

**IN THE MATTER OF THE *PROFESSIONAL GOVERNANCE ACT*,  
S.B.C. 2018, CHAPTER 47**

**and**

**IN THE MATTER OF DELBERT FERGUSON, P.GEO, P.L.ENG.**

**ENGINEERS AND GEOSCIENTISTS BC FILE T22-056**

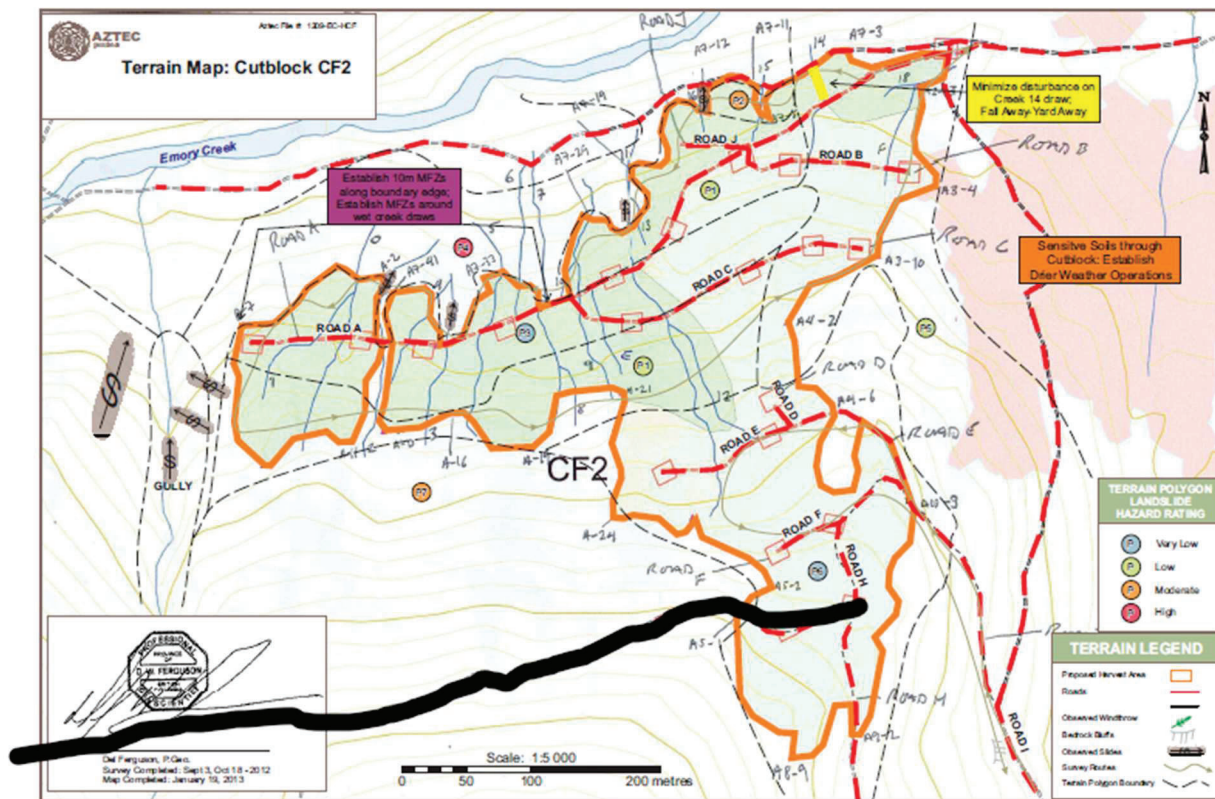
**DETERMINATION OF THE DISCIPLINE COMMITTEE**

Date and Place of Hearing:	June 2-6, 2025 in Vancouver; December 10, 2025 by video-conference
Panel of the Discipline Committee:	Ed Bird, P.Eng. (Retired), Chair Colin Smith, P.Eng., PE (Idaho), FCAE Pierre E. Gallant, retired architect AIBC, FRAIC (public member)
Counsel for Engineers and Geoscientists BC:	Donnaree Nygard, Ramisha Farooq, Benjamin Risk
Counsel for the Respondent:	Karen L. Weslowski and Lara Jung
Counsel for the Panel:	Jean P. Whittow, KC
Date of Decision:	March 26, 2026

**I. INTRODUCTION AND SUMMARY**

1. This panel of the Discipline Committee (the "Panel") of the Association of Professional Geoscientists of the Province of British Columbia doing business as Engineers and Geoscientists BC ("EGBC") was convened to conduct a hearing concerning Delbert Ferguson, P.Geo., P.L.Eng. ("Mr. Ferguson" or "the Respondent"), pursuant to section 75 of the *Professional Governance Act* ("PGA") concerning a citation issued February 29, 2024 and amended on February 27, 2025 (the "Citation").
2. The hearing relates to a terrain stability assessment by Mr. Ferguson of a proposed logging cutblock (the "Cutblock"), conducted in 2013. Mr. Ferguson's report on his TSA was issued March 10, 2013 (the "TSA Report").

3. EGBC’s published Guidelines for Professional Services in the Forest Sector – Terrain Stability Assessments, published August 2010 (the “TSA Guidelines”) define a terrain stability assessment (“TSA”) as “[a]n assessment of landslide hazard, a landslide hazard analysis or a landslide risk analysis for terrain on or adjacent to which operations may be carried out. A TSA may include options or recommendations to manage hazard or risk.”<sup>1</sup>
4. The Cutblock is located on a north-facing mountainside. It is shaped as an uneven triangle with an extended point to the west. To the south (about 500 metres upslope) of the Cutblock is an old logging road which runs east-west (the “Old Road”). The Respondent’s assessment of the Old Road is the subject of the Citation.
5. A terrain map of the Cutblock contained in the TSA Report<sup>2</sup> is below; to which, for the purpose of this Decision, a thick black line has been added to highlight the location of the Old Road:



6. In 2015, a landslide originated at the Old Road, and travelled downslope through the Cutblock to the valley floor (the “2015 Landslide”).

<sup>1</sup> A “hazard” is defined in the TSA Guidelines as a source of potential harm whereas “risk” is defined as the probability of harm.

<sup>2</sup> TSA Report p. 16, Exhibit 1, p. 217.

7. The 2015 Landslide resulted in the death of a logging truck driver who was working in the Cutblock. EGBC does not allege that Mr. Ferguson's actions in carrying out the TSA were in any way responsible for the fatality.
8. For the reasons set out below, the Panel finds that EGBC has not proven that Mr. Ferguson was negligent or engaged in unprofessional conduct and the Citation is dismissed.

## II. THE SCOPE OF THE CITATION

9. The allegations against the Respondent as set out in the Citation are as follows:

**AND TAKE NOTICE** in connection with a 2015 landslide that originated on a road located near Emory, BC, south of Cutblock CF2 ("CF2"), as marked on the terrain map (the "2015 Incident"), in respect of which you conducted an onsite evaluation and prepared a report regarding the terrain for the purpose of determining whether potential hazards existed or could result from proposed timber harvesting (the "Report"), the allegations against you are that you acted contrary to the *EGA* as follows:

1. You demonstrated unprofessional conduct, or in the alternative negligence, by failing to conduct an adequate Terrain Stability Assessment ("TSA") of CF2. In particular you failed to adequately assess the old road to the south of CF2 (the "Old Road") as marked on the terrain map included in the Report, by failing to identify and analyze hazards and risks of landslides from or near the old road, and specifically failing to appropriately estimate the runoff from such landslides and the hazards and risks associated with the same.

2. In the alternative, the conduct set out above in paragraph 1 is contrary to the Code of Ethics, as it stood at the time (the "Code of Ethics"), which required that members and licensees uphold the values of truth, honesty, and trustworthiness and, in particular:

- a. Principle 1, which requires that members and licensees hold paramount the safety, health, and welfare of the public, protect the environment, and promote health and safety within the workplace; and
- b. Principle 3, which requires that members and licensees provide an opinion on a professional subject only when it is founded upon adequate knowledge and an honest conviction.

(underlining in original)

10. After the evidence completed in June 2025, the hearing adjourned to permit the parties to file written submissions and then reconvene for oral argument. The written submissions then received from the parties showed very different positions on the breadth of the Citation:

- a. EGBC’s written submissions criticized many aspects of Mr. Ferguson’s TSA. EGBC described the issue in the hearing as follows:

Did Mr. Ferguson fail to conduct an adequate [TSA] and, in particular, fail to adequately assess the old road [...], and fail to identify and analyze hazards and risks of landslides from or near the old road, and appropriately estimate the runout from such landslides and the hazards and risks associated with the same, as set out in item 1 of the Citation?

- b. The Respondent in his written submissions described the issue in considerably more narrow terms:

Whether, by not walking the upslope portion of the Old Road above where the 2015 landslide initiated, it can be said that Mr. Ferguson “failed to adequately assess” that road or whether, in the absence of walking the upslope portion of the road, he was able to conduct a TSA that adequately assessed the potential for operations to affect or be affected by landslides and evaluate risk and/or provide recommendations to manage those risks, despite potentially under-estimating the landslide runout?

11. Prior to the continuation of the hearing, the Panel asked both parties to address the interpretation of the Citation and the area of land in which it is alleged that the deficiencies occurred. The parties did so in their oral submissions at the continuation of the hearing.

#### **A. Positions of the parties**

12. EGBC submits that EGBC is not required to prove a charge precisely as worded in a citation, provided that the registrant is provided with notice that is sufficient to alert them to the nature of the facts alleged. EGBC argues that the Citation and the report of EGBC’s expert provide the necessary notice to Mr. Ferguson.
13. As authority for these propositions, EGBC relies upon *Gernon (Re)*, 2023 BCEGBC 7 (CanLII) (“*Re Gernon*”), at paragraph 9. The relevant passage is set out below:

[9] Engineers and Geoscientists BC is not required to prove the charge precisely as worded in the Citation. Rather, what must be proved are the matters alleged which are essential to a finding of unprofessional conduct or negligence. In *Ratsoy v. Architectural Institute of British Columbia*, 1980 CanLII 662, an architect was alleged to have violated a zoning bylaw but was found by the discipline committee to have violated a building bylaw. The court held that the notice received by the petitioner was adequate to “alert him both to the nature of the factual allegations made against him and the provisions of the Act and by-laws which he was alleged, and ultimately found, to have breached.”

[10] Similarly, in *Golomb and College of Physicians and Surgeons of Ontario*, (1976), 1976 CanLII 752 (ON SC), 12 O.R. (2d) 73, the court held:

In cases of this type, no one would suggest that an allegation of professional misconduct need have that degree of precision that is required in a criminal prosecution. But the charge must allege conduct which if proved could amount to professional misconduct and it must give the person charged reasonable notice of the allegations that are made against him so that he may fully and adequately defend himself. This proposition has been stated by many authorities...

[11] In *Bartel v. Manitoba (Securities Commission)* 2003 MBCA 30 (CanLII), 173 Man. R. (2d) 43 (C.A.), a real estate agent was disciplined for, amongst other things, publishing a “feature sheet” without the instructions of his client, the content of which was misleading. The feature sheet was not mentioned in the charging document. The Court of Appeal held that:

The statement of allegations provided considerable detail to the applicant of the allegations against him and the underlying factual basis. It is true that the statement of allegations does not make specific reference to the feature sheet, but that is not fatal if there was fair disclosure to the applicant to enable him to address this specific factual circumstance. As noted previously, the applicant had ample opportunity to respond to the evidence presented by the staff for the Commission.

[12] Engineers and Geoscientists BC submits that these authorities are relevant for two reasons. First, the Citation sets out numerous particulars of the Respondent’s alleged unprofessional conduct and negligence. If one of those particulars is not proved, this does not preclude a finding of unprofessional conduct or negligence in relation to the others or in general. Second, at paragraph 1 of the Citation, Engineers and Geoscientists BC asserts that the Respondent did not conduct the necessary calculations for the design of the Guardrail System. Four particulars are set out. If the Panel finds that not only did the Respondent prepare no calculations relating to the matters that are particularized, but prepared no calculations at all, the Panel may make this finding and hold that this constituted unprofessional conduct or negligence. Engineers and Geoscientists BC submits this finding is available to the Panel because the Respondent has been provided with fair notice that the allegation against him is that he failed to conduct the necessary calculations for the design of the Guardrail System. The Panel agrees with Engineers and Geoscientists BC’s submission in both respects.

14. EGBC argues that the alleged failure to assess the Old Road incorporates all aspects of Mr. Ferguson’s TSA as set out in its written submissions. The specific hazard EGBC alleges that Mr. Ferguson overlooked was a prior slide that occurred on the same path as the 2015 Landslide, referring to it as the “Historic Landslide”.
15. The Panel pauses to note that while both parties refer to a prior slide in this general location as the “Historic Landslide”, the parties disagree about its initiation point. The Panel adopts the use of the term “Historic Landslide” in this Decision to describe a prior landslide that occurred generally along the same path as the 2015 Landslide, without reference to an initiation point.

A finding about the initiation point of the Historic Landslide is made after a review of the evidence below.

16. The Panel asked the parties to indicate the area of land that is the subject of the Citation, that is, “from or near the Old Road”. EGBC declines to identify this area specifically on a map. EGBC submits that the area of its concern is the western part of the Old Road, where it asserts the Historic Landslide occurred. EGBC also submitted that the entirety of the Old Road should have been within Mr. Ferguson’s consideration, and that the phrase “near the Old Road” is broad enough to capture all hazards and risks upslope of the Cutblock.
17. The Respondent submits that it is not up to a respondent to give meaning to the words in a citation; it falls solely on EGBC. That said, Mr. Ferguson argues in favour of a narrow interpretation of the Citation.
18. The Respondent submits that notice must be in the charge and not in the evidence, referring to *Re Gernon* at paragraph 10.
19. The Respondent also relies upon *McPherson v. Institute of Chartered Accountants of British Columbia*, 1991 CanLII 800 (BC CA); 1991 Carswell 80 (“*McPherson v. ICABC*”). In that case, the regulatory body for accountants conducted a hearing into a professional charge that an accountant, “had not met the prescribed level of practice standards”. In its decision following the hearing, the panel noted that the case, as it had been presented, concerned incompetence, although this was not mentioned in the charging document. The panel therefore dismissed the case on the basis that the charging document failed to provide notice of the charge. However, the panel awarded costs against McPherson as it found that the evidence had shown instances of incompetence on McPherson’s part. The BC Court of Appeal held that it was contrary to the requirements of administrative fairness for the panel to make any orders related to incompetence having found that there was no notice of such a charge.
20. The Respondent submits that the Citation does not allege general deficiencies in Mr. Ferguson’s preparation of the TSA or assessment of the Cutblock and that the allegation is confined to the assessment of the Old Road at the location and in the manner particularized in the Citation. The Respondent also notes that the original citation was in broader language than the amended Citation.
21. The Respondent also submits that the meaning of “near the Old Road” does not extend to all land upslope of the Cutblock. Furthermore, Mr. Ferguson disagrees with EGBC’s assertion that the Historic Landslide started at or near the Old Road, pointing to the evidence of Rodney Williams, P.Geo, P.L.Eng. that the slide started 100 metres below the Old Road.

## B. Analysis

22. The authorities cited by both parties differentiate a professional charge from a criminal charge. It is well established that a charge of misconduct<sup>3</sup> is not held to the degree of precision applicable to a criminal charge.
23. However, procedural fairness in a professional disciplinary hearing requires that a respondent be provided with notice of the allegations against them, with enough specificity to enable them to properly prepare their defence. That notice is provided in the charging document. Under the *PGA*, the charging document is the citation.
24. As set out in the authorities cited by the parties, the charge is to include the alleged facts and the way in which those facts are alleged to amount to misconduct. As stated in Golomb, cited at paragraph 10 of *Re Gernon*, “no one would suggest that an allegation of professional misconduct need have that degree of precision that is required in a criminal prosecution. But the charge must allege conduct which if proved could amount to professional misconduct and it must give the person charged reasonable notice of the allegations that are made against him so that he may fully and adequately defend himself.”
25. A decision-maker may make additional findings of facts relevant to the allegations. However, the decision-maker may not make a finding of misconduct upon facts that do not conform to the charge as particularized in the citation. (See also *McPherson v. ICABC*).
26. The disclosure of evidence by the regulator is another element of fairness in disciplinary proceedings. However, the disclosure of evidence is different than identification of the allegations. It would be unfair to require a respondent to figure out the charge from the disclosure material.
27. In *Ratsoy v. Architectural Institute of British Columbia*, 1980 CanLII 662 (“*Ratsoy v. AIBC*”) and *Bartel v. Manitoba (Securities Commission)* (2003), 2003 MBCA 30 (CanLII) (“*Bartell v. MSC*”), cited in *Re Gernon*, the Courts applied these principles and held that the facts found by the tribunals fell within the meaning of the citation. In *Ratsoy v. AIBC*, the citation was for noncompliance with the requirements of the city’s zoning bylaw and disregard for stop work notices. The finding of a breach of the building code was held to be implicit in a failure to conform to a zoning bylaw (para. 20). In *Bartel v. MSC*, a real estate agent was charged with acting contrary to the client’s instructions by advertising that client’s property for sale, and acting contrary to protecting and promoting their best interests. The finding that the agent published an unauthorized “feature sheet” about the property was a fact supporting these charges.

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<sup>3</sup> The word “misconduct” is used here as a general term to refer to any type of conduct by a professional that attracts sanction by the regulatory body.

28. In *Re Gernon*, the EGBC panel held that a finding that the registrant conducted no calculations whatsoever could be relied upon as proof of allegations that he had failed to conduct calculations on particularized matters (para. 12).
29. None of these cases support the proposition that this Panel can find that the Respondent failed to conduct an adequate TSA in a manner *other* than that particularized in the Citation.
30. *Re Gernon* cannot be read to depart from the well-established and foundational principle that notice of the allegations must be set out in the citation.
31. Applying these principles to the Citation:
32. The Citation alleges that Mr. Ferguson conducted an inadequate TSA of the Cutblock in the manner particularized in the second sentence of paragraph 1; that is, he *failed to adequately assess the Old Road, by failing to identify and analyze hazards and risks of landslides from or near the Old Road and failing to appropriately estimate the runout of such slides and the associated hazards and risks.*
33. As agreed by the parties in submissions, it is not necessary to prove every fact alleged in the Citation, provided that the proven facts are sufficient to warrant an adverse finding.
34. The Citation concerns *assessment* of the Old Road. It is not restricted to an alleged failure to *walk* the Old Road.
35. The area of land which is the subject of the Citation, i.e., the Old Road, is another way in which the Citation has been particularized. EGBC Counsel described the relevant area as the western end of the Old Road, in the area where the Historic Landslide originated. It is identified in the opening passage of the Citation as the place on the Old Road where the 2015 Landslide originated.
36. The Panel rejects the argument that the Citation captures all the area upslope of the Cutblock. The Old Road is within the area upslope of the Cutblock, but the two are different. The Citation specifically identifies assessment of the Old Road as its subject.
37. The manner in which Mr. Ferguson conducted the TSA *as a whole* is not the charge. Evidence about the process of Mr. Ferguson's review is relevant insofar as it relates to his assessment of the Old Road, in the location specified and as particularized. Having particularized the allegations, EGBC cannot claim to prove negligence or unprofessional conduct in a different way.
38. In summary, the Citation is very specific in focus. It concerns Mr. Ferguson's assessment of the Old Road, where the 2015 Landslide occurred, by failing to identify and analyze hazards and risks of landslides from or near the Old Road and/or the calculation of runouts of same.

### III. LEGAL FRAMEWORK

39. At the time of the conduct that is the subject of this hearing, the profession of engineering in BC was regulated under the *Engineers and Geoscientists Act*, R.S.B.C. 1996, c. 116 (“*EGA*”). The *EGA* was repealed and replaced by the *PGA* on February 5, 2021.
40. Pursuant to sections 35 and 36 of the *Interpretation Act*, RSBC 1996, c 238, the repeal of the *EGA* does not affect a contravention under the *EGA* that occurred prior to the date of the repeal, and the relevant provisions of the *EGA* apply to this proceeding: *Re Gernon*, paras. 4-6; *Bahrami (Re)*, 2022 BCEGBC 5 (CanLII), para. 8).
41. Section 33(1) of the *EGA* authorizes the Discipline Committee to determine that a respondent’s conduct “(b) has contravened this Act or the bylaws or the code of ethics of the association, or (c) has demonstrated incompetence, negligence or unprofessional conduct.”
42. The Citation alleges that Mr. Ferguson’s conduct amounts to negligence, unprofessional conduct, or a breach of the code of ethics in place at the relevant time under the EGBC Bylaws (the “Code of Ethics”).
43. Both parties cite the definition of “negligence” in *Foreman (Re)*, 2015 BCEGBC 5 (CanLII) (“*Re Foreman*”), at para. 97, citing *Davidson v. British Columbia*, [1995] B.C.J. No. 1806:

... the standard of skill and care which a professional man is required to exercise may be defined as follows: that degree of skill and care which is ordinarily exercised by reasonably competent members of the profession, who have the same rank and profess the same specialization (if any) as the defendant. If the standard is formulated in this way, it is fair to both parties. The professional man will not be held liable in the absence of personal fault on his part. The client is adequately protected, because it is normally actionable negligence if a professional man undertakes work beyond his competence.
44. Unprofessional conduct is not defined in the legislation but has been consistently held by discipline panels to be conduct which is a “marked departure” from the standard expected of a competent professional. A minor or inadvertent failure to comply with professional standards will not amount to unprofessional conduct. In considering what amounts to unprofessional conduct, panels must use their judgment and expertise, guided by the Code of Ethics, and focus on what is expected of a professional person in the circumstances. (See *Mahmoud (Re)*, 2024 BCEGBC 6 (CanLII) (“*Re Mahmoud*”), para. 12; *Lim (Re)*, 2019 BCEGBC 4 (CanLII) (“*Re Lim*”).
45. Guidelines help to show the expected standards expected of members of the profession. A breach of a Guideline is not a finding available under the *EGA*. Failure to comply with a Guideline may be strong evidence but does not necessarily establish negligence or unprofessional conduct (*Re Mahmoud*, para. 19). EGBC refers to the TSA Guidelines in this case.

46. The Code of Ethics can inform whether a member engaged in unprofessional conduct. Again, however, the Panel must rely on its experience when assessing whether a respondent has violated the principles set out in the Code of Ethics (*Re Mahmoud*, para. 13, citing *Re Foreman*).
47. The provisions of the Code of Ethics alleged to have been breached in this case are Principles 1 and 3. EGBC alleges that Mr. Ferguson failed to “hold paramount the safety, health, and welfare of the public, including the protection of the environment and the promotion of health and safety in the workplace” (Principle 1) and “provide an opinion...founded upon adequate knowledge and honest conviction” (Principle 3).
48. It is well established that the burden of proof in these proceedings is on EGBC and the standard to be met by EGBC is proof on the “balance of probabilities”. EGBC must show that it is more likely than not that the alleged conduct occurred (*Re Mahmoud*, para. 7); *Re Lim*, paras. 5-6; *F.H. v McDougall*, 2008 SCC 53, paras. 40, 46, 49).

#### **IV. THE RESPONDENT’S BIAS ARGUMENT**

49. Mr. Ferguson argues that the evidence and conduct of EGBC demonstrates a reasonable apprehension of bias on the part of EGBC toward Mr. Ferguson. In support of his submission, Mr. Ferguson points to EGBC’s instructions to its expert, and other steps taken by EGBC during the investigation and preparation for the hearing.
50. Mr. Ferguson refers to cases where a decision has been overturned on finding that the decision-maker has behaved in a way that gives rise to a reasonable apprehension of bias on the part of a litigant.
51. EGBC responds that discipline proceedings are adversarial, and the principles cited by Mr. Ferguson have no application.
52. The authorities referred to by Mr. Ferguson concern apprehension of bias by a decision-maker. In these proceedings, it is this Panel that is the decision-maker, not EGBC’s investigators, the counsel “prosecuting” the case or the witnesses they call. There is no suggestion that there is a reasonable apprehension of bias on the part of this Panel.
53. If an expert witness is shown to be unable or unwilling to provide impartial and objective evidence, their opinion may be inadmissible. The Respondent disputes much of Dr. Guthrie’s evidence, as set out below. However, Mr. Ferguson does not argue that Dr. Guthrie’s evidence should be rejected entirely or ruled inadmissible on the basis that it is impartial or lacks objectivity.

## V. EVIDENCE AND FINDINGS OF FACT

54. The parties filed an Agreed Statement of Facts which sets out the basic facts and chronology of events. In addition, EGBC called Dr. Robert Guthrie, M.Sc., Ph.D., P.Geo. as an expert witness. The Respondent gave oral testimony and called Rodney Williams, P.Geo, P.L.Eng. as an expert witness. This evidence and the Panel's analysis of the facts is set out below.

### A. Agreed Statement of Facts

55. The Agreed Statement of Facts (Exhibit 1) is as follows:

#### Qualifications

1. Delbert (Del) Ferguson, P. Geo., P.L. Eng. is the principal of Aztec Geoscience Inc. ("**Aztec**").
2. Mr. Ferguson obtained a Bachelor of Science (Honours) degree (Geology) from the University of Western Ontario in 1979 and a Diploma in Forest Engineering from the University of British Columbia in 2000.
3. Mr. Ferguson is a Fellow of the Geological Association of Canada ("**FGAC**") and Geoscientists Canada ("**FGC**"), as well as an accredited ISO14001 EMS auditor and SFISM lead and team auditor.
4. Mr. Ferguson obtained a Micro-Certificate in Climate Vulnerability and Adaptation from the University of British Columbia in 2021.
5. Mr. Ferguson was granted licensure with Engineers and Geoscientists British Columbia ("**EGBC**") on December 15, 1992 (as P.Geo.) and July 25, 2006 (as Eng.L., now P.L.Eng. under the *Professional Governance Act*, S.B.C. 2018, c. 47 (the "**PGA**")).
6. Mr. Ferguson's area of practice is "Geoscience" and his self-declared areas of expertise are "Terrain Analysis", "Forest Practices", "Hazard and Mitigation Assessments", "Climate Risk Management", "Environment Geologist" and "Exploration Geologist".
7. Mr. Ferguson has been conducting terrain stability assessments ("**TSAs**") since 1994, mostly within coastal environments but also in the Interior Wet Belt and Fraser Lowlands (Chilliwack and Hope area).

#### The Cutblock and the Old Road

8. Cutblock CF2 (the "**Cutblock**") is located on the east side of the Pacific Ranges, ~3.5km west of Highway 1 (Trans-Canada Hwy) approximately 7km southwest of Yale, BC and 13km northwest of Hope, BC.
9. The Cutblock lies on north-facing slopes above Emory Creek and west of a hydro transmission corridor.
10. In or around September to October, 2012, an inactive, non-status, but not yet deactivated road built in the 1960s or 1970s was located approximately 500 metres (as measured on Google Earth imagery), including 220 metres elevation gain (as measured on Google Earth) upslope of the Cutblock (the "**Old Road**"). The Old Road was deactivated following the Landslide referred to in paragraph 18 herein.

### **The Terrain Stability Report and the Old Road**

11. Mr. Ferguson was retained by Ed McWaters, the Registered Professional Forrester [sic] (“**RPF**”) for the Cutblock, to conduct a TSA of the Cutblock for Tolko Industries Ltd. & Hope Community Forest.
12. The Old Road was not included within the Cutblock’s proposed operations.
13. In order to complete the fieldwork for the TSA, Mr. Ferguson attended the Cutblock on September 3, 2012 and October 18, 2012 with Mr. McWaters in attendance on both days.
14. On September 3rd, Mr. Ferguson walked the following survey route:
  - (a) commencing at the northeast corner of the Cutblock, examined lower boundary regions from east to west across the Cutblock below Road A and above Road J;
  - (b) hiked upslope along west boundary from A-7 and examined upper boundary region to A-21;
  - (c) continued along contour eastward across Cutblock to the terminus of Road C; and
  - (d) followed east boundary back down to truck at (Emory Creek Mainline Road).
15. On October 18th, Mr. Ferguson walked the following survey route:
  - (a) from the hydro right-of-way east of the Cutblock, followed and examined existing Road I into the southeast corner of the Cutblock and continued along Road E; and
  - (b) circled back upward through the Cutblock exiting out Road I (Nickel Mine Road).
16. Following the TSA, Mr. Ferguson produced an initial Terrain Stability Assessment Report: Cutblock CF2 Emory Creek, dated with a seal on January 19, 2013. A second report was dated and sealed on March 10, 2013 (the “**TSA Report**”).
17. Mr. Ferguson sent the TSA Report, dated January 19, 2013 to Mr. McWaters. Mr. McWaters was also provided with the March 10, 2013 TSA Report.

### **The Incident**

18. On November 17, 2015, a landslide (the “**Landslide**”) initiated along or immediately below the Old Road, approximately 500 m upslope of the Cutblock.
19. The Landslide struck a loaded logging truck stopped in the Cutblock, forcing the truck and trailer off the road and over an embankment and resulting in the death of the truck driver (the “**Incident**”).
20. The Investigations Department of WorkSafeBC investigated the Incident and produced an Incident Investigation Report dated July 25, 2017.
21. In November, 2015 after the Landslide, Drew Brayshaw, Ph.D., P. Geo, observed along the Old Road: there was oversteepened fill, tension cracking fill, and drainage diversions with water running down the center of the road. The oversteepened fill on the slopes below the Old Road between the Landslide and a landslide 150 m to the southwest had gradients of 80-100%.
22. As determined by Mr. Brayshaw, on 17 November, 2015, the effective precipitation (the actual precipitation plus the contribution to runoff from melting snow) in the vicinity of the Cutblock exceeded 100mm.

(emphasis in original)

56. The Panel accepts and finds the facts as set out in the Agreed Statement of Facts.
57. The Panel notes that the facts set out in paragraph 21 of the Agreed Statement of Facts concerning the condition of the Old Road in 2015 do not assist in establishing its condition in 2013 at the time of Mr. Ferguson’s work.
58. The TSA Guidelines state that TSAs are to be conducted by “terrain specialists”, defined to include a professional engineer or geoscientist registered with EGBC with appropriate levels of education, training and experience. There is no dispute that Mr. Ferguson was a terrain specialist.

**B. Dr. Robert Guthrie, M.Sc., Ph.D., P.Geo.**

59. Dr. Guthrie was qualified as an expert in landslide hazards, initiation and runout and debris flow prediction, including the review of TSAs for quality and outcomes.
60. Dr. Guthrie provided a written opinion dated December 20, 2024 (Exhibit 2). His written opinion and oral testimony concerned the generally accepted standards of a geoscientist in preparing a TSA and whether Mr. Ferguson met those standards in his TSA of the Cutblock.

***Generally accepted standards***

61. Dr. Guthrie referenced the TSA Guidelines in describing the purpose of a TSA:

*A TSA is carried out by a terrain specialist to:*

- assess the potential for *operations* to affect or to be affected by *landslide hazards*, and
- depending on the requirements of the *forest professional*, evaluate *risk* and/or provide options or recommendations to manage *hazards* or *risk* related to *operations*<sup>4</sup>.

(italics in original)

62. Dr. Guthrie opined that the standards applicable to the preparation of a TSA in 2013 included the Code of Ethics, the TSA Guidelines, various reports, investigations and scientific literature and the scope of work as assigned by contract. A TSA may include the assessment of upslope hazards, outside a proposed cutblock.
63. Dr. Guthrie explained that the process of preparing a TSA generally consists of a preliminary review of documentation (a “desktop review”), usually followed by in-person review of the terrain (a “field review”). Dr. Guthrie agreed that a desktop review generally informs the later field work, and the terrain specialist must exercise their professional judgment about the

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<sup>4</sup> Exhibit 2, p. 6.

conduct of their field work. A desktop review may provide so much information that it obviates the need for in-person review of some areas. He stated that desktop reviews are not just a review of Google Earth imagery, but qualified this statement: “actually in 2013 maybe it was mostly Google Earth” (Transcript June 2, 2025, p. 68, l. 4-5).

64. Dr. Guthrie testified that after performing a desktop review, when the terrain specialist gets to the site, it is possible that what they find is very different.
65. As to the “reports, investigations and scientific literature”, Dr. Guthrie testified that by around 2010 research was showing that slide runouts are generally longer than previously believed and tend to continue to a valley floor. He stated that he and others in the field (naming Glynnis Horel, Tom Millard and Terry Rollerson) were conducting research and publishing on the subject and that such literature was generally available to professionals. He stated a mathematical debris flow model is now available but was not in 2013 and that the calculation of debris flow runout remains “a problem”. Dr. Guthrie was not asked to identify this literature with any specificity, nor asked to describe the methodology that was standard practice as of 2013.

#### ***Opinion on the Respondent’s TSA***

66. To consider Mr. Ferguson’s TSA, Dr. Guthrie reviewed Mr. Ferguson’s TSA Report and his communications with EGBC, including EGBC’s interview of Mr. Ferguson during the investigation.
67. Dr. Guthrie observed that Mr. Ferguson had used existing mapping, Google Earth imagery, and field observations to identify terrain polygons and assign hazard classes to each. The Old Road is within the area that Mr. Ferguson had identified as Polygon 7.
68. Dr. Guthrie conducted a review of the Google Earth images in the form they existed when they were reviewed by Mr. Ferguson.
69. Dr. Guthrie did not attend the Cutblock.
70. Dr. Guthrie depicted the debris flows that he identified in his Google Earth imagery review in his report in Figure 3B (Exhibit 2, p. 13), a copy of which is set out below, by superimposing purple shading on the image. While Mr. Ferguson’s map shown in the introductory paragraphs of this Decision shows north at the top of the page, Dr. Guthrie oriented the figure so that the upslope (south) was at the top.



71. Dr. Guthrie explained that Google Earth shows coniferous forests as dark green, and lines of light green show areas of deciduous forest where the landscape has previously been disturbed. The desktop review involves interpretation of Google Earth imagery. Dr. Guthrie was not asked to show the process of his interpretation but used Figure 3B to explain his opinions.
72. Dr. Guthrie opined that the Google Earth imagery showed debris flows originating above, below and within the Cutblock which had not been identified by Mr. Ferguson and that Mr. Ferguson had substantially underestimated the likelihood and runout of landslides.
73. Much of the testimony of all three witnesses was spent comparing their opinions about the location of slides and other features throughout the Cutblock and the surrounding terrain. As noted in more detail below, Mr. Ferguson disagrees with some of Dr. Guthrie's opinions, based on his own Google Earth review and his field review. Rodney Williams disagrees with certain opinions expressed by Dr. Guthrie, based upon his own Google Earth imagery review plus a review of historic air photographs. It is not possible to resolve these differing views about all of the landscape features and the Panel is not able to adopt Dr. Guthrie's broadly stated opinion set out above.
74. The Panel notes two opinions expressed by Dr. Guthrie about landscape features which are relevant to the issues in this case:

- a. Dr. Guthrie opined that a debris flow began below the upper road above the block, also describing it as “just below” the Old Road. This is the slide otherwise referred to in these proceedings as the Historic Landslide. Dr. Guthrie did not provide a more specific location for the initiation of the Historic Landslide.
- b. Dr. Guthrie opined that there was a debris flow in the central part of the Cutblock.

The Panel returns to a discussion of these opinions in the portions of this Decision dealing with the evidence of Mr. Ferguson and Mr. Williams.

75. As regards Mr. Ferguson’s estimates of runout lengths, Dr. Guthrie was not asked to comment on Mr. Ferguson’s methodology or opine on which of Mr. Ferguson’s calculations he believed were insufficient, for what reason, or by how much. Similarly, he did not give evidence as to how the runout calculations ought to have been conducted or what would be a reasonable estimate by a competent terrain specialist in 2013.
76. In his written report, Dr. Guthrie wrote that, given his opinion based upon his review of the Google Earth imagery, and no restrictions upon Mr. Ferguson’s scope of work, “there was a professional requirement to identify terrain hazards above the Cutblock”. In Dr. Guthrie’s testimony, he stated this would “include the Old Road” located above the Cutblock. In his written opinion, Dr. Guthrie stated that had Mr. Ferguson walked the Old Road, he could have obtained information which would have altered the TSA.
77. Dr. Guthrie did not opine that walking the Old Road was a necessary step in a TSA of the Cutblock. He was not asked to address the manner in which a terrain specialist should evaluate or assess the Old Road.
78. Dr. Guthrie concluded his written report with the opinion that Mr. Ferguson’s TSA was not prepared in a manner consistent with professional standards.
79. In this way, Dr. Guthrie addressed the question posed by EGBC in its letter requesting Dr. Guthrie’s opinion; however, Dr. Guthrie was not directed to the narrow issue in the Citation. Dr. Guthrie did not opine on the application of specific professional standards to Mr. Ferguson’s TSA or, more importantly for the purposes of the Citation, Mr. Ferguson’s assessment of the Old Road; nor did Dr. Guthrie opine as to how he believed Mr. Ferguson’s work failed to conform to such a standard. As a result, the opinion is of limited value in evaluating the issue in the Citation.
80. Asked expressly by EGBC whether Mr. Ferguson conducted a “sufficient level of background work in conducting his assessment, with particular consideration of (1) historical air photos, and (2) terrain classification and stability mapping”, Dr. Guthrie opined he was unable to determine whether Mr. Ferguson “conducted a *sufficient* level of background work” (italics in original).

81. In cross-examination, Dr. Guthrie was pressed about whether he would defer to the terrain specialist who conducted field work. He agreed that in a 40 to 50 hectare site, as was this Cutblock, a terrain specialist could not walk every hectare. He stated in his report and in evidence that it is unrealistic to expect that all potentially unsafe conditions are knowable to anyone. Dr. Guthrie maintained a high degree of confidence in his own abilities to assess terrain based on Google Earth imagery review.
82. In cross-examination, Dr. Guthrie testified that recommendations are integral to a TSA and an important way to manage risk, although not the same as a prediction or identification of a hazard in the first place. Dr. Guthrie's attention was drawn to the recommendation in Mr. Ferguson's TSA Report that forestry operations shut down in the event of specified rainfall limits ("Rainfall Shutdown Guidelines"). Dr. Guthrie described Mr. Ferguson's Rainfall Shutdown Guidelines as "conservative" and agreed that these recommendations were intended to address any upslope hazard in Polygon 7. Dr. Guthrie noted that on the day of the 2015 Landslide, rainfall records showed the rainfall exceeded the limits set in Mr. Ferguson's Rainfall Shutdown Guidelines. He testified that had Mr. Ferguson's Rainfall Shutdown Guidelines been implemented, they could reasonably be expected to have prevented the workers being present on the day of the 2015 Landslide.

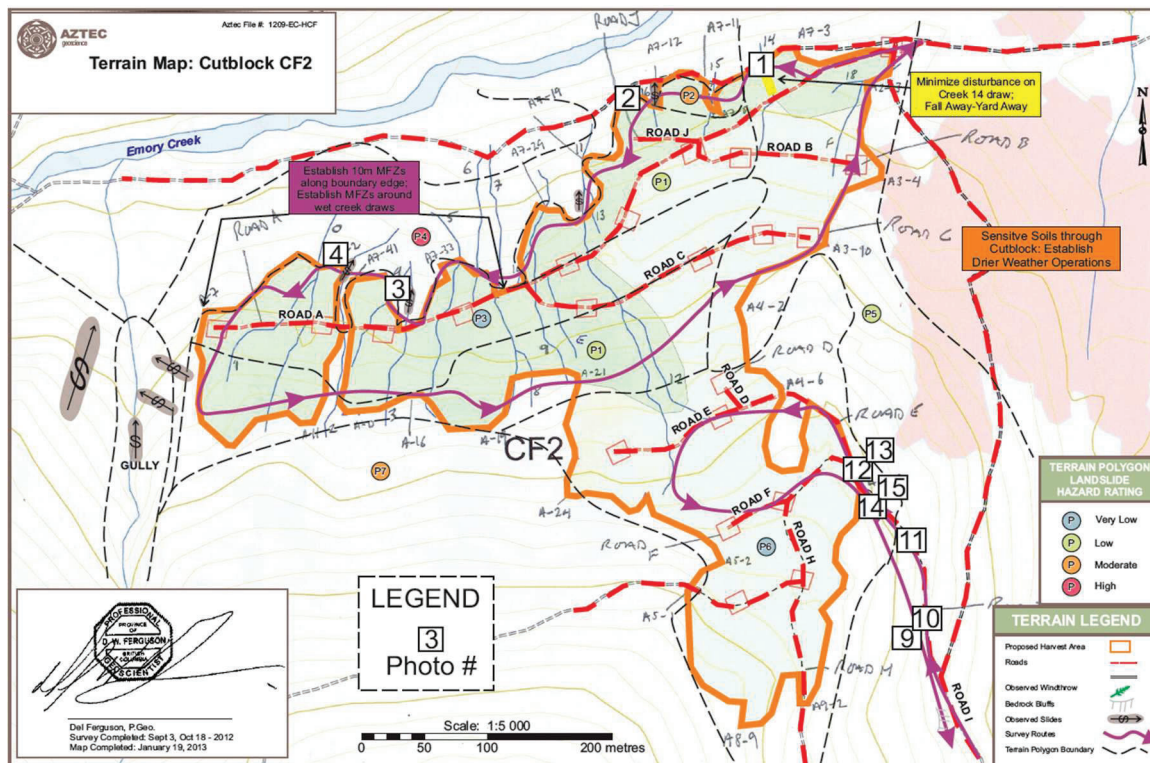
### ***Bias***

83. Dr. Guthrie was challenged in cross-examination in connection with Mr. Ferguson's contention that he was retained to advocate EGBC's position. Dr. Guthrie certified that he was aware of his duty to assist the Panel in his evidence, not to be an advocate for any party. Dr. Guthrie's evidence was consistent with that duty.

### **C. The Respondent**

84. Mr. Ferguson's qualifications are set out in paragraphs 1-7 of the Agreed Statement of Facts. In his oral testimony, he stated he had performed "several thousand" TSAs. As EGBC notes in its submissions, Mr. Ferguson is a "fact" witness and not an expert witness in these proceedings.
85. Mr. Ferguson's testimony described in detail the process he undertook in his assessment of the Cutblock. This included Mr. Ferguson's preliminary review of the map provided to him by the registered professional forester who retained him, and review of Google Earth images. Mr. Ferguson testified that he did not use air photos as they were not readily available, and Google Earth was the "go-to" at the time. This is consistent with Dr. Guthrie's evidence, and the Panel so finds.
86. Mr. Ferguson testified that in his preliminary Google Earth review, he noted landslides off (below) the lower boundary of the proposed Cutblock and to the west, and numerous streams. He detected a headwall of a slide below the Cutblock on what he labelled "Stream 2". He identified a "shallow draw" above that, i.e., upslope on Stream 2.

87. It is common ground that Stream 2 was later the path of the 2015 Landslide.
88. Mr. Ferguson agreed that there was no limit applied to his scope which would have precluded him from investigating relevant terrain outside the Cutblock.
89. Mr. Ferguson testified that he observed debris flows in neighbouring terrain to the west of the Cutblock; however, the slope in that area was extremely steep and very different to the Cutblock. Both experts described the terrain to the west in a similar way.
90. Based on this preliminary review, Mr. Ferguson assigned preliminary terrain units or polygons to the Cutblock and planned for his field review. Mr. Ferguson identified the area upslope of the western arm of the Cutblock as Polygon 7. The Old Road falls within Polygon 7.
91. The Respondent then described in detail the two days of field work summarized at paragraphs 13 to 15 of the Agreed Statement of Facts. He testified using the notes of his observations and measurements and the photographs taken during his field work, and a map included in his TSA report to which he had added additional information at the request of EGBC in the investigation, including the precise path he travelled on each of the two days. The version of the map used by Mr. Ferguson in these proceedings (Exhibit 4) is set out below.



92. In describing his traverse and review of the terrain, Mr. Ferguson disagreed with Dr. Guthrie regarding some of the debris flows which Dr. Guthrie said he observed in his Google Earth review. Mr. Ferguson explained his rationale for his conclusions and his disagreements with Dr. Guthrie. As stated above, much of this detail is beyond the scope of the Citation.

93. Of importance in this case is the difference between Dr. Guthrie's opinion and Mr. Ferguson's findings as regards Stream 2. As set out above, Dr. Guthrie identified this as the path of the prior landslide (the Historic Landslide).
94. Mr. Ferguson testified that on the first day of field work, he conducted a loop at the bottom of the Cutblock, due to the number of slides he believed to be in that area. Mr. Ferguson testified that he first crossed Stream 2 at the bottom boundary of the Cutblock. He recorded his measurements and observations at that location in the notes he took at the time. He identified this as a stream draw, as he had done in his desktop review. He testified that there was nothing consistent with prior slide activity in that location, although he observed a slide headwall downslope of the boundary of the Cutblock.
95. Mr. Ferguson testified that he crossed Stream 2 a second time, upslope within the Cutblock, and at that location again identified what he observed as a stream draw and not a debris flow. He observed steeper slopes above the Cutblock and an indication of pistol-butted trees. He regarded this as evidence of instability and considered a label of moderate hazard for the upslope area. He found no feature that required further investigation of Stream 2.
96. Asked directly about Dr. Guthrie's opinion that Stream 2 was the path of a debris flow, Mr. Ferguson firmly maintained that, in the field, he observed no signs of heavy transport, scouring or water erosion on Stream 2 and, in short, no sign of prior debris flow.
97. In his second day of field review Mr. Ferguson walked an old logging road in the eastern part of the Cutblock, referred to as Road I. This road was part of the historic road system which was connected to the eastern end of the Old Road. He found there were various failures and drainage problems on Road I, and recommended some remediation before it could be used.
98. Mr. Ferguson testified that he used his observations of Road I in his assessment of Polygon 7 as he could see that the terrain was similar. Mr. Ferguson conceded in cross-examination that the Old Road was not in his mind at the time.
99. Mr. Ferguson testified that in the second day of his field review, he considered the feature in the centre of the Cutblock, which Dr. Guthrie opined that he identified as a debris flow. Mr. Ferguson testified that he observed it to be a stream.
100. Following the review, Mr. Ferguson prepared his TSA Report. In the TSA Report, as regards his assessment of Polygon 7, Mr. Ferguson included the following:

...Likelihood (probability) of occurrence - Polygon #7 has a **moderate likelihood for landslide initiation** due to steep slopes and indicators of instability in the form of pistol-butted trees in poorly drained areas.

Consequence - Should a landslide initiate in this polygon, it is not anticipated to exceed 200m in length, depositing debris on-slope. The estimated volume of a landslide within this polygon is 2000m<sup>3</sup> (assuming an average scour depth of 2m, a slide width of 10m and

a scour length of 100m). Resources potentially impacted by a landslide initiating in polygon #7 could be:

- Temporary loss of growing sites along the slide path.

101. The Respondent set out a definition of “moderate” in his TSA Report as “It is believed that a landslide could occur within the lifetime of the road or cutblock considering the natural variations in site conditions. (i.e. probable)”.

102. The Respondent included in his TSA Report recommendations which included that weather restrictions be implemented on operations. The Rainfall Shutdown Guidelines are set out below:

**Weather Restrictions:** It is advised that “Drier Weather” Rainfall Shutdown Guidelines be established for forestry operations in this area. These should be strictly adhered to for road construction and harvesting operations. Road construction and harvesting crews should be aware that periods of intense precipitation and snowmelt may cause instability on slopes, even prior to reaching shutdown guidelines. Best practices are to shut down if drainage systems are overflowing or if surface sediments are saturated.

*Aztec Recommended Rainfall Shutdown guidelines in areas having Sensitive Soils. Operations should be conducted during periods of Drier Weather as defined below:*

- *Operations are to be delayed for a period of 24 hours following a rainfall event of:*
  - *≥50mm of rainfall in 12 hour period.*
  - *≥75mm of rainfall in 24 hour period.*
  - *≥125mm of rainfall in 48 hour period.*
  - *≥175mm of rainfall in 72hour period.*

(italics in original)

103. In cross-examination, EGBC Counsel inquired about Mr. Ferguson’s method of calculation of runouts in each polygon and Mr. Ferguson explained his analysis. EGBC counsel referred Mr. Ferguson to an article by Glynnis Horel, P.Eng., entitled “Overview-level Landslide Runout Study: Western Forest Products Inc., Tree Farm Licence 6” published in the Streamline, Watershed Management Bulletin Vol. 10/ No. 2 Spring 2007 (the “Horel Article”). Counsel sought to challenge Mr. Ferguson’s methodology in calculating runout lengths using some of the statements in the article such as those regarding the length of channelized slides. The Respondent answered that he was familiar with this article and other literature on the topic of landslide length, but did not believe the proposition put to him by counsel was applicable to the Cutblock and surrounding terrain.

104. The Horel Article was not identified by Dr. Guthrie or otherwise in this hearing as the industry-standard scientific literature to apply in calculations of runouts in a TSA.

#### **D. Rodney Williams, P.Geo., P.L.Eng.**

105. The Respondent called Rodney Williams, P.Geo., P.L.Eng. who was qualified as an expert in the field of terrain stability assessments, proposed forest operations, and landslide hazards

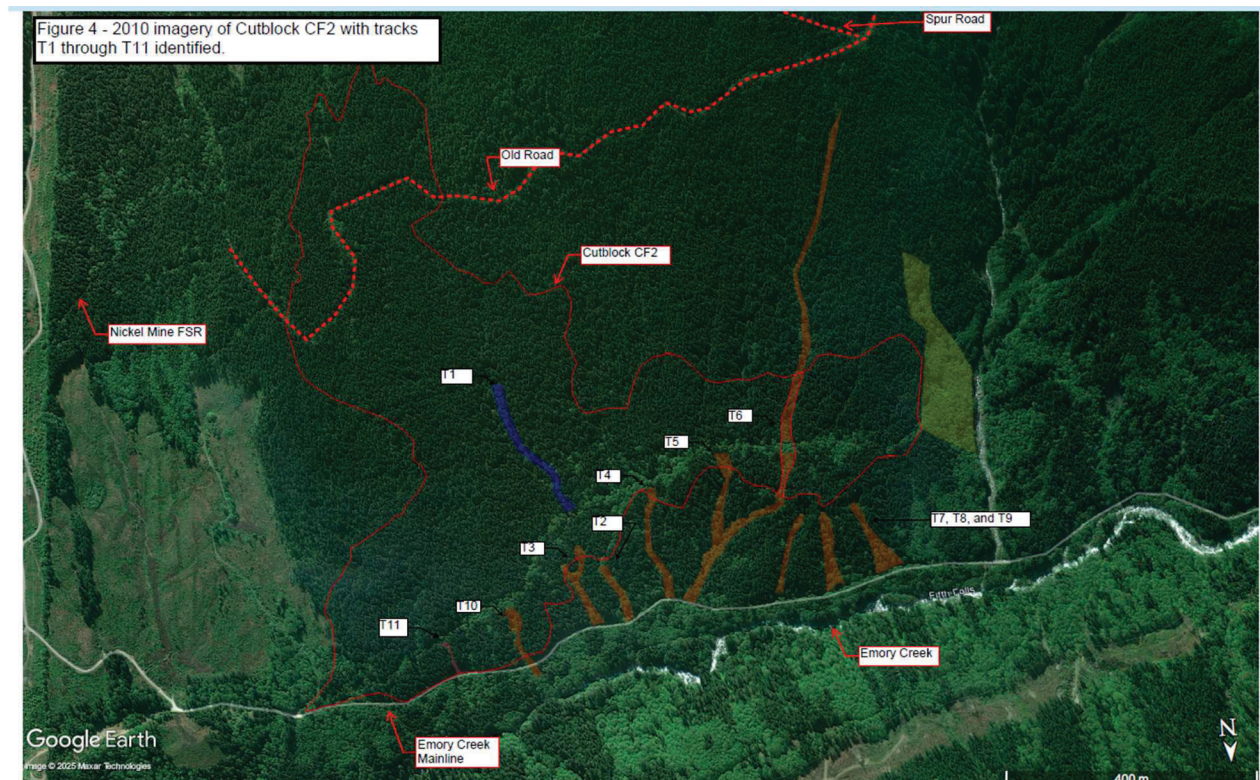
in relation to forest operations including the review of terrain stability assessments for quality and outcome. Mr. Williams provided a written opinion dated April 4, 2025 (Exhibit 15).

106. Mr. Williams opined that terrain specialists have broad professional discretion in the conduct of a TSA, and that Mr. Ferguson's review would require the exercise of his discretion. He opined that Mr. Ferguson's TSA, including his preliminary review and fieldwork, reasonably fell within his discretion.

107. Like Dr. Guthrie, Mr. Williams also conducted a review of the 2010 Google Earth images and did not attend the site.

108. In addition to a review of Google Earth imagery, and unlike Dr. Guthrie, Mr. Williams also reviewed historical air photographs. He stated that air photographs generally give better definition.

109. To compare his own opinions about landscape hazards and features to those expressed by Dr. Guthrie, Mr. Williams prepared a figure depicting the debris flows described by Dr. Guthrie (in purple) and adding his own estimated debris flows (in orange). Mr. Williams' Figure 4 (Exhibit 15, p. 20) is below.



110. Based upon his review of the Google Earth imagery plus the air photographs, Mr. Williams agreed with some of Dr. Guthrie's opinions about debris flows, but not all.

111. For example, Mr. Williams disagreed with Dr. Guthrie's opinion that a debris flow had occurred prior to 2013 in the central part of the Cutblock. Mr. Williams described this as a stream draw. This is the line labelled "T1" in Figure 4 above. In this way, Mr. Williams' opinion agreed with Mr. Ferguson's observations in the field.
112. In his review of the Google Earth images, Mr. Williams saw a debris flow in the general location where the 2015 Landslide later occurred. However, Mr. Williams also reviewed historic air photographs to seek more detail. He opined that a 1966 photograph showed a debris flow on the track where the 2015 Landslide occurred, initiating about 100 metres downslope of the Old Road.
113. For this reason, Mr. Williams' evidence disagrees with that of Dr. Guthrie, who had described the origin of the Historic Landslide as "just below" the Old Road.
114. Mr. Williams' opinion is based upon the historic air photographs, which show a greater level of detail than Google Earth imagery. Therefore, the Panel finds that the Historic Landslide occurred on the path of Stream 2, initiating 100 metres below the Old Road.
115. Mr. Williams opined that the Historic Landslide was not due to a failure of the Old Road; however, it may relate to drainage concentration on the Old Road.
116. Regarding Mr. Ferguson's estimate of the runout of slides in Polygon 7: Mr. Williams testified that the 200-metre runout estimated by Mr. Ferguson was reasonable, although he conceded it was low for a slide that started "at the top". Note that the top of Polygon 7 is not identified.
117. In cross-examination, EGBC Counsel referred Mr. Williams to the Horel Article, and sought to examine him on the statements therein regarding the deposition point or gradient in channelized slides. Mr. Williams maintained that there were many conditions that would impact deposition and disagreed with the premise of the question.

### ***Weight***

118. EGBC argues that Mr. Williams was not an unbiased and impartial expert, and his evidence should be given little weight. It describes his testimony in cross-examination as "noticeably vague and evasive". As set out above, Mr. Williams disagreed with the premise underlying EGBC's questions about the calculation of landslide runout, but this does not support EGBC's contention. EGBC also argues that Mr. Williams changed his opinion to favour Mr. Ferguson (by removing a statement in a prior opinion, provided in response to an earlier opinion which was later withdrawn by EGBC). Mr. Williams explained that he felt a statement in his earlier report that the runout in Polygon 7 was underestimated was "unfair" to Mr. Ferguson given that Mr. Ferguson's estimate was for the whole polygon. EGBC has not shown any lack of impartiality on Mr. Williams' part.

## VI. ANALYSIS AND DETERMINATION

119. The Panel turns to whether the Respondent engaged in negligence or unprofessional conduct, as alleged in the Citation, in that he failed to assess the Old Road (in the area where the 2015 Landslide initiated), by failing to identify and analyze hazards and risk of landslides from or near the Old Road, and/or appropriately calculate the runout and the associated risks of such slides.
120. The Citation contains a third possible finding, breach of the Code of Ethics. However, in submissions, EGBC indicated it is not seeking a standalone finding of breach of the Code of Ethics; rather it relies upon the Code of Ethics as informing the standards expected of a professional.
121. EGBC argues that Mr. Ferguson performed an insufficient desktop review; performed an inadequate field review in that he did not identify the Historic Landslide or inspect the Old Road; and failed to apply adequate scientific knowledge to his assessment of landslide hazards and specifically in the calculation of runouts.
122. EGBC argues that by means of these deficiencies, Mr. Ferguson failed to found his TSA on adequate knowledge as required by Principle 3 of the Code of Ethics, and failed to “hold paramount the safety, health and welfare of the public, the protection of the environment, and promote health and safety within the workplace” as required by Principle 1. EGBC submits that the Panel should therefore conclude that Mr. Ferguson’s conduct amounts to unprofessional conduct or negligence.
123. The Respondent disputes all EGBC’s arguments. He submits that his work in preparing the TSA fell within the scope of his professional discretion, and that the adequacy of his TSA cannot be considered without reference to his Rainfall Shutdown Guidelines. The Respondent submits the Citation should be dismissed in its entirety.
124. The parties agree upon the definitions of negligence and unprofessional conduct, which are discussed in the section of this Decision under the heading “Legal Framework”.
125. The analysis below addresses the parties’ arguments above as follows:
  - A. Discretion in the preparation of a TSA
  - B. Whether the Respondent performed an inadequate desktop review
  - C. Whether the Respondent performed an inadequate field review in that he did not identify the Historic Landslide or inspect the Old Road
  - D. The Respondent’s assessment of landslide risks and in the calculation of runouts
  - E. The importance of the Rainfall Shutdown Guidelines.

## **A. Discretion**

126. The Panel's task in this case is to determine whether the Respondent has met professional standards, and that assessment is informed in this case by the Code of Ethics, the TSA Guidelines and the expert evidence.
127. Where the citation concerns an engineer's "technical" skills, panels will generally require evidence about the standards of practice in the relevant field. In this case, apart from the very broad statements of principle, EGBC did not lead evidence concerning specific standards of practice or their potential application to the Respondent's work or, more specifically, the assessment of the Old Road.
128. The Panel accepts the evidence of both experts, which is consistent with the TSA Guidelines, that there is a very broad discretion afforded a terrain specialist in the conduct of a TSA. This informs the Panel's analysis of the Respondent's conduct of the TSA.

## **B. Desktop Review**

129. EGBC argues that Mr. Ferguson's desktop review was "superficial" and therefore deficient. The Respondent argues that the subject of the Citation is not the performance of a desktop review and that, in any event, there is no evidence to support this argument.
130. The Panel notes that many of EGBC's arguments reach beyond the allegations in the Citation. The Respondent's overall conduct of the TSA is not the subject of the Citation. It is relevant insofar as it relates to his assessment of the Old Road as particularized in the Citation.
131. The Panel agrees that the Citation does not allege that Mr. Ferguson's desktop methodology was deficient. The issue is whether Mr. Ferguson failed to assess the Old Road because of an inadequate desktop review.
132. A desktop review is a preliminary step in a TSA, most often to inform a subsequent field review. The Panel notes the TSA Guidelines (Part 5.2) list a number of potential sources of information for a desktop review but afford a wide discretion to a terrain specialist as to the information to review in any given situation. The Guidelines do not stipulate information that must be reviewed in every case.
133. Dr. Guthrie testified that in 2013, desktop reviews were conducted "mostly" by Google Earth image review. Mr. Ferguson described Google Earth reviews as the "go-to" source of information in 2013, and he reviewed this information in the preparation for his field review.

134. There was no evidence led that Mr. Ferguson's desktop review failed to meet applicable standards of practice. Asked expressly by EGBC whether Mr. Ferguson did a sufficient level of background work for the subject TSA, Dr. Guthrie declined to give an opinion.
135. There was no evidence led that a competent terrain specialist ought to have identified the Historic Landslide as such in a desktop review.
136. The Panel notes that in their review of the 2010 Google Earth images, the experts' opinions as to observable hazards and other landscape features differed from one another as well as from the conclusions reached by Mr. Ferguson.
137. The Respondent reviewed the information available to him in his desktop review, including Stream 2, and formulated his plan for fieldwork accordingly.
138. The evidence does not support the conclusion that the Respondent failed to identify and analyze hazards and risks of slides from or near the Old Road due to an insufficient desktop review.

### **C. Field review**

139. EGBC argues that the Respondent's field review was inadequate because he failed to detect the Historic Landslide and failed to walk the Old Road.
140. As noted, the Panel accepts the evidence of both experts that the field review is in the discretion of the terrain specialist. The Respondent's field review reasonably focused on the lower boundary of the Cutblock where he, like both experts, identified potential hazards.
141. Turning first to the Historic Landslide:
142. To repeat, the Panel finds that the Historic Landslide took place along the feature that Mr. Ferguson identified as Stream 2, initiating 100 metres below the Old Road.
143. In his field review, Mr. Ferguson crossed Stream 2 twice, measured it, analyzed and identified what he observed as a stream draw, with a slide headwall downslope of the lower boundary of the Cutblock and no evidence of debris flow upslope. He described his findings in the field with care and aided by notes and photographs taken during his review.
144. There is no evidence disputing Mr. Ferguson's stated observations at these locations. There is no suggestion that Mr. Ferguson misstated his observations of the terrain and the Panel accepts that his evidence accurately states his observations in the field.
145. EGBC did not lead evidence that Mr. Ferguson ought to have interpreted the features he observed at the two locations on Stream 2 as a debris flow. EGBC has not shown that

Ferguson's conclusion, based on those observations, that Stream 2 was a stream draw, was unreasonable or contrary to expected standards.

146. The Panel is mindful of the evidence that what a terrain specialist finds in the field may differ from what is seen in a desktop review.
147. There is no evidence that, having identified a stream draw at the locations where Mr. Ferguson observed Stream 2, Mr. Ferguson ought to have undertaken a more extensive review of that location.
148. Therefore, Panel does not find that the field review was insufficient in that Mr. Ferguson observed a stream draw on Stream 2, rather than a debris flow. The Panel is unable to find that the Respondent overlooked a hazard he ought to have detected in the field.
149. Further, the Panel finds that in identifying Stream 2 as a stream draw rather than a debris flow, Mr. Ferguson used his best assessment of the information gained through his desktop and field review. The Panel rejects the argument that Mr. Ferguson failed to meet professional standards and was thereby negligent or engaged in unprofessional conduct in this regard.
150. EGBC stated that the only "hazard" that the Citation alleges the Respondent failed to identify is the Historic Landslide. As the Historic Landslide initiated 100 metres below the Old Road, the Panel is not satisfied that it would be visible from the Old Road. On the wording of the Citation, the Panel is not satisfied that the Historic Landslide can be said to be "from or near" the Old Road.
151. The Panel turns next to EGBC's argument that Mr. Ferguson's TSA was deficient because he did not walk the Old Road in his fieldwork.
152. Having regard to the TSA Guidelines and the expert evidence, the Panel finds that a competent terrain specialist was required to consider upslope risks in a TSA of this Cutblock due to their potential impact.
153. However, there was no evidence led in this case that a physical inspection of the Old Road was a necessary component of this TSA. Dr. Guthrie was not asked to address the method by which a terrain specialist ought to consider the Old Road.
154. While Mr. Ferguson did not walk the Old Road, the Panel is satisfied that, as reflected in Mr. Ferguson's TSA Report, he considered the upslope hazards due to his observations of upslope terrain during his field work.
155. Given the wide discretion afforded a terrain specialist in the conduct of a TSA, the Panel is not prepared to find that Mr. Ferguson was required to walk or otherwise physically inspect the Old Road, or that, by not doing so, he failed to assess the Old Road as alleged in the Citation.

#### **D. Assessment of landslide risks and runouts**

156. EGBC's principal argument on this topic is that Mr. Ferguson failed to apply relevant scientific knowledge concerning the prediction of runout lengths in his assessment of landslide risks, and specifically in the calculation of runouts.
157. It is plain on the evidence of all three witnesses that there was research and scientific literature in 2013 stating that landslides were longer than previously believed by terrain specialists. However, this topic was not developed with specificity in the course of the evidence during the hearing.
158. Dr. Guthrie was not asked to specifically identify any authorities on the subject, nor any methodology for the calculation of runouts which formed the standard of practice as of 2013. More specifically, Dr. Guthrie was not asked to provide an opinion as to how runout ought to have been calculated in relation to Polygon 7 of the Cutblock, how much he believed Mr. Ferguson's estimate was too low, or what a reasonable estimate would have been. EGBC did not present any other such evidence.
159. EGBC sought to cross-examine Mr. Ferguson about his considerations in estimating slide runouts, referring Mr. Ferguson to specific passages in the Horel Article. The Respondent demonstrated that he was familiar with the Horel Article and the body of research generally, and explained his rationale for his assessment and for declining to apply the article to his analysis of this terrain.
160. Similarly, when EGBC questioned Mr. Williams based on principles set out in the Horel Article or otherwise regarding the calculation of runouts, Mr. Williams identified various criteria which needed to be considered in relation to particular terrain over and above specific propositions asserted by EGBC.
161. In summary, there is no cohesive evidence before the Panel regarding the standards for the calculation of runout length in 2013 or how they were to be applied.
162. The Panel finds that the allegation in the Citation that the Respondent failed to appropriately estimate the runout of landslides from or near the Old Road is not proven.
163. The Panel is also satisfied that Mr. Ferguson considered the risk of landslides in Polygon 7, the upslope area in which the Old Road was located. He assessed the risk as moderate, which he defined to mean that a slide was "probable." The Respondent physically inspected upslope terrain in the centre of the Cutblock on the second day of his fieldwork. This in part informed his assessment of the risks in Polygon 7.

164. EGBC argues that the hazard risk assigned by the Respondent was too low and that a TSA should express the most extreme risks. A professional is to provide their best estimate, not to adopt the worst-case scenario. The Panel does not find that the Respondent's hazard rating of Polygon 7 indicates a failure to analyze the risks of landslides from or near the Old Road.

#### **E. Rainfall Shutdown Recommendations**

165. The Respondent argues that recommendations are part of the two-fold purpose of a TSA, and that the mitigative effect of the Respondent's Rainfall Shutdown Recommendations must be considered.

166. Noting the expert evidence and the definition of TSA in the TSA Guidelines, the Panel agrees that the recommendations made by a terrain specialist are an integral part of a TSA.

167. While Mr. Ferguson's Rainfall Shutdown Guidelines were not solely directed to Polygon 7, they were a significant way to address risks to the Cutblock and to those working in the Cutblock.

168. The Respondent's overall approach to the TSA, including his conservative Rainfall Shutdown Recommendations, shows that the Respondent performed his work with regard to the duty set out in the Code of Ethics to hold paramount the protection of the public and the environment and the promotion of health and safety within the workplace.

#### **VII. CONCLUSION**

169. In summary, the Panel finds that the Respondent's preparation of the TSA fell within the scope of his discretion as a terrain specialist. He reviewed relevant information in a desktop review and conducted his field review accordingly. His field observations differed from the opinions expressed by both experts based upon their document reviews, but the Panel is unable to find that the Respondent overlooked a hazard in the field. The Respondent assessed upslope hazards and gave his estimate of the likelihood, runout, and consequence of a resulting landslide.

170. The Panel does not agree that the Respondent failed to obtain "adequate knowledge" of the Cutblock terrain or the state of scientific knowledge about landslides and finds that he did not breach the Code of Ethics.

171. The Panel finds that EGBC has failed to prove the allegations in the Citation to the required standard. The Panel does not find that in his assessment of the Old Road as particularized in the Citation, as a part of preparation of the TSA, the Respondent failed to meet the standards of a competent terrain specialist or that his conduct was a “marked departure” from the standards expected of a member of the profession. Therefore, the Panel does not find that the Respondent engaged in negligence or unprofessional conduct, as alleged in the Citation.

172. For these reasons, the Citation is dismissed.

173. If the parties need to address the issue of costs arising from this Decision, they are to contact the Discipline Coordinator within 30 days of its issuance.

DATED THIS 26<sup>th</sup> DAY OF MARCH, 2026




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Ed Bird, P.Eng. (Retired), Chair



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Colin Smith, P.Eng., PE (Idaho), FCAE



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Pierre E. Gallant, retired architect AIBC, FRAIC (public member)