

Participant Statement for Nick Greenacre

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I My name is Nick Greenacre. I live at 331 Pinehurst Road to the northwest of the Paris Pit site. Our farm is in the Well Head Protection Areas for the Gilbert and Telfer well fields. I have lived on this farm since May 1995. I am now retired but worked the farm from 95 until 2009. Prior to farming in Ontario I worked between 1966 and 1994 in the field of environmental health. I am an Associate in Public Health of the Royal College of Advanced Technology Salford, I hold the UK statutory qualification for Environmental Health Officers and an MSc in Pollution and Environmental Control from the University of Manchester. My professional work experience has been in the civil service at local, national and international levels and as an academic, teaching at the Liverpool School of Tropical Medicine. My last position was as a Water and Sanitation Adviser with the World Bank/UNDP. My field experience includes both the initiation and development of groundwater community water supplies using a multi-disciplinary staff and the investigation of pollution events.

I have been a member of the Concerned Citizens of Brant (CCOB) since its formation. My reason for getting involved was the announcement by Dufferin in 2012 that it would open a pit in the well head areas of the Paris water supply using a 1974 licence. Given my professional background I have assisted CCOB with research and presentation of some of the group's concerns. Independent expert opinion on those concerns is now being presented to the Tribunal.

As a former civil servant, I have become deeply concerned over the last four years by contradictory application of water protection measures and failures in the Ministry of Environment's process of public consultation. I believe these to have had a direct bearing on the Ministry's handling and decision making in this case. The following are examples of these concerns.

1. Transport Pathways Contradiction

In 2011 GRCA notified us that we live in a highly vulnerable area near the Telfer municipal well and that one or more significant drinking water threats may be occurring on our property. A disused 0.9m diameter by 6m deep dry well in WHPA C, 4Km from the Telfer wells, was identified as a transport pathway for potential contamination to the aquifer. In 2012 the well was professionally decommissioned with full financial support from GRCA and Brant County.

In contrast, some 183 hectares of the Paris Pit are within the WHPAs, including WHPA B. (1 ha >15,000 wells). Ten to fifteen metres of overburden will be extracted to leave one metre of cover above an aquifer already rated at the highest vulnerability level of 10.

In 2012 I wrote a letter to the Minister of the Environment raising this contradiction and the risks related to pesticide residues. Replying for the Minister, Ling Mark, Director Source Protection Programs Branch wrote:

Quote "the removal of aggregate made sources of drinking water more vulnerable to contamination by removing some of the protective materials over these sources"

Further, "They [the wells], as any aggregate site, have been identified as a potential transport pathway for contamination. Since they create a pathway from the surface to the underlying water sources, it's important to make sure they are properly maintained if in use, and sealed if they are not in use."

The site plan approved by MNR and approvals by MOECC do not require the sealing of this huge transport pathway within the wellhead protection areas, but instead allow for the spreading of potentially contaminated sediment and topsoil and re-use for agriculture at one metre above the water table. The MOE argues that it has to allow this spreading and re-use because it is a site condition controlled by MNR that apparently over-rides the MOE protection role.

The ECA's Contingency Pollution Prevention Plan, that did not have to be approved by the MOECC, lists the spreading of manure, farming sludge and settling pond fines throughout the site as approved activities within the Table of Hazards. This will be at 1 metre above the water table.

"The first barrier to the contamination of drinking water involves protecting the sources of drinking water." Justice Dennis O'Connor ; Walkerton Inquiry 2002

The pit represents a PERMANENT transport pathway.

In terms of failures in the Ministry's process, the following are examples :

2. BURFORD

In May 2013, at a presentation to the MOE and MOH of CCOB's concerns relating to the potential risk from pesticide residues, I raised the issue that only 3 sampling sites had been used by the proponents to represent the whole 249ha site and that those sampling points were all on the boundary of the pit.

The response of a MOE representative was to demand whether if CCOB wanted more samples, would we be paying for them at \$400 bucks a pop.

CCOB had come to the meeting in good faith, expecting an impartial consideration of the researched case that we presented.

Unfortunately, the same attitude continued with the February 2015 Stakeholder Meeting. Professor Howard's critical presentation on the proponent's site studies being mocked in the draft minutes. Despite protests from CCOB, neither an apology nor any corrected minutes have been issued.

At the end of the meeting Dr. Howard handed in, not only his speaking notes but also a copy of his detailed scientific Letter of Review, which was accepted by the Chair of the Meeting. The Technical Reviews for the Directors ignored the Letter of Review on the grounds that it was marked Draft. Common courtesy would have elicited an unmarked copy. This in contrast, for example, to the proponent's ability to submit alternative draft options in a proposed amendment to the settling ponds.

In consequence, the posted EC Approval and Schedule A reveal that the Ministry relied on the applicant's pesticide study for its decision whilst excluding, on trivial grounds, a report by an eminent contaminant hydrogeologist that finds that study to be totally inadequate.

3. JULICH Studies

Much of CCOB's case for the persistence and mobilization of atrazine has relied on long term studies by the Julich Research Centre for Bio and Geo Sciences, a highly respected, independent German Government funded institution.

At the May 2013 presentation I had cited, amongst other references, a 2008 Julich study on the bio-accessibility of atrazine.

The authors, Jablonowski et al concluded *"The data highlight that atrazine and/or its metabolites are biologically accessible after 22 years of aging. This is important information to be used in the field of environmental management and bioremediation as well as environmental risk management"*.

In a 2014 review of my cited literature, a consultant for the County ignored the above conclusion and instead reported the finding of a 1987 paper by Fuhr et al, from Jablonowski's literature review.

He wrote *"[These results support the authors' earlier] conclusion that atrazine is either degraded or irreversibly sequestered into the soil matrix and can be considered a bound residue (Jablonowski et al 2008)"*. The conclusion in question was not Jablonowski's but clearly referenced to Fuhr et al. Dr. Jablonowski has confirmed that.

Unfortunately, the above quotation has been used to attack my credibility and to discredit the CCOB's case that aged atrazine can be mobilized.

Even after I presented the correction and correct conclusion at the February 2015 Stakeholders' Meeting, the quote continued to be used knowingly by the proponents and the MOECC, including in the affidavits, to counter CCOB's position.

4. PTTW and ECA re Posting EBR

In respect of the ECA application, CCOB only learnt at the February 2015 meeting that it was to be considered separately from the PTTW. The PTTW had been posted on the EBR and CCOB submitted comments covering both. At the meeting we were told that the ECA would not be posted on the EBR as this ECA used only non-enforceable objectives for the wastewater quality as opposed to fixed limits which required posting. In consequence there would be no opportunity for open public comment.

CCOB subsequently showed that this statement was not correct and the ECA was then posted on the EBR.

5. MMM Report

The PTTW application was submitted in March 2013 with a 2 page MMM preliminary ecology report indicating that in the absence of any species at risk the impacts to the site wetlands and natural ponds were anticipated to be minor.

The MMM report was not referenced in the ECA Application.

However, in January 2015, MMM produced for Dufferin a 25 page report indicating a Very High sensitivity rating due to numerous observations of 3 species at risk and rare species and the potential to qualify as Significant Wildlife Habitat.

The wetlands and ponds are 100m down-gradient from the settling ponds. This report was not included at the February 2015 Stakeholder Meeting.

CCOB only obtained the document through CELA in November 2015, long after the ECA public comment closing date of 24th June.

Ending

The above illustrate some of the process challenges that CCOB have faced as a community group trying to protect the Paris' water source and environment.

Had the proponents carried out a valid scientific site study at the beginning as requested and been under the supervision of a Ministry that took the concerns seriously, the issue could have been long resolved and a great deal of public and private costs avoided.

I want to thank the Tribunal for giving us the opportunity to make presentations.

We are very aware that the long term safety of the Paris water supply depends on the tribunals decision.