



# Forest Appeals Commission

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## DECISION NO. 2010-FOR-001(a)

In the matter of an appeal under section 82 of the *Forest and Range Practices Act*, S.B.C. 2002, c. 69.

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|-------------------|---|--------------------|
| <b>BETWEEN:</b>   | Atco Wood Products Ltd.   | <b>APPELLANT</b>   |
| <b>AND:</b>       | Government of British Columbia  | <b>RESPONDENT</b>  |
| <b>AND:</b>       | Forest Practices Board  | <b>THIRD PARTY</b> |
| <b>BEFORE:</b>    | A Panel of the Forest Appeals Commission<br>Loreen Williams, Panel Chair<br>Ken Long, Member<br>Douglas VanDine, Member                       |                    |
| <b>DATE:</b>      | February 15-17, 2011 and June 14-16, 2011. Concluded by written closing arguments on October 28, 2011.  |                    |
| <b>PLACE:</b>     | Castlegar, BC and Victoria, BC  |                    |
| <b>APPEARING:</b> | For the Appellant: Jeffrey B. Waatainen, Counsel<br>For the Respondent: Bruce R. Filan, Counsel<br>For the Third Party: Guy Brownlee, Counsel |                    |

## APPEAL

[1] This is an appeal brought by Atco Wood Products Ltd. against a February 24, 2010 Contravention Determination and Notice of Penalty issued by Larry Peitzche, District Manager (the "District Manager"), Ministry of Forests and Range (the "Ministry").<sup>1</sup> The District Manager determined that Atco Wood Products Ltd. had contravened sections 57 and 79(6) of the *Forest Planning and Practices Regulation*, B.C. Reg. 14/2004 (the "*Regulation*") by failing to properly maintain a section of a forest service

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<sup>1</sup> In March 2011, portions of this Ministry became part of the Ministry of Forests, Lands and Natural Resource Operations.

road near Blueberry Creek. Specifically, the District Manager found that “the drainage system of the road was not functional”, contrary to section 79(6)(b) of the *Regulation*, and that Atco Wood Products Ltd. had failed to maintain the road in a manner that was “unlikely to harm fish or to destroy, damage or harmfully alter fish habitat”, in contravention of section 57 of the *Regulation*.

[2] In his determination, the District Manager concluded that Atco Wood Products Ltd. had not exercised due diligence and he levied a penalty of \$2,000 for the contravention of section 79(6)(b) and \$2,000 for the contravention of section 57. The determination and penalties were issued pursuant to section 71(2)(a) of the *Forest and Range Practices Act* (the “*Act*”).

[3] The powers of the Commission on this appeal are set out in section 84 of the *Act*, which states:

**84** (1) On an appeal

...

the commission [Forest Appeals Commission] may

(c) consider the findings of the person who made the determination or decision, and

(d) either

(i) confirm, vary or rescind the determination or decision, or

(ii) with or without directions, refer the matter back to the person who made the determination or decision, for reconsideration.

[4] Atco Wood Products Ltd. asks the Commission to rescind the contraventions and penalties. In the alternative, it asks the Commission to rescind the penalties.

[5] The Forest Practices Board accepted Third Party status in the appeal, but restricted its submissions to the interpretation of section 57 of the *Regulation* and the defence of due diligence.

## **BACKGROUND**

[6] Atco Wood Products Ltd. is certified by the International Organization for Standardization (“ISO”) 14001: 2004E and by the Sustainable Forestry Initiative (“SFI”) 2005-2009, which means that its business meets and, according to independent third party audits, continues to meet certain standards of environmental management.

[7] In January 2007, Atco Wood Products Ltd. obtained Forest Licence A20193 in the former Arrow Boundary Forest District<sup>2</sup> as part of an asset transfer from Atco Lumber Ltd. At that time, Atco Lumber Ltd.'s staff started working for the Appellant, Atco Wood Products Ltd. ("Atco").

[8] Atco was issued Cutting Permit 179, a 30,000 cubic metre permit within its licence area, by the Ministry on June 28, 2007. To access and haul the timber harvested from this cutting permit, Atco needed to use the Glenmerry Forest Service Road (the "Glenmerry FSR"), which is sometimes referred to by another name, the Mud Lake FSR. This is the road at issue in this appeal.

*The Glenmerry FSR*

[9] The Glenmerry FSR is a gravel road that was constructed at least as early as 1974 by another forest company. It became a forest service road in or around 1994. The road begins at Highway 3 and meanders generally southward through many kilometres of bush and forest. In addition to being used by forest companies, the road is used by the public to access cross-country ski areas during the ski season, which typically starts in November.

[10] The Glenmerry FSR crosses over the generally eastward-flowing Blueberry Creek, a fish-bearing stream, roughly 0.5 kilometres from Highway 3 (the "Creek Crossing"). At the Creek Crossing, Blueberry Creek passes under the road through two side-by-side corrugated metal culverts. The contraventions under appeal occurred along the 160 metre section of the road that extends southward from, but includes, this Creek Crossing. The road along this section has the following features.

[11] Immediately south of the Creek Crossing, a vehicle turn out is located on the east (downstream) side of the road.

[12] Southward from the vehicle turn out, the road curves first westward, then southward again, while ascending.

[13] South of the Creek Crossing, a drainage ditch is located on the downstream side of the road. The ditch empties into Blueberry Creek approximately 10 metres downstream from the Creek Crossing.

[14] From the evidence presented, the road along this section was either crowned, in-sloped or out-sloped, to allow water to flow off the road surface towards one side or the other. On the upstream side of the road, the intent was for water to flow from the road into vegetation; on the downstream side, the water would flow into vegetation and eventually into the ditch.

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<sup>2</sup> In October 2007, the site of the contraventions was in the Arrow Lakes Forest District, which is now part of the Selkirk Resource District.

### Maintenance of the Road

[15] Atco was authorized by the Ministry to use the Glenmerry FSR under Road Use Permit 07/9464/01 (the "RUP"), issued on June 29, 2007. Along with this use, the RUP also required Atco to maintain the road. Atco's maintenance obligations included ongoing road grading and ditch and culvert clearing.

[16] After the RUP was issued, Atco's supervisors and professionals began regular informal inspections of the road from their vehicles. From these inspections, Gus Young, Atco's Woodlands Manager, determined that several sections of the road required grading and directed Walter Falat, one of Atco's road grader operators, to perform spot road grading at several locations. Mr. Falat graded the road near the Creek Crossing on September 25, 2007. This grading was performed during the "fisheries window" for the area, which is August 20 to October 31. This is the period when works in and around a stream have the least chance of negatively affecting fish. Fisheries windows are determined by the Ministry of Environment.

[17] It should be noted that, prior to this RUP being issued, the Ministry had the maintenance obligations for the Glenmerry FSR. The Ministry did not advise of any particular maintenance issues along the road when Atco assumed road maintenance obligations on June 29, 2007.

### The Incident, Inspection and Investigation

[18] On Tuesday, October 2, 2007, one week after Mr. Falat's grading, Tracey Pearson, a Compliance and Enforcement Officer with the Ministry, observed suspended sediment in Blueberry Creek while driving on the Glenmerry FSR<sup>3</sup>. Once out of his vehicle, he observed a small, continuous gravel ridge along both sides of the road that extended across the Creek Crossing and for approximately 160 metres southward.<sup>4</sup>

[19] During his inspection, Mr. Pearson observed some water on the road surface flowing along the gravel ridges and entering the Creek. He also observed water from a puddle on the Creek Crossing entering the Creek, and saw a loaded logging truck splash water from the puddle into the Creek. He took five photographs and breached the gravel ridge in one location on each side of the road. He returned to the office and completed a Ministry Road Inspection Report. The accuracy of some of the information contained in

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<sup>3</sup> The Panel considers water-suspended sediment to consist of silt and clay-sized sediment, or simply "sediment").

<sup>4</sup> In the appeal, these ridges were referred to variously as "small berms", "grader ridges" and "grader berms", to name a few. The Panel refers to them as gravel ridges, as this is both a descriptive and a neutral term.

this report is at issue in this appeal, and will be addressed later in this decision.

[20] On Wednesday, October 3, 2007, Mr. Pearson returned with a colleague, Kevin Vaters, and began an investigation by carrying out a more detailed inspection of the road and the Creek, and by taking more photographs. Mr. Pearson's evidence is that he opened or initiated an Incident Summary Report following this site inspection, although his Road Inspection Report suggests that the Incident Summary Report was initiated on October 2, 2007, not October 3, 2007.

[21] Late in the day on Thursday, October 4, 2007, Mr. Pearson telephoned Mr. Young (Atco), and advised him of the situation on the Glenmerry FSR. Although, Mr. Pearson's Road Inspection Report indicates that Mr. Young was emailed about the incident on October 2, 2007, the overwhelming evidence is that the Ministry's first contact with Atco on this matter occurred on October 4, 2007.

[22] On Friday, October 5, 2007, Mr. Young attended the site and notified his employees and contractors that hauling along the Glenmerry FSR could only occur if it was not raining.

[23] Monday, October 8, 2007 was the Thanksgiving holiday.

[24] On Tuesday, October 9, 2007, under Mr. Young's direction, Atco carried out remedial works at the site. It breached the gravel ridges on both sides of the road ridges, created several waterbars to direct water off of the the road surface, and it placed and graded a load of ballast on the road surface over the Creek Crossing.

[25] At some point, Mr. Pearson contacted Michael Knapik, a Ministry of Environment<sup>5</sup>, Ecosystem Biologist. Mr. Knapik attended and visually inspected the site with Mr. Pearson on October 22, 2007. He elected to sample the Creek to confirm the presence or absence of fish. He returned on October 31, 2007, with Mssrs. Pearson, Vaters, and another fish biologist, Albert Chirico to perform the sampling. However, Mr. Knapik and Mr. Chirico were unable to test the Creek for the presence/absence of fish due to the cold temperature of the water. Their testing was delayed until the following summer.

[26] On August 29, 2008, Mr. Knapik and Mr. Chirico, electro-shocked Blueberry Creek in the vicinity of the Creek Crossing, and prepared a report "to prove fish presence/absence and species composition, adjacent to the source of the siltation", dated October 1, 2008.

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<sup>5</sup> In March 2011 portions of this Ministry became part of the Ministry of Forests, Lands and Natural Resource Operations.

[27] On October 6, 2008, Mr. Pearson interviewed Mr. Falat about his grading of the Glenmerry FSR. Mr. Pearson documented his nine questions and Mr. Falat's answers in a Ministry Incident Statement.

[28] On May 1, 2009, Mr. Pearson completed the Incident Summary Report (DAB-26347), that he had initiated on either October 2 or 3, 2007. It is thirteen pages long and chronicles the investigation, legislation, and the alleged contraventions of the *Regulation*. It was provided to the District Manager and appears to have resulted in a notice of alleged contraventions being sent to Atco, and an offer for Atco to attend an Opportunity To Be Heard prior to the District Manager making a determination.

[29] In response to the notice of proposed Ministry enforcement action, Atco retained Sylvie Masse, a fish biologist, to assess fish and fish habitat in the Creek. In July of 2009, Ms. Masse carried out an assessment of the habitat of the Creek upstream and downstream of the Creek Crossing, and the residual effects of the October 2007 incident on fish and fish habitat. She presented her results and conclusions in a memorandum dated July 13, 2009.

[30] In July 2009, the Ministry held an Opportunity To Be Heard on the alleged contraventions, in which Atco presented its case to the District Manager.

### THE DETERMINATION

[31] On February 24, 2010, the District Manager issued the Contravention Determination and Notice of Penalty that is the subject of this appeal.

[32] The District Manager found that Atco had contravened sections 79(6)(b) and 57 of the *Regulation*. These sections and his findings are set out below.

#### Contravention of section 79(6)

[33] Section 79(6) states:

**79(6)** A person required to maintain a road must ensure all of the following:

- (a) the structural integrity of the road prism and clearing width are protected;
- (b) the drainage systems of the road are functional;
- (c) the road can be used safely by industrial users.

[Emphasis added]

[34] The District Manager concluded that Atco contravened section 79(6)(b). He stated in part:

... I have concluded that the drainage system [sic] of the road were not functional as required by Forest Planning and Practices Regulation 79(6)(b). Water was confined to the road surface and allowed to pond above Blueberry Creek. This muddy water was then allowed to enter Blueberry Creek. The drainage ditch was not carrying any amount of water and cross drains on the road surface [sic]<sup>6</sup> were non-existent. ....

Contravention of section 57

[35] Section 57 states:

**57** An authorized person who carries out a primary forest activity must conduct the primary forest activity at a time and in a manner that is unlikely to harm fish or destroy, damage or harmfully alter fish habitat.<sup>7</sup>

[36] The District Manager concluded that Atco contravened this section for the following reasons:

Primary Forest activities are required to be conducted in a time and manner that is unlikely to harm fish or fish habitat. Atco does not dispute that Blueberry Creek is a fish bearing stream. However, they do point out that the forest activities were completed during a time of the fisheries window and therefore any changes in and about the stream would cause the least amount of risk to fish. I agree with the statement made by Atco in regards to the timing of the activity would cause the least risk of impact to specific fish species.

The second part of the Regulation section requires that the activities be conducted in a manner that is unlikely to harm fish or alter fish habitat. In making my decision on the impact to fish and fish habitat I have relied on the Kootenay-Fisheries-Field Report completed by Registered Professional Biologists Mike Knapik and Albert Chirico. The findings in their report state that "the addition of silts would have a deleterious effect on both the eggs deposited in the gravel and the rearing of juvenile fish (reduction in aquatic invertebrates)". I have reviewed the information provided by Atco which states "Based on visual observations, algal growth was abundant downstream of the Glenmerry Road Crossing" Masse, 2009. In my decision I put

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<sup>6</sup> Cross drains are small diameter culverts under a road that transport water from one side of a road to the other. The Panel believes the District Manager meant to refer to waterbars.

<sup>7</sup> For the purpose of this decision, the Panel refers to the phrase "unlikely to harm fish or destroy, damage or harmfully alter fish habitat" as "unlikely to harm fish or fish habitat".

more emphasis on the Knapik & Chirico report. This report was signed, sealed by professional biologists and was completed within one freshet of the main siltation event. The information provided by Atco was an excerpt of a report. I did not have the benefit of the full report and the work was completed 2 freshets after the event occurred. I have some concerns with how valuable the information would be after two seasons.

Defence of due diligence

[37] At the Opportunity To Be Heard, Atco presented the argument that even if its actions had contravened the above sections of the *Regulation*, Atco had been duly diligent and, therefore, the defence of due diligence under section 72 of the *Act* would apply.

[38] Section 72 of the *Act* states:

**72** For the purposes of a determination of the minister under section 71 or 74, no person may be found to have contravened a provision of the Acts if the person establishes that the

(a) person exercised due diligence to prevent the contravention,

....

[39] The District Manager determined that this defence consists of two basic elements: reasonable foreseeability and appropriate standard of care. He concluded that the event was reasonably foreseeable as it was not standard practice for Atco to leave 'grader berms'. He stated, "Atco is ISO certified and within their Environmental Instructions provided to me as evidence it states 'avoid leaving grader berms and clean ditches to maintain established drainage patterns'." The District Manager found that, because this standard practice was not followed, a higher level of diligence should have been expected to ensure the change of practice met the intended results.

[40] The District Manager also noted the road grader operator's statement that "the culvert location is in a depression" which convinced him that the pooling of water on the Creek Crossing was foreseeable.

[41] The District Manager then determined whether Atco exercised an appropriate standard of care to prevent the event from occurring. He considered Atco's Environmental Instructions which contained two statements:

- "avoiding leaving grader berms on the edge of roads"; and
- "report water on the road surface that you cannot fix".

[42] The District Manager also considered Atco's Internal Audits. A June 2008 audit (after the incident) referred to shutting down conventional

harvesting due to excessive rainfall. A June 2007 audit referred to “innovative surface water control off-takes<sup>8</sup> were found to be used to reduce the potential for erosion related water flows on active and temporary on block roads.”

[43] The District Manager found that these statements reflected Atco’s own standard of care, which was not met at the incident site. Thus, he concluded that Atco had not exercised due diligence to prevent the contraventions from occurring.

### Penalty

[44] The District Manager considered the maximum penalties that could be imposed for these contraventions: up to \$20,000 for a contravention of section 79(6)(b) and up to \$100,000 for a contravention of section 57.

[45] The District Manager considered the list of relevant factors in section 71(5) of the *Act* and assessed the penalties of \$2,000 per contravention for a total of \$4,000.

## **THE APPEAL**

### The Appellant’s Position

[46] Atco maintains that there is insufficient evidence to support the findings of the contraventions that were made in the determination.

[47] In addition, Atco points out that deposition of sediment into Blueberry Creek is an ongoing problem relating to the construction and design of the Glenmerry FSR itself, and therefore not related to Atco’s road maintenance. Atco states that fine textured sediment associated with construction of the road and the ditch, are readily suspended in water and are regularly transported into the Creek.

[48] Atco further points out that, in June 2010, Mr. Pearson carried out another inspection of the remedial works at the same Creek Crossing and section of road and stated that it was a “good standard”. This statement was made despite Mr. Pearson knowing that water-suspended sediment was still entering the Creek from the vegetated ditch, even after the ditch water had filtered through straw bales, recently placed at intervals along the ditch to trap sediment. Atco submits that, if the existing drainage systems, functioning properly, do not prevent sediment from entering the Creek, then the issue is not road maintenance, but road design and construction. Atco argues that, in essence, there is a “double standard”, and that contraventions should not have been issued for a situation (sediment in the Creek) that was at another time acceptable to the Ministry.

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<sup>8</sup> The Panel interprets water “control off-takes” as “waterbars”.

[49] Atco further maintains that, as a matter of law, if the Commission finds that Atco did not contravene section 79(6)(b), relating to the functioning of the drainage systems, there can be no contravention of section 57, relating to harm to fish or fish habitat. That is, if the road drainage systems were functional, Atco's road maintenance activity must have been unlikely to harm fish or fish habitat.

[50] In relation to the District Manager's reliance on Mr. Knapik and Mr. Chirico's October 1, 2008 report, Atco notes that the authors were only asked to address fish presence/absence and species composition adjacent to the source of sedimentation, not to study the habitat or the effect of sediment on fish. Atco maintains that the report of Ms. Masse, who actually assessed the effects of sedimentation and sediment deposits on fish habitat in the Creek, should be preferred.

[51] In the event that there is sufficient evidence to support the findings of contravention, Atco submits that it exercised due diligence to prevent the contraventions and that the contraventions were the result of a reasonable mistake of fact, both of which are statutory defences under sections 72 of the *Act*.

#### The Respondent's Position

[52] The Respondent argues that the contraventions are based on the evidence, and are reasonable and appropriate. It submits that the appeal should be dismissed.

#### The Forest Practices Board's Position

[53] The Forest Practices Board does not take a position on whether Atco contravened the sections of the *Regulation* at issue.

### **ISSUES**

[54] The issues in this appeal are:

1. (a) Did Atco fail to ensure that the drainage systems of the road were "functional", contrary to section 79(6)(b) of the *Regulation*?
- (b) If the answer to 1(a) is yes, then, on a balance of probabilities, did Atco exercise due diligence to prevent the contravention from occurring or was it due to a reasonable mistake of fact?
2. (a) Did Atco contravene section 57 of the *Regulation*? Specifically, did Atco conduct a "primary forest activity" at a time and in a manner that was "unlikely to harm fish or destroy, damage or harmfully alter fish habitat"?

- (b) If the answer to 2(a) is yes, then, on a balance of probabilities, did Atco exercise due diligence to prevent the contravention from occurring or was it due to a reasonable mistake of fact?
3. If there are contraventions and no defences apply, what are the appropriate penalties?

## **EVIDENCE**

[55] Although the Appellant has the burden of proof and the Commission normally considers an appellant's evidence first, in this particular case, the Panel will begin with the Respondent's evidence. The Panel finds that this evidence sets the context for the contraventions and the issues to be decided. However, as will be evident from a review of the evidence, there are a number of inconsistencies between the documentary and oral evidence of one of the witnesses, as well as contradictions and inconsistencies between different witnesses' recollections of events. These will be addressed under the "Discussion and Analysis" of the issues.

### ***The Respondent's Evidence***

[56] The Respondent called four witnesses: the original investigating official, Tracey Pearson, as well as Ken Haynes, Wes Ogloff and Michael Knapik. Larry Peitzche, the District Manager who issued the Contravention Determination and Notice of Penalty, was not called.

#### *Tracey Pearson, RFT*

[57] Mr. Pearson was the main witness for the Respondent. He was the person who discovered and inspected the suspended sediment in the Creek on October 2, 2007, and was the only person from either the Ministry or Atco to observe the situation on the Glenmerry FSR, at the Creek Crossing, and in the Creek that day.

[58] Mr. Pearson is a Registered Forest Technologist in British Columbia and at the time of the incident, had been a Compliance and Enforcement officer for 15 years. Almost all of his experience with the Ministry has been in the Kootenays. Between 1990 and 1992, Mr. Pearson worked for the Ministry of Forestry, Lands and Wildlife in Alberta. Since 1997, he has received approximately 50 days of training in law enforcement.

[59] In the morning of October 2, 2007, Mr. Pearson investigated another forest licensee's operation approximately 25 kilometres from the Glenmerry FSR. The weather was overcast, with rain occurring on and off. Around noon, he turned onto the Glenmerry FSR to carry out a random inspection of Atco's cutblock. He recalls that it was raining at that time, and he observed the road to be wet and muddy with some puddles. Some of the photographs

that he took of the Creek that day show signs of raindrops and confirm that it was raining.

[60] Mr. Pearson testified that he is trained to observe while driving. While driving along the Glenmerry FSR he saw nothing unusual until he got to the Creek Crossing where he noticed that the water in the Creek, downstream of the road, was muddy.

[61] Mr. Pearson stopped his truck on the road and began an on-the-ground inspection. He walked "a little ways" along the road, southward (upslope) from the Creek Crossing, where he observed continuous gravel ridges for approximately 160 metres along both sides of the road. He estimated that the ridges were between 2 and 6 inches [5 and 15 centimetres] in height. He estimated that the maximum grade on this section of the road was approximately 13 percent.

[62] Mr. Pearson did not measure the actual lineal distance, the height of the ridges or the road grade because he did not have any measuring tools with him. Other than two overview photographs of the road near the Creek Crossing, he did not take any photographs that showed the gravel ridges.

[63] Mr. Pearson observed that, on the downstream side of the road near the Creek Crossing, the gravel ridges prevented water on the road surface from flowing off the road and into the ditch on that side of the road. Therefore, water-suspended sediment was collecting against the gravel ridge and flowing northward (downslope) toward the Creek. He observed no water in the ditch. He observed that, on the upstream side of the road, the gravel ridge prevented water on the road surface from flowing off the road and into the vegetation.

[64] In the vicinity of the Creek Crossing, Mr. Pearson observed some water draining through the gravel ridge, through the rocks and vegetation along the side of the Creek Crossing, and entering the Creek beside the south culvert. A photograph that he took shows the culvert on the downstream side and some suspended sediment in the Creek further downstream, but the pathway of the water from the road to the Creek is not evident. Another photograph he took looking towards the openings of the downstream culverts, also shows some suspended sediment in the Creek, but the pathway of the water from the road to the Creek is not evident.

[65] On the upstream side of the road, Mr. Pearson observed some, although less, water flowing along the gravel ridge toward the Creek Crossing, and he observed some of that water seeping through the gravel ridge into the Creek. He took a photograph that shows the culvert looking upstream and a clear-looking Creek further upstream. The pathway of the water from the road to the Creek is not evident in this photograph.

[66] Mr. Pearson observed that some of the water that was accumulating on the road above the culverts was percolating through the road material between the two culverts on the downstream side. He took no photograph of this.

[67] Mr. Pearson observed a puddle, sometimes referred to during the hearing as a pothole<sup>9</sup>, on the road surface of the Creek Crossing, above the culverts. He observed that it was filled with water-suspended sediment that had been directed from upslope (from the south) in shallow truck tracks. He observed that some of the water-suspended sediment from the puddle was overflowing onto the downstream side of the Creek Crossing, through a small breach in the grader ridge and into the Creek. The pathway of the water from the puddle to the Creek is not clearly evident from any of Mr. Pearson's photographs.

[68] To encourage water to flow off the road surface, Mr. Pearson took a few minutes and used a shovel to breach the gravel ridges at one location on each side of the road, approximately 30 metres south of the Creek Crossing. On the upstream side of the road, he also used a shovel to dig a small trench across a portion of the road surface to better direct water off the road. Mr. Pearson recalls that the water stopped flowing into the puddle on the Creek Crossing after he breached the gravel ridges. He took no "before and/or after" photographs of where he carried out this work that day. He did photograph these works on a following visit.

[69] Mr. Pearson did not take any action to fill the puddle on October 2, 2007 because he was not as concerned about environmental damage resulting from water-suspended sediment entering the Creek from the puddle. He also felt there was not very much he could do to fill the puddle.

[70] Of the two previously described overview photographs that Mr. Pearson took of the Creek Crossing, the complete puddle is visible in one of them, but from a distance; only a portion of the puddle is visible in the other photograph.

[71] Other than as described above, Mr. Pearson said that he did not observe any other sources for the sediment entering in the Creek on October 2, 2007

[72] While he was at the site, a loaded logging truck approached from the south. Mr. Pearson recalled having to move his vehicle to the side of the road. While he was standing at the side of the road he observed that, as the

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<sup>9</sup> The puddle is a shallow depression on the road surface filled with water. Although sometimes referred to as a pothole during this hearing, the Panel notes that the depression was neither deep or steep-sided (the characteristics of a pothole). The Panel will refer to this feature as a puddle when full of water, and as a depression when it contains no water.

logging truck drove over the Creek Crossing, one of its tires went into the puddle and splashed water-suspended sediment into the Creek on the downstream side of the Creek Crossing. Mr. Pearson recalled that, at the time, he was "close to finishing his pictures".

[73] Mr. Pearson testified that he spoke briefly with the logging truck driver, Harold Soukeroff, after the truck had crossed the Creek; that the logging truck was stopped close to the Creek, and that he spoke with Mr. Soukeroff who was out of his truck. Mr. Soukeroff testified at the hearing and his evidence, which conflicts with Mr. Pearson's in certain respects, is described later in this decision.

[74] Mr. Pearson does not wear a watch. He stated that he relied on both the time recorded (metadata) in his digital camera and the clock in his truck to determine when he arrived at the site. The metadata from his digital camera indicates that he took his first photograph at 12:56 pm and therefore he must have arrived shortly before that time. He estimates that he left the site about 2 pm.

[75] Mr. Pearson did not make any field notes on October 2, 2007. Other than his observations and his remedial work, he took five photographs at the site that day, over a period of one minute and 34 seconds (as recorded in his camera). The photographs are described in the paragraphs above. He did not have a video camera with him.

[76] Mr. Pearson testified that, when he returned to his office on October 2, 2007, he completed a Ministry Road Inspection Report. The report indicates that:

- he carried out an ocular, reconnaissance and detailed survey of the site;
- he noted "Alleged Non-Compliance" of "Road/trail maintenance";
- "recent grading on the Glenmerry FSR (Mud) has left grader berms on the inslope of the road. During a rain event, road surface water was mis-directed into Blueberry Creek (S3) causing siltation of a known fish-bearing stream. Mike Knapik [then Ministry of Environment ecosystems biologist] has been contacted";
- digital images were attached to the report;
- Mr. Gus Young (Atco) was emailed a copy of the report; and
- a Ministry Incident Summary Report, DAB-26347, was initiated.

[77] Although this October 2, 2007 report states that he emailed Mr. Young "a copy of the report", on cross-examination Mr. Pearson acknowledged that he did not contact anyone from Atco about his observations at the Creek Crossing on October 2, 2007.

[78] On cross-examination, Mr. Pearson also agreed that he had not noticed the gravel ridges along the sides of the road while he was driving. He said that they were hard to see because of the vegetation at the sides of the road and that "the berm near the crossing was very, very shallow, very small." He only noticed the gravel ridges once he left his vehicle and walked along the road.

[79] On October 3, 2007, to initiate his investigation before any evidence disappeared and to document possible damage to fish habitat, Mr. Pearson returned to the Creek Crossing with Kevin Vaters, a Ministry Compliance and Enforcement colleague. Mr. Pearson recalls that the weather on October 3, 2007 was overcast and was raining off and on. He observed that the Creek was "fairly clear" downstream of the Creek Crossing. Mr. Vaters did not testify at the hearing.

[80] Mr. Pearson took 21 photographs that day, of which 15 were submitted into evidence. He first took an overview photograph of the Creek Crossing, looking northward along the downstream side of the road. The Panel notes that this photograph shows the, now empty, puddle (in other words, the depression) on the Creek Crossing to be relatively shallow with gently sloping sides.

[81] Mr. Pearson then took two photographs of the Creek from the Creek Crossing, one looking upstream and one looking downstream. Suspended sediment in the Creek is not evident in either photograph.

[82] Immediately downstream of the southern culvert outlet, he observed sediment deposited on the rocky streambed and on green alder leaves that were on the streambed. The alder leaves were located where he had observed water-suspended sediment entering the Creek the previous day. He took two photographs of this location and one close-up photograph of a hand holding a sediment-covered leaf. Mr. Pearson assumed that, because the alder leaves were green, they had fallen recently.

[83] At the upstream opening of the southern culvert, upstream of a culvert baffle, Mr. Pearson observed sediment deposited on the rocky streambed where the previous day he had seen water-suspended sediment entering the Creek. He took two photographs of this location.

[84] In the same location, but downstream of the culvert baffle, Mr. Pearson saw sediment deposited on the bottom of the southern culvert. He estimated the thickness of this deposit relative to the length of a felt pen. He initially stated that the sediment thickness was four inches [10 centimetres], but later said that it was six inches [15 centimetres]. Under cross-examination, he agreed that there was no way to tell when the sediment had accumulated at this location. This location was included in the above two photographs.

[85] Mr. Pearson then walked downstream along the north bank of the Creek. At 30 metres downstream he took a photograph of the Creek where he observed suspended sediment in a pool of the Creek. At 50 metres downstream, he took another photograph showing some sediment deposited on the streambed in a pool of the Creek. Mr. Pearson stated that, at this location, the water was not turbid.

[86] Mr. Pearson then returned to the Glenmerry FSR, and walked approximately 30 metres southward from the Creek Crossing. He observed areas of erosion and disposition along the both sides of the road where surface water had flowed. He took two photographs at this site looking northward: one photograph of each side of the road where he carried out his remedial work on October 2, 2007. In one photograph, he placed his hat on the ground for scale.

[87] He also took two photographs showing sediment in the ditch on the downstream side of the road. In one photograph he placed his hat on the ground for scale. He concluded that this sediment was deposited from the water that he redirected from the road surface the previous day.

[88] Based on the metadata in his digital camera, Mr. Pearson took his first photograph at 9:53 in the morning of October 3, 2007. In total, Mr. Pearson took 18 photographs in the area of the road, the ditch, the Creek Crossing, and the Creek on both sides of the crossing, during a 21 minute and 10 second period. The 14 photographs described above were submitted as evidence.

[89] Mr. Pearson and Mr. Vaters then walked approximately 600 metres downstream beside the Creek to a wetland. Mr. Pearson took three photographs during this walk in a period of 4 minutes and 20 seconds, and entered one of these photographs as evidence. He observed some turbid water.

[90] Mr. Pearson estimated that his and Mr. Vaters' investigation on October 3, 2007 lasted between three and four hours, and that they arrived at the site about 11 am and left the site about 3 pm. Neither he nor Mr. Vaters made any field notes nor took any measurements during the investigation that day. They did not have a video camera with them. However, the Panel notes that the metadata in his digital camera recorded Mr. Pearson's last photograph on October 3, 2007 was taken at 10:56 am.

[91] Mr. Pearson testified that, when he returned to his office on October 3, 2007, he initiated Incident Summary Report, DAB-26347, which he completed 18 months later, on May 1, 2009. The evidence that he initiated the report on October 3, 2007 is inconsistent with his Road Inspection Report which states that the report was initiated on October 2, 2007.

However, nothing turns on the date the Incident Summary Report was initiated.

[92] The evidence at the hearing established that neither Mr. Pearson nor Mr. Vaters contacted Atco after the site investigation on October 3, 2007. Mr. Pearson explained that he was not concerned about additional environmental damage occurring because he was satisfied that his remedial actions the previous day had mitigated any further environmental damage to the Creek. He said that this was confirmed by the lack of suspended sediment observed in the Creek on October 3, 2007.

[93] Mr. Pearson agreed under cross-examination that, if he had been concerned about ongoing damage to fish habitat in the Creek, he could have exercised his authority under the *Act* to close the road or restrict its use. He did not consider either of those steps necessary.

[94] Mr. Pearson said that, during his site investigation with Mr. Vaters on October 3, 2007, he concluded that he needed the expertise of a fish biologist to determine whether there had been any damage to fish habitat in the Creek.

[95] Late in the day on Thursday, October 4, 2007, Mr. Pearson telephoned Mr. Young (Atco) and told him what had he had observed at the Creek Crossing.

[96] Mr. Pearson recalls that, on Tuesday, October 9, 2007, Mr. Young advised him of the remedial work that Atco had done at the site.

[97] Mr. Pearson returned to the site with Mr. Knapik, a fish biologist, on October 22, 2007. Mr. Knapik testified at the hearing and his evidence is described later in this decision. No evidence was presented to indicate that Mr. Pearson made any observations or took any photographs on October 22, 2007.

[98] On October 31, 2007, Mr. Pearson returned to the Creek with Mr. Vaters, Mr. Knapik and Mr. Chirico, the other fish biologist. Mr. Pearson saw one live unidentified fish on this visit and no unhealthy or dead fish. No evidence was presented to indicate that Mr. Pearson made any other observations on October 31, 2007. The two overview photographs that Mr. Pearson took that day were presented as evidence.

[99] Mr. Pearson interviewed Mr. Falat, the Atco road grader operator, a year after the incident, on October 6, 2008. Mr. Pearson agreed that his investigative training had taught him that it was best to interview witnesses as soon as possible after an event, but said that the delay resulted from his workload. From the interview with Mr. Falat, Mr. Pearson learned that Mr. Falat had received training and instructions about road grading from Atco

and that Mr. Falat knew that he should not leave berms on the sides of a crowned road.

[100] Mr. Pearson completed his Ministry Incident Summary Report on May 1, 2009. On cross-examination, Mr. Pearson was challenged about discrepancies between his observations in the "Chronology of Events" in that report, and his evidence at this hearing. In the chronology, Mr. Pearson stated:

"Vehicular traffic on this road was observed splashing this muddy water directly into the Creek."

"The predominate [sic] water concentrations were on the outsides of this road which, have direct connectivity to Blueberry Creek."

"Additionally, ATCO delayed taking proper remedial action for five days after this incident was formally reported to them thereby exasperating [sic] fish habitat".

[101] At the hearing, Mr. Pearson testified that he observed water flowing from the puddle over the Creek Crossing directly into the Creek, and indicated that this is what he had meant when he used the words "direct connectivity". He agreed that he had only observed one vehicle's tire splash water into the Creek on October 2, 2007, and that that was not the source of the suspended sediment entering the Creek.

[102] Mr. Pearson conceded, under cross-examination, that Atco's delay in remedial work was due to the Thanksgiving weekend.

[103] After viewing photographs taken by Atco in August of 2010, showing water-suspended sediment entering the Creek from the ditch, Mr. Pearson agreed that water-suspended sediment was still entering the Creek despite the placement of filtration straw bales and other remedial work done by Atco in June of 2010.

Ken Haynes, RFT

[104] Mr. Haynes is a Registered Forest Technologist in British Columbia, and the Engineering Officer with the Ministry in the Selkirk Resource District. Mr. Haynes has worked with the Ministry for over 30 years in the planning, surveying, designing, constructing, maintaining and deactivating of forest roads. Mr. Haynes was qualified as an expert in forest road planning, construction, operation and maintenance.

[105] To Mr. Haynes' knowledge, Glenmerry FSR, in the vicinity of the Creek Crossing, did not present any unusual road maintenance issues in June 2007 when Atco assumed the RUP.

[106] For the purposes of his opinion, he assumed that the height of the gravel ridges on the road was between 2 to 6 inches [5 to 15 centimetres]

on a slope that ranged from flat at the Creek Crossing to 13 per cent approximately 160 metres to the south. In his view, the gravel ridges were significant as they prevented surface water from flowing off the sides of the road, and they redirected that water towards a fish-bearing stream.

[107] Mr. Haynes stated that it is reasonable to expect that an experienced professional employed by a licensee would recognize the potential of a gravel ridge on the side of a road to inhibit road surface drainage and redirect surface drainage, and that such an individual would evaluate the potential for downslope consequences.

[108] It was Mr. Haynes opinion that, in light of what Mr. Pearson saw on October 2, 2007, and in light of the fact that the Creek is a fish-bearing stream, Atco would have (1) been expected to, and should have, inspected the road near the Creek Crossing; (2) noticed the gravel ridges; and (3) breached the gravel ridges that were observed, depending upon the season (wet versus dry) and the risk potential.

[109] On cross-examination, Mr. Haynes agreed that he did not attend the site in October 2007, and that he had relied on Mr. Pearson's descriptions of the road and the height of the gravel ridges. Mr. Haynes was unable to accurately estimate the heights of the gravel ridges from the photographs that he reviewed.

[110] Mr. Haynes agreed that Robert Babiarz, a retired Ministry employee who was called as an expert witness by Atco in this proceeding, has had more experience with the Glenmerry FSR than he has. Mr. Babiarz's evidence is described later in this decision.

[111] Mr. Haynes agreed that, after a gravel road has been graded, it typically has loose road surface material that can be transported by water. The volume of surface material that is transported depends on the amount of water on the road surface which depends on the volume and intensity of rain and the road gradient.

[112] Mr. Haynes explained that "fines" (silt and clay materials) in a road is essential because they bind other aggregates together. Fines are found on the road surface and can be "pumped" to the road surface by traffic. Generally, the more vehicular traffic on a road, the more fines.

[113] Mr. Haynes agreed that it is common for sediment to enter a creek from any road. It is the volume of sediment that is of concern.

[114] When asked about the puddle on the Creek Crossing, Mr. Haynes agreed that such depressions are common on forest roads. He said that the timing of when such depressions should be repaired varies and depends on the use of the road. He was not aware of any standard practice for their repair and, in his view, it would depend upon a number of factors. If there

was a safety concern or a deep pothole, it should be repaired as soon as possible.

[115] Mr. Haynes agreed that he would not expect a licensee, such as Atco, to hold daily pre-work meetings with an experienced grader operator. For routine grading operations, it would be more common to hold a pre-work meeting with an inexperienced grader operator than an experienced one.

[116] Mr. Haynes did not disagree with the assertion that Atco's road grading diligence was higher than average in the district.

Wes Ogloff, RFT

[117] Mr. Ogloff is a Registered Forest Technologist in British Columbia and an Engineering Technician with the Ministry in the Selkirk Resource District. He reports to Mr. Haynes. Mr. Ogloff worked for a forest company in the area until 2006, then joined the Ministry first as a part-time employee in 2006, and as a full-time employee in 2007. Mr. Ogloff reported to Mr. Babiarez until 2010 when the latter retired. Mr. Ogloff's evidence was not tendered as expert evidence and he was not called as an expert witness.

[118] Mr. Ogloff's duties include: inspection and maintenance of 1600 kilometres of forest service roads, issuing of RUPs, tendering and supervising road maintenance contracts and other issues related to resource roads.

[119] From Mr. Ogloff's perspective, while the name of Atco changed from Atco Lumber Ltd. to Atco Wood Products Ltd. in January 2007, the operations did not change at all, particularly in the woodlands. The same staff continued to do the same jobs.

[120] Mr. Ogloff stated that, ideally, a forest road should shed surface water as quickly as possible and before it gets to a creek crossing. There should be no berms or unbreached ridges along the sides of such roads. Water should not flow down a road and sit on a creek crossing, either a bridge or a culvert. Techniques for roads to shed surface water include crowning or the use of waterbars. Once off the road, the surface water should be directed into a ditch or onto the forest floor to filter out sediment before it gets to a creek. He stated that some sediment may get to a creek from a road, but efforts must be made to avoid it.

[121] Mr. Ogloff described the Glenmerry FSR as a "run-of-the-mill" forest service road in fairly good condition.

[122] When asked about the presence of a puddle or pothole on a creek crossing surface, Mr. Ogloff stated that such depressions are not good on a creek crossing because they cause softening, saturation and rutting of the road and because dirty water can splash into the creek.

[123] Mr. Ogloff testified that such depressions can be easily fixed by infilling with imported road material or by raising the road profile just before a crossing. The latter method encourages the road to shed surface water before it reaches the creek. He agreed that, while the use of a raised profile before a creek crossing is ideal, it is not a requirement and is not frequently done in practice.

[124] In Mr. Ogloff's view, gravel ridges can occur at the sides of roads if the road grader operator excavates too much material in the grading process.

[125] Under cross-examination, Mr. Ogloff agreed that he had not driven the Glenmerry FSR prior to 2010. He also agreed that, if something occurred on a forest service road right after his inspection, it could go unnoticed until his next inspection during which time the road could be actively used.

*Michael Knapik, RPBio.*

[126] Mr. Knapik is a Registered Professional Biologist in British Columbia. In October 2007, he was the Senior Ecosystem Biologist for the, then, Ministry of Environment in Nelson. He holds a M.Sc. in Forest and Range Management. He is involved with the management of habitat in the Kootenay Region.

[127] Mr. Knapik attended the site on October 22 and 31, 2007; however, he was unable to complete any investigations as to the presence/absence of fish in the Creek because the water temperature was too low to allow for safe electro-shocking of fish.

[128] Mr. Knapik stated that, when he examined the Creek from the Creek Crossing on October 22, 2007, the water looked "dirty" and that condition is not generally considered to be beneficial for fish. He did not conduct any further examination of the Creek or the streambed on that date.

[129] On October 31, 2007, Mr. Knapik noted sediment deposited on the streambed. He explained that sediment on the streambed can be harmful to spawning fish because it decreases water flow through the gravel, thus reducing the amount of oxygen. Sediment on the streambed can also negatively affect algal growth and the presence of invertebrates, both food sources for fish. He concluded that the addition of sediment downstream of the Creek Crossing would not likely affect fish in the Creek that had already spawned. However, such sediment could affect spawning the following year.

[130] On August 29, 2008, Mr. Knapik and Mr. Chirico, Registered Professional Biologist, carried out a study to prove the presence/absence of fish, and species composition in the Creek near the Creek Crossing. They did not conduct a fish habitat assessment of the Creek. The electro-shocking he conducted on that date confirmed the presence of fish in the Creek.

[131] Mr. Knapik stated that, in the Creek upstream of the Creek Crossing, he observed a clear substrate (streambed) with algal growth. Downstream of the Creek Crossing, he noted suspended sediment and sediment on the streambed. He stated that there did not appear to have been a significant freshet (spring runoff) in 2008 to wash sediment downstream.

[132] Mr. Knapik confirmed that, on August 29, 2008, the Creek in the vicinity of the Creek Crossing, and regardless of any sediment, had both resident rainbow trout and transient rainbow trout.

[133] When asked how the suspended sediment in the Creek, photographed by Mr. Pearson on October 2, 2007, could have affected spawning of the fish that he saw in August 2008, Mr. Knapik stated that, because the sediment likely entered the stream during the fisheries window<sup>10</sup> of August 20 to October 15, 2007, fish spawning for 2007 would not have been affected.

[134] Mr. Knapik stated that it was possible that fish spawning in 2008 could have been affected by the sediment deposited in the streambed. Sediment in the Creek could also have affected algal growth, a food source, or have stressed fish by harming or irritating their gills. Any fish present near the Creek Crossing in October 2007, however, would have been at a stage of development where they could have sought refuge from the sediment or left the area.

[135] In cross-examination, Mr. Knapik conceded that he did not consider the source of the sediment or the timing of it entering the Creek in his investigation or report. He agreed that the sediment he observed on his visits in October 2007 could have pre-dated the October 2, 2007 incident.

[136] Mr. Knapik stated that there is no threshold for what constitutes the volume of sediment that is "deleterious" to fish; it must be determined on a case-by-case basis.

[137] Mr. Knapik did not discuss with Mr. Pearson any rehabilitation or mitigation measures required for the Creek as a result of the October 2, 2007 incident.

[138] Mr. Knapik did not know how the sediment that he observed in October 2007 or August 2008 had entered the Creek, and did not know how rain events could have affected his observations on August 29, 2008. He agreed that sediment can enter streams by natural processes during spring runoff or by the erosion of creek banks.

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<sup>10</sup> A fisheries window is considered the period of the year when fish and fish habitat are least affected by activities in, or in the vicinity of, a stream.

[139] Mr. Knapik reviewed a photograph taken by Atco on August 10, 2010, which shows water-suspended sediment entering the Creek from the ditch downstream of the Creek Crossing. He stated that he would be concerned if that sediment's source was not natural. He explained that, since natural events add sediment to a creek, it is important to avoid the effects from non-natural sources, such as roads.

[140] Mr. Knapik stated that he had read Ms. Masse's expert report and her conclusions about the health of the Creek as of the date of her assessment. He had no reason to disagree with her assertions. Ms. Masse, a Registered Professional Biologist, testified at the hearing and her evidence is described later in this decision.

### ***The Appellant's Evidence***

[141] Atco called five witnesses: Gus Young, Craig Stemmler, Robert Babiarz, Sylvie Masse and Harold Soukeroff. Walter Falat, the road grader operator associated with the incident, was not called.

#### *Craig Stemmler, RPF.*

[142] Mr. Stemmler is a Registered Professional Forester ("RPF") in British Columbia and Atco's Forestry Co-Manager. He holds a B.Sc. in Forestry and has worked as a RPF since 1995. He started with Atco Lumber Ltd. in 1997, then moved to his current position with Atco in January 2007.

[143] Mr. Stemmler explained that the Glenmerry FSR is a forest road that accesses a number of drainages and cutblocks.

[144] Mr. Stemmler stated that when Atco assumed responsibility for the road in June 2007, it was "in pretty good shape". Road maintenance issues were the responsibility of Mr. Young, Atco's Woodlands Manager who directed Atco's road maintenance crew as required.

[145] Mr. Stemmler explained that as part of Atco's Environmental Management System ("EMS"), now and in 2007, it had an Environmental Operations Procedure and Environmental Instructions, which were both entered in evidence. He said that Atco Lumber Ltd. received certification for its EMS under ISO 14001 Standards in 2002. It also received certification under the Sustainable Forestry Initiative Program in 2006. These certifications were issued because Atco Lumber Ltd. had exceeded the legislative standards for environmental management with its operating policies. When Atco Lumber Ltd. changed ownership and became Atco these certifications were transferred to the latter entity. Atco is audited annually to ensure it meets the required standards.

[146] To comply with certification standards, Mr. Stemmler explained that all Atco employees receive appropriate training. Starting in 2002, annual

mandatory employee training sessions on Atco's (and its predecessor's) EMS have been held. Mr. Stemmler stated that Mr. Falat, the road grader operator who graded the road on September 25, 2007, attended these annual training sessions for the years 2002 to 2007, and had received a copy of Atco's Environmental Instructions dated May 1, 2007. These instructions contained a list of "Road Activities", situations of which employees should be aware.

[147] Mr. Stemmler explained that, in 2007, Atco had approximately 800 kilometres of roads under permit; 680 kilometres under Road Permit<sup>11</sup> and 120 kilometres under a Road Use Permit<sup>12</sup>. He indicated that Atco had active operations on 150 to 200 kilometres of these roads at any given time.

[148] According to Mr. Stemmler, Atco expected all of its employees to conduct informal road inspections from their vehicles while traveling on forest roads for which it was responsible. He said that employees were expected to be observant and to note anything unusual. If an issue arose from an informal inspection, the employee was to bring it to the attention of a supervisor. Mr. Stemmler referred to Atco's records that show that portions of the Glenmerry FSR were informally inspected on 16 different occasions in the 15 week period from July 2007 to early October 2007.

[149] Mr. Stemmler did not inspect the Glenmerry FSR during the summer of 2007, nor did he attend the Creek Crossing in October of 2007.

[150] Mr. Stemmler referred to a table that summarized rainfall recorded from noon to noon September 19 to October 9, 2007 at the Nancy Greene Weather Station, approximately 2.5 kilometres from the Creek Crossing. This table indicated the following amounts of rainfall, in millimetres, in early October 2007.

| <b>From noon on</b> | <b>To noon on</b> | <b>Rainfall in mm</b> |
|---------------------|-------------------|-----------------------|
| September 30        | October 1         | 18.0                  |
| October 1           | October 2         | 5.6                   |
| October 2           | October 3         | 15.2                  |
| October 3           | October 4         | 1.4                   |
| October 4           | October 5         | 3.2                   |
| October 5           | October 6         | 0.02                  |

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<sup>11</sup> A Road Permit road is a road on which the permit holder is the primary user and for which the permit holder has the primary responsibility.

<sup>12</sup> A Road Use Permit provides the permit holder the right to use a forest service road, and under which a district manager can establish terms and conditions.

[151] Mr. Stemmler described these amounts as “not a lot of rain for the area”, and stated that Environment Canada had not issued a rainfall warning during this period.

[152] On July 8, 2009, Mr. Stemmler met with Mr. Falat (then retired), in preparation for the Opportunity To Be Heard. Mr. Stemmler’s notes from the meeting, entered into evidence, report that Mr. Falat was not aware that the Creek at issue was a fish-bearing stream, but that Mr. Falat treated all creeks the same way and tried to ensure that no sediment went into a creek.

[153] From Mr. Stemmler’s notes, Mr. Falat said that from his training, he learned that during road grading he should pull material away from the sides of a road, not from the ditch, because doing the latter would disturb the vegetation in the ditch, which acts as a filter for ditch water. It was not Mr. Falat’s normal practice to excavate waterbars near a culvert inlet or outlet because “we don’t want waterbars directing sediment into the stream.” Normally Mr. Falat would take material out of a ditch to help grade the road, but if the ditch was vegetated, he would leave it fully intact so that he did not cause a sedimentation problem.

[154] From Mr. Stemmler’s notes, Mr. Falat recalled that, on September 25, 2007, he graded the road from the corner (approximately 160 metres south of the Creek Crossing) northward to the Creek Crossing, and that the inside (downstream) shoulder of the road was high.

[155] Mr. Stemmler also gave evidence that, on August 10, 2010, almost three years after the incident, he attended the Creek Crossing with Mr. Young and noted water-suspended sediment discharging from the ditch into the Creek. The weather on that day was relatively dry and water-suspended sediment was flowing in the ditch. Mr. Stemmler took several photographs of the situation, which were entered in evidence.

[156] Mr. Stemmler pointed out that, on the same day, Ministry Compliance and Enforcement Officers, Mr. Vaters and Dan Barron, attended the Creek Crossing. They investigated the source of the suspended sediment and concluded that Atco had done nothing wrong, and that Atco was not required to conduct any remedial work at the site. Neither Mr. Vaters nor Mr. Barron were called as witnesses.

#### Gus Young

[157] From 1981 to January 2007, Mr. Young was the Woodlands Manager for Atco Lumber Ltd. Since January of 2007, Mr. Young has been the Woodlands Manager for Atco. Mr. Young is a Registered Forest Technologist in British Columbia.

[158] As Woodlands Manager, Mr. Young is responsible for all of Atco’s activities in the woodlands. He reports to the Chief Operations Officer and

the Chief Executive Officer. The forestry co-managers, the logging superintendent, the maintenance workers and the logging contractors report to him.

[159] Mr. Young stated that Atco, and its predecessor, have had logging operations in the area for 15 to 20 years.

[160] In 2007, Mr. Young was familiar with the Glenmerry FSR as it provided access to cutblocks to the south, where Atco, and its predecessor, had carried out timber harvesting. He described the road as similar to other forest roads in the district in terms of its composition and construction.

[161] Mr. Young regularly performs informal road inspections from his vehicle when he drives forest roads. He stated that, as part of his informal inspections, he may stop to look at creeks when he crosses over them if it is raining. He does not do so if the weather is dry unless he notices something unusual.

[162] On July 3, 2007, Mr. Young first drove the Glenmerry FSR after Cutting Permit 179 and the RUP had been issued in late June, 2007. He found the road to be in good condition and capable of industrial use. There was no need for road grading at that time.

[163] Mr. Young could not recall the specifics about why road grading was done at the Creek Crossing, but believed that one of Atco's logging contractors may have told him the road at that location was rough. He therefore instructed Mr. Falat to do spot grading at that location.

[164] Mr. Young indicated that log hauling from Cutting Permit 179 began on the road on September 19, 2007.

[165] Mr. Young stated that in 2007 Atco had three road graders and three staff for its road maintenance operations. He believed that this ratio was more than any other forest company in the area and that Atco did a better job of road maintenance than most. He instructed all of his road grader operators not to leave berms on the sides of roads when grading.

[166] According to Mr. Young, Mr. Falat had worked for Atco, and its predecessor, for 16 years, and had worked in the forest sector and had been a road grader operator for many years before that. This is confirmed in Mr. Falat's Ministry Incident Statement, dated October 6, 2008.

[167] Mr. Young stated that, due to Mr. Falat's experience and familiarity with the area, Mr. Young felt that it was not necessary to hold a pre-work meeting with him about routine road grading. Mr. Falat was trained in Atco's EMS with respect to road maintenance, which included road grading. That the road went over a fish-bearing creek was not significant to Mr. Young, because he believed that all creeks should be treated with great care.

[168] Similar to Mr. Stemmler, Mr. Young stated that road grader operators normally attempt to pull material away from the sides of the road, while leaving the roadside vegetation intact so it can act as a filter for water flowing off the road surface.

[169] Mr. Young was aware that Mr. Falat had graded the Glenmerry FSR near the Creek Crossing on September 25, 2007. It was the first grading done near the Creek Crossing since Atco had assumed road maintenance responsibility. Later that day, Mr. Young travelled on the section of the road that Mr. Falat had graded. He recalled noting that the surface material had been disturbed and that the road was not as rough as it had been. He did not notice anything unusual about the sides of the road. He did not make a formal inspection report because he had not seen anything of concern.

[170] Mr. Young indicated that between September 25 and October 1, 2007, no other Atco supervisory or professional staff drove the Glenmerry FSR or over the Creek Crossing.

[171] On October 2, 2007, Mr. Young drove southward over the Creek Crossing at approximately 9 am, and again northward at approximately noon. He recorded the weather in his diary that day as "cloudy on the Glenmerry", and recalls that it was not raining and the road was dry and dusty. He did not notice any gravel ridges in the vicinity of the Creek Crossing. He made no note of any road maintenance issues in the vicinity of the Creek Crossing.

[172] In Mr. Young's experience, the gravel ridges depicted in Mr. Pearson's photographs of October 2, 2007 were insignificant; they did not raise any concerns. As the road was dry when he was there, Mr. Young said that he could not have seen any water flowing on the road surface or into the Creek. He agreed that, if he had seen a gravel ridge on the side of the road that prevented water from flowing off the road, or if he had seen water-suspended sediment flowing into the Creek, it would have concerned him.

[173] Mr. Young stated that, if he had he seen the puddle on the Creek Crossing, as depicted in Mr. Pearson's photographs of October 2, 2007, he would not have been sufficiently concerned to stop because of its shallow nature and the fact that puddles are very common on forest roads.

[174] Mr. Young acknowledged that the Nancy Greene Weather Station, located approximately 2.5 kilometres from the Crossing, recorded rainfall on October 2, 2007. He said that Atco uses the weather station data for its operations, but that it is not always accurate because, due to storm cells, it can be raining at the weather station but dry elsewhere.

[175] According to the Ministry's weigh scale records reviewed with Mr. Young, there was limited active log hauling on the Glenmerry FSR on

October 2, 2007; four loaded trucks in the morning, and three in the afternoon. It is not possible to know how many other non-log hauling vehicles also used the road that day.

[176] Mr. Young first learned of the incident at the Creek Crossing late in the day on October 4, 2007, when he was contacted by telephone by Mr. Pearson. Mr. Pearson told him that he had seen muddy water entering the Creek at the Creek Crossing on October 2, 2007. Mr. Young stated that, if he had been told of the problem on October 2, 2007, he would have attended the site that day to inspect it.

[177] Once aware of the problem, Mr. Young told all logging contractors to cease log hauling if it was raining. He went to the Creek Crossing at noon on Friday, October 5, 2007. He recalls the weather being dry. He saw no sediment entering the Creek at that time. No logging activities took place between October 6 and 8, 2007, because that was the Thanksgiving long weekend.

[178] Mr. Young initiated remedial work at the Creek Crossing on October 9, 2007, the first day after the long weekend. A six inch [15 centimetres] lift of ballast was used to fill in the depression on the Creek Crossing, the gravel ridges were breached, and waterbars were excavated on the road surface to promote drainage from the road. Mr. Young stated that waterbars are not commonly excavated on active roads because they can pose a safety hazard for vehicle traffic; they were excavated in this case at the Ministry of Forests direction.

[179] Mr. Young indicated that, three years after this incident, in June 2010, Atco applied gravel to a significant portion of the road, including the section of the road in the vicinity of the Creek Crossing. When the work was inspected by Mr. Pearson on June 3, 2010, it was raining heavily, and no water was observed entering the Creek from the road surface. Atco re-installed waterbars on the road surface in 2010 to improve drainage, and placed straw bales in the ditch on the downstream side of the road to help filter the ditch water before it discharged into the Creek. The straw bales were described as "moderately effective" by Mr. Pearson in his Road Inspection Report dated June 6, 2010.

[180] Despite the road maintenance and remedial work that had been done on the Glenmerry FSR in June 2010, when Mr. Young inspected the Creek with Mr. Stemmler, Mr. Vaters and Mr. Barron on August 10, 2010, water-suspended sediment was observed discharging into the Creek from the ditch.

Rob Babiarz, RFT

[181] Mr. Babiarz is a Registered Forest Technologist in British Columbia. Mr. Babiarz worked for the Ministry for 35 years. He was the Engineering

Officer with the Arrow Lakes Forest District from 1995 to 2010. He is now retired. Mr. Babiarz was qualified as an expert in forest road management, road maintenance and road construction.

[182] Mr. Babiarz attended the Creek Crossing twice: once before preparing his expert report on Atco's road maintenance in the vicinity of the Creek Crossing dated September 8, 2010, and once again on September 21, 2010.

[183] Mr. Babiarz testified that forest service roads are typically maintained to wilderness road standards when there is no RUP holder present. Forest service roads undergo annual inspections and road maintenance is carried out only if required, or the road is closed if there is a public safety issue. Road maintenance and road deactivation are included in road management; erosion control in a ditch is not a road maintenance issue; construction of a road's drainage systems, including ditches and culverts, is part of road construction which is the Ministry's responsibility.

[184] In 2007, Mr. Babiarz was familiar with the Glenmerry FSR and with other forest roads in the general area. He said that, generally speaking, the roads in the area have a high "fines" (silt and clay) content. There were no unusual conditions on the Glenmerry FSR of which he was aware.

[185] Mr. Babiarz stated that, prior to issuing a RUP, it is standard practice for a District Manager to advise the permittee of any known or chronic road maintenance issues. After issuance, the permittee would typically inspect the road to determine road maintenance requirements. In his opinion, appropriate road maintenance would ensure that a road is relatively smooth, slightly crowned, in-sloped or out-sloped, as appropriate, and that the culverts and ditches are functioning. Typically, for road maintenance all creeks are treated the same whether or not they are fish-bearing.

[186] Mr. Babiarz does not believe that it is common practice for forest companies to hold pre-work meetings with road grader operators before every grading activity. In his view, with a more experienced road grader operator, less supervision is required.

[187] Mr. Babiarz stated that, based on his observation of the Glenmerry FSR near the Creek Crossing in 2010, the ditch downstream of the road was still transporting water-suspended sediment through the straw bales and discharging it into the Creek.

[188] Mr. Babiarz stated that, based on his review of Mr. Pearson's photographs of October 2, 2007, the gravel ridges alone did not appear to be a contributing factor to the suspended sediment in the Creek. In his view, if the gravel ridges had not been present, it is likely that water-suspended sediment would still have entered the Creek via the ditch or through the vegetation along the side of the road. He reached this

conclusion based on his 2010 site visit when he noted that, even without grader ridges and with straw bales placed in the ditch, water-suspended sediment was still discharging into the Creek.

[189] Under cross-examination, Mr. Babiarz agreed that ruts, puddles and potholes are caused by road traffic on forest roads and that they should be attended to in a "reasonable time", with quicker attention in higher risk areas. He did not consider the puddle depicted in Mr. Pearson's October 2, 2007 photographs to be unusually large.

[190] Mr. Babiarz also agreed that gravel ridges should be avoided when grading roads because they can impede water from leaving the road surface and, if such gravel ridges cause water to flow from a road surface directly into a stream, it is "significant".

[191] In his expert report, Mr. Babiarz surmised that wind-blown dust from the road surface was a possible cause of the sediment in the Creek. On cross-examination, he conceded that, if that were the case, sediment would have accumulated on both sides of the Creek Crossing.

Sylvie Masse, RPBio.

[192] Ms. Masse is a Registered Professional Biologist in British Columbia. She was accepted as an expert in environmental assessment of fish habitat and the effects of sediment on fish habitat. She assessed the habitat of the Creek upstream and downstream of the Creek Crossing, and the potential residual effects from the incident of October 2, 2007. She carried out her assessment on July 10, 2009, and presented her results and conclusions in a memorandum dated July 13, 2009.

[193] Ms. Masse stated that she did not observe any water-suspended sediment entering the Creek from the Glenmerry FSR on July 10, 2009. When she looked at the ditch on the downstream side of the road, she observed still water in the ditch and sediment deposited on the bottom of the ditch.

[194] Ms. Masse found that the Creek had abundant algal growth, and the presence of juvenile fish and sensitive benthic invertebrate species, both upstream and downstream of the Creek Crossing.

[195] When Ms. Masse examined the streambed, she did not observe any sediment deposits on the substrate (streambed) or in the interstitial spaces between the rocks. When she picked up rocks from the substrate, she did not notice any movement of sediment. Ms. Masse stated that the absence of sediment is important because, if sediment is found in the interstitial spaces between the rocks, it can decrease the amount of oxygen and reduce the number of aquatic invertebrates available for fish food.

[196] Ms. Masse compared the appearance of the substrate upstream and downstream of the Creek Crossing and said that they appeared to be similar.

[197] Ms. Masse further stated that, if she had observed a layer of sediment on the substrate, she would have been concerned because such a layer could be harmful during spawning and incubating of fish eggs. If there is too much sediment when the fish are spawning, it can be difficult for them to push the sediment aside to deposit their eggs. When the eggs are incubating, too much sediment can deprive the eggs of oxygen.

[198] Ms. Masse explained that the fisheries window for the Creek is from August 20 to October 15 each year. The event of October 2, 2007 occurred during the fisheries window, and it was her opinion that any deleterious effect would have been to fish rearing, as opposed to spawning or incubation. She further stated that it is impossible to say when the sediment, observed by Mr. Knapik during his assessment in August 2008, entered the Creek.

[199] Ms. Masse concluded that, as of July 10, 2009, the Creek near the Creek Crossing represented healthy fish habitat. She stated: "The habitat as per the assessment ... did not appear to be affected by the sedimentation event that occurred on October 2, 2007."

[200] On cross-examination, Ms. Masse agreed that, because she carried out her assessment approximately two years after the incident, she could not say with certainty that the Creek had not been affected by the introduction of sediment on October 2, 2007.

Harold Soukeroff

[201] Mr. Soukeroff gave his evidence by way of a signed affidavit and a videoconference.

[202] Mr. Soukeroff was employed as a trucking contractor by Atco in October 2007, and hauled timber from Cutting Permit 179 and over the Creek Crossing.

[203] On October 2, 2007, Mr. Soukeroff drove a loaded logging truck northward on the Glenmerry FSR heading to a weigh scale approximately 45 minutes away (for a loaded logging truck) from the Creek Crossing. He estimated that he arrived at the Creek Crossing between 12:20 and 12:25 pm, because the weigh scale record indicates he arrived there at the scale at 1:08 pm.

[204] Mr. Soukeroff recalled: (1) that it was raining heavily at the time he left the cutblock and travelled toward the Creek Crossing; (2) seeing Mr. Pearson and his truck at the Creek Crossing on October 2, 2007; (3) not seeing any suspended sediment in the Creek at the Creek Crossing; (4)

slowing down his own truck as he went over the Creek Crossing and stopped approximately 100 metres north of the Creek Crossing to apply a timber mark to his load; (5) that he could not see the Creek from where he stopped his truck; (6) that, after he had got back into his truck, Mr. Pearson approached the driver's side door of the truck and stood on the running board to talk to him.

[205] Mr. Soukeroff recalled the road on October 2, 2007 to have been recently graded because the road surface had not yet packed well because the weather had been dry. There were several depressions in the road surface in the area but he did not consider them too deep to drive through.

*BC Timber Sales Road Inspection Report*

[206] Atco submitted as evidence a BC Timber Sales Road Inspection Report of the Glenmerry FSR, dated August 1, 2007. The report is as follows: "minimal culverts and ditch [sic], flat grades minimal cuts, good vehicle access".

***The Forest Practices Board's Evidence***

[207] The Forest Practices Board did not call any witnesses.

**DISCUSSION AND ANALYSIS**

***General***

[208] The Panel finds that despite his training and experience, Mr. Pearson's inspection and investigative practices associated with this incident were extremely poor. As a result, the facts of this decision were difficult to determine because of the lack of Mr. Pearson's supportive measurements and documentation, and the reliance on, at times, his questionable memory.

[209] The Panel also finds it difficult to reconcile some of the conflicting evidence from October 2, 2007. Specifically:

(1) Mr. Young (Atco) says that he drove northward over the Creek Crossing at approximately noon (Mr. Young's estimate), the road was dry and dusty and he saw no sediment in the Creek;

(2) Mr. Soukeroff says that he drove northward over the Creek Crossing between 12:20 and 12:25 pm (Mr. Soukeroff's back-calculated estimate based on weigh scale time records), just as Mr. Pearson says he was finishing taking his photographs (approximately 12:58 pm according to the metadata in Mr. Pearson's digital camera). Mr. Soukeroff says that it was raining heavily and he saw no sediment in the Creek; and

(3) Mr. Pearson arrived at the site very close to 12:56 pm (according to the metadata in his digital camera and the clock in his truck), it was raining, water-suspended sediment was flowing down the road and into the Creek and a puddle on the Creek Crossing was overflowing and flowing into the Creek.

[210] The Panel also finds it difficult to reconcile the two very different meetings that Mr. Pearson and Mr. Soukeroff testified as having with each other near the Creek Crossing on October 2, 2007.

[211] Similarly, the Panel finds it difficult to reconcile the evidence that, on October 3, 2007:

(1) Mr. Pearson said that he and Mr. Vaters attended the site between approximately 11 am and 3 pm; but

(2) the metadata in Mr. Pearson's digital camera shows that Mr. Pearson took photographs of the site between 9:53 am and 10:56 am, before he says that he arrived at the site.

[212] The Panel further finds it difficult to reconcile the varying evidence of both the Appellant and the Respondent associated with the crowning, in-sloping and/or out-sloping of the Glenmerry FSR south of the Creek Crossing. In this regard, and to better communicate the location and character of other features and geographical evidence, the Panel would have benefitted greatly from having a topographical plan, a well-annotated scaled sketch and/or a well-annotated enlarged vertical air photograph at an appropriate scale of the incident site.

[213] Finally, the Panel notes inconsistencies between the information in Mr. Pearson's Road Inspection Report dated October 2, 2007, and his oral evidence. For instance, the Road Inspection Report, which shows that it was *completed* on October 2, 2007, states that Mr. Pearson emailed Mr. Young (Atco) with a copy of the report. However, Mr. Pearson's evidence at the hearing was that he advised Mr. Young of his observations and concerns on October 4, 2007. The Road Inspection Report also states that Mr. Pearson had contacted Mr. Knapik, yet Mr. Pearson's evidence at the hearing was that he did not consider contacting a fish biologist until sometime after his October 3, 2007 site investigation. However, the Panel finds that the evidence of Mr. Young and Mr. Knapik confirms the latter dates are correct, which puts into question the veracity of Mr. Pearson's Road Inspection Report. One explanation may be that the report was not "completed" on October 2, 2007, but at some later date, after these other events had occurred.

[214] Fortunately, most of the above-noted inconsistencies or discrepancies in the evidence need not be resolved in order to decide the issues. Where they require a finding to be made, the Panel has done so.

**1(a) Did Atco fail to ensure that the drainage systems of the road were functional, contrary to 79(6)(b) of the *Regulation*?**

[215] For convenience, section 79(6)(b) is repeated:

**79** (6) A person required to maintain a road must ensure all of the following:

...

(b) the drainage systems of the road are functional;

...

[Emphasis added]

*Atco's Responsibility*

[216] Atco does not dispute that it was required to carry out all maintenance activities on the Glenmerry FSR as of June 29, 2007.

*The Drainage Systems*

[217] The Panel finds that the drainage systems at issue consist of the road surface, the ditch and the two Creek culverts.

[218] The Panel accepts the evidence that the section of the Glenmerry FSR at issue in this case was appropriately crowned, or otherwise sloped, to encourage water on the road surface to flow toward the sides of the road. That water was intended to flow off the road and into adjacent vegetation and/or into a ditch. The ditch on the downstream side of the road discharges into the Creek approximately 10 metres downstream from the Creek Crossing.

[219] The Panel appreciates that, on the relatively flat Creek Crossing, water on the road surface was intended to flow directly into the Creek after flowing through some vegetation and/or gravel along the sides of the Creek Crossing.

*Functionality of Drainage Systems*

[220] The Panel adopts the definition of "functional", in the context of this appeal, as its usual meaning; that is, working in its usual way, or as intended. [See, for example: Merriam-Webster online: "performing or able to perform a regular function"; Cambridge online: "working in the usual way".]

[221] Atco submits that its road maintenance did ensure that the drainage systems were functional. Atco asks the Panel to rely upon Mr. Babiarz's opinion from page 33 of his report:

From my review of the information supplied to me it appears the drainage systems of the Road were comprised of the two culverts, the ditch and the road. All drainage systems appeared to have been functioning well and as designed. I am not aware of any evidence of blockages around culvert intakes or outlets, debris blockages or sloughs in ditches and the road appears properly graded. The evidence in the pictures showing a grader berm in my opinion is a [sic] actually a grader ridge and is not significant. There is quite a steep road grade of approximately +/-10% coming into the flatter section up to the culvert. If the water flow had been significant coming down the steep road grade then there would have been some evidence of erosion along the berm. None of the photographs I have reviewed reveal any evidence of erosion.

[222] Atco also submits that, if sediment entered the Creek on October 2, 2007, while the drainage systems were functioning, the fault lies with the road design and construction, not road maintenance. Atco submits the unchallenged evidence is that sediment continues to enter the Creek from the ditch, regardless of the functional drainage systems. In contrast, Atco states that the only evidence the Respondent presented to establish that Atco's practices caused sediment to enter the Creek "is the Investigator's uncorroborated 3½ year-old memory."

[223] Regarding the puddle on the Creek Crossing, Atco refers to Mr. Babiarz's report in which he states on page 5:

There was a very minor "pot hole" and minor tire tracks forming adjacent to the culvert outlet and, again, is typical of a gravel logging road. Any amount of water splashed from the pothole and that actually entered the Creek would have been inconsequential.

[224] In contrast, the Respondent submits that the drainage systems were not functioning because water could not flow from the road surface due to the gravel ridges. The gravel ridges directed water-suspended sediment along the sides of the road and then directly into the Creek.

[225] The Respondent also submits that Atco was in breach of section 79(6)(b) because it allowed a puddle to develop on the Creek Crossing and did not take reasonable steps to repair it. The Respondent acknowledges that the development of the puddle was a minor component of the contravention, but submits that the minor nature of the puddle is not a defence to this contravention.

*The Panel's findings on whether the drainage systems were functional*

[226] The Panel notes that the functioning of the two side-by-side corrugated metal culverts, which pass the Creek under the Glenmerry FSR, is not at issue.

[227] As a preliminary point, the Panel notes that Atco's submissions tended to focus on whether the drainage systems prevented sediment from entering the Creek in general. The Panel interprets the focus of section 79(6) to be on protecting the integrity of the road prism and ensuring the road is safe to use, as opposed to protecting fish and fish habitat. With this in mind, the Panel first considers the submissions regarding the puddle on the Creek Crossing.

[228] The Panel notes that the evidence relating to the size and significance of the depression on the Creek Crossing varied. Mr. Pearson estimated its size to be 2 metres long, 1 metre wide and 4 to 6 inches deep [10 to 15 centimetres]. He did not take any measurements, nor were his photographs of October 2, 2007, particularly helpful.

[229] In terms of road maintenance, the Panel notes the evidence was somewhat equivocal. The road experts agreed that the presence of puddles or potholes on forest roads is common. Mr. Babiarz said that puddles and potholes should be attended to in a reasonable time, with more care required for higher risk areas. He did not consider the puddle on the Creek Crossing to be unusually large. Mr. Haynes was not aware of any standard practice to repair puddles or potholes. In his view, the timing for their repair depends on the use of the road, but if the depression poses a safety issue, or it is very deep, it should be repaired as soon as possible.

[230] The Panel finds that user safety was not a consideration with regard to this puddle on the Creek Crossing. Mr. Soukeroff said that he knew the depression was there but did not consider it too deep to drive through. Mr. Pearson, who examined and photographed it, was not concerned enough about the depression to contact Atco on October 2, 2007, to have it repaired.

[231] Further, with respect to the drainage systems not functioning properly at or near the Creek Crossing, the Panel finds that this was not related to the depression. Given that the intended drainage system on the Creek Crossing allowed water to flow into the Creek, water overflowing from the puddle, or splashing occasionally from the puddle into the Creek, cannot be said to have negatively affected the function of the drainage system in that specific location.

[232] Therefore, the Panel finds that there is no credible or convincing evidence that the depression at the Creek Crossing should have been

repaired for reasons of safety, and there is no evidence that it affected the function of the drainage system at the Creek Crossing. Moreover, to find Atco in contravention for its failure to repair one such depression in the context of several hundred kilometres of roads for which it was responsible, would amount to "a harsh and pedantic application of the statute" as referred to in *R. v. Canadian Pacific Ltd.*, [1995] 99 C.C.C. (3<sup>rd</sup>) 97 (S.C.R.) at 134. The Panel turns next to the ridges.

[233] There is no direct evidence that the ridges at issue were, in fact, left by Mr. Falat's grading of the Glenmerry FSR on September 25, 2007. The photographs of the road taken by Mr. Pearson on October 2, 2007, only vaguely show small gravel ridges abutting, and in places intermixed with, the vegetation growing along the sides of the road. However, given their location, size and shape, as well as the opinion of Mr. Babiarz, the Panel finds that the gravel ridges observed by Mr. Pearson on October 2, 2007, were, on a balance of probabilities, the result of spillage from the end of Mr. Falat's road grader blade when he graded the road on September 25, 2007.

[234] In the Ministry's Incident Statement, taken October 6, 2008, Mr. Pearson asked Mr. Falat: "Is it a normal practice to leave a berm (ridge) along the edge of a road? If so, why/why not?" Mr. Falat's recorded response was "(why) Only when you don't want the water to go over the fillslope or to cross over a creek", and "(why not) when you don't want the water to run down the road. With a crowned road you do not want berms."

[235] The Panel could not determine from the evidence whether the gravel ridges at issue constitute what is normally known as a "berm" in the forestry context. Nevertheless, the Panel accepts the evidence that Mr. Falat was an experienced road grader operator and that he understood the effect of gravel berms and ridges on the function of drainage systems.

[236] In terms of the effect of the gravel ridges, the Panel finds that, on October 2, 2007:

- The gravel ridges, particularly the one on the downstream side of the road, prevented some of the water on the road surface from flowing off the road, and encouraged some of the water on the road surface to flow down some sections of the sides of the road.
- Although the photographs do not show water from the road surface entering the Creek, the Panel accepts Mr. Pearson's evidence that he observed some water entering the Creek from the road surface, particularly on the downstream side of the Creek Crossing.
- Although it is not clear from Mr. Pearson's photographs, the Panel accepts that the ditch downstream of the road did not contain water

prior to Mr. Pearson's breaching the gravel ridge on the downstream side of the road.

[237] While Atco is correct that the ditch empties into the Creek and there is evidence that the ditch has, subsequent to October 2, 2007, contained water-suspended sediment, the Panel finds that the gravel ridges allowed some of water from the road surface to enter the Creek more directly, with less opportunity to be filtered by vegetation.

[238] Atco asserts that, even prior to June 2007, the ditch contributed sediment into the Creek and, therefore, the drainage system was flawed to start with. This amounts to a "two wrongs" type of defence. Although the Panel finds that this evidence of sediment in the ditch is relevant to the section 57 contravention, the Panel does not find it relevant to this contravention.

[239] In addition, while the Panel agrees with Mr. Babiarz that the flow along the gravel ridges was "not significant", that statement only speaks to the degree of the contravention, not its occurrence. The Panel notes that Mr. Pearson could have issued a warning, or he could have closed the Glenmerry FSR until the situation was corrected. Instead, Mr. Pearson proceeded with his investigation the following day.

[240] In spite of Mr. Pearson's poor inspection and investigative practices, the Panel finds that Atco's maintenance of the Glenmerry FSR did not ensure that the drainage system on this 160 metre section of road was "working in its usual way, or as intended", in contravention of section 79(6)(b).

**1 (b) Did Atco exercise due diligence to prevent the contravention from occurring or was the contravention due to a reasonable mistake of fact?**

[241] Atco maintains that it was duly diligent in its efforts to prevent a contravention of section 79(6)(b) from occurring and/or the contravention occurred as a result of a reasonable mistake of fact.

[242] Due diligence and mistake of fact are statutory defences described in section 72 of the *Act*.

[243] Section 72 of the *Act* states:

**72** For the purposes of a determination of the minister under section 71 or 74, no person may be found to have contravened a provision of the Acts if the person establishes that the

(a) person exercised due diligence to prevent the contravention,

(b) person reasonably believed in the existence of facts that if true would establish that the person did not contravene the provision,

...

Mistake of Fact

[244] The Panel will first address the defence of mistake of fact.

[245] Atco submits that, if a person held a reasonable belief in the existence of facts, and if those facts were true, then that would establish that the person did not contravene the provision.

[246] Atco submits that it reasonably believed that gravel ridges would not exist on the Glenmerry FSR and that road drainage systems would not be affected. Atco argues that, while its belief was false, the belief was reasonably held. In support, Atco submits the following evidence:

- Atco's Environmental Instructions instruct road maintenance operators to avoid leaving berms [including gravel ridges];
- Atco requires its road maintenance operators to have Atco's Environmental Instructions with them at all times; and
- Atco regularly reviews its Environmental Instructions with its operators.

[247] The Respondent submits that Atco's defence of mistake of fact must fail. For this defence to succeed, the mistake of fact must be reasonable. It submits that it is not reasonable or sufficient for Atco to assert that it is innocent in this case because it mistakenly believed its employees would follow its instructions.

[248] In *R. v. MacMillan Bloedel Ltd.*, 2002 BCCA 510 [*MacMillan Bloedel*], Smith, J.A. described the defence of mistake of fact as applying "where the accused can establish that he did not know and could not reasonably have known of the existence of the hazard." In that case, the defence of mistake of fact was successful. The Court found that the company's honestly held belief that the pipes carrying fuel were sound was reasonable in the circumstances. The cause of the corrosion of the pipes which led to the discharge of fuel into a creek was due to microbiological action which could not have been reasonably foreseen.

[249] The Panel finds that Atco's defence of mistake of fact in this case cannot succeed. Atco should have reasonably anticipated that gravel ridges could result from road grading and could affect the function of road drainage systems. The evidence shows that Atco knew that post-grading gravel ridges could affect the function of drainage systems, and had specifically directed road grade operators not to leave them in its Environmental Instructions. Further, unlike the pipes in the *MacMillan Bloedel* case where

corrosion could not have been detected, the gravel ridges in this case were visible, albeit small.

### Due Diligence

#### The legal test

[250] In the determination, the District Manager applied a two-pronged test for due diligence. He asked: "(1) was the event that caused the contravention reasonably foreseeable? (2) Did the contravener exercise an appropriate standard of care to prevent the event from occurring?"

[251] The test for due diligence has been the subject of some confusion and significant debate, both in the courts and before the Commission. The Panel received thorough arguments on the appropriate test from all parties.

[252] The District Manager's test for due diligence was shaped by two judicial decisions (*The Queen v. Sault Ste. Marie*, [1978] 2 S.C.R. 1299; and *R. v. MacMillan Bloedel Ltd.*, 2002 BCCA 510 [*Sault Ste. Marie* and *MacMillan Bloedel*, respectively]), and the Commission's interpretation of those decisions in the case of *Weyerhaeuser v. The Government of British Columbia* (Decision No. 2004-FOR-005(b), January 17, 2006) [*Weyerhaeuser*].

[253] More recently, the application of the due diligence test, as formulated by the Commission in *Weyerhaeuser*, was rejected in part by the BC Supreme Court in the decision of *Pope & Talbot Ltd. v. British Columbia*, 2009 BCSC 1715 [*Pope & Talbot*]. The Court found that the Commission in *Weyerhaeuser* had incorrectly defined the first branch of the defence of due diligence as reasonable foreseeability, rather than mistake of fact [at para. 59]. The Court found that the Commission was in error when it applied the test for due diligence under section 72(a) as:

- (1) whether the event was reasonably foreseeable; and
- (2) if so, did [the company] take all reasonable care to establish a defence of due diligence.

[254] The Court concluded that the Commission erred by using reasonable foreseeability of the event as a condition precedent to a consideration of reasonable care. Referring to the decisions of *Sault Ste. Marie* and *MacMillan Bloedel Ltd.*, the Court stated:

... the only condition precedent to a consideration of whether an accused took all reasonable care is that he cannot bring himself within the first branch, mistake of fact, which renders his conduct innocent. This does not mean, however, that foreseeability is not a relevant consideration in assessing reasonable care ... however requiring foreseeability as a condition precedent to assessing reasonable care is

incorrect, as it may pre-empt a proper legal analysis of the due diligence defence.

[255] The Court also examined the meaning of the term “the particular event” as discussed in *Sault Ste. Marie* and *MacMillan Bloedel Ltd.* It found that both under common law, and in the context of the statutory defence, the particular event is “the contravention”. It held that, in *Weyerhaeuser*, the Commission erred by interpreting the “particular event” as the circumstances leading up to the contravention (for example, the contractor disregarding instructions), rather than the contravention itself (unauthorized cutting of trees). It stated at paragraph 72:

Whether conduct is “innocent” under the first branch of the common law defence, or whether all reasonable steps were taken under the second branch, must be considered in the context of the “particular event”: *MacMillan Bloedel*, para.48. The same focus applies in a foreseeability analysis: *MacMillan Bloedel*, para.53. Accordingly, the proper inquiry under the second branch of the due diligence defence as codified in s. 72(a), is whether the company took reasonable care to avoid the contravention.

[256] The Panel has summarized the Court’s test in *Pope & Talbot* as follows:

- (1) Can the accused establish that it is innocent under the first branch of the test (mistake of fact); specifically, did it or could it have reasonably known of the existence of the facts giving rise to the particular event (contravention)?
- (2) If not, can the accused establish that it is innocent of the contravention under the second branch of the test (due diligence); specifically, did the accused take all reasonable care to avoid the particular event (contravention)?

[257] Using this test to assess Atco’s defence of due diligence, the questions to be addressed by this Panel are:

- (1) what is the “particular event” or “contravention” at issue?
- (2) did Atco take all reasonable care to avoid the contravention?

[258] In answer to the first question, the Panel finds that the contravention in this case was Atco’s failure to perform road maintenance which ensured that the drainage systems of the road were functional.

[259] The answer to the second question, whether or not Atco took all reasonable care to avoid the contravention, requires greater analysis.

[260] When considering how an employer might establish due diligence where a contravention was committed by an employee, such as Mr. Falat,

the Court in *Pope & Talbot* quoted the following passage from *Sault Ste. Marie*:

Where an employer is charged in respect of an act committed by an employee acting in the course of employment, the question will be whether the act took place without the accused's direction or approval, thus negating wilful involvement of the accused, and whether the accused exercised all reasonable care by establishing a proper system to prevent commission of the offence and by taking reasonable steps to ensure the effective operation of the system. (p. 1331)

### The Parties' arguments

[261] Atco submits that the contravention took place without its direction or approval, that it had established a proper system to prevent the contravention and that its system was operating effectively.

[262] Atco's evidence of its due diligence policies and practices was primarily presented by Mr. Stemmler. Atco's evidence of the implementation of those policies and practices was primarily presented by Mr. Young. Atco summarizes its evidence of due diligence as follows:

- Before the events of October 2007, Atco had obtained ISO 14001: 2004E certification for its operations.
- Before the events of October 2007, Atco had obtained certification of its operations under the SFI 2005-2009.
- Atco had prepared and implemented a comprehensive EMS which included Environmental Operating Procedures.
- As of 2007, Atco had maintained its ISO 14001 and SFI certifications after annual internal and external audits of its operations. Atco updated its operations, including its Environmental Instructions, in accordance with the audit results, and in accordance with its experience.
- Atco had prepared Environmental Instructions to address a variety of environmental concerns including road surfacing, maintenance and grading. Under "Road Activities", these instructions identified the need for employees to: "avoid leaving berms on the edges of roads", "report ... water on the road surface that you cannot fix", "clean ditchlines to maintain established drainage patterns".
- Atco required its employees to attend annual environmental training sessions to study and review its EMS.
- Atco required all of its employees to adhere to its Environmental Instructions and to carry a copy of those instructions with them at all times.

- Atco required its supervisors to conduct regular informal and formal inspections of all of the roads for which is it responsible.

[263] Mr. Falat was an experienced road grader operator who was familiar with Atco's expectations and the industry standards that no berms (including gravel ridges) be left after road grading. Mr. Falat attended Atco's annual environmental training sessions from 2002 to 2007.

[264] Mr. Young stated that, because of Mr. Falat's experience and his knowledge of Atco's EMS, he did not consider it necessary to hold a pre-work meeting with Mr. Falat before the routine grading required on the road on September 25, 2007. Neither Mr. Ogloff nor Mr. Haynes suggested that, in these circumstances, a pre-work meeting with an experienced road grader operator was necessary.

[265] Between July 3, 2007 and October 2, 2007, Atco's supervisors had travelled in both directions across the Creek Crossing 16 times (32 crossings), including on October 2, 2007. Mr. Young and Mr. Stemmler gave evidence that, when supervisors are in the field, Atco expects them to informally inspect road conditions from their vehicles. If a supervisor notes anything of significance on an informal inspection, he or she is required to undertake a formal inspection.

[266] Mr. Young stated that, although his practice was to inspect roads that had been graded by Atco's grader operators, and that he traveled the Glenmerry FSR and over the Creek Crossing in both directions twice (four crossings) after it had been graded on September 25, 2007, he observed no road maintenance problems. If the gravel ridges had been significant, he stated that he would have observed them.

[267] Based on its evidence, Atco submits it was duly diligent in its efforts to prevent or avoid the contravention. It also submits that case law clearly states that the requirement to undertake all reasonable care is not a requirement to undertake all conceivable care. It adopts the argument made by the Council of Forest Industries in *Weyerhaeuser* at page 20:

At paragraph 54 of *R. v. BC Hydro*, the Court cites the reasoning of the B.C. Provincial Court on page 293 of *R. v. Northwood Pulp and Paper*:

The court must not lose sight of the fact that it is examining the circumstances of the incident in April 1990 after the fact with the benefit of careful consideration by experts. The accused had to approach the problem without the benefit of clear vision that hindsight brings.

In my view, it is not sufficient to speculate on what might have been done, what controls might have been in place, but

rather to examine what was done, what controls were in place, what was the state of technology that existed through the evidence of lay and expert witnesses to determine if the accused acted reasonably in the circumstances.

Accordingly an accused must take all reasonable steps to avoid harm, not all conceivable steps: *R. v. BC Hydro*, at paragraphs 55, 66; and *R. v. Bata Industries*, at paragraph 71.

[268] Atco submits that the facts establish that it took all reasonable care to prevent the contravention and that the defence of due diligence applies in this case. It submits that to expect more of Atco is, in effect, to use hindsight to impose a standard of absolute liability.

[269] The Respondent submits that it is not sufficient for Atco to say that it hired good people, trained them well and instructed them not to leave berms. The Respondent submits that Atco is required to put in place systems to avoid employee negligence and to conduct its operations with close and continual scrutiny. The Respondent submits that Atco failed to implement appropriate systems and standards and that it should have reinforced its standards of performance and monitored its employees' activities to catch deviations.

[270] In addition, the Respondent submits that the method of conducting formal and informal inspections, as described by Mr. Stemmler and Mr. Young, is insufficient. Atco should have conducted more comprehensive inspections of the road than were conducted in this case.

*The Panel's findings on due diligence*

[271] The Panel accepts that Atco was, and continues to be, concerned about the function of the drainage systems of the roads for which it is responsible, and inspects for problems and potential issues. A specific example is Mr. Young's field notes on an unrelated matter. On October 2, 2007, the same day as the incident, Mr. Young's field notes relating to an in-block road in Cutblock 1 state: "I did a prework with Pete Beaulieu and John Hudak ... I told Pete to make sure that water stays in drainages where it is currently running as this is a flat over steep area." [Emphasis added]

[272] In addition, the Panel has reviewed the evidence of Mr. Stemmler regarding Atco's policies, and has reviewed Atco's Environmental Instructions. Although the District Manager found that Mr. Falat's actions did not meet Atco's own standards of care regarding berms and drainage, set out in its Environmental Instructions, this is not the test for due diligence. As stated by the Supreme Court of Canada in *Sault Ste. Marie*, the question in the context of an employer is "whether the accused

exercised all reasonable care by establishing a proper system to prevent commission of the offence and by taking reasonable steps to ensure the effective operation of the system." [Emphasis added]

[273] The Panel finds that Atco had a proper system in place, that Mr. Falat was trained in and understood the system and its requirements. The Panel also finds that Atco took reasonable steps to ensure the effective operation of its system. Its supervisors regularly conducted road inspections to ensure the effective operation of the drainage systems, and at least four (two trips in both directions) informal inspections of the road maintenance had been carried out by its employees in the vicinity of the Creek Crossing between September 25, 2007 and October 2, 2007, after the road grading and before the incident was noted.

[274] The Panel notes that, in this case, the gravel ridges along the sides of the Glenmerry FSR were small enough that they were not noticed by Mr. Young. Mr. Pearson admitted that he did not notice them either until he got out of his truck and began searching for a cause of the sediment in the Creek. He saw them because recent rain resulted in some water flowing against the gravel ridges and highlighted their existence.

[275] The management of forest resources on Crown land requires a balance between commercial interests, government resources and protection of the environment. The Respondent observes that, in recent years, "the government has placed greater reliance upon the professionals who are employed by those who have the right to harvest to achieve the results that the government wants to be achieved." However, using the words of the Court in *BC Hydro*, forest companies are required to take all reasonable steps to prevent harm, not all conceivable steps to prevent it.

[276] In light of the comprehensive EMS that Atco had in place in 2007, the Panel finds that Atco has demonstrated that it exercised due diligence, and that it took reasonable steps to prevent its road maintenance from negatively affecting the function of the road drainage systems.

[277] The Panel notes that, once Atco was advised of the incident in the late afternoon of October 4, 2007, it initiated remedial measures Friday, October 5, 2007, before the Thanksgiving weekend, and completed them on Tuesday, October 9, 2007.

[278] For the reasons set out above, the Panel finds that, although Atco contravened section 79(6)(b) of the *Regulation*, it has established a defence of due diligence to the contravention.

[279] For these reasons, the contravention of section 79(6) of the *Regulation*, and the associated penalty, is rescinded.

**2(a) Did Atco contravene section 57 of the *Regulation*? Specifically, did Atco conduct a “primary forest activity” at a time and in a manner that was “unlikely to harm fish or destroy, damage or harmfully alter fish habitat”.**

*Legislative Context*

[280] For convenience, section 57 of the *Regulation* is repeated:

**57** An authorized person who carries out a primary forest activity must conduct the primary forest activity at a time and in a manner that is unlikely to harm fish or destroy, damage or harmfully alter fish habitat<sup>13</sup>. [Emphasis added]

[281] The Panel has considered the parties’ evidence and arguments under each element of this section.

*Primary Forest Activity*

[282] “Primary forest activity” is defined in section 1 of the *Regulation* as:

“**primary forest activity**” means one or more of the following:

- (a) timber harvesting;
- (b) silviculture treatments;
- (c) road construction, maintenance and deactivation;

[283] The Panel notes that both road maintenance and timber harvesting are considered primary forest activities, but the Panel finds that road maintenance is the only primary forest activity engaged for the purposes of this contravention.

*The Timing of Road Maintenance*

[284] Section 57 requires consideration of both the timing and the manner of the activity. This is likely because the manner in which an activity is performed during a fisheries window, may have a completely different outcome for fish and fish habitat than if it is performed during a non-fisheries window.

[285] In terms of timing, there is no dispute that the road grading at issue took place on September 25, 2007, which is during the recognized fisheries window for the area (from August 20 to October 15). Thus, the Panel finds that Atco conducted its road maintenance “at a time” that was least likely to harm fish or fish habitat under section 57. This was acknowledged by the

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<sup>13</sup> As mentioned previously, for the purpose of this decision, the Panel refers to the phrase “unlikely to harm fish or destroy, damage or harmfully alter fish habitat” as “unlikely to harm fish or fish habitat”.

District Manager in his determination, and confirmed by both Mr. Knapik and Ms. Masse.

*The Manner of Road Maintenance*

[286] On September 25, 2007, Mr. Falat graded the section of the Glenmerry FSR at issue. He used his road grader to smooth the road surface on the southern approach to and on the Creek Crossing. There is no evidence that Atco performed any other maintenance on this section of road prior to October 2, 2007.

[287] The evidence is that Mr. Falat was an experienced road grader operator who was familiar with Atco's Environmental Instructions, which specifically addressed road maintenance activities in and around creeks. Mr. Young did not hold a pre-work meeting with Mr. Falat because of his experience and because the proposed road grading was considered routine. There is no evidence that Atco had any previous problems with the quality of Mr. Falat's work.

[288] The evidence of Mr. Young and Mr. Stemmler is that road grader operators typically attempt to pull material from the sides of the road, but leave the roadside vegetation to act as a filter for water flowing off the road surface. There was evidence, both oral and photographic, that some of the gravel ridges were mixed with the roadside vegetation.

[289] The evidence is that the gravel ridges left by the road grader blade during the road maintenance of September 25, 2007 were small. After the road grading took place, Mr. Young travelled the road in each direction on September 25, 2007 and on October 2, 2007. He did not observe any road maintenance issues. Mr. Young was shown an October 2, 2007 photograph of the gravel ridges at issue and stated that, had he noticed them, he would not have been concerned. He also stated that similar gravel ridges "are common to many logging roads".

[290] Mr. Pearson's evidence is that, on October 2, 2007, he did not notice the ridges until he stopped on the Glenmerry FSR to find a cause of the suspended sediment in the Creek.

[291] Although small, the gravel ridges were nevertheless of a sufficient size to prevent some of the water from flowing off of the road surface along the 160 metre section of road at issue. Some of this water-suspended sediment from the road found its way directly into the Creek.

*Interpretation of "unlikely"*

[292] Section 57 does not require evidence that Atco's actions, in fact, harmed fish or fish habitat. Nor is the test a subjective one; that is, it is not whether Atco's road grader operator believed that his actions were unlikely

to cause harm to fish or fish habitat. The Panel considers section 57 to be an objective test: the question being whether a reasonable, authorized person in Atco's position, would believe that these road maintenance activities were conducted at a time and in a manner that were unlikely to harm fish or fish habitat.

[293] The Forest Practices Board submits that "unlikely" should be interpreted to impose a higher standard or threshold for compliance, such as harm that is "not a real possibility or real risk", rather than harm that is simply "not likely". The Forest Practices Board submits that harm that is unlikely is not expected and depends on whether or not a person can reasonably foresee the harm.

[294] In support of this interpretation, the Forest Practices Board quotes the BC Court of Appeal in *B.S. v. British Columbia (Director of Child, Family and Community Services)*, [1998] B.C.J. No 1085. This is a child protection case that considered section 13 of the *Child, Family and Community Services Act*. The word to be interpreted was "likely", as opposed to "unlikely". Although different legislation and a different word, the Forest Practices Board submits that the legislation has a similar focus or purpose to section 57, in that the section at issue in the *B.S.* case was whether a child is likely to suffer harm and needs protection. The present hearing involves environmental protection. The Court of Appeal in the *B.S.* case quoted the House of Lords in *re H. and Others (Minors)*, [1996] A.C. 563 (H.L.), in support:

In everyday usage one meaning of the word likely, perhaps its primary meaning, is probable, in the sense of more likely than not. This is not its only meaning. If I am going walking on Kinder Scout and ask whether it is likely to rain, I am using likely in a different sense. I am inquiring whether there is a real risk of rain, a risk that ought not to be ignored.

... Parliament cannot have been using likely in the sense of more likely than not. If the word likely were given this meaning, it would have the effect of leaving outside the scope of care and supervision orders cases where the court is satisfied there is a real possibility of significant harm to the child in the future but that possibility falls short of being more likely than not.

[295] The Forest Practices Board submits that, applying similar reasoning to section 57 would recognize the importance of protecting fish and fish habitat while also recognizing that the standard is not one of perfection. It submits that "real possibility" does not capture every possibility of harm. "Real" is recognized as synonymous with "tangible", "material", "serious", "genuine", "true" and "substantial".

[296] The Forest Practices Board further submits that the dictionary defines “unlikely” to mean “not expected” and “likely” to mean “reasonably expected”. Therefore, it submits that a contravention of section 57 only occurs when harm is reasonably expected, and if harm is not expected then there is no contravention.

[297] The Panel agrees with the Forest Practices Board that the objective of section 57 is environmental protection; specifically, protection of fish and fish habitat. The Panel agrees that this is an important objective.

[298] At the same time, and as observed in previous Commission decisions, the Panel accepts the premise that the very existence of a road, especially a gravel forest road, puts fish and fish habitat at some risk. All of the witnesses who testified with respect to this issue, agreed that the existence of a forest activity along a forest road will result in some sediment entering an adjacent creek. In the Panel’s view, the purpose of the legislation is to minimize any additional harm to fish and fish habitat from the commercial use of forest roads and other primary forest activities.

[299] Although the Panel agrees with the Forest Practices Board that the objective of section 57 is environmental protection, the Panel considers that the people who have to work within the framework of, and must comply with, the section, should also be considered. There is no indication that “unlikely” in section 57 is a “term of art” in the forest industry, or has a technical meaning. In the context and circumstances of this legislation, the Panel finds that the common dictionary definition of unlikely was intended in section 57; that being, “not likely to happen, be done, or be true; improbable” [see, for example, Oxford Dictionaries Online].

#### *Harm to Fish and Fish Habitat*

[300] Mr. Knapik and Ms. Masse explained that suspended sediment in a creek can be harmful to fish because it can affect the gills of fish, which can cause the fish stress and increase its susceptibility to illness. Ms. Masse stated that this harm is dependent on three things: timing, duration and intensity. Mr. Knapik acknowledged that any fish present in October 2007 would have been at a stage of development where they could have sought refuge or left the area, as they do when sediment enters a creek from natural causes.

[301] Both Mr. Knapik and Ms. Masse explained how sediment deposited on a streambed can be harmful to fish habitat. Ms. Masse also explained that, in this case, given the timing of the road maintenance and the sediment entering the Creek, harm would have been to fish rearing, as opposed to spawning or incubation. Mr. Knapik agreed that the addition of sediment to the Creek during the fisheries window would not likely affect the fish that had already spawned, but he said that the sediment could affect spawning

the following year if oxygen flowing through the gravel substrate was decreased.

[302] Based upon the expert's evidence, the Panel finds that "harm to fish" involves situations where, because of timing, duration and intensity of the incident, fish, in all stages of development after spawning, cannot find sufficient food sources, seek refuge or leave the affected area. The Panel finds that "harm to fish habitat" involves situations in which sites for spawning, incubation and/or rearing are lost for a continuous period longer than one year.

*Reasonable belief that harm was unlikely*

[303] It is unknown how much sediment entered Blueberry Creek between September 25, 2007 and October 2, 2007. The Panel finds that it is probable that some sediment entered the Creek from this section of the Glenmerry FSR during that period.

[304] Neither Mr. Knapik nor Ms. Masse could say how much sediment in a creek is necessary to cause harm to fish or fish habitat: that is, there is no defined minimum threshold. Their evidence is that the likelihood or unlikelihood of harm to fish and fish habitat depends on the circumstances. This makes a finding on "reasonable belief" difficult.

[305] It is unclear from Mr. Pearson's photographs of October 2 and 3, 2007, how much water-suspended sediment was intercepted by the gravel ridges and flowed directly into the Creek.

[306] Putting the situation into context, the gravel ridges were small and allowed some water-suspended sediment to more directly enter the Creek, a fish-bearing stream, at a time of year that was within a fisheries window.

[307] To determine the reasonableness of the belief that the road maintenance was unlikely to harm fish or fish habitat, the Panel notes that Mr. Haynes testified that it is common for sediment to enter a creek from any forest road, and Mr. Knapik stated that natural events also add sediment to a creek.

[308] The evidence from the material that Mr. Pearson prepared for the Opportunity To Be Heard indicates that the rainfall in September and October (up to October 9) 2007 was below the seasonal average. No weather warnings had been issued. Wetter than normal conditions were not anticipated.

[309] The fact that sediment in the Creek is not unusual is supported by some of the Respondent's evidence. On October 3, 2007, Mr. Pearson estimated that approximately 4 to 6 inches [10 to 15 centimetres] of sediment was in the upstream end of southern culvert. Given that very little sediment was observed to be entering the Creek near the upstream end of the southern culvert on October 2, 2007, it is inconceivable that this accumulation of sediment resulted solely from Atco's road maintenance.

[310] Mr. Knapik observed sediment when he looked at the Creek from the Creek Crossing on October 22, 2007. He said that it looked "dirty". However, this was almost two weeks after Atco's remedial action on October 9, 2007. He also noted sediment in the streambed in August 2008.

[311] Based on all of the evidence, the Panel finds that it was not uncommon for sediment to enter this Creek. Despite this, Ms. Masse's evidence is that the Creek still has a healthy fish population and fish habitat.

[312] It is also relevant to note that when Mr. Pearson noticed the suspended sediment in the Creek on October 2, 2007, he did not: (1) close the Glenmerry FSR to vehicles; (2) did not notify Atco and request remedial measures; (3) did not immediately contact a fisheries biologist to investigate; (4) did not take any field measurements or field notes; (5) only took 5 photographs of the situation in a period of approximately one and a half minutes; and (6) did not investigate or take any photographs downstream of the Creek Crossing until the following day.

[313] When Mr. Pearson returned on October 3, 2007 and completed his investigation, he did not: (1) close the road to vehicles; (2) did not notify Atco and request remedial measures; (3) did not immediately contact a fisheries biologist to investigate; (4) did not take any field measurements or field notes; (5) only took 21 photographs of the situation in a period of approximately one hour; and (6) did not take any photographs between approximately 50 metres and 600 metres downstream of the Creek Crossing.

[314] Mr. Pearson has been a Compliance and Enforcement Officer with the Ministry for many years. In the Panel's view, his actions indicate that he did not view this situation as particularly serious or harmful.

[315] Another relevant consideration in this case is the Ministry's subsequent reaction to sediment in Blueberry Creek. The evidence is that on August 10, 2010, a date outside of the fisheries window for the area, water-suspended sediment was observed discharging into the Creek from the ditch

downstream of the Creek Crossing. The sediment was entering the Creek despite the placement of filtering straw bales in the ditch and waterbarring the road surface two months earlier (June 2010). Ministry Compliance and Enforcement Officers Mr. Vaters and Mr. Barron attended. According to Mr. Stemmler, in this instance, the officers determined that Atco had done nothing wrong and Atco was not required to conduct any remedial work at the site.

[316] Mr. Babiarz testified that he also saw water-suspended sediment discharging into the Creek from the ditch downstream of the Creek Crossing when he attended the site sometime prior to September 8, 2010. In his opinion, based on Mr. Pearson's photographs of October 2 and 3, 2007, and his own observations in 2010, even if the gravel ridges had not been present, it is likely that water-suspended sediment would still have entered the Creek via the ditch or through the vegetation at the sides of the road.

[317] The Panel considers the evidence from 2010 important as to when it is reasonable to believe that harm to fish or fish habitat is likely or unlikely. If Ministry officers, who enforce the legislation, are of the opinion that water-suspended sediment entering the Creek from the ditch, outside the fisheries window, is acceptable in the quantities observed in the photographs taken on August 10, 2010, then it is reasonable to assume that they believe such quantities of water-suspended sediment are unlikely to harm fish and fish habitat.

[318] In the Panel's view, the August 2010 situation is evidence that a reasonable Ministry officer would believe that Atco's maintenance of the Glenmerry FSR between September 25 and October 2, 2007, carried out within the fisheries window, was similarly unlikely to harm fish or fish habitat. If it is reasonable for the Ministry to believe this, then the Panel is convinced that a reasonable person in Atco's position would believe the same.

[319] In addition, the Panel notes that, based on the evidence of Ms. Masse, the sediment observed on October 2, 2007 did not, in fact, harm fish or fish habitat.

[320] There was some suggestion that the puddle on the Creek Crossing should have been remediated as part of Atco's road maintenance because Mr. Pearson observed water-suspended sediment flowing from the puddle into the Creek, and observed that water-suspended sediment was splashed from the puddle into the Creek by a truck tire. Mr. Pearson stated that the effect of puddle on the Creek would be minimal.

[321] The Panel finds that the puddle on the Creek Crossing need not have been repaired as part of Atco's road maintenance on or before October 2, 2007, and that Atco's inaction was unlikely to harm fish or fish habitat.

*Conclusion on Issue 2(a)*

[322] All of the evidence indicates that the gravel ridges left along the sides of the Glenmerry FSR by Atco's road maintenance, during the fisheries window, and in a relatively dry period at issue, were small. In this context, the Panel finds that the gravel ridges were unlikely (that is, not likely; improbable) to "harm fish or destroy, damage or harmfully alter fish habitat", as contemplated by the legislation. Even applying the Forest Practices Board's interpretation of "unlikely", the Panel finds that the situation did not create a "real possibility" or "reasonable expectation" of harm to fish or fish habitat.

[323] Finally, although it is not the test, the Panel finds that Atco's road maintenance did not harm fish or fish habitat. There is no evidence of any short term, or long term, harm to fish or their habitat.

[324] Based upon the findings above, the contravention of section 57 of the *Regulation*, and the associated penalty, are rescinded.

**2(b) Did Atco exercise due diligence to prevent the contravention from occurring or was the contravention due to a reasonable mistake of fact?**

[325] In light of the findings of Issue 2(a), the Panel need not consider this issue.

**3. If there are contraventions and no defences apply, what are the appropriate penalties?**

[326] In light of the findings of issues 1(a), 1(b) and 2(a), the Panel need not consider this issue.

**DECISION**

[327] In making this decision, this Panel of the Commission has considered all of the parties' submissions, whether or not specifically reiterated here.

[328] Pursuant to section 84(1)(d)(i) of the *Act*, the Panel rescinds the February 24, 2010 Contravention Determination and Notice of Penalty.

[329] For the reasons stated above, the appeal is allowed.

“Loreen Williams”

Loreen Williams, Panel Chair  
Forest Appeals Commission

“Ken Long”

Ken Long  
Forest Appeals Commission

“Douglas VanDine”

Douglas VanDine  
Forest Appeals Commission

February 28, 2012