

Kathy Hamilton, Marmora Resident - FULL Commentary

Now well beyond having become eligible for "senior citizen" discounts, I have been a local resident within the urban area of Marmora since 1989, owned and occupied the same home with immediate family since 1990.

Since our family dwelling is serviced by the municipal water supply, I will not presume to represent the many local residents whose concerns about their future water supply are based on private water wells.

Against advice from family and friends since 2011, to 'get out of Dodge' and start over elsewhere while still possible, we would prefer to remain in what had - up until 2011 - seemed like *our* community and Home Sweet Home for the rest of our lives.

This project's proposal was first revealed to our local public via a "Public Information Meeting" held early afternoon on **Friday June 10, 2011** - for which there had been a same-day Joint Press Release issued, containing **this local-eye-popping quip** within a quote from Northland Power Inc's President (**highlighting** mine):

"Northland Power is very excited to have the support of **the people** of Marmora and Lake for the Mamora Pumped Storage project."

Prior to June 10, 2011, our local public had been offered no clue that this proposal existed, never mind that negotiations related to it had been going on awhile locally, behind the scenes - until this **ad was published on June 2, 2011** in one of the two local newspapers we had then received:

THE COMMUNITY PRESS • THURSDAY, JUNE 2, 2011

Notices A910



**PUBLIC INFORMATION MEETING
FRIDAY JUNE 10, 2011, 1:30PM
MARMORA COMMUNITY CENTRE**

There will be a public information meeting held on Friday, June 10th at 1:30pm at the Marmora Community Centre [Arena] to announce a proposed significant industrial development in Marmora and Lake. Representatives of the proponents will attend to provide the public with information on the proposed development. Following the presentation the Public will have the opportunity to ask questions related to the development. This proposed major private sector investment has the potential to bring positive economic benefits to Marmora and Lake, Hastings County and beyond. We urge you to attend this public meeting. For more information please contact:

Ronald F. Chittick, CAO
12 Bursthall Street
Marmora Ontario
K0K 2M0

By fall 2011, local heretics that remained brave enough to publicly challenge the never-substantiated claims of this proposal having **"overwhelming support from the Community"** already knew what 'Cancel Culture' was. Sadly, this remains the case today.

- By the time the 2011 taxpayer-subsidized bandwagon promoting the cause (ie: getting a government-directed PPA for Northland Power from the OPA) had reached, then exceeded the hoped-for 2012 construction start *and* 2015 operations start predictions, it had delivered two *more* and *harder* hits below the belt to taxpayers Ontario-wide.

Every time since June 2011 there has been an election pending *or* any hint that an IESO PPA might yet drop into its cargo hold, that same old bandwagon has been freshly fueled with our tax dollars and pushed out of its Marmora-wrecking yard sporting a shiny new marketing facade and baubles.

I would prefer to forget the nonsense that taxpayers have *already* been forced to subsidize, but alas; the Key Documents indicate that the proponent *still* attaches relevance to the silly election-style Signs [installed by volunteer-fairies? overnight, within visible local road allowances **just before June 28**] + Letters of Support [*only!*] that were requested, vetted then publicized thanks to our local tax dollars too.

So in return favour for the unwanted reminder, I'll provide more details from the history of that 2-pronged local-taxpayer-funded promotional campaign later:

See optional-read APPENDIX 1 - Page 16 (of 24)

That campaign had been launched hot on the heels of its council endorsement during their regular meeting held the afternoon of **Tuesday, June 21 2011.**

- **Excerpts copy/pasted, as follow, directly from the published Minutes: (bold/italicized highlighting *mine, font sized smaller, paragraph spacings reduced)**

3. REEVES REPORT

Reeve Clemens advised that since the Northland Power presentation **he has received **overwhelming support from the Community***. He thanked the media for its excellent coverage.

Reeve Clemens advised Northland Power will be making a presentation to the County of Hastings on June 30th and to the Eastern Ontario Warden's Caucus on July 15th and the Toronto Star will be in Marmora **on June 28**, to compile a story on the Northland Project.

Reeve Clemens encouraged the public to **forward letter of support** to the Municipality, which will be forwarded to Northland Power and the Province.

8. NEW BUSINESS

Reeve Clemens requested Council's consideration to **allocate funds for a municipal promotional campaign for the Northland Project.**

MOTION2011JUN21-160

Moved by: R. Cimprich Seconded by: L. Bracken

That Council approve \$5000.00 to be allocated to promotional material promoting the Northland Power Project in Marmora.

Carried

Consider this, in one returned-as-requested "Letter of Support" dated Thursday, June 23, 2011 from a supporter holding a leadership position of collective influence and authority - deemed a local expert on environmental issues:

"Our one megawatt project reduces carbon emissions by about 5,000 tonnes per year. The proposed project in Marmora would produce 400 megawatts of green energy and reduce carbon emissions by two million tonnes per year."

I agree that $5,000 \text{ tonnes} \times 400 = 2,000,000 \text{ tonnes}$ but any agreement ends there.

Those numbers are as irrelevant as would be any comparisons between those two projects on any matter. They are *totally* incomparable, including but *not* limited to their ability to *net* "produce"/ *be* "green energy" or "reduce carbon emissions". The first is waterpowered, the second NOT.

How relevant is the radically *less* GHG Emissions reduction of 70-140,00 tonnes of carbon dioxide equivalent that is "expected" *now*, for the non-waterpowered proposal for Marmora? (see the IPD Summary by Hatch under 7.5 on Page 19 - in the IPD under 5.4 on Page 100)

It still baffles my brain how marketing (alone) could so easily (and continue to) deceive and drive early-adopters leading multiple flocks of subsequent supporters down the same kind of rabbit holes that drive electricity prices up. My guess is they had all long ago convinced each other they were paying a *hydro* bill instead of an *electricity* bill to keep their L.E.D. lights *burning*.

- Why would *they* ever think about whether the "hydroelectric generating facility" currently under discussion would be equivalent to a waterpower/ hydropower or renewable energy facility - nevermind detect any difference between this proposal and a traditional (aka "other") pumped storage system?

Who knows how, why or when the slick marketing ploys that have continued selling *all* of this proposal's snake-oil to the poorly-informed or gullible since 2011 became the current P3 (private *plus* public "leading") proponents' 2023 claim: "it isn't *really* a lake":

- Northland Power's **2-page "Info Sheet" dated June 8, 2011** had already begun and has to date continued exploiting local fears of seeing *another* garbage disposal site proposed for the mine pit/ lake "site" in future... - **that promo flyer** had already told us (**bold** below mine) in 2011:
 - under Land Use Commitment;
 - "Committing the Marmora site to long term clean energy production will eliminate the prospect of future use as a waste storage/landfill site."
 - under Eco-Tourism:
 - "**Other** pumped storage facilities have become tourist attractions. A facility in Wales attracts many ecotourism visitors each year."
 - "**Marmora's design will facilitate tourism use**, perhaps incorporating a solar farm and wind turbines to show alternate energy sources in a park-like setting."

Why would the IESO pay *any* energy *non-producers/ non-sources* like The Project to prevent a future landfill from being built on the same site - or pay for The Project to facilitate tourism use?

Why did the June 7, 2011 re-branding (ie: Name-Change) of "The Project" take place?

From: "the Northland Power Inc. Pumped Storage project"

To: "the Marmora Pumped Storage Project"

APPENDIX 2 - Pages 17-18 (of 24) shows *How* that June 7, 2011 name-change took place - 3 days *prior to the proposal's first public presentation locally on June 10, 2011.*

Why has it now been *changed again* to: "The Marmorata Clean Energy Hub Project"?

- yet *still* pitching the *same* proposal that has *not* perceptually changed since June 2011.

Albeit it seemed just as bizarre, during the big snow storm on December 15 2022 at a *drop-in* "Community Information Session", to have confronted a representative for the project's 'lead partner' in front of a project promo panel offering the public the *demonstrably false* claim of "Power source: Water" - *plus* the *debatable* claim of "Pumped storage type: Closed-loop design".

Once that "waterpower" *source* claim collapsed under the evidence of mine to the contrary;

- his next argument, in dismissing *my* "closed-loop" interpretation, was that the waterbody in the mine pit "isn't *really* a lake".

But local residents that *were* involved in the volunteer group Marmorata & District Takes No Trash might recall that The Adams Mine Act, 2004 amended Ontario's Environmental Protection Act that *did* define it as a "lake" [for the purposes of Part V]; prohibiting it from becoming a waste disposal site.

There *may be hope* (or *not*, on digging down deeper?) **for protecting the "lake" in the Marmorata Mine pit offered by this Definition, as found at the top of Ontario's Lakes and Rivers**

Improvement Act:

- **"lake" includes a pond and similar body of water; ("lac")**

Hope *may* also be offered for flooding protection from The Project's "upper reservoir" by this Definition found within the same list:

- **"dam" means a structure or work forwarding, holding back or diverting water and includes a dam, tailings dam, dike, diversion, channel alteration, artificial channel, culvert or causeway; ("barrage")**

So far, those LRIA definitions *may seem* to give hope toward protecting the mine pit "lake" plus offer protection from potential negative impacts becoming a reality (including but not limited to flooding) due to the design of The Project - *either* caused by its proposed above-grade upper reservoir *or* mine pit lower reservoir.

BUT *may not*, when you start digging down deeper... there is a hint at later disappointment because "lake" in the related Administrative Guide's Glossary of terms taketh away any hope that the Act giveth..

(note the added *"if located on a river"*):

- **Lake** includes a pond and similar body of water (e.g. swamp, marsh, bog) if located on a river.

See my detailed analysis on Pages 9-10 further along, regarding hope for such protections through my studying of Ontario's Rivers and Lakes Improvement Act (LRIA), its associated Administrative Guide and the relevant Regulation attached to the LRIA [O Reg 454/96 - Construction].

So far, I've been unable to find any *more detailed* definition for "lake" within any other existing Government of Ontario or Government of Canada legislation or regulation that would be more *or* less favourable toward seeing this proposal's construction proceed to its dreamy fruition, which includes de-watering the self-refilling mine pit - both initially *and* on an ongoing basis.

The second-closest thing I've found to date was this description offered in the introduction to a Government of Canada webpage titled Water sources:

- "A lake is a sizable water body surrounded by land and fed by rivers, springs, or precipitation."

Too bad (for local residents still wanting to protect the Marmoraton mine pit "lake") there is no definition of "sizable" provided - unlike the "lake" area size attached to the "lake" definition within Ontario's Environmental Protection Act;

- which was unfortunately (for the same local residents' purpose) not included within the Definitions applicable to the entire Act provided at its beginning.

The third-closest (within North America) I've found was offered by a US Geological Survey (USGS) "Lakes and Reservoirs" webpage:

- "A lake really is just another component of Earth's surface water. A lake is where surface-water runoff and groundwater seepage have accumulated in a low spot, relative to the surrounding countryside."

Meanwhile, I'd suspect the leaders and members of the Crowe Lake Waterway Association could also, by now, be wondering if the proponents might next consider using *that* 'manmade' lake as a potential lower reservoir too - since the high-voltage lines run pretty close to the northerly end of Crowe Lake and technically speaking it's already a "reservoir", according to that same US Geological Geological Survey webpage:

- "A reservoir is the same thing as a lake in many peoples' minds. But, in fact, a reservoir is a manmade lake that is created when a dam is built on a river. River water backs up behind the dam creating a reservoir."

Maybe the *still* "willing host" Corporation of Marmora and Lake will end up blessed with two (or more)?

BTW: At the same "Community Information Session", a Hatch representative was babysitting another panel informing us that "**The proposed Marmora Project requires an individual Environmental Assessment (EA) under the *Ontario EA Act* and an Impact Assessment (IA) under the *Canadian IA Act*.**"

What and where is the *evidence* Hatch has to support that "requires" claim (besides repetition)?

- Nowhere could I find that *evidence*, in either the IPD Summary or IPD provided by Hatch.

Speaking of *missing details* - exactly what "*type of energy service*" is Hatch referring to, in the IPD Summary's first of two sentences closing section 1. General Information, as follows (since *both* the 'pumped storage' component *and potentially* 'a solar farm' had *already* been touted as features of The Project on June 8, 2011) ?

"The Project notification was first introduced in 2011, although a viable market for this type of energy service did not become available until 2022. Should the Project move forward, construction is expected to begin as early as 2025."

And furthermore; why is there no definition for "viable market" as used above by Hatch?

If there had been *no* "viable market" for 'solar' and/ or 'pumped storage' until 2022... why were *both* potentially included in The 'pumped storage' Project as it already had been proposed in 2011 (*plus* our tax dollars spent *and* the time/ efforts of *numerous* taxpayer-subsidized municipal public officials *and* municipal/ provincial politicians of every stripe also *wasted for years* promoting it while privately-funded lobbyists at Queen's Park were doing the same)?

I'm old enough to remember that Northland Power *already* had solar and OPG *already* had pumped storage types of "energy service" in their company portfolios *before* 2022 (*now* Hatch implies *that* had been the case *without* there having been a "viable market" for *those* facilities?)

Since *both* the solar and pumped storage types obviously had a "viable market" for *them* prior to 2022... Why wasn't The Project proposed by Northland Power for Marmora contracted by the OPA as fast as suggested in their 2-page "info sheet" dated June 8, 2011?

- "If the OPA contracts with Marmora in 2011, and construction begins in 2012, start-up could occur by 2015"

Nowhere could I find *that* mystery explained, in *either* the IPD Summary that started me down that rabbit hole - *or* the more detailed IPD *also* produced by Hatch.

****Neither was any schedule indicated whatsoever, for beginning/ concluding any PPA negotiation(s) within the timeline shown as the "Preliminary Project Schedule - Coordinated Provincial/Federal Impact Assessment Process" Table 2-4 in the detailed IPD's Section 2.6 on Page 40.**

At least Northland Power's 2-page June 8, 2011 "info sheet" had given us *something* about that.

Having once again checked for any amendments since my last round, it *still* looks to me like there remains no Federal-level or Provincial-level legislation or regulation that appears capable of ensuring that any of my concerns (nor those of anyone else) regarding this proposed 'pumped storage' project would be reduced or eliminated - because:

- If *no* 'key' existing legislation or regulation as-written at either of those levels is even clearly *applicable* to this unique proposal, surely *enforcement* under the same would be even less likely guaranteed should push ever come to shove *after* the now-underway federal & provincial environmental *assessments* are completed or *approvals* already obtained?
 - **Successful gov't enforcement of compliance (or compensation enforcement due non-compliance) would become even *less* likely if the PPA - *requiring* documented 'support from the Community' (ie: The Municipal Council) *and* prior to IA & EA completions or *any* approvals - had itself already been secured?**
 - **What about the similar applicability and timing for Ontario's Lakes and Rivers Improvement Act (LRIA) compliance approvals and *all* municipal/ conservation authority permits *relative to* project construction starting? Etc., etc...**

How could and why would (or should) *any* assessments (and moreso, any *approvals* or PPA *subsequent to* any assessment) be provided to *any* proponent of *any* proposal under *any* such Act - when the Act or attached Regulation as-written is not clearly applicable to the project proposal?

re the Impact Assessment Act:

Section 22: Factors To Be Considered lent me faint hope of seeing at least some of my concerns with this proposal eliminated or mitigated by 22 (1) (a) (i) the effects of malfunctions or accidents that may occur in connection with the designated project

But once key blanks within the IPD and IPD Summary are filled in, no hope remains...

The excerpt as follows can be found under 2.1. on Page 2 of the IPD Summary and under 2.3.1 on Page 21 of the IPD - added bold/italics highlighting is mine:

The Project is a “designated project” under the Canadian Impact Assessment Act (S.C. 2019), as **it is *expected to meet the definition*** of “the construction, operation, decommissioning and abandonment of a new hydroelectric generating facility with a production capacity of 200 megawatts or more;” ***per Section 42(a) of the Physical Activities Regulation (SOR/2019-285).***

Here is the rest of *that* story:

1. **The title shown *above* Section 42 is Renewable Energy** -- so;
2. All 3 types of generating facilities listed within Section 42 must meet the definition of Renewable Energy -- but;
3. The proposal under consideration here ***is not*** a hydropower / waterpower facility (ie: it's power *source* is not a *natural* water flow/process) - so therefore;
4. The "hydroelectric" proposal being considered here can ***not*** be classified as Renewable Energy -- ergo ...

Since this proposal does *not* meet the definition of *Renewable Energy* [courtesy of Natural Resources Canada (NRC) and the Canadian Energy Regulator (CER)] (added bold/italics highlighting mine) :

Renewable energy is energy derived from *natural* processes that are replenished at a rate that is equal to or faster than the rate at which they are consumed. There are various forms of renewable energy, deriving directly or indirectly from the sun, or from heat generated deep within the earth. They include energy generated from solar, wind, geothermal, hydropower and ocean resources, solid biomass, biogas and liquid biofuels. Biomass, however, is a renewable resource only if its rate of consumption does not exceed its rate of regeneration.

It can not "*meet the definition under Section 42(a)*" either.

My Conclusion: the Impact Assessment Act as-written is not applicable to this proposal.

re Ontario's provincial Environmental Assessment Act:

The excerpt as follows can be found under 2.2 on Page 3 of the IPD Summary and under 2.3.2 on Page 21 of the IPD - added bold/italics highlighting is mine:

The Electricity Projects Regulation (O. Reg. 116/01) of the Ontario Environmental Assessment Act states that new ***waterpower*** projects greater than 200 MW in capacity must undergo an Individual Environmental Assessment (EA). The Project will have a nameplate capacity of 400 MW and, therefore, must undergo an Individual EA.

The portion of O. Reg. 116/01 being referred to above reads *exactly* as follows (added bold/italic highlighting mine):

3. (1) The planning, designing, establishing, constructing, operating, changing, expanding or retiring of any of the following things is defined as a major commercial or business enterprise or activity and is **designated as an undertaking to which *the Act applies***:

3. A generation facility that has a name plate capacity of 200 megawatts or more **and that uses water power as its primary power *source***.

According to a Government of Ontario 2011 Guide titled Provincial approvals for **Renewable Energy** Projects...

Under: What is WATER power?

Excerpt from Pg 64:

"Two different approaches are used to produce electricity from waterpower..."

- A project can include a dam to hold back the waters of a river, creating a stored reservoir of water.
- The second approach is run-of-river."

This project proposal will not be using water power as its primary power *source* - as implied by the following excerpts:

From Page 3 of the IPD Summary;

"The Project will provide clean energy to the grid during higher demand periods and draw power from the grid during lower demand periods..."

And similarly, from Page 2 of the IPD;

"The Project seeks to transform and store energy from the grid before returning it based on demand."

My translation - with my research details added:

"Energy" *in the form of electricity* bought from the grid will be the ***primary power source*** of The Project - and will be sold back *as electricity*, by The Project, to the grid when needed;

- keeping in mind that less electricity would be returned to the grid when the water drops by gravity and flows through the turbines compared to the amount that had been needed to force that water uphill using pumps (= loss of energy via transformation each cycle).
Ie: it's a net electricity consumer, not producer.

The evidence path I've outlined as follows confirms what Renewable Energy *is* (ergo, what is *not*) - by Ontario provincial definition - via legislation & regulation:

From the Definitions for the Green Energy and Green Economy Act, 2009:

- “renewable energy project” means the construction, installation, use, operation, changing or retiring of a renewable energy generation facility;
- “renewable energy generation facility” has the same meaning as in the Electricity Act, 1998;

*From the Definitions for the Electricity Act, 1998:

- “renewable energy generation facility” means a generation facility that generates electricity from a renewable energy source and that meets such criteria as may be prescribed by regulation and includes associated or ancillary equipment, systems and technologies as may be prescribed by regulation, but does not include an associated waste disposal site, unless the site is prescribed by regulation for the purposes of this definition;
- “renewable energy source” means an energy source that is renewed by natural processes and includes wind, water, biomass, biogas, biofuel, solar energy, geothermal energy, tidal forces and such other energy sources as may be prescribed by the regulations, but only if the energy source satisfies such criteria as may be prescribed by the regulations for that energy source;

Note that this provincial definition of a "renewable energy source" does *not* include Ontario's mixed-supply grid - which will be the *source* of the energy (in the form of electricity sourced directly from the grid) - as required to pump the water uphill.

- Please note also that this common-sense interpretation of Ontario's provincial-level rationale aligns with that of Canada's federal-level rationale? I detect only semantic differences of no meaningful relevance (ie: hydropower vs waterpower wording).

Which is precisely why "The Project" *must (not)* undergo an Individual EA - *contrary to the statements made in the Key Documents provided.*

My Conclusion: Ontario's Environmental Assessment Act as-written is not applicable to this proposal.

re Ontario's provincial Lakes and Rivers Improvement Act (LRIA):

Within the "Letter of Support" that had previously been accessible from and publicized on our municipality's own "Marmora Pumped Storage" promotional webpage - dated Sept 1, 2011 and clarified having been returned as requested by the Reeve - I can certainly see why the then-Minister of Natural Resources who signed it had *also* said this:

"As this project does not involve provincial Crown land, the Ministry of Natural Resources has no direct role in the proposal at this time. However, should the project proceed, my Ministry may have a regulatory role with respect to potential *Lakes and Rivers Improvement Act* permits and approvals for any dam related works."

Given my concerns, other than economic, were and remain primarily around negative flooding impacts from either the upper *or* lower reservoir proposed by The Project, *that* Ministers clear and honest use of the words "*may*" and "*potential*" within the second sentence also confirmed

everything I had *already* figured out would most likely (but not certainly) become the more likely scenario to unfold should The Project proceed as planned.

Since then, nothing has changed regarding the LRIA to my knowledge, nor has it with regard to The Project proposed - except for the name attached to it plus OPG having become a proponent additional to Northland Power.

Nevertheless, I never expect anyone to consider anything I say as gospel nevermind dare repeat it to their potential detriment and mine without providing evidence supporting my 'claims' - so here you go:

Relevant (to my concerns) quoted from the Administrative Guide pertinent to the LRIA:

- **then my subsequent comments/ questions**

Under Introduction:

LRIA approvals are not a disposition of a Crown resource and do not trigger requirements established under the *EA Act*.

Under 1.7 Application of the LRIA to the Crown (highlighting mine):

The LRIA does not bind the Crown. **Dams and other works subject to the LRIA, *but* constructed by provincial and/or federal ministries, agencies and departments, *may* not require LRIA approval.** As a matter of policy however, the Ministry has elected to apply the criteria and standards contained in this Guide and its associated technical bulletins for location approval and for plans and specifications approvals to dams and other in-water works to be constructed and maintained by the Ministry and advise other provincial and/or federal ministries, agencies and departments of the same.

- **Does having OPG now on-board as a proponent (and OPG being a provincial Crown entity) make LRIA approval a *non*-requirement?**

Under 2.1.1 Dams:

Under *Ontario Regulation 454/96*, approval must be obtained from the Ministry to construct, decommission, alter, improve or repair a dam that holds back water in a river, lake, pond or stream to:

- raise the water level
- create a reservoir to control flooding or
- divert the flow of water.

I confirmed that Section 2. (1) (a) says that: (underlining + italics mine)

"to construct or decommission a dam that holds back water in a river, lake, pond or stream to *raise the water level, create a reservoir to control flooding* or *divert the flow of water*; "

Since the planned upper reservoir "dam" will not be for any of those 3 qualifying purposes:

- **O Reg 454/96 - Construction will *not* be *applicable* to the "dam" foreseen as the planned "upper reservoir" for The Project.**

Furthermore - also under 2.1.1 Dams:

Table 1 lists the types of works to dams requiring LRIA approval. Table 2 lists the types of works that do not require LRIA approval.

As per Table 2: - Dams: Works *not* requiring LRIA approval (bold/ italicized highlighting mine):

"Offline Structures", **not** located *in* a lake or river (examples of which include "*mine tailings dams*")
Specifically, a dam does *not* require approval where:

- a. The dam is not constructed in a lake, river, pond or stream (LRIA Section 14) and/or
- b. The dam does not hold back water in a lake, river, pond or stream to raise the water level, create a reservoir to control flooding or divert the flow of water (LRIA Section 14 and 16).

These dams are considered to be “offline structures”.

Now everyone knows why we've recently heard the previously locally-unnoticed term "offline", which also *may* be useful for upholding the *debatable* "closed-loop" claim.

- **in addition to *neither* The Project *nor* its "upper reservoir" being subject to *any* "dam safety" requirements, compliance or enforcement?**

My Conclusion: Neither the Ontario's Lakes and Rivers Act (LRIA) *nor* O Reg 454/96 - Construction, as-written, are clearly applicable to this proposal.

Evidence-supported *corrections* to *those* detailed analyses would be welcomed.

Lest I'm just boring anyone else, by repeating such factual stuff, I'll share some lesser-known details pertinent to the proposed project being discussed because there could be a bigger story told *behind* them too:

I am seeing a *very unique* and *still not finalized* project plan, to which I've *never* seen anything even close to comparable in spite of my having done plenty of homework relevant to this proposal and "other" pumped storage (ie: irrelevant to this proposal) - for over a decade.

Unlike traditional pumped storage facilities such as Ontario's useful example attached to the Beck2 complex at Queenston Heights - which returns benefits to our electricity system and its electricity consumers as well as enabling maintenance of the level of daytime water flow over Niagara Falls that entices tourists from everywhere:

- the defacto 'pumped storage' proposed for construction in Marmora is *not* a waterpower/ hydropower project itself, nor is it attached to/ directly dependent on any traditional waterpowered hydroelectric facilities that use a natural water flow as their power/ energy source; so never should it be misleadingly labeled as, clumped together with, nor *implied* comparable *to* any example of pumped storage that can be defined as 'renewable energy' - *like this*:
 - "Pumped storage offers reliability and increased efficiency compared to many alternative renewable energy solutions." (Page 1, IPD + Page 4, IPD Summary)

Note that *also unlike* traditional pumped storage facilities and/or the traditional hydroelectric facilities that power them directly, this proposed 'pumped storage' project that will be dependent on the reliability of Ontario's grid as its primary and reliable power source for its ongoing operation on a consistent basis **couldn't possibly provide a 'black start' service to the grid that's equivalent to this benefit provided by a traditional pumped storage facility using pumps that are directly powered by waterpowered (renewable energy) electricity generation from a large-scale traditional hydroelectric facility.**

...Never mind that this defacto 'pumped storage' couldn't possibly deliver the local privilege of keeping the lights on in Marmora (only) when the provincial grid goes down *either...as some local people had been mis-led into believing too.*

Buried within the first paragraph under 3. Project Information on Page 3 of the IPD Summary document, you'll find this description excerpt:

"...an energy storage facility that will store energy from the grid before returning it during periods of high electricity demand."

I personally would have preferred to see this proposal described more like this:

"a financially lucrative electricity *recycling* project that will, if and/or whenever possible, purchase electricity from the grid when it's cheapest to buy - then sell it back to the grid when the price is highest."

... and done without seeing the same questionable "closed-loop" sales pitch repeated *again.*

One might suspect that such iffy potential revenues wouldn't cut it, so would more likely be additional to a capital costs recovery + guaranteed profit payment provided by a PPA privately-negotiated with the IESO (at Minister's direction).

- And we'll all be footing the total bill.

One might also want to keep in mind that each time energy is transformed into a different state and/ or back to its original state there is an energy loss; also that we're simultaneously seeing all energy costs skyrocket while being told we must conserve electricity.

- To the many (possibly intergenerational) that will be responsible for paying this project's total bill it likely matters little who the fewer are that might stand to benefit from seeing an increase in the amount of energy deprivation and financial losses arising from this conundrum.

Given this proposed projects uniqueness and incomparability to any "other" pumped storage, here's a related excerpt from my letter dated February 6, 2023 to our newly installed local municipal councilors:

"Surely the IESO must also already know that one of the most telltale and unique characteristics of this 'pumped storage' mimic is its potential to lose 'head' from both ends simultaneously?
Hint: the upper reservoir dumps into a constrained lower that's self-refilling"

Hopefully, that excerpt explains why the "closed-loop" claim could be considered debatable (at best).

- Also why "up to" should be attached to every installed generating capacity claim.

It also points to the additional pumping (ergo, potential additional pumping costs on our final bill?) and off-site discharging of the lake's water that will be excessive to this projects "closed-loop" pumped storage operating needs.

- That *additional* pumping and off-site discharging (aka 'dewatering') of excess natural water inflow to the existing lake that's constrained within the mine pit (aka 'lower reservoir') will be necessary on both an initial *and* ongoing basis - *on top of* needing to pump water from the lower up into the upper reservoir sporadically.

Another excerpt from my letter dated February 6, 2023 to our newly installed local municipal councilors may help you further understand why I and other local residents of Marmora *still* consider this proposal to be potentially and uniquely un-economic in addition to imposing an inevitable man-

made local flooding hazard (from *either* of its proposed reservoirs):

"I'm old enough to remember the overflow spillway that was supposed to have become a 'Safety by Design' feature of the proposed "upper reservoir". That too disappeared as quickly and permanently as the rest of that new-and-improved project construction plan presented at a council meeting in 2012.."

For over a decade, I have also been expressing concerns that apparently fell on deaf ears regarding this proposed project's potential for returning little in exchange for any amount of "investment" - except for its predictable generation of:

1. Longterm, negative economic impacts on a local and non-local basis due to;

- the devaluation and uninsurability (or even expropriation) of multiple local properties and dwellings due to concern #2
- a future increase in provincial or federal taxes and/ or electricity rates to cover the projects' total costs longterm
- a future increase in local taxes to cover additional project construction wear & tear on our roads
- a future increase in local taxes to cover any municipal liability for project damages, due to our municipal administration's promotion and support of #2 through its bypassing, denouncement or attempts to silence any local concerns from being expressed publicly

2. Brand new, man-made potential local flooding risks to existing residential neighbourhoods by imposing an unprecedented local flooding risk that would imperil a much broader area of multiple residential neighbourhoods around the site location than does the usual spring freshet flooding risk my family and others living between the site location and the Crowe Rive already face annually

- to my urban-area home and occupants, this project's unpredictable man-made flooding risk would be from a higher elevation and behind us 24/7/365 - as well as becoming *additional* to the more predictable freshet flooding risk from roughly the same elevation and in front of us during spring only.

Such unprecedented local flooding fears could only intensify and create further stress each time the dishes once again rattle in our cupboards due to seismic events closer to Ottawa.

Anyone familiar with the details of the catastrophic December 2005 flooding near Lesterville, Missouri - due to a breach of the upper reservoir for the Taum Sauk pumped storage facility - might already empathize with such man-made pumped storage reservoir flooding concerns.

- Details and photos remain publicly accessible via Wikipedia and the USA-based Federal Energy Regulatory Commission (FERC) website. A related December 15, 2005 interview with the Fire Chief of Lesterville titled "Reservoir Break Causes Flood in Southern Missouri" also remains accessible via the website of the USA-based independent media outlet NPR.

Even with those details, photos & interview related to that Taum Sauk reservoir breach kept in mind, perhaps my flooding concerns might seem irrelevant because you didn't see any residences or businesses within either the image backgrounds for the IPD or IPD Summary cover pages or within the Appendix A Photo Log on pages A-1, 2 +3 at the end of the IPD?

At this point, it might be helpful to check out my Photo Log - APPENDIX 3 - Pages 19 - 24 (of 24)

3. Copycat projects that could similarly symbolize a lucrative developers jackpot but potentially return little or no benefit in exchange for their unpredictable final costs + guaranteed profit repayment from the pockets of taxpayers and/ or electricity ratepayers.

As has long been jokingly shared hereabouts between people who consider the serious underlying implications to be no joke...

Should the IESO anticipate similar lucrative contract demands for 'pumped storage' proposals from:

- large acreage landowners enticed into excavating massive pits that self-refill from underground springs and piling up the waste rock (and excavation equipment garbage) for their similar "transformation" into "pumped storage" reservoirs?
- every Ontario municipality that has a water tower and could install a turbine additional to its pump (or a reversible combo)?
- every lucky homeowner still using un-taxed water from their private well and having one or more toilets with their 'water closet' being relocated to the attic to increase the 'head' from the tank to the bowl and a DIY micro-turbine installed on its outflow?

Seriously...

As was the case with the \$660 million cost prediction for this 'pumped storage' proposal publicized in June 2011 and a couple seen floating toward \$1 billion since, I've seen no detailed breakdown outlining the underlying costs that presumably add up to the \$2.0 billion "investment" being publicized now (May 2023).

An additional economic cringe factor may be the timely recollection from recent memory that a \$2 billion price tag had been initially attached to the Snowy 2.0 pumped storage project in Australia; more recently predicted to ultimately become \$10 billion or more.

The unknown amount of the final bill for the 'pumped storage' facility proposed for construction in Marmorra always was, is now and will remain an ongoing concern that could only intensify as the cost of this proposal rises.

- Moreso for Ontario's taxpayers/ electricity ratepayers should that cost skyrocket *after* the sought type of PPA (aka 'contract') has been obtained from Ontario's IESO.

As I see it, the likelihood of seeing that happen are better than not, given the nature and ill-timing of the dual-level assessment processes now concurrently underway, toward approvals for this proposal.

The only apparent reason for their ill-timing seems their being a prerequisite to successfully securing the IESO contract sought by the proponents (whilst also being believed a means by which negative environment impacts and climate change might be mitigated).

It is not only the final cost impact of this proposed project that remains unknown. It may never be known until it is too late to reverse its negative economic effects *and* there are many contributing unknowns as well.

- Including but not limited to the *actual* level of either local or non-local public support for this proposal - which has never to date been accurately determined on an evidence-supported basis.

Key to the potentially longterm economic concerns for anyone footing the final project bill is that the project design, construction, operational decisions and thus its predicted impacts and costs may differ after-the-fact to *approvals* having been obtained *and* an IESO contract having been secured.

The many still-unknown final details and decisions might also indicate that the federal and provincial assessments already underway concurrently could later prove to have been a premature undertaking and the submitted public comments having likewise been prematurely sought.

I can only think of the assessments, approvals & contracting process as having the discomfoting potential to belatedly show itself having been a bass-ackward waste of time and effort for everyone *except* for the proponents and a relatively few fervent supporters with assorted personal interests in seeing this proposal advanced to project fruition.

- at least insofar as this process having much ability to mitigate concerns or to serve the interests of the many that will be forced to pay the final project bill; nevermind its ability to do either in a timely manner.

I've thought about this for years and still can see only 2 ways that such concerns, potentially along with most others, could possibly be mitigated.

1. No approvals or PPA be granted for this proposal. Enough is enough already.

2. Deploy something akin to the following approach toward mitigating the proponents' potential creation of catastrophic local flooding risks, compensate for private wells running dry plus the further economic impoverishment of Ontario's taxpayers/ electricity consumers - while asking yourself why no politicians have yet publicly discussed or proposed some sort of similar solution:

- The "upper reservoir" must be built on a properly prepared ground surface and foundation, ideally of modern roller-compacted concrete construction with an overflow spillway *and* be located on the east/south-east side of the mine pit
 - as opposed to the proponent(s) proposal of that reservoir being created by merely re-shaping and lining the existing waste rock (and mining equipment garbage?) pile located on the west side, adjacent to lower-elevation businesses and homes;
- The proponent(s) would be paid the same rate of return that would be provided to a traditional hydroelectric (ie: waterpower) generator in Ontario capable of delivering the same electricity generating capacity
 - payable *only* if (or whenever) they actually re-generate, *at the request of the IESO*, any or all of the grid-supplied electricity they have stored and be paid for *only* the amount(s) of electricity generated and returned to the grid.
- The proponent(s) would be held responsible for compensating the negative direct or indirect impacts of any and all damages, costs, expenses or property devaluations caused by their project's design, construction or operation and pay for the extension of municipal water supply to anyone whose private well may run dry as a consequence of the same.

APPENDIX 1: *Phony Signs then Letters of Support [only!] invited and returned*

ie: local taxpayer-funded signs and support letters that had been requested, then *any* returned publicized = after-the-fact proof of the previously claimed "overwhelming support from the Community" and residents

The local taxpayer-funded promotion campaign somehow got itself turned into a mass fixation - all aimed toward succeeding at obtaining a contract from the OPA (as directed by the provincial government) on behalf of its private proponent that obviously hadn't been able to get one to date, even with the help of privately-funded lobbyists at Queens Park.

- The local taxpayer-funded campaign's Phase 1 was well underway:

Election-style **signs** obviously intended to apply more pressure on the provincial government and the OPA had suddenly appeared installed along all local road allowances overnight on or about June 27th 2011, presumably by unseen volunteer leprechauns, **just in time to impress Toronto Star reporters:**

- **of which 'the people' were informed by ***a media article delivered on June 30th had been scheduled to come to Marmora on June 28th to meet with the CAO and Reeve.*****

This excerpt from the subsequent Toronto Star piece was helpful (to me):

“Rather than negotiating a rate per kilowatt hour of power produced, Northland would prefer to negotiate a regular fee that would see it recover its costs, plus a 10 or 11 per cent return, over 40 years.”

- Apparently the local taxpayer-funded promotional campaign's Phase 2 had already begun too:

An invitation to submit and the publication of Letters of Support listed as they came in was seen on a newly-created municipal "Marmora Pumped Storage" webpage.

- Webpage copies showing Letters list (not each Letter) can still be seen via Wayback Machine

*****The same media article dated June 30th 2011*** also quoted the Reeve touting that:**

"He personally has signed and sent 71 letters requesting backing from a variety of people."

- But only a maximum *total* of 32 "Letters of Support" returned have *ever* been seen!
 - ie: *less than half* of the number sent were returned "backing" him as requested

And being perhaps the most important detail the public would have otherwise never have known...

- that same article informed its readers that the CAO "is working with the Minister of Energy to present the case during the August AMO conference."

Another local newspaper's article dated June 30, 2011 *additionally* quoted the Reeve as having said that "the municipality has received letters from residents".

- Unfortunately for him, *none* of the 3 from local residents were dated prior to July, 2011
- those 3 were the *only* "letters from residents" local to Marmora that ever *have* been seen
 - ie: belated and sole evidence of the previously-claimed "overwhelming support from the Community" (out of Marmora and Lake's ~4,000 total population)

All of the *claimed* support sought, returned & publicized was of similar insult to intelligence.

- As were media claims that the electricity generated by The Project would power its pumps!

APPENDIX 2: HOW the publicly-deceptive re-branding (ie: Name-Changing) of "The Project" took place on June 7, 2011

FROM: "the Northland Power Inc. Pumped Storage project"

TO: "the Marmora Pumped Storage Project"

*** on June 7 2011, via the same local "Planning Advisory Committee"="council" resolution "carried" during their *morning* meeting unattended by the *public* or *media*... *zippo* mentioned at the regular *afternoon* council meeting on the same day, attended by *both*...**

- **bold highlighting within copy as follows, mine:**

WHEREAS the Municipality of Marmora and Lake has a proud history of mining at the Marmora Mine site that provided years of prosperity for the town and surrounding area; and

WHEREAS the completed mining operation has resulted in a unique manmade resource being 850 metres in length, 450 metres wide, 213 metres deep, filled with water and where millions of tons of useable extracted material is stored beside the mine; and,

WHEREAS this unique resource is located within 8 kilometres of a major transmission corridor running between Ottawa and Toronto; and

WHEREAS electricity storage has been identified as a requirement in the Province's Long Term Energy Plan; and,

WHEREAS the Province of Ontario would benefit from having an economic and reliable means to store energy and provide the emissions free power as needed to support the electricity grid as soon as possible; and,

WHEREAS Northland Power Inc. has acquired the development rights for the Marmora Mine and surrounding 2200 acres for the purpose of creating the Marmora Pumped Storage facility capable of generating 400 Megawatts of instantaneous emissions free power to serve Ontario's electricity grid; and,

WHEREAS Northland Power Inc. is an Ontario based independent power producer that has been focused, since its inception over 20 years ago, on developing and delivering clean and green energy; and,

WHEREAS Northland Power Inc.'s proposed pumped storage facility could be in production in 2015, if contracted by the Province of Ontario in early 2012; and,

WHEREAS **the Northland Power Inc. Pumped Storage project** would provide a tremendous economic development opportunity for Marmora and Lake, Hastings County and other eastern Ontario Counties in terms of several hundred jobs during construction and up to 45 full time positions once operational; and,

WHEREAS Northland Power Inc. is willing to support other uses of the facility including for education and Eco-tourism; and,

WHEREAS Northland Power Inc.'s proposed Pumped Storage project is compatible with the current land use designation for the mine; and,

WHEREAS the Municipality of Marmora and Lake would welcome and encourage the development of a Pumped Storage project on the Marmora Mine site.

NOW THEREFORE, BE IT RESOLVED THAT:

That the Municipality of Marmora and Lake fully supports Northland Power Inc.'s development of **the Marmora Pumped Storage Project**.

That the Reeve be authorized to send a letter to the Minister of Energy, with copies to the Premier and all Ministers, as well as to the Chair and the CEO of the Ontario Power Authority, setting out the Municipality of Marmora and Lake's support for the proposed facility.

That the support letter from the Reeve request that the Province of Ontario move forward expeditiously in making the necessary contract arrangements to proceed with the installation of **the Marmora Pumped Storage project**.

That Hastings County, all municipalities within the County, all neighbouring Counties and the Eastern Ontario Warden's Caucus be requested to support the proposed Marmora Pumped Storage project; and,

That a copy of the Council resolution and letter from the Reeve be forwarded to the MP and MPP in Prince Edward Hastings and all neighbouring riding's.

MOTION2011JUNE7-029P

Moved by: S. Fraser Seconded by: L. Bracken

That Council adopt the resolution supporting Northland Power and the Marmora Pumped Storage Project.

Carried

My Photo Log: APPENDIX 3

Views we didn't enjoy - taken from our home's non-waterfront urban property, all looking westerly in general and SW/ NW as well - toward and roughly parallel to the Crowe River which usually tops out at just lower than or roughly the same elevation as our home.

Mid-April 1997 was a shocker because I had *had no idea* this could happen when I bought the place. The flooding was merely an annoyance factor since no sandbagging was required:



Mid-April 2008 wasn't our most enjoyable springtime either, but we had gotten used to this potential scenario by then. No sandbagging was required. BTW - the "waste rock pile" aka "upper reservoir" is a few blocks almost straight east, uphill yet more from the stop sign at the corner with Marmora's main N>S street's intersection ..where that truck you see at the top of this photo is about to stop:



April 7, 2009 the flooding we dealt with as an annoyance came a bit earlier by two or three weeks but gratefully, with the colder weather and snow remaining, sandbagging wasn't required that spring either.



April 17, 2014: Sandbagging had seemed a good idea, in case the floodwaters arose much higher. Hindsight based on the property damage and cleanup afterward not so much, but such choices between which risk(s) *will be* greater are never pleasant deliberations at the time they need to be made.



April 24, 2019 was a bit worse yet and the scenario looked like this - from our viewpoints:





The latter views of our first-hand experiences with property flooding had been consider minor risks relative to the potential new and additional flooding risks that became downright scary as of June of 2011 - upon having The Project claimed to have been granted "*overwhelming* support from the Community™ ":

Here are a few more of my own photos, all snapped while on foot when the leaves were down while walking around my neighbourhood in Marmora. This first one is self-explanatory:



February 4, 2012: The following were all snapped, likewise on foot within a few blocks of home, with my newer camera:

Another view of the mine waste rock pile/ "upper reservoir" looming above and behind my neighbourhood - but looking at it while higher up from the Hwy #7 bridge that crosses the Crowe River one block west from the downtown stoplight on #7. The back of one of the homes at higher elevation along the road running alongside the *western* shoreline of the Crowe River seen in the foreground:



View of the Caressant Care Nursing Home located on the east side of Bursthall St south of #7 - looking from the higher-elevation parking lot behind the Sacred Heart Catholic School that's adjacent to the Sacred Heart Catholic Church & the nursing home:



View of the mine tailings pile seen between houses along the east side of Bursthall St further south from the nursing home:



View of the rock pile behind homes on the south side of Nash St - wet tire tracks in the foreground run from The Beer Store parking lot where this photo was taken:



What could *possibly* go wrong?