

Creating a New “Normal”

Using air pollution labels on gas pumps as a step in addressing climate challenges

In early 2013, I launched a not-for-profit organization that’s asking municipalities to require gasoline retailers to place climate change and air pollution information labels on gas pump nozzles. The idea is similar to the risk disclosures we see on many common products. In a short period, the concept has received media attention across North America and the world and is now beginning to get traction in local government. Recently, municipal councils in West Vancouver, Berkeley, and San Francisco have all directed staff to pursue the concept.

Over a hundred academics from disciplines including the natural sciences, social sciences, public policy, health, and business at universities across North America have all endorsed the concept.¹ Canadian non-governmental organizations such as the David Suzuki Foundation, the Canadian Association of Physicians for the Environment, and the Clean Air Partnership have similarly endorsed the idea.² The gas pump label idea even made it to the United Nations Climate Change Conference in Warsaw, Poland (COP19) where a delegate said, “I’ve been to all 19 COP meetings and I’ve never seen an idea so simple yet so powerful.”



Climate change and air pollution information on gas label.

Despite this progress, the idea is still fairly new, and decision makers may wonder what impact a seemingly simple proposal will have on complex challenges like climate change and air pollution. Research from psychology, sociology, economics, and communications theory provides insight.



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1 Our Horizon, Endorsements from Academics and Experts, <<http://ourhorizon.org/academic-endorsements>>.

2 Our Horizon, Endorsements from NGOs, <<http://ourhorizon.org/endorsements>>.

Climate change is also a problem of negative externalities. Externalities are costs or benefits that result from the use of a product, but are not reflected anywhere in its price.

Psychology: The Labels Create Immediate Feedback

Climate change can be understood as a feedback problem: there is a delay between cause and effect. We get little to no feedback from our actions today, so there is no indication that we need to change our behaviour.

Psychologists observe that we tend to prefer interests that are small and near in time relative to those that are significant but experienced farther in the future. This effect is known as “hyperbolic discounting” or the “current moment bias.”

The warning labels counteract this effect by bringing future consequences – extreme weather, property damage, and ocean acidification – into the here and now. In doing so, they create immediate feedback to provide greater impetus to address climate change.

Sociology: The Labels Address a Problem of Diffusion of Responsibility

Climate change can also be understood as a problem of diffusion of responsibility. As individuals, our contributions to the problem are small; but, collectively, our actions alter the chemistry of our planet. Social psychologists observe that when responsibility is shared among many, we’re actually less likely to act. It’s the paradox of “everyone is responsible, so no one is responsible.”

The labels address this problem by locating responsibility. The placement of the image on the nozzle takes a problem

of diffuse origins and locates responsibility right in the palm of your hand. As simple as the concept is, there is actually nothing else that currently connects us to the problems of climate change in such a direct way.

Economics: The Labels Communicate Externalities in a Qualitative Way

Climate change is also a problem of negative externalities. Externalities are costs or benefits that result from the use of a product, but are not reflected anywhere in its price. In the context of fossil fuels, we often hear negative externalities expressed as “hidden costs.” Carbon taxes and cap-and-trade regimes seek to internalize these harms to convey the “true cost” of fossil fuels to the market.

Gas pump warning labels are simply a qualitative way of capturing and communicating externalities to the marketplace: what price seeks to convey in quantitative terms (using dollars and cents), the label communicates in qualitative terms (using image and text). In the abstract, both approaches achieve the same thing. On the ground, the warning label nurtures a focus that engages our sense of humanity in a way that a price signal never could. This qualitative approach is particularly important, as behavioural economists observe that pricing externalities can sometimes switch off moral cues that otherwise regulate human behaviour.³

Communication: The Medium Is the Message

As renowned communications theorist Marshall McLuhan observed, “The medium is the message.” The way in which people typically consume information on climate change is through media such as newspapers, internet, television, and film. While these media are important vehicles for communication, they unavoidably

present the problem as distant or separate and are consumed in a passive manner by virtue of their form. By contrast, the labelling proposal directly links the consumption of fossil fuels to the impacts of climate change: the medium – the gas pump nozzle – is the message. It engages the reader in a manner that transitions them from *passive observer* to *active participant*.

How These Labels Change the Conversation

Discourse on climate change in Canada tends to focus on points of extraction (e.g., oil sands and offshore drilling) or means of transportation (e.g., pipelines and shipping). But, these areas of focus appear to be misplaced if our true concern is greenhouse gas emissions. A well-to-wheel lifecycle analysis reveals that the vast majority of greenhouse gas emissions come from end use; emissions from extraction and processing pale in comparison to emissions from vehicle combustion.⁴ When it comes to oil, the problem is in cities and towns where the end product is actually being used.

Unfortunately, we rarely question the simple act of pumping gas. There is a complete disconnect – one that is perhaps compounded by the distancing effect of our upstream focus. The act of going to a gas station and filling up a car has been normalized for several generations. The warning labels take this unexamined act and de-normalize it. By creating a sense of dissatisfaction with the prevailing mobility solution, they stimulate demand for alternatives and shape a social environment that favours reform. The labels disrupt the status quo, shake us out of our sense of complacency, and provide impetus for us to do better.

While the labels will likely cause some individuals to reduce their emissions through carpooling or modal shifts,

3 Diana Zlomislis, “Daycare late fees no deterrent, study finds,” *Toronto Star*, 4 July, 2008, <www.thestar.com/life/health_wellness/2008/07/04/daycare_late_fees_no_deterrent_study_finds.html>.

4 Natural Resources Defense Council, “Setting the Record Straight: Lifecycle Emissions of Tar Sands,” (November 2010), <http://docs.nrdc.org/energy/files/ene_10110501a.pdf>.

they will more importantly result in a shift in our collective demand to facilitate meaningful action on climate change and air pollution. Politicians will have more support to pass climate legislation, invest in public transit, build bike lanes, and develop complete communities. Businesses will also innovate to meet the needs of a shifting market. The idea is a catalyst for a community-wide conversation about how to transition to a more sustainable future.

Do Municipalities Have Legal Authority to Pursue It?

Environmental lawyer Dianne Saxe wrote about the idea in the September 2013 issue of *Municipal World* and concluded that the combined effects of local air pollution and climate change on communities “could be enough of a municipal nexus to support a labelling by-law.” She added that there’s no way of knowing until a community tries it and concludes by asking, “Where is the next Hudson?”

Since the article was published, Our Horizon has produced a 40-page research

document that provides the legal foundations for municipal jurisdiction.⁵ While this research is Ontario-focused, the general arguments would still be relevant for municipalities in other provinces. Our Horizon is currently working with law students and lawyers in other provinces to help adapt this report.

If a council wishes to pursue the concept but is unsure about its authority to do so, it can simply request that the province amend its municipal legislation to specifically empower municipalities to pass the by-law, instead of relying on its existing powers.

A Final Question: Why Wouldn't We Have These Labels?

I've spent close to two years answering the question, “Why should we have these labels?” but lately I've been asking others to consider the question, “Why wouldn't we have these labels?” All we're asking is for the producers of a product to disclose the risks of its consumption to consumers. While this may ruffle a few

feathers, the proposal really shouldn't be controversial. Scientists have identified that the burning of fossil fuels is altering the basic chemistry of our planet. When I was born, the world was at 337 parts per million (ppm) of carbon dioxide in our atmosphere; we're now at 400 ppm. Take a moment to think about that: *we are altering the fundamentals of our biosphere.*

If there is any product that merits a warning label, this is it. Climate change is the greatest challenge of our time; if we don't even have the courage to put a simple sticker on a gas pump, what hope do we have in actually addressing the problem?

Citizens from all over the world have contacted us to replicate this campaign in their own communities. The idea is primed to go global, but it will take leadership from Canadian municipalities to make it happen. **MW**

5 Our Horizon, “#FaceTheChange Changing Communities in a Changing Climate: Climate Change & Air Pollution Warning Labels on Gas Pumps,” <<http://ourhorizon.org>>.



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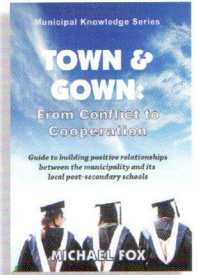


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Universities and colleges are certainly a significant asset to their communities, yet they present a unique set of planning and community development considerations and challenges, and an increasing number of threats and negative perceptions about off-campus behaviour – especially in those near-campus neighbourhoods where students tend to concentrate. The issue is even more pressing today as university and college enrolments continue to expand, particularly in North America's larger urban centres.

The Town and Gown concept is an ideal model for identifying and dealing with these community concerns. Working with student residents, both municipal and campus representatives can move the issues of resident rights and responsibilities, inappropriate behaviour, as well as adequate and safe housing, towards an overall community vision and a climate of civility for all.



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#FaceTheChange
Changing Communities
in a Changing Climate

Report:

**Climate Change & Air Pollution
Warning Labels on Gas Pumps**



*“The medium is the message because
it is the medium that shapes and controls
the scale and form of human association and action.”*

Marshall McLuhan

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PART I – INTRODUCTION AND SUMMARY

1.1 Letter to Municipal Councillors and Staff

Dear Councillors and Staff,

We find ourselves in an unprecedented moment in human history. Our burning of fossil fuels has changed the basic chemistry of our planet. Our continued failure to act impacts the quality of life in our municipalities and jeopardizes the Earth’s capacity to support life. Ban Ki-moon, the Secretary-General of the United Nations, has called climate change our “only one truly existential threat” and “the greatest moral challenge of our generation.”



Negotiations on climate change at the international level have largely failed. Entrenched interests and political cowardice at federal and provincial levels of government have rendered those institutions incapable of addressing the greatest challenge of our time. It is up to local governments to lead.

We propose that municipalities take a simple first step, one that draws from experience with other harmful products; we propose that cities and towns require warning labels on gas pumps. The warning labels show the impacts of climate change and air pollution right in the palm of our hand. They are disruptive. They challenge the status quo and create space for alternatives. The labels will cause some individuals to reduce their emissions but, more importantly, they will result in a shift in our collective demand to facilitate meaningful action on the greatest challenge of our time.

Citizens from all over the world have contacted us to replicate this campaign in their own countries. With warning labels already on cigarette packaging all over the world, this idea has been primed to go global. But first, we demonstrate leadership in our communities.

The first step in addressing any challenge is to honestly face it. Our *#FaceTheChange* campaign presents you with an opportunity to do just that. At the heart of our idea is a choice: We either face the reality of climate change and our role in its solution head on, or we continue the self-deceiving charade and forsake our children and future generations.

As an elected representative, you have the opportunity to make a historic contribution to the fight against climate change. Let us choose courage over cowardice. Let us choose honesty over denial. Let us choose to finally begin our transition to a more sustainable future.

With hope for a better world,

A handwritten signature in black ink that reads "R. Shirkey". The signature is written in a cursive, flowing style.

Rob Shirkey
Executive Director
Our Horizon

1.2 Executive Summary¹

Climate change has been described by Ban Ki-moon, the Secretary-General of the United Nations, as our “only one truly existential threat” and “the greatest moral challenge of our generation.” The *Intergovernmental Panel on Climate Change* has attributed climate change to emissions from our use of fossil fuels. Research shows that we must leave the vast majority of fossil fuel reserves undeveloped if we are to avoid catastrophic climate change.

The transportation sector accounts for approximately 1/3rd of greenhouse gas emissions in Ontario. These emissions also contribute to poor air quality that compromises the health and well-being of citizens in municipalities across the province. The sources and impacts of these emissions are both experienced locally.

To address these harms, we are proposing climate change and air pollution warning labels for gas pump nozzles. Research shows that similar labels used on tobacco products help to change attitudes and behaviour. Our warning labels become even more compelling when considered in the context of climate change and air pollution as they help to address some of the basic psychological and economic causes of these problems. The labels are disruptive of the status quo and have the potential to catalyze meaningful action on climate change and air pollution.

Municipalities in Ontario can require gasoline retailers to place these labels on their gas pump nozzles. The warning labels would be a new condition for a gasoline retailer to obtain, continue to hold or renew its business licence. The *Municipal Act* provides the authority to require such labels through its *Part II* general municipal powers and its *Part IV* licensing powers. The *City of Toronto Act* provides similar powers. These powers are broad and have been recognized by the Ontario Court of Appeal to empower municipalities “to tackle the challenges of governing in the 21st century.”

Climate change and air pollution is the exact sort of major environmental challenge that is contemplated by the Supreme Court of Canada in *Spraytech v. Hudson*. The reduction of emissions that contribute to these problems is an effort that needs to be undertaken by all levels of government. This view is consistent with provincial and federal messaging on climate change and long-standing practice in cities and towns across Canada. Unlike the recent shark fin ban decision in *Eng v. Toronto*, our by-law does not seek to “affect matters in another part of the world”; indeed, it addresses a matter that is both local in its causes and its impacts. The labels have the potential to yield numerous benefits to municipalities and they do not appear to conflict with any provincial or federal legislation.

Please contact us to arrange a presentation in your community.

¹ DISCLAIMER: The legal research in this document is applicable to municipalities in Ontario. Lawyers in jurisdictions across Canada may use it to assist in the development of their own legal opinions. Notwithstanding this, *Our Horizon Society*, its staff and board of directors assume no responsibility for reliance on the research contained herein. Municipalities are encouraged to consult their legal departments or seek independent legal advice before taking any action to pursue the proposed by-law.

1.3 Highlights: Climate Change and Warning Labels (Part II and III)

- **Climate change:** Our use of fossil fuels has increased CO₂ concentrations in our atmosphere and acidified our oceans. Unmitigated climate change would likely exceed our capacity to adapt. The United Nations observes that cities are important places for mitigation initiatives.
- **Unburnable carbon:** Governments have agreed to limit the increase in average global temperature to 2 degrees Celsius. This ceiling has effectively created a global carbon budget. The result is that humanity must now leave the vast majority of our fossil fuel reserves underground.
- **Fossil fuel use by automobiles:** The transportation sector in Ontario accounts for 1/3rd of our greenhouse gas emissions. Exhaust from automobiles contributes to poor air quality and has been associated with cardiovascular disease, stroke, lung cancer, leukemia, and other health concerns.
- **Municipal concerns:** Cities both contribute to and are impacted by air pollution and climate change. Globally, cities are responsible for approximately 70% of carbon emissions. Municipal government in Canada has control over close to half of our country's greenhouse gas emissions. To date, cities across Canada have taken hundreds of initiatives to reduce their GHGs. Municipal action on climate change is well-established and is integral to addressing the issue.
- **The proposed by-law:** We propose that municipalities require gasoline retailers to place climate change and air pollution warning labels on their gas pump nozzles.
- **Nozzle talkers:** The labels would be affixed to nozzle talkers. A nozzle talker is a sort of rubber sock that fits over standard gas nozzles and is equipped with a flat display for advertising purposes. The medium is recognized by advertisers to be highly effective.
- **Tobacco warning labels:** The most comprehensive meta-study on the effectiveness of tobacco warning labels concludes that they help to change consumer attitudes and behaviour. Tobacco companies have effectively acknowledged this by fighting labelling laws all over the world.
- **Warning label features:** The warning labels address some of the root problems of climate change and air pollution. First, they counteract the current moment bias by building feedback. Second, they address the problem of diffusion of responsibility by showing impacts right in the palm of our hand. Third, they capture and communicate negative externalities in a qualitative way.
- **Warning label impacts:** The labels take an act that has been normalized for several generations and problematize it. They disrupt the status quo, shake us out of our sense of complacency, and provide impetus for us to do better. They will cause some individual behavioural change but, more importantly, they will create a shift in our collective demand to facilitate meaningful action on climate change.

1.4 Highlights: Legal Research (Part IV)

- **Statutory authority:** The general municipal powers and the specific licensing powers in the *Municipal Act* (and the *City of Toronto Act*) provide a municipality with the authority to pass the herein proposed by-law. These provisions are interpreted broadly. The warning labels would be a new condition for a gasoline retailer to obtain, continue to hold, or renew its business licence.
- **Judicial deference:** Courts have established a deferential approach to decisions of municipal councils. By-laws properly enacted are not open to review even if they appear unreasonable. It is not a function of the court to measure risk. Pursuant to *Eng v. Toronto*, a by-law is not “invalid merely because another level of government could impose [it] with potentially greater effect.”
- **Tri-level regulation:** Climate change is the exact sort of major environmental challenge that is contemplated by the Supreme Court of Canada in *Spaytech v. Hudson*. The issue requires action by governments at all levels. This view is consistent with federal and provincial messaging and long standing practice in municipalities across Canada.
- **Consumer information labels:** Warning labels on tobacco packaging have been upheld by the Supreme Court of Canada. The Ontario Court of Appeal ruled in *ORHMA v. Toronto* that cities can use their licensing powers and their general powers to impose consumer advisories at restaurant entrances. Our warning labels draw on these precedents.
- **Shark fin bans distinguished:** The issue of finning sharks appears to have had no historic consideration by local government prior to becoming a cause célèbre in 2011; in contradistinction, municipal action on climate change is a long accepted practice in Canada. Moreover, the bans addressed a harm that occurred in distant oceans whereas our by-law addresses a harm that originates from within a municipality and whose impacts are experienced locally.
- **Identifiable benefits:** The warning labels advance the health, safety and well-being of persons; improve the economic, social, and environmental well-being of a municipality; and protect persons and property, including consumer protection.
- **Anti-idling by-laws:** The preamble from numerous municipal anti-idling by-laws reference greenhouse gas emissions, climate change, and local air quality. Implicit in these ubiquitous by-laws is an accepted recognition of vehicular emissions as a matter of local concern. The rationale behind our labelling by-law is identical.
- **Public nuisance:** Emissions from automobiles can also be understood as a public nuisance. If a council in good faith decides this to be the case, its opinion is not subject to judicial review.

1.5 About Our Horizon



Our Horizon is a federally-incorporated not-for-profit organization that empowers people and communities across Canada to change the world. We think globally and act municipally.

Our name is a rejection of the system that made BP's offshore drilling rig the *Deepwater Horizon* a reality. This rig drilled over 10 km deep in the Gulf of Mexico only to burst and spill 4.9 million barrels of crude oil into our oceans in the summer of 2010.

Our Executive Director recalls being stuck in traffic that summer while listening to radio pundits blame BP for the tragedy. As he sat there, he counted 14 lanes of barely-moving vehicles, all burning fossil fuel. There were thousands of vehicles idling within eyesight and millions more stuck in traffic at that very moment all over the world. While most seemed content to blame BP, he recognized that he was complicit; in fact, we were all responsible.

It is the decisions that we each make on a daily basis that shape our collective reality and make such tragedies possible. It is only when we first acknowledge our role in this unsustainable system that we will be able to take meaningful steps to create a much more desirable future. It's time we *#FaceTheChange*.

This document is a primer in support of a municipal by-law to require warning labels on gas pumps. We first explore the issue of climate change and air pollution. Next, we discuss our proposal and its intended effects. We then proceed to discuss the legal basis for the by-law, and explain our view that it is impervious to legal challenge. Finally, the document outlines future steps we can take together to make this proposal a reality.

1.6 Our TEDx Talk

Rob Shirkey was invited to deliver a TEDx talk in Toronto in late 2013. The 10-minute video was posted online this March. The talk explores some of the psychology and economic theory of our proposal. Rob also shares some of his personal motivations for launching the campaign. The TEDx talk represents a brief introduction to our project and can be viewed online at:

<http://youtu.be/SA4e7y-4Pak>



PART II – CLIMATE CHANGE & AIR POLLUTION

This section provides the global context for municipal action on climate change. It discusses research that concludes the vast majority of fossil fuels reserves must remain underground if we are to avoid catastrophic climate disruption. This section also explores climate change and air pollution as being local matters in both cause and impact.

2.1 Our use of fossil fuels causes climate change

The *Intergovernmental Panel on Climate Change* (“IPCC”) is the global authority on climate science. In its latest report, the IPCC was unequivocal that “global increases in CO₂ concentrations are due primarily to fossil fuel use” and that “carbon dioxide (CO₂) is the most important anthropogenic [human] GHG.”² This report notes that “changes in atmospheric concentrations of greenhouse gases... alter the energy balance of the climate system” and that the “warming of the climate system is unequivocal.”³

The report recognizes that we are unlikely to successfully adapt to climate change and that we need to reduce our CO₂ emissions: “Unmitigated climate change would, in the long term, be likely to exceed the capacity of natural, managed and human systems to adapt.”⁴ The IPCC observes that cities “are at the forefront of climate change.”⁵ Cities both contribute to the problem and are vulnerable to its impacts and are thus important points for mitigation and adaptation.⁶ With respect to mitigation – and of particular relevance to our proposal – the IPCC notes that “information instruments” and “a wide variety of policies and instruments are available to governments to create the incentives for mitigation action.”⁷

Our warning labels are information instruments that bring IPCC research on the risks of fossil fuel consumption to a broader audience. They link cause with effect at the point of purchase and are consistent with the global authority’s recommendations to avoid exceeding “the capacity of natural, managed and human systems to adapt” to climate change.

² IPCC Fourth Assessment Report: *Climate Change 2007*, online: Intergovernmental Panel on Climate Change, <http://www.ipcc.ch/publications_and_data/publications_and_data.shtml> (Note: this language is from IPCC AR4. The IPCC’s Fifth Assessment Report is being released in phases from September 2013 to October 2014. The language in the early installments of IPCC AR5 is even more conclusive.) [IPCC AR4].

³ *Ibid.*

⁴ *Ibid.*

⁵ IPCC Working Group III Co-Chairs, *Scoping for the IPCC 5th Assessment Report: Concept paper for an IPCC Expert Meeting on Human Settlement, Water, Energy and Transport Infrastructure – Mitigation and Adaptation Strategies*, online: <https://www.ipcc.ch/scoping_meeting_ar5/doc16.pdf>.

⁶ *Ibid.*

⁷ IPCC AR4, *supra* note 2.

2.2 A global carbon budget

In 2009, national governments met at the *United Nations Framework Convention on Climate Change* conference in Copenhagen. The consensus achieved through these negotiations is to limit the increase in average global temperature to 2 degrees Celsius.⁸ While many scientists say this figure is dangerously high, it nevertheless remains our current political consensus.⁹ Researchers estimate that we can emit roughly 565 Gigatons of CO₂ until we reach this 2°C threshold.¹⁰ By setting a ceiling on temperature increase, we have effectively created a global carbon budget.

Annual CO₂ emissions help to put this 565 Gigatons figure into perspective. In 2011, global emissions of CO₂ amounted to 31.6 Gigatons; this figure represents a 3% increase over the year before.¹¹ At this rate, we have a little over a dozen years until we commit our planet to this 2°C increase in temperature.¹² Fatih Birol, the *International Energy Agency's* ("IEA") chief economist, observes that "the door to a two-degree trajectory is about to close."¹³

2.3 Unburnable carbon

In 2011, a group of financial analysts from the UK examined the annual reports of the world's major fossil fuel companies to estimate our global "proven coal, oil, and gas reserves."¹⁴ This calculation represents the total amount of fossil fuels that businesses plan to extract to bring to market for us to burn. The analysts' research revealed that if we were to burn all of these fuels, we would emit 2,795 Gigatons of CO₂—*an amount five times greater than the amount that brings us to the 2°C upper limit.*¹⁵ The inescapable conclusion is that we must transition away from fossil fuels or we will commit to catastrophic climate disruption. With current technologies, if we are to remain below this 2°C limit, we will need to leave approximately 80% of our proven fossil fuel reserves undeveloped.¹⁶

⁸ UNFCCC, 15th Sess., *Report of the Conference of the Parties on its fifteenth session, FCCC/CP/2009/11/Add.1.*

⁹ Dr. James Hansen *et al.*, "Assessing 'Dangerous Climate Change': Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature.", *PLOS ONE* 8(12): e81648. (2013), online: <<http://www.plosone.org>>.

¹⁰ Carbon Tracker Initiative, "Unburnable Carbon - Are the world's financial markets carrying a carbon bubble?" (2012), online: <<http://www.carbontracker.org>> [*Carbon Tracker*].

¹¹ "Global carbon-dioxide emissions increase by 1.0 Gt in 2011 to record high", *International Energy Agency* (24 May 2012), online: <<http://www.iea.org/newsroomandevents/news/2012/may/name,27216,en.html>>.

¹² If we assume annual CO₂ emissions of 31.6 Gigatons and a 3% rate of growth, it would take approximately 15 years to reach 565 Gigatons of cumulative CO₂ emissions. Since this calculation begins at year 2011, we have approximately a dozen years from 2014 until we reach this threshold. While estimates will vary, the point remains that we have a relatively short period of time to avoid catastrophic climate disruption.

¹³ Bill McKibben, "Global Warming's Terrifying New Math", *Rolling Stone Magazine* (01 September 2012), online: <<http://www.rollingstone.com/culture/global-warmings-terrifying-new-math>>.

¹⁴ *Carbon Tracker*, *supra* note 10.

¹⁵ *Ibid.*

¹⁶ *Ibid.*

In the fall of 2013, the *IPCC* endorsed the concept of a “carbon budget” for humanity.¹⁷ In early 2014, the United Nations climate chief acknowledged that “there is no doubt that most of the fossil fuel reserves we have world-wide will have to stay in the ground.”¹⁸ The *International Energy Agency* has come to a similar conclusion.¹⁹ The *World Bank* and the *International Monetary Fund* are also calling for measures that would transition economies away from fossil fuels.²⁰ Recently, the head of the *World Bank* even appeared to encourage divestment from the fossil fuel sector.²¹ While it may seem inconceivable, we are witnessing the decline of the fossil fuel era and the beginning of a period of massive transition. Communities that acknowledge this reality sooner will have a head start at developing the solutions of tomorrow and will prosper in the long-run.

2.4 Fossil fuel use by automobiles in Ontario

Ontario’s former Minister of the Environment wrote in his annual report, *Climate Progress*: “Climate change is an issue that affects every continent, country, community and individual. And in Ontario, we need to do more... Cars and trucks are a growing source of GHG emissions in this province and throughout North America.”²² The provincial government has encouraged municipal involvement on climate change and recognizes such efforts as being integral to addressing the problem.²³

Exhaust from automobiles also contributes to poor air quality. For example, in Toronto alone, “air pollution is associated with 1,700 early deaths and 6,000 hospital visits every year.”²⁴ Motor vehicles significantly compromise air quality; they are “the largest source of CO (85%) and NO_x (69%) emissions within Toronto.”²⁵ Vehicle emissions have been associated with cardiovascular disease, stroke, lung cancer in adults, leukemia in children, reduced fertility in men, low birth weight, and other health

¹⁷ Justin Gillis, “U.N. Climate Panel Endorses Ceiling on Global Emissions”, *The New York Times* (27 September 2013), online: <<http://www.nytimes.com/2013/09/28/science/global-climate-change-report.html>>.

¹⁸ Suzanne Goldenberg, “UN climate chief calls for tripling of clean energy investment”, *The Guardian* (14 January 2014), online: <<http://www.theguardian.com/environment/2014/jan/14/un-climate-chief-tripling-clean-energy-investment-christiana-figueres>>.

¹⁹ “North America leads shift in global energy balance, IEA says in latest World Energy Outlook”, *IEA* (12 November 2012), online: <<https://www.iea.org/newsroomandevents/pressreleases/2012/november/name,33015,en.html>>.

²⁰ Sophie Yeo, “World Bank and IMF stress urgency of climate action”, *RTCC* (18 October 2013), online: <<http://www.rtcc.org/2013/10/08/world-bank-and-imf-we-must-think-about-climate-change-every-day/>>.

²¹ Ed King, “World Bank chief backs fossil fuel divestment drive”, *RTCC* (27 January 2014), online: <www.rtcc.org/2014/01/27/world-bank-chief-backs-fossil-fuel-divestment-drive/>.

²² Ontario Ministry of the Environment, *Climate Progress: Ontario’s Plan for a Cleaner, More Sustainable Future* (Ontario, 2011) at 2, online: <www.ene.gov.on.ca/environment> [*Climate Progress*].

²³ *Ibid.* at 31.

²⁴ City of Toronto, “Smog and Health”, online: <www.toronto.ca/health/airquality/smog/healthsmog.htm>.

²⁵ Monica Campbell *et al.*, “Air Pollution Burden of Illness from Traffic in Toronto - Problems and Solutions”, Toronto Public Health (November 2007), online: <www.toronto.ca/legdocs/mmis/2007/hl/bgrd/backgroundfile-8046.pdf> [*Air Pollution Burden of Illness from Traffic*].

concerns.²⁶ Toronto Public Health estimates the “mortality-related economic impact of traffic pollution in Toronto is about \$2 billion.”²⁷

The transportation sector in Ontario accounts for 1/3rd of our greenhouse gas (“GHG”) emissions; this sector experienced a 35% increase in GHGs from 44.8 Megatons in 1990 to 60.3 Megatons in 2008.²⁸ According to the Ministry of the Environment:

*Road transportation in Ontario was responsible for the greatest increase in emissions of all Ontario sectors between 1990 and 2008. Ontario’s long-term road transportation emissions increase can be directly related to the 38 per cent growth in the on-road vehicle population, and the increasing consumer preference for SUVs, vans and pickups over smaller gasoline passenger vehicles. Higher long-term transportation emissions also reflect the increasing national trend towards just-in-time delivery.*²⁹

The recent closure of Ontario’s coal plants means that emissions from transportation will represent an even greater share of total emissions. Simply put, more cars and bigger cars have meant more emissions, poorer air quality, and a greater contribution to climate change by drivers.

2.5 Municipalities contribute to and are impacted by climate change

According to C40, a network of “megacities taking action to reduce greenhouse gas emissions”³⁰, cities are responsible for approximately 70% of global carbon emissions.³¹ In Canada, research from the *Federation of Canadian Municipalities* shows that “up to half of Canada’s greenhouse gas emissions are under the direct or indirect control or influence of municipal governments.”³² These figures mean that, without municipal activities to reduce GHGs, we are effectively unable to address climate change.

Cities and towns across Canada have responded to the threat of climate change by undertaking hundreds of initiatives that are explicitly directed at the reduction of greenhouse gas emissions.³³ These

²⁶ *Ibid.*

²⁷ *Ibid.* at 31.

²⁸ *Climate Progress*, *supra* note 22 at 42 and 45.

²⁹ *Ibid.*

³⁰ “About C40”, C40 Cities, online: <www.c40.org/about>.

³¹ Ryan Koronowski, “While The World Waits For A Real Climate Deal, Megacities Are Taking Action”, *Climate Progress* (5 Feb 2014), online: <<http://thinkprogress.org/climate/2014/02/05/3244311/megacities-cutting-carbon-emissions/>> [*Megacities Are Taking Action*].

³² “About Climate Change: why act locally on climate change?”, *Federation of Canadian Municipalities*, online: <www.fcm.ca/home/programs/partners-for-climate-protection/about-climate-change.htm>, citing: “Act Locally: The Municipal Role in Fighting Climate Change”, *Federation of Canadian Municipalities* (8 December 2009), online: <www.fcm.ca/Documents/reports/Act_Locally_The_Municipal_Role_in_Fighting_Climate_Change_EN.pdf> [*Act Locally*].

³³ “Partners for Climate Protection, Demonstrating Results”, *Federation of Canadian Municipalities*, online: <www.fcm.ca/home/programs/partners-for-climate-protection/demonstrating-results.htm> [*FCM*].

activities are consistent with federal and provincial messaging that encourages municipalities to reduce GHGs.³⁴ Indeed, municipal action aimed at the reduction of GHGs is a well-established practice in communities across Canada and around the world.

Communities across the country will be affected by climate change in a variety of ways.³⁵ Examples of impacts to municipalities in Ontario include:

- Increased risk of localized West Nile Virus, Lyme disease, and malaria outbreaks.³⁶
- A drop in lake water levels that jeopardizes local “water quality and supply.”³⁷
- “[M]ore extremely hot days (above 35°C), increasing the risk of heat stress-related illness among the old, the young and those with chronic lung diseases such as asthma”³⁸ and increasing the load on power systems during the summer.
- “An increase in extreme weather events – rain, snow, drought, heat waves, wind and ice storms” and “a failure of our infrastructure to withstand [these] severe weather episodes.”³⁹
- “More severe freezing rain storms, increasing the risk of major power outages.”⁴⁰

For a list of climate change and air pollution impacts in your community, please consult your local board of health.

³⁴ An internet search reveals a variety of examples. For example, former Minister of the Environment John Baird’s spokesperson said: “We’ve said all along that all levels of government are going to have to work together to address climate change and to fight air pollution... Certainly it’s critical all three levels are on-board with this fight.” Source: Michael Oliveira, “Cities can fight climate change best: Report”, *Toronto Star* (23 May 2007), online: <http://www.thestar.com/news/2007/05/23/cities_can_fight_climate_change_best_report.html>; see also *Climate Progress*, *supra* note 22 [Fed and Prov support].

³⁵ Natural Resources Canada, “Adapting to Climate Change: An Introduction for Canadian Municipalities” Government of Canada (2010), online: <<http://www.nrcan.gc.ca/earth-sciences/climate-change/community-adaptation/municipalities/373>>.

³⁶ “Climate Change”, Ontario Ministry of the Environment, online: <http://www.ene.gov.on.ca/environment/en/category/climate_change/index.htm>.

³⁷ *Ibid.*

³⁸ *Ibid.*

³⁹ “Climate Ready: Ontario’s Adaptation Strategy and Action Plan”, Ontario Ministry of the Environment, online: <http://www.ene.gov.on.ca/environment/en/resources/STDPROD_081665.html>.

⁴⁰ Kim Mackrael, “Report warned of increased risk of power outages due to climate change”, *The Globe and Mail* (27 December 2013), online: <<http://www.theglobeandmail.com/news/national/toronto-hydro-study-warned-of-increased-risk-of-power-outages-due-to-climate-change/article16118600/>>.

PART III – WARNING LABELS ON GAS PUMPS

This section explores *Our Horizon's* proposed by-law, experience from tobacco labelling, our idea's theoretical underpinnings, and anticipated positive results from our enacting plan.

3.1 The proposed by-law

The by-law would require gasoline retailers to place 3 inch by 3 inch climate change and air quality warning labels on gas pump nozzles as a condition of obtaining, continuing to hold, or renewing a business licence. Many gas pumps already come equipped with “nozzle talkers” that can be used for this purpose.

3.2 Nozzle talkers

A “nozzle talker” is a sort of rubber sock that fits over standard gas nozzles and is equipped with a flat display area for advertising to face the consumer. Nozzle talkers retail for approximately \$15. A sticker that fits on the 3 inch by 3 inch display area can be printed at nominal cost. The cost of implementing our proposal is small and can easily be covered by a gasoline retailer (see section 4.22).

Nozzle talkers were developed by M&M Displays in 1989.⁴¹ Their website describes the medium as “highly effective” and notes the power of the concept: “This unique merchandising tool literally puts your advertising right into the customers’ hand.”⁴² Phoenix Outdoor, a company that specializes in such advertising, observes:

*[Nozzle Talkers] provide a unique and highly effective exposure for the advertiser. With the ability to reach millions of people on a monthly basis and with up to 4 minutes of direct interaction with the consumer, this medium guarantees a captive audience. They may be the smallest signs in the Phoenix network but they command 100% attention and deliver big. [They] provide the perfect opportunity to capture the consumer’s attention like no other medium... [and] have proven results in increasing brand awareness and product sales.*⁴³

It is clear that the medium is a particularly effective means for communicating information to influence attitudes and behaviour.

⁴¹ “Gas Nozzle Marketing”, M&M Displays, online: <<http://www.manminc.com/#Inozzle-talker/c1n7f>>.

⁴² *Ibid.*

⁴³ “Nozzle Talkers”, Phoenix Outdoor, online: <<http://www.phoenixoutdoor.com.au/ambient>>.

3.3 Warning label design

The warning labels designed by *Our Horizon* have a look and feel that is similar to those used on tobacco packages. The labels are designed to communicate the risks of burning gasoline. It is recommended that municipalities develop their own labels to reflect local impacts of air pollution and climate change as well as more global concerns (see Section 4.16(3)). Please visit our website for samples.



3.4 Successful experience with tobacco warning labels

In 2001, Canada became the first country in the world to require pictorial warning labels on tobacco packages.⁴⁴ Our innovation has since spread all over the world. Now more than 60 countries have pictorial warning labels on their tobacco packages.⁴⁵ In 2009, the European Union commissioned a meta-study that reviewed the scientific literature on the effectiveness of tobacco warning labels.⁴⁶ The report included over 200 studies and is the most comprehensive analysis on the subject. The report concludes:

*There is clear evidence that tobacco package health warnings increase consumers' knowledge about the health consequences of tobacco use and contribute to changing consumers' attitudes towards tobacco use as well as changing consumers' behaviour. They are also a critical element of an effective tobacco control policy.*⁴⁷

⁴⁴ "Canada", Tobacco Labelling Resource Centre, online: <<http://www.tobaccolabels.ca/countries/canada/>>.

⁴⁵ "Cigarette Package Health Warnings: International Status Report", *Canadian Cancer Society*, 3rd ed. (October 2012) at 2, online: <http://global.tobaccofreekids.org/files/pdfs/en/WL_status_report_en.pdf>.

⁴⁶ "A review of the science base to support the development of health warnings for tobacco packages", *Sambrook Research International* (2009) at 1, online: <http://ec.europa.eu/health/tobacco/docs/warnings_report_en.pdf>.

⁴⁷ *Ibid.*

Tobacco companies have acknowledged the impact of these labels by fighting labelling laws all over the world. More generally, there is an entire industry that employs psychologists and runs focus groups to tinker with the images, text, colours, fonts, shapes and textures of packaging – all with the explicit purpose of influencing consumer choices. Clearly, the way a product is presented impacts consumer attitudes and behaviours.

3.5 How the warning labels uniquely address climate change

While there is certainly an analogy to be made with tobacco warning labels, our labels are even more compelling when considered in the context of climate change.

1) The labels create feedback:

Climate change can be understood as a problem of *no feedback*. There is a delay between cause and effect: we burn fossil fuels today but do not get feedback from our actions to signal a need to change our behaviour. This lack of feedback is compounded by what psychologists call ‘hyperbolic discounting’ or the ‘current moment bias.’⁴⁸ This is our tendency to prefer interests that are small and proximate in time relative to interests that are significant but experienced in the future.

Our warning labels compress time to counteract the effects of the current moment bias. They bring faraway consequences – property damage, extreme weather, and drought – into the here and now. In doing so, they introduce critically important feedback to help us respond to climate change and air pollution in a more adaptive way.

2) The labels locate responsibility:

Climate change can also be understood as a problem of *diffusion of responsibility*. As individuals, our contribution to the problem is small; collectively, our actions dangerously alter the chemistry of our planet. Social psychologists know that when responsibility for something is shared among many, we often fail to act.⁴⁹ The antidote is intuitive: “the key” to addressing problems of diffusion of responsibility is “getting others to feel personally responsible for helping to solve problems they may not consider their own.”⁵⁰

So where responsibility for a problem is diffuse, one must simply locate responsibility. The placement of the warning label on a gas pump nozzle takes a problem of diffuse origins and locates

⁴⁸ Adam Kingsmith, “The Psyche Behind Canada’s Environmental Apathy”, *DeSmog Canada* (27 August 2013), online: <<http://www.desmog.ca/2013/08/27/psychology-behind-canada-s-environmental-apathy>>.

⁴⁹ “Diffusion of responsibility”, *Wikipedia*, online: <http://en.wikipedia.org/wiki/Diffusion_of_responsibility>.

⁵⁰ Dr. Alex Lickerman, “The Diffusion Of Responsibility: Why assigning responsibility to groups doesn't work”, *Psychology Today* (14 June 2010), online: <<http://www.psychologytoday.com/blog/happiness-in-world/201006/the-diffusion-responsibility>>.

responsibility right in the palm of your hand. Our idea is not another documentary or vague awareness campaign; there is absolutely nothing like it that connects us to the problems of climate change and air pollution in such a direct way. While our concept may be simple, it truly is a game-changer.

3) The labels communicate externalities in a qualitative way:

Climate change is also a problem of negative externalities. Externalities are costs or benefits that result from the use of a product but are not reflected in its price. In the context of fossil fuels, we often hear negative externalities expressed as “hidden costs”. Carbon taxes and cap-and-trade regimes seek to internalize these harms to convey the “true cost” of fossil fuels to the market.

While we are able to determine the costs of the concrete and rebar required to adapt our infrastructure to the impacts of climate change and reflect these costs in the price of fossil fuels, how do we capture externalities like the loss of a species or human suffering? While economists have actually developed models for pricing human life, we recognize that price is a deficient language for communicating these values to the marketplace.⁵¹ Our warning labels are simply a qualitative way of capturing and communicating externalities to the marketplace: what price seeks to convey in quantitative terms (using dollars and cents), our idea communicates in qualitative terms (using image and text). In the abstract, they both achieve the same thing. On the ground, our idea nurtures a focus that engages our sense of humanity in a way that a price signal never could.

Behavioural economists observe that pricing externalities can switch off moral cues that otherwise regulate human behaviour.⁵² Ban Ki-moon, the Secretary General of the United Nations has called climate change the “moral challenge of our generation.”⁵³ If climate change truly is a moral challenge, why not treat it as such? Our warning labels convey important moral information to the marketplace to help transform communities. It is a market signal that can take us from complaining about the price of gas to demanding that governments and businesses do more to address climate change and air pollution.

For more information on the psychology and economic theory behind our proposal, please visit our website or read our writings at the [Huffington Post](#).

⁵¹ To paraphrase Oscar Wilde: we have come to know the price of everything and the value of nothing.

⁵² Diana Zlomislic, “Daycare late fees no deterrent, study finds”, *Toronto Star* (4 July 2008), online: <http://www.thestar.com/life/health_wellness/2008/07/04/daycare_late_fees_no_deterrent_study_finds.html>.

⁵³ Ban Ki-Moon, “We cannot steal our children’s future” (Speech at United Nations Climate Change Conference in Bali, Indonesia, 12 December 2007), online: <<http://www.un.org/News/Press/docs/2007/sgsm11325.doc.htm>>.

3.6 A disruptive tool to broaden engagement and catalyze action

We may worry about climate change, oilsands, pipelines, etc., but we rarely question the simple act of pumping gas. There is a complete disconnect. The act of going to a gas station and filling up a car has been normalized for several generations. The warning labels take this unexamined act and problematize it. In creating a sense of dissatisfaction with the prevailing mobility solution, they stimulate demand for alternatives. The labels disrupt the status quo, shake us out of our sense of complacency, and provide impetus for us to do better. They are a catalyst for change.

Environmental groups tend to overlook end-use in favour of campaigning against oil companies, points of extraction (e.g. oilsands, offshore drilling) or means of transportation (e.g. pipelines, shipping). The choice appears to be shaped by a strategy to create an “enemy narrative”; unfortunately, the uncomfortable reality is that we all share in responsibility for this problem.⁵⁴ Indeed, the vast majority of greenhouse gases come from end-use; emissions from extraction and processing pale in comparison to emissions from vehicle combustion.⁵⁵ A complacent, disconnected marketplace will never affect change upstream. Engaging consumer demand will finally enable us to address these issues in a meaningful way.

The warning labels are pro-market and non-prescriptive; they simply provide relevant information to the marketplace and rely on the market to respond. The labels will cause some individuals to reduce their emissions but, more importantly, they will result in a shift in our collective demand to facilitate meaningful action on climate change and air pollution. Politicians will have more support to pass climate legislation, invest in public transit, build bike lanes and develop complete communities. Businesses will also innovate to meet the needs of a shifting market. The labels can be thought of as a prerequisite for action on climate change and air pollution. After all, if we can't even honestly acknowledge our problem, what hope do we have in actually addressing it?

⁵⁴ George Marshall, “Climate-change activists are playing a dangerous game with their 'enemy' narrative”, *The Guardian* (16 November 2013), online: <<http://www.theguardian.com/commentisfree/2013/nov/16/climate-change-dangerous-game-enemy-narrative>>.

⁵⁵ “Setting the Record Straight: Lifecycle Emissions of Tar Sands”, *Natural Resources Defense Council* (November 2010) at 7, online: <http://docs.nrdc.org/energy/files/ene_10110501a.pdf> [*Lifecycle Emissions*].

PART IV – LEGAL RESEARCH

This section explores the legal authority for a municipality in Ontario to require gasoline retailers to place warning labels on gas pump nozzles advising consumers of the harms associated with the product they dispense. The *Municipal Act*, 2001, S.O. 2001, c. 25 provides the authority to require such labels through its *Part II* general municipal powers and its *Part IV* licensing powers. The *City of Toronto Act*, 2006, S.O. 2006, c. 11, Sched. A provides similar powers. The warning labels would be a new condition for a gasoline retailer to obtain, continue to hold or renew its business licence.

The legal research in this document is only applicable to municipalities in Ontario. Lawyers in other jurisdictions may use it to assist in the development of their own legal opinions. Notwithstanding this, *Our Horizon Society*, its staff and board of directors assume no responsibility for reliance on the research contained herein. Municipalities are encouraged to consult their legal departments or seek independent legal advice before taking any action to pursue the proposed by-law.

4.1 Municipalities empowered to tackle the challenges of the 21st century

The *Municipal Act* was created to empower communities to respond to the challenges of governing in the 21st century. The *Act* represents the first complete overhaul to the legislation since it was originally introduced in 1849 and provides municipalities with unprecedented powers.⁵⁶ Feldman J.A. outlines the history and purpose of the *Municipal Act* in *Croplife Canada v. Toronto (City)*:

The purpose of creating a new Act was to give municipalities “the tools they need to tackle the challenges of governing in the 21st century” (Ontario, Legislative Assembly, Official Report of Debates (Hansard), 53 (18 October 2001) at 1350 (Hon. Chris Hodgson)), including more authority, accountability and flexibility so that municipal governments would be able to deliver services as they saw fit.”⁵⁷

4.2 A shared responsibility for present and future generations

The Memorandum of Understanding (“MOU”) entered into by the Province of Ontario and the *Association of Municipalities of Ontario* was signed in 2001. The MOU elucidates the relationship between the province and municipalities and notes in its preamble:

The Province of Ontario wishes to work with Ontario municipalities to promote a strong, barrier-free economy and strong communities with a clean, healthy environment;

⁵⁶ “Municipal Act”, *Ministry of Municipal Affairs and Housing*, online: <<http://www.mah.gov.on.ca/Page184.aspx>>.

⁵⁷ *Croplife Canada v. Toronto (City)*, 2005 CanLII 15709 (ON CA) at para. 6 [*Croplife*].

*All Ontarians, individually and collectively, share responsibility for building and sustaining the province on behalf of present and future generations;*⁵⁸

The MOU was enshrined into law by the *Municipal Amendment Act*, 2005, c. 8. It reflects the province's recognition that municipalities and citizens have important roles to play in building a clean, healthy environment for present and future generations.

4.3 Broad authority

Section 8(1) of the *Municipal Act* provides that “the powers of a municipality under this or any other Act shall be interpreted broadly so as to confer broad authority on the municipality to enable the municipality to govern its affairs as it considers appropriate and to enhance the municipality's ability to respond to municipal issues.”⁵⁹

The equivalent section in the *City of Toronto Act* was explored in *Toronto Livery Association v. Toronto (City)*. The unanimous Court of Appeal decision noted that this section is “far-reaching” and that “[i]t applies to the City's general power to make by-laws under s. 8(2) and its specific power under s. 86(1) to establish business licensing systems.”⁶⁰

4.4 Power to regulate, prohibit, require, and licence

Municipalities may legislate with respect to a matter to:

- (a) regulate or prohibit respecting the matter;
- (b) require persons to do things respecting the matter;
- (c) provide for a system of licences respecting the matter.⁶¹

4.5 Power to differentiate

Section 8(4) of the *Municipal Act* provides that a by-law “may be general or specific in its application and may differentiate in any way and on any basis a municipality considers appropriate.”⁶² The warning

⁵⁸ *Memorandum of Understanding between the Association of Municipalities of Ontario and the Province of Ontario*, (Ontario: 19 December 2001).

⁵⁹ *Municipal Act*, 2001, SO 2001, c 25, s. 8(1).

⁶⁰ *Toronto Livery Association v. Toronto (City)*, 2009 ONCA 535 at para. 30. (Note: s. 8(2) in the *City of Toronto Act* mirrors s. 10(2) in the *Municipal Act* and s. 86(1) in the *City of Toronto Act* mirrors s. 151(1) in the *Municipal Act*.)

⁶¹ *Municipal Act*, 2001, SO 2001, c 25, s. 8(3).

⁶² *Ibid.*, s. 8(4).

labels by-law is non-discriminatory as it applies equally to all gasoline retailers within a municipality's jurisdiction.⁶³ Notwithstanding this, climate change is an issue with multiple causes that no single proposal can entirely address. To the extent that our by-law provides differential treatment between sectors that contribute to climate change, a municipality has legitimate discretion to do so under the *Municipal Act*. By-laws that advantage one industry over another have been upheld by the courts.⁶⁴

4.6 By-law subject matter

Sections 10 and 11 of the *Act* provide single-tier and multi-tier municipalities with powers to pass by-laws regarding, *inter alia*:

- *Economic, social, and environmental well-being of the municipality.*
- *Health, safety and well-being of persons.*
- *Protection of persons and property, including consumer protection.*
- *Business licensing.*⁶⁵

Climate change and air pollution impacts municipalities in a variety of ways.⁶⁶ The authority to pass our by-law can be found in multiple sources of municipal power and is explored later in this report.

4.7 Business licensing powers

Section 151 of the *Municipal Act* operates without limiting the general powers contained in section 9, 10, and 11 of the *Act* to provide municipalities with business licensing powers.⁶⁷ These powers “grant

⁶³ This is unlike the situation in *Shell Canada Products Ltd. v. Vancouver (City)*, [1994] 1 SCR 231. In that case, the target of a resolution by the City of Vancouver was a particular gasoline company, not the sector as a whole.

⁶⁴ *Toronto Livery Association v. Toronto (City)*, 2009 ONCA 535 (CanLII) at para. 49.

⁶⁵ *Municipal Act*, 2001, SO 2001, c 25, s. 10(2)¶5 and s. 11(2)¶5; s. 10(2)¶6 and s. 11(2)¶6; s. 10(2)¶8 and s. 11(2)¶8; s. 10(2)¶11 and s. 11(3)¶11.

⁶⁶ Eva Ligeti *et al.*, “A Scan of Climate Change Impacts on Toronto”, Clean Air Partnership (2006), online: <www.cleanairpartnership.org/pdf/climate_change_scan.pdf> [*Clean Air Partnership*].

⁶⁷ Municipalities may provide licensing systems for businesses and may (ss. 151(1)(a)-(g) reproduced in italics):

(a) *prohibit the carrying on or engaging in the business without a licence;*

(b) *refuse to grant a licence or to revoke or suspend a licence;*

(c) *impose conditions as a requirement of obtaining, continuing to hold or renewing a licence;*

(d) *impose special conditions on a business in a class that have not been imposed on all of the businesses in that class in order to obtain, continue to hold or renew a licence;*

(e) *impose conditions, including special conditions, as a requirement of continuing to hold a licence at any time during the term of the licence;*

(f) *license, regulate or govern real and personal property used for the business and the persons carrying it on or engaged in it; and*

(g) *require a person, subject to such conditions as the municipality considers appropriate, to pay an administrative penalty if the municipality is satisfied that the person has failed to comply with any part of a system of licences established by the municipality*

wide authority to the City to pass business licensing by-laws that advance the public interest and respond to the needs of the City.”⁶⁸ They “attract an expansive and deferential interpretation.”⁶⁹ Of particular relevance to our by-law, the Ontario Court of Appeal held in *118143 Ontario Inc. v. Mississauga (City)* that a business licensing system includes “the ability to regulate business premises and the equipment and other personal property used or kept for hire in the business.”⁷⁰ Licensing provisions can often be quite specific. For example, a City of Toronto licensing by-law requires that taxicab owners place approved “Watch for Bikes” stickers on the driver’s side mirror, the right rear side window and the left rear side window of taxis.⁷¹

The *Municipal Act* allows a municipality to impose conditions on gasoline retailers as a requirement of obtaining or maintaining their licenses to do business. Many communities already license gasoline retailers; those that do not nevertheless have the power to do so. A plain reading of this section reveals that, where a license holder does not comply with the conditions of its license, a municipality may revoke its license and prohibit it from carrying on business.

4.8 Multi-tier municipalities and spheres of jurisdiction

Lower-tier and upper-tier municipalities pass by-laws subject to the rules provided in s. 11(4)-(11) that allocate their respective areas of jurisdiction. Subject to a few exceptions, upper-tier municipalities do not have the power to pass business licensing by-laws; business licensing is generally the subject matter of lower-tier municipalities. The subject matter of the herein proposed by-law is within the realm of responsibility of single-tier and lower-tier municipalities. It is doubtful whether an upper-tier municipality can rely exclusively on its general health and welfare powers to pass the proposed by-law.

4.9 Judicial deference to decisions of council

A deferential approach has been adopted by our courts to decisions of municipal councils. The Supreme Court of Canada reviewed the law on the subject in *Nanaimo (City) v. Rascal Trucking Ltd.*:

A by-law is not unreasonable merely because particular judges may think that it goes further than is prudent or necessary or convenient...

...Recent commentary suggests an emerging consensus that courts must respect the responsibility of elected municipal bodies to serve the people who elected

⁶⁸ *Toronto Livery Association v. Toronto (City)*, 2009 ONCA 535 (CanLII), at para. 28 (Note: the equivalent to s. 8(2) in the *City of Toronto Act* is 10(2) in the *Municipal Act*).

⁶⁹ *Ibid.* at para. 29.

⁷⁰ *118143 Ontario Inc. v. Mississauga (City)*, 2004 CarswellOnt 4112 ONCA at para 11.

⁷¹ City of Toronto, *Toronto Municipal Code*, Chapter 545 Licensing, 545-136, E(h).

*them and exercise caution to avoid substituting their views of what is best for the citizens for those of municipal councils...*⁷²

It has long been held that courts are only to deal with the legality of a by-law and should “not [be] concerned with the wisdom of [a] by-law.”⁷³ Section 272 of the *Municipal Act* essentially codifies the common law. It requires that “a by-law passed in good faith under any Act shall not be quashed or open to review in whole or in part by any court because of the unreasonableness or supposed unreasonableness of the by-law.” The Ontario Court of Appeal notes that s. 272 “reinforces the notion that municipal by-laws properly enacted are not to be lightly quashed; they are not open to review even if they are unreasonable.”⁷⁴

The IPCC and various authorities have concluded that the vast majority of remaining fossil fuel reserves must remain underground if we are to avoid catastrophic climate disruption and its myriad impacts. While the proposed warning labels may challenge prevailing cultural norms, there is unequivocal scientific basis for their implementation.

4.10 Council to measure risk, not court

One might question whether the reduction of greenhouse gases by a municipality would have any real impact on climate change or, put more generally, would the proposed remedy ‘solve’ the harm? This question is implicit in the larger question of whether climate change can be understood as a municipal issue. The Ontario Court of Appeal may provide some guidance:

*I agree with the sentiments of the Divisional Court in the Toronto AEP By-law case (at 270) that “[i]t is not for the court to measure [the] risks” to health and safety and consumer protection based on the information the municipality has – “that was for the council”.*⁷⁵

It is not a function of the court to measure risk. A test that would require an intervention to ‘solve’ climate change would be failed by any proposal at every level of government in Canada. Indeed, if the entire province – or even the entire country – stopped emitting greenhouse gases tomorrow, we would still not ‘solve’ climate change. The proper test therefore is simply whether the measure helps to reduce greenhouse gas emissions; anything more than this creates an impossible standard for any level of government.⁷⁶ This is also the only possible standard that would make practicable federal and provincial calls for action on climate change by all levels of government.⁷⁷

⁷² *Nanaimo (City) v. Rascal Trucking Ltd.*, 2000 SCC 13, [2000] 1 SCR 342 at para 36.

⁷³ *Deronin v. Cornwall (Town)* 1940 CarswellOnt 194 [1940] O.W.N. 384, 74 C.C.C. 196, [1940] 4 D.L.R. 410.

⁷⁴ *Grosvenor v. East Luther Grand Valley (Township)*, 2007 ONCA 55 (CanLII) at para 42.

⁷⁵ *The Adult Entertainment Association of Canada v. Ottawa (City)*, 2007 ONCA 389 (CanLII) at para. 30.

⁷⁶ More broadly, fossil fuel extraction and infrastructure projects are routinely approved by regulatory bodies on the basis that their incremental environmental impacts are insignificant when compared against global carbon emissions. To suggest that initiatives that reduce greenhouse gas emissions must somehow achieve more than marginal reductions would be to hold mitigative initiatives to a double standard. Such a standard would create an

The warning labels meet this test. The fact that another level of government can implement it with greater impact is irrelevant: a by-law is not “invalid merely because another level of government could impose [it] with potentially greater effect.”⁷⁸ Moreover, the impacts of vehicular pollution on health and well-being are also local and only underscore municipal jurisdiction in this area.

4.11 Climate change requires action by governments at all levels

We live in an era where senior levels of government appear to be functionally incapable of addressing climate change.⁷⁹ To expect municipalities to suffer the impacts of climate change while at the same time depriving them of the opportunity to respond to its underlying causes would be patently unjust. In *Spraytech v. Hudson*, the Supreme Court of Canada acknowledged the importance of municipal efforts in addressing such global environmental challenges:

The context of this appeal includes the realization that our common future, that of every Canadian community, depends on a healthy environment... This Court has recognized that “[e]veryone is aware that individually and collectively, we are responsible for preserving the natural environment . . . environmental protection [has] emerged as a fundamental value in Canadian society”...

*The case arises in an era in which matters of governance are often examined through the lens of the principle of subsidiarity. This is the proposition that law-making and implementation are often best achieved at a level of government that is not only effective, but also closest to the citizens affected and thus most responsive to their needs, to local distinctiveness, and to population diversity. La Forest J. wrote for the majority in R. v. Hydro-Québec, 1997 CanLII 318 (SCC), [1997] 3 S.C.R. 213, at para. 127, that “the protection of the environment is a major challenge of our time. It is an international problem, one that requires action by governments at all levels” [emphasis in original]. His reasons in that case also quoted with approval a passage from *Our Common Future*, the report produced in 1987 by the United Nations’ World Commission on the Environment and Development. The so-called “Brundtland Commission” recommended that “local governments [should be] empowered to exceed, but not to lower, national norms” (p. 220). [emphasis in original].⁸⁰*

unjust, asymmetric legal environment in which activities that increase emissions are explicitly favoured over activities that decrease emissions. The result would be an open endorsement of climate change and air pollution. Such a result strikes the author as absurd.

⁷⁷ *Fed and Prov support*, *supra* note 34.

⁷⁸ *Eng v. Toronto (City)*, 2012 ONSC 6818 (CanLII) at para. 57 [Eng].

⁷⁹ Michael Oliveira, “Cities can fight climate change best: Report”, *Toronto Star* (23 May 2007), online: <http://www.thestar.com/news/2007/05/23/cities_can_fight_climate_change_best_report.html>.

⁸⁰ *114957 Canada Ltée (Spraytech, Société d'arrosage) v. Hudson (Town)*, 2001 SCC 40, [2001] 2 SCR 241, paras. 1-3 [Spraytech].

Climate change is the exact sort of major environmental challenge that is contemplated by *Spraytech*. The reduction of greenhouse gas emissions is an effort that needs to be undertaken by all levels of government. This view is consistent with provincial and federal messaging on climate change⁸¹ and long-standing practice in cities and towns across Canada.⁸² The “validity of tri-level regulation” as noted by the Ontario Court of Appeal in *Croplife Canada v. Toronto (City)* has been “unambiguously endorsed by the Supreme Court of Canada... as the accepted model in our federal system.”⁸³

4.12 Warning labels on tobacco and compelled speech

The Supreme Court of Canada held in a majority decision in *RJR-MacDonald Inc. v. Canada* that warning labels on tobacco packages violated manufacturers’ section 2(b) freedom of expression rights under the *Charter of Rights and Freedoms* since “freedom of expression necessarily entails the right to say nothing or the right not to say certain things.”⁸⁴ It added that the infringement could have been justified under s. 1 of the *Charter* but that the proposed designs were not attributed to the government and could give rise to the inference that the warnings were from the manufacturers themselves. The majority held that the government was unable to justify this non-attribution and struck down the legislation.⁸⁵

The federal government responded by revising its legislation such that the warnings were attributed; this is why cigarette packaging in Canada today includes the text “Health Canada”. The issue was revisited by the Supreme Court of Canada in *Canada v. JTI-Macdonald Corp.* and the labels were upheld.⁸⁶ Our gas pump warning labels anticipate this s. 2(b) challenge by including attributions in small print at the bottom of our mock-ups.⁸⁷ While the tobacco warning labels were a federal initiative, the *Charter* analysis would likely remain the same in the municipal context.

4.13 Consumer information labels on business property

In 2001, the City of Toronto launched a program that required restaurant owners to place information notices on their entrances to communicate the results of their health inspections to customers. The City relied on its general health and welfare powers and its licensing powers to pass the by-law.⁸⁸

The by-law was challenged by the Ontario Restaurant Hotel & Motel Association (“ORHMA”) on several

⁸¹ *Fed and Prov support, supra* note 34.

⁸² *FCM, supra* note 33.

⁸³ *Croplife, supra* note 57 at para 58.

⁸⁴ *RJR-MacDonald Inc. v. Canada (Attorney General)*, [1995] 3 SCR 199 at para. 113 [*RJR-MacDonald*].

⁸⁵ Interestingly, the minority held that the unattributed messages actually did not violate tobacco manufacturers’ freedom of expression. La Forest J. wrote that the expression in question was commercial in nature and far from “the ‘core’ of freedom of expression values” and “must then be accorded a very low degree of protection.”

⁸⁶ *Canada (Attorney General) v. JTI-Macdonald Corp.*, 2007 SCC 30, [2007] 2 SCR 610.

⁸⁷ A possible attribution might read: “Required by Municipality of ABC by-law 2014-058.”

⁸⁸ *Ontario Restaurant Hotel & Motel Ass. v. Toronto (City)*, 2004 CanLII 34445 (ON SCDC).

grounds. The Superior Court held that the City's by-law did not clash with provincial health law.⁸⁹ It also concluded that the notices did not infringe on license holders' s. 2(b) freedom of expression rights which, even if it did, was held to be justifiable given that the notices were "clearly attributed to the City of Toronto and not to the individual restaurant owner."⁹⁰

The Superior Court further observed that the information labels "do not in any way prohibit a restaurant owner from disavowing whatever messages the notices contain. An owner is free to post any message the owner chooses in response to the inspection notice."⁹¹ Similarly, gasoline retailers have much space on which to communicate their own messages in response to the labels proposed for their gas nozzles.

The Court of Appeal found that the by-law was rooted in "significant public health and consumer protection imperatives" and merely required the license holder to disclose risks associated with the consumption of its product.⁹² It upheld the decision and added that "the Charter does not prohibit governments from communicating messages that contradict commercial messages."⁹³ Our warning labels are similarly rooted in significant public health and consumer protection concerns.⁹⁴ The labels merely disclose the risks associated with consumption of the licence holders' product.

4.14 Objectives of by-law are not limited by municipal boundaries

Subject to certain exceptions, the by-laws of a municipality apply only within its boundaries;⁹⁵ however economic, social, environmental, and health issues are seldom limited by political borders. Fortunately, municipal councils are permitted to consider extraterritorial matters in their deliberations. Prominent municipal lawyer George Rust-D'Eye expressed this in his deputation on the proposed shark fin ban at the City of Toronto's Licensing and Standards Committee:

"Of course the by-law can only apply within the city but that does not mean that the city council must close its mind to matters outside of the city. The power to pass by-laws with respect to the environment is hardly limited to the city."⁹⁶

While Toronto's shark fin ban was ruled *ultra vires* in *Eng v. Toronto (City)*, Justice Spence acknowledged that a council "can have regard for matters beyond its boundaries in exercising its powers but in so

⁸⁹ *Ibid.* at para. 20.

⁹⁰ *Ibid.* at para. 46.

⁹¹ *Ibid.* at para. 47.

⁹² *Ontario Restaurant Hotel & Motel Association v. Toronto (City)*, 2005 CanLII 36152 (ON CA) at para 14.

⁹³ *Ibid.* at para 11.

⁹⁴ Public Health Agency of Canada, "Climate Change and Public Health Factsheets", Government of Canada, online: <<http://www.phac-aspc.gc.ca/hp-ps/eph-esp/fs-fi-a-eng.php>>.

⁹⁵ *Municipal Act*, s. 19.

⁹⁶ George Rust-D'Eye, "Banning the Possession, Sale, and Consumption of Shark Fin Products LS 9.3" City of Toronto (Deputation to Licensing and Standards Committee, 13 October 2011).

doing any action taken must have as its purpose benefit to the citizens of the City.”⁹⁷ While our labelling by-law would apply only within a municipality’s geographical boundary, a council can consider the impacts of burning fossil fuels across ecosystems.

4.15 Shark fin bans distinguished

The City of Toronto recently had its shark fin ban overturned in *Eng v. Toronto (City)*, 2012 ONSC 6818 (CanLII). Part of Justice Spence’s reasoning was based on his finding that the ban would not “have any identifiable benefit for Toronto with respect to the environmental well-being of the City.”⁹⁸ He refers to *Shell Canada Products Ltd. v. Vancouver (City)*, [1994] 1 SCR 231, a Supreme Court of Canada decision regarding a resolution by the City of Vancouver not to do business with Shell due to its investments in South Africa during apartheid:

... I therefore agree with the trial judge that the respondent was seeking to use its powers to do business ‘to affect matters in another part of the world’ (pp. 348-49), a purpose which is directed at matters outside the territorial limits of the City...

*... the purpose of the Resolutions is to affect matters beyond the boundaries of the City without any identifiable benefit to its inhabitants.*⁹⁹

Justice Spence also paraphrases LeBel J. who wrote for the minority in *Spray-Tech* by noting that “there must be a problem that engages the community as a local entity, not [only as] a member of the broader politic.”

The shark fin decision can be distinguished on a number of grounds.

1) The labels merely provide information, they are not a ban

Eng v. Toronto (City) concerns an outright ban on an otherwise legal product. Our labelling by-law is not a ban; it is merely the provision of information to consumers. It is more akin to *RJR-MacDonald* and *Ontario Restaurant Hotel & Motel Association v. Toronto*. Relative to the shark fin ban, our proposal is not restrictive at all; citizens would be free to consume gasoline exactly as they did in the absence of the labelling by-law. The unintrusive nature of our by-law is made even more evident when considered against the “existential threat”¹⁰⁰ that is climate change.

⁹⁷ *Eng, supra* note 78 at para. 51.

⁹⁸ *Ibid.* at para 66.

⁹⁹ *Ibid.* at para 51.

¹⁰⁰ “UN Secretary-General in Davos: Climate Change is “only one truly existential threat”, *International Institute for Sustainable Development* (29 January 2009), online: < <http://climate-l.iisd.org/news/un-secretary-general-in-davos-climate-change-is-%E2%80%99Only-one-truly-existential-threat%E2%80%9D/>>.

2) Greenhouse gas reduction efforts by municipalities are custom

The practice of finning sharks quickly became a cause célèbre in municipal circles in 2011. Prior to this period, the subject matter appears to have had no historic consideration by local government in Canada. The question of whether there existed a valid municipal purpose was very much a live issue. In the end, only a handful of municipalities actually passed bans on shark fin products.

The context for our labelling by-law is entirely different. Municipalities across our country have undertaken hundreds of initiatives directed at the reduction of greenhouse gas emissions over the course of many years.¹⁰¹ Federal and provincial governments are explicit in their encouragement for all levels of government to act on climate change.¹⁰² The practice of municipal action to reduce greenhouse gas emissions is accepted custom; it would seem highly unlikely for a court to rule to the contrary.

3) Location of the act and location of the harm

In *Eng v. Toronto (City)*, there was a weak nexus to matters of local concern. The act that caused the harm (i.e. a person finning a shark) and the harm itself (i.e. a shark being finned) occurred in distant oceans. As with *Shell*, the shark fin ban in *Eng* sought to “affect matters in another part of the world.”¹⁰³ This distance was compounded by an intervention whose intended impact was mediated by abstract principles of supply and demand.¹⁰⁴

In the context of our proposal, both the location of the act that causes the harm and the location where the harm is experienced occur entirely within a municipality’s borders. While activists and media tend to focus on oilsands, pipelines, etc., a well-to-wheel analysis confirms that the vast majority of GHGs from this sector comes from end-use (i.e. vehicle combustion).¹⁰⁵ Unlike in *Eng*, our intervention is not mediated by abstract principles of supply and demand. The connection is direct: as soon as I finish pumping gas and turn my key in the ignition, I am causing the harm. Indeed, our by-law does not seek to “affect matters in another part of the world”; it addresses a matter that is happening down the street.

The impacts of GHGs vary from place to place and engage communities as local entities.¹⁰⁶ A recent example from British Columbia is illustrative: ten people were laid off last month in Nanaimo when a processing plant was shut down due to 10 million scallops that were lost to ocean acidification.¹⁰⁷

¹⁰¹ *FCM*, *supra* note 33.

¹⁰² *Fed and Prov support*, *supra* note 34.

¹⁰³ *Eng*, *supra* note 78 at 51.

¹⁰⁴ *Eng*, *supra* note 78 at 43.

¹⁰⁵ *Lifecycle Emissions*, *supra* note 55.

¹⁰⁶ *Clean Air Partnership*, *supra* note 66.

¹⁰⁷ John Harding, “10 million scallops are dead; Qualicum company lays off staff”, *The Parksville Qualicum Beach News* (25 February 2014), online: <<http://www.pqbnews.com/news/247092381.html>>.

By contrast, a logging community in BC's interior would be more concerned with the impacts to forests from the proliferation of the Mountain Pine Beetle due to warmer winters.¹⁰⁸ The local distinctiveness of these impacts recalls the principle of subsidiarity from *Spraytech* and highlights that it is actually the municipal level of government that is best situated to implement our warning labels. The local nexus for our by-law is even further strengthened by the fact that air pollution from vehicles impacts health and the environment on a very local level.¹⁰⁹

In short, the *Eng* decision involved a set of facts that were fundamentally different from the herein proposed by-law. Notwithstanding this, *Eng* and *Shell* provide some guidance with respect to label design. The reasoning in these decisions that permits a council to "... have regard for matters beyond its boundaries in exercising its powers..."¹¹⁰ supports, by extension, the development of a series of warning labels that reflect local matters which are complemented by a series of label designs that reflect more global concerns.

4.16 Identifiable benefits to the municipality

The following subsections illustrate some of the ways in which our warning labels benefit a municipality. It is not intended to be an exhaustive list.

1) Reduction in vehicular emissions

The reduction of air pollution and greenhouse gases from vehicular emissions is in itself an identifiable benefit to a municipality. This awareness is already evidenced by anti-idling by-laws (discussed in Section 4.17) and by hundreds of municipal initiatives directed at reducing these harmful emissions.¹¹¹

The proposed by-law is aimed at a sector that is a significant source of greenhouse gases and air pollution and is rationally connected to the objective of reducing these harmful emissions. Our research suggests that the by-law will help to change attitudes and behaviours. Changes in behaviour would result in a direct reduction of harmful emissions while shifts in attitude would facilitate further initiatives to enhance the environmental well-being of a community.

Cities are responsible for approximately 70% of global carbon emissions.¹¹² In Canada, up to half of our greenhouse gas emissions are under the "control or influence of municipal governments."¹¹³ If a court were to conclude that municipalities have no authority to reduce these emissions, it would effectively

¹⁰⁸ "Mountain pine beetle poised to ravage Eastern Canada", *CBC News* (4 April 2013), online: <<http://www.cbc.ca/news/technology/mountain-pine-beetle-poised-to-ravage-eastern-canada-1.1339467>>.

¹⁰⁹ *Air Pollution Burden of Illness from Traffic*, *supra* note 25.

¹¹⁰ *Eng*, *supra* note 77 at 51.

¹¹¹ *FCM*, *supra* note 33.

¹¹² *Megacities Are Taking Action*, *supra* note 31.

¹¹³ *Act Locally*, *supra* note 32.

be consigning us to unmitigated climate disruption. Such a decision would fly in the face of federal and provincial calls for municipal action, delegitimize years' worth of municipal GHG reduction efforts, and risk opening up existing municipal initiatives to judicial challenge. Such a ruling seems highly implausible.

2) Shifts in attitude that directly benefit the municipality

A *Globe and Mail* article captures the political gridlock in our communities: "Toronto's leaders have not persuaded the public of the need for more spending on transit to break through the region's growing gridlock. Surveys... show people in Toronto and Hamilton are opposed to paying new taxes and fees to raise the billions needed to expand regional transportation infrastructure."¹¹⁴

The vast majority of people in Toronto commute by car.¹¹⁵ If a city like Toronto implements our by-law, millions of citizens would be exposed to the warning labels on a regular basis. Citizens would become less satisfied with existing mobility solutions and more interested in supporting alternatives. This shift in attitude gives an elected representative the political capital they need to fund public transit, increase bike lanes, and implement various sustainability initiatives. A councillor could rise and say, "Look, I've been getting your calls and I've seeing these labels too. I'm just as frustrated and worried as you are. Let's finally invest in public transit and more sustainable infrastructure." The labels would advance core municipal subject matter to enhance the economic, social, and environmental well-being of a city.

3) Health, safety and well-being of persons

Climate change presents a myriad of health and safety concerns. Citizens in cities and towns will face an increased risk of contracting West Nile Virus, Lyme disease, and malaria; risks to water quality and supply; more extreme weather, heat waves, etc. Vehicle emissions have also been associated with cardiovascular disease, stroke, lung cancer in adults, leukemia in children, reduced fertility in men, low birth weight, and other health concerns.¹¹⁶ The World Health Organization has identified local air pollution as "the most important environmental carcinogen, more so than passive smoking."¹¹⁷ The warning labels address these concerns by reducing harmful emissions to advance the health, safety and well-being of persons.

¹¹⁴ John Lorinc, "Residents remain skeptical on Metrolinx funding", *The Globe and Mail* (24 October 2012), online: <<http://www.theglobeandmail.com/news/toronto/residents-remain-skeptical-on-metrolinx-funding/article4633703/>>.

¹¹⁵ "Majority of Toronto commuters still get in cars to get to work: census", *CBC News* (10 March 2008), online: <<http://www.cbc.ca/news/canada/toronto/majority-of-toronto-commuters-still-get-in-cars-to-get-to-work-census-1.701205>>.

¹¹⁶ *Air Pollution Burden of Illness from Traffic*, *supra* note 25.

¹¹⁷ "Air pollution causes lung cancer, WHO agency decides" *Associated Press* (17 October 2013), online: <<http://www.cbc.ca/news/health/air-pollution-causes-lung-cancer-who-agency-decides-1.2100862>>.

Impacts from extreme weather events have been related to higher rates of depression, anxiety, violence, and suicide.¹¹⁸ Mental health experts also observe that “at the deepest level, the debate about the consequences of climate change gives rise to profound questions about the long-term sustainability of human life and the Earth's environment.”¹¹⁹ Climate change as an existential threat causes many to “commonly [respond with] distress and anxiety. People may feel scared, sad, depressed, numb, helpless and hopeless, frustrated or angry.”¹²⁰ Children and adolescents are among groups that appear particularly at risk to “experience more intense worry that causes distress and or interferes with normal day to day life.”¹²¹ Our use of fossil fuels is having a profound impact on the health and well-being of an entire generation.

The concept of ‘well-being’ is not defined in the *Municipal Act* but case law can offer some guidance.¹²² In *R. v. Ferguson* (1906), Falconbridge C.J. explored the meaning of “well-being” in the preamble to the *Factories Act*, 47 Vict. Ch. 39 (O.) and concluded that “‘well-being’ includes moral as well as physical well-being...”¹²³ In *Janzen v. Janzen*, Aitken J. writes that the concept of ‘well-being’ as it appears in the *Health Care Consent Act*, 1996, SO 1996, c 2, Sch A is “a very broad concept which encompasses many considerations, including quality of life.”¹²⁴ The term was also explored in the context of the *Insurance Act*, R.S.N.B. 1973, c. 1-12 by Savoie J. who referenced with approval the *Webster’s Dictionary* definition of “well-being” as “the state of being happy, healthy or prosperous.”¹²⁵

Whatever the content of “well-being” in s. 10(2)6 of the *Municipal Act*, between the concepts of “health” and “well-being” of persons, this section would enable a municipality to pass by-laws that address the psychological aspects of climate change. Studies show that taking measures to address climate change can result in a variety of psychological benefits.¹²⁶ Interestingly, these positive health outcomes “derive from actions that people believe address the climate problem – even if the actual effect on climate is minimal or nonexistent.”¹²⁷ Thus, when it comes to health and well-being, it would appear that an identifiable benefit to a municipality exists in the very act of passing climate legislation.

¹¹⁸ Jessica Fritze *et al.*, “Hope, despair and transformation: Climate change and the promotion of mental health and wellbeing” *International Journal of Mental Health Systems* 2:13 (17 September 2008), online: <www.ijmhs.com/content/pdf/1752-4458-2-13.pdf> [*Climate Change and Mental Health*].

¹¹⁹ *Ibid.* at 9.

¹²⁰ *Ibid.* at 6.

¹²¹ *Ibid.* at 7.

¹²² *Noscitur a sociis* suggests that the term “well-being” in s. 10(2)6 be informed by the concepts of health and safety but the rule of effectivity presumes that the term “well-being” is not superfluous and must have some meaning distinct from the words “health” and “safety.” What is clear is that the content of the word “well-being” in s. 10(2)6 is much broader than its use in s. 10(2)5 where it is narrowed by the antecedents “economic, social, and environmental”; in s. 10(2)6, “well-being” stands as a concept of its own.

¹²³ *R. v. Ferguson* [1906] O.J. No. 144, 13 O.L.R. 479 at para. 21.

¹²⁴ *Janzen v. Janzen* (2002), [2002] O.J. No. 450, 44 E.T.R. (2d) 217, 2002 CarswellOnt 468 (Ont. S.C.J.) at para. 41.

¹²⁵ *Co-operators General Insurance Co. v. National Life Assurance Co. of Canada* (1991), 1991 CarswellNB 75, [1992] I.L.R. 1-2831, 118 N.B.R. (2d) 353 (N.B. Q.B.) at para. 14.

¹²⁶ Dr. Janet Swim *et al.*, “Psychology and Global Climate Change: Addressing a Multi-faceted Phenomenon and Set of Challenges”, *American Psychological Association* (2011), online: <<http://www.apa.org/science/about/publications/climate-change.aspx>> at 49.

¹²⁷ *Ibid.*

4) Economic, social, and environmental well-being of the municipality

The economic impact of congestion in Toronto is \$6 billion in lost productivity on a yearly basis.¹²⁸ To the extent that the labels can help change commuter behaviour and shift attitudes to facilitate investment in public transit, they help to reduce this economic loss and provide a direct benefit to the community. The health costs of vehicular emissions are also significant: the “mortality-related economic impact of traffic pollution in Toronto is about \$2 billion.”¹²⁹ A reduction in vehicular emissions provides economic, social and environmental benefits to municipalities. Communities across Ontario would experience similar benefits.

This winter’s ice storm cost the City of Toronto \$70 million in tree-related cleanup alone.¹³⁰ A flood last summer was estimated to cost the City \$60 million and resulted in \$850 million in private insurance claims.¹³¹ Carbon pollution also contributes to heat waves which can cause social unrest.¹³² Climate change will make such extreme weather events more frequent and more severe. As explored in previous sections, a reduction in greenhouse gas emissions is directed at the root cause of extreme weather and is a legitimate exercise of municipal authority.

5) Protection of persons and property, including consumer protection

Dr. James Hansen, globally-renowned climate expert, observes that “we are in a planetary emergency” and decries “the gap between what is understood by the scientific community and what is known by the public.”¹³³ Canadian scientists have expressed similar concerns.¹³⁴ John Smol, Canada Research Chair in Environmental Change at Queen’s University, observes that the “problem of greenhouse gas emissions is the ‘biggest’ one on the planet but there is a “complete disconnect on how serious the problem is.”¹³⁵

¹²⁸ Karissa Donkin, “Transit funding: Toronto Region Board of Trade ad campaign aims to build support to ‘get traffic moving again’” *Toronto Star* (1 April 2013), online: <http://www.thestar.com/news/gta/2013/04/01/transit_funding_toronto_region_board_of_trade_ad_campaign_aims_to_build_support_to_get_traffic_moving_again.html>.

¹²⁹ *Air Pollution Burden of Illness from Traffic*, *supra* note 25 at 31.

¹³⁰ “Full extent of Toronto ice storm damage still unknown”, *CBC News* (3 February 2014), online: <<http://www.cbc.ca/news/canada/toronto/full-extent-of-toronto-ice-storm-damage-still-unknown-1.2522150>>.

¹³¹ Kim Nursall, “Flood will cost City of Toronto more than \$60 million”, *Toronto Star* (17 September 2013), online: <http://www.thestar.com/news/gta/2013/09/17/flood_will_cost_city_of_toronto_more_than_60_million.html>.

¹³² Courtney Humphries, “Climate change may mean more crime”, *Boston Globe* (2 March 2014), online: <<http://www.bostonglobe.com/ideas/2014/03/02/climate-change-may-mean-more-crime/dZCKg5nx7mUcj513lwAEyO/story.html>>.

¹³³ Mariano Andrade, “‘Planetary emergency’ due to Arctic melt, experts warn” *AFP* (19 September 2012), online: <http://www.google.com/hostednews/afp/article/ALeqM5jKkR0IRUKbR6Se7mFZu_qfcFWZTw>.

¹³⁴ Letter from prominent Canadian climate scientists, economists and policy experts to Minister of Natural Resources Joe Oliver (7 May 2013), online: <<http://www.scribd.com/doc/140256709/Letter-to-Joe-Oliver>>

¹³⁵ Raveena Aulakh, “Scientists offer to explain climate change to resource minister Joe Oliver”, *Toronto Star* (9 May 2013), online: <http://www.thestar.com/news/canada/2013/05/09/scientists_offer_to_explain_climate_change_to_resource_minister_joe_oliver.html>.

Studies show that Canadians are failing to appreciate the impacts of climate change.¹³⁶ The labels protect consumers by communicating the risks of fossil fuel use.

Extreme weather brought on by climate change will cause damage to persons and property. Insurance companies are aware of this risk and are already adjusting premiums to reflect damage to property. Measures aimed at the reduction of fossil fuel use are ultimately aimed at the protection of persons and property. The labels also advance consumer protection objectives by communicating the risks of air pollution from vehicular emissions.

4.17 Anti-idling by-laws and climate change

Emissions from internal combustion vehicles affect local air quality and contribute to climate change. Anti-idling by-laws are one of many ways by which municipalities have responded to the multiple harms of vehicular emissions. For example, the preamble to the City of Mississauga's anti-idling by-law references carbon dioxide and their objective of "reducing emissions contributing to climate change."¹³⁷ The City of Hamilton's by-law notes that "motor vehicles are a major source of greenhouse gases" and that the City is "committed to reducing greenhouse gas emissions" to protect the climate.¹³⁸ Similarly, the Town of Markham observes in their by-law that "vehicles are sources of carbon dioxide" and that the town is "committed to reducing greenhouse gas emissions."¹³⁹ Implicit in these ubiquitous by-laws is an accepted recognition of climate change as a matter of local concern.

While the rationale behind anti-idling by-laws and warning labels is the same, it's worth observing that, from a citizen's perspective, the warning labels are much less restrictive. Anti-idling by-laws require citizens to stop running their engines after a prescribed period of time; they proscribe freedom. Our warning labels simply provide information; citizens are free to respond as they like or can ignore the message altogether. While the idea of warning labels on gas pumps is 'new' and sure to be challenging for many, it is actually much less restrictive than measures directed at the same harms that are already commonplace.

¹³⁶ "Focus Canada 2013: Canadian public opinion about climate change", *The Environics Institute* (18 November 2013), online: <www.davidsuzuki.org/media/news/2013/11/survey-canadians-losing-confidence-in-government-leadership-on-climate-change/>.

¹³⁷ City of Mississauga, By-Law 194-09, *Idling Control* (24 June 2009).

¹³⁸ City of Hamilton, By-Law No. 07-160, *To Prohibit Unnecessary Idling of Vehicles within the City of Hamilton* (16 May 2007).

¹³⁹ Town of Markham, By-Law 2005-192, *Idling Control* (29 June 2005).

4.18 Public nuisance

Section 128 of the *Municipal Act* grants municipalities the authority to regulate with respect to public nuisances:

(1) Without limiting sections 9, 10 and 11, a local municipality may prohibit and regulate with respect to public nuisances, including matters that, in the opinion of council, are or could become or cause public nuisances.

(2) The opinion of council under this section, if arrived at in good faith, is not subject to review by any court.

Can the burning of fossil fuels – something that has been considered a boon in modern times – also come to be understood as a public nuisance? There already exists academic literature that explores automobile emissions as a public nuisance.¹⁴⁰ Indeed, pronouncements from the IPCC, the IEA, the World Bank, the IMF and various other organizations suggest this shift in understanding is already underway. To the extent that climate change will lead to disease, damage to private property, costly repairs to municipal infrastructure and so on, it is arguable that the burning of fossil fuels is in fact a public nuisance. The argument becomes even more compelling when one considers the fact that emissions from vehicles have been linked to cardiovascular disease, stroke, lung cancer, etc. and compromise the health and well-being of citizens in our communities.

The phrasing of this section suggests that if a council arrives in good faith at the opinion that emissions from burning fossil fuels in vehicles are a public nuisance, then its decision would not be subject to judicial review. This interpretation is supported by *Uukkivi v. Lake of Bays*:

Under s. 128 (2) of the Act, the opinion of council as to what is or is not a nuisance is, if arrived at in good faith, not subject to review by any court. The term “nuisance” is not defined in the statute and in the context of the Municipal Act is no longer confined to those acts and matters which would have constituted nuisance at common law.¹⁴¹

While this document relies on a municipality using its general municipal powers and its licensing powers to pass the proposed by-law, it is conceivable that it could also be supported on the basis of the public nuisance provision in s. 128 of the *Municipal Act*. Indeed, when one considers the impacts of air pollution and climate change on our communities, it becomes difficult to credibly argue that the burning of fossil fuels is *not* a public nuisance. A reference to this section in a by-law’s preamble would only strengthen the legal foundation for the proposal.

¹⁴⁰ Jonathan Zasloff, “The Judicial Carbon Tax: Reconstructing Public Nuisance and Climate Change”, 55 UCLA L. Rev. 1827 (2007-2008); Randall Abate, “Automobile Emissions and Climate Change Impacts: Employing Public Nuisance Doctrine as Part of a Global Warming Solution in California”, 40 Conn. L. Rev. 591 (2007-2008); Thomas Merrill, “Global Warming as a Public Nuisance”, 30 Colum. J. Envtl. L. 293 (2005).

¹⁴¹ *Uukkivi v. Lake of Bays (Township)*, 2004 CanLII 71891 (ON SC), at para. 44.

4.19 Technical Standards and Safety Act

A municipality recently asked us whether the *Technical Standards and Safety Act* (“TSSA”) would impact our by-law since the TSSA contains a conflict resolution provision that states it prevails over any municipal by-laws.¹⁴² While this provision is worded more broadly than conflict resolution provisions in other Acts, the Ontario Court of Appeal has left open the question as to whether the requirement of an actual conflict is implicit in such provisions.¹⁴³

In *Superior Propane Inc. v. York (City)*, the City of York passed a zoning by-law that attempted to regulate propane storage and dispensing facilities. The by-law specified the maximum size and height of storage tanks, setbacks, and fencing – all of which were at odds with specifications provided by the predecessor legislation to the TSSA. The Court of Appeal observed that if the provincial legislation was intended to be exhaustive and if the impugned by-law advanced “the same policy” and covered “the same ground” then there would be a conflict. Further, if the by-law worked “at cross purposes to the provincial statute, then the case for conflict is reinforced.”¹⁴⁴ Given the underlying facts, the Court held that the by-law was in conflict with the provincial legislation.

Our labelling by-law is very different from the fact scenarios that typically give rise to such conflicts. The TSSA deals with technical standards and contemplates a different set of safety concerns than those addressed by our by-law. Our idea addresses climate change and air pollution; it does not advance the same policy or cover the same ground as the TSSA. Further, there is no actual operative conflict; our idea does not work at cross purposes with the Act. Indeed, there is nothing in our by-law for the TSSA to prevail over.

Canada takes a purposive approach to statutory interpretation: “the words of an Act are to be read in their entire context and in their grammatical and ordinary sense harmoniously with the scheme of the Act, the object of the Act, and the intention of Parliament.”¹⁴⁵ The TSSA is a narrow, technical statute. To interpret it in such a way that it precludes the operation of the herein proposed by-law would be to misconstrue the purpose of the Act and defeat the intention of the legislature.

4.20 Support from the former *Municipal Act*

Prior to being amended in 2006, the *Municipal Act* provided that communities had the power to license and regulate businesses subject to several exclusions. Section 150(7)(c) once provided that municipalities could not license or regulate “the generation, exploitation, extraction, harvesting,

¹⁴² *Technical Standards and Safety Act*, 2000, SO 2000, c 16, s. 39.

¹⁴³ *Superior Propane Inc. v. York (City)*, 1995 CanLII 415 (ON CA), at para 5.

¹⁴⁴ *Ibid.*

¹⁴⁵ *Rizzo & Rizzo Shoes Ltd. (Re)*, [1998] 1 SCR 27, at para. 21.

processing, renewal or transportation of natural resources.”¹⁴⁶ Conspicuously absent from this exhaustive list is the point of final retail. The principle *expressio unius est exclusio alterius* highlights the distinctly local nature of end-use and evidences a historic legislative intent to give municipalities latitude in the regulation of gasoline retailers. The repeal of this section and the movement to broader licensing powers reflects a legislative intent to give municipalities even more discretion in this area.

4.21 Interference with business

The question of illegality due to interference in a licence holder’s business was explored by the Court of Appeal in *Toronto Taxi Alliance Inc. v. Toronto (City)*. In this case, restrictions placed on the taxicab industry were upheld. The court found that “the by-law was passed for a proper purpose” and the fact that it “interferes to some extent with the contractual and financial decision making of licence holders does not render the by-law invalid.”¹⁴⁷ This is consistent with *Re Christie Taxi Ltd. and Doran* where the court observed that a by-law that regulates a business “is valid even though it interferes with private contractual and civil rights.”¹⁴⁸

In considering warning labels on tobacco packages, La Forest J. wrote for the minority in *RJR-MacDonald* that “[t]he warnings do nothing more than bring the dangerous nature of these products to the attention of the consumer... the only cost associated with the unattributed health warning requirement was a potential reduction in profits; manufacturers of dangerous products can reasonably be expected to bear this cost.”¹⁴⁹

The IPCC and various other organizations have concluded that we must leave the vast majority of fossil fuels underground or we jeopardize the viability of our planet for future generations. Vehicular emissions also have a direct impact on our health and result in significant economic costs. In this context, any interference with private contractual and civil rights and any reduction in profit can only reasonably be expected given the dangerous and costly nature of the product.

4.22 Gasoline retailers pay for reasonable licensing costs

Part XII of the *Municipal Act* enables municipalities to levy certain fees and charges. Costs incurred by the municipality in administering the warning labels by-law can be recovered via licensing fees so long as the fees “bear a reasonable relation to the cost of providing the service” and are intended to “defray expenses, not to raise revenue”.¹⁵⁰ Fortunately, the licensing fees to a gasoline retailer would likely be deemed reasonable as stickers and nozzle talkers can be purchased at nominal cost.

¹⁴⁶ *Municipal Act*, 2001, SO 2001, s. 150(7)(c) immediately prior to amendment by *Municipal Statute Law Amendment Act*, 2006, S.O. 2006, c. 32.

¹⁴⁷ *Toronto Taxi Alliance Inc. v. Toronto (City)*, 2005 CanLII 47232 (ONCA), at para. 53.

¹⁴⁸ *Re Christie Taxi Ltd. and Doran*, 1975 CanLII 336 (ON CA).

¹⁴⁹ *RJR-MacDonald*, *supra* note 84.

¹⁵⁰ *Urban Outdoor Trans Ad v. Scarborough (City)*, 2001 CanLII 24140 (ON CA), at para. 31.

Of particular interest to fiscally-minded councillors is the negligible cost of our proposal when considered against the billions of dollars in adaptation costs that must now be covered by taxpayers. Indeed, our idea is quite possibly one of the least expensive climate interventions in the world. In light of this, it would appear to be fiscally imprudent for a councillor *not* to pursue the warning labels.

4.23 Precautionary principle

The precautionary principle is “a principle of customary international law” that is “codified in several items of domestic legislation” and was quoted with approval by the majority in *Spraytech v. Hudson*:¹⁵¹

*In order to achieve sustainable development, policies must be based on the precautionary principle. Environmental measures must anticipate, prevent and attack the causes of environmental degradation. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.*¹⁵²

While the science is unequivocal that our use of fossil fuels alters our atmosphere, affects our air quality, etc., it is useful to recall the precautionary principle when considering our by-law. Lack of full scientific certainty should not hinder a municipality’s efforts to reduce its greenhouse gas emissions and improve its air quality.

4.24 Consultation

A finding of bad faith may occur where a municipal council acts “unreasonably and arbitrarily and without a degree of fairness, openness, and impartiality required of a municipality government.”¹⁵³ In introducing the by-law for deliberation, staff should provide notice to interested stakeholders and give an opportunity for members of the community to provide input. Such efforts help to address procedural concerns and strengthen the likelihood of the by-law being upheld by a court.

¹⁵¹ *Spraytech*, *supra* note 80 at paras. 31-32.

¹⁵² *Ibid.* at para. 31.

¹⁵³ *Grosvenor v. East Luther Grand Valley (Township)*, 2007 ONCA 55 (CanLII), at paras. 44-46.

PART V – NEXT STEPS

5.1 Strategy

In November 2013, a delegate at the United Nations COP19 climate conference in Warsaw, Poland said upon seeing our gas nozzle: “I’ve been to all 19 COP meetings and I’ve never seen an idea so simple yet so powerful.” We believe that our idea has the potential to make a significant contribution in the fight against climate change and we are excited to be leading this groundbreaking effort in Canada.

Our strategy is to continue to meet with councillors to secure support for the by-law in advance of actual votes taking place. We also plan on doing more outreach to grow public support for the by-law so that city and town halls will be packed with citizens wishing to give deputations in support.

We have selected a few cities that we believe are receptive to our by-law and are focusing our resources there. We plan on pushing for votes in these communities over the spring and summer and then using these positive examples to empower councillors to support the by-law in other communities.

We will be video recording deputations by youth and uploading them to YouTube so that their examples will inspire others to do the same. In fact, we have already been contacted by people and groups from all around the world about our campaign. Our idea has been primed to go global by the warning labels already on tobacco packaging in numerous countries. Our game plan is to lead by example in Canadian communities and inspire action all over the world.

Please contact us at communications@ourhorizon.org to learn more or to book Rob as a speaker for your organization or event.

5.2 Complimentary presentation to your council

The apparent simplicity of our idea is deceptive; there is a significant amount of research behind it that should be communicated to decision-makers to ensure the idea is given due consideration. If your community is actively considering this by-law, we respectfully ask that our executive director be invited to offer a complimentary presentation. This will help to ensure that your council has access to full and relevant information during the course of its deliberations and is able to discharge its duties to your municipality in good faith. If we are unable to be there in person, we would be pleased to provide a presentation and answer questions via teleconference.

5.3 Funding

We are often asked about our sources of funding. In 2013, we successfully raised \$17,000 from over 200 individual donors from all over the world. The rest of our campaign has been personally funded by our executive director. Your donations are appreciated.

We plan on launching a second project this fall that will take a globally-unprecedented approach to energy consumption in buildings and are currently looking for partners to support our efforts. Please contact us at supporters@ourhorizon.org to learn how you can help.

5.4 Frequently Asked Questions (FAQs)

This document is intended as a starting point for municipal consideration of our warning labels by-law. We omitted material in an attempt to keep the sections on climate change, the warning labels, and legal research as succinct as possible. Please visit our Frequently Asked Questions (FAQs) page at www.ourhorizon.org for more information and do not hesitate to contact us with questions. We will be updating this FAQ section throughout the year.

*“Never doubt that a small group of thoughtful,
committed citizens can change the world.
Indeed, it's the only thing that ever has.”*

Margaret Mead



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