

CANADA / JUDGMENT

Nelson v. British Columbia (Environment)

2020 BCSC 479

COURT

Supreme Court of British Columbia

DECIDED

31 March 2020

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2020 BCSC 479 Nelson v. British Columbia (Environment)

IN THE SUPREME COURT OF BRITISH COLUMBIA

Citation:

Nelson v. British Columbia (Environment),

2020 BCSC 479

Date: 20200331

Docket: S198558

Registry: New Westminster

Between:

Jeremy Nelson

Plaintiff

And

Her Majesty the Queen in Right of the Province of British Columbia

as represented by the Ministry of Environment - BC Parks, Her Majesty

the Queen in Right of the Province of British Columbia as

represented by the Ministry of Tourism, Culture and the Arts - Recreation

Sites and Trails BC, and Her Majesty the Queen in Right of the

Province of British Columbia as represented by the Ministry of Transportation and Infrastructure, Her Majesty the Queen in Right of the Province of British Columbia as represented by the Ministry of Forests, Lands and Natural

Resource Operations, Trails Society of British Columbia, Jane Doe Ltd., John Doe Ltd.

Defendants

Before: The Honourable Madam Justice Sharma

Reasons for Judgment

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Place and Date of Trial:

Vancouver, B.C.

June 10-14, 2019,

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August 12-13, 2019

Place and Date of Judgment:

New Westminster, B.C.

March 31, 2020

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I. OVERVIEW

- [1] The plaintiff, Jeremy Nelson, owns property in Brooklyn, which is a small, "off the grid", community located on the south shore of Lower Arrow Lake in the Kootenay region of British Columbia. His property consists of a number of legal lots, and he has built a residence on one of those lots. The community is very small, comprising six households.

[2] In April 2012, there was an incident that gives rise to this litigation. The parties and their experts used different terminology to describe the incident, but for convenience I will refer to it as the "Debris Flood".

[3] The plaintiff's written submission helpfully provides a concise statement of his claim:

The case for the plaintiff is straightforward. It arises out of a landslide that was caused by the failure of a culvert located on land owned by the 'Province'. The landslide caused damage to property owned by the plaintiff and to amenities that he enjoyed in connection with his property, in particular the domestic water and hydro-electric power supply. The ongoing impacts of the landslide on the plaintiff's property continue to the present day and will continue for a matter of decades. The plaintiff is entitled to damages for the costs that he has incurred, and will incur, to respond to these impacts.

[4] The Debris Flood also washed out a footbridge located near the shore of the lake and completely buried another property owner's weir.

[5] The plaintiff submits the Province is liable under the Water Act, R.S.B.C. 1996, c. 483, or at common law in nuisance or negligence. Although he pleaded liability pursuant to *Rylands v. Fletcher* he made no submissions on that ground, and on that basis, I dismiss that aspect of his claim.

[6] The Province submits that the Debris Flood was caused by natural environmental conditions. Its position is that the failure of an embankment created the Debris Flood, which caused the damage. Although the Province accepts that the Debris Flood probably contributed water and suspended sediment to the stream where the community's domestic water and power intakes are located, it denies liability for the damages sought by the plaintiff.

[7] Despite its position with respect to the natural cause of the Debris Flood, the Province's primary position is that the plaintiff has waived his right to sue the Province for losses in relation to the Debris Flood because he signed restrictive covenants that contain liability exclusion clauses in favour of the Province.

[8] In the alternative, the Province addressed each of the plaintiff's claims in negligence, nuisance and under the Water Act. It submits it was not negligent for one of several reasons: all of the alleged negligent acts were performed by independent contractors for which it is not vicariously liable; the alleged negligent acts constituted policy decisions, which do not attract liability; the evidence does not establish a causal link between any of the alleged negligent acts and the loss or damages claimed by the plaintiff; it acted reasonably and exercised due diligence thus meeting the requisite standard of care; and, the plaintiff has not established on the evidence his entitlement to the damages sought.

- [9] The Province submits it cannot be liable in nuisance if the Debris Flood was caused by natural environmental conditions unless it breached a duty of care to the plaintiff, which it submits it did not. The Province submits that in the circumstances of this case, the law of nuisance incorporates negligence principles. In any event, the Province submits any interference to the plaintiff's property was not unreasonable.
- [10] With regard to the plaintiff's claim pursuant to the Water Act, the Province submits it exercised due diligence and took all reasonable steps such that it cannot be liable under the Water Act for the damage that occurred to the plaintiff's property as a result of the Debris Flood.

II. FACTS

- [11] The court appreciates that the parties agreed to a substantial number of facts through notices to admit. In addition, many facts were either unchallenged or not disputed. Although there were factual disputes, I only address and resolve disputes that were relevant to findings or conclusions that I have drawn. The following narrative represents my findings of fact.

A. Description of the Area

- [12] The events in this case took place within the Pup Creek watershed, which comprises approximately 22 km² and is located on steep terrain on the south shore of Lower Arrow Lake, about 27 km west of Castlegar, British Columbia. Pup Creek has two tributaries: Brooklyn Creek and Churchill Creek. The Brooklyn Creek sub-watershed is about 6.5 km² and drains the western portion of Pup Creek watershed, entering Pup Creek about 1.6 km upstream of Lower Arrow Lake. A reference in this judgment to a watershed means the Brooklyn Creek sub-watershed unless otherwise noted.
- [13] Most of the non-expert witnesses referred to the waterway from Brooklyn Crossing (described below, para. 25) to the lake as Brooklyn Creek. However, Brooklyn Creek converges with Pup Creek and everything downstream of that convergence is properly called Pup Creek, including where the domestic water intake is located. However, for convenience, in this judgment, references to the creek refers to Brooklyn Creek from the Brooklyn Crossing to its convergence with Pup Creek, and that portion of Pup Creek that continues downstream to the lake.
- [14] The plaintiff purchased his properties in the area in 2001 and 2003, and around the same time, he did some logging and roadbuilding. In September 2011, he subdivided the waterfront property into three parcels (the "Waterfront Lots"). He began building a home on one of the Waterfront Lots the next year. The plaintiff also has a half interest in three lots which do not front on the lake (the "Upstream Properties").

- [15] Dave White gave evidence by way of affidavit, which the plaintiff did not challenge. Mr. White also owns waterfront property in Brooklyn. He has been living there since about 1999 or 2000, and currently resides there permanently (as opposed to seasonally). He is also the only other resident who, like the plaintiff, owns property that abuts the creek.
- [16] The plaintiff has always drawn water from the community domestic water intake, located in the creek. He does not divert water himself. The community water intake is in the creek, closet to property owned by Mr. White. Water drawn from that intake is distributed to the neighbouring properties. The intake was already in existence when the plaintiff bought his properties.
- [17] The other residents in the community draw power from a diversion on the creek, which operates as a small-scale hydroelectric dam. It was in existence before the plaintiff bought his property. The power house (a small structure for that dam) is located on Mr. White's property and that was built later, with the plaintiff's involvement. It is located south of the intake for the dam.
- [18] However, the plaintiff does not draw power from the community's dam. Prior to the Debris Flood, the plaintiff's power was supplied simply by running an extension cord from one of his neighbour's houses. However, around the time he completed construction of his house, he installed his own turbine on one of his Waterfront Lots, which is powered by the tailrace of the community's dam, which is the water channel below the dam.
- [19] In addition to the two intakes located in the creek, there were two bridges impacted by the Debris Flood. There was an old footbridge located on waterfront property (the "Lower Bridge"). This was in place when the plaintiff bought his property. The plaintiff also claims damages in relation to what I will refer to as the "Upper Bridge". The Upper Bridge is not located on property owned by the plaintiff, and is located upstream from the Waterfront Lots.
- [20] Daniel Haack testified. He's a part-time resident of Brooklyn. He confirmed that the two intakes were constructed by the residents in the mid to early 2000s, before the plaintiff bought his properties. The plaintiff does not pay for his use of either, but Mr. Haack said the plaintiff's contribution has been in the way of heavy equipment work for the community's benefit.
- [21] The Lower Bridge, which is at the end of the creek, is a small footbridge that was built by Mr. Haack, his wife and some friends as a weekend project in 1997 or 1998. He said it was only about four feet wide and was not designed or reviewed by an engineer. His evidence was that no part of the Lower Bridge was on Mr. Nelson's property.

- [22] The Brooklyn residents also built the Upper Bridge, probably in the early 2000's. According to Mr. Haack, everyone used the Upper Bridge. The Upper Bridge appeared to sit at or below the creek's bank level, and I find that it was not designed by an engineer. The evidence was unclear as to the exact location of the Upper Bridge, but both Mr. Haack and the plaintiff testified that on the day of the Debris Flood, that Upper Bridge was blocked which caused the creek to escape its bed and cause damage.

B. The Columbia & Western Rail Trail and its Predecessor

- [23] About four kilometres upstream from the plaintiff's Waterfront Lots is the Columbia & Western Rail Trail (the "CWRT"). The CWRT is a recreational trail that has been operational on what used to be a rail line. There is a steep incline between Brooklyn and the CWRT.
- [24] The CWRT is part of what was originally a 180 km railway that was constructed by Columbia & Western Railway Company in about 1898. The company had authority to build a right-of-way linking Trail with Rossland and then onto Midway and Penticton. At the time it was one of the most expensive pieces of rail corridor in Canada.
- [25] The railway company built an embankment to span Brooklyn Creek and redirected the flow of the creek through a flume which passed under the railway before returning the creek to its natural course (the "Brooklyn Crossing"). The embankment was about 20 metres deep, and sloped on both sides of the CWRT. The elevation of the Brooklyn Crossing is about 954 metres. Although not installed at this time, central to this litigation is a culvert and related repairs done at the Brooklyn Crossing (the "Culvert"), which is discussed in greater detail later.
- [26] In about 1911, the railway was sold to Canadian Pacific Railway. The tracks were removed in about 1992. Since that time the CWRT has been used and maintained by members of the public as a recreational trail. Starting in about the 1990s, a volunteer stewardship group, the Columbia and Western Trail Society (the "Society") monitored and maintained the CWRT.
- [27] In about May 2004, Tourism BC (a now defunct Crown corporation) purchased the railway. Tourism BC was basically a marketing agency so it did not inspect or maintain the CWRT. Instead, it hired companies to do that work. Tourism BC was dissolved as a Crown corporation in April 2010, but all of its rights, property, assets and liabilities were transferred to and vested in the Province.
- [28] Pursuant to ministerial order dated March 7, 2011, the CWRT has been designated as a recreational trail pursuant to s. 56(1) of the Forest and Range Practices Act, S.B.C. 2002, c. 69. Around the same time, there was a significant reorganization within government, which amalgamated various ministries. Management of the CWRT was conferred on Recreational Sites and Trails ("RST"), a department now within the Ministry of Forests, Land, and Natural Resources Operations.

C. Ownership, Maintenance, Inspection and Condition of the CWRT

[29] Although almost all facts under this topic were undisputed, the parties did not agree on the legal significance of them.

[30] In relation to inspection and maintenance of the CWRT, the following witnesses testified:

- a) Leigh-Ann Johnson, who is the current owner of Katim Enterprises ("Katim"). In 2004, she was responsible for Katim's contract with Tourism BC to oversee the inventory and improvement of the CWRT.
- b) As noted earlier, the plaintiff's neighbour, Mr. White gave evidence by affidavit. In addition to living in Brooklyn, Mr. White owns White Contracting, a general contracting and excavating company, which was hired by Tourism BC and later the Province to do work in the area.
- c) Ralph Waters is a former employee of Pennco Engineering. Mr. Waters was a junior engineer working under the supervision and direction of Bernie Penner, who was Pennco's principal at the relevant times. Pennco prepared a drawing that guided the installation of the Culvert.
- d) Richard Johnson is an experienced registered professional forester who upon retiring from the BC Forest Service, formed his own consulting company called Pilot Point Forest Consultants. He carried out the inventory and inspection of features and structures along the CWRT in October 2011. At the time, he was hired as a subcontractor of SNT Engineering Ltd. ("SNT"), which was hired by the Province to conduct an inventory and inspection of CWRT.
- e) John Hawkings, is the current director of RST. He was the trails manager within the same organization from 2007 to 2015.

[31] I found all of these witnesses to be credible and reliable. They testified in a straight-forward manner and their demeanour was consistent throughout direct and cross-examination.

1. RST

[32] RST manages about 1,300 recreational sites and 1,000 trails across B.C. Its mandate includes the administration and oversight of about 600 km of abandoned rail lines now owned by the Province and managed as recreational trails. That trail network includes the CWRT, the Kettle Valley Rail Trail and Slocan Valley Rail Trail.

[33] RST does not have resources or expertise to carry out any field work, but it contracts with over 400 stewardship groups and/or independent professionals as needed to carry out inspection, maintenance design and construction of works along the rail trails. Mr. Hawkings testified that the Province's intention was to improve rail grades so that they could be used as world class recreational trails.

- [34] Mr. Hawkings discussed RST's funding over the years. He explained that following a major government reorganization, RST was first given responsibility for the 600 km of rail trails in 2010, which was additional to its responsibility for other recreational sites. However, its budget was not increased. In most years, RST's trails program has an annual operational budget ranging from \$90,000 to \$120,000. The bulk of that funding is spent on rail trails, but some funds go to other items such as an avalanche safety program.
- [35] In 2011, RST contracted with SNT to carry out an inspection and inventory of the CWRT, but the cost of that was significant and almost exhausted RST's entire annual budget.
- [36] In 2013, RST was in a deficit position and the trails program had to pay back about \$30,000 of its annual budget allocation. As a result, in 2014 and again in 2015, Mr. Hawkings had to seek approval for funding to implement recommendations made in consultants' reports regarding erosion control. Those funding requests were not approved.
- [37] The ministerial order establishing the CWRT as a recreational trail, empowered RST to act in relation to the trail and to enter into partnerships with community organizations to maintain the trail. Mr. Hawkings believed that the Society had members who tended to the trail as often as a couple of times a week. He also confirmed the Society was doing works even before the Province and the Society entered a formal agreement in 2014.
- [38] As described by Mr. Hawkings, RST relies on the Society to be its "eyes and ears", to carry out minor maintenance and to inform RST of things that need to be done, which are outside the scope and capability of the Society. On occasion, RST will engage professionals to inspect the entire CWRT network to identify priority repairs. Ideally, Mr. Hawkings would like to see the entire network inspected every five years. He noted that more frequent inspections would be financially unreasonable.
- [39] Mr. Hawkings also sought in 2014 a decision from his minister to implement a strategic approach to rail trail management. This was meant to acknowledge and address the fact that RST did not have sufficient funding to meet community expectations. This strategic approach would prioritize public and environmental risks leaving the aesthetics to community groups. The intent of the approach was to engage a broader range of partners to assist in trail maintenance, which would reduce overall costs. The minister approved of that approach in June 2014
2. Maintenance of the CWRT
- [40] Shortly after acquiring the CWRT, Tourism BC hired Katim to perform project maintenance services with respect to the trail, including cleaning and replacing culverts. Katim's contract obligated it to monitor the trail, schedule works, implement best management practices and oversee tendering and regulatory approvals. Ms. Johnson explained that she engaged and oversaw other contractors to do work under the Tourism BC contract. She also stated that she worked very closely with the Society.

- [41] Ms. Johnson provided regular reports to Tourism BC, including indicating what funds had been committed, how the project was progressing and any issues that arose.
- [42] Tourism BC also contracted White Contracting as an excavator operator to undertake culvert maintenance, grade and flood repair for the CWRT from Castlegar to Christina Lake. Mr. White deposed that he has worked in the Castlegar area since the early 1990s and that he had decades of experience in road construction, maintenance and repair. A necessary part of that work included drainage management including ditches and installation of culverts.
- [43] Ms. Johnson recalls attending the Brooklyn Crossing before the Culvert was installed. She testified that portion of the rail trail was quite eroded, broken down and very narrow.
- [44] Mr. Waters also recalled attending the Brooklyn Crossing on behalf of Pennco Engineering with Ms. Johnson. The purpose of the site visit was to find a solution to make the Brooklyn Crossing more stable. She asked Pennco Engineering to look at what could be done to improve it.
- [45] On November 16, 2004, Mr. Waters walked around that site with Mr. White and they came up with two options to address stability and drainage. Both options involved installing a 1,000 millimetre culvert at the Brooklyn Crossing. Mr. Waters returned to the office, discussed the matter with Mr. Penner, and prepared a field report and sketch which he delivered to Mr. Penner. It is apparent that Mr. Penner simply forwarded Mr. Waters' report to Ms. Johnson, indicating his agreement with the proposal.
- [46] That report contained a simple drawing and document for works to be done. Neither Mr. Penner nor Mr. Waters raised any concerns or recommended any further engineering involvement in the proposed works. In particular, no professional engineer prepared a sealed engineering design for the Culvert, attended the installation or inspected the completed culvert installation. White Contracting installed the Culvert.
- [47] Ms. Johnson confirmed that she attended a post-work inspection of the Culvert with Mr. White as well as representatives from the Society. The remediated Brooklyn Crossing sloped down further than before because the trail had been widened by using the fill material from the existing embankment. Ms. Johnson also observed that a grate was placed over the Culvert, but she testified that raised no concerns in her mind at the time. It was not disputed that the Pennco design did not include the grate.
- [48] As it was required to do, Katim applied for approval under s. 9 of the Water Act to install the Culvert. A memo dated November 17, 2005, by an employee of the Ministry, recorded that verbal approval had been given to the application at the time the Culvert was installed.

3. Inventory

- [49] In about 2009, Tourism BC again hired Katim, but this time to engage in a one-year contract to monitor, carry out maintenance, and oversee certain improvements to the CWRT. During this time, no concerns were raised regarding the Brooklyn Crossing.

- [50] In 2011, the Province entered into a contract with SNT to perform the inspection of all structures and culverts on the CWRT. That inventory was conducted by Mr. Johnson, as a subcontractor to SNT. However, SNT set the parameters and criteria for the inventory. That included the criterion that only major culverts (those more than 1200 mm) needed to be included. Mr. Johnson testified his belief that a major culvert was one that required engineering. The Culvert did not fall into that category.
- [51] He traversed about 79 km of the CWRT, starting from Castlegar, heading west. He identified over 200 features, about 50 structures and approximately 60 maintenance items. He created a ledger which recorded all those items, dated November 2011, which was entered into evidence. The ledger indicated no maintenance was required for the flume or the Culvert at the Brooklyn Crossing. He also identified features which required monitoring and again the Brooklyn Crossing was not one of those.

D. Water Licenses - Notice to Admit

- [52] In April 2012, the plaintiff held conditional water licenses, which were appurtenant to the Waterfront Lots. Those authorize diversion and domestic use of water from specified points in Pup Creek. However, he did not at any time divert or use water from the points of diversion that is indicated on those licenses. Nor did he build works (and none were in place when he purchased the adjacent property) at the points of diversion as shown on the licenses.
- [53] Instead, he draws water from the tailrace of the community dam, which is located hundreds of meters upstream from the points of diversion shown on his water licenses.
- [54] In June or July 2012, the plaintiff applied for a license to divert and use water from Pup Creek to generate power. In about February 2014, the plaintiff received an email from the water stewardship officer in relation to that application that outlined steps the plaintiff needed to take to complete his application, including having a qualified professional prepare a water development plan. The plaintiff did not submit a water development plan, and he did not receive any approval or authorization in relation to his application.
- [55] Apart from the works authorized in his domestic use licenses, the plaintiff does not hold any written authorizations or approvals under the Water Act or the Water Sustainability Act, S.B.C. 2014, c. 15, to do works in or around Pup Creek, Brooklyn Creek or their tributaries.

E. 1996 Event

- [56] In late May 1996, Dwain Boyer, an engineer with then the Ministry of Environment, Lands and Parks for the Province, received a phone call from a Brooklyn resident (Doug Haines) who reported experiencing silty water, which was uncommon given the rate of creek flows at the time. That resident speculated that there had been a landslide at Brooklyn Crossing a few weeks earlier. Mr. Boyer attended the site the next day, took photos, some measurements and recorded some video footage. He alerted Canadian Pacific Railway about

the event.

- [57] Although Mr. Boyer did not testify, his observations represent what the Province can reasonably be said to have known when it took ownership of the CWRT. Among other things he wrote the following:

The failure was caused when foundation pedestals were displaced by a minor hill slope failure. The water flowing into and ponding against the fill may have caused the failure of the railway fill.

Approximately 7 ft³/s was existing the toe of the fill. There was no evidence of distress or weakening of the remaining railway grade. There was no seepage or slumping on the down slope face of the fill and there was only minor evidence of fines emerging at the toe. The base of the fill seems to have a large percentage of large rock.

- [58] He called a representative of CPR who asked what should be done and Mr. Boyer advised CPR to inspect the site and "[a]t a minimum fix the bypass channel to get through high water" and since there was still snow, they could expect higher runoff with warmer temperatures. He also walked the Brooklyn Crossing and noted that the concrete wing wall [I infer this is part of the flume structure] on the right side of the inlet had fallen into the channel.

- [59] He returned later that year, in September, and walked from the Brooklyn Crossing to the lake. He dug into the fill and confirmed there had been a concrete culvert under the fill but it had been buried for many decades. He also observed:

It is unlikely a significant volume of material in the form of a debris flow, initiated by a mass failure of the railway grade, would reach the properties on the lakeshore. At the site of the gradients are steep enough to mobilize a debris flow. However, there are a number of flatter reaches downstream where the main volume of debris would arrest. During such an event there would obviously be major impacts on water quality. The water supply system for the residents would be damaged. Also, there could be flooding of private property.

F. The Debris Flood and Immediate Aftermath

- [60] The parties agree that on April 26, 2012, the Culvert failed and a portion of the embankment at the Brooklyn Crossing collapsed, dumping large amounts of soil into Brooklyn Creek. They disagree on what caused that failure and how it impacted the water and land downstream of the Brooklyn Crossing.

- [61] Both Mr. Haack and the plaintiff were in the area on April 26, 2012.

- [62] I found Mr. Haack to be a credible and reliable witness who testified in a straight forward manner. He recalled that he had just arrived by boat when he noticed the power go out. He drove towards the powerhouse to investigate and he noticed water running down the road at such a depth that he could no longer safely drive. He saw debris slamming into and jamming the Upper Bridge. This caused muddy water to escape the right bank and flow down the

road. He noticed up the valley that treetops were moving. He heard the crashing of rocks and trees. He described that the main flood happened quickly, but that higher than usual flows persisted after that. According to Mr. Haack, the plaintiff was not there for the peak of the event, but arrived later that day.

[63] The plaintiff was unsure of which date the Debris Flood occurred, but believed it happened between 11:00 a.m. and 1:00 p.m. He testified he was pouring concrete for the foundation of his house on the date of the Debris Flood, and that it was a clear and sunny day.

[64] Mr. Haack testified that no one went up to the Brooklyn Crossing until the day after the Debris Flood. He confirmed that the residents started cleaning out the Creek by removing debris from the Upper Bridge, which was blocked. They used the plaintiff's backhoe to do this. He recalled it took about a couple of days to get the domestic water flowing again and about a week to get the hydroelectric system back online. He also noted that the event washed out the Lower Bridge and buried his wharf.

[65] In terms of ongoing maintenance, Mr. Haack testified that in the summer of 2012, they had to clean out the intakes four times or more, but that by the time of trial, the maintenance required was getting back to normal. Mr. Haack confirmed that prior to 2012, the intake systems usually required clearing of sediment and debris after the spring runoff. The residents would work together for about a day to perform that maintenance, usually with hand tools, although occasionally they needed to use heavy machinery. He also testified that he always experienced dirty water in the spring time and that he filtered his domestic water since he built his cabin in about 1995.

[66] The plaintiff testified that before 2012 very minimal hand work was done and some years, no maintenance was needed. He also claimed he had no issues with water quality before the Debris Flood. His evidence on those two points conflicted with Mr. Haack's testimony. As I now explain, I prefer Mr. Haack's testimony to the plaintiff's.

[67] The Province challenges the reliability and credibility of the plaintiff's testimony. It submits the plaintiff was prone to hyperbole if he perceived that to be an advantage, but where he thought questioning would result in disadvantage, he became evasive, claimed ignorance or a frailty of memory. The Province also asserts that there were numerous contradictions and inconsistencies in the plaintiff's evidence, and also between his evidence and independent sources.

[68] I agree that during cross-examination the plaintiff tended to shift his evidence, or claim a degree of ignorance, if he perceived that to be an advantage to his position in the litigation, especially in relation to the information about the water licenses and the covenants on his property. For example, he admitted he did not obtain a license to divert and use creek water for power despite admitting he was advised by a consultant to do so. Yet, at other points of his testimony he said that he did not seek any approvals because his rights under the Water Act permitted him to do "anything necessary, including stream diversion, construction, removal of rocks, building roads or bridges to access my water intakes, diversion, building

storages " and that "BC water law is very explicit" and he could "literally go all the way to the rail grade" and do "whatever necessary to maintain my domestic water license".

- [69] What is relevant is not whether his understanding of the law is correct. The point is that at times he claimed to have little knowledge or lack of familiarity, but at other times, purported to have a comprehensive understanding of the legal regime. This is one example of the plaintiff most probably altering his evidence if he believed it would suit his purposes, but there were a significant number of other examples. This diminishes both the credibility and reliability of his testimony.
- [70] I also agree with the Province that the plaintiff had numerous inconsistencies in his testimony, and was impeached on a few occasions by answers given at his examination for discovery which decreases his reliability and credibility.
- [71] The Province submitted the plaintiff demonstrated animus towards the Province in the litigation. I find the Province had a legitimate basis to take that position, although I would not go so far as to make that particular finding. I am concerned that the plaintiff cast aspersions against specific Provincial employees, including claiming that Mr. Hawkings had been fired for "pretending to have power" that he did not have. That claim was untrue.
- [72] He also claimed an unnamed Provincial employee told him that he did not need to obtain approval to build a new bridge. Even if such a conversation occurred (I do not make a finding on that point), it is difficult to accept that the plaintiff would have believed it. That possibility is belied by the plaintiff's hiring of Mr. Deverney to assist him with an application for the new bridge.
- [73] The plaintiff also testified that an unnamed Ministry of Environment person attended the Brooklyn Crossing and told him "to do what you have to do" in the creek, implying he had permission to carry out works with heavy equipment to address an "emergency", even a year after the Debris Flood. Again, I find it highly unlikely that any employee of the Ministry of Environment would purport to authorize anything in such a casual and careless manner.
- [74] The plaintiff testified in a very firm manner about those conversations. However, based on my observations and consideration of all his testimony, I find it probable that the plaintiff embellished other conversations that may have happened in an effort to support his position in the litigation. Accordingly, I find on both points the plaintiff's testimony was unreliable. In addition to the other concerns discussed in the preceding paragraphs, I conclude the plaintiff's overall credibility and reliability as a witness was significantly eroded.
- [75] Accordingly, I approach his testimony with caution. I note, however, that the plaintiff's credibility is not material to many issues in this litigation. Where it is relevant, I will identify how my assessment impacts the analysis.

G. Response to the Debris Flood

- [76] The Province learned of the Debris Flood by May 1, 2012. Within a few days, Mr. Hawkings contacted SNT and was enquiring whether SNT and/or Mr. Johnson would be able to give an opinion on further risks and "have a professional set of eyes" on the situation. He contacted a person in the Society who had been at Brooklyn Crossing a few days earlier. He even contacted Ms. Johnson knowing she had been involved in 2004. On or about May 7, 2012, a contractor hired by the Province visited the site. On May 9, 2012, Peter Jordan, a geomorphologist employed by the Province carried out an inspection at the site.
- [77] On June 20, 2012, Mr. Johnson attended at the site to supervise emergency works carried out by the local contractor, Glen Sorenson. Mr. Johnson determined the scope of Mr. Sorenson's work. At that time, unstable material from the now-exposed embankment slopes was removed, a log was installed as a safety device and improvements were done to temporarily divert the CWRT around the Debris Flood, which included digging a water bar to divert flow water away from the fill slope. He also seeded areas of exposed soil with grass. Mr. Johnson noted that there were certain areas that were too unsafe to be able to perform any works on them because it would risk further destabilizing of the slopes.
- [78] Mr. Johnson attended the site again in November 2012, when he had a contract with RST to lay out and supervise permanent works to realign the Brooklyn Crossing. These were based on a design prepared by SNT but carried out by a local contractor, Allstar Excavating. Those permanent works included construction of a trail surface adequate for a pickup truck, installation of a new 1,400 mm culvert under the trail (the "Replaced Culvert"), channel reinforcement above and below, and installation of water bars on both approaches and seeding.
- [79] In the spring of 2013, Mr. Johnson returned to the site to do some of that seeding and he provided a post-completion report to RST. Mr. Johnson returned again in May 2013, and he testified that the works had held up fairly well over the winter. He did note there had been some minor scour but he patched that using hand tools. Later in 2013, he returned with a tractor to carry out some ditching work and install more water bars.
- [80] In 2016, pursuant to a contract with the Province, a numbered company doing business as White Contracting installed a cross-ditch on the CWRT just east of Brooklyn Creek.
- [81] In the spring of 2018, Mr. Johnson carried out further inspections and rail trail work as a contractor to RST. At that time, he observed what he thought was probably a high-water flow that had scoured out the stream bed immediately below the Replaced Culvert outlet. This caused the stream to redirect to the right and cut into the bank. He recommended some work be done to remedy this, and he supervised that work, which was carried out by Impact Equipment Ltd. in the fall of 2018.

III. EXPERT EVIDENCE

[82] Four expert witnesses gave evidence relevant to the cause of the Debris Flood:

- a) Norman Deverney is a professional engineer who was qualified to give opinion evidence on geotechnical engineering, forest hydrology, stream channel assessment, forestry bridge and culvert design, and land failure assessment. He was called by the plaintiff. His expert report was dated July 31, 2018.
- b) Brian LaCas is also an engineer. He was qualified to give opinion evidence in hydrological engineering and modelling, stream channel restoration, culvert hydraulics design, and review of water intake works. He was called by the plaintiff. His report was dated March 8, 2019.
- c) Robert Millar was qualified to give opinion evidence with regard to hydrotechnical engineering and geoscience, with particular expertise in hazard assessment, engineering hydrology, calculations of peak flows and flow return periods. He was called by the Province and prepared a September 14, 2018 report responsive to Mr. Deverney's report. He also prepared a report dated April 23, 2019 in response to Mr. LaCas's report.
- d) Matthias Jakob is a geoscientist who is the principal geoscientist at BGC Engineering. He was qualified to give opinion evidence on steep creek processes, including hazard and risk assessments, mass movement processes (of soil or rock), and fluvial geomorphology. He was called by the Province. His report dated September 17, 2018 was responsive to Mr. Deverney's report, and his April 18, 2019 report was responsive to the report of Mr. LaCas.

A. Analysis of Expert Evidence on Peak Flow

[83] Both Mr. LaCas and Mr. Millar estimated the peak water flow at the Brooklyn Crossing on April 26, 2012, and based on their estimate, they opined on the "return rate" for that peak flow. The return rate is an estimation of the period of time in which the identified peak flow would likely occur once. Despite the terminology, however, it is not a predictive figure, only a statistical expression.

[84] Mr. LaCas estimated the peak flow was 0.7 cubic metres per second, which in his view represented between 1:10 year to 1:20 year return rate. Mr. Millar calculated the peak water flow as between 1.1 and 1.2 cubic metres per second, and the return rate approaching 1:100 year.

[85] I place more weight on Mr. Millar's opinion. Unlike any other expert, he was specifically qualified to give opinion evidence on calculations of peak flows and flow return periods. Accordingly, his calculations are at the core of his expertise, whereas the same is not true of Mr. LaCas. Absent any other factor, that alone justifies placing more weight on Mr. Millar's calculations of peak flow and return rate. I also found him to give clear and persuasive testimony which was not weakened during cross-examination. However, more significantly, I agree with the Province that Mr. Millar's methodology and analyses were superior to Mr. LaCas's.

- [86] Estimating the historic peak water flow for a geographical area is largely driven by the amount and intensity of rainfall. When snow pack exists, "rain on snow" is an additional factor because that causes snow to melt, which of course increases the amount of water. Snowmelt is affected by temperature, so that is also an important factor in the calculation of peak flow. Because there are no rain gauges close to the Brooklyn Crossing, the experts were required to rely on data from other locations.
- [87] Mr. Millar explained why his calculations differed from Mr. LaCas's. Mr. LaCas used a method to estimate rainfall that Mr. Millar had never heard of and would not use. Mr. LaCas overlaid still shots (taken every 10 minutes) of Environment Canada weather radar maps over the watershed and estimated rainfall by looking at the colours on the map. The maps have a legend that assigns a different gradient of colour for specific ranges of precipitation. Thus, Mr. LaCas would count up the different "squares" of each gradient colour over a period of time on that portion of the map covering the watershed.
- [88] Mr. Millar had never heard of that method of estimating rainfall, and stated he would not use that method. Nor was there any evidence that this was a generally accepted method of calculating historic rainfall over a geographic area. Mr. Millar pointed out that the radar station generating the images was about 120 km from the watershed. He explained that radar data is less reliable when applied to distances greater than 100 km from the radar station because, at that distance, the curvature of the earth causes radar beams to scan higher segments of the atmosphere, not capturing all the rainfall.
- [89] Mr. Millar relied on Environment Canada's Canadian Precipitation Analysis system ("CaPA"). CaPA provides almost real time estimates of rainfall in six hour periods. It relies on four sources of data of which weather radar is only one. The other three are surface climate measurements, numerical atmospheric and soil moisture models, and satellite observations.
- [90] I agree with the Province's contention that Mr. LaCas's unorthodox methodology significantly decreases the weight I should place on his opinion. The Province did not object to the admissibility of the opinion, but pointed out that in *White Burgess Langille Inman v. Abbott and Haliburton Co.*, 2015 SCC 23 at para. 23, the Supreme Court of Canada held that that novel or contested science is subject to an independent assessment of the reliability of the underlying science. In my view, as applied to Mr. LaCas's estimation of rainfall, *White Burgess* supports reducing the probative value of his opinion because of his unorthodox approach.
- [91] Mr. Millar also testified that in his view Mr. LaCas's estimation of snowmelt was too low by almost 50%. The plaintiff submits Mr. Millar's criticism is flawed because correcting the error identified by Mr. Millar, would result in an over-estimation of snowmelt by Mr. LaCas, not the opposite. In my view, neither party accurately captured Mr. LaCas's methodology, or the potential flaw with his approach.

- [92] Different equations are used to calculate snowmelt depending upon whether an area is in a clearing or heavily forested. The amount of forest cover impacts the amount of sunshine that reaches the snow, which has a direct effect on snowmelt. The watershed is forested.
- [93] Mr. LaCas relied on data from the Farron Manual Snow Survey site, which is located at a similar elevation as the watershed and about 13.8 km away from the Brooklyn Crossing. However, it is in a clearing. Mr. Millar's report appeared to say that because Mr. LaCas relied on Farron snow data, Mr. LaCas must have applied the wrong formula to determine the rain on snow calculations. However, the plaintiff submitted Mr. Millar mis-stated Mr. LaCas's methodology, and Mr. LaCas did use the correct equation.
- [94] However, that dispute does not capture what I have found to be a problematic aspect of Mr. LaCas's approach. The following paragraph in Mr. LaCas's report described how he calculated snowmelt:

For heavily forested regions the total basin snowmelt during rainfall can be estimated by an equation, using the mean rainfall and the mean free air temperature. Using temperature estimated for the Brooklyn Creek watershed, and daily rainfall measured at Castlegar BCHPA dam, snowmelt was calculated from April 3, 2012 to April 26, 2012. In order to match the calculated snowmelt with the measured snowmelt at the Farron site, a factor of 0.455 was applied to the estimated snowmelt. This factor was applied to snowmelt calculations on April 26, 2012 at the Upper Brooklyn Creek Watershed. Based on the rainfall amount from the radar data analysis, the total snowmelt calculated for April 26, 2012 was 10.0 millimetres.

[Emphasis added.]

- [95] Apart from anything else, the underlined portion in the preceding paragraph identifies that a critical component of Mr. LaCas's snowmelt calculations was his rainfall calculations, which I have already found to be deserving of less weight. However, that is not the only reason I place decreased weight on his opinion.
- [96] During his examination in chief he elaborated on his methodology. He concluded that because there had been snow at the Farron snow survey site on April 27, "probably there was snow on the upper Brooklyn Creek watershed" and the amount would be "just about the same". He calculated the difference between the snow survey measurements taken at the Farron site on April 3 and April 27, to conclude that in that period, 105 millimetres of snowmelt had been produced. He continued: "And one thing I want to say is that, again, we made the assumption that if 105 [millimetres] of snow/water equivalent was on Farron, it's likely that it would be pretty close what it would be on upper Brooklyn Creek".
- [97] However, he continued and explained that knowing that much snow melted in the period between April 3 and April 27 was not precise enough to identify how much snowmelt there was on April 26, 2012. Since snowmelt is a function of temperature and rainfall, he looked for temperature data from the weather station closest to the watershed, which was the Nancy Green climate station. He adjusted that data to accommodate the difference in

elevation between the Nancy Green climate station and the Brooklyn Crossing. That station recorded the temperatures for each day, including April 26, 2012. He then testified:

So now we know or estimated the temperature at the upper Brooklyn Creek watershed now for those days, each day, including the 26th. So the next thing we need to do is add rainfall. Well, we couldn't use the Nancy Green rainfall because their rainfall was a combination of rain and snow, precipitation, so it didn't split it up the snow and the rain, so we just couldn't use it.

[Emphasis added.]

[98] Plaintiff's counsel asked Mr. LaCas why he did not simply use the rainfall he calculated using the radar maps. He responded:

So what we did was - it's called data pairing. So data pairing is when you have a gap in your data. So we know what the snow equivalent [at Farron] is April 3rd, and we know April 27th. So we can't use Nancy Green because it includes snow and rain. So we had to throw that one out. So we got the next closest station

And then what we did was we knew and we came up with a number a lot larger than 105 because the fact is it's not calibrated. But we know that the actual number is 105. We're trying to figure out what's on April 26.

Now, how we adjusted the data was we had 105 millimetres of snowmelts that we knew was going to occur. We end up with a larger number - and I would have to look back, but I think it's 236 and that was just with random - or not randomly. It's taking those temperatures and putting it in, but it's not calibrated, so we have to calibrate it.

So we looked at the relationship between each day after we calculated snowmelt, and then we used those relationships based on 105 and put it into the - there, so it's called data pairing

[Emphasis added.]

[99] His calculation of snowmelt based on data from the Farron station data drove his analysis. The issue was not only which equation he used. Instead, I find it problematic that he relied on a measurement of snowmelt which was taken from a clearing and assumed that represented how much snowmelt occurred in the watershed, which is a forested area.

[100] The assumed equivalence between snowmelt in Farron and the watershed was central to his methodology, to the point where it was used to reject other data. As identified above, his calculations (I infer, relying on data from Nancy Green weather station) came up with a higher number for snowmelt in the watershed, but he ignored that because he "had 105 millimetres of snowmelt that we knew was going to occur".

[101] If there are different equations used to determine snowmelt depending upon whether the area is forested or not, I would think assuming the amount of snow in a forested area is "just about the same" as the amount of snow in a clearing is problematic. The plaintiff pointed out that ought not to diminish the weight of his opinion, because if anything, the clearing,

being exposed to more sun, would tend to have greater snowmelt, meaning his calculations would be over-estimates, whereas as Mr. Millar said Mr. LaCas's calculation was perhaps 50% too low.

- [102] However, that is not the point. The issue is the reliability of Mr. LaCas's approach. I am not satisfied that he adequately justified the feasibility of using a type of "reverse calculation" to ensure his data would result in 105 mm of snowmelt in the watershed. Among other things, the higher calculations (which I infer came from calculations from the Nancy Green weather station) should have been at least subjected to some analysis as a "test" against his approach.
- [103] Combined with the comments about his unorthodox reliance on radar maps, I find his approach to calculating snowmelt in the watershed significantly diminishes the weight I attach to Mr. LaCas's opinion.
- [104] I will not review Mr. Jakob's commentary on Mr. LaCas's report because it was consistent with Mr. Millar's views, and relied on Mr. Millar's calculations of peak flow.
- [105] Based on the foregoing, I place minimal weight on Mr. LaCas's calculation of peak flow, and his corresponding evidence about what return period that represented. Given my comments about his methodology, I find his opinions are less reliable than Mr. Millar's. I place significant weight on Mr. Millar's calculations and opinions.
- [106] Accordingly, I find on a balance of probabilities that the total peak flow on April 26, 2012, was between 1.1 and 1.2 cubic metres per second, which represented a return rate close to 1:100 year.

B. Assessment of Mr. Deverney's Evidence

- [107] Mr. Deverney had a pre-existing client relationship with the plaintiff. Mr. Deverney was hired by the plaintiff in 2005 to prepare a report in support of the plaintiff's application to subdivide his properties, and years later, he was hired to undertake a bridge design. The Province submits his opinions are inherently unreliable because they are based on observations and field work that was done for professional purposes when he was a consultant hired by the plaintiff. The Province submits this has resulted in what it calls "selectivity bias" in his observations, which weakens the reliability of his opinions thereby reducing the weight the court should place on them.
- [108] It is not clear to me those factors necessarily detract from Mr. Deverney's independence to the degree asserted by the Province. However, as I explain below, I do place minimal weight on Mr. Deverney's opinions for other reasons.
- [109] I find Mr. Deverney's analysis and the content of his report suffer from a number of deficiencies. Most concerning, he confirmed in his report that he was "unable to quantify the downstream impacts" of the Debris Flood on the plaintiff's property, or the community hydroelectric and water intakes. The lack of quantification significantly decreases the

reliability of his conclusion that a majority of the sediment from the embankment which entered Brooklyn Creek did travel all the way to the lake. However, he made no attempt to do any hydrological analysis to back up that conclusion.

- [110] It was clear during his testimony and in his report that his opinion was based to a large degree on his observations that Brooklyn Creek was "undisturbed" upstream of the Brooklyn Crossing. This was a subjective description based on him merely "looking upstream"; he did not traverse that area or make any detailed notes.
- [111] He also concluded that the flume structure had been in disrepair for "some time", implying that it would not have been able to perform its function on the date of the Debris Flood, contributing to the pooling of water. However, that conclusion was based on his observation of the flume after the Debris Flood. The Province adduced evidence from Mr. Johnson that in November 2011, the flume structure was stable, in good shape and performing its function to divert the flow of Brooklyn Creek from its natural channel upstream of the rail trail.
- [112] Thus, Mr. Deverney simply assumed the flume had already been in disrepair before the Debris Flood, but he provided no explanation for that conclusion. Given Mr. Johnson's evidence that the flume was in good repair when he inspected it in November 2011, it is possible that an event subsequent to November 2011 and before the Debris Flood, or the Debris Flood itself damaged the flume.
- [113] More problematic, Mr. Deverney did no quantitative analysis to support his opinion that the cause of the Debris Flood was the accumulation of water behind the Culvert that saturated the embankment. For example, he did not turn his mind to how much water would need to pool in order to saturate the embankment nor how much saturation would cause the embankment to fail. In other words, he did not subject his conclusions to any analysis to confirm how plausible his theory was.
- [114] He also described Pup Creek as undisturbed beyond a short distance, which is consistent with his theory that the only cause of the Debris Flood was the failure of the Culvert. Again, he did not traverse that area and merely looked at it from the point where Pup and Brooklyn creeks converged. Nor did he document in any way what led him to conclude it was undisturbed. He did not address the flow capacity of the Pup Creek channel or the sediment transport capability.
- [115] In my view, his opinion as to what caused the Debris Flood is not supported by sufficient objective measures or analyses, and therefore his opinion is essentially an educated guess. For that reason, I place minimal weight on his opinion and conclusions.

C. Causes of the Debris Flood and Sediment Transport

- [116] The only expert called by the plaintiff to opine on what caused the Debris Flood was Mr. Deverney. As noted above, I place minimal weight on his opinions. However, Mr. Millar and Mr. Jakob agreed with some aspects of Mr. Deverney's report.
- [117] Mr. Deverney opined that the Debris Flood was caused by blockage or partial blockage of the Culvert because of debris being caught in the grate. He stated that the grate blocked or slowed the flow of water through the Culvert, saturating the embankment which then caused its collapse.
- [118] Mr. Millar agreed with Mr. Deverney that it is likely debris accumulation against the grate caused ponding above the crown of the Culvert, which reduced the Culvert's flow capacity by between 14% to 33%. Unlike Mr. Deverney, however, his opinion was supported by some hydrological analysis. However, Mr. Millar stated that Mr. Deverney's conclusion that the embankment fill became saturated and then collapsed was unsupported by any analysis. Mr. Millar opined that other processes such as internal erosion and soil piping may have been active and contributed to the embankment failure.
- [119] The experts also agreed that the installation of the grate at the Culvert's inlet was not part of Pennco's design. However, Mr. Millar was unaware of any regulations or practice guidelines relating to the installation of trash racks or grates. While he agreed that the grate increased potential for blockages, he opined that the "absence of the trash rack would not guarantee that blockage would not have occurred".
- [120] The experts agreed that the Culvert was not installed at the level of the original stream bed as recommended by Pennco. Mr. Deverney opined that the installation of the Culvert at the incorrect level created the potential for scour and erosion of underlying sandy soils at the outlet. However, he concluded "those defects were probably not the cause" of the Debris Flood. Mr. Millar agreed with that conclusion, again pointing out that the "susceptibility of the underlying fill material to internal erosion has not been determined, and the fill material below the [Culvert] may have been susceptible [to] piping failure".
- [121] Mr. Jakob generally agreed with Mr. Deverney's description of the Debris Flood as a "torrent of soil and water released from the [CWRT] embankment resulted in scouring to the stream channel bed, deposition of fine sediments, and loss of mature streamside timber over a distance of more than 3.7 kilometres". However, he notes Mr. Deverney did not attempt to estimate how much of the scour and bank erosion would have occurred absent the failure of the embankment.
- [122] Mr. Jakob relied on Mr. Millar's estimation of peak flow of 1.2 cubic metres per second and opined that a discharge of that magnitude "would have likely resulted in some scour and deposition, even in the absence of the [Culvert] failure".

[123] Mr. Jakob explained the terminology he used to describe the likelihood of occurrences or his confidence in various opinions or inferences. He relied on the classification of probability used by the UN's Intergovernmental Panel on Climate Change. For example, under that rubric, "likely" equates to 66% to 100% probability of the outcome whereas very likely equates to 90% to 100% probability of the outcome. While expressed as percentages, he clarified that the probabilities were not statistically quantified. The rubric helped him express his judgment and apply his own analysis to the evidence and documents he reviewed.

[124] Mr. Jakob also opined that it was "very likely that at least some sediment would have been entrained due to erosion by high water flows, regardless of the CWRT failure" in contrast to Mr. Deverney's conclusion that the disturbances he observed were not triggered by naturally high runoff flows alone. Mr. Jakob based his conclusion on the "visually observed grain size distribution and the estimated peak discharge of rain-on-snow event". He added that the peak discharge immediately downstream of the Brooklyn Crossing at the time of the Culvert failure was "likely an order of magnitude higher than the 1.2 cubic metres estimated by [Mr.] Millar" although that flow would have "attenuated prior to reaching the hydroelectric and domestic water intakes". He also opined that it is likely the total sediment load arriving at the intakes would have been affected by sediment transport from both the Brooklyn Creek sub-watershed and the Pup Creek watershed, conflicting with Mr. Deverney's opinion. He also wrote that "[a] runoff even of substantial magnitude would likely have generated some erosion and deposition along Brooklyn and Pup Creek, regardless of the CWRT crossing failure".

[125] Mr. Jakob also opined:

No more than approximately 20% of the coarse sediment load was transported past the main deposition zone at 840 m to 860 m elevation. An unknown amount was further deposited as overbank sediment and in sediment wedges upstream of the hydroelectric intake and water intake. This implies that only a small proportion of the total sediment load from the CWRT failure would have arrived at the hydroelectric and domestic water intakes.

[126] He further wrote that "[s]ediment from the CWRT failure transported further downstream than [the alluvial fan area] would likely be limited to sands and gravels, and some coarser (likely cobble and gravel) sediment entrained by channel erosion downstream of the log jams".

[127] In summary, Mr. Jakob opined the Debris Floor on April 26, 2012, was likely of substantially higher peak flow immediately downstream of the CWRT failure. Therefore, the total sediment load attributable to Debris Flood was very likely higher immediately downstream of Brooklyn Crossing than it would have been absent the failure of the embankment alone. He also opined that it is likely that fine sedimentation and gravel would have deposited in the settlement ponds for the dam and domestic water intake in the absence of the Culvert failure because of the rain-on-snow event.

[128] Mr. Jakob's report and evidence was presented in a clear manner. I did not find his cross-examination diminished the weight of any of his opinions. Also, sediment transport is one of the core areas of Mr. Jakob's expertise, and absent flaws in his approach or reasoning, that would justify placing greater weight on his opinions. For all those reasons, I find Mr. Jakob's opinions are entitled to significant weight.

D. Design of the Remediation of Brooklyn Crossing

[129] In providing his opinion on the causes of the landslide, Mr. Deverney focussed on the trash rack and incorrect elevation of the Culvert as discussed above.

[130] He stated that if an engineer had designed the remediation that was done at Brooklyn Crossing, standard practice dictated a follow-up inspection by the engineer to ensure the works conformed with the design. Mr. Millar agreed with that proposition. Mr. Waters also agreed that was the usual practice. He added, however, that in his view, a hydraulic design would not necessarily have been required for the Brooklyn Crossing.

[131] The plaintiff's position is that follow-up by an engineer would have resulted in removal of the grate. I am not satisfied that he has proven that supposition on a balance of probabilities. I do find it more probable than not that if Pennco was asked to and did conduct a follow up inspection, it would have alerted Katim that the installation of the grate did not conform with its design. However, in my view, that does not prove the grate would not have been on the Culvert on the date of the Debris Flood (see below, paras. 255 and 256).

[132] While all experts agreed the Culvert was not installed at the height recommended in the Pennco report, it is not clear to me that a follow-up inspection would have resulted in re-installation of the Culvert at the correct height. There is no evidence to support that supposition. In any event, the plaintiff's expert did not find the height of the installation contributed to the damage. However, again, I agree that Katim would have been informed that the height of the Culvert was not in conformity with the Pennco design.

[133] Mr. Deverney also opined that professional engineer's design "should be required" for high hazard sites. He then referred to a 1996 report by Dwain Boyer that commented on a "risk of failure" and "high risk of some run-out onto private land and environmental impacts to the stream and lake". He also stated that "[p]rudent practice might suggest a professional engineer's design should be required for high hazard sites, or where there is potential for adverse downstream effects".

[134] Although not stated directly in his report, the implication is that Brooklyn Crossing was an area of "high risk". However, to the extent that was his opinion, it was based on nothing other than his interpretation of some portions of Mr. Boyer's email. Specifically, he confirmed he did not conduct a risk assessment of the Brooklyn Crossing for his expert report like he had done for the plaintiff in 2005 in support of the application for subdivision.

- [135] I agree with Mr. Jakob's commentary on this aspect of Mr. Deverney's opinion. Mr. Jakob points out that Mr. Boyer's report describes only his field observations and was not a risk assessment, which would require at a minimum a "qualitative risk assessment in which the probability of the undesirable event (in this case the CWRT embankment failure) and the consequences (in this case, the sedimentation of the intake pond and a partial failure of the electric power generation) are juxtaposed". He included an example of an applicable matrix and opined it may have resulted in an overall risk assessment of low to moderate, but certainly not "very high". I prefer Mr. Jakob's analysis on this issue to Mr. Deverney's because it is analytical.
- [136] Mr. LaCas also opined that the Brooklyn Crossing remediation should have been designed by a professional engineer. The reasons he states are because there are year-round residents living downstream, the reference to the 1996 incident and a fill height of about 20 metres with no emergency outlet. However, the foundation for his opinion is not his independent analysis, based on his expertise. Instead, he refers to and relies on portions from Mr. Deverney's report. In particular, he repeats portions of Mr. Boyer's email commenting on the aftermath of the 1996 event. For that reason, I place no weight on Mr. LaCas's opinion on this point. In any event, as noted in the preceding paragraph I prefer Mr. Jakob's evidence about risk assessment.
- [137] Mr. Millar also commented on the need for involvement by a professional engineer. However, he noted that that the regulations and professional practice guidelines that existed in 2004 did not require that a professional engineer provide design for all culverts (and certainly not for those the same size as the Culvert). He also pointed out that Pennco did not recommend that Katim obtained sealed professional engineer design for its recommendations. Nor did Pennco classify the remediation as "high risk".
- [138] However, Mr. Millar did state that he believed he would have recommended a professional engineer had he been retained, not based on regulatory requirements, but based on the potential for the Culvert and/or embankment to fail.

IV. ISSUES

[139] The following issues arise:

- a) Whether the plaintiff waived any claims he had against the Province in restrictive covenants registered against his properties?
- b) If the plaintiff has not waived the claims, or not waived some of the claims:
 - i. Is the plaintiff entitled to compensation from the Province pursuant to the Water Act?
 - ii. Is the Province liable in negligence for the acts of contractors and did it have non-delegable duty; and if so, did any breach cause damage to the plaintiff's property?
- iii. Was the Debris Flood a nuisance caused by the Province?

V. WAIVER

[140] The Province's position is that the plaintiff received approval to subdivide his land and build his home conditional upon waiving the right to sue the Province with regard to damage from flooding. It submits this waiver is a complete answer to virtually all claims raised in the lawsuit. The plaintiff's position is that the waiver does not preclude any of his claims.

[141] Under the Land Title Act, R.S.B.C. 1996, c. 250, all subdivisions require the approval of the relevant approving officer. Section 86(1)(d) empowers an approving officer to require as a condition of subdivision that the applicant enter into a covenant if the approving officer "considers that the land is, or could reasonably be expected to be, subject to flooding, erosion, land slip or avalanche". That is what happened in this case. As a condition of getting approval to subdivide his property, and pursuant to s. 219 of the Land Title Act, the plaintiff entered a restrictive covenant with respect of his property along the waterfront and beside the creek, which are identically worded and contain a liability exclusion clause (the "Waiver").

[142] Specifically, the Waiver is contained in clause 3(b) of the restrictive covenant:

3. [The plaintiff] acknowledges that [the Province] does not represent to [the plaintiff] nor to any other person that any building improvement, chattel, or other structure, including the contents of any of them, built, constructed or placed on the [Waterfront Lots] will not be damaged by flooding or erosion and [the plaintiff] with full knowledge of the potential flood erosion danger and in consideration of the approvals given by [the Province] hereby:
 - a) agrees to indemnify and save harmless the Province from all loss, damage, costs, actions, suits, debts, accounts, claims and demands which the Province may suffer or incur or be put to arising out of or in connection with any breach of any covenant or agreement on the part of [the plaintiff] contained in this Agreement or arising out of or in connection with any personal injury, death or loss or damages to the [Waterfront Lots], or to any building, other structure built, constructed or placed on the [Waterfront Lots] caused by flooding, erosion or some other similar cause;
 - b) does remise, release and forever discharge the Province from all manner of actions, cause of actions, suits, debts, accounts, covenants, contracts, claims and demands which [the plaintiff] may have against the Province from and by reason of any personal injury, death or loss or damage to the [Waterfront Lots], or to any building, improvement or other structure built, constructed or placed on the [Waterfront Lots], caused by flooding, erosion or some such similar cause.

- [143] Other portions of the restrictive covenants emphasize the plaintiff's knowledge of the flood risk. One clause stipulated that the plaintiff was aware of and acknowledged there is was a potential flood danger to his land. Another clause prohibits the construction of buildings or other structures within areas outlined on the reference plan. In addition, "no area used for habitation, business or storage of goods damageable by floodwaters" could be located within a specified distance of the creek's natural boundaries.
- [144] The parties appear to disagree with respect to the appropriate analytical approach to determine the applicability of the Waiver as it relates to the Debris Flood. In my view, the analytical framework in *Tercon Contractors Ltd. v. British Columbia (Transportation and Highways)*, 2010 SCC 4, must be followed with respect to the applicability and enforceability of exclusion clauses. However, given the factual differences, *Tercon* may not provide a complete answer in this case.
- [145] The Court in *Tercon* divided (5-4) on the result, however, was unanimous on the approach with respect to exclusion clauses. Justice Binnie, in dissent, set out a three-stage analytical framework when a party seeks to be exempt from the operation of an exclusion clause (at paras. 122-23; adopted by the majority at para. 62):
- a) As a matter of ordinary contractual interpretation does the limitation clause apply to the circumstances establishing by the evidence, considering the parties' intentions as expressed in the contract;
 - b) If the exclusion clause applies, was it unconscionable at the time the contract was made; and,
 - c) If the limitation clause is valid and applicable, should the court nevertheless refuse to enforce it because of an overriding public policy, proof of which lies on the party seeking to avoid its enforcement.
- [146] It is clear, based on the plaintiff's submissions, that his position with respect to the Waiver is focused on the first stage of the *Tercon* analysis: whether the Waiver applies in the circumstances. The plaintiff did not advance any argument with respect to the Waiver being unconscionable or an overriding public policy such that the court should refuse to enforce the Waiver.
- [147] The plaintiff submits the Waiver is inapplicable for two reasons. First, the Waiver was only intended to apply to natural flooding, not the flooding in this case because the Culvert was not a natural element of Brooklyn Creek. Second, the Waiver was not intended to waive claims in negligence or nuisance, or pursuant to the Water Act. Both of these general arguments depend on the interpretation of the Waiver, as a matter of contractual interpretation.

- [148] The Court of Appeal has confirmed that covenants granted under s. 219 of the Land Title Act should be interpreted in a manner similar to the interpretation of contracts: *Deep Six Developments Inc. v. Richmond (City)*, 2003 BCCA 518 at para. 26. I did not understand the plaintiff to disagree with that basic proposition, but he disagrees with the Province about the implications of that approach as applied to the facts in this case.
- [149] The general approach to contractual interpretation was set out in *Niedermeyer v. Charlton*, 2014 BCCA 165 at paras. 24-25, citing *MacMillan Bloedel Ltd. v. British Columbia Hydro and Power* (1992), 98 D.L.R. (4th) 492 (B.C.C.A.) at para. 30, and can be summarized as follows:
- a) absent ambiguity, words in the contract should be given their literal meaning;
 - b) words of ordinary use must be construed in their ordinary and natural sense;
 - c) the paramount test is the intention of the parties; and,
 - d) the court should determine the objective intention of the parties by looking to the surrounding circumstances at the time the contract was signed.
- [150] However, the Province submits those rules of construction need not be engaged if the words of the contract (or in this case, the covenant) are unambiguous: *Progressive Homes Ltd. v. Lombard General Insurance Co. of Canada*, 2010 SCC 33 at paras. 22-23. Its position is the Waiver is clear: the plaintiff has released the Province from any type of action relating to loss or damage to his land or any improvement or structure built on the land caused by flooding or erosion.
- [151] The plaintiff submits the Waiver is inoperative against his common law claims in negligence and nuisance, and his claim under the Water Act. He relies on *Canada Steamship Lines Ltd. v. The King*, [1952] 2 D.L.R. 786 [CSS], and submits the test articulated in that case was adopted in *ITO-Int'l Terminal Operators v. Miida Electronics*, [1986] 1 S.C.R. 752 [ITO].
- [152] The plaintiff submits CSS is the guiding framework because that case addresses whether a clause waives a negligence claim. To the extent that the plaintiffs are, by implication, saying Tercon is not the appropriate analytical framework, I disagree. However, that is not so say that CSS and ITO are inapplicable, as it does not appear ITO has been overturned.
- [153] CSS articulated a three-fold test to be applied when an exclusion clause purports to waive a claim in negligence. The CSS test is (at 793-794, quoted in ITO at 794-795):
- (1) If the clause contains language which expressly exempts the person in whose favour it is made (hereafter called "the proferens") from the consequence of the negligence of his own servants, effect must be given to that provision.
 - (2) If there is no express reference to negligence, the court must consider whether the words used are wide enough, in their ordinary meaning, to cover negligence on the part of the servants of the proferens. If a doubt arises at this point, it must be resolved against the proferens

(3) If the words used are wide enough for the above purpose, the court must then consider whether "the head of damage may be based on some ground other than that of negligence" to quote again Lord Greene in the *Alderslade* case. The "other ground" must not be so fanciful or remote that the proferens cannot be supposed to have desired protection against it; but subject to this qualification, which is no doubt to be implied from Lord Greene's words, the existence of a possible head of damage other than that of negligence is fatal to the proferens even if the words used are *prima facie* wide enough to cover negligence on the part of his servants.

[154] The Court in ITO at 795, proceeded to discuss the third branch of this test, noting that it had "been the subject of much judicial comment and has given courts some difficulties". The Court said this problem has generally been treated as a "question of construction in an effort to give effect to what may be termed the reasonable intention of the parties." Further, the Court noted subsequent cases have "endeavoured to relax" the third branch of the CSS test.

[155] In addition, the Court in ITO held the CSS test had been clarified in *Lamport & Holt Lines Ltd. v. Coubro & Scrutton (M. & I.) Ltd., (The "Raphael")*, [1982] 2 Lloyd's Rep. 42 (Eng. C.A.). In *Lamport*, May L.J. said that although the approach articulated in CSS was described as a test, that is inaccurate because it was "only intended to be guidelines , and at the end of the day the duty of the Court is just to construe the relevant clause" (see ITO at 796). The third test was reformulated with the overarching caveat that this is a matter of construction (see ITO at 796-797):

whether the head of damage may be based on some ground other than that of negligence, it should discard any ground to which, on a reasonable assessment of all the circumstances at the time the underlying contract was made, it is unlikely that the parties would have addressed their mind.

Such an approach indeed underlines the fact that the exercise upon which the Court is engaged in these cases is one of construction, that it is one of deciding what the parties meant or must be deemed to have meant by the words they used; the guidelines or tests which are referred to in the many authorities are only to be used by the Courts as aids to the successful and correct solution of such exercise.

[156] More recently, Justice Gauthier aptly re-stated that clarification in *Pêcheries Guy Laflamme Inc. v. Capitaines propriétaires de la Gaspésie (A.C.P.G.) Inc.*, 2015 FCA 78 at para. 15. After stating that *Tercon* confirmed contracts must be interpreted as a whole in light of the circumstances, she said:

Consequently, the three-prong approach set out in [CSS] is a guide rather than a decisive test requiring a pre-determined result when the interpretation concerns a clause that excludes or limits liability.

- [157] The Province's position is that the CSS test has been overtaken by more recent jurisprudence, specifically *Tercon*. Although I agree that *Tercon* framework applies to all clauses that purport to exclude liability (as stated at the outset, see above, para. 145), the Court's decision does not provide a complete answer in this case.
- [158] The contract at issue in *Tercon* was a tendering contract, and Cromwell J.'s analysis, for the majority, did not turn on the nature of the claims waived, but rather the text of the clause and whether the factual circumstances at issue fell within its proper interpretation. Given the factual differences to the case at bar, *Tercon* provides more limited assistance beyond general propositions. In this regard, CSS and ITO provide some guidance.
- [159] The Province's position is that no specific words are necessary to exclude specific forms of liability. Rather, the court looks to the nature of how the parties chose to allocate risk. The Province points to *Bow Valley Husky (Bermuda) Ltd. v. Saint John Shipbuilding Ltd.*, [1997] 3 S.C.R. 1210, where the Supreme Court of Canada held that parties are allowed to allocate risk through contract, including limitation clauses like the Waiver. In that fashion, tort liability may be subject to the specific contractual wording.
- [160] In *Bow Valley*, Justice Iacobucci, for the majority, concluded the clause in question excluded liability, specifically stemming from the duty to warn, by necessary implication because the clause stated "liability shall extend only to installation" (at para. 115, emphasis in original). In addition, Iacobucci J. referred to ITO as an alternative analysis that leads to the same conclusion (at paras. 120, 122). In both *Bow Valley* and ITO, the Supreme Court of Canada concluded the clauses, and contracts, in questions excluded negligence claims in the absence of any express reference to negligence.
- [161] The Province also relies on *Antorisa Investments Ltd. v. 172965 Canada Ltd.* (2006), 82 O.R. (3d) 437 at para. 40 (Ont. S.C.J.), which stated as long as the language in the limitation clause is broad enough to exclude liability generally, the parties need not name each tort specifically.
- [162] In *Biancaniello v. DMCT LLP*, 2017 ONCA 386, the Court of Appeal considered a broadly worded exclusion clause. It held the language used was unambiguous and encompassed all claims. That case concerned a release signed to settle litigation between the parties. Some years after the release was signed, a claim unanticipated at the time the settlement agreement was signed came to light. The issue was whether the release applied to the new claim.
- [163] The dispute was between an accounting firm and one of its clients. The client had refused to pay the firm's professional fee alleging it received little value for the fees already paid, and that it incurred damages as a result of advice received. The accounting firm sued the client, but the parties settled before the statement of defence was delivered. Of the services provided that caused the dispute was the structuring of a "butterfly transaction". The release stated that the parties released each other from "any and all claims, counterclaims or defences that were pleaded or could have been pleaded" in the action they had settled.

- [164] Some years later, while restructuring, the client realized it was facing an income tax liability of approximately \$1.24 million because of the butterfly transaction. It filed a lawsuit against the accounting firm seeking to set aside the release and claiming damages for negligence, breach of contract, misrepresentation and breach of fiduciary duty. The accounting firm filed for summary dismissal and relied on the release. Its case was dismissed by the motion judge and subsequently upheld by the Divisional Court.
- [165] The Ontario Court of Appeal allowed the appeal and granted summary judgment dismissing the action. At paras. 49-50, the Court of Appeal noted that language was specific and fully understandable. It acknowledged that the wording did not specify "unknown claims" but it was not intended to release all possible claims with no limitation between the parties. The Court of Appeal found that it was effective to limit claims by subject matter and by time frame. Basically, the release was meant to cover all claims relating to the firm's professional services provided to clients during the time frame specified in the release. Therefore, the Court held there was "no need, for example, to say 'including tort claims, negligence claims, breach of contract claims, costs claims', etc. They are all included unless specifically excluded."
- [166] The Province submits that logic applies to the Waiver. The absence of the words negligence or nuisance is not determinative because the parties intended that the Province was protected from any lawsuit arising from flooding or erosion.
- [167] The plaintiff relies on the third step in CSS for the proposition that where an exclusion clause does not mention "negligence", but uses words that may be broad enough to cover negligence, the court conducts an additional enquiry. The court must consider whether those words refer to a cause of action different than negligence, and if so, the clause would not operate to exclude negligence. The plaintiff then says, implementing that approach, that the court ought to look at the whole of the covenant and surrounding circumstances to determine the parties' intent when it was signed.
- [168] The plaintiff submits the parties did not intend that the Waiver would apply to anything other than damage caused by natural occurrences, but he offers no support for this proposition other than his interpretation of the covenant. He points to clause 1 which contains his acknowledgement of the "potential flood danger" to the Waterfront lots and creek side property. He submits that must only refer to flood danger from natural hazards and not from negligence or nuisance, but provides nothing to support that statement other than the words themselves. His reasoning is circular.
- [169] Moreover, the logic behind his interpretation makes little sense. The implication is that the Province granted the right of subdivision in exchange for a waiver from being sued for things for which it probably could not be sued in any event (natural hazards).

- [170] In my view, the words of the covenant are clear and unambiguous and protect the Province "from all manner of suits, cause of actions" - whether brought in negligence or nuisance - arising from damage to property caused by flooding or erosion. As a result, even under the CSS analysis, it is clear the Waiver applies to claims in negligence.
- [171] The plaintiff claims the CSS test does not apply to his claim in nuisance, but he argues the same interpretive exercise is required to determine that issue.
- [172] While the CSS guidelines may be limited to claims in negligence, the general question is essentially the same since the starting point in both instances is *Tercon*: whether the Waiver applies to nuisance, as a matter of ordinary contractual interpretation considering the parties' intentions as expressed in the covenant (at para. 122). Accordingly, I apply the same reasoning as followed above with respect to negligence to determine whether the Waiver also excludes nuisance claims. Therefore, I conclude the Waiver also excludes liability for nuisance based on the clear language of the clause and the overall language of the covenant.
- [173] In my view, the Waiver is effective to defeat the plaintiff's claims in negligence and nuisance.
- [174] The plaintiff also submits the Waiver cannot relieve the Province of its liability under the Water Act because statutory liability can only be "contract[ed] out of" with clear and direct language: *Hunter Engineering Co. v. Syncrude Canada Ltd.*, [1989] 1 S.C.R. 426 at 449-450. However, that case was about the applicability of a statutory warranty between two private parties in relation to their commercial contract. In my view, those issues are distinguishable from those in this case.
- [175] It is worth noting that the Court in *Tercon* relied extensively on *Hunter*, including by Binnie J. when setting out the three-stage framework, although not on this point (at para. 122). The Court does not suggest that the "clear and direct" standard in *Hunter* is any different than the requirement that exclusion clauses be "clear and unambiguous" or "clear and comprehensive" as discussed and implemented in *Tercon* (at para. 73), and I am unable to conclude otherwise.
- [176] In any event, the Waiver is clear, direct and unambiguous, it excludes all claims the plaintiff may have against the Province related to damages caused by flooding or erosion. This includes claims under the Water Act, which, unlike the unknown claim in *Biancaniello*, were potential claims known (although only theoretical) at the time the plaintiff entered the covenant.
- [177] In any event, I will address the Water Act claim, and consider the negligence and nuisance claims in the event I am mistaken about the scope of the Waiver.

VI. LIABILITY UNDER THE WATER ACT

[178] The plaintiff submits he has a valid claim pursuant to s. 21(1) of the Water Act, R.S.B.C. 1996, c. 483. The Province's primary position is that the Waiver in the covenants, as discussed above, precludes liability under this statute. As concluded above, I agree, and therefore the plaintiff's claim under the Water Act is dismissed.

[179] In the alternative, the Province submits that it exercised due diligence such that it is not liable under the Water Act. The plaintiff relies on *Waterway Houseboats Ltd. v. British Columbia*, 2019 BCSC 581, for the proposition that even if reasonable care was exercised, the person who causes damage must still make full compensation (paras. 310 and 317).

[180] However, it is not clear to me that *Waterway Houseboats* or the Water Act apply to the facts in this case. Both parties acknowledged that the Water Act was repealed and replaced with the Water Sustainability Act, S.B.C. 2014, c. 15 [WSA], but submitted there were no significant changes to the wording of this provision (now s. 29). I am not sure that position is correct, as explained below.

[181] I also question the status of a claim based on legislation that no longer exists at the time the claim is pleaded.

[182] However, these statutory interpretation issues are new to the parties. They had no opportunity to address them. In light of that, I consider it would be unfair and possibly inappropriate for me to analyze the plaintiff's claim, even if only in the alternative. In order to put my comments in context, I set out below my understanding of the legislative history.

[183] Section 21(1) of the Water Act was repealed and replaced by s. 67 of the Sustainable Resource Management Statutes Amendment Act, 2003, S.B.C. 2003, c. 66, which became effective on October 23, 2003. From that date forward, s. 21 read as follows:

21 (1) The following persons must exercise reasonable care to avoid damaging land, works, trees or other property, and must make full compensation to the owners for damage or loss resulting from construction, maintenance, use, operation or failure of the works:

- (a) an applicant;
 - (b) a licensee;
 - (c) a holder of an approval;
 - (d) a person who, in accordance with the regulations or an order, makes changes in and about a stream or diverts or uses water.
- (2) Subject to subsection (1), a holder of a licence for power purpose, waterworks purpose or irrigation purpose may fell and remove any tree and remove any rock or other thing that endangers the holder's works.

[184] I note in passing that the legislation analyzed in *Waterway Houseboats* was the version that existed in 1997 and 1998 (paras. 173 and 309).

[185] In any event, the Water Act was repealed and replaced by WSA, which was enacted on May 29, 2014. Section 29 of WSA replicates portions of s. 21(1) of the Water Act:

29 (1) The following persons must exercise reasonable care to avoid damaging land, works, trees or other property of another person:

- (a) an applicant for an authorization, change approval, drilling authorization or permit;
 - (b) the holder of an authorization, change approval, drilling authorization or permit;
 - (c) a person who, in accordance with the regulations or an order of the comptroller, a water manager or an engineer, makes changes in and about a stream or diverts or uses, including stores, water.
- (2) A person referred to in subsection (1) (a), (b) or (c) must properly inspect, maintain and repair works constructed, operated or used by the person,
- (a) in accordance with any prescribed requirements,
 - (b) in accordance with an order, and
 - (c) in a manner that ensures that the works do not cause a significant risk of harm to public safety, the environment, land or other property.
- (4) A person referred to in subsection (1) (a), (b) or (c) is liable to owners of land or premises for damage or loss resulting from the construction, maintenance, use, operation or failure of the person's works.

[186] In my view, it is likely significant that s. 29 no longer contains the phrase "must make full compensation to".

[187] Section 4(2) of the Interpretation Act, R.S.B.C. 1996, c. 238, states an enactment that has been repealed and replaced ceases to have effect at the time the new legislation comes into force. Although enacted in May 2014, WSA did not come into force until February 29, 2016: B.C. Reg. 35/2016. Therefore, as of February 29, 2016, the Water Act ceased to exist.

[188] The plaintiff's original notice of civil claim was filed April 2014 and it was amended in April 2015. I do not believe either included a claim for compensation under the Water Act, and it appears that claim was added in the further amended notice of civil claim which was filed May 30, 2019. However, at that point, the Water Act no longer existed.

[189] It is in this context that I raised the issues referred to above, but upon which I make no conclusions.

VII. NEGLIGENCE

[190] The parties did not disagree on the applicable legal principles. The test for negligence has been set out by the Supreme Court in *Mustapha v. Culligan of Canada Ltd.*, 2008 SCC 27 at para. 3. To succeed a plaintiff must establish on a balance of probabilities the following:

- a) the defendant owed a duty of care;
- b) the defendant breached the standard of care;
- c) the plaintiff suffered damage; and,
- d) that the damage was caused in fact and in law by the defendant's breach.

[191] In *Cooper v. Hobart*, 2001 SCC 79 at para. 30, the Supreme Court of Canada clarified the two-stage test for establishing a duty of care. At the first stage the court asks two questions:

- a) was the harm that occurred the reasonably foreseeable consequence of the defendant's act; and,
- b) are there reasons, notwithstanding the proximity between the parties established in the first part of the test, that tort liability should not be recognized?

[192] The first enquiry relates to proximity and is focussed on factors arising from the relationship between the parties. The second question looks to policy consideration, which are extrinsic to the parties' relationship.

[193] In *Just v. British Columbia*, [1989] 2 S.C.R. 1228 at 1240, Justice Cory stated that true policy decisions are exempt from tortious claims. The rationale for that is so that governments do not feel constrained when making decisions based upon social, political or economic factors. Thus, if the government can illustrate that the alleged negligence arises out of a true policy decision then it is immune from liability: *R. v. Imperial Tobacco Ltd.*, 2011 SCC 42 at para. 59; see also *Cooper* at para. 38.

[194] The Province bears the onus of establishing a policy defence to negate a duty of care: *Carhoun & Sons Enterprises Ltd. v. Canada (Attorney General)*, 2015 BCCA 163 at para. 51.

[195] With regard to the standard of care, the law does not require any party to achieve perfection. All that is required is for a person to act in a way that is objectively reasonable and prudent considering the circumstances: *Schoenhalz v. Insurance Corporation of British Columbia*, 2017 BCCA 289 at para. 42; *Arland and Arland v. Taylor*, [1955] O.R. 131 at 142 (C.A.). Also, the existence of statutory duties is relevant, although not determinative in assessing the applicable standard of care: *Carhoun* at para. 44, citing *The Queen in Right of Canada v. Saskatchewan Wheat Pool*, [1983] 1 S.C.R. 205 at 227-228. In this case, the statute required persons "exercise reasonable care to avoid damage" and that informs the standard of care.

- [196] Finally, the plaintiff also has the burden to establish causation and in order to do so, he must establish on a balance of probabilities that the tortious conduct of the Province was necessary to bring about the damages he suffered. This requires the plaintiff to demonstrate not only a sufficient causal nexus between the tortious acts and the damage, but also that the damage was not too remote: *Clements v. Clements*, 2012 SCC 32 at para. 8; *Mustapha*, at paras. 11-12.
- [197] The plaintiff submits he is not required to prove that the Province's actions were the sole cause of the damage, only that they were part of the cause: *Athey v. Leonati*, [1996] 3 S.C.R. 458 at para. 17.
- [198] The plaintiff submits the Province was negligent in the installation, maintenance and inspection of the Culvert (the specifics of the allegations are discussed below, paras. 243-244).
- [199] In the event the Waiver did not bar a claim in negligence, which I have concluded it does, the Province's primary position with respect to the negligence claim is that it cannot be held liable for the actions of independent contractors it hired to inspect, repair, install and maintain the Culvert. In the alternative, it submits the alleged negligent acts were the result of policy decisions and therefore the Province is immune from liability. In the further alternative, it submits its actions met the requisite standard of care and no duty was breached.

A. Independent Contractors

- [200] There is no dispute that the Province did not itself install the Culvert. Together with the involvement of Katim and Pennco, White Contracting did that work. The issue is whether, notwithstanding that, can the Province be held liable for the decisions that were made about what to do?
- [201] Resolving that requires consideration of the circumstance surrounding the decisions made and the hiring of Katim, Pennco and White Contracting in light of the prevailing statutory scheme. The facts discussed earlier in this judgment (paras. 29-51) are relevant and I rely on those. In addition, the following fact are also relevant.
1. Contractual Terms
- [202] Shortly after acquiring the CWRT, Tourism BC put out a request for proposal for "Rails to Trails Project Management for Construction Improvements for the Columbia & Western Rail Trail from Castlegar to Farron". Katim was the successful bidder. As part of its successful bid, Katim set out its understanding of the "requirements of the trail and facility specifications, budget appropriations and allowable timeframes". In that context, Katim outlined, among other things, its management plan focussing on the short window for allowable work and an approach to pricing for management of the proposed project.

- [203] Katim's contract with Tourism BC was signed in September 2004. The contract required Katim to develop and schedule a construction program for the CWRT, in compliance with the project's terms of reference and environmental, safety and other concerns. Construction project management was set out in the contract to include, among others, the following:
- a) Liaise with Tourism BC on initial site and project plans and ongoing communications with other agencies including trail stewardship groups;
 - b) Prepare project plans and specifications, including budgets and timelines for review by Tourism BC;
 - c) Coordinate and monitor project schedules ensuring timely completion of work components;
 - d) Conduct mandatory site meetings and participate in bid review and construction contract award process;
 - e) Assist in the preparation of service and construction contracts;
 - f) Contract supervision and evaluation, which may include direction and supervision of hired equipment, labour, sub-trades and contractors; and,
 - g) Confirm project material estimates and costs.
- [204] In addition, Katim was required to coordinate, provide and maintain status reports to Tourism BC on a monthly basis. Katim was obliged to prepare a final report including recommendations for improvements and information on all "as built" construction and facility renovations.
- [205] Clause 4 of the contract between Katim and Tourism BC contains Katim's warranty that it is "an independent contractor and not the legal agent, employee, partner or representative" of Tourism BC. It also stated that Katim would not legally bind or purport to legally bind Tourism BC or cause it to incur liability in any manner whatsoever.
- [206] The contract also required Katim to obtain, at its own expense, comprehensive general liability insurance to insure against "bodily injury, personal injury and property damage". Katim was required to add Tourism BC as a named insured to that liability insurance.
- [207] In 2004, Tourism BC also contracted with White Contracting as an excavator/operator to carry out culvert inspection, cleaning and repairs. That work was confirmed under a "general service contract". Clause 11 of that contract required White Contracting to indemnify Tourism BC "against all claims, actions, proceedings, damages, losses, costs, expenses and liability of any kind which are based upon, arise out of or occur, directly or indirectly, by reason of, any act or omission by you except liability arising out of any independent negligent act by us".

[208] The description of services included repair and reinstallation of culverts where possible. Like Katim, White Contracting was required to have comprehensive general liability insurance against "bodily injury personal injury and property damages" and to add Tourism BC as a named insured.

2. Remediation of the Brooklyn Crossing

[209] As noted above, paras. 44-46, Mr. Waters completed a report in relation to the site visit he did with Mr. White and Ms. Johnson on November 16, 2004. The purpose of the visit was to address concerns about the Brooklyn Crossing. In that document he described its condition at that time:

The creek has been diverted from the original drainage using a small concrete dam about 100m upstream of the rail crossing. The creek is diverted into a flume consisting of a half section of 4 foot galvanized corrugated culvert. The flume is supported on round concrete footings set into a steep bank. It carries the water along the steep bank of the drainage to the rail bed where a 30 inch culvert conveys it under the grade. The water then pours out of the culvert on the downstream bank of the rail fill and down the fill slope until it reaches the original stream bed. The existing flume has been damaged in the past by falling trees and slope failure. These failures have been temporarily patched but the long-term life of this system is not very long. It will eventually fail again. In the event of a failure, the creek flow is returned to its original channel at the bottom. There is no existing culvert in the original creek bed to carry the water through the fill that supports the rail bed. It appears that this has happened in the past and the water has risen behind the fill and then percolated through the material under the rail bed. This has caused the existing rail bed to slump in places throughout this filled area. There is also evidence of some slope failure on the downstream side of the fill where the infiltrating water has broken out to the surface.

[210] Pennco's recommendation was to place a 1,000 mm culvert at the depth of the original stream channel through the rail bed fill, ending where water would be deposited onto undisturbed, original ground/bedrock. Two options were identified that could accomplish this. The first required an auger to cut through the existing fill to make room for the Culvert. The second was to move the rail bed upstream by about 25m, and place the Culvert under fill, which would be taken from the existing rail grade. The plan was that as fill would be moved to cover the Culvert, it would create a trench allowing the Culvert to direct water downstream until it reached a place of undisturbed native ground. Ditching would be provided to bring the road bed drainage to the Culvert intake. A simple drawing of this option accompanied the report.

[211] Mr. Waters was not asked and did not do any follow up and did not do any hydrological analysis in making design recommendations. He admitted in hindsight that he would recommend following up to ensure what was done on the ground complied with the design, but he did not agree that a hydrological design was necessary for that particular crossing. Mr. Waters was a junior engineer at the time.

[212] On November 23, 2004, on behalf of Katim, Ms. Johnson submitted an application to perform changes in and about a stream pursuant to s. 9 of the Water Act. The Pennco report was attached. In describing the necessity for the work, Ms. Johnson wrote in part that "volunteers continue to struggle to keep this old half culvert flume system working" and it was "obviously very unreliable". She indicated they would implement the second option from the Pennco report.

[213] It is not disputed that no written approval was provided. Instead a file note dated November 17, 2005 records that verbal approval was granted, and although no s. 9 approval was issued "the proponent completed all works under the verbal approval as noted".

3. RST's Inventory

[214] As noted earlier (paras. 27-28), shortly after Tourism BC was dissolved and its assets were transferred to the Province, the CWRT was designated as a recreational trail pursuant to s. 56(1) of the Forest and Range Practices Act, S.B.C. 2002, c. 69. That section permits the responsible minister to establish, by order, "an interpretive forest site, a recreation site or a recreation trail" unless the land is "Crown land subject to another enactment and is being administered by another minister, branch or agency of government". I was not directed to any other statutory provision or regulation that pertained to the CWRT. RST took over responsibility for the CWRT in 2011.

[215] After that designation, the Province, as represented by RST, hired SNT to inspect all structures and culverts on the CWRT. RST entered into a contract with SNT dated October 18, 2011. Among the defined services in that contract were the following:

- a) Undertake and deliver an inventory of built structures including culverts, bridges, retaining walls and any other significant built/engineered structure along the CWRT;
- b) Record and report (including photographs) on the location, description and condition of each structure;
- c) Undertake a detailed engineering inspection of any structures determined to be a potential risk to public safety, the environment or integrity of the CWRT;
- d) Identify any structures in need of immediate repair or maintenance and a basic description of required work;
- e) Recommend inspection frequency for each structure; and,
- f) Assist RST in project planning.

- [216] The contract also contained an indemnity clause that would save harmless the Province from "all losses, claims, damages, actions and causes of action [the Claims]" the Province might sustain that may arise "out of error, omissions or negligent act of [SNT] or its Subcontractors excepting always that this indemnity does not apply to the extent, if any, to which the Claims are caused by errors, omissions or the negligent acts of the Province, or its other contractors".
- [217] SNT produced for the Province a "Ledger of Trail Structures and Culverts", which was created by Richard Johnson who was hired by SNT for that purpose. With regard to the Brooklyn Crossing, he testified that he walked the length of the flume, about 40m, and noted it drained into the stream. His evaluation at that time was that the flume was in good shape and was stable, and in his view, the flow went into a culvert underneath the trail. Both the Culvert and the flume were big enough for volumes coming down the creek.
- [218] With regard to the Culvert that was installed in 2004, he noted it was a back for the flume. He observed it was under a deep fill, and that fill was a little bit lower than the rest of the rail grade. He noted the slope was consistent. He wrote that it did not appear the Culvert had been used and there was no evidence upstream of the Culvert that the creek had ever been there.
- [219] He also noted the Culvert was perched a little bit high. However, he testified that did not cause him concern and he did not recommend that RST take any action because, in his view, no maintenance was required on it since everything was in good order.

4. Were Katim and White Contracting Independent Contractors?

- [220] The Province submits the test to determine if an entity is an employee or independent contractor is set out in 671122 Ontario Ltd. v. Sagaz Industries Canada Inc., 2001 SCC 59 at paras. 35, 46-48 [Sagaz]. The Court explains the juridical policy justifying vicarious liability of employers for the actions of its employees does not exist in the case of independent contractors because the employer does not exercise supervision or the same control to reduce mistakes or accidents. At paras. 47-48, the Court discusses the factors that are relevant to distinguishing an employee from an independent contractor. Although not determinative, it is relevant that the contract itself designates that Katim was an independent contractor (Sagaz para. 49).
- [221] The plaintiff submits the Province is directly negligent by engaging contractors to do the work on the CWRT because Tourism BC supervised the work, citing Lewis (Guardian ad litem of) v. British Columbia, [1997] 3. S.C.R. 1145 at para. 17. His position is once Tourism BC "made the decision to construct the Culvert, the construction could only be carried out subject to the requirement of the Water Act".
- [222] However, the evidence in this case is that Tourism BC did not make a decision about the Brooklyn Crossing. Nor did it supervise the remediation of the Brooklyn Crossing. The evidence at trial was that the only people involved with inspecting the Brooklyn Crossing

and deciding what to do about it were Katim, White Contracting and Pennco. Tourism BC did not direct what had to be done, and it did not weigh in on whether a professional engineer ought to have been retained. Ms. Johnson confirmed she reported to BC Tourism on progress, but there was no evidence that she took instructions or direction from Tourism BC on any aspect of what was done at the Brooklyn Crossing. This is consistent with the contractual provisions discussed earlier.

- [223] The plaintiff relies on passages in *Waterway Houseboats* at paras. 327-329, where the court rejected the District of Sicamous' argument that it could not be liable for the actions of independent contractors it hired. However, the District in that case did not hire anyone for the express purpose of supervising the works, as I have found Tourism BC did. The issue considered in *Waterway Houseboats* was not the same as present before me. Therefore, the court's rejection of the District's position is not analogous to the Province's position on the facts before me.
- [224] Indeed, the whole nature of the plaintiffs' claims in *Waterway Houseboats* were different than those brought in this case. At para. 10, Justice G.P. Weatherill explained that in "its most basic form, the plaintiffs' claim is that the Province was negligent in communicating the terms and conditions of approvals issued for the Works and that the District and the McLaughlins did not construct the Works in accordance with their terms." Thus, Justice Weatherill stated that the Province's liability under negligence would be determined by first establishing "what duty, if any, Mr. Doyle (as an engineer appointed under the Water Act) owed to the plaintiffs" (at para. 185).
- [225] However, Mr. Nelson's claim is not against the Province in its capacity as regulator under the Water Act. He has not challenged the issuance of the approval to install the Culvert. His claim is brought against the Province as the successor of Tourism BC, as owner of the CWRT.
- [226] *Waterway Houseboats* does have some similarities to the facts at bar, but the claim was framed differently. The event giving rise to the claim for damages was a flood in June 2012 when a truck fell into the creek and became lodged under a bridge plugging the channel and causing floodwaters to back up. There had been a flood at the same location in 1997. In response to that, the Province funded a channel restoration project and replaced a bridge. The focus of the case was on the approvals that were eventually issued for that bridge.
- [227] Specifically, Justice Weatherill concludes that in attempting to meet the concerns of various stakeholders, the approving authority essentially capitulated and approved a design for the bridge that he knew was inadequate to meet the regulatory scheme. In effect, the court held that the Water Act engineer issued an approval despite his engineering judgment telling him it was not advisable to do so (at para. 286). The Province's liability flowed from that regulatory decision.

[228] The plaintiff in this case does not attack the approval that was issued, but instead suggests that Tourism BC as the owner and holder of an approval for changes in or about a stream ought to have insisted on an engineered design. I have concluded an engineer designed was not required at Brooklyn Crossing (see below, paras. 253). Moreover, Tourism BC hired Katim to undertake a review of the maintenance needs of CWRT, which included deciding on what type of repairs were needed. It was Katim that made decisions regarding Brooklyn Crossing. In 2011, the Province hired SNT to review all structures along CWRT and create criteria to prioritize repairs and maintenance, of which the Culvert was not one. The facts do not parallel those in *Waterway Houseboats*.

[229] This difference is more apparent when one reviews the discussion of the existence of a duty of care in *Waterway Houseboats*. The focus was on the question of whether the actions of the engineer acting under the Water Act were sufficient to establish legal proximity which, in turn, would depend on whether the alleged negligent acts were inherent in the exercise of his duties as an engineer under the statute (at para. 219).

[230] In assessing whether the plaintiff could establish whether the Province owed a duty of care, Justice Weatherill noted that both foreseeability of harm and proximity were important (at para. 203). In *The Los Angeles Salad Company Inc. v. Canadian Food Inspection Agency*, 2013 BCCA 34 at para. 40, the Court of Appeal outlined three circumstances where a relationship of proximity could be established for government actors:

First, the relationship may be created in the statute itself, although the Court cautioned that, since statutes are most often "aimed at public goods", it may be difficult to infer that the legislature intended to create private law tort duties, especially where such duties would conflict with the duty to the public and where the public duty is overarching. Next, proximity may "arise from a series of specific interactions between the government and the claimant" Finally, proximity may be found in a combination of statutory duties and interactions between the parties

[Citations to *Imperial Tobacco* omitted.]

[231] In *Los Angeles Salad Company*, the Court of Appeal concluded the federal government food inspectors did not owe private law duties of care to sellers of food products because it could not be shown the regulator did anything other than discharge its statutory responsibilities in the public interest (at para. 55).

[232] The Province in *Waterway Houseboats* argued that the plaintiffs had failed to prove that the interactions between the Province and its co-defendants fell outside its role as regulator: *Imperial Metals Corporation v. Knight Piésold Ltd.*, 2018 BCSC 1191. At para. 108 of that case, the court noted that as a general rule, regulators dealings with a regulated party when administering or enforcing a statutory scheme will not give rise to a relationship of proximity.

- [233] However, exceptions exist, which in *Waterway Houseboats*, Justice Weatherill held applied to the engineer's actions. He found on the facts before him that the engineer assumed the role of designer to a regulated party, acquired knowledge that there would be serious and specific risks for the property by the design he approved and made specific representations to the owners of the bridge that invited them to rely on those representations (at paras. 224-226).
- [234] In this case, the acts which the plaintiff allege were negligent were not performed by the Province. He submits the Province must bear responsibility for them in any event. However, in framing his submissions, he comingles Tourism BC's (and now the Province's) ownership of the CWRT with the Province's role as regulator under the Water Act and treats them as identical, or at least not separable. That is a mistake. He goes further and assumes because Tourism BC was dissolved and its assets transferred to the Province, Tourism BC is retroactively imbued with the entirety of the Province's roles and duties as a regulator under the Water Act. Both mistakes infuse the plaintiff's entire position.
- [235] In my view Katim and White Contracting were independent contractors, and therefore, the Province is not liable for any of their actions.

B. Non-Delegable Duty

- [236] The plaintiff submits regardless of the preceding analysis, the Province had a non-delegable duty, which obliged Tourism BC not only to take reasonable care, but to ensure that reasonable care was taken by its contractors: *Lewis* at para. 17. On this theory, the Province would be liable for the negligent acts of independent contractors even where the test for vicarious liability is not met. The plaintiff says this non-delegable duty arises under statute, specifically the Water Act.
- [237] The plaintiff has not alleged that the approval given for the Culvert under the Water Act was the source of the negligence; however, that approval was the only direct statutory involvement the Province had regarding the Culvert. The plaintiff's allegations of negligence against Tourism BC (and now the Province) are premised on its ownership of CWRT. However, no statute imposed absolute duties regarding CWRT's upkeep and maintenance. This distinguishes this case from *Lewis*.
- [238] In *Lewis*, the Supreme Court of Canada held, based on the language of the applicable statute, that the duty at issue could not be delegated to an independent contractor. Among the statutory provisions which the Supreme Court of Canada held created the non-delegable duty were the following: a section which stated that the minister "shall direct the construction, maintenance and repair of all highways"; a section that vested in the ministry "control of the construction and maintenance of every arterial highway", and; a section stating that the minister "has the management, charge and direction of all matters relating to the construction, repair, maintenance, alteration, improvement and operation" of highways (paras. 15, 22). These duties were absolute because the statute dictated that the

minister at all times had control over construction and maintenance of highways (para. 25). In addition, on the facts of that case, the ministry retained full control over the designation of the areas where maintenance was done, the type of equipment to be used and the specifications of various technical aspects of the project (para. 25). Similar facts do not exist in this case.

- [239] As noted above (paras. 28, 214), CWRT was designated as a recreational trail. That designation did not impose or create any duties on RST regarding the construction or maintenance of the CWRT.
- [240] Assuming only for the purpose of this analysis that the Water Act applies in the manner submitted by the plaintiff, the duties under that statute would not be imposed on Tourism BC because it owned the CWRT. They would apply because Tourism BC was a person who applied and received approval to make changes in a stream (Water Act, ss. 1, "approval", 21(1)(c)). The duties were to "exercise reasonable care to avoid damaging land, works, trees or other property" and were owed to "owners for damage or loss resulting from construction, maintenance, use, operation or failure of the works" (Water Act, s. 21). Unlike in Lewis, however, the statute does not require that the approval holder at all times direct or control the construction, repair or maintenance of the changes made in the stream. Therefore, Tourism BC was permitted to delegate those duties to independent contractors.
- [241] In my view, the duties arising from s. 21 of the Water Act (assuming they were applicable on the facts of this case) do not fall into the same category as those considered in Lewis.
- [242] Accordingly, I find that Tourism BC was not under a non-delegable statutory duty and therefore is not liable for the acts of independent contractors.

C. Causation

- [243] In the alternative, even if I had concluded that the Province could be liable for the actions of its independent contractors, I am not satisfied that the plaintiff has proven on a balance of probabilities that any of the alleged negligent acts caused the damage for which he seeks compensation. The plaintiff alleges the Province failed to do the following, which amounts to negligence:
- a) have a professional engineer inspect the Brooklyn Crossing before installing the Culvert;
 - b) have a professional engineer prepare a hydro-logical assessment and sealed design for the Culvert, and
 - c) have a professional engineer inspect the Culvert after its installation.
- [244] The plaintiff also submits the remediation work done at the Brooklyn Crossing in 2004 or 2005 was negligent in the following ways:
- a) the embankment surrounding the Culvert was badly designed;

- b) the Culvert was not installed at the depth of the original stream bed channel;
- c) the Culvert opening was covered by a grate; and,
- d) the Culvert did not have an emergency outlet.

[245] I rely on my discussion of the expert evidence above, paras. 82-138.

[246] The plaintiff argued the failure to have an engineer design the Culvert and follow up to ensure the installation conformed with the design was negligent. Although not explicitly stated in this way, I assume the plaintiff includes in that position that the failure to have Pennco follow up on its design contributed to the damages.

[247] Based on my discussion of the expert evidence, I find that while the grate contributed to the Debris Flood, the plaintiff has failed to prove on a balance of probabilities that the placement of the grate caused damage to the domestic and power intakes. I rely on the expert evidence of Mr. Jakob (paras. 121-128) that only a small proportion of sediment from the collapse of the embankment ended up in the area of the intakes. Most was deposited in the alluvial fan area, and deposited in overbanks before the intakes. Mr. Deverney opined that the Debris Flood could not be explained by peak flows only (para. 124) but I have placed minimal weight on his opinions (paras. 108 -115, and 118). Instead, I rely on Mr. Jakob and Mr. Millar's evidence, and find that the Debris Flood and resulting damage to the intakes were caused by the higher than usual peak flows overwhelming the Culvert.

[248] There was no expert evidence that the incorrect height of the Culvert contributed to the damages, so the lack of follow up for that could not be causative of the damage.

[249] For those reasons, I conclude the plaintiff has not established that even if Pennco had followed up to inspect its design and removed the grate, the damage would not have occurred.

[250] The evidence supporting the plaintiff's position that a lack of engineered design caused the damage is contained in Mr. Deverney's report (and the report of Mr. LaCas who merely relied on Mr. Deverney). I also note that Mr. Millar, while not agreeing that any regulation or practice required an engineered design, would have recommended one had he been asked to assess the site at the time.

[251] That is countered by Mr. Jakob's evidence on the issue of risk assessment in that he did not agree with the rationale underlying Mr. Deverney's opinion for the need for an engineered design (paras. 115 and 135). I also take into account Mr. Water's view (although his evidence amounts only to an observation and not expert opinion) that he did not think at the time an engineered design was required.

[252] I also rely on Mr. Johnson's evidence. In late 2011, he conducted a survey of all structures along the CWRT. SNT (an engineering firm) established the criteria that differentiated between culverts that were 1,200 mm in size or greater, and those that were smaller. The Culvert was a smaller one and was not subject to the same level of attention (I add that all

experts agreed the size of the Culvert was appropriate). Nevertheless, he did inspect it. Mr. Johnson did not identify the Culvert as an item requiring priority maintenance or monitoring.

- [253] Therefore, assessing all the evidence, I do not find that the plaintiff has proven on a balance of probabilities that the Brooklyn Crossing required an engineered design.
- [254] However, even if I had found the opposite, I am not satisfied that the plaintiff proved on a balance of probabilities that an engineered design for the Culvert would not have failed on April 26, 2012, given the peak flows. While his experts identified flaws in the construction that was done, I am not satisfied that evidence meets the plaintiff's burden. It is not enough to establish that an engineer should have designed the Culvert, the plaintiff must also show that it was that failure that was a cause of the damage. I find he has not done so. Although not determinative, he did not present evidence of what an engineer hired in 2004 to remediate the existing structure at Brooklyn Crossing would have designed.
- [255] Focussing on the grate, I agree that an engineered design would not have included the grate. I also agree that if an engineered design had been constructed, and the grate was there at the post-installation inspection, Tourism BC would have been told the grate was not part of the design.
- [256] However, it is unclear on the evidence, whether the grate would have been removed. Nor is that an inference I can reasonably draw. Among other things, neither Ms. Johnson nor Mr. Johnson indicated they were concerned when they saw the grate. Mr. Millar's evidence was that there were no regulations or practice guidelines regarding the installation of grates. Also, I am unable on the evidence at trial to make a finding as to how and when the grate was installed. Based on the evidence, I am satisfied on a balance of probabilities that neither Katim nor White Construction installed the grate, but that is the only finding I can make. Not knowing when or who installed it, I am unable to find that even if an engineered design was constructed and inspected by an engineer, no grate would have been placed on the Culvert before April 26, 2012.
- [257] Even if I had concluded that no grate would have been placed on the Culvert had an engineer designed and inspected the construction, I would not have concluded that was a cause of the damage. I rely on Mr. Millar's evidence that absent the existence of the grate, the Culvert would likely have failed. I also rely on Mr. Jakob's evidence that only a small proportion of the sediment that entered the creek because of the embankment failure, ended up in the domestic intakes.
- [258] No expert found the Culvert being installed at the wrong height caused the damage.
- [259] Thus, even if I had concluded an engineered design was required, the plaintiff has not proven the lack of an engineered design caused the damage.

- [260] The plaintiff also identified two other possible negligent acts. He submitted the embankment was "badly designed". Mr. Millar agreed with that proposition. However, I find that Columbia & Western Railway Company must have designed the embankment when the rail line was first installed in the late 1800s. Therefore, it was designed long before Tourism BC took ownership of the site.
- [261] To the extent the embankment was modified somewhat for the installation of the Culvert, I rely on my preceding discussion that the plaintiff has failed to establish on a balance of probabilities that Pennco's design, and specifically the placement of the Culvert, caused the damage. As noted by Mr. Millar, no hydrological analysis supports Mr. Deverney's theory that the blocking of the Culvert resulted in saturation of the embankment causing it to slump (paras. 117 and 118). Absent that evidence, I am unable to conclude that the design of the embankment caused the damage.
- [262] With regard to the allegation that there was no "emergency outlet", the plaintiff relies on Mr. LaCas's report. However, Mr. LaCas's opinion relies on Mr. Deverney's opinion about the mechanism of failure, which I have already discounted because it is not based on any analysis (see above, paras.105-115 and 118).

VIII. NUISANCE

- [263] The plaintiff also seeks damages in nuisance. As indicated earlier, I have concluded that the Waiver prohibits this claim (paras. 171-173). However, I also find the plaintiff would not have succeeded absent the Waiver on the facts before me.
- [264] In *Antrim Truck Centre Ltd. v. Ontario (Transportation)*, 2013 SCC 13 at para. 19, the Supreme Court of Canada set out the test for private nuisance. To succeed the plaintiff must demonstrate that the defendant interfered with his or her land in a way that was both substantial and unreasonable, considering all the circumstances.
- [265] In *Baker v. Rendle*, 2017 BCCA 72 at para. 39, the Court of Appeal emphasized that the focus of nuisance is not on the defendant's conduct, but on the harm caused. In determining liability for nuisance, a number of factors are relevant.
- [266] At para. 40 of *Baker*, the Court of Appeal quotes from *Royal Anne Hotel Co. Ltd. v. Village of Ashcroft* (1979), 95 D.L.R. (3d) 756 at 760-61 (B.C.C.A.):

The test then is, has the defendant's use of this land interfered with the use and enjoyment of the plaintiffs' land and is that interference unreasonable?

What is an unreasonable invasion of an interest in land? All circumstances must, of course, be considered in answering this question. What may be reasonable at one time or place may be completely unreasonable at another. It is certainly not every smell, whiff of smoke, sound of machinery or music which will entitle the indignant plaintiff to recover. It is impossible to lay down precise and detailed standards but the invasion must be substantial and serious and of such a nature that it is clear according to the accepted concepts of the day that it should be an

actionable wrong. It has been said, see McLaren, "Nuisance in Canada" , that Canadian judges have adopted the words of Knight Bruce V.C. in *Walter v. Selfe* (1851), 4 De G.& Sm. 315 [at p. 322], 64 E.R. 849 , affirmed on other grounds 19 L.T.O.S. 308 (L.C.), to the effect that actionability will result from an interference with

...the ordinary comfort physically of human existence, not merely according to elegant or dainty modes and habits of living, but according to plain and sober and simple notions.

These words were approved by Middleton J.A. in the Ontario High Court in *Appleby v. Erie Tobacco Co.* (1910), 22 O.L.R. 533 at pp. 535-6.

In reaching a conclusion, the court must consider the nature of the act complained of and the nature of the injury suffered. Consideration must also be given to the character of the neighbourhood where the nuisance is alleged, the frequency of the occurrence of the nuisance, its duration and many other factors which could be of significance in special circumstances. While an owner of land in a quiet residential district may well expect to be protected from the operation of a boiler factory on his neighbour's land, he may not be entitled to expect to prevent the boilermaker from pursuing his lawful calling when he seeks to put his residence in an industrial area next to the factory. The conflicting interests must be weighed and considered against all the circumstances. The social utility of the conduct complained of must be weighed against the significance of the injury caused and the value of the interest sought to be protected. But where the conduct of the defendant has caused actual physical injury to the plaintiffs' land, the mere fact that such conduct may be of great social utility, for example, construction and maintenance of a sewer, will not attract greater licence or immunity.

[Emphasis added in Baker.]

[267] When there has been physical damage to land, there is almost a presumption that the interference was unreasonable: *Tock v. St. John's Metropolitan Area Board*, [1989] 2 S.C.R. 1181 at 1192. However, the plaintiff is still required to prove that the defendant caused the nuisance: *Murray v. Langley (Township)*, 2010 BCSC 102 at para. 36.

[268] The plaintiff submits the installation of the Culvert was a sufficient act creating liability for nuisance. I disagree.

[269] It is true that liability for nuisance does not depend upon a finding of negligence, but the plaintiff's submission is based on a logical error in the reverse. There is insufficient evidence that the Culvert caused the Debris Flood absent the alleged negligence in the installation of the Culvert. The evidence relied on by the plaintiff is that the Culvert was improperly installed, not that placing a culvert at the crossing was itself a "bad design". The uncontested evidence is that the Brooklyn Crossing was in a state of disrepair and needed upgrading when Tourism BC first inspected it (see paras. 43 and 58-59). Thus, in my view, the plaintiff has not proven on a balance of probabilities that remediating the crossing caused the nuisance. In my view, that defeats the plaintiff's nuisance claim.

- [270] Nevertheless, I also consider the plaintiff's alternative position. He submits that even if the "nuisance was caused by acts of third parties or natural events in which the Province did not participate, the Province is still liable on the basis that it was aware of the risk of nuisance and failed to prevent or abate it" (emphasis added). With respect to natural events, the Province had no obligation to abate a nuisance that "existed by virtue of a natural hazard resulting from a naturally occurring watercourse": *Waterway Houseboats* at para. 380, citing *Lynds v. Runge*, 2002 BCSC 1579 at para. 52.
- [271] With respect to the acts of third parties, that overstates the test for nuisance. As noted above, the court must consider a variety of factors to determine if the defendant's interference with land was both substantial and unreasonable.
- [272] Although I prefer Mr. Haack's testimony to Mr. Nelson's regarding the pre-Debris Flood water quality and frequency of maintenance required for the domestic water and power intakes (see above, paras. 66-75), I assume without deciding that the interference with land was substantial. Nevertheless, I would still have found that the interference was reasonable.
- [273] As noted above in *Baker*, the factors to consider include the nature of the injury suffered, the character of the neighborhood, the sensitivity of the plaintiff's use and the frequency and duration of the nuisance. It is at this point in the analysis that my concerns about Mr. Nelson's credibility (paras. 67-75) are particularly significant. That is because "a measure of subjectivity exists" for the test for nuisance (*Baker* at para. 41).
- [274] The plaintiff offers two reasons why the interference was unreasonable. First, he submits that the level of maintenance of the domestic water and power intakes has increased to a frequency that is unreasonable. He also claimed there were "no problems" with water quality before the Debris Flood. He submits that those effects have occurred since 2012 and are likely to continue for decades.
- [275] As already noted, I prefer Mr. Haack's evidence to the plaintiff's on both water quality and frequency of maintenance (see para. 66). I accept that in 2012 and perhaps a few years after that, the maintenance required for the intakes was increased, but not substantially. I do not accept that the plaintiff has proven any effects from the Debris Flood will last for decades.
- [276] I also conclude that the character of the neighborhood and social utility of the Province's remediation of the Brooklyn Crossing are significant factors militating against the plaintiff's position. Mr. Nelson's property is in a remote, off the grid, community located at the bottom of a steep mountain creek system. While he contends that it is not his position that there should "never be any sediment" in the creek, his position amounts to an argument that the pre-2012 level and frequency of maintenance ought not to increase. With respect, that subjective view of what to expect when living in Brooklyn is unrealistic and unreasonable.

[277] I also note it is of some relevance that the impugned interference with his land was for the purpose of repairing a recreational trail, which is for the benefit of the public at large.

[278] Taking all those factors into account, in light of the location of Brooklyn and the geography of the watershed, I find even if the interference with his land was substantial, it was not unreasonable. For that reason, his claim in nuisance could not succeed.

IX. SUMMARY OF CONCLUSIONS AND COSTS

[279] For all the reasons explained in this judgment, I dismiss the plaintiff's action.

[280] Because the Province has succeeded, it is entitled to its costs. If there are circumstances of which I am unaware that are relevant to the issue of costs, the parties may request a brief hearing before me to address those so long as that request is made no later than 45 days after the date of this judgment.

"Sharma J."

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