



FAILURE TO ADAPT INFRASTRUCTURE: Is Legal Liability Lurking for Infrastructure Stakeholders?

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September 22, 2009

- Significant understanding of the effects of climate change including
 - > permafrost degradation causing, among other things
 - roads and airstrips to buckle
 - shifting and cracking of structures and foundations
 - shifting and cracking of pipelines
 - > shrinking of Arctic Sea ice causing rising sea levels
 - > increasing precipitation
 - > increased intensity of storm events such as
 - flooding
 - ice storms
 - heavy winds
 - > more frequent and more severe freezing and thawing cycles
- If infrastructure is not adapted to climate change risks, property damage and personal injury is likely to occur. Injured persons will be looking for compensation!

The Law as a Driver or Impediment to Adaptation

- Law can either encourage or dissuade adaptation efforts
 - > Are there laws in place to encourage governmental authorities involved in approving and inspecting infrastructure assets; owner; occupiers; engineers; architects and other design professionals; and contractors (the “Infrastructure Stakeholders”) to adapt infrastructure assets to possible climate change effects?
 - > Are there laws in place to “punish” Infrastructure Stakeholders for failing to adapt infrastructure assets to possible climate change effects
 - > **Statutory Liability:**
 - currently, no legislation directly relating to climate change adaptation
 - variety of statutes which might apply to encourage adaptation
 - e.g.: *Environmental Protection Act* (Canada), *Safe Drinking Water Act* (Ontario), *Species at Risk Act* (Canada), occupier’s liability legislation, etc.
 - generally, building codes and standards have not yet been adapted to take into account climate change effects

The Law as a Driver or Impediment to Adaptation

> Common Law Liability:

- Injured person or a person who has suffered loss or damage to property sues other person(s) to compensate for injuries, losses and/or damages. Ability to sue is based on common law principles of
 - Negligence
 - Nuisance
 - Strict liability
- Each of these common law principles will be discussed below with potential application to climate change effects. Generally, an injured person or a person who has suffered a loss or damage to property will try to claim that the other person is liable based on more than one of the above common law principles.
- Focus of my discussion will be on potential liability for governmental actors
- Based on current state of law, legal liability for failing to adapt infrastructure assets is most likely to arise based on common law principles and/or occupier's liability legislation

- **What is it?**

- > someone is hurt or property is damaged because another person has failed to take reasonable care
- > **Example:** Heavy rainfall causes a dam to overflow and floods neighbouring farms and basements
- > Four elements:
 - someone owed the harmed person a duty of care
 - Was it reasonably foreseeable that the alleged negligence might result in losses to the injured person?
 - Was there a close and direct relationship between the government actor and the injured individual?
 - in the case of a governmental entity, review of the statute authorizing the governmental authorities behaviour is required and consideration as to whether policy reasons exist to negate or limit the duty of care
 - » policy versus operational decision

Negligence - Four Elements Cont'd

- person with a duty of care committed an act or omission that breached a reasonable standard of care
 - omission includes a failure to warn
 - for governmental actors standard of care may be set out in the legislation. If not, what would the reasonable person have done in a similar situation?
 - how prescriptive is the legislation?
 - act or omission caused the harm or loss
 - “but for” test
 - not necessary for the act or omission to be the sole cause
 - a reasonable person would have known there was a real possibility or real risk that the particular damage at issue would have resulted from the act or omissions
 - foreseeability
- > modified test if liability is sought under common law principles relating to occupier’s liability

Negligence ... Additional Potential Examples

- a governmental authority approves a project/issues a permit for a project without taking into account potential climate change effects. Structural cracking occurs and building eventually collapses
- replacement of publicly owned sewer systems is deferred. A heavy rainfall causes sewers to overflow and property damage to basements in nearby homes
- school board defers roof repairs necessary to increase the roof's weight bearing capacity. As a result of a heavy snow storm, the roof collapses and students and teachers inside the school are injured



- **Who could be liable?**

- > owner or occupier (including a governmental or quasi-governmental entity)
- > governmental entities
- > engineers, architects and other design professionals
- > contractors
- > others?

- **Defences and other barriers to liability**

- > **Legal principles on which liability can be alleged are subject, in appropriate circumstances to defences that will act as a bar to liability**
 - contributory negligence
 - voluntary assumption of risk
 - Act of God (unlikely)
 - limitation periods

- **What is it?**

- > two types of nuisance: private and public
- > **Private:** an owner or occupier of land uses land in a way that causes damage to another person's land or interferes with the use of another person's land
 - if physical damage occurs, just prove damage resulted from other person's use of land
 - if interference with the use of another person's land is alleged, must prove substantial and unreasonable interference
- > **Examples:** severe weather (such as a heavy rain storm) causes a dam to overflow resulting in flooding and damage to adjacent land; permafrost degradation causes toxic tailings to seep from a mine tailing pond onto adjoining lands thereby contaminating such lands; heavy winds cause a transmission pole to fall onto adjoining lands thereby damaging buildings on the adjoining lands



Nuisance ...cont'd

- > **Public:** material interference with the rights of the public or a section of the public. Proceedings are generally commenced by a representative of the public but in limited circumstances can be brought by a member of the public who suffered “special” or particular damage
- > **Examples:** heavy winds cause the roof of a school to blow off and the school is rendered unusable



- **Who could be liable?**

- > a person who occupies and/or controls the land from which the nuisance arises (including a governmental or quasi-governmental entity)
- > an owner of land who neither occupies nor controls the land if such owner knows of occupier's use of land (including a governmental or quasi-governmental entity)
- > an independent contractor

- **Defences and other barriers to legal liability**

- > legislative authority
 - very narrow defence
 - was there an alternative method for doing what you did which would not have caused the nuisance?
- > statutory immunity provisions
 - often applicable to governmental and quasi-governmental entities
 - statute expressly negates liability - "no liability for nuisance or any other tort that does not require a finding or intention of negligence"
- > limitation periods

- **What is it?**

- > a land owner or occupier uses his or her land for a non-natural, unusual, exceptional or special purpose, and
 - There is no comprehensive list of activities considered a non-natural use of land. Examples of circumstances where the courts have found a “non-natural” use of land to exist or not exist:
 - use of land that is inconsistent with or different from the use of neighbouring lands has been considered a non-natural use of land
 - land that is used for the general benefit of the community is often considered a natural use of land but land that is used for “selfish and self-serving reasons” or for a landowner’s own purposes is a non-natural use of land
 - **where there is interference with the natural course of water, the use of land has been considered a non-natural use of land**
 - land that is used by persons for purposes of transporting large quantities of gas has been considered a non-natural use of land

- > something dangerous escapes from the land and injures either another person or their property
 - Examples of “dangerous” things: gas, water, electricity, sewage, oil, gasoline, cars, poles on a highway, explosives

- > no negligence nor intention to cause damage is necessary. In the context of climate change this means that lack of knowledge of, or any failure to take into account, a risk related to climate change is irrelevant. What is relevant is only that someone has suffered personal injury or property damage resulting from something escaping from neighbouring lands

> **Possible examples:**

- heavy rain flow causes a dam to overflow and floods neighbouring farms and basements
- permafrost degradation causes toxic mine tailings to seep from a tailings pond into the land around the containment structure. The toxic mine tailings contaminate the ground water
- permafrost degradation causes the support platform of a gas pipeline to shift, the pipeline to crack and then leak. Gas seeps into the land below and adjoining the pipeline contaminating the land and the ground water



- **Who could be liable?**
 - > owner or occupier of infrastructure asset including governmental and quasi-governmental entities
 - > generally does not apply to independent contractors (such as engineers, architects, other design professionals or contractors)
- **Defences and other barriers to legal liability**
 - > legislative authority (applicable to all Infrastructure Stakeholders)
 - > statutory immunity provisions (often applicable to governmental and quasi-governmental entities)
- **Strict liability is not commonly applied by Canadian courts**

What to do if you are an Infrastructure Stakeholder

- Consider whether the effects of climate change could impact the infrastructure asset that you own/occupy/design/construct/maintain during the lifecycle of such infrastructure asset
 - > Owners should consider undertaking infrastructure vulnerability studies
- If the asset could be impacted by a climate change event, does technology exist to design/repair or otherwise improve the infrastructure asset to withstand the impacts of climate change?
- Is the technology cost prohibitive? Or will use of the technology be so expensive that a project proposal will not be cost-competitive?
- What are other Infrastructure Stakeholders doing?
- No guarantees that liability will not arise even if Infrastructure Stakeholders take reasonable precautions (strict liability and certain private nuisance claims may arise regardless of intent, fault or negligence)

CONCLUSIONS

- Legal actions by their nature always raise evidentiary issues
- Legal principles on which liability can be alleged are subject, in appropriate circumstances, that themselves act as a bar to liability. This is the case particularly where governments are alleged to be liable for their acts or omissions
- Even without passing new legislation to encourage infrastructure adaptation, Governments who want adaptation measures built into new infrastructure need to ensure that evaluation criteria in the tendering process takes climate change risks and adaptation into account when it's reasonable to do so

Thank you.

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