both, so 10 that's still up there. And these are common issues 11 that are facing not only hamlets in Nunavut but right 12 across the country, so it's on everybody's mind. 13 Thanks for your input. 14 THE CHAIR: Thank you. Any more questions 15 from community members of the Applicant? 16 MR. KIGUSIUTNAK: My name is James. 17 Perhaps in Arviat, the population is growing very 18 fast. The garbage is increased more, and the sewage 19 lagoon is needed, and also they're building more 20 houses, and the more they build the new houses, the 21 houses are going to be too close together eventually. 22 Perhaps if they change the garbage dump or the 23 sewage lagoon, perhaps place it somewhere else farther 24 away from the community, not close to our community. 25 I'm just suggesting that perhaps think about placing a 26 new sewage lagoon farther away from here, because we're</p>
<p style="text-align: center;">154</p> <p>1 And as far as the sewage lagoon goes, as I 2 mentioned in my talk, we've got a study of that going 3 on this summer and make some sort of -- and make some 4 assessment of whether it is impacting the environment 5 and what impact it may be having on the near shore and 6 the ocean there. I don't think it's a big problem 7 right at the moment, but we also have to look ahead 20 8 years from now when Arviat's the size of Iqaluit. 9 THE CHAIR: Thank you. Any more 10 questions? Community members, any more questions? 11 MS. MCLINTOCK: Just one other idea, just one 12 other suggestion, and that is I don't know whether it 13 would be just creating more problems, but a lot of the 14 garbage as well in this community is like cardboard and 15 paper, and would there be any value in getting a 16 community incinerator going, or would that just create 17 more problems for like air pollution? 18 But it just -- like I keep -- I'm still in the 19 habit of segregating my cardboard and things from 20 living down south, and I know also at the school, we 21 have a huge amount of paper waste, and I'm just 22 wondering if it's too expensive to ship it out for 23 recycling, if incinerating it would be an option. I'm 24 just not sure. 25 MR. WALLS: The Hamlet is looking at the 26 potential for incinerators instead of having a</p>	<p style="text-align: center;">156</p> <p>1 just going to be coming back and forth to -- trying to 2 come up with other options. We are not getting 3 anywhere, and perhaps make a big change, make one -- 4 the place about 10 miles away from here. 5 And also get an incinerator away from the 6 community so it won't contaminate our air, and perhaps 7 at the Wolf -- around the Esker area -- in the Wolf 8 Esker area, there's a place called Maguse River area 9 also, and it's farther away from our community. 10 I think we can come up with another alternative, 11 place a new garbage site further away from here. Just 12 think about the future, there is the potential to come 13 up with the better facilities away from the community, 14 so that way, our clean air won't change, knowing the 15 fact that the population is growing very fast and that 16 buildings are being built all the time. 17 I'm just thinking that all of my concern was there 18 are so many little creeks all around coming from the 19 lakes causing a congested land, it's sludgy and mucky, 20 and that will get cleaner too, and it will be so much 21 better. Just think about it's closer to the shore, and 22 it would cleanse the land eventually because right now 23 there's so many creeks and small rivers just congesting 24 the land, and they're all close to Arviat community, in 25 the vicinity of the community, and there's those little 26 ponds, and those little ponds and smaller lakes are</p>

<p style="text-align: center;">157</p> <p>1 becoming stagnant.</p> <p>2 We want to -- we're just going to go back and</p> <p>3 forth, come back to the next meeting again. We're</p> <p>4 solving nothing. I think we have to think forward, up</p> <p>5 ahead. And the name of the Mikilar Lake, that's the</p> <p>6 name of the lake is Mikilar Lake. Perhaps drain those</p> <p>7 lakes, and that area, it's not muddy, and also like it</p> <p>8 was suggested to trench in the areas where you can get</p> <p>9 a bigger lake eventually to drain out those small</p> <p>10 creeks.</p> <p>11 And we can see the big picture, where the local</p> <p>12 people here, who grew up here, we were born here. We</p> <p>13 know what's happening with our own environment. And</p> <p>14 now it's unlivable practically. It's so muddy. Right</p> <p>15 in the community, it might be as muddy or sludgy as</p> <p>16 outside around the lake.</p> <p>17 And the Dionne Lake, those lakes, there's no fish</p> <p>18 in them, they're drying up, and they're very shallow.</p> <p>19 Some of them do dry completely in the summer time, and</p> <p>20 eventually -- like eventually, the Arviat is going to</p> <p>21 be lacking water, like this the way of -- just a</p> <p>22 thought for everyone to think about, to make possible</p> <p>23 plans and just making it stretch to the point that to</p> <p>24 work this -- work on those issues together related to</p> <p>25 our community, Arviat community, and also where we get</p> <p>26 the gravel in the sand pit, and also we'll eventually</p>	<p style="text-align: center;">159</p> <p>1 MR. WALLS: Thank you for your comments,</p> <p>2 and as we are seeing here tonight, the landfill remains</p> <p>3 a question on where to locate a new one or whether to</p> <p>4 go to an incinerator or some other technology. So I</p> <p>5 appreciate the input of the Hamlet of Arviat, and it's</p> <p>6 going to be an interesting exercise to come to a</p> <p>7 conclusion and gain consensus in the community.</p> <p>8 Landfills are always a hard thing to make a decision</p> <p>9 on, so thanks for your input.</p> <p>10 THE CHAIR: Does that make sense? Anyone</p> <p>11 else?</p> <p>12 MR. MAMGARK: Peter Mamgark. About the</p> <p>13 20-year plan for the water licence, I would agree with</p> <p>14 it was where water the Wolf Creek (sic), but for the</p> <p>15 landfill disposal I would -- or the sewage lagoon, I</p> <p>16 would not agree with it because it would be too close</p> <p>17 to the water source. I think in 20 years, I think that</p> <p>18 sewage lagoon and garbage disposal should be located</p> <p>19 somewhere north of Arviat maybe. I think the Wolf</p> <p>20 Esker is considered as a 20-year plan. I think that</p> <p>21 sewage and garbage disposal should be located somewhere</p> <p>22 else away from that area. Thank you.</p> <p>23 MR. WALLS: Thank you very much for your</p> <p>24 input, and it's good to look at the far future in 20</p> <p>25 years. There's a lot of kids running around Arviat,</p> <p>26 and so it's going to be a very populous community in</p>
<p style="text-align: center;">158</p> <p>1 need a new sand pit or gravel pit area for building</p> <p>2 constructions in our community.</p> <p>3 Those are the things to think about, Mr. Chairman.</p> <p>4 THE CHAIR: Qujannamiik. Jim?</p> <p>5 MR. WALLS: That's certainly a lot to</p> <p>6 think about and a lot of things to consider, and I</p> <p>7 appreciate the thoughts, thank you.</p> <p>8 THE CHAIR: Thank you. Anybody else from</p> <p>9 the community members? Can I try that one again,</p> <p>10 citizens of Arviat? No takers?</p> <p>11 MR. KIGUSIUTNAR: Wolf Creek used to be a big</p> <p>12 river. I think some way to make a bridge would be</p> <p>13 better. Wolf Creek has to be crossed because that</p> <p>14 creek has been there for many years, and even in the</p> <p>15 springtime, the runoff is very strong. Many times</p> <p>16 there has been bridges built, but they all have been</p> <p>17 destroyed by the spring runoff.</p> <p>18 So even if there's a garbage disposal on the other</p> <p>19 side of the creek, and that a bridge would -- is</p> <p>20 destroyed, then people would start dumping their</p> <p>21 garbage anywhere. That river is very strong, and there</p> <p>22 has to be a sturdy or a strong bridge built over a</p> <p>23 creek. It would be better maybe -- maybe an alternate</p> <p>24 location would be north of Arviat, somewhere other</p> <p>25 than -- past Wolf Creek. Thank you.</p> <p>26 THE CHAIR: Thank you. Jim?</p>	<p style="text-align: center;">160</p> <p>1 the next 20 years. Thanks for your comments.</p> <p>2 THE CHAIR: Thank you. Anyone else?</p> <p>3 MR. ANOWTALIK: Paul Anowtalik.</p> <p>4 Regarding the sewage lagoon, every year its use,</p> <p>5 doesn't seem to be filling up. Maybe it's better just</p> <p>6 to dump the sewage to the ocean, and the garbage</p> <p>7 disposal is too close to the airport, airstrip. It has</p> <p>8 to be moved somewhere. Maybe Dionne Road is</p> <p>9 considered, but a lot of people do not agree with that</p> <p>10 suggestion.</p> <p>11 I think the planning has to be done properly about</p> <p>12 where the location is, and I think sewage can be</p> <p>13 drained to the ocean, as long as there's a filtering</p> <p>14 system. Year after year, now, it's almost 20 years now</p> <p>15 that the sewage doesn't seem to be filling up. It's</p> <p>16 draining somewhere, and so maybe something has to be</p> <p>17 done properly. Thank you.</p> <p>18 THE CHAIR: Jim?</p> <p>19 MR. WALLS: You make a good point. The</p> <p>20 sewage lagoon doesn't ever fill up, and one of the</p> <p>21 things we're going to study this summer is where the</p> <p>22 sewage goes and what effect it's having on the</p> <p>23 environment and what effect on the ocean, so hopefully</p> <p>24 we can find out an answer to that.</p> <p>25 And you're right about the landfill, the Dionne</p> <p>26 Lake Road site was selected, but there's a lot of</p>

<p style="text-align: center;">161</p> <p>1 controversy in the community, and it's good that people 2 talk about it and achieve consensus, so when the Hamlet 3 decides, has a consensus of where they want to put it, 4 then we'll look at the engineering. 5 THE CHAIR: Thank you. Anyone else? Was 6 that understandable? 7 MR. KAYAVINIK: It's me again, Basil 8 Kayavinik. 9 Regarding garbage disposal, about water supply, I 10 think the sewage lagoon is too close to the garbage 11 disposal area. It should be relocated somewhere 12 further away because when the garbage is being burned, 13 the smoke goes right into the community, and it's very 14 bad smelling. So I think what was suggested, further 15 away from the community, should be considered, 16 something like 20 miles away from the community. That 17 way it would be further away from the community, and if 18 it was put in to the Dionne Road area, that is the area 19 that a lot of people do not agree with. Thank you. 20 THE CHAIR: Thank you. 21 MR. WALLS: Thanks for your input, and 22 there's some good suggestions on putting the dump or a 23 landfill far from the community, and that would be 24 ideal, extremely expensive, but it would be good. 25 Thanks for your input. 26 THE CHAIR: Thank you. Anyone else?</p>	<p style="text-align: center;">163</p> <p>1 But we have to think about the next generation is 2 growing up, and the population is increasing like every 3 year. The new houses are being built. We don't have 4 enough facilities in town now to upkeep our community, 5 and it's time that we upgrade our equipment here. 6 There's another change that we would have to make. We 7 have heard this for many years. 8 And also the people are talking about that 9 eventually they want to build a highway between here 10 and -- through Arviat going to Manitoba, and if that is 11 also possible, then they would have to make numerous 12 bridges or perhaps, when the time comes, use those same 13 equipment. Our equipment is very limited in our 14 community in Arviat. 15 Thank you, Mr. Chair. 16 THE CHAIR: Qujannamiik. Jim? 17 MR. WALLS: Thank you for your comments. 18 You're right, it was a hard thing to decide on exactly 19 where to put these facilities, and it will require a 20 lot of equipment to build things far from the community 21 due to the size of the rivers. So thanks for your 22 comments. 23 THE CHAIR: Thank you. Anyone else? 24 MR. KIGUSIUTNAR: Me again, Mr. Chair. 25 Before you leave town, I wish you would make an 26 announcement prior to your arrival here so that way</p>
<p style="text-align: center;">162</p> <p>1 Please feel welcome. 2 MR. KIGUSIUTNAK: My name is James. 3 Those ideas are good ideas, but we have to think 4 about our hunting grounds too. Those are the places 5 where we hunt the wildlife, and when the heavy-duty 6 equipment, when they go to go that way, that far, they 7 would also change our terrain that is natural unless 8 they build a proper road for transporting the garbage 9 back and forth, perhaps build better -- small bridges 10 for -- to cross the bigger rivers. And there's the 11 Maguse River, it's a big river, and therefore, you 12 would need to consider to use a bigger heavy duty 13 equipments. 14 And by -- at the Meadowbank by the Baker Lake gold 15 mine, the -- there's 70 feet deep some lakes. Like 16 they make changes in those big lakes, and they drain 17 really deep lakes in that area. They're altering the 18 lakes. Anything is possible. Like if we were to make 19 changes too in our bigger lakes here away from the 20 community, it's possible to when you use proper 21 equipment, like heavy equipment such as for 22 transporting the gravel back and forth or from the sand 23 pit, for the construction use by using those, the big 24 heavy equipments. I know there's always a question of 25 hunting for those big equipments, but if it's necessary 26 to make bigger changes, anything is possible.</p>	<p style="text-align: center;">164</p> <p>1 people can come here to attend this public meeting. I 2 would really appreciate that if they would let us know 3 ahead of time so we could attend the public meetings. 4 THE CHAIR: Qujannamiik. 5 MR. WALLS: Sean, you want to take the 6 question regarding the announcements? 7 THE CHAIR: Thank you. 8 MS. FILIATRAULT: Mr. Chairman, just to clarify, 9 thank you for your statement regarding notice of the 10 meeting. The meeting was advertised on the local TV 11 channel and has been for several weeks now. Official 12 notice was issued several months ago in the papers. In 13 addition, there's also been local representation going 14 on the radio and making announcements. And in 15 addition, somebody from the Staff as early as last 16 week, yet again, was on the local radio making 17 announcements to let the people know that the meeting 18 was happening. So there's been many, many 19 announcements in an attempt by the Water Board to make 20 sure that people were aware that this meeting was 21 taking place. 22 Thank you, Mr. Chairman. 23 THE CHAIR: Thank you. It's clear? 24 Anyone else? We're open, if you have any questions, 25 please feel welcome to say anything that you wish to 26 say.</p>

<p style="text-align: center;">165</p> <p>1 MS. MCLINTOCK: Hello, it's Elizabeth again. 2 I'm just looking -- been looking and looking at 3 this map here, and I'm just wondering if one of the 4 concerns is the closeness of the landfill to the 5 airstrip, whether it might be simpler to sort of fix up 6 and reinforce and possibly expand the landfill where it 7 is but move the airstrip, whether that option has been 8 considered or not. Because I think in terms of -- the 9 prevailing winds are all from the north, and it seems 10 to me the sewage lagoon pretty much really needs to be 11 south of the community and possibly the landfill as 12 well or in the incinerator because the prevailing -- if 13 they were north of the community, we'd be getting those 14 smells all the time. So that was just one thought I 15 had. I don't know if it's been investigated or 16 considered or not. 17 MR. WALLS: Thanks for your comments. 18 Yes, moving the airstrip was considered. CGS indicated 19 they didn't have the tens of millions that it would 20 take to do that at this time, and so that was 21 discounted. It's a million-dollar operation to close 22 the existing landfill and site another one on the 23 Dionne Lake Road 6-and-a-half kilometres from the 24 community. So that effort, there alone, was probably 25 in the order of 1.2 million, and moving the airport 26 would be, you know, easily many orders of magnitude</p>	<p style="text-align: center;">167</p> <p>1 seeping all the time somewhere, somehow. Maybe the 2 garbage facility being close to the airstrip should be 3 moved further away from the airstrip somewhere. I 4 think it's better to move it somewhere. 5 And also we also have to consider the metal dump, 6 maybe move it somewhere. It's better for the metal 7 bulk dump and regular dump to be separate. I think 8 it's better not to move the sewage lagoon from its 9 present location because everywhere it's seeping away, 10 but there's birds still flying around that area. I 11 think maybe just fix the seepage problem. I think that 12 would be the only thing. 13 THE CHAIR: Thank you. Jim? 14 MR. WALLS: Thank you for your comments. 15 It's funny, some people want to move the metal dump, 16 some want it closer to town so it's easier to get at, 17 some people want it a long way away, so it will be 18 interesting to see what consensus the Hamlet can come 19 to as what to do with the metal dump. And I agree 20 about moving the landfill from near the airport because 21 of the dangers to aircraft. 22 Thank you for your comments. 23 MR. KIGUSIUTNAK: Last -- when they had the same 24 meeting last March, and the people who does not care 25 about our environment, and we care about our land, we 26 care for our land, and I think the people who does not</p>
<p style="text-align: center;">166</p> <p>1 more than that, so that was discounted at this time for 2 that reason. 3 THE CHAIR: Thank you. Any more 4 questions? Your name, please? 5 MS. PANIGUNIAK: My name is Martha Paniguniak. 6 The roads in other communities are in really good 7 orders. They have signs where the hunting grounds are. 8 I'm just -- I'm wondering how they are made. Some are 9 really sturdy. Even here, they tried to make a bridge, 10 but pretty soon the ice stripped it away, and it's very 11 hard to try and cross that river. That's what I wanted 12 to say. I think big loaders can be brought to the 13 community. Thank you. 14 THE CHAIR: Jim? 15 MR. WALLS: Thanks for your input. I 16 agree that some of the big rivers around Arviat in the 17 springtime are certainly pretty powerful, and it's 18 expensive and difficult to build bridges. One of the 19 options for a new landfill was going out the Maguse 20 Lake Road, and one of the problems there is that 21 causeway right in the north end of town, but thank you 22 for your comments. 23 THE CHAIR: Thank you. Anybody else? 24 MR. MAMGARK: My name is Peter Mamgark. 25 My idea is that sewage lagoon, I would like to 26 have it close to the ocean because the sewage has to be</p>	<p style="text-align: center;">168</p> <p>1 care about their land or our land, they're not really 2 supporting our community. The people who supports 3 to -- for our environment, they do come here, and they 4 get involved concerning those issues. 5 We want to maintain our environment, and if we 6 were to make any changes through our housing people, 7 and I think we're working with the Hamlet, and I just 8 want to bring this up as those are the real community 9 concerns that we are elaborating on this evening, like 10 last spring. 11 And I really appreciate the fact that you are 12 consulting with us, and I think we should get more 13 information through Hamlet because we are not getting 14 enough information through Hamlet. 15 THE CHAIR: Qujannamiik. Jim? 16 MR. WALLS: Thanks for your input. We 17 appreciate the input of the Hamlet of Arviat, and these 18 issues concern the generations to come, so we 19 appreciate the input. Thank you. 20 THE CHAIR: Thank you. I think there was 21 one more over there. 22 MR. ATKAK: Charlie is my name. This 23 garbage facility, the -- if it could be placed 24 somewhere else, not too close to the airstrip, and 25 perhaps move it farther away from the airstrip, and 26 eventually there's going to be more traffic, like</p>

<p>169</p> <p>1 different airlines will be coming in here too</p> <p>2 eventually, just think about up to 20 years or 20 years</p> <p>3 later, and if the garbage dump could be placed</p> <p>4 somewhere else farther away from here. Thank you.</p> <p>5 THE CHAIR: Qujannamiik. Jim?</p> <p>6 MR. WALLS: That's a good point. We need</p> <p>7 to move it away from the airport because it's dangerous</p> <p>8 to airplanes, and hopefully we can arrive at a</p> <p>9 consensus on where it should go. Thanks for your</p> <p>10 comments.</p> <p>11 THE CHAIR: Thank you, Jim.</p> <p>12 MR. KAYAVINIK: Thank you, Mr. Chair. I think</p> <p>13 it's okay if I don't mention my name.</p> <p>14 I have a question here in regards to if the</p> <p>15 garbage facility was to be moved somewhere else, how</p> <p>16 much would it cost to move it. I think it would be --</p> <p>17 like if they were to do at less cost to rebuild the new</p> <p>18 garbage facility. Thank you.</p> <p>19 THE CHAIR: Qujannamiik. Jim?</p> <p>20 MR. WALLS: The cost of building the new</p> <p>21 garbage dump on Dionne Road about 6-and-a-half</p> <p>22 kilometres to the west of town, that construction cost</p> <p>23 was about \$900,000 and included improvements to the</p> <p>24 Dionne Road out to the site.</p> <p>25 The costs of decommissioning the existing garbage</p> <p>26 dump, once the new one was built, was 250 to 300,000,</p>	<p>171</p> <p>1 Exhibit 15, which is one that we were waiting for this</p> <p>2 morning as a commitment from the Applicant, and I'd</p> <p>3 like to, Mr. Chairman, read it into the record now for</p> <p>4 the benefit of the parties, just in case they have any</p> <p>5 objections.</p> <p>6 This is an e-mail from Wayne Thistle with the</p> <p>7 Government of Nunavut to Jim Walls and to myself</p> <p>8 regarding "Thanks, Important Nunavut Water Board</p> <p>9 hearing". The e-mail is dated July 21st, 2010, and is</p> <p>10 a series or a chain of an e-mail, and I'm just going to</p> <p>11 read the final chain. It says: (As Read)</p> <p>12 Yes, the CO [which refers to change order] is</p> <p>13 approved by headquarters. I'll have the</p> <p>14 signed document when I return to Rankin.</p> <p>15 Signed "Wayne". That is the -- and then there's a</p> <p>16 series of chains e-mails back and forth from Jim Walls</p> <p>17 and Mr. Thistle.</p> <p>18 This is in reference to the ability of the -- of</p> <p>19 Nuna Burnside acting on behalf of the Government of</p> <p>20 Nunavut having the financial resources and confirmation</p> <p>21 that they are, in fact, engaged to implement the work</p> <p>22 plan that was submitted as Exhibits, I believe, 3 and</p> <p>23 4.</p> <p>24 So I think, and I'll confirm with legal, that at</p> <p>25 this point, if there's any -- I would propose that that</p> <p>26 be entered into the list as Exhibit 15, and if there's</p>
<p>170</p> <p>1 and then there would be additional costs for cleaning</p> <p>2 the metal dump a bit and cleaning up the hazardous</p> <p>3 waste.</p> <p>4 So you can see it's well over a \$1 million for the</p> <p>5 exercise of moving the landfill just that distance. So</p> <p>6 thanks for your comments.</p> <p>7 THE CHAIR: Thank you. I don't see any</p> <p>8 more hands.</p> <p>9 What we will do now is we'd like to thank you for</p> <p>10 attending this community session tonight, and we will</p> <p>11 reconvene tomorrow morning at 9. And if you have any</p> <p>12 more questions or concerns, you will have the</p> <p>13 opportunity to make your concerns heard as well</p> <p>14 tomorrow morning. Thank you. We're adjourned until</p> <p>15 tomorrow morning.</p> <p>16 (EVENING ADJOURNMENT AT 9:17 PM)</p> <p>17 (PROCEEDINGS RECOMMENCED AT 9:07 AM, JULY 21, 2010)</p> <p>18 THE CHAIR: We will wait an additional 15</p> <p>19 minutes before we reconvene. Thank you.</p> <p>20 (ADJOURNMENT)</p> <p>21 THE CHAIR: Welcome back, everyone. I</p> <p>22 understand we have some housekeeping items. Dionne</p> <p>23 Filiatrault and legal counsel?</p> <p>24 MS. FILIATRAULT: Thank you, Mr. Chairman. In a</p> <p>25 moment, I will have Karlette confirm for the</p> <p>26 participants the final list of exhibits, including</p>	<p>172</p> <p>1 any objections to that, the parties should come to the</p> <p>2 mic at this point in time.</p> <p>3 In the absence of their movement, Mr. Chairman, I</p> <p>4 would have the record show that there's no objections</p> <p>5 to the exhibit, and I would pass the administrative</p> <p>6 summary back to Karlette and have her confirm the list</p> <p>7 of exhibits before the closing remarks.</p> <p>8 THE CHAIR: Go ahead.</p> <p>9 MS. TUNALEY: Thank you, Mr. Chair. The</p> <p>10 next exhibit in our list is Exhibit 13, which was</p> <p>11 provided last night during the community session. It</p> <p>12 includes a hard copy document presentation entitled</p> <p>13 "Public Hearing Type A Water Licence Renewal</p> <p>14 Application 3AM-ARV, Hamlet of Arviat Public</p> <p>15 Presentation", provided by Mr. Jim Walls with Nuna</p> <p>16 Burnside Engineering and Environmental Limited.</p> <p>17 The next exhibit is Exhibit 14, which is an</p> <p>18 electronic PowerPoint presentation of the document I</p> <p>19 just mentioned.</p> <p>20 And then Exhibit 15 is the electronic e-mail</p> <p>21 thread with final e-mail from Wayne Thistle, Government</p> <p>22 of Nunavut-Community and Government Services to Jim</p> <p>23 Walls, Nuna Burnside Engineering and Environmental, and</p> <p>24 Dionne Filiatrault, Nunavut Water Board, "Re: Thanks,</p> <p>25 Important Arviat NWB hearing", July 21st, 2010, at 9:22</p> <p>26 AM. Thank you, Mr. Chair.</p>

<p style="text-align: center;">173</p> <p>1 THE CHAIR: Thank you.</p> <p>2 EXHIBIT 13 - A HARD COPY POWERPOINT PRESENTATION</p> <p>3 ENTITLED "PUBLIC HEARING TYPE A WATER LICENCE</p> <p>4 RENEWAL APPLICATION 3AM-ARV, HAMLET OF ARVIAT</p> <p>5 PUBLIC PRESENTATION", PROVIDED BY MR. JIM WALLS OF</p> <p>6 NUNA BURNSIDE ENGINEERING AND ENVIRONMENTAL</p> <p>7 LIMITED.</p> <p>8 EXHIBIT 14 - ELECTRONIC VERSION OF A POWERPOINT</p> <p>9 PRESENTATION ENTITLED "PUBLIC HEARING TYPE A WATER</p> <p>10 LICENCE RENEWAL APPLICATION 3AM-ARV, HAMLET OF</p> <p>11 ARVIAT PUBLIC PRESENTATION", PROVIDED BY MR. JIM</p> <p>12 WALLS OF NUNA BURNSIDE ENGINEERING AND</p> <p>13 ENVIRONMENTAL LIMITED.</p> <p>14 EXHIBIT 15 - ELECTRONIC E-MAIL THREAD WITH FINAL</p> <p>15 E-MAIL FROM WAYNE THISTLE, GOVERNMENT OF</p> <p>16 NUNAVUT-COMMUNITY AND GOVERNMENT SERVICES TO JIM</p> <p>17 WALLS, NUNA BURNSIDE ENGINEERING AND ENVIRONMENTAL,</p> <p>18 AND DIONNE FILIATRAULT, NUNAVUT WATER BOARD, "RE:</p> <p>19 THANKS, IMPORTANT ARVIAT NWB HEARING", DATED JULY</p> <p>20 21, 2010, AT 9:22 AM.</p> <p>21 THE CHAIR: Any more housekeeping items?</p> <p>22 MS. FILIATRAULT: No, Mr. Chairman, no more</p> <p>23 housekeeping items.</p> <p>24 THE CHAIR: Thank you. Qujannamiik. We</p> <p>25 are now at agenda item -- before we go into the closing</p> <p>26 statements by the parties, we have an elder here, and I</p>	<p style="text-align: center;">175</p> <p>1 undertaking by the licensee as soon as possible. INAC</p> <p>2 has no monitoring data to verify if the lagoon is</p> <p>3 working as it should. Samples taken by inspections in</p> <p>4 2009 indicate noncompliance with CCME guidelines.</p> <p>5 INAC also recommends that the two discontinued</p> <p>6 sewage lagoons have abandonment and restoration plans</p> <p>7 associated with them as soon as possible. These</p> <p>8 lagoons have been discontinued for some time now and,</p> <p>9 as part of the expired licence, never had an</p> <p>10 abandonment and restoration plan submitted.</p> <p>11 INAC recommends that the ponding and runoff from</p> <p>12 the solid waste facility has to be controlled from</p> <p>13 entering the surrounding environment.</p> <p>14 INAC recommends that the bulky wastes and</p> <p>15 hazardous waste sites be included in the new licence.</p> <p>16 These areas are continuously being used without ever</p> <p>17 being included in the expired water licence. These</p> <p>18 areas should also have restricted access and proper</p> <p>19 storage facilities for contaminants.</p> <p>20 The bulky waste area also contains contaminated</p> <p>21 soil that should have a monitoring station associated</p> <p>22 with it and be included in future monitoring programs</p> <p>23 associated with the new licence.</p> <p>24 INAC also recommends that the soil be tested for</p> <p>25 contaminants as well.</p> <p>26 INAC also recommends that any monitoring program</p>
<p style="text-align: center;">174</p> <p>1 would like to give him the opportunity to ask the</p> <p>2 parties -- if he has any more questions to the parties.</p> <p>3 MR. KIGUSIUTNAR: I would like to thank all the</p> <p>4 people that have come into the community and that I</p> <p>5 encourage every one of you to come back to Arviat. I</p> <p>6 thank you all, and I enjoy your presence, but I am in</p> <p>7 agreement to the Hamlet of Arviat because they are our</p> <p>8 local government, and I encourage them to agree to any</p> <p>9 decisions that are made because having to agree to</p> <p>10 anything is the only proper way to have a good life.</p> <p>11 Thank you.</p> <p>12 THE CHAIR: Qujannamiik. Do you have any</p> <p>13 other comments or questions, if you have any more that</p> <p>14 you would like to say?</p> <p>15 Closing statements by -- closing statements, we</p> <p>16 will begin with INAC closing statements.</p> <p>17 <u>CLOSING STATEMENT BY INAC:</u></p> <p>18 MR. PARSONS: Mr. Chairman, Ian Parsons,</p> <p>19 INAC.</p> <p>20 Good morning everyone. I'd like to start by</p> <p>21 thanking everyone for letting INAC be a part of the</p> <p>22 Type A public hearing process for the Hamlet of Arviat.</p> <p>23 In closing, INAC would just like to restate some</p> <p>24 of its earlier recommendations. First, INAC recommends</p> <p>25 that a geotechnical inspection of the sewage lagoon,</p> <p>26 including its associated berms, be conducted, such</p>	<p style="text-align: center;">176</p> <p>1 associated with the water licence is to be implemented</p> <p>2 and carried out as stated in the licence. To date,</p> <p>3 that has not been achieved.</p> <p>4 In regards to the work plan, INAC has agreed to</p> <p>5 the work plan and thinks it to be satisfactory.</p> <p>6 However, INAC is cautiously optimistic it can be</p> <p>7 carried out as stated by Nuna Burnside in the weeks we</p> <p>8 have left of the summer and fall seasons.</p> <p>9 Finally, I will speak about inspections in the</p> <p>10 past couple years, as well as a few noncompliances that</p> <p>11 I just mentioned.</p> <p>12 INAC inspections of 2008, 2009 indicate a long</p> <p>13 list of deficiencies and noncompliance issues with no</p> <p>14 improvements from one year to the next, along with no</p> <p>15 monitoring being implemented for the duration of the</p> <p>16 last licence and a data system in the sewage lagoon is</p> <p>17 not working the way it should, as well as the landfill</p> <p>18 reaching capacity within the next two years.</p> <p>19 Taking into account all these issues raised, INAC</p> <p>20 now has reevaluated and recommends a term of three</p> <p>21 years for the length of the water licence.</p> <p>22 Thank you.</p> <p>23 THE CHAIR: Thank you. Environment</p> <p>24 Canada?</p> <p>25 <u>CLOSING STATEMENT BY EC:</u></p> <p>26 MS. SMITH: Mr. Chairman, Paula Smith,</p>

<p style="text-align: center;">177</p> <p>1 Environment Canada.</p> <p>2 Environment Canada would like to thank the Board</p> <p>3 for allowing us this opportunity to comment on the</p> <p>4 Hamlet of Arviat's new Type A water licence</p> <p>5 application.</p> <p>6 In closing, to summarize Environment Canada's</p> <p>7 interventions, the two main concerns with the</p> <p>8 application are regarding the sewage disposal facility</p> <p>9 and the solid waste facility.</p> <p>10 Specifically Environment Canada recommends</p> <p>11 determining the treatment capability of the system and</p> <p>12 continued monitoring of performance of the sewage</p> <p>13 disposal facility. Environment Canada also recommends</p> <p>14 the prevention of contamination, recommends monitoring</p> <p>15 and remediation at the solid waste facility.</p> <p>16 Regarding the 2010 work plan submitted yesterday</p> <p>17 by Nuna Burnside, Environment Canada finds the document</p> <p>18 acceptable for the required work to be completed by the</p> <p>19 end of 2010, and has no further comments at this time.</p> <p>20 Thank you.</p> <p>21 THE CHAIR: Thank you. DFO? Please go</p> <p>22 ahead with your closing statements.</p> <p>23 <u>CLOSING STATEMENT BY DFO:</u></p> <p>24 MR. COOPER: Mr. Chairman, good morning,</p> <p>25 everyone.</p> <p>26 Fisheries and Oceans Canada would like to thank</p>	<p style="text-align: center;">179</p> <p>1 you.</p> <p>2 THE CHAIR: Thank you, DFO. Next we have</p> <p>3 the Applicant, Jim Walls.</p> <p>4 <u>CLOSING STATEMENT BY CGS-GN:</u></p> <p>5 MR. WALLS: Thank you, Mr. Chairman. I</p> <p>6 will do my summary remarks in PowerPoint.</p> <p>7 Morning, Mr. Chairman, Members of the Board, Water</p> <p>8 Board Staff, Madam Reporter, interpreters, tech staff,</p> <p>9 members of the public, and members of review agencies.</p> <p>10 This will be the closing remarks by Jim Walls,</p> <p>11 Nuna Burnside, on behalf of Community and Government</p> <p>12 Services again on behalf of the Hamlet of Arviat for</p> <p>13 their licence application.</p> <p>14 I've reviewed before that we've been retained to</p> <p>15 conduct the application on behalf of the Hamlet of</p> <p>16 Arviat, and we're seeking a five-year licence. And the</p> <p>17 focus of the application is primary areas of Hamlet</p> <p>18 infrastructure, solid waste management, sewage</p> <p>19 treatment and disposal, and water supply, specifically</p> <p>20 those issues related to this infrastructure that could</p> <p>21 impact the areas of jurisdiction of the Nunavut Water</p> <p>22 Board. Solid waste management, three items as</p> <p>23 discussed previously, the landfill site, the bulky</p> <p>24 metals area, and the hazardous waste storage area and,</p> <p>25 in future, could include a landfarm.</p> <p>26 Public consultation and planning for the new</p>
<p style="text-align: center;">178</p> <p>1 the Nunavut Water Board for listening to our concerns</p> <p>2 and recommendations. We commend the Board on</p> <p>3 conducting a smooth and concise process.</p> <p>4 In closing, DFO Fish Habitat Management reviewed</p> <p>5 the Type A water application and had two main concerns.</p> <p>6 The first concern was water withdrawals from Wolf River</p> <p>7 and the potential impacts to fish and fish habitat.</p> <p>8 The second was the water intake screen and structure</p> <p>9 and whether it met DFO intake screen requirements.</p> <p>10 The Applicant has agreed to undertake studies</p> <p>11 through the 2010 field season to assess potential</p> <p>12 impacts on fish and fish habitat resulting from water</p> <p>13 withdrawals from Wolf River.</p> <p>14 The Applicant has also agreed to conduct an</p> <p>15 assessment of the water intake structure and confirm</p> <p>16 whether the fish screen meets DFO requirements. The</p> <p>17 Applicant has agreed to do this all by December 31st,</p> <p>18 2010.</p> <p>19 The Applicant also stated in the work plan</p> <p>20 submitted yesterday that if engineering or construction</p> <p>21 was needed to achieve DFO -- or compliance with DFO</p> <p>22 requirements, it would be done by December 31st, 2011.</p> <p>23 After reviewing the work plan submitted yesterday</p> <p>24 by the Applicant, DFO believes that it should provide</p> <p>25 the appropriate information to address our concerns.</p> <p>26 We have no further comments at this time. Thank</p>	<p style="text-align: center;">180</p> <p>1 landfill solid waste management facility, as you heard</p> <p>2 last night among community members, is a very</p> <p>3 controversial issue. The Hamlet is also recently</p> <p>4 considering going with an incinerator of some type. So</p> <p>5 in order to -- originally, the plan was to have a new</p> <p>6 waste management facility in place, so a lot of the</p> <p>7 issues discussed at this hearing relating to waste</p> <p>8 management would be in the process of being resolved.</p> <p>9 In fact, the build was supposed to be completed by this</p> <p>10 year, as originally envisioned in 2007. However, due</p> <p>11 to issues in reaching a consensus in the Hamlet, it's a</p> <p>12 very controversial issue in what to do with your</p> <p>13 landfill, where to site it, and it's going to take a</p> <p>14 lot of land up, and it's a very sensitive issue, and it</p> <p>15 looks like it will take some time before it is</p> <p>16 resolved.</p> <p>17 So the new waste management facility was detailed</p> <p>18 designed to meet all the regulatory requirements and</p> <p>19 meet best available current science. However, it's</p> <p>20 going to be a while before that kind of facility is put</p> <p>21 in place. In the interim, we have to make do with the</p> <p>22 facilities that are there and do the best as possible</p> <p>23 with what we have. We have to work in reality.</p> <p>24 So the existing facilities do not meet regulatory</p> <p>25 requirements, and it's unlikely that they will meet all</p> <p>26 the regulatory requirements until a new facility is</p>

<p style="text-align: center;">181</p> <p>1 constructed, so we suggested adding conditions to the 2 new licence to upgrade the facilities and maintain them 3 as best as possible throughout the duration of the 4 licence until a new facility can be constructed. 5 Suggested conditions: Again, it addressed the 6 fact that it will take a long time and a lot of money 7 to bring the Hamlet into compliance, and it's better to 8 have a licence with conditions, recognizing the 9 limitations of the infrastructure and reality, than 10 have no licence at all, and the Hamlet has been working 11 without a licence since the old one expired in late 12 2008. So a focus on improvement and setting time lines 13 and specific milestones to achieve these improvements. 14 Solid waste facility conditions: We've already 15 outlined in great detail some of the issues, the 16 various regulatory agencies have outlined their 17 conditions, and the following conditions are 18 recommended. I won't read them out, but again, prepare 19 as-built plans, study the site, and prepare what we can 20 this year for delivery by December 31st, 2010. 21 Sewage treatment facility: It's an exfiltration 22 lagoon to a wetland treatment area. Very limited data 23 of how it was designed and supposed to operate in the 24 first place. We have very little information about the 25 original application for approval of the sewage lagoon 26 to the Nunavut Water Board. It was -- it seemed to</p>	<p style="text-align: center;">183</p> <p>1 In summary, CGS on behalf of the Hamlet of Arviat 2 is requesting a five-year licence in part because it 3 takes -- it's an onerous task to get a Type A licence, 4 and in part, that it takes such a long time to conduct 5 studies, do upgrades, and work through the process. 6 As mentioned previously, my mandate of Nuna 7 Burnside is only -- has fiscal commitments to deliver 8 the work by the end of 2010, and the fiscal commitment 9 would end March 31st, 2011, at the end of the fiscal 10 year, as far as I understand, without an extension from 11 CGS. We expect to be able to complete our work in that 12 period. After that, we only have the commitment of the 13 Hamlet and CGS to act on the recommendations of the 14 report, but as stated previously, no monies have been 15 set aside to address those. 16 The current work plan will address many of the 17 issues, and it will take a long time maybe to bring 18 everything into compliance. 19 At this point, we have no other comments, and we 20 appreciate the indulgence of all parties, and are there 21 any questions? Thank you. 22 THE CHAIR: Thank you. Qujannamiik. 23 <u>CLOSING REMARKS BY NWB BOARD CHAIR:</u> 24 THE CHAIR: The Board would like to thank 25 the parties including especially the Applicant, the 26 Staff, the interveners; interpreters, Mary Hunt and</p>
<p style="text-align: center;">182</p> <p>1 have been constructed without Water Board approval or 2 input from regulatory agencies, and there's not a lot 3 of information on how it was supposed to operate. 4 Proximity to the ocean is a concern both to the 5 regulatory agencies and the public, and some study is 6 needed to address those issues. 7 So we suggest that the water licence include 8 conditions to study the lagoons, study the wetland 9 treatment area, provide up-to-date, as-built drawings, 10 and prepare abandonment and restoration plans for the 11 abandoned lagoons, which can easily be accomplished, 12 and submit the results with recommendations by December 13 31st, 2010. 14 Water supply facilities: Concern for fish and 15 fish habitat, you've heard the regulatory agencies 16 outline their concerns. There's limited information 17 right now about what impact the pumping is having on 18 the Wolf Creek and what impact that may have on fish 19 and fish habitat. 20 So we recommend the conditions in the licence 21 include providing updated as-built drawings, assess the 22 intake, evaluate the morphology of the area of the pond 23 where the intake is, conduct sampling, and prepare a 24 report outlining the conditions and what needs to be 25 done to upgrade the facilities, if anything, and submit 26 the results by December 31st, 2010.</p>	<p style="text-align: center;">184</p> <p>1 Bobby Suluk; court reporter, Karoline Schumann; Pido, 2 Trevor Bourque; local page, Jonathan Kigusitnak; all 3 the community members and elders for their valued 4 participation in this hearing. Thanks also to the 5 Hamlet of Arviat for their outstanding hospitality and 6 patience with the Board. 7 As we are at the close of this hearing, I will 8 make some comments to let parties know what happens 9 next. 10 The record for this hearing is closed with the 11 exception of a document entitled "LGL Report" to be 12 supplied by Mr. Walls as soon as possible after this 13 hearing concludes. 14 Do any of the parties have objections to keeping 15 the record open in this manner? 16 MR. PARSONS: (NO VERBAL RESPONSE) 17 MS. SMITH: (NO VERBAL RESPONSE) 18 MR. COOPER: (NO VERBAL RESPONSE) 19 THE CHAIR: What this means is no 20 additional information will be accepted at this 21 application prior to the Board making a final decision. 22 The Board will make its decision on the application for 23 amendment in 30 to 60 days. 24 Have a good afternoon. I wish all the visitors to 25 Arviat safe travel home. This hearing is now adjourned 26 in accordance with these instructions, and I will ask</p>

<p style="text-align: center;">185</p> <p>1 Bobby Suluk to do the closing prayer.</p> <p>2 (CLOSING PRAYER)</p> <p>3 (WHICH WAS ALL THE EVIDENCE TAKEN AT 9:56 AM)</p> <p>4 _____</p> <p>5 I, Karoline Schumann, Court Reporter, hereby certify</p> <p>6 that I attended the above Hearing and took faithful and</p> <p>7 accurate shorthand notes, and the foregoing is a true</p> <p>8 and accurate transcript of my shorthand notes to the</p> <p>9 best of my skill and ability.</p> <p>10 Dated at the City of Calgary, Province of Alberta,</p> <p>11 this 31st day of July, 2010.</p> <p>12</p> <p>13</p> <p>14 _____</p> <p>15 Karoline Schumann, CSR(A)</p> <p>16 Official Court Reporter</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p> <p>26</p>	<p style="text-align: center;">187</p> <p>1 EXHIBIT 4 - ELECTRONIC VERSION OF A 44</p> <p>2 LETTER FROM JIM WALLS OF NUNA BURNSIDE</p> <p>3 ENGINEERING AND ENVIRONMENTAL LIMITED,</p> <p>4 "RE: WORK PLAN TO ADDRESS DFO AND NWB</p> <p>5 LICENCE COMPLIANCE ISSUES, GN FILE</p> <p>6 08-3025, HAMLET OF ARVIAT, NUNAVUT, FILE</p> <p>7 NUMBER N-0-15746-1", DATED JUNE 23, 2010.</p> <p>8</p> <p>9 EXHIBIT 5 - A HARD COPY OF A REPORT BY 114</p> <p>10 LGL LIMITED, SUBMITTED BY JIM WALLS.</p> <p>11</p> <p>12 EXHIBIT 6 - ELECTRONIC VERSION OF A 114</p> <p>13 REPORT BY LGL LIMITED, SUBMITTED BY JIM</p> <p>14 WALLS.</p> <p>15</p> <p>16 EXHIBIT 7 - HARD COPY OF A POWERPOINT 114</p> <p>17 PRESENTATION ENTITLED "WATER LICENCE</p> <p>18 NUMBER 3AM-ARV HAMLET OF ARVIAT, KIVALLIQ</p> <p>19 REGION, RENEWAL APPLICATION", PROVIDED BY</p> <p>20 IAN PARSONS FROM INDIAN AND NORTHERN</p> <p>21 AFFAIRS CANADA.</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p> <p>26</p> <p>27</p>
<p style="text-align: center;">186</p> <p>1 <u>EXHIBITS</u></p> <p>2 PAGE NUMBER:</p> <p>3 EXHIBIT 1 - HARD COPY POWERPOINT 43</p> <p>4 PRESENTATION PROVIDED BY JIM WALLS,</p> <p>5 ENTITLED "PUBLIC HEARING TYPE A WATER</p> <p>6 LICENCE RENEWAL APPLICATION 3AM-ARV,</p> <p>7 HAMLET OF ARVIAT TECHNICAL PRESENTATION".</p> <p>8</p> <p>9 EXHIBIT 2 - ELECTRONIC VERSION OF 43</p> <p>10 POWERPOINT PRESENTATION PROVIDED BY JIM</p> <p>11 WALLS, ENTITLED "PUBLIC HEARING TYPE A</p> <p>12 WATER LICENCE RENEWAL APPLICATION</p> <p>13 3AM-ARV, HAMLET OF ARVIAT TECHNICAL</p> <p>14 PRESENTATION".</p> <p>15</p> <p>16 EXHIBIT 3 - HARD COPY OF A LETTER FROM 44</p> <p>17 JIM WALLS OF NUNA BURNSIDE ENGINEERING</p> <p>18 AND ENVIRONMENTAL LIMITED, "RE: WORK PLAN</p> <p>19 TO ADDRESS DFO AND NWB LICENCE COMPLIANCE</p> <p>20 ISSUES, GN FILE 08-3025, HAMLET OF</p> <p>21 ARVIAT, NUNAVUT, FILE NUMBER</p> <p>22 N-0-15746-1", DATED JUNE 23, 2010.</p> <p>23</p> <p>24</p> <p>25</p> <p>26</p> <p>27</p>	<p style="text-align: center;">188</p> <p>1 EXHIBIT 8 - ELECTRONIC VERSION OF A 114</p> <p>2 POWERPOINT PRESENTATION ENTITLED "WATER</p> <p>3 LICENCE NUMBER 3AM-ARV HAMLET OF ARVIAT,</p> <p>4 KIVALLIQ REGION, RENEWAL APPLICATION",</p> <p>5 PROVIDED BY IAN PARSONS FROM INDIAN AND</p> <p>6 NORTHERN AFFAIRS CANADA.</p> <p>7</p> <p>8 EXHIBIT 9 - HARD COPY OF A POWERPOINT 114</p> <p>9 PRESENTATION ENTITLED "ENVIRONMENT</p> <p>10 CANADA'S INTERVENTION ON THE HAMLET OF</p> <p>11 ARVIAT'S NEW TYPE A WATER LICENCE",</p> <p>12 PROVIDED BY PAULA SMITHFROM ENVIRONMENT</p> <p>13 CANADA.</p> <p>14</p> <p>15 EXHIBIT 10 - ELECTRONIC VERSION OF A 115</p> <p>16 POWERPOINT PRESENTATION ENTITLED</p> <p>17 "ENVIRONMENT CANADA'S INTERVENTION ON THE</p> <p>18 HAMLET OF ARVIAT'S NEW TYPE A WATER</p> <p>19 LICENCE", PROVIDED BY PAULA SMITHFROM</p> <p>20 ENVIRONMENT CANADA.</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p> <p>26</p> <p>27</p>

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1	EXHIBIT 11 - HARD COPY OF A POWERPOINT	115
2	PRESENTATION ENTITLED "HAMLET OF ARVIAT	
3	TYPE A WATER LICENCE APPLICATION, ROLE OF	
4	FISH HABITAT MANAGEMENT, FISHERIES AND	
5	OCEANS CANADA, EASTERN ARCTIC REGION",	
6	PROVIDED BY GARY COOPER OF THE DEPARTMENT	
7	OF FISHERIES AND OCEANS CANADA.	
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9	EXHIBIT 12 - ELECTRONIC VERSION OF A	115
10	POWERPOINT PRESENTATION ENTITLED "HAMLET	
11	OF ARVIAT TYPE A WATER LICENCE	
12	APPLICATION, ROLE OF FISH HABITAT	
13	MANAGEMENT, FISHERIES AND OCEANS CANADA,	
14	EASTERN ARCTIC REGION", PROVIDED BY GARY	
15	COOPER OF THE DEPARTMENT OF FISHERIES AND	
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19	PRESENTATION ENTITLED "PUBLIC HEARING	
20	TYPE A WATER LICENCE RENEWAL APPLICATION	
21	3AM-ARV, HAMLET OF ARVIAT PUBLIC	
22		
23	PRESENTATION", PROVIDED BY MR. JIM WALLS	
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25	OF NUNA BURNSIDE ENGINEERING AND	
26	ENVIRONMENTAL LIMITED.	
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