

# MORATORIUM ON NEW GRAVEL MINING SITES TODAY

## NECESSARY TO GUARANTEE A SUSTAINABLE TOMORROW

Discussion Paper  
Water Watchers  
Gravel Mining Study Group  
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## The Climate Crisis Threatens Our Homes

Everyone wants to feel safe and secure at home. Home is where we live, a community and natural environment that surround and sustain us. Increasingly, people are aware that Earth is our collective home and that we are all together. What happens to our backyards determines if we have safe drinking water, clean air, farmland to produce food, and all the things that sustain life. Our homes, our backyards and our future are all connected.

The climate crisis, more visible every year, threatens our individual and collective homes. It can disrupt water security and food production, extinguish species, reduce biodiversity and potentially undermine the conditions that make life possible.

Nature's supportive relationship with humanity has been ruptured by decades of resource extraction, carbon emissions and unsustainable consumption<sup>1</sup>. In Canada this rupture began with the violent dispossession of Indigenous peoples from their lands and waters. Not just history, this colonisation is an ongoing project that expropriates the use of lands over which Indigenous peoples have inherent human and treaty rights.

It's time for governments to take serious actions to counter the climate crisis.

## Gravel Mining Fuels the Climate Crisis

Extraction of aggregates (gravel, crushed stone and sand) contributes significantly to the climate crisis. Most aggregates are used in manufacturing cement and to construct buildings, roads, bridges, sewers and other infrastructure. The cement industry produces 8% of global carbon emissions — as a country, it would be the third largest global emitter of CO<sub>2</sub><sup>2</sup>. (See Reducing Contribution of Gravel Mining to the Climate Crisis, next page).

Road construction and maintenance are also major contributors to climate change, as building more high-capacity roads leads to more driving and sprawl, and more destruction of the natural environment<sup>3</sup>. (See Highways and Climate Change, next page) Excavating new gravel pits and quarries contributes to global warming by destroying the natural environment and removing carbon-sequestering wetlands, plants and soils<sup>4</sup>.



# Gravel Mining Threatens Homes, Communities and the Environment

Gravel mining threatens groundwater quantity and quality; blasts rocks at distances of up to hundreds of meters at speeds that can injure and kill<sup>5</sup>; pollutes the air with particulate matter and dust<sup>6</sup>; and increases traffic hazards for children, pedestrians, cyclists and commuters<sup>7</sup>. Communities are torn apart as families leave to escape the assaults on their quality of life. Prime agricultural lands are destroyed, rarely restored to agricultural productivity land after gravel mining<sup>8</sup>. Gravel mining can destroy the value of homes<sup>9</sup>.



## Reducing Contribution of Gravel Mining to the Climate Crisis

Most aggregates are used to manufacture cement and construct buildings, roads, bridges, sewers and other infrastructure. International focus on “embodied carbon” — the greenhouse gas (GHG) emissions related to manufacturing, construction, repair and decommissioning materials — is increasing. Cement manufacturing emissions can be greatly reduced by carbon capture and storage, development of clinker-free cements, and by reprocessing and reusing existing concrete in new buildings and infrastructure.

Reducing permits to extract virgin materials will encourage reprocessing and conservation. European governments are forcing the global cement and construction conglomerates headquartered in their countries to research and test practices that minimize their carbon footprint — but Ontario lacks such regulations.

## Highways and Climate Change

Life Cycle Analyses of road construction and maintenance show that GHG emissions per one lane kilometre of road range from 30 to 65 tonnes (depending on factors such as energy source in processing, distance for haulage, and the type of asphalt used). Ontario does not consider any Life Cycle Analysis in awarding road construction contracts, or in planning transportation alternatives, such as railways.

GHG emissions are also produced in manufacturing new equipment to operate new pits and quarries, and in fuel consumption for extraction, haulage, crushing and processing.



# Political Leaders Betray Their Constituents

People think their political leaders have a responsibility and duty of care to protect them from gravel mining. But politicians abandon them, leaving them to defend their homes and communities on their own. The permitting process for gravel mining has always been tilted in favour of the aggregate extraction industry<sup>10</sup>, a sector dominated by multinational corporations headquartered far away from the damage they cause. (See Ontario's Gravel Mining Industry is highly Concentrated, right). The industry already benefits from low fees, minimal inspection and oversight of mining operations, and a free pass from regulations that comparable industries operate under. (See Gravel Companies Get Preferential Treatment, page 4).

Community volunteers opposing permits, face formidable corporations with inexhaustible resources to pay high-priced lawyers, captured experts, lobbyists and consultants. In these 'David vs. Goliath' struggles, communities must represent themselves at quasi-legal hearings in front of a single, unaccountable official. Community groups opposing gravel mine applications must organize from scratch, while the companies and their consultants have decades of experience and well-developed tactics to intimidate, exhaust, outspend and outlast communities and municipal councils.

Community volunteers must spend thousands of hours learning complex planning, transportation, hydrogeology, air quality, noise, blasting and other technical specialties. They are often forced to raise hundreds of thousands of dollars to retain lawyers, planners and technical experts, all to navigate a process in which corporations set the pace and intensity.

Commonly, community members discover they have little or no control over gravel mining and what it does to their homes, their family's health and safety, their communities and their natural environment. The aggregate-friendly policies in Ontario have caused Municipal leaders to become apathetic or resigned to gravel mining operations and as a result they leave communities to fend for themselves.

## Ontario's Gravel Mining Industry is Highly Concentrated

A handful of multinational corporations extract most of the gravel mined each year in Ontario. These vertically and horizontally integrated corporations can include cement and asphalt production, gravel reprocessing, road and infrastructure construction and maintenance, etc.

The provincial and municipal governments are the gravel mining oligopoly's main customers. That means Ontario residents are paying the bill. Given the concentration of ownership and the industry's complex structure, it is difficult to know if the price of gravel is competitive or if taxpayers are getting a fair deal.

**“The way these [subsidiaries] are now being used is to have profits taken from the bottom level of the corporations, sucked up to the top and then using the corporate veil to leave responsibility [for liabilities] at the bottom, where there is no money left.... [T]here is something wrong with this picture.”<sup>13</sup>**

— Ian Binnie, former Justice of the Supreme Court of Canada

# Doug Ford's Gang Will Devour the Future

Premier Ford's program of more highways, urban sprawl and uncontrolled resource extraction serves developers and multinational corporations. Incredibly, the Ford government has given gravel mining companies more special treatment while adding obstacles in the path of community groups seeking fair and independent decisions<sup>11</sup>. The Ford bulldozer runs over community opposition, guts environmental safeguards, overrides democratic protections with Minister's Zoning Orders (MZO), destroys scarce prime agricultural land, and permits unlimited extraction of natural resources without the consent of — or reparations to — affected communities and Indigenous peoples. If not stopped, Doug Ford's program will devour Ontario's future.

## Gravel Mining Moratorium Today — Toward a Sustainable Tomorrow

The Ontario government must act to protect our homes, communities and the natural environment while respecting the inherent rights of Indigenous peoples and responding to the climate crisis. Ontario needs a new approach to managing and regulating aggregate extraction to fulfill its obligations and create a path to a sustainable tomorrow.

Gravel mining is socially and environmentally destructive; the number of gravel pits and quarries must be reduced to the absolute minimum. Ontario's 6000+ licenced pits and quarries have enough aggregate to meet its needs while a new strategy is developed. (See Gravel Industry's Claim of a Supply 'Crisis' is Self-Serving, page 5). Imposing an immediate moratorium on all new gravel mining applications (including interim orders, site plan amendments for mining below the water table and for increasing licensed tonnages) is the first step.

The provincial government must then convene an independent panel of experts and scientists to:

- Determine the total amount of licenced supply in Ontario's 6000 pits and quarries (by requiring licence holders to report their aggregate reserves).

### Gravel companies get preferential treatment

The Ontario government treats the gravel mining industry with kid gloves:

- Policy provisions such as No Need to Show Need (preventing study of whether the province needs more gravel mines) or the Preclude or Hinder Test (preventing local land use control from limiting gravel extraction) typify a pro-gravel imbalance.
- Unlike other heavy industries, gravel mines are exempt from statutory setbacks from sensitive receptors (homes, farms and businesses).
- Despite protests by Source Water Protection Committees across the province, the government's implementation of the Clean Water Act prevents aggregate operations from being considered a threat to groundwater.
- Ontario's fee and royalty structure fails to compensate municipalities for repairing roads damaged by hundreds of thousands of annual trips by gravel trucks.



- Set limits on ‘virgin’ aggregate extraction, and targets for aggregate reprocessing and reuse that meet International Energy Agency<sup>1</sup> goals for carbon emissions from cement production.
- Establish strict limits and regulations on gravel mining below the water table.
- Base licences for new quarries and quarry expansions on current supply, true cost and demonstrated need.
- Recommend a fair price for aggregate that includes compensation and restoration for the full social and environmental costs of its extraction.
- Revise application procedures to fully honour First Nations’ treaty rights, and give municipalities and communities an equal voice in decisions.
- Close loopholes that allow aggregate producers to scale up operations after licences are granted.
- Establish sufficient oversight funding to ensure that operators comply with all regulations and licence conditions.
- Impose an immediate moratorium on all new gravel mining applications (including interim orders and site plan amendments for mining below the water table or that increase licensed tonnages).

## Gravel Industry’s Claim of a Supply ‘Crisis’ is Self-Serving

According to The Ontario Aggregate Resources Corporation (TOARC), 2019’s total aggregate production from licensed (private lands) and permitted (Crown lands) sites was 161 million tonnes<sup>14</sup>. The maximum yearly production allowed by Ontario gravel mining licences and permits is 2.25 billion tonnes, approximately 14 times the actual production<sup>15</sup>.

Gravel miners are not required to report reserves in their sites, yet for decades have stoked fears of a supply crisis. Unlimited growth of gravel mines benefits the industry’s bottom line but fails to protect the public interest.

The Ontario government fails to make the industry demonstrate market need for new mining sites, even though 23 applications for new licences for gravel mines have been made so far in 2021 and 83 from prior years await decisions. Meanwhile, numerous licensed gravel sites sit dormant, as it is more profitable to open new sites. With licences lacking end or renewal dates, this practice can go on indefinitely.

## Time for Action!

Gravel pits and quarries are environmentally and socially intrusive. Gravel mining operations have serious and permanent impacts on communities, destroying critical features of the local environment and changing the landscape forever.

Ontarians deserve a future in which their homes, communities and the natural environment that sustains life are safe and secure. To guarantee a more sustainable tomorrow, a moratorium on new applications for gravel pits and quarries is an urgent and necessary step. Let’s work together — endorse the Gravel Mining Moratorium Today!

1. Consumption by countries in the Global North, if copied by the global population, is equivalent to using up the resources that five Earths produce in a year. See Global Footprint Calculator
2. <https://www.carbonbrief.org/qa-why-cement-emissions-matter-for-climate-change> & (See Gravel, Cement and Climate Crisis INSET)
3. [https://ww2.arb.ca.gov/sites/default/files/2020-06/Impact\\_of\\_Highway\\_Capacity\\_and\\_Induced\\_Travel\\_on\\_Passenger\\_Vehicle\\_Use\\_and\\_Greenhouse\\_Gas\\_Emissions\\_Policy\\_Brief.pdf](https://ww2.arb.ca.gov/sites/default/files/2020-06/Impact_of_Highway_Capacity_and_Induced_Travel_on_Passenger_Vehicle_Use_and_Greenhouse_Gas_Emissions_Policy_Brief.pdf)
4. <https://www.torontoenvironment.org/gravel/impacts>, section 3.
5. <https://intval.com/articles/Blasting-Quarries-and-Adequate-Setbacks.pdf>
6. <http://www.apis.ac.uk/node/1145>
7. <http://cielap.org/pdf/AggregatesStrategyOntario.pdf>, pp. 9-16
8. <https://ofa.on.ca/issues/aggregates/> Issue Details — Aggregates; accessed 28 June 2021
9. <http://cielap.org/pdf/AggregatesStrategyOntario.pdf>, pp. 9-16
10. <http://cielap.org/pdf/AggregatesStrategyOntario.pdf>, p. 15
11. <http://gravelwatch.org/property-values/>
12. Laurent Barcelo, John Kline, Gunther Watlenta & Ellis Gartner. “Cement and Carbon Emissions.” Proceedings of the 2012 Carbon Management Technology Conference, Orlando, Fla., 2012. The authors cite an IEA CO<sub>2</sub> reduction target for cement manufacturing of 22.5% from 2007 levels by 2050, despite a projected 50% increase in cement manufacturing.
13. Ian Binnie quoted in the Justice and Accountability Project, The Canada Brand, p. 30. <https://justice-project.org/>
14. The Ontario Aggregate Resources Corporation, “Aggregate Resources Statistics in Ontario, Production Statistics 2019 (Final)”.
15. MNR 2010

# ENDORSE THE GRAVEL MINING MORATORIUM TODAY

## A NEW PATH TO A SUSTAINABLE TOMORROW

Water Watchers  
Gravel Mining Study Group  
August, 2021



**WHEREAS** gravel mining destroys environments, creates community hazards and contributes to the climate crisis; and

**WHEREAS** more highways, urban sprawl and uncontrolled resource extraction will devour the future; and

**WHEREAS** resource extraction began with violent dispossession of Indigenous peoples from their lands and waters, and continues today without First Nations consent; and

**WHEREAS** Canadian jurisdictions and entities must honour treaties with First Nations and obligations prescribed in the Canadian Constitution; and

**WHEREAS** the Ontario government has a responsibility to protect homes, communities and the natural environment for current and future generations; and

**WHEREAS** the Ontario government is also responsible to prevent greater climate chaos;

**THEREFORE, BE IT RESOLVED** that the Ontario government must take the following urgent actions:

- 1** Impose an **immediate moratorium** on all new gravel mining applications (including interim orders and site plan amendments for mining below the water table or that increase licensed tonnages).
- 2** Convene an **independent panel** of experts and scientists to:
  - Determine the total amount of licenced supply in Ontario's 6000 pits and quarries (by requiring licence holders to report their aggregate reserves).
  - Set limits on 'virgin' aggregate extraction, and targets for aggregate reprocessing and reuse that meet International Energy Agency<sup>1</sup> goals for carbon emissions from cement production.
  - Establish strict limits on gravel mining below the water table.
  - Base licences for new quarries and quarry expansions on current supply, true cost and demonstrated need.
  - Recommend a fair price for aggregate that includes compensation and restoration for the full social and environmental costs of its extraction.
  - Revise application procedures to fully honour First Nations' treaty rights, and give municipalities and communities an equal voice in decisions.
  - Close loopholes that allow aggregate producers to scale up operations after licences are granted.
  - Establish sufficient oversight funding to ensure that operators comply with all regulations and licence conditions.

1. Laurent Barcelo, John Kline, Gunther Watlenta & Ellis Gartner. "Cement and Carbon Emissions." In Proceedings of the 2012 Carbon Management Technology Conference, Orlando, FL, 2012. The authors cite an IEA CO2 reduction target for cement manufacturing of 22.5% from 2007 levels by 2050, despite of a projected 50% increase in cement manufacturing.

ENDORSED THIS DATE: \_\_\_\_\_

BY: \_\_\_\_\_

SIGNED: \_\_\_\_\_