

A report on the social and health impacts of industrial noise from the Donkin Coal Mine in Cape Breton,

Nova Scotia



Thater P!

Community Report #1

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## **Executive Summary**

### Why did we do this study?

For over one thousand days, residents of Port Morien and the surrounding areas have been exposed to industrial noise emitted in the process of ventilating methane gas from the Donkin Coal Mine. This study illustrates the direct and cumulative impacts of this noise on the personal health and wellbeing of the community, as experienced by community members themselves.

#### Who participated?

A cross-section of people living in and around Port Morien who self-identified as being impacted by the industrial noise from the mine.

#### What was done?

We conducted eighteen one-on-one semi-structured interviews. Five open-ended questions were developed in consultation with a small group of community members impacted by noise. All conversations were recorded and then transcribed. Names and other identifying information were removed to ensure confidentiality.

#### What was found?

Industrial noise has adverse effects on the personal health and collective wellbeing of the community; experiences of the noise have become more intense and debilitating over time. In this report, we weave together data from the interviews to illustrate the following themes:

1. The industrial noise is linked to sleep loss and deteriorating mental and physical health.

- The industrial noise erodes quality of life, and many change their daily routines and develop (mostly ineffective) coping strategies to evade the sound.
- Indifference and inaction from many elected officials, and the failure of the mine to adequately address the noise, has pushed the community into a state of exhaustion and despair.

## What do the findings mean?

The findings show that community members have been treated as if they are disposable and less important than the coal mine that is in their backyard.

#### What's next?

This report makes six recommendations on how to address the industrial noise and restore the personal and collective wellbeing of the residents in the Port Morien area:

- 1. Stop the noise
- 2. Make a more realistic and honest assessment of the situation
- 3. Invest in people; repair the community
- 4. Invest in a green transition
- Honour the treaties
- 6. No more sacrifice zones in Cape Breton

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For too long, too many Islanders have been faced with impossible choices: leave to find a good job and build a life elsewhere or stay and accept that any job is a good job, and that even a bad one can serve good ends

### Background

Port Morien, a seaside village of approximately 700, has a problem. For more than one thousand days, residents have been exposed to industrial noise emitted in the process of ventilating methane gas from a nearby underground coal mine.

Nestled between cliffs and ocean, Port Morien is situated on the southeastern side of Cape Breton Island. It is an extension of mainland Nova Scotia, connected only by a causeway. It is a place well known for its culture and beauty, especially its Celtic music festival and the famous Cabot Trail. Remote, sparsely populated, lean in public infrastructure—qualities that instill in its population a certain kind of toughness and self-reliance.

Life in Port Morien has not always been easy. Families and communities in this part of the world have been strained and subject to broader destabilizing forces for the better part of the last century. Generations have survived economic cycles of boom and bust – and collapse—on the island. Out migration has been a constant and undermining force. Kate Beaton explains in her best-selling graphic novel, *Ducks: Two Years in the Oil Fields*, "Every Cape Breton family has had its share of empty chairs around the table, for a hundred years. Fathers, siblings, cousins; gone to 'the Boston States,' gone to Ontario, gone to Alberta—gone to be cheap labour where booming industries demand it." For too long, too many Islanders have been faced with impossible choices: leave to find a good job and build a life elsewhere or stay and accept that any job is a good job, and that even a bad one can serve good ends.

And like any place, tensions and differences of opinion have existed in Port Morien. But as far as cultivating opportunities for belonging and togetherness, it is challenging to think of another place that has so often fitted these words. Pitching-in and helping-out is a way of life. This village was once awarded Nova

Scotia's Lieutenant Governor's Community Spirit Award. There is a bustling social calendar, annual events that ebb and flow with the changing of seasons. Teas, concerts, plays, sport events, festivals, markets. A social fabric sewn with arts, literature, music, recreation, and a beer or two at the local Legion. Many residents are now seniors, having devoted years and years to this place. The only elementary school was closed in 2017 due to low enrollment, and that was a blow. But the community rallied, as it often has. People recently got to work on making the beach more accessible; a local association fundraised \$100,000 for the project.

Port Morien, it must be said, is no stranger to coal. Shared public memory is punctuated by historical facts of an industrial past. This region has been shaped by centuries of exchange and conflict among the Mi'kmaq of Cape Breton and French, British, and later, Canadian settlers and other visitors. Gradually, a political economy of extractive industries was built here upon European imaginations of a hostile frontier and empty land. In 1720, the French first mined coal in the area in order to supply their garrison at Louisbourg. By 1724, coal was being exported to Boston, Massachusetts. Ownership of the mine changed hands between the British and the French multiple times. Later, the area would be home to the Gowrie Mine, a privately owned operation run by the Archibalds, a family of industrialists from North Sydney. Fishing, boat-building, and military service are elements in this story, too. So are unions. And poets.



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And perhaps it is exactly the weight of this industrial past, and the way that memories of it—good and bad—are passed down that makes Port Morien's current hardship so vexing. People here grew up with coal. If not in Port Morien, then they grew up somewhere nearby where coal mines also existed. Generations upon generations of men toiled underground. Lots of others, above ground, supported them. Understandably, some nostalgia can enter the conversation when people speak about their father, grandfather, uncles, brothers, and cousins who were coal miners. "Men of the deeps." Several participants in this study made it clear: they are "not anti-coal or anti-job." They simply want the noise to stop. Fair enough.

Dearn's Corner—a nearby store and lunch spot on the Donkin and services, including truck drivers and small businesses, like employed, and many more indirectly worked in supporting roles generous estimates suggested about 150 workers were directly number of people employed at the mine.xii In the fall of 2019, Post, observed it's always been difficult to gage the exact generation and metallurgical coal for steelmaking. Writing in six others died in a helicopter crash in the Bahamas in 2019.) the site could be earning \$500 million annually.™ (Cline and billionaire owner, Chris Cline, suggested that within a decade Group, re-opened the Donkin Mine in 2017. The then American Kameron Collieries, a subsidiary of the U.S.-based Cline community to assume it would be business as usual when So, it was conceivable, reasonable even, for most in the 2020, Sharon Montgomery-Dupe, a reporter for the *Cape Breton* The mine produces "swing" coal; thermal coal for power

But things did not go as most in the community had hoped. Cloe Logan's investigative reporting for the *National Observer* offers a grim portrait of the mine's labour conditions. From the get-go, the jobs were precarious. The company used anti-union tactics and employed a temporary foreign worker (TFW) program that brought in American contract workers and then paid them higher wages for the same work. You operations halted completely in 2020 due to adverse geological conditions and a provincial stop-work order. 12 roof falls, a methane fire, 152 warnings, 119 compliance orders, 37 administrative penalties and several other provincial stop-work orders accumulated in about

three years.<sup>XVI</sup> Though some of these infractions would be minor, Logan's reporting points to a deeper and troubling work culture full of risks, danger, and pay-based performance incentives designed to push extraction to the limit.<sup>XVII</sup> This operating philosophy is not new to coal mining; a similar philosophy was highlighted in the official public inquiry into the 1992 Westray mine disaster in Pictou, Nova Scotia, where 26 men perished in an underground explosion.<sup>XVIII</sup>

Due to adverse geological conditions, Kameron Coal shifted the mine into a "care and maintenance" state in March 2020. The equipment was never removed; a skeleton crew de-watered and maintained the site.\*\* Day and night, night and day, the ventilation system kept this mine viable by releasing methane, a greenhouse gas that builds up in the process of mining, into the atmosphere. Through this period, and in response to an outpouring of grievances from some in the community, the mine attempted to fix the noise that had become the hallmark of its operation. An industrial muffler system was installed in February 2022; it was supposed to dampen the noise and restore peace and quiet.\*\* But for many, attempts to solve the problem only made it worse.

view, arguing the reopening was "good for Cape Breton." \*\* And newspaper, published about a week later took the opposite editorial in the Cape Breton Post by called the re-opening earned "a royalty of just \$1.20 per tonne" of mined coal. xiii emitter in the province" and that the provincial government com, recruiting "at least ten fulltime underground workers," coal- reaching \$397 U.S. per tonne in July, heights not seen more obvious. The war in Ukraine had driven up the price of the ventilation system droned on. the reopening, noting the mine was "likely the largest methane Atlantic Canada released an official statement condemning with plans to ramp up the workforce.xii The Sierra Club of in recent memory.xxi The mine began advertising on Indeed 2022; it is hard to know exactly when. The "why," however, is Production of coal at the Donkin Mine resumed in early fall of "generational mistake." xxiv Another editorial, in the same



Day and night, night and day, the ventilation system kept this mine viable by releasing methane, an invisible greenhouse gas that builds up in the process of mining, into the atmosphere.

### This Report

This report illustrates the direct and cumulative impacts of industrial noise from the Donkin Mine on personal health and collective wellbeing of the Port Morien community. The aim is to develop data that goes beyond individual accounts of the adverse effects of industrial noise towards a more comprehensive understanding of the issue. Such knowledge is a core component of effective policy-making and governmental action that aims to reduce, and more importantly, prevent exposure to health-compromising environmental factors.\*\*

Instead of focusing narrowly on facts and numbers, this report highlights compelling aspects of personal experience. Too often, first-hand experiences of industrial noise are marginalized in public debates and scientific discussions. This pattern is not limited to an academic or policy contexts. Auditory distress is also often dismissed by friends, family, and health practitioners, despite its profound and transformative nature.\*

We elevate the voices of community members. At the same time, we resist an analysis that would dislocate their stories, ones encompassing harm, suffering and loss, from a larger social context. From this vantage point, we hope to respond to local issues without losing sight of wider frames of reference. This report concludes with six recommendations that show how decision-makers and public officials might address the noise and restore health and wellbeing in the community.



# Industrial noise and the Donkin Mine

As noted in Stantec Consulting Ltd's *Environmental Noise Measurement and Assessment Report* (2022), the Donkin Mine has two ventilation fans, though only one operates at any given time.\*\*\*

The fans are the primary source of the industrial noise and its distinguishing feature of low-frequency tones, which is produced as air rushes past fan blades.\*\*\* Audible low frequency tones register between 20 and 200 Hz. Lower frequencies have physically larger wavelengths than higher frequencies and tend to travel longer distances. Unlike higher frequencies, lower frequencies are less impacted or changed by the physical presence of buildings, hearing protection or other types of physical barriers.\*\*\*

According to the World Health Organization, everyday sounds become noise when they are unwanted or harmful.\*\*\*\* Chronic exposure to noise is widely recognized as hazardous to one's physical and mental health and wellbeing.\*\*\*\* Low frequency noise is common but less studied, principally because our auditory systems are relatively less sensitive to low frequencies. The studies that do exist illustrate that low frequency noise can cause great physical discomfort and non-auditory effects over time.\*\*\*\* Not everyone experiences low-frequency noise in the same way. Sensitivity is shaped by personal, contextual, and cultural factors, including the volume, frequency, and duration of the sound.\*\*\*

When low frequency is experienced in residential settings, people have often described it as a "constant, deep and humming/rumbling sound" that may be perceived through ears or through bodily experiences, often in the head and chest. \*\*\* Most scientific studies agree that prolonged and daily exposure to low frequency noise is associated with annoyance and linked to a variety of adverse health outcomes.\*\* This includes neurological symptoms (e.g., sleep issues, headaches, difficulty in concentrating), speech intelligibility, respiratory impairment, and aural pain.\*\*

Research also suggests that exposure to disturbing repetitive noises (e.g., a ticking clock in a quiet room or tinnitus) are linked to conditions such as hyperacusis (an extreme sound sensitivity) and misophonia, where everyday sounds trigger feelings of rage or panic.\*\*\*\* These conditions permit fixation and create distress, even if the sound is not present. The listener's auditory system is activated and anticipates the sound's return.\*\*\*\*\*\*

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# Summary of Methods

information have been removed to ensure confidentiality. process of writing up this report. Names and other identifying Researchers also solicited feedback from the community in the the transcripts, pulling out patterns and major themes. amended their transcripts. Researchers then read and reread opportunity to add or remove information. Two of eighteen transcripts were shared, and participants were offered the to strengthen trust between researchers and the community, transcribed by two research assistants. To ensure accuracy and All conversations were recorded with permission and then phone. Discussions ranged from twenty minutes to two hours. were conducted in person, with a few taking place over the and then tested through a pilot interview. Most interviews developed in consultation with several community members conducted all the interviews. Five open-ended questions were its surrounding areas. Sarah, the first author on this report, reflected a cross-section of people who live in Port Morien and networks of several community members. The final sample Ethics Board, participants were recruited through the personal receiving approval from the Cape Breton University Research interviews that were conducted in the summer of 2022. After Data for this report is drawn from eighteen one-on-one



#### Findings

Overall, our findings show that industrial noise has adverse effects on the personal health and collective wellbeing of the community, and that experiences of the noise have become more intense and debilitating over time. We draw your attention to three main themes that emerged from the data.

#### Theme 1:

Sonic suffering, sleep loss, and deteriorating physical and mental health

#### Theme 2:

Coping strategies, changing habits, and declining quality of life

#### Theme 3:

Government inaction and an exhausted community

[...] many participants had similar stories about the noise entering their homes and settling in their bodies. Sometimes people said it felt like a weight, an ache, or a tension that became lodged in their jaws or ears or chest.

### Theme 1

Sonic suffering, sleep loss, and deteriorating physical and mental health

Consistent with the larger literature on aural harm, not everyone experienced the industrial noise in the exact same way. However, many participants had similar stories about the noise entering their homes and settling in their bodies. Sometimes people said it felt like a weight, an ache, or a tension that became lodged in their jaws or ears or chest. For example, one person explained "It's in my head all the time" while another said, "...[the] walls seem to vibrate. Sometimes I almost feel like my teeth are vibrating." Another person explained,

"It's been so loud that it just feels like it is gonna hurt, you know, your teeth are aching and your ears are aching sometimes it's really loud. Sometimes I used to get this tension headache right through and around because I was clenching my jaw."

Some described the noise as being a "low drone, that just aggravates you, torments you." Headaches, daytime fatigue, brain fog were common.

The noise was punishing for some because of its uneven, intermittent, and unpredictable nature. For instance, one interviewee explained: "If it was a solid sound, you know what, it wouldn't even be that bad... it's at a pitch that's just maddening. [...] The drone kinda gets louder." Someone else explained:

"[The noise] can actually wake you right out of sleep. And you stay there listening and listening to this very annoying sound, it's worse than fingernails down a blackboard."

"It drives me insane. At first, it wasn't too bad. [..] I was constantly going around trying to figure out what appliance was running. Because that's what it sounds like in our backyard. It sounds like the dishwasher's going or the dryer's going. So it's got that hum to it. It had that hum to it. Now, it's just irritating. Like, at first it wasn't too bad. But now it just, it's, it goes right through me. I get low grade headaches from it. [...] It wasn't too bad last night. But some nights I can't sleep like I will be up all night long listening to it. Grinding my teeth. [...] But the whine, the whine from the noise just, it just gets right in there. In your body. It makes me like really cranky and irritated."

This noise also interrupts and damages peoples' sleep. Participants explained "[the noise] can actually wake you right out of the sleep. And you stay there listening and listening to this very annoying sound, it's worse than fingernails down a blackboard."

Many people describe not being able to fall back to sleep once awakened. In one person's words, "So when I've gone to sleep, and I get a couple hours sleep and then it [the noise] wakes me up, well, then I'm awake." Several people described how constant sleep interruptions led to new worries about lost sleep, which further eroded their rest. As one person explains:

"You don't even get a couple of hours steady sleep. You're constantly awakening. Trying to fall asleep, trying to go to sleep, stressed out, [then you] can't sleep."

Another person explained that even when the noise is not present, it can still have ruinous effects: "My sleep pattern is totally destroyed. Some nights I go to bed, I sleep for one hour and then I wake even if I'm not hearing the mine - I'm anticipating it." The noise almost haunts some; it can be an absent presence. This haunting quality permits some to become fixated on the noise and to become preoccupied by worry as to if and when it will return.

People also note that when the noise is gone, it can make them more aware of its entirely disruptive nature. One interviewee explains, after waking up and feeling refreshed from a single night of uninterrupted sleep: "[I woke up] and knew something was different because I actually had a night's sleep and then I realized how dangerous this thing is. Because after one night's rest, [I felt] so good and [in a way I haven't] for months."

As operations at the mine resumed in the fall of 2022, coal trucks have also become more frequent, disrupting people who live along the designated (and contested) delivery route. Every morning at 5:30 A.M. five large and noisy coal trucks drive up Long Beach Road. Forty minutes later, the same five trucks return. This cyclical pattern is repeated all day and will likely intensify as operations move towards full capacity. Some also fear that the industrial noise from the ventilation system will similarly intensify as mining operations ramp up.

Perhaps the most insidious dimension of the noise is that people are often coping with it, a problem that is totally beyond their own personal control, late at night or early in the morning. One resident described feeling suicidal and being completely pushed to the limits by the noise. These stories of suffering and sleep loss become even more alarming in a moment when a growing amount of biomedical research shows that lost and fragmented sleep is linked to diminished health outcomes, including increased rates of cancer, heart attacks, diabetes, cardiovascular disease, and premature death. Sleep loss is linked to reduced mood, thinking, concentration, memory and learning; insufficient sleep results in lost productivity, accidents, and workplace injuries. Heart attacks and productivity, accidents, and workplace injuries.

"My sleep pattern is totally destroyed. Some nights I go to bed, I sleep for one hour and then I wake even if I'm not hearing the mine - I'm anticipating it."

Many tried to mask the noise by shutting windows that faced the ocean or mine. Others used ear plugs or turned up the radio. Still others kept their television on at all hours.

### Theme 2

## Coping strategies, changing habits, and declining quality of life

Though the noise is a shared community problem rooted in industrial activities, often there is no choice but to seek out personal solutions. For some this has included the use of medications. One person, with no prior history of medication or drug use, described the steps he took to become functional during the day:

"I'm not one to take pills and stuff all the time. But in the last year, I've taken over 400 extra strength Tylenol. If that doesn't work, I have to take Tylenol 3. Tylenol 3 has opioids, just like fentanyl, [...]."

Similarly, another person explained: "I always fought with doctors, telling them that I didn't need pills for anything that ever happened to me. I always tried to nurse myself back to health. [...] But I really don't know if I can anymore."

No less harmful were the ways that people survived by adjusting their daytime routines and giving up activities. Many tried to mask the noise by shutting windows that faced the ocean or mine. Others used ear plugs or turned up the radio. Still others kept their television on at all hours. These solutions were not always effective. As one person noted: "Even with the earplugs, sometimes I can still hear the walls vibrating from it." Recall that low-frequency noise is harder to block out because of its long wavelengths that are less changed by physical barriers.

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Some stopped gardening or sitting on their porches or lawns in the summer. Some stopped exercising outside. Others abandoned their bedrooms to seek refuge in basements, in living rooms, or guest rooms less impacted by noise. One or two took sanctuary in the ocean or swimming pools in the warmer months. Still others reported visiting friends or families' houses when things got too bad. One weekend, when the noise was especially upsetting, a participant left the village. When this person returned, she-who had lived all but a few years of her long life in the community—was engulfed by feelings of dread and anxiety as she exited the highway and drove towards home.

These small and mundane changes added up to something larger. Day-to-day alterations were often accompanied by a profound of sense of grief and loss. It was not unusual for the people we interviewed to become emotional and distressed in reflecting on how their homes and lives had changed since the noise had arrived. Many articulated how their lives had been diminished and made smaller. As one person explained "[...] my life is not as settled, not as happy, not as fulfilling, and harder health-wise. I don't think I'm getting as much sleep. There's more tension in my life."

People also mourned who they used to be before the noise. As one person explained, "I feel intellectually diminished... I've noticed I don't feel confident to articulate, to talk to other people." Another person described not wanting to volunteer anymore: "I've always been a very strong volunteer in the village. And I find that lately, I really can't put into it what I used to. [...] It's [the noise] just taken the life out of me. It really has." Other people agreed with this idea and asked, "Is it even possible to live here under these conditions?"

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### Theme 3

# Government inaction and an exhausted community

It is impossible to separate the health problems in Port Morien from questions about the state of democracy in Cape Breton or Nova Scotia. Community members have sent hundreds of letters to their local representatives, provincial ministries, seeking consultation and solutions and have not received any substantive responses. As one person explained, "You know, [...] the people that are most drastically affected by it. I mean, they've been pleading for help, you know, for a period of time, and nothing is being done."

a "good job," people often learn to "buck up" and keep quiet unemployment is traditionally high, and any job is considered for people to believe you." In low-income communities, where psychological impact when you're having to constantly fight just can't." Another person observed: "It certainly adds to the she told me, she said, 'I'd love to get involved.' But she said, 'I won't speak up.... They're scared of reprisal. One in particular, As one person noted: "...there's some people in the village that those who do speak up and prevents others from being able to chilling effect on the community. It creates a hostile climate for bad? These doubts, implied or explicitly stated, have had a around the noise. Does the noise actually exist? Is it really that summer of 2022. Such moves have added a veil of suspicion the noise that was organized by a handful of residents in the downplayed the harm, including at a public meeting about Some-but not all—elected officials have minimized and

rather than be labelled a "whiner" or "complainer." This type of social pressure generally works to serve the interests of multinational extractive companies, often to the longer-term detriment of individual and community health.xiiiiii These social pressures also shape the types of prevailing cultures of work that are available, sometimes with deadly consequences. As noted in *The Westray Story: A predictable path to disaster*, the final report prepared by Justice K. Peter Richards: "management at Westray displayed a certain disdain for safety and appeared to regard safety-conscious workers as the wimps in the organization."xiiii

With their experiences shrugged off, the message is to get over it and learn to live with the noise. But as the first two sections of this report indicate, it is not so simple. Some, if not all of the people we spoke to, felt abandoned and a sense of betrayal from public authorities. As one person put it:

"If a dog is barking constantly waking up the neighbourhood, you can call the police. If our neighbour's car is constantly idling for hours and persistently disturbs the neighbourhood, you can call the police. [For the mine], nobody's going to show up, police are not going to show up with a decibel reading."

After enduring years of low-frequency noise, is it any wonder that participants used words like "depleted," "tired," "fragile," and "exhausted" to describe the state of their community? "We're tired of fighting... there's tiredness here. It's just wearing us down" explained one participant. Another said, "The low frequency noise has had the effect of depleting our resources, [and] depleting our communities and the vibrancy of community, making us poor in so many ways." The rich and always complicated texture of this community is steadily being worn down. A community in disrepair.

After enduring years of low-frequency noise, is it any wonder that participants used words like "depleted," "tired," "fragile," and "exhausted" to describe the state of their community?



#### Smog. Asthma.

Respiratory disease Premature death.

#### Discussion

This is not the first-time ordinary citizens and researchers in Cape Breton have come together out of concern about the harmful by-products of industry or the health and environmental crises brought on by the operation — or closures — of mills, mines, and factories on the island.

and safer equipment, a small number of steel workers began of challenging their unsafe and toxic workplace in the 1970s related illnesses and cancers.xiiv comprehensive payouts, despite mounting evidence of work-Board that was reluctant to acknowledge hazards or provide class manliness, and a provincial Worker Compensation risk work culture that was tightly associated with workingfor Justice," these men were up against a tough and highsafety issues. Adopting the name "Coke Oven Workers United operating independently to elevate occupational health and workers' union prioritized saving jobs and fighting for modern "bottom-up activisms" emerged. While the leaders of the steel greed and profiteering. With the steel industry slumping in the for better wages and working conditions, and against corporate and 1980s. Post Second World War, trade unions had fought how some Sydney-based steel workers were on the forefront City, Lachlan MacKinnon offers a compelling narrative about In Closing Sysco: Industrial Decline in Atlantic Canada's Steel 1970s, and the threat of job loss high, what MacKinnon calls

For the purposes of this report, perhaps what is most significant about the "bottom-up activisms" MacKinnon describes is how they inspired wider public discussions and changed public perceptions and responses to ill health and heavy industry. Coalitions of environmentalists, medical scientists, and residents of Whitney Pier soon came together and worked for a decade to draw attention to the noxious aftermaths of industrial production. By 1999, "severe headaches, nausea, sore-throats, and burning eyes" among the families who lived in the houses

dotting Frederick Street offered a way to challenge official narratives that minimized harm and downplayed the full extent of ill community health and environmental problems at the former site of the Sysco steel mill.<sup>XIVII</sup>

encroached on the Peace and Friendship Treaties of 1752 and would have dumped toxic brine into the Shubenacadie River, or the provincial and federal governments. The project, which communities were never adequately consulted by the company and threats of legal action from the company. Mi'kmaq and heavy industries. \*Iix But speaking up has often come at a state policies and practices of managing garbage, toxic waste, the Water Ingrid R.G. Waldron observes Mi'kmaq and African social friction as they challenged authority and dissented the twentieth century were never simple, and often embodied around health and environment in the last two decades of 1760, and was decommissioned by Alton Gas in the fall of 2021. Gas Storage Project, were subject to intimidation, harassment, protectors who worked for eight years to resist an Alton Natural high cost. For instance, the Mi'kmaq grandmothers and water these communities have been enormously jeopardized by fight for environmental and health justice. The livelihoods of Nova Scotian communities have often had to stand up and from the status quo.xiviii In her book There's Something in The workplace and community activisms that emerged

Today, there are federal and international mandates designed to swiftly phase out coal-fired electricity.<sup>[1]]</sup> Peripheral regions with high emitting activities need to transition people into new jobs. These directives respond to an accelerating climate crisis and new evidence that illustrates the lethal nature of burning coal. Smog. Asthma. Respiratory disease. Premature death. As noted by the Powering Past Coal Alliance, "more than 800,000 people around the world die each year from the pollution generated by burning coal." These adverse health outcomes are not theoretical in Cape Breton; they are embodied, lived realities. For as Naomi Klein writes, "the thing about fossil fuels is that they are so inherently dirty and toxic that they require sacrificial people and places: people whose lungs and bodies can be sacrificed to work in the coal mines, people whose lands and water can be sacrificed to open-pit mining and oil spills."

Addressing industrially-driven health damage involves finding solutions for immediate problems *and* paying attention to what Rob Nixon, a professor of the Humanities and Environment, refers to as the often less spectacular and more incremental nature of environmental destruction. A type of "slow violence" that unfolds gradually over time as communities learn to live with the delayed brutalities of ecological devastation, the perpetrators, by that point, often long disappeared. Decades later, the legacies of heavy industries and their closures linger in Cape Breton and manifest in high rates of unemployment, poverty, outmigration, poor health, and the contamination of the land, water, and air.

At the time of writing, the Donkin Mine says it directly employs about ninety workers, with little other information about its operations publicly available. And so, the task is to understand the costs and benefits that may accrue to workers and communities through those jobs without looking away from a long-term ecological and health disaster that is unfolding slowly, invisibly, and noisily before us. And in the meantime, residents of Port Morien and the surrounding areas have been treated as if they are disposable—their lives and wellbeing less valuable than the coal mine in their backyard.

And so, the task is to understand the costs and benefits that may accrue to workers and communities through those jobs without looking away from a long-term ecological and health disaster that is unfolding slowly, invisibly, and noisily before us.

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# Recommendations

#### 1. Stop the noise

It can and should be stopped. Hold the coal mine accountable and find a solution.

# 2. Make a more realistic and honest assessment of the situation

Make a more realistic and honest assessment of the benefits and costs of the industrial extractive activities that takes into account the health of residents, the health of communities, and longer term environmental and climate effects. What benefits and costs are accruing to the communities and taxpayers—including the safety issues and wear of industrial coal trucks on local highways?

# 3. Invest in people, repair the community

The community deserves reparations for the damages done. Create in-community mental health supports and provide access to other health and therapeutic services. Invest in public infrastructures that supports healthy aging and active living. Support small businesses and community organizations that foster vibrancy and civic pride.

## 4. Invest in a green transition

We need decision-makers who will invest in green infrastructure and take the lead on developing certification programs and pathways to retrain miners for safe, secure, and environmentally responsible jobs.

### 5. Honour the treaties

Poisoning the land, water, and air means the Canadian state is dishonouring the Peace and Friendship Treaties that were first signed by the British Crown and Mi'kmaq and Wolastoqiyik (Maliseet) Peoples in 1725. We are all treaty people, with the obligation and responsibility to ensure our governments honour the treaties signed with First Nations.

## 6. No more sacrifice zones in

#### Cape Breton

Fossil fuels "are so inherently dirty and toxic that they require sacrificial people and places." The land and the people of Cape Breton have sacrificed enough. No more sacrifice zones in Cape Breton.

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