

# The domination of private interests presents a risk to the long-term health of the Bay of Fundy

April 10 2024, by Elson Ian Nyl Ebreo Galang and Lara Cornejo

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Bay of Fundy, Nova Scotia. Credit: Unsplash/CC0 Public Domain

In 2022 we gathered a group of leading thinkers in Halifax, near the iconic Bay of Fundy, to set about imagining "what could plausibly

happen to the Bay of Fundy coast by 2072."

The group produced [four "storylines," or scenarios](#), of plausible futures for the region. With the recent [scrapping](#) of Nova Scotia's [Coastal Protection Act](#), it seems like the predictions of one of these storylines may be rapidly coming to pass.

## **The Bay of Fundy**

Drawing in thousands of tourists, the Bay of Fundy is a true Canadian icon that boasts a [dynamic landscape](#) that changes not only across seasons but throughout the day. The significance of the bay lies deeper than its breathtaking view, however.

The bay comprises ecologically rich ecosystems of natural and restored salt-marshes, and [dykelands](#) with economic and cultural relevance. Shaped by its unique environmental conditions and by its [historical](#) and present human activities, this landscape provides essential [benefits](#) for human and non-human communities alike.

The Bay of Fundy serves as a habitat that supports agriculturally important [pollinators](#), [fisheries](#) and other key wildlife and flora species—while also protecting coastal communities from [storm surges](#) and floods.

Moreover, the Bay of Fundy is also foundational to the cultural heritage of the [Mi'kmaw](#) and Acadian peoples and is central to many other [cultural values](#) related to its sense of place, inspiration, aesthetics, social relations and recreational activities.

## **The Coastal Protection Act**

The Bay of Fundy is, however, facing pressures from [sea-level rise](#) along with more unpredictable and intense [flooding](#) and [hurricane](#) events resulting from climate change.

[Climate future models](#) for the bay have shown that sea level rise is occurring faster than what the Intergovernmental Panel on Climate Change [climate models](#) have predicted in the past. The impacts of flooding induced by sea level rise have caused damage to [infrastructure](#) such as roads, railways and towns as well as [introduced harmful salt water to critical agricultural soils and aquifers](#) across the bay.

The Coastal Protection Act (CPA) aimed to ensure the sustainability and resilience of coastal communities in Nova Scotia and came into force with unprecedented multi-party support in the province in 2019. It has been hailed as an important [safeguard](#) and one of the first acts of its kind in Canada.

The CPA was envisioned to provide the regulatory framework to protect not only the infrastructure along the coast but also the conservation of the ecosystems that are part of this dynamic landscape. However, it was recently scrapped and replaced with a [new set of guidelines](#) that for the foreseeable future puts the responsibility of managing coastal lands on individual property owners and municipalities.

Without the CPA, the future of the Bay of Fundy and the entire Nova Scotia coast—including the human and non-human communities that depend on them—now rests in the hands of private interests.

## **Possible private futures**

Our team of environmental researchers based at Dalhousie University, Saint Mary's University and McGill University worked with [decision-makers](#) and researchers in the bay to produce a report that envisions

what would happen to the Bay by 2072.

Two of the four possible scenarios we envisioned considered the impacts of private interests driving decision making and management.

Alarmingly, With the scrapping of the CPA and new guidelines, it seems like these scenarios may be starting to play out.

Our first scenario played out what would result if coastal management was centered on individual property owners reacting to climate change with techniques primarily involving hard infrastructure such as [protective dykes](#). It may work for a few years, but in the end these techniques will prove ineffective in the face of more intense meteorological events.

In turn, a reliance on reactive hard infrastructure can exacerbate existing issues in the bay including the loss of [salt-marsh biodiversity](#), [abandonment](#) of farmlands and destruction of coastal neighborhoods from [more intense storms](#).

Another scenario proposed that property owners were more proactively engaged in nature-based climate actions that conserve wetlands while protecting economically and historically important dykelands.

Carbon credits could [incentivize](#) private owners to implement nature-based solutions, while promoting [climate-smart sustainable agriculture](#) could help the economy and protect coastal biodiversity. However, the high up-front costs of some of these actions might deter some private owners, making financial assistance potentially necessary to ensure the development of nature-based solutions.

Both of the above possible scenarios present their own specific challenges and while the latter is more optimistic than the former it was clear from our exercise that the best outcomes were ones where the

public interest retained a central role.

In the scenarios we looked at, retaining a strong public interest had the best projected mechanisms to facilitate dialogue and the participation of diverse actors on deciding and implementing suitable nature-based climate actions. In this scenario nature, humans and heritage thrive together. It is a future where the responsibility for the bay is a proactive collaboration among diverse institutions and groups, including genuine engagement with private property owners.

These scenarios do not intend to serve as a clear cut conclusion of what *will* happen with a shift of responsibility to individual private owners. Instead, our team is hopeful that our report can help prompt critical reflections as Nova Scotia moves forward without its Coastal Protection Act.

We hope that in 50 years, the stories that emerge about the Bay of Fundy are prime examples of everyone working together for sustainability, resilience and equity.

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