



## Jewel Phillips

Lytton First Nation,  
Political Science & Philosophy  
Thompson Rivers University

### THE ENVIRONMENTAL IMPACT OF THE RAILWAY WITHIN LYTTON FIRST NATIONS

On June 30, 2021, the community of Lytton First Nations and the Village of Lytton experienced a record-breaking heatwave, known as the western heat dome. During this heatwave, the temperature reached an unprecedented 49.6°C in the daytime, marking the highest temperature ever recorded in Canada (Government of Canada, 2022). Due to this incredible heat, there was massive loss of livestock that were unable to cool themselves, as well as multiple cases of heatstroke and distress within the community that resulted in hospitalizations. At approximately 4:30 p.m. the start of a major BC wildfire was spotted and resulted in the town burning down. The fire reached a total of 83,000 hectares by the end of August (Cohen & Westhaver, 2022). During the heatwave, Canada National (CN) Railway and Canada Pacific (CP) Railway trains were running at full capacity, leading community members to speculate that the fire was started by a spark on the railway lines, which some locals claimed to have witnessed. The cause of the fire has not been officially announced, but the destruction due to this event has caused the members of Lytton First Nations to reflect on the environmental impact the railway has had on the community from the moment it was built. The railway has a lengthy track record of causing numerous environmental disasters in First Nations communities. In 2019, there were 100 reported fires attributed to rail operations, followed by 76 reported fires in 2020 (Bains, 2021).

The railway company has proven time and time again that it has no remorse or guilt, and those who benefit from it feel a sense of

power over First Nations communities. They have never been held accountable for their mistreatment of the members and leaders of Lytton First Nations. It's crucial to proactively raise public awareness about the troubling track record of the railway industry, which has caused environmental disasters in Lytton First Nations communities. Recognizing the intersection of climate change, industrial activities, and the vulnerabilities of Indigenous communities is of utmost importance. The railway company must take necessary actions, ensuring that the voices of the communities are heard, that their concerns are treated seriously, and that their rights are fully respected.

The people of Lytton First Nations have inhabited the land since time immemorial, surviving solely on traditional foods and resources. Gathering traditional foods helps maintain a healthy diet and lowers food costs for families; it is a necessary way of life for First Nations people. The rising temperatures are causing shifts in the distribution of ungulate species in specific areas (Dawe & Boutin, 2016). These ungulate species serve as a primary source of meat protein for the Thompson-Nicola region. However, the increased frequency and severity of wildfires have adversely impacted the habitats of these vital ungulate species. This, in turn, has further compounded the food security challenges faced by First Nations communities due to climate change.

During the summertime, harvesting Indian celery, wild potatoes, asparagus, and saskatoon berries in the valley constitutes the traditional method of food collection for the Lytton First

Nations. Asparagus typically thrives along riverbanks. Notably, both railways (CN and CP) run alongside the same rivers. During the summer months, the railway company employs pesticides and herbicides to mitigate the risk of fires. However, these pesticides can be highly toxic for consumption by both humans and animals. The railway company regularly applies these pesticides to asparagus patches each year, accompanied by the placement of warning signs in the treated areas. However, there are multiple locations where these warning signs are conspicuously absent. This absence can lead residents to unknowingly harvest asparagus that may have been adversely affected by the spraying. Distinguishing whether the asparagus has been sprayed is challenging through visual inspection alone, which can lead community members to inadvertently harvest toxic asparagus. Meanwhile, these pesticides can permeate the soil, ultimately finding their way into the waterways to damage soil. In 2017, the Canadian National Railway was found guilty of spraying pesticides and herbicides along the Skeena River, leading to a fine of \$2.5 million: “a charge of violating the Fisheries Act by using pesticides in or around waters frequented by fish” (The Canadian Press, 2021). CN was then added to the Environmental Offenders Registry for their impact on fish through the use of pesticides and herbicides.

The largest impact on the salmon in Lytton First Nations was in 1912 when the railway was building a second track on the other side of the river. The government was determined to finish the track within 3 years, which led to the use of dynamite that caused falling rock (Roden, 2021). They were frantically working, drilling, and blasting the land without proper assessment. It was documented that “numerous railroad workers lost their lives in the dynamite explosions, and their lifeless bodies were observed floating downstream in the river” (Meggs, 1991, p. 90). Additionally, following the explosions, a group of 64 men attempted to escape on a raft but tragically never reappeared alive. The salmon loss resulting from the Hells Gate explosion endured for three generations (Pacific Salmon Commission, n.d.). The explosion rendered the river impassable for salmon, leading to a period of famine (Meggs, 1991). The Nlaka’pamux people from the area tried everything they could to help the fish: they even used

traditional dip nets to carry salmon from one side of the rock to the other (Haugen, 2022). The area is now named the Hells Gate slide as it was the greatest single environmental disaster in the province’s history; officials covered up the magnitude of this disaster. Fishing continued, although the fish were unable to spawn. When the decline in fish became noticeable, officials attempted to eliminate Aboriginal fishing rather than try to fix the slide’s effects (Meggs, 1991). The need for another railway to enter the area was questioned. Still, politicians and advocates saw the railway as an economic opportunity as they had \$21,750 per kilometer and tax-free status as long as the railway was built by July 1, 1914 (Meggs, 1991). The workers were dedicated to reaching the timeline, but road gangs were unable to keep up with the amount of work that had to be done, which led to them breaking the law and blowing debris directly into the rivers. At that time, railway workers primarily consisted of immigrants and Indigenous men. 4,000 of these workers were compelled to subsist on rations and received such meager wages that they couldn’t even afford the train fare home. One anonymous worker expressed a disturbing sentiment, stating, that “Men were considered cheaper to the contractor than timber that could have prevented the rockfall responsible for the accident. If the railway thought so little of men, then the salmon which swarmed the Fraser each fall must have seemed inconsequential indeed” (Meggs, 1991, p. 92). The Canadian Northern Railway (CNOR), a federal railway company, denied any responsibility for the previous landslides. However, they continued blasting, which led to another massive landslide at Hell’s Gate, resulting in half of the mountainside collapsing into the river. During this time, the Indigenous people had used their dip nets to carry an estimated 16,500 sockeye and 850 spring salmon that autumn (Meggs, 1991). The major decline in salmon after the Hell’s Gate slide led to the Pacific Salmon Treaty Act, as Canada needed funds from the United States to help recover fish migration patterns (Evenden, 2000). Canada and the United States have been working together and splitting the cost of the Hell’s Gate recovery resulting in \$1.47 million in total funds (Pacific Salmon Commission, n.d.). The Hell’s Gate slide has had the biggest impact on fish and is still an unfishable area to the Nlaka’pamux. Councilor

John Haugen (2022) states that “there was nothing worse than this moment for our salmon.”

The Canadian Railway continued to assert its dominance through the decades. This became very prevalent, as seen through first-hand experience, when CNR began blasting to make room for the twin track without consultation or warning to the leadership of Lytton First Nations, including Chief Ruby Dunstan and the Nlaka’pamux Nation Tribal Council (NNTC). The twin tracking events took place throughout the 1980s, and during this time, environmental impact assessments were not being done, only geological assessments (J. Haugen, personal communication, March 9, 2022). Failure to assess the blasting led to erosion in the area, resulting in a grave site in Indian Registry (IR) 26 falling into the river. CNR tried to put structures to hold the grave site up, but they were unable to keep up with weather events (J. Haugen, personal communication, March 9, 2022). CNR has never acknowledged what they have done to the families impacted in IR 26, and it remains a sensitive topic for the community of Lytton First Nations (J. Haugen, personal communication, March 9, 2022). Chief Ruby Dunstan opposed the twin track, stating:

“They never saw us as real people who could think for themselves, they do not have a good track record of working with LFN. They destroyed our fishing trails, our farming lands, they impacted our fish, and took our land because they believed they had the right to.” (R. Dunstan, personal communication, January 26, 2022).

Lytton First Nations members never felt heard or respected by railway representatives; they knew the railway’s history and the threat they posed to the land and water. The court cases for the twin tracking events took place over the course of 10 years. LFN and NNTC used many resources and spent approximately \$1 million to pay for court fees, including lawyers and travel expenses. CNR tried to exhaust LFN and NNTC’s finances by dragging the trials out and having Nlaka’pamux leadership travel across Canada for court. CNR’s lawyer at the time had full belief that the railway was more dominant than the Nlaka’pamux as he went to a community meeting in Lytton and stated in the middle of a meeting “I just want to remind you people that CN is next to god and that we

own part of this land too” (R. Dunstan, personal communication, January 26, 2022). The lawyer

who came into the community created a mass upset in the nation and this lasting disrespect has stuck with the community to this day. A CNR representative also mentioned the same statement that CN was “next to god” in court, which can be found in the Supreme Court records (R. Dunstan, personal communication, January 26, 2022). The statement that the CNR representatives believed their company was next to god showed that they unequivocally believed in their dominance over First Nations communities and were confident that they would win in the Supreme Court of Canada. At this moment, the twin track is the longest-standing injunction in the commonwealth which protects Nlaka’pamux fisheries (Nlaka’pamux Nation Tribal Council, 2023).

On July 31, 2006, a CPR coal train fell into the Thompson River in Lytton. According to the incident report, there were a total of 20 train cars that derailed, with 12 of them falling into the river, carrying 120 tons per car (Government of Canada, 2017). The BC government claimed that the environmental impact of the coal train falling into the river was minimal. At the same time, Lytton First Nations was put on a “no consumption” advisory where no members were allowed to fish

**“The railway company has proven time and time again that it has no remorse or guilt, and those who benefit from it feel a sense of power over First Nations communities. They have never been held accountable for their mistreatment of the members and leaders of Lytton First Nations.**

**The railway company must take necessary actions, ensuring that the voices of the communities are heard, that their concerns are treated seriously, and that their rights are fully respected.”**

**- Jewel Phillips**

through the rest of the season (British Columbia Ministry of Environment, 2006). Haugen states that after the railway had assessed the situation, they told LFN leadership that the water would clean itself. When members were told they were not able to consume the fish for the remainder of the summer due to the fish being exposed to toxic chemicals, it caused food insecurity. Many Indigenous members use preservation through freezing, canning, wind drying, and smoking to save the fish throughout the winter months. The train derailment also resulted in the rafting companies shutting down, and as these companies created many job opportunities for members, with their closures many individuals lost their livelihoods. Only four days after the coal train derailment, nine CNR train cars carrying grain went off the tracks. The report showed “the train was at a track interchange when the accident occurred.” According to Moreau (2006), “Dan Holbrook of the Transportation Safety Board of Canada said the train was switching from one track to another rarely used track avoiding a track blocked because of a Canadian Pacific derailment earlier that same week.” The railways concluded that it was an accident. Just a month before the CPR train cars fell in the Thompson, two CNR employees died in an accident when a car went off the tracks and fell down the mountainside just north of Lytton (Moreau, 2006). The railways have a long history of unsafe actions solely to continue the transfer of goods from one place to another, and once an accident does happen, those in power work diligently to smooth it over in the media and cover up the detrimental effects it has on those living in the area. All the train derailments occurred within two months of each other and were only recorded in the Lytton area. The railways continue to operate dangerously as they are not concerned about the well-being of employees, communities, and the land.

Haugen and Dunstan can both recall approximately three fires in Lytton that were started by the railway and stated that the railway had failed to acknowledge any of them. The only time the railway has been held accountable for creating a wildfire was in 2016, when a spark from the train turned into a wildfire that burned throughout the west side of Lytton through to the end of August. Sixteen homes were put on evacuation order and although the

houses survived, many families were impacted as barns, farmland, watersheds, and irrigation systems all burned down. Dunstan says her family has had to rebuild their barn three times, each time losing all the hay they had worked hard to obtain during the summer. This hay is crucial for providing her family with finances. Chief Ruby Dunstan, along with her daughter and a police officer, were all witnesses when the railway sparked on South Spencer Road on the west side of Lytton in 2016. The police officer used his radio to inform the CNR employees. Dunstan said the employees laughed and said, “yeah right” when told their train car started a fire. This moment led to a 17 hectares wildfire (R. Dunstan, personal communication, January 26, 2022) but CNR denied all responsibility for starting the fire. Haugen states that the 2016 wildfire court case went on for many years before it was announced that CNR was guilty. However, in December 2022, the BC Supreme Court predominantly upheld a ruling, resulting in Canadian National Railway being obligated to pay a sum exceeding \$16 million due to their involvement in a wildfire that endured for several months in the vicinity of Lytton in 2015 (Lindsay, 2022). This legal decision aligns with the provisions of BC’s wildfire regulations, specifically outlined in Section 5 of the BC Wildfire Act. According to this section, individuals, excluding those engaged in industrial activities, are generally prohibited from igniting, fueling, or using open fires in forest or grassland areas or within a 1-kilometer radius of these areas. Furthermore, Section 6 of the Act stipulates that individuals conducting industrial activities must carry out these activities in a manner and at a time that reasonably prevents the initiation of fires. If a fire does originate within or near industrial activities, those responsible are bound by mandatory duties as specified in the Act.

Haugen emphasized the significant financial strain that wildfires impose on communities and services given the extensive efforts required to control and manage such fires. This financial responsibility is underscored by the law. Given that railway companies are multibillion-dollar enterprises, they bear the responsibility for covering the costs associated with destruction resulting from incidents for which they are at fault.

The community of Lytton First Nations

feels their relationship with the railway has been unequal since the railways seized the land without consultation, and CNR and CPR continue to build without consent. Our people are angry; our people have reached a point from which there is no coming back. Lytton First Nations has never seen any compensation from the railways for using LFN's unceded lands and profiting from their destruction. The railway tracks are situated on both sides of the town, causing the town to vibrate when trains pass by throughout the day. These trains are exceptionally noisy, leading to issues of noise pollution and disruptions. Sound levels exceeding 55 decibels and those within the 65 to 75 decibel range induce physical stress on the body, contributing to conditions such as high blood pressure, cardiovascular disease, and heart attacks (Berglund et al., 1999). However, in Canada, the average noise level produced by passing trains can reach as high as 85 decibels (Lucas et al., 2017). Railway employees have been observed entering properties, cutting fences, damaging fishing trails, and tampering with irrigation pipes (R. Dunstan, personal communication, January 26, 2022). Dunstan says that "I try not to, but I feel a lot of animosity towards the railway, they have taken everything, and we lost everything." Lytton's leadership have tried to build a relationship with the railway's representatives. Haugen mentions it is hard to see the result when you rarely get a response. The Nlaka'pamux people will remain on their land and will continue to stand up against industry to protect the lands and fish. They will continue to work toward an equitable relationship with the railways. CNR and CPR have a long way to go before there is progress toward reconciliation with the First Nations peoples in the Nlaka'pamux territory. We will be here when they are ready to take responsibility.

## References

- Bains, C. (2021, July 15). Lytton, B.C. fire a wake-up call for railway safety during extreme heat: TSB head. CTV News, Vancouver. <https://bc.ctvnews.ca/lytton-b-c-fire-a-wake-up-call-for-railway-safety-during-extreme-heat-tsb-head-1.5510304>.
- Berglund, B., Lindvall, T., & Schwela, D. H. (1999). Guidelines for community noise. World Health Organization. <https://www.who.int/publications/i/item/a68672>.
- CBC News. (2006, August 1). Coal train derails in B.C. Interior. CBC News. <https://www.cbc.ca/news/canada/british-columbia/coal-train-derails-in-b-c-interior-1.607918>.
- Cohen, J., & Westhaver, A. (2022). An examination of the Lytton, British Columbia wildland-urban fire destruction: Summary report to the British Columbia FireSmart committee. Institute for Catastrophic Loss Reduction. <https://firesmartbc.ca/wp-content/uploads/2022/05/An-examination-of-the-Lytton-BC-wildland-urban-fire-destruction.pdf>.
- Dawe, K. L., & Boutin, S. (2016). Climate change is the primary driver of white-tailed deer (*Odocoileus virginianus*) range expansion at the northern extent of its range; land use is secondary. *Ecology and Evolution*, 6(18), 6435–6451. <https://doi.org/10.1002/ece3.2316>.
- Evenden. (2000). Remaking Hells Gate: Salmon, Science, and the Fraser River, 1938-1948 . *BC Studies*, 127. <https://ojs.library.ubc.ca/index.php/bcstudies/article/view/1538>
- Government of British Columbia. (n.d.). Past spill incidents. <https://www2.gov.bc.ca/gov/content/environment/air-land-water/spills-environmental-emergencies/spill-incident/past-spill-incident>.
- Government of Canada. (2022, June 26). Surviving the heat: The impacts of the 2021 western heat dome in Canada. <https://science.gc.ca/site/science/en/blogs/science-health/surviving-heat-impacts-2021-western-heat-dome-canada>
- Government of Canada, T. S. B. of C. (2017, February 23). Railway Investigation Report R06C0104. <https://www.tsb.gc.ca/eng/rappports-reports/rail/2006/r06c0104/r06c0104.html?wbdisable=true>
- Lindsay, B. (2022, December 29). Court confirms CN is on the hook for \$16M for starting B.C. Wildfire. CBC News. <https://www.cbc.ca/news/canada/british-columbia/court-confirms-cn-is->

on-the-hook-for-16m-for-starting-b-c-wildfire-1.6700095.

Lucas, P. S., de Carvalho, R. G., & Grilo, C. (2017). Railway disturbances on wildlife: Types, effects, and mitigation measures. In *Railway Ecology* (pp. 81–99). Springer International Publishing. [https://doi.org/10.1007/978-3-319-57496-7\\_6](https://doi.org/10.1007/978-3-319-57496-7_6)

Meggs, G. (1991). *Salmon: The decline of the British Columbia fishery*. Douglas & McIntyre.

Ministry of Environment. (2006, August 3). Lytton incident information update. [https://archive.news.gov.bc.ca/releases/news\\_releases\\_200-2009/2006env0068-001012.htm](https://archive.news.gov.bc.ca/releases/news_releases_200-2009/2006env0068-001012.htm).

Moreau, V. (2006). Two trains derail in one week near Lytton. *Pique Newsmagazine*. <https://www.piquenewsmagazine.com/whistler-news/two-trains-derail-in-one-week-near-lytton-2473665>.

Nlaka’Pamux Nation Tribal Council (NNTC). (2023, June 8). Nlaka’Pamux Nation Tribal Council. NNTC. [https://nntc.ca/Pacific\\_Salmon\\_Commission\\_\(n.d.\).\\_Our\\_history.\\_https://www.psc.org/about-us/history-purpose/our-history/](https://nntc.ca/Pacific_Salmon_Commission_(n.d.)._Our_history._https://www.psc.org/about-us/history-purpose/our-history/).

Roden, B. (2021). A history of Lytton, from First Nations to the gold rush to disastrous fires. *Victoria News*. <https://www.vicnews.com/news/a-history-of-lytton-from-first-nations-to-the-gold-rush-to-disastrous-fires-87623>.

The Canadian Press. (2021, September 16). CN fined \$2.5 million for spraying pesticides near the Skeena River in B.C. *CBC News*. <https://www.cbc.ca/news/canada/british-columbia/cn-pesticide-fine-bc-1.6178672>.