



**ONTARIO
RIVERS
ALLIANCE**

379 Ronka Road
Worthington, ON P0M3H0
LindaH@OntarioRiversAlliance.ca
OntarioRiversAlliance.ca

21 December 2025

Andrew Chard
MNR-PD-Development and Hazard Policy Branch
300 Water Street, 2nd Floor, South Tower
Peterborough, ON
K9J 85
By email: MNRRenewableEnergyPolicy@Ontario.ca

Re: ERO-025-1145 – Natural Resources Regulatory and Permit Reform Initiative:
Proposing changes to the Renewable Energy on Crown Land policy

Dear Mr. Chard:

The Ontario Rivers Alliance (ORA) is a not-for-profit grassroots organization with a mission to protect, conserve, and restore riverine ecosystems across the province. The ORA advocates for effective policy and legislation to ensure that development affecting Ontario rivers is environmentally responsible, socially just, and climate resilient.

ORA's comments are informed by long experience working with Ministry of Natural Resources professionals whose mandate has been to protect, restore, and sustainably manage Ontario's forests, rivers, and watersheds for present and future generations.

ORA recognizes that MNR staff enter the natural resources profession to apply science, exercise precaution, and prevent irreversible harm. The concerns raised in this submission are therefore directed at the policy and regulatory direction set by government—which increasingly constrains professional discretion and weakens long-standing safeguards—rather than at the expertise or intent of Ministry staff charged with implementing these changes.

ORA submits that these proposals must be assessed together as a single, coordinated deregulation package. Although posted as separate notices with different Ministry contacts, the Natural Resources Regulatory and Permit Reform Initiative is advancing an integrated framework that (1) prioritizes Crown lands and watersheds for renewable energy and waterpower development (ERO-025-1145), (2) removes early-stage Public Lands Act authorizations that currently function as precautionary gates (ERO-025-1078), (3) expands permit-by-rule/self-registration approaches and weakens forest-related safeguards that directly affect watershed hydrology, erosion, and downstream aquatic habitat (ERO-025-1134), and (4) consolidates these reforms under a broader “economic unlocking” agenda (ERO-025-1141). In combination, these measures create a foreseeable “pipeline effect” that will unleash a new tranche of hydropower and related infrastructure onto Ontario rivers by reducing oversight at the exact stages when project feasibility, routing, and impacts are determined.



1. Core Objection and Policy Context:

The ORA strongly opposes the proposed amendments to the Renewable Energy on Crown Land (RECL) policy. Despite being framed as administrative modernization, these changes represent a substantive policy shift that privileges rapid energy procurement over sustainability, ecological integrity, Indigenous rights, climate resilience, and the Crown’s public trust obligations.

The proposal embeds the Ministry of Energy’s report, **Energy for Generations**, into Crown land decision-making without addressing its documented analytical gaps, particularly regarding hydropower emissions, cumulative watershed impacts, and climate-driven hydrologic instability. The report engages in **major misinformation**, falsely portraying hydropower as a “clean” and “non-emitting” resource, even though reservoir-based hydropower is a well-documented source of methane that can rival that of a gas-fired facility. Yet, claims it will help keep Ontario’s grid among the “*cleanest in the world*.”¹

The Energy for Generations document relays harmful misinformation that perpetuates a century of river mismanagement in Ontario and actively fuels climate change. For instance, our climate is in crisis, and there are **224 hydropower facilities, likely 3 to 4 times as many associated control dams, and only two operating fishways in all of Ontario.** Dams are considered to be a major factor in the extirpation of Ontario’s Atlantic Salmon stock², one of the important causes of significant anthropogenic mortalities and decline of Ontario’s American Eel³, and a key threat to declining Lake Sturgeon populations.^{4, 5, 6}

2. Ontario Wants to Be an “Energy Superpower” on the Backs of Ratepayers:

The 2025 **Energy for Generations, Ontario’s Integrated Plan to Power the Strongest Economy in the G7**, stated, “***We will cement Ontario’s position as a national, continental and global energy superpower***”.⁷ This is not a mandate the public ever endorsed. The Premier did not campaign on becoming an “energy superpower”, nor did the PC Party’s election platform seek voter approval for an energy-export agenda, new northern hydropower development, or building electricity supply beyond our own domestic needs. This framing appeared **only after the election**, through ministerial statements and government planning documents. Nothing in the PC Party’s public-facing platform communicated a mandate for an export-oriented energy or hydroelectric expansion strategy. Although the federal government under Prime Minister Mark Carney campaigned to position Canada as a national energy superpower, that federal mandate does not transfer to Ontario’s electricity system; the Province did not seek voter approval for a provincial energy-export agenda or for a hydropower-driven expansion strategy. Ontario cannot rely on federal political messaging to justify a provincial energy export agenda that voters were never asked to endorse and will end up paying for.

Ontario ratepayers were not consulted on this shift, yet the government is already proposing to shift early-stage hydropower planning, incentives, and consultation costs—including Indigenous consultation costs—onto ratepayers’ hydro bills, an unprecedented transfer of speculative project risk from proponents to the public.^{8, 9} Supporting Indigenous prosperity is essential, but it should not be leveraged as a vehicle for an “energy superpower” build-out in some of Ontario’s most vulnerable and ecologically intact northern watersheds. In a period of accelerating climate uncertainty, imposing unnecessary, speculative system-expansion costs on



ratepayers is irresponsible and lacks democratic legitimacy. We are living in very uncertain times, and this is not the time to add unnecessary costs to ratepayers' hydro bills.

The province's **Energy for Generations** plan positions 3,000–4,000 MW of new northern hydro potential as a tool to enhance reliability and reinforce Ontario's position as an 'Energy Superpower,' and highlights new Moose River Basin projects at Nine Mile Rapids and Grand Rapids alongside recontracting programs for small- and northern-hydro. This ERO must be read squarely in that context. However, it omits critical climate-change considerations and risks locking Ontario into an intermittent, unreliable and high-emissions energy pathway.

3. Northern Hydro <10 MW is an Energy-Limited and Highly Variable Resource:

Energy for Generations frames hydropower as a non-emitting, clean, dispatchable, long-term climate solution. However, its **fundamental analytical failure** is the complete absence of the 2023 Ontario Climate Change Impact Assessment¹⁰ (OCCIA), despite its direct relevance to hydropower and transmission system planning in northern Ontario. OCCIA documents severe increases in drought frequency, extreme precipitation, hydrologic instability, rising summer stream temperatures, and ecosystem stress—conditions that fundamentally undermine the performance, certainty, and safety of hydropower infrastructure. Ignoring OCCIA's findings is a major flaw that renders the proposed changes to the Renewable Energy on Crown Land policy unsupported by science or sound planning.¹¹

The supporting documentation greenwashes northern hydropower as a dependable baseload, whereas the Independent Electricity System Operator's (IESO) own North of Dryden Integrated Regional Resource Plan (NDRRP) unequivocally reports that northern hydropower is an energy-limited and highly variable resource incapable of providing firm capacity at scale.

“Canada's increasing struggle with hydropower is an ill omen representing a wider global problem. Climate change and droughts are threatening hydropower supplies everywhere, and as severe weather events become increasingly common due to climate change, the future of the world's leading renewable energy source is vulnerable. The greatest problem is not just the severity of any drought but the persistence of drought conditions over an extended period of time. The Yale Climate Connection argues that the link between climate change and increasing drought conditions worldwide is demonstrable, and things are getting worse. Global hydropower generation dropped significantly in the first half of 2023, resulting in an overall increase in fossil-fuel power production to make up for the deficit.”¹²

Run-of-river or hydropower under 10 MW is often not cost-effective due to high construction costs and its intermittent and unreliable nature, particularly during drought conditions. The NDRRP reported that northern hydroelectric power generation has a firm capacity of 15 to 30% at a cost of \$16 to \$66 million per MW with a development duration of 5 to 10 years.¹³

Treating such resources as foundational infrastructure exposes Ontario to escalating climate, ecological, and financial risk.



The same IESO analysis concluded that "*Northern hydroelectric generation is an energy-limited resource known to have significantly reduced output and availability during drought conditions of the river system supplying these generating units.*"¹⁴ In fact, the recommendation of their report was not to build any new hydroelectric facilities, but to build new transmission lines.

In other words, IESO's planning documents already acknowledge that northern **hydropower is intermittent, drought-sensitive, and expensive per-unit of dependable capacity.** It is not a robust baseload resource for the kinds of large, continuous mining loads now being promoted under the Critical Minerals Strategy.

The proposed RECL amendments are fundamentally misaligned with this government's own OCCIA, which identifies increasing hydrologic variability, more frequent extreme flow events, warming surface waters, and declining cold-water habitat as central climate risks. New hydropower development—especially peaking facilities and shallow headpond systems—locks Ontario into rigid, flow-altering infrastructure that is least capable of adapting to these projected conditions. Approving long-lived river infrastructure while ignoring the province's own climate risk assessment is not climate planning; it is climate negligence. This Minister of Energy is simply tone deaf to science.

4. Hydropower and Its Reservoirs Drive Climate Change:

Allowing new hydropower projects as small as 1 MW on Crown land is scientifically indefensible. Small hydropower facilities with shallower headponds are higher methane emitters per unit of electricity than larger reservoirs because they repeatedly wet and dry the littoral zone, accelerating organic matter decomposition. Over three decades of peer-reviewed research demonstrate that shallow, run-of-river, and peaking facilities can emit greenhouse gases at levels comparable to fossil-fuel generation on a life-cycle basis, particularly as temperatures rise and sediments accumulate.¹⁵ You can shut down a gas-fired facility, but you cannot shut off the methane coming from a reservoir until the dam is removed.

Small hydro is often thought to be clean with fewer impacts. This is generally understood to mean that it does no harm to the environment and does not emit greenhouse gases. However, "*With the 'clean' reputation of large hydroelectric dams already in question, scientists are reporting that millions of smaller dams on rivers around the world make an important contribution to the greenhouse gases linked to global climate change. Their study shows that more methane than previously believed bubbles out of the water behind small dams.*" They describe the methane released from water impounded behind six small dams on a European River.¹⁶

With smaller dams, storage becomes increasingly important. Reservoir silting up or becoming overloaded with nutrients are common problems. They are at least as serious where shallower bodies of water are created – the shallower a water body, the more easily eutrophic it can become. Likewise, methane generation occurs largely where water and sediment meet. This means that a shallower water body is likely to release more methane per unit area than a deeper water body. Shallow reservoirs are not unlike paddy fields, and biomass generation, which are known to contribute substantially to methane emissions.¹⁷

A Global synthesis of hydropower reservoir greenhouse-gas emissions found that reservoir water surfaces emit about 0.8 Pg CO₂-e per year, with "*the majority of this forcing due to CH₄ [methane]*"



and concluded that “*hydropower reservoirs are a **non-trivial global methane source***”. Warming trends are also expected to increase methane fluxes from shallow, organic-rich reservoirs.^{18,19} These are precisely the conditions present in northern Ontario, so any claim that hydropower will support a ‘clean’ and ‘non-emitting’ grid or help Ontario achieve climate goals is scientifically untenable. Methane will continue to be generated for the dam’s full life cycle and will continue until the dam is removed.

Subsequent studies have shown that:

- A single flushing operation can release CH₄ equivalent to 7–14% of an entire year’s methane emissions from a hydropower reservoir, underscoring how peaking and sediment-management practices can create large, pulsed emissions events.²⁰
- Methane emissions from reservoirs arise through multiple pathways—diffusion, ebullition (bubbling), plant-mediated transport, and degassing during turbination and reservoir flushing—and reservoirs contribute roughly 10 % of global methane emissions from inland waters.²¹
- A Swiss run-of-river hydropower reservoir study documented methane fluxes exceeding 150 mg CH₄ m⁻² d⁻¹, “the highest ever documented for a mid-latitude reservoir,” and strongly temperature-dependent—meaning emissions increase as water warms.²²

The **2019 IPCC Refinement to the 2006 Guidelines** has already updated national inventory guidance to require reporting of CO₂ and CH₄ emissions from flooded land, including hydropower reservoirs.²³ In other words, the international climate-science community now treats hydropower reservoirs as a managed, emitting land-use category rather than a zero-emissions technology.

For northern Ontario’s shallow, drawdown-prone reservoirs and smaller facilities with peaking operations, this has direct implications. Frequent wetting and drying of the littoral zone, warm summer temperatures, wastewater effluent, agricultural run-off and sediment-laden inflows from logging, mining, and road building all fuel high methane production and release, which accelerates climate change.

It is also important to consider that creating a new hydroelectric reservoir on a previously untamed riverine ecosystem can transform a healthy ecosystem from a GHG sink into a relatively large source of emissions.²⁴

New reservoir flooding also accelerates the bioaccumulation of methylmercury in fish tissue, and these effects can persist for as long as the dam is in place.^{25,26} This can remove fish as a primary food source for Indigenous and other stakeholder communities.

The more the province leans on peaking hydropower to follow mining and industrial loads, the higher these emissions are likely to be. Expanding transmission to unlock more energy-limited hydro is therefore **not** a climate solution; it risks fuelling additional methane emissions precisely when Canada must be driving them down.

5. Cumulative Effects and Watershed Fragmentation:

Northern Ontario watersheds are already subject to overlapping pressures from mining, forestry, transmission corridors, roads, and climate change. Introducing new hydropower at thresholds of



1 to 10 MW guarantees incremental river fragmentation that is ecologically destructive and incompatible with watershed resilience.

Neither the ERO posting nor the supporting documents provides any cumulative-effects assessment addressing watershed changes, fish habitat impacts, hydrologic alterations, reservoir emissions, or dam-safety risks arising from climate change. The OCCIA stresses the requirement for regional-scale, integrated watershed analysis as a prerequisite for infrastructure decisions in climate-vulnerable regions. Failing to do so is inconsistent with best practice and federal freshwater science guidance.

Federal science is increasingly clear that **cumulative effects**, not just individual project footprints, are a critical threat to Canada’s freshwater ecosystems. The Department of Fisheries and Oceans’ (DFO) 2020 review of cumulative-effects research stresses that the key challenge is managing multiple interacting stressors—hydrologic alteration, habitat fragmentation, contaminants, thermal pollution, and climate change—on fish and aquatic habitats over space and time, and calls for **habitat- and region-based cumulative-effects frameworks** rather than project-by-project approvals.²⁷ A companion 2022 DFO research document outlines how cumulative-effects considerations must be embedded in **integrated planning**, not treated as an after-the-fact add-on.²⁸

Environment and Climate Change Canada’s 2024 **Synthesis of Freshwater Science in Canada** highlights accelerating pressures on water quality, aquatic biodiversity, and hydrologic regimes, and explicitly calls for science-based prioritization of freshwater protection in the face of climate change and expanding resource development.²⁹

Yet, neither the ERO notice nor the referenced planning materials provides any **transparent cumulative-effects analysis** of what this combined hydropower-plus-mining-plus-transmission build-out will mean for river temperature regimes, baseflows, fish passage, methylmercury risks, or methane emissions from existing and potential new reservoirs. Proceeding with a “priority” designation and pre-determined need in the absence of that analysis is inconsistent with best practice and with federal science guidance.

6. Indigenous Rights, Consent, and Procurement Pressure:

Reliance on procurement-driven Indigenous economic participation is not a substitute for the Crown’s duty to consult and accommodate. Economic incentives cannot replace free, prior, and informed consent, particularly where downstream ecological and cultural impacts are permanent. Consultation must occur before Crown land is functionally committed through energy procurement contracts.

Energy for Generations and the ERO emphasize Indigenous equity participation in transmission and hydropower projects—Hydro One’s 50-50 First Nation equity partnership model for large transmission lines, and expectations that Ontario Power Generation (OPG) and others “explore commercial partnership and procurement opportunities” on new greenfield generation and refurbishments.

Equity participation, however, is not a substitute for:



- **Meaningful, early, and ongoing consultation and consent** regarding project need, routing, alternatives, and cumulative effects.
- Transparent assessment of the **long-term liabilities** associated with hydropower reservoirs (methane emissions, sediment management, dam safety, decommissioning).
- Ensuring that Indigenous communities are not left carrying the financial, environmental, and reputational burdens of assets whose performance will be increasingly stressed by climate-driven droughts and floods.³⁰

Delegating “procedural aspects of Crown consultation” to project proponents or other regulators, as the ERO and supporting document contemplate, while simultaneously pre-determining need, is fundamentally at odds with the honour of the Crown and with reconciliation commitments. It constrains the ability of Indigenous Nations to challenge whether this hydropower pathway is acceptable at all and reduces engagement to mitigation around a foregone conclusion.

7. **Stranded Asset Risk on Crown Lands:**

The proposed policy ignores the very real risk of stranded assets. Climate-driven hydrologic change, declining inflows, sedimentation, infrastructure aging, and increasing regulatory scrutiny of methane emissions all threaten the long-term viability of new hydropower projects. Extreme rain events, as documented in the OCCIA, increase dam-safety and spillway failure risks, while prolonged drought can dramatically reduce generation, undermine structural integrity, and render facilities uneconomic.

Locking Crown lands into waterpower infrastructure with 80–100+ year lifespans creates future liabilities for the public when projects become uneconomic, unsafe, or environmentally untenable.

8. **Absence of Decommissioning and Financial Security Requirements:**

The RECL amendments fail to require mandatory, up-front decommissioning plans and financial security for hydropower projects on Crown land. This omission is critical. Without enforceable security instruments, the risk of abandonment, deferred maintenance, and unfunded dam removal is transferred directly to the public. Ontario already faces a growing legacy of aging, unsafe, and abandoned water control structures. This policy would worsen that liability rather than contain it.

9. **Fish Passage, Ecological Fragmentation, and End-of-Life Liabilities:**

The proposed RECL amendments also fail to address fish passage obligations, long-term ecological fragmentation, and the inevitable end-of-life impacts of hydropower infrastructure. Dams—regardless of size—disrupt upstream and downstream fish movement, alter spawning and rearing habitat, and fragment river systems in ways that cannot be mitigated through partial or poorly performing fish passage structures. Empirical evidence consistently shows that many fish ladders and bypass systems fail to achieve meaningful passage for a full range of species and life stages, particularly in northern rivers with variable flows, ice conditions, and seasonal extremes. Smaller facilities often lack the scale, engineering redundancy, or monitoring required to implement effective fish passage, making per-MW ecological harm higher, not lower.



Fish passage failures directly affect Indigenous food security, cultural practices, and treaty-protected harvesting rights, particularly where methylmercury contamination and habitat fragmentation reduce access to safe, traditional fisheries.

When hydropower facilities reach the end of their operational life, fish passage impacts do not disappear; they persist until the structure is fully removed and the river restored. Without mandatory decommissioning triggers, secured funding, and clear responsibility for dam removal and site rehabilitation, Ontario risks inheriting a new generation of barriers to fish movement, degraded aquatic habitat, and unfunded ecological liabilities on Crown land. Fish passage, like dam safety and methane emissions, must therefore be treated as a **life-cycle obligation**, not an afterthought.

10. Regulatory Rollback and Loss of Safeguards:

Replacing the Approvals and Permitting Requirements Document (APRD) with discretionary procedural guidance removes a critical safeguard that ensured early identification of ecological, hydrologic, and cumulative impacts. This shift reduces transparency, weakens accountability, and increases the likelihood of late-stage environmental harm.

11. Better Pathways for Reliability, Mining Loads, and Indigenous Participation:

ORA recognizes the need to ensure reliable electricity for existing customers, remote communities, and any responsibly approved mining operations. Given that northern hydropower is already recognized by the IESO as energy-limited and unreliable as firm capacity, expanding transmission to unlock additional hydro does not resolve reliability challenges for large mining or industrial loads. A more responsible pathway would include:

- **Maximizing non-wires and distributed solutions** (efficiency, demand response, behind-the-meter storage, and community-scale renewables) to meet local and regional needs where possible, reducing the scale of new transmission.
- **Prioritizing wind, solar, and battery storage**, which Ontario's own planning documents acknowledge are growing, cost-competitive resources, with nearly 3,000 MW of storage being added to enable intermittent renewables to play a more reliable role.
- Restricting any new generation enabled by this line to **non-reservoir, low-impact technologies** (e.g., run-of-river kinetic devices without impoundment (no dams), carefully sited wind and solar, and storage), subject to rigorous cumulative-effects assessment.
- Ensuring Indigenous communities can invest in **diversified, low-impact assets**—such as storage, distributed renewables, and transmission equity that is not tied to new dams—so they are not locked into long-term exposure to hydropower risks.

Until these alternatives are properly evaluated and until climate and cumulative-effects risks are fully integrated into planning, the proposed priority designation is premature.

12. Public Safety, Financial Risk, and Regulatory Defensibility:

Beyond ecological and climate impacts, the proposed shift toward permit-by-rule approvals, codes of practice, and increased reliance on proponent-retained “qualified professionals” raises serious public-safety, financial, and liability concerns. Hydropower dams and in-water works are not



inherently low-risk infrastructure; under current and projected climate conditions—characterized by more frequent extreme rainfall, ice dynamics, debris loading, and hydrologic volatility—there are no genuinely “low-hazard” hydropower dams. Weakening Crown oversight at the design, construction, and early-occupation stages increases the risk of structural failure, downstream harm, and emergency-response challenges.

13. Long-Term and Life-Cycle Impacts of Hydropower on Crown Land

Decisions to allocate Crown land for hydroelectric development represent long-term and often irreversible commitments. Hydropower facilities are routinely justified on the basis of long operational lifespans, meaning that their ecological and climatic impacts persist across multiple generations.

Hydropower proponents routinely assert that their facilities are intended to operate for **100 years or more**, and provincial planning decisions actively rely on those claims. For instance, OPG is currently redeveloping the 117-year-old Kakabeka Falls Generating Station near Thunder Bay through an investment exceeding \$200 million, explicitly to extend the facility’s operational life by a further 90 years while increasing capacity.

Approving infrastructure with century-scale lifespans through diminished regulatory scrutiny locks the Province into decades of cumulative greenhouse-gas emissions, dam-safety obligations, sediment management, and downstream risk under a rapidly changing climate. From a financial perspective, assets with such extended operational lives demand the highest level of independent regulatory oversight to remain defensible, insurable, and financeable over time. Banks and insurers place significant weight on regulator-issued approvals, enforceable conditions, and clear accountability; reliance on proponent-retained professionals—who are neither independent nor accountable to the public—undermines confidence in long-term risk management and shifts liability onto the Crown. Rather than improving investment certainty, these changes increase the likelihood of stranded assets, unfunded remediation, and prolonged public exposure to safety and climate risks.

In addition to greenhouse gas emissions, hydroelectric dams permanently alter river hydrology, degrade water quality, mobilize methylmercury, fragment habitat, and drive long-term declines in culturally, ecologically, and economically significant fish populations. Once Crown land is committed to dams and impoundments, these impacts are effectively locked in, while the public retains responsibility for long-term monitoring, remediation, and eventual decommissioning.

A Crown land policy that fails to account for these full life-cycle impacts cannot be considered precautionary, climate-aligned, or consistent with the Province’s stewardship obligations.

14. ORA Recommendations:

Ontario’s rivers and Crown lands are long-lived public trust assets. Regulatory reform must not facilitate new hydroelectric dams that degrade watershed resilience, accelerate climate change, and impose irreversible ecological, economic, and public-safety costs on present and future generations.



The following core recommendations reflect ORA's consistent position across the Natural Resources Regulatory and Permit Reform Initiatives and apply to all postings that enable or accelerate hydropower development on Ontario rivers and Crown land.

- 1. No New Dam-Based Hydroelectric Development:**
Explicitly prohibit new hydroelectric development that uses dams or impoundments on Crown or public land, recognizing that dam construction is the primary driver of methane emissions, degraded water quality, methylmercury production, habitat fragmentation, and long-term decline of iconic fish populations in Ontario rivers.
- 2. Exclusion from Fast-Tracked or Streamlined Pathways:**
At a minimum, exclude all dam-based hydroelectric projects from any fast-tracked, streamlined, registration-only, or preferential regulatory or economic pathway, including Crown land prioritization, permit-by-rule frameworks, or procurement-driven approvals.
- 3. Require an Independent Full Life-Cycle Economic Cost-Benefit Analysis:**
Prior to any policy or project pathway that would enable new dam-based hydropower, Ontario must require an independent, transparent life-cycle CBA that monetizes, at minimum, the cumulative economic costs over the full claimed operating life (100+ years) of: methane and other GHG emissions; degraded water quality and increased drinking-water treatment; methylmercury contamination and associated health and food-security impacts; forest loss; altered hydrology and flood damage; fisheries decline; tourism and recreation losses; and increased costs to conservation authorities and municipalities. The analysis must include climate change scenarios, cumulative effects, sensitivity analysis, and explicit disclosure of discount rates and assumptions.
- 4. Watershed-Scale Cumulative Effects Assessment:**
Mandate watershed-scale cumulative effects assessment for all projects and policy decisions affecting rivers and Crown lands, recognizing that incremental approvals and permit-by-rule approaches systematically fail to manage cumulative ecological harm.
- 5. Alignment with Ontario's Climate Change Impact Assessment (2023):**
Require that all regulatory, land-use, and economic decisions affecting rivers and hydropower explicitly align with Ontario's Climate Change Impact Assessment (2023), including consideration of increasing extreme flows, drought risk, infrastructure vulnerability, and long-term climate liability.
- 6. Up-Front, Secured Decommissioning and Restoration:**
Require enforceable, legally binding end-of-life plans for all hydroelectric facilities, including full dam removal, sediment management, and river restoration, backed by fully secured, up-front financial assurance sufficient to cover all future costs, adjusted for inflation and climate risk.
- 7. Effective, Demonstrated Fish Passage:**
Prohibit approval of any hydroelectric project where effective, multi-species fish passage across all life stages cannot be demonstrated under current and projected climate-driven flow conditions, recognizing fisheries as ecological, cultural, and economic assets.
- 8. Rejection of Proponent-Retained "Qualified Professional" Substitution:**
Reject reliance on proponent-retained "qualified professionals" as a substitute for independent Crown oversight, particularly where cumulative effects, public safety, Indigenous rights, and long-term ecological risk are at issue.
- 9. Indigenous Rights, Consultation, and Consent:**
Ensure Indigenous consultation and consent occur early and meaningfully—prior to land prioritization, procurement decisions, or regulatory streamlining—recognizing the



disproportionate and long-lasting impacts of hydropower and river fragmentation on Indigenous food systems, rights, and cultural practices.

10. Rejection of Energy for Generations as a Planning Basis:

Explicitly prohibit reliance on *Energy for Generations* as a needs-assessment, climate-alignment, or justification document for hydropower or Crown land decisions unless and until it is independently reviewed and updated to reflect current methane science, cumulative effects research, and Ontario’s Climate Change Impact Assessment.

11. Decoupling Procurement from Land and Regulatory Decisions:

Decouple IESO procurement outcomes and economic acceleration objectives from Crown land allocation and regulatory approval decisions to prevent outcome-predetermination and erosion of precautionary safeguards.

12. Recognition of Healthy Rivers as Climate-Resilience Infrastructure:

Establish a provincial position recognizing free-flowing rivers as climate-resilience infrastructure that avoids reservoir methane emissions, supports landscape-level carbon storage, and provides flood mitigation, water quality protection, biodiversity, and long-term economic value that exceeds the short-term gains of new dam-based hydropower.

15. Closing Statement:

ERO-025-1145 does not represent prudent regulatory reform. It represents a deliberate policy choice to subordinate Ontario’s rivers, climate commitments, and public-interest safeguards to an unmandated “energy superpower” agenda built on outdated assumptions about hydropower. By ignoring Ontario’s own Climate Change Impact Assessment, greenwashing hydropower, downplaying methane emissions, dismissing cumulative effects, and failing to require decommissioning, fish passage, and financial security, the proposed amendments expose the Province to long-term ecological, legal, and financial risk.

Free-flowing rivers are among Ontario’s most valuable and climate-resilience assets. Once fragmented, flooded, or abandoned, they cannot be easily or cheaply restored. ORA urges the Ministry to withdraw these amendments, re-ground Crown land policy in contemporary science and Indigenous rights and reject the false premise that new hydropower—particularly under the 10-MW scale—is compatible with climate responsibility or watershed protection.

ORA notes that this submission is one of four related ERO postings under the Natural Resources Regulatory and Permit Reform Initiative, which together create cumulative and compounding impacts on Ontario’s rivers and Crown lands. This submission is therefore being shared with the Ministry contacts responsible for the related postings.

Respectfully,

A handwritten signature in black ink, appearing to read "L. Heron".

Linda Heron
Chair, Ontario Rivers Alliance
(705) 866-1677



Cc: MNR – ERO-025-1141, Unlock Economic Potential– Public.Lands@Ontario.ca
MNR – ERO-025-1078, Public Lands Act – Public.Lands@Ontario.ca
MNR – ERO-025-1134, Forest Management Policy – Forest.Policy@Ontario.ca

¹ [Energy for Generations. Learn about Ontario's integrated plan to power the strongest economy in the G7. Ontario, June 2025. P-8,54/152.](#)

² [Ontario Ministry of Natural Resources 2013. Restoration of Atlantic Salmon to Lake Ontario: past, present and future.](#)

³ [MacGregor, R., Casselman, J., Greig, L., Dettmers, J., Allen, W.A., McDermott, L., and Haxton, T. 2013. Recovery Strategy for the American Eel \(*Anguilla rostrata*\) in Ontario. Ontario Recovery Strategy Series. Prepared for Ontario Ministry of Natural Resources, Peterborough, Ontario. x + 119 pp. P-45.](#)

⁴ [Golder Associates Ltd. 2011. Recovery Strategy for Lake Sturgeon \(*Acipenser fulvescens*\) – Northwestern Ontario, Great Lakes-Upper St. Lawrence River and Southern Hudson Bay-James Bay populations in Ontario. Ontario Recovery Strategy, Series. Prepared for the Ontario Ministry of Natural Resources, Peterborough, Ontario. vii + 77 pp.](#)

⁵ [Committee on the Status of Endangered Wildlife in Canada \(COSEWIC\). 2006. COSEWIC assessment and update status report on the lake sturgeon *Acipenser fulvescens* in Canada. Ottawa. Online: \[http://www.sararegistry.gc.ca/document/default_e.cfm?documentID=1376\]\(http://www.sararegistry.gc.ca/document/default_e.cfm?documentID=1376\)](#)

⁶ [Haxton, T.J., Friday, M., Cano, T. and Hendry, C. 2014. Variation in lake sturgeon \(*Acipenser fulvescens* Rafinesque, 1817\) in rivers across Ontario, Canada](#)

⁷ [Energy for Generations. Learn about Ontario's integrated plan to power the strongest economy in the G7. Ontario, June 2025. P-5/152.](#)

⁸ [ERO-025-0449-Advancing New Hydroelectric Generation in Ontario. Comment Deadline 13 June 2025.](#)

⁹ [ORA Comments on ERO-025-0449 Advancing New Hydroelectric Generation in Ontario, 12 June 2025.](#)

¹⁰ [Ontario Provincial Climate Change Impact Assessment, Technical Report, January 2023. P31/534.](#)

Online: <https://www.ontario.ca/files/2023-11/mecp-ontario-provincial-climate-change-impact-assessment-en-2023-11-21.pdf>

¹¹ [Ontario Provincial Climate Change Impact Assessment, Technical Report, January 2023. P31/534. Online: <https://www.ontario.ca/files/2023-11/mecp-ontario-provincial-climate-change-impact-assessment-en-2023-11-21.pdf>](#)

¹² [Is Hydropower's Potential Drying Up? By Ariel Cohen, 5 July 2024](#)

¹³ [North of Dryden Integrated Regional Resource Plan – January 27, 2015, by OPA/IESO. P-127/158, Table 56: Summary of Renewable Generation Options. Online: <http://www.noma.on.ca/upload/documents/north-of-dryden-report-2015-01-27.pdf>](#)

¹⁴ [North of Dryden Integrated Regional Resource Plan – January 27, 2015, by OPA/IESO. P-124/158 Online: <http://www.noma.on.ca/upload/documents/north-of-dryden-report-2015-01-27.pdf>](#)

¹⁵ [Scherer, L., & Pfister, S. \(2016\). Hydropower's Biogenic Carbon Footprint. PLOS ONE, 11\(9\), e0161947. <https://doi.org/10.1371/journal.pone.0161947>](#)

¹⁶ [Phys.org. Sediment trapped behind dams makes them 'hot spots' for greenhouse gas emissions. July 31, 2013. Online: <http://phys.org/news/2013-07-sediment-hot-greenhouse-gas-emissions.html>](#)

¹⁷ [Abbasi, T. and Abbasi, S.A. 2011b. Small hydro could add up to big damage. SciDev.Net 20/06/11. Online: <http://www.scidev.net/global/water/opinion/small-hydro-could-add-up-to-big-damage-1.html>](#)

¹⁸ [Synthesis of freshwater science in Canada. An overview of key findings as a foundation to inform prioritization of collaborative freshwater science activities, 2024, Environment and Climate Change Canada.](#)

¹⁹ [Deemer, B. R., Harrison, J. A., Li, S., Beaulieu, J. J., DelSontro, T., Barros, N., F., J., Powers, S. M., Dos Santos, M. A., & Vonk, J. A. \(2016\). Greenhouse Gas Emissions from Reservoir Water Surfaces: A New Global Synthesis. BioScience, 66\(11\), 949-964. <https://doi.org/10.1093/biosci/biw117>](#)

²⁰ [Lessmann, O., Encinas Fernández, J., Martínez-Cruz, K., and Peeters, F.: Methane emissions due to reservoir flushing: a significant emission pathway?, Biogeosciences, 20, 4057–4068, Online: <https://doi.org/10.5194/bg-20-4057-2023>, 2023.](#)

²¹ [Johnson MS, Matthews E, Du J, Genovese V, Bastviken D. Methane Emission From Global Lakes: New Spatiotemporal Data and Observation-Driven Modeling of Methane Dynamics Indicates Lower Emissions.](#)



J Geophys Res Biogeosci. 2022 Jul;127(7): e2022JG006793. doi: 10.1029/2022JG006793. Epub 2022 Jul 27. PMID: 36250198; PMCID: PMC9540782.

Online: https://pmc.ncbi.nlm.nih.gov/articles/PMC9540782/?utm_source=chatgpt.com

²² DelSontro, Tonya, McGinnis, Daniel F., Sobek, Sebastian, Ostrovsky, Iliia, Wehrli, Bernhard, 2010, *Extreme Methane Emissions from a Swiss Hydropower Reservoir: Contribution from Bubbling Sediments.* Online: <https://pubs.acs.org/doi/full/10.1021/es9031369>

²³ IPCC: 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories. Online: https://www.ipcc.ch/report/2019-refinement-to-the-2006-ipcc-guidelines-for-national-greenhouse-gas-inventories/?utm_source=chatgpt.com

²⁴ St. Louis, V.L., Kelly, C.A., Duchemin, E., Rudd, J.W.M., Rosenberg, D.M. 2000. Reservoir Surfaces as sources of greenhouse gases to the atmosphere: a global estimate. *BioScience* 50(9): 766-775. Online: <https://academic.oup.com/bioscience/article/50/9/766/269391>

²⁵ Rosenberg, D.M., et al. 1997. Large-scale impacts of hydroelectric development. *Environmental Reviews*. 5: 27-54.

²⁶ World Commission on Dams. 2000. *In Dams and development: A new framework for decision-making*; Earthscan Publications: London.

²⁷ *A Review of Cumulative Effects Research and Assessment in Fisheries and Oceans Canada.* Cathryn Murray, Lucie Hannah, and Andrea Locke, Fisheries and Oceans Canada, Science Branch, Pacific Region, Institute of Ocean Sciences. 2020. *Canadian Technical Report of Fisheries and Aquatic Sciences* 3357. Online: https://waves-vagues.dfo-mpo.gc.ca/Library/40851576.pdf?utm_source=chatgpt.com

²⁸ Science Advisory Report 2022/055. *Assessing cumulative effects in support of policy development and regulatory decision-making.* Department of Fisheries and Oceans. Online: https://www.dfo-mpo.gc.ca/csas-sccs/Publications/SAR-AS/2022/2022_055-eng.html

²⁹ *Synthesis of freshwater science in Canada, An overview of key findings as a foundation to inform prioritization of collaborative freshwater science activities, 2024, Environment and Climate Change Canada.*

³⁰ Ontario Provincial Climate Change Impact Assessment, Technical Report, January 2023. P31/534. Online: <https://www.ontario.ca/files/2023-11/mecp-ontario-provincial-climate-change-impact-assessment-en-2023-11-21.pdf>