



IPPNW
CANADA

TURNING TIDES JOURNAL SPRING 2023

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IPPNW Canada President's Letter

John Guilfoye, M.D.

Dear colleagues and friends,

It is with some trepidation that I take on the challenge of the presidency of our beloved organization. Built on the work of so many stalwart leaders over the years and, particularly, that of our much cherished Dr Mary Wynne Ashford, the organization stands at a crossroads. The geopolitical situation is more unstable and the use of nuclear weapons more likely since they were first used. Compounded by the climate crisis whose impact looms ever larger over the health and wellbeing of humanity and the fragile planet on which we all depend, we face headwinds of enormous ferocity.

Yet, the vision we all share, a world without nuclear weapons, is more compelling than ever. As nuclear weapons states rush to modernize their arsenals and continue with the fantasy that these weapons make us safe, we face an existential threat to every member of the human family. More than ever, we need a world where conflict is replaced by collaboration and the use of war is unthinkable.

To realize this vision, we will need to redouble our efforts. Education is our key strategy. In the 80's, we helped create the recognition that nuclear war dooms humanity. This has not changed, indeed, any war could lead us to a nuclear holocaust. Physicians have a key role as a trusted and impartial voice. Promoting health is political but it is not partisan. Our efforts have the health and wellbeing of all at their centre and unites us in our efforts to educate ourselves and everyone else.

I look forward to collaborating with our hard-working board and our wonderful supporters.

Yours in peace

John.

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Remembering
Dr. Mary-
Wynne
Ashford
(1939-2022)
*Gordon
Edwards, PhD
IPPNWC
Scientific
Advisor*



In memory of a great leader and a lovely woman, Mary-Wynne Ashford.

Always a voice for peace and an inspiration to all of us, physicians and non-physicians alike. She will be sorely missed and fondly remembered.

Mary-Wynne Ashford, MD, PhD., a retired Family and Palliative Care Physician in Victoria, BC, and a retired Associate Professor at University of Victoria, became active in nuclear disarmament after hearing Dr. Helen Caldicott speak

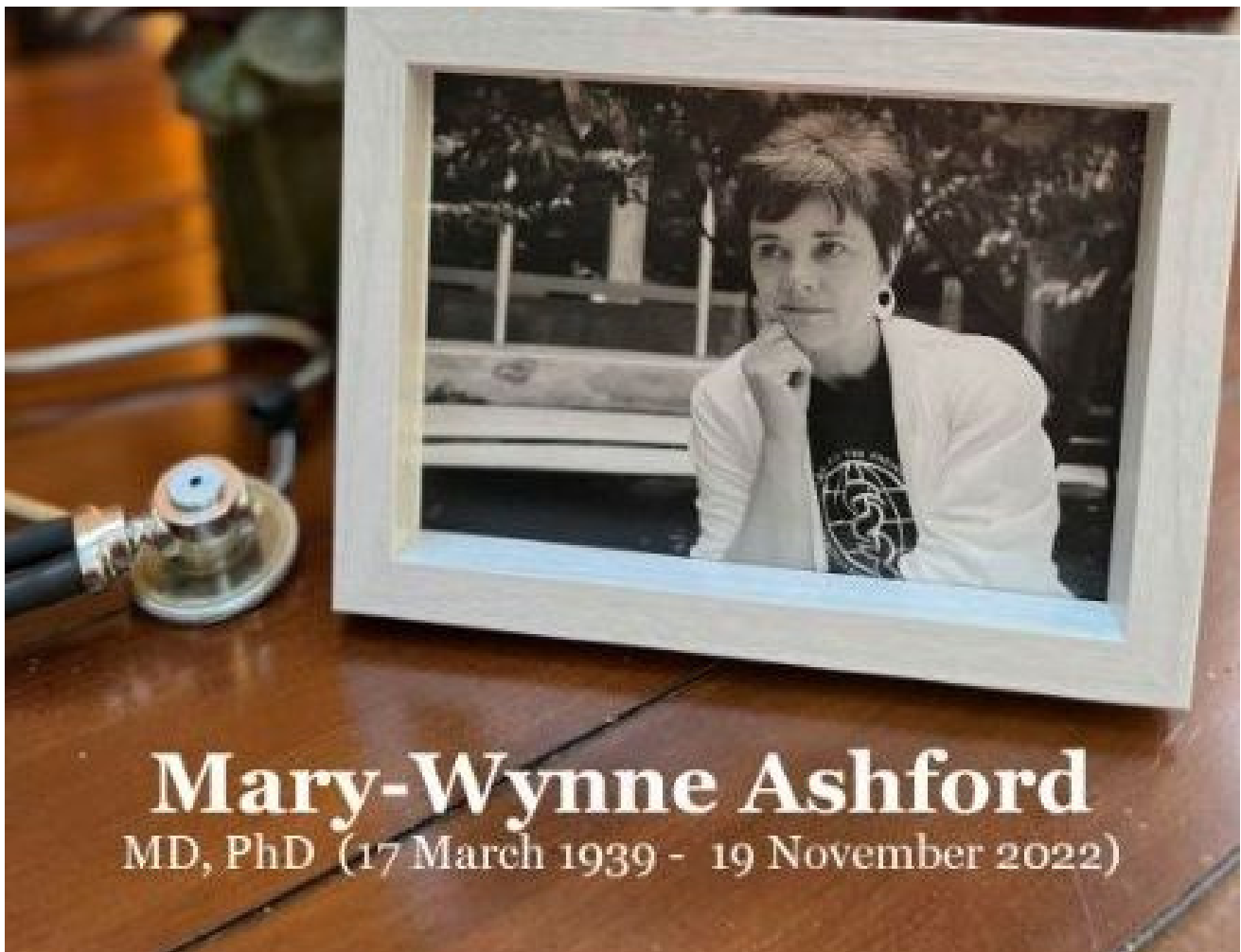
about nuclear war.

She has been an international speaker and writer on peace and disarmament for 37 years. She was Co-President of International Physicians for the Prevention of Nuclear War (IPPNW) from 1998-2002, and President of the Canadian Physicians for the Prevention of Nuclear War from 1988-1990. She led two IPPNW delegations to North Korea in 1999 and 2000. Her award winning book, *Enough Blood Shed: 101 Solutions to Violence, Terror, and War*, has been translated into

Originally
published in
World Beyond
War

Japanese and Korean. She has won many awards including the Queen's Medal on two occasions, the Award of Excellence from Doctors of BC in 2019 and, with Dr. Jonathan Down, the 2019 Distinguished Achievement Award from the Canadians for a Nuclear Weapons Convention. She taught a free zoom course, Global Solutions for Peace, Equality, and Sustainability sponsored by Next

Gen U and IPPNW Canada. The course is about reform of the United Nations to increase its capacity to address the existential crises we face today. Thank you, Mary-Wynne, for your outstanding example – a life of service to humanity.



If we are to
survive...we
must change
course

Ilra Helfand

M.D.

Former

President of

IPPNW



Originally
published in
[IPPNW's
Peace and
Health Blog](#)

More than 50 years ago the nations of the world, understanding the grave existential threat posed by nuclear weapons, came together in this Non-Proliferation Treaty to stop the spread of these weapons and to commit to their elimination at the earliest possible moment.

For more than five decades, the vast majority of the nations of the world have honored the commitments they made.

But nine nations, including five who are members of this

Treaty, have chosen to ignore their obligations. Instead, they have maintained enormous stockpiles of these weapons, capable of destroying modern civilization and killing the vast majority of the human race, and they are all engaged in wildly expensive schemes to modernize and enhance those arsenals. They have continued to gamble with the fate of the earth, holding all of humanity hostage, and, on many occasions, they have brought us to the brink of a nuclear apocalypse.

A recent joint statement with our colleagues from the World Medical Association, the International Council of Nurses, the World Federation of Public Health Associations, and the International Federation of Medical Student Associations underscored the indisputable body of evidence that the consequences of nuclear weapons use are catastrophic, global, and without remedy.

We have not survived because of the supposed wisdom of the leaders of these countries, or the soundness of their military doctrines or the infallibility of their technology. On the contrary we have survived in spite of them. We are only here because, as former US Defense Secretary Robert McNamara warned us, “We lucked out. It was luck that prevented nuclear war.”

The extreme danger with which we have lived because of the reckless behavior of these nine countries increased further with the Russian invasion of Ukraine earlier this year.

In the course of this conflict, Russia has made repeated threats to use its nuclear weapons, and NATO, representing France, the United Kingdom and the United States, has responded with nuclear threats of its own.

In response 18 Nobel Peace Prize laureates issued a statement, which I attach to our message today, calling on both Russia and NATO to pledge that they will not use nuclear weapon in the current conflict. This call was endorsed by more than a million people across the globe and presented here at the UN and to the governments of Russia and NATO.

Their answer—a thunderous silence.

Now these countries are here at this Review Conference demanding again that the other nations of the world renew their pledge not to acquire nuclear weapons while they will not even promise not to blow up the world with the weapons they already have. They should not be allowed to leave this Conference without making such a pledge.

And we must go further to hold them to account.

In July of 2017 121 nations came together here at the UN and adopted the Treaty on the Prohibition of Nuclear Weapons, reaffirming their commitment to the elimination of these weapons and binding themselves anew not to acquire them. Do the nuclear armed states support this new Treaty? No. Lead by the five permanent members of the Security Council, the five states bound by this NPT to eliminate their nuclear weapons, they attack the TPNW claiming it is a threat to the NPT. Their attack is nothing more than a brazen attempt to divert attention from the real threat to non-proliferation—their continued failure to eliminate their own arsenals.

These weapons pose an immediate and growing danger to human civilization and they divert our attention from the other great problems that confront us.

We are faced today with a second existential threat—the climate crisis which worsens daily. We are depleting the world's resources, and polluting her air, water and land. We face emerging global pandemics, and our people endure the daily scandal of social, economic and racial injustice that blight the lives of billions.

But rather than attend to these real threats, the leaders of the great powers continue to play a perilous game of “King of the Mountain” to see who can come out “on top” in a global competition for ever more power and wealth, apparently oblivious to the fact that the “winner” of this game will end up sitting, not on a mountain, but on the ash heap that is left of human civilization.

This is not the future that must be. We are not doomed to destroy ourselves in a nuclear war, nor to destroy the environment we all depend on. Nor are we doomed to

live on in a world where the majority of our people are denied adequate food, housing, health care and education.

But if we are to survive, and if our people are to enjoy the life to which they are entitled, we must change course. The great powers must understand that their own security, as well as the security of all humanity, demand that they cooperate to address the real problems we face.

And they should start with the most urgent threat of all—the threat posed by their nuclear weapons. The five nuclear armed states that are party to the NPT should enter now—here at this meeting—into negotiations for a verifiable, enforceable timebound agreement to eliminate these weapons, and invite the other four nuclear armed states to join them, so that they all come into compliance with the Treaty on the Prohibition of Nuclear Weapons and Article 6 of this Non-Proliferation Treaty.

Our survival and the survival of our children demands nothing less.

This article was written by former IPPNW co-president Ira Helfand, on behalf of the federation, and was delivered at the NonProliferation Treaty (NPT) Review Conference at the United Nations in New York on August 5, 2022.

Medicine
and Nuclear
Power
*Gordon
Edwards, PhD.
Scientific
Advisor to
IPPNWC*

Modern medicine does not depend on nuclear power. All electricity producing reactors could be shut down permanently with little or no impact on best medical practices.

Fact Sheet Produced By the Canadian Coalition for Nuclear Responsibility, September 2022.

1) X-rays and CT-scans are by far the most common forms of "radiation" used by doctors, dentists and nurses in hospitals and clinics. These procedures have nothing to do with radioactivity or nuclear reactors.

2) When X-ray machines and CT scanners are turned off, they are completely harmless. There is no more radiation emitted. There is no radioactivity at all associated with such machines.

3) Some radioactive materials are used in medicine for diagnosis or therapy. In addition, some are used to sterilize

instruments and equipment such as masks, needles, and other paraphernalia

4) Radioactive materials for medical use are called "medical isotopes" or "radiopharmaceuticals".

Some of them emit gamma radiation (similar to X-rays, but stronger). Some of them emit fast-moving subatomic projectiles – electrically charged alpha particles, beta particles, or positrons,

5) All radioactive emissions are harmful to living cells, especially rapidly dividing cells. They can accordingly be used to destroy malignant growths or kill microorganisms in order to sterilize medical equipment.

Originally published in as a fact sheet for the Canadian Coalition for Nuclear Responsibility

6) Radioactivity is hazardous, and it cannot be turned off like an X-ray machine. So the use of radioactive materials in medicine requires careful control at all times – before, during and after use.

7) Some radioactive materials that are used in medicine, such as radium, radon and thorium, are extracted from naturally-occurring ores and have nothing at all to do with nuclear reactors.

8) Some radioactive materials used in medicine are created in a “particle accelerator” such as a cyclotron or linear accelerator. These devices have nothing in common with nuclear reactors.

9) Some radioactive materials used in medicine are created in small research reactors that do not generate electricity. They are typically 20 to 300 times smaller than nuclear power reactors.

10) A few medically useful radioactive isotopes are produced in power reactors, but they can equally well be produced in research reactors.

Sometimes the same radioactive material, or an alternative material

that serves the same purpose, can be produced in a particle accelerator.

11) Damage to healthy cells by radioactivity may lead to cancer years later or to undesired genetic mutations. Infants and fetuses are more readily harmed than adults because cell growth is rapid. Girls and women are more vulnerable than adult males.

12) Some medical procedures that once relied on radioactivity have been replaced by procedures that are just as good or better and do not require handling radioactive sources.

13) Many hospitals that used X-rays or gamma emitting cobalt-60 therapy to destroy cancerous tumors now use beams of charged particles. This more modern medical technology is very effective and has nothing to do with radioactivity or with nuclear reactors.

14) Powerful gamma-emitting cobalt-60, created in a reactor, is often used to sterilize medical equipment. But sterilization can be done in other ways that use no radioactive materials at all.

Parliamentary Brief on Small Modular Nuclear Reactors

*Nancy Covington,
M.D.*

Cathy Vakil, M.D.



We are a group of physicians with long standing concerns about the dangers of proliferation of nuclear weapons in a world where we are “one step away from a miscalculation of their use”. We know that even small amounts of radioactive contamination, whether from the testing of a nuclear weapon, from uranium mining tailings or from slow leakage from a nuclear power plant, have the potential to cause cancer, genetic disease, birth defects, infertility and other illnesses. Recently in Ukraine, the dangers inherent in weaponization of a nuclear power plant have become

apparent.

There absolutely must be rapid transition away from human made greenhouse gas (GHG) production by the immediate halting the burning of fossil fuels. The COP26 and the current IPCC guidelines are clear on this, but they also go on to endorse nuclear power. SMRs are presented as a possible magic bullet to help solve the pressing issues of climate change, but we must pause to consider all factors.

The well funded nuclear industry activists have been present at international meetings that decide policy

such as the COP26. It is documented that these lobbyists also visit both MPs and senators regularly to promote their industry. In addition they are lobbying for decreased environmental regulation of the whole nuclear industry. The effect of this sponsored lobbying effort appears to have given a stamp of approval or a hollow legitimization for nuclear power. However, there are many reasons to examine the nuclear power issue more deeply and to listen to the quiet voices of caution.

According to M.V. Ramana: * "In 2003, an important study produced by nuclear advocates at the Massachusetts Institute of Technology identified costs, safety, proliferation and waste as the four "unresolved problems" with nuclear power. Not surprisingly, then, companies trying to sell new reactor designs claimed that their product would be cheaper, produce less - or no - radioactive waste, be immune to accidents, and not

contribute to nuclear proliferation."

Cost, safety, proliferation and waste remain the "unresolved problems" with nuclear power. Our federal government and four provincial governments are keen to site SMRs in remote areas, including the oil sands, the far north, and Indigenous lands. Plans are to build SMRs on the grounds of aging nuclear reactors, including Darlington (east of Toronto in a densely populated area), and Point Lepreau, N.B. on the ecologically sensitive Bay of Fundy. Most of the start up companies applying to build SMRs on Canadian soil are foreign owned.

The nuclear industry, hoping to reverse its worldwide decline of recent decades, has persuaded government officials and the public that these unbuilt, untested reactors, based on previously unsuccessful designs, qualify as "green energy" and will solve our climate crisis. But nuclear energy is not the answer to our climate emergency. Here are a few reasons:

1. A nuclear power plant is GHG free during its operational years (average 40 years), but it is not GHG free if the total GHG production of mining, refining, transportation of uranium is included. Also there is GHG production during construction of the plant, especially its cement, refining its high quality metals and its eventual decommissioning.

2. Although GHG free during its operational years, a nuclear power plant does produce other gases while operating. These gases include a radioactive form of carbon (C14) and a radioactive form of hydrogen (tritium). Both these elements in their non-radioactive forms are part of all living organisms, including our food and us. Our bodies cannot distinguish a radioactive element from its normal cousin, so we ingest radioactive nuclear power emissions. There are regulations which define 'safe' levels of these radioactive elements, however it is accepted by worldwide radiation

safety regulators that any amount of radiation exposure, however small, is harmful, especially for women, children and fetuses. There are studies which show elevated levels of leukemias, especially in children who live within a 5 km radius of a nuclear power plant.

3. Nuclear projects consistently run many years behind schedule, making them irrelevant to our urgent climate crisis. They routinely exceed budgets by billions of dollars, making them exorbitantly expensive. Public dollars spent on renewables could sustainably address the climate crisis right now. Additionally, nuclear off-site damage is uninsurable - the taxpayer bears the costs of leakage, accident and cleanup, costing billions more.

4. The dilemma of what to do with highly toxic radioactive nuclear waste remains unsolved. This deadly legacy persists for longer than humankind has walked the earth. Presently, there are 57,000 tons of

high-level radioactive waste in storage at Canadian nuclear reactor sites, increasing every day. The proposed solution of burying it deep in the ground, hoping that it won't contaminate local drinking water, soil and air, is fantasy. These projects have not succeeded anywhere in the world. It is unconscionable to burden future generations with more of this toxic waste with no safe method for disposal.

5. Proponents of molten salt SNRs use the words "recycling nuclear waste" to describe the process of removing the tiny fraction of plutonium in CANDU waste for fuel as a way to "reduce nuclear waste." However, this process leaves harder-to-handle radioactive waste of approximately the same volume, increasing the complexity and cost of radioactive waste management. Clearly, this is not a solution to our nuclear waste dilemma.

6. Reprocessing or extracting plutonium is known to be a risky, dirty business, legally banned in U.S. in the 1970s. Canada followed suit with a voluntary plutonium extraction ban. Has recent government support for SMRs unwittingly changed Canada's position against plutonium extraction?

7. In 1974, India utilized Canada's gift of a research nuclear reactor to make its first nuclear weapons. This illustrates the inextricable link between nuclear energy production and nuclear proliferation. In May 2021, an open letter was sent to PM Trudeau from nine international nuclear experts including physicist Frank von Hippel of Princeton U, Alan Kuperman, co-ordinator of the Nuclear Proliferation Prevention Project and Thomas Countryman, who was U.S. Assistant Secretary of State for Disarmament. The signatories stated that the company Moltex, which wants to reprocess spent CANDU fuel in NB using molten

salt, would create “high environmental and proliferation risks”. Clearly, international nuclear experts are giving a staunch warning about extraction of plutonium by SMRs and the proliferation risks associated with this

8. Will Canada now approve industry’s aspirations to export SMRs to countries which may become intent on acquiring nuclear weapons? This would implicate Canada in the scary new age of a “plutonium economy” just when we are hearing overt threats of nuclear weapons usage in the Ukraine war. Plutonium extraction poses unbridled risk; it is an invitation for proliferation and nuclear terrorism.

9. Catastrophic nuclear accidents, though rare, do happen – think Fukushima, and Chernobyl. Contrary to industry claims, SMRs would be equally susceptible to such accidents since all nuclear plants depend on engineering to

keep irradiated fuel constantly cooled and contained. Loss of containment can occur, whether from meltdowns, explosions or external events, causing widespread contamination from radioactive poisons. An accident like Fukushima occurring in Toronto would cause population displacement and radioactive exposure of possibly millions of people.

10. The current conflict in Ukraine has shown that nuclear power installations can act as nuclear weapons ready to explode if struck, or melt down if their electrical power supply is interrupted. The Zaporizhzhia reactor in Ukraine suffered a near direct hit, luckily escaping a massive radiation release similar to Chernobyl’s 1986 accident, which led to the large exclusion zone in the heart of Ukraine’s wheat belt. This crisis is ongoing and extremely dangerous at the time of writing this letter. SMRs would potentially pose a bigger risk, as there would be more reactors to .

strike

As physicians, we know that our health depends on a clean and peaceful planet. Why exacerbate the known dangers of nuclear technology with many small new reactors? SMRs are too slow to help with the climate crisis. They create more toxic waste while being at risk of devastating accidents and widespread nuclear proliferation. In keeping with the precautionary principle, and when we have cleaner cheaper sustainable alternatives, why would we choose nuclear energy? We would prefer to see the available funds in the Net Zero Accelerator Initiative to be directed to truly renewable energy which has neither the dangers of GHG production nor the significant problems and risks surrounding nuclear power.

Thank you for considering our submission.

Dr Cathy Vakil MD

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Dr Nancy Covington MD

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(Drs. Cathy Vakil, Nancy Covington are members of International Physicians for the Prevention of Nuclear War Canada)

* <http://peacemagazine.org/archive/v38n3p14.htm>
The Impossible Promises of Small Modular Nuclear Reactors, M.V. Ramana

Obituary of Dr. Janet Christie-Seely

Janet Christie-Seely passed away peacefully in the early hours of Aug 11th after a rapid battle with Alzheimer's.

Janet was a vibrant mother, grandmother, family physician, family therapist, author, artist, lecturer and professor, who was recently seeing patients, painting and writing. She had a passionate 'joie de vivre', packed her 83 years to their fullest and never tackled anything in half measures.

Janet wore many hats (and usually purple scarves) as a creative, intelligent, beautiful, non-judgemental human. She pioneered a family systems approach to family medicine, bridging family therapy and medicine, and founded the Ottawa Satir Learning Centre. Janet taught locally and internationally, from Azerbaijan to Hong Kong.

Janet will be deeply missed by her husband of 25 years, Tom O. Wright, and by her children and their spouses; Jean (Mark), Alison (Kevin), Andrew (Kathy), and Dugald (Sarah), her step-children: Sara (James) and David, as well as her 9 grandchildren and 6 step-grandchildren.

Janet always saw the best in people, and lived life to its absolute fullest with enthusiasm and passion. She leaves a legacy of her paintings (of her beloved Scottish and Quebec landscapes), her teachings, her care for a community of patients, and her family, all imbued with her revolutionary spirit of meaningful interaction, pioneering innovation and desire to help people.

A Celebration of Janet's Life occurred at 11:00 a.m. (EDT) on Saturday, August 20, 2022 at Pinecrest Remembrance Chapel. Those who were unable to attend in person may view the service by clicking the [Service Link](#). If friends so desire, memorial donations made to [International Physicians for the Prevention of Nuclear War Canada](#) or The [Virginia Satir Global Network](#) would be greatly appreciated.

Get Involved With Us!

Whether you're a medical student, an activist, a health practitioner, a teacher, seeking a volunteer position, interested in collaborating with us or just interested in what we do, we have opportunities and programs for you.

Become an Active Member

Active members form a vital part of the IPPNWC community. As an active member, you are able to contribute to our programming in the form of working groups. To learn more about becoming an active member, or to apply, contact us at admin@ippnwcanada.ca

Join Our Monthly Speakers Series Events

Previously known as our Active Members Meetings, every month IPPNWC hosts a speaker to share their unique expertise experiences and in our speaker series. The purpose of our calls is to learn, inspire and support each other projects. The Speaker Series are on Zoom on the second Wednesday of each month at 5 PM PST.

To sign up, visit <https://www.ippnwcanada.ca/events>

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Turning Tides is Going Digital!

Starting in 2024, IPPNW Canada's Turning Tides Publications - a seasonal publications highlighting informative articles relating to our purposes - will be available primarily online.

We make this decision to reflect our desire to mitigate IPPNWC's carbon footprint and provide an environmentally-conscious way to access our Turning Tides publications. These Turning Tides editions can be viewed on our website: www.ippnwcanada.ca

If you would like to continue receiving the Turning Tides by mail, please reach out to us by email (admin@ippnwcanada.ca) by October 2023 to confirm your subscription.



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