

Mr. John Mullins,

CEO Bord Gais & Irish Water

Cc: Mr. Enda Kenny T.D. Department of Taoiseach

Mr. Fergus O Dowd T.D. Minister with Responsibility for the NewEra Project

Dr. James Reilly T.D. Minister for Health

Mr. Phil Hogan T.D. Department of Environment

Mr. Simon Coveney T.D. Department of Agriculture Food and Marine

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Dear Mr. John Mullins

I wish to congratulate your company in successfully being appointed by the Government of Ireland to manage Irish Water and wish you every success in bringing our water services into the 21<sup>st</sup> century and in line with every other EU Member State.

In the manner of future management of Irish Water, I wish to offer some professional advice on how Irish Water may save tens of millions in the management and operation of this service, while ensuring full compliance with EU Law and importantly satisfying the needs and health requirements of your customers. Apart from the obvious engineering challenges in managing and developing this new entity there are numerous legislative matters that remain to be addressed by the State and Irish water in the provision of safe drinking water fit for human consumption.

One of the major legal and liability issues that Irish Water will have to urgently address is that of artificial fluoridation of drinking water with silicofluoride chemicals and the rights of individuals to the provision of safe drinking water. For the past forty plus years, unique to Ireland within the EU, the management of public drinking water supplies form part of a Government medical intervention programme that consumers have not consented to. In addition consumers have not been provided with information informing them of the negative side effects of consuming artificial fluoridated drinking water supplies. Furthermore the State has not tested the chemicals administered in drinking water to meet the minimum requirements of EU legislation for protection of public health or the environment.

As you may know, no other EU member state supports the mandatory legislative fluoridation of water and Ireland is the only country not just in the EU, but in Euro-Asia that continues to fluoridate its drinking water supplies. This practice has been found to unnecessary, unsafe, environmentally damaging and unsustainable.

It is accepted and acknowledged by the EU Commission that the chemicals used for fluoridation of water in Ireland have never been tested for human toxicity or environmental safety. Despite this, there are enormous volumes of scientific research that now demonstrate beyond any reasonable doubt that water fluoridation is harmful to subgroups of the population including infants under 2 years of age and diabetics, whose kidneys are unable to remove fluoride from blood plasma and who are therefore most at risk of chronic fluoride poisoning resulting in both dental fluorosis and musculoskeletal chronic pain. Both these medical conditions are now endemic within the population of Ireland.

The most recent international reviews of water fluoridation by the NHS in England, the National Research Council in the United States and the EU Scientific committees for Food Safety and Consumer protection have all agreed that there is insufficient scientific evidence to demonstrate that water fluoridation is safe and have identified that there is a complete lack of toxicological data on the human or environmental toxicity of silicofluoride chemicals used for fluoridation of water. This is one of the reasons why every other European State has taken the 'precautionary approach' to water management, this approach is legally enshrined in the EU Constitution.

Prior to taking over the responsibilities of provision of drinking water services in Ireland, I would advise that Irish Water review the contents of my report examining the Human Toxicity, Environmental Impacts and Legal Implications of Water Fluoridation. This report has been presented to the Government of Ireland, the EU Parliament, the EU Commission, the EU Environment Agency, the World Health Organisation as well as the Medical Councils of Ireland and the United Kingdom, the EPA, Inland Fisheries, and many other public and private sector bodies.

As I have outlined in a recent communication to Minister Fergus O Dowd, in the event that the State continues to insist on fluoridation of drinking water, contrary to the recommendations of the EU and in clear violation of EU and international Law, the State will need to indemnify Irish Water from any liabilities that may result from cases being taken against the State or their agents in the future.

The most recent occasion that the State accepted such liabilities was for the swine flu vaccination. As you may know the pharmaceutical company that provided this product would not accept responsibility for any potential adverse effects and required the State to indemnify it from any potential lawsuits. Parents were subsequently told by the HSE that the vaccine was safe and now the State is facing multiple legal cases due to children developing the sleeping disorder narcolepsy as a consequence of being administered this vaccine. Another example is where the State sold Haulbowline to ISPAT in 1995 and informed that company that the site complied with environmental laws and that there was no contamination on the site. The State is now facing a multi-million euro clean-up operation to remedy the historical environmental liabilities associated with this site.

Apart from the legislative matters that will need to be addressed by Irish Water, as noted in my report, there is also the matter of how Irish Water will deal with households that purchase bottled water for consumption in the home, in order to avoid the toxicological health risks associated with fluoride.

The World Health Organization has stated explicitly that "in the assessment of the safety of a water supply with respect to the fluoride concentration, the total daily fluoride intake by the individual must be considered." This can only be accurately carried out on an individual patient based on age, weight, fluid intake, dietary preferences, level of exercise and nutritional needs. It is now absolutely clear that the ingestion of excessive amounts of fluoride has become a serious public health problem, particularly in fluoridated communities, because of dietary intake of fluoridated water, in addition to processed food, cooked food and beverages which are made up from fluoridated water as well as other anthropogenic sources of fluoride in foodstuffs from residues of fluoridated pesticides, herbicides, fumigants and fluoride-based fertilizers. If total dietary intake is to be examined one must also include other major sources of fluoride from dental hygiene products such as toothpaste or mouthwashes to fluoride-based pharmaceutical medication. Astonishingly in Ireland, despite the concerns expressed globally by public health and food authorities, the Department of Health or the Food Safety Authority have yet to develop a national database of fluoride in beverages and foods or to commence at a most basic level an assessment of the dietary fluoride exposure of the general population. In the absence of this basic information, fluoridation of drinking water is not recommended and must be discontinued immediately.

The public health risks associated with fluoridation of water supplies have been highlighted by no less than fourteen Nobel Prize winners in chemistry and medicine who have publicly denounced the policy of fluoridation of water. In comparison not one Nobel laureate has publicly supported this policy. In addition thousands of scientists, dentists, academics and other professionals worldwide have signed a petition to end this unnecessary and dangerous practice. No other European nation supports the mandatory fluoridation of its citizens yet for some reason fluoridation of drinking water supplies remains enforced in Ireland and the authorities continue to misrepresent both the dangers and degree of international support for such a controversial policy.

At a most basic level it is unconscionable how the Department of Health could continue to support such a policy when there is a complete lack of accurate data or scientific evidence to support its continued use, as has been demonstrated in the findings of the NHS York Review, the National Research Council of the United States of America Review and the various and numerous scientific committees of member European states, in addition to the most recent findings of the European Commission and its agencies. Any such support is even more questionable when state-funding is being cut from so many essential and vital public health services, including emergency services, mental health and special needs. It is obvious that the overall finances needed to cover the operational budget and management of water

fluoridation could be better directed to support preventative healthcare or emergency services and to achieving greater success in behavioural change within society on dental hygiene that would provide far more effective, safer, sustainable and beneficial in the long-term. The annual budget for secretarial services for the Forum for Fluoridation (€400,000) combined with the cost of silicafluoride chemicals (€4,700,000), supervision, training and auditing costs (estimated at €10,000,000), combined with equipment maintenance, overheads, insurance and pollution prevention costs could be most obviously redirected to providing more public health dentists for those in most need of dental treatment especially in socially deprived areas and, in particular, to supporting breastfeeding initiatives for mothers and babies within these communities, which would go a long way to reducing the prevalence of dental fluorosis amongst children. For example in 2008, it was estimated by the UK Department of Health (DOH) that the cost of implementation of fluoridation of water for the greater Manchester area alone would be up to £100million. Ultimately the DOH did not pursue this policy; one of the reasons noted was that it was not deemed to be cost effective.

As I discussed in my report, a legal court in Europe has already found that water fluoridation is defined as medication and refused therefore to sanction its implementation. Consumers and parents have a legal right to informed choice and bodily integrity that includes the right to limit their bodily exposure to the toxin fluoride. This cannot be achieved with the mandatory artificial fluoridation of public drinking water supplies without offering alternative non fluoridated public water to each household in Ireland.

One would hope and believe that given the enormous potential implications for public health of using untested chemicals for the systemic medication of a population, that the Health Authorities would veer on the side of caution and follow a precautionary approach rather than wait to have the risks confirmed which is the approach the HSE is currently following. You may be unaware that both the EU and U.S scientific reviews of fluoridation identified additional epidemiology, toxicology, clinical medicine and environmental exposure assessments that require to be undertaken in order to fill data gaps in the hazard profile, the health effects and the exposure assessment of silicafluoride compounds. For your information Chapter 16 of my report lists a minimum of fifty-nine recommended studies required to be undertaken on fluoridation compounds to quantify the public health risks from fluoridation of drinking water supplies as recommended by these international scientific bodies. Not one of these studies has been conducted by the Health Authorities in Ireland.

Clearly, therefore given the scientific uncertainties presented by international scientific committees regarding the health risks from fluoridation of water, the acknowledged inadequate risk assessments and that every other European country has ended the practice of fluoridation of drinking water supplies; in addition, that the Russia Academy of Sciences, the British Medical Research Council, the NHS York Review, the U.S.A Academy of Sciences and European Commission as well as other

esteemed scientific bodies, have also detailed their concerns regarding fluoridation, Irish Water must surely therefore take a precautionary stance and request an end to this unnecessary and unlawful policy in line with our European neighbours.

One would believe that this is the most appropriate and only course of action to take until comprehensive scientific toxicological and ecological risk assessments are completed, as recommended by the NRC and other scientific bodies (details provided in my report), in addition to completion of accurate health surveillance epidemiological studies examining the total dietary fluoride intake of the population as recommended by the WHO to determine their current exposure to fluorides as well as the co-toxicity of fluorides with other known contaminants such as aluminium and lead.

It is advisable therefore in the interests of public health and safety and in accordance with the precautionary principle that is enshrined in European law, as well as in accordance with appropriate EU Directives, that Irish Water seek an immediate cessation to the water fluoridation policy until human health risk assessments have been completed by the Irish Authorities that demonstrate beyond any reasonable doubt that the chemical compounds used for fluoridation of water are safe for human consumption for all sectors of our community particularly the most sensitive groups including infants and diabetics. Furthermore in accordance with EU Law the regulatory authorities must clearly demonstrate that the anthropogenic fluoride emissions from wastewater treatment plants resulting from artificial water fluoridation do not impact on the environment, food safety or fisheries and comply with all relevant EU legislation. Evidence to demonstrate this must be provided by the regulatory authorities. To date no such evidence has been provided. There is a requirement in EU law that the implementation of fluoridation of drinking water-supplies requires an environmental impact assessment. No such study has been undertaken despite fluoride being discharged in significant volumes into over 120 salmonid rivers in Ireland. Since the commencement of water fluoridation in excess of 75,000 tonnes of fluoride has been discharged into rivers and estuaries in Ireland. The EPA have found that fluoride is a persistent toxin in freshwater ecosystems, fluoride is also known to be harmful to juvenile salmon and trout at concentrations significantly below those currently discharged from wastewater treatment facilities as a consequence of fluoridation of water. It is incredible that 99.5% of fluoridated water is not used for the purpose it was intended and is discharged into the environment as an environmental toxin. This is nothing short of disgraceful.

On the matter of legal liability it is most likely that Irish Water will face a number of legal challenges should fluoridation of drinking water continue into the future. This may involve class action lawsuits by parents on behalf of their children or by individuals such as diabetics amongst others whose health and physical wellbeing has been compromised by drinking fluoridated water. It may also involve environmental organisations, or the EU itself, taking legal proceedings against the State for non-compliance with EU law, in particular the protection of consumer

safety or biodiversity protection. Further legal liability may arise from the food industry whose produce becomes contaminated with fluoride when it is washed, cooked or processed using fluoridated water. The most obvious risk here is the food industry which produces infant foods and formula milk as well as the organic food sector. There are obviously additional risks for the food production sector exporting produce into markets that have banned the use of silicofluorides, which includes all of mainland Europe as well as China, the principle emerging market for Ireland. China as you may know banned the fluoridation of water in the 1980's due their scientists finding that fluoride was a neurotoxin that inhibited cognitive development in children.

Finally there is also a risk of legal liability in the future from another major industry in Ireland which is the horse breeding and racing industry due to the findings of Cornell University in the U.S.A who found that fluoridated water causes chronic fluoride poisoning in horses where they are provided with fluoridated water as their source of daily water. Research has also demonstrated that the bones of yearling horses are more susceptible to breakages if the source of drinking water is fluoridated. As with humans, this is due to the effect of fluoride on bone density and composition. In humans fluoride exposure also results in increased risk of hip and bone fractures as well as osteoporosis. According to Professor O'Brien of Trinity College Dublin each year in Ireland approximately 60,000 hip fractures occur on an annual basis in Ireland. Furthermore some 500 of such individuals on average prematurely die due to post operation medical complications as a result of fracturing their hip. It is now known that fluoridation of drinking is a contributory risk factor to weakening the hip bone thereby increasing the risk of breakages. Clearly it is only logical and ethical correct that any substance that may contribute to ill-health amongst the community should not be added to public drinking water and it is incumbent on the current Government to end this policy forthwith not just to protect its citizens from risk but to protect the Exchequer from future liability.

The United States Public Health Service has identified that within the wider population postmenopausal women and elderly men, pregnant woman and their foetuses, bottle fed infants and people with deficiencies of calcium, magnesium and/or Vitamin C, as well as people with cardiovascular and kidney problems are most susceptible to fluoride exposure and the biological impact of fluoride on their health and wellbeing.

Currently in Ireland there are approximately 400,000 people who are diabetics alone as representative of just one sector of this overall group. The question must be asked, how will Irish Water address the future liability that will arise from this or other subgroups of the population that may refuse to pay for fluoridated water or seek damages from the State for contributing to their ill-health?

How will Irish Water address the tens of thousands of existing households who may seek financial compensation from the State (as provided by EU law) for having to remove fluoride, a developmental neurotoxin, from their drinking water supply, in order to provide potable safe non fluoridated drinking water for infants and sensitive subgroups of the population, as is recommended by international scientific bodies in?

In ending, the most obvious and prudent manner in which to address situation is for the State or its agents to end the policy of fluoridation of water, as Switzerland did in 2003 (that last mainland European country to do so) and as the leading party of Government Fine Gael committed to doing in 2000. Public policy like science should be constantly evolving; clearly this policy must now end based on current scientific understanding or the potential and known health risks to the population and the environment. Failure to do so in light of recent scientific findings would be criminally negligent.

I hope that Irish Water will examine these concerns and conclude as every other European nation State has done, that it is best to leave water fluoridation in the 20<sup>th</sup> century where it belongs.

Wishing you every success in your future endeavours with Irish Water.

Yours sincerely

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