

## Addendum 2

### **Problems in Testimony presented by Reflection Park, LLC at the July 30, 2021 OZAH hearing (Office of Zoning Administrative Hearing) regarding Ground Water and well contamination:**

Please note, in my opinion, the volume of problems presented by Reflection Park, LLC, and their witnesses, in the 7/30/21 OZAH hearing is overwhelming. For the sake of brevity, I will confine this addendum to the first 2 pieces of evidence related to the key issue of groundwater and well contamination. Also note the 2 Reflection Park, LLC applicants are highly educated (a Harvard Law educated attorney and entrepreneur and a Georgetown Medical School educated M.D., Ph.D.) individuals and that green burial grounds, such as their proposal for Reflection Park Green Burial Ground (organized as a non-profit), are highly lucrative business opportunities. For instance, estimated profits from Reflection Park Green Burial Ground (RP) are up to or greater than \$28,000,000 for the initial investment of \$1,250,000. As noted by industry business sources, green burial grounds are big money makers.

The applicants gave several community presentations in which they state there is “no evidence to date that such practices contaminate ground water” (Application, p. 63). Several media outlets parroted the same statement, apparently taken directly from the RP Planning Board application.

Mr. Jack Goodnoe was hired by the Reflection Park Green Burial Grounds (RP) applicants to testify at the 7/30/2021 OZAH hearing. Mr. Goodnoe stated upon meeting the applicants he “felt immediately that they were very committed to doing the right thing...”(T. 76), an impression the applicants appear skilled at transmitting in various venues. Mr. Goodnoe provided the following testimony, under oath, regarding his credentials (T. 73-76):

- His business is Cemetery Planning and Design
- He is a registered landscape architect and has been exclusively planning cemeteries for past 35 years
- He is “a source for consultation for green burial cemeteries around the country”
- He has designed “over 120, around the U.S., including Alaska, Central America, the Caribbean, and Canada.”
- He was “a featured speaker” at the Green Burial Conference this year in 2020
- There is a trend towards green burials. Mr. Goodnoe stated he has planned 7 or 8 at that point and “it has become a larger part of my business quite frankly, and it’s a growing trend.”

To summarize, Mr. Goodnoe presented himself, *under oath*, as a highly qualified cemetery planner, with extensive experience begun in the 1980’s, starting his own company in 1990’s and has done this work exclusively for the last 35 years (T. 74), that green burials are a growing trend that makes up the majority of his work (T. 76-77), that he is a consultant for green cemeteries around the country (T. 74), and was a featured speaker at the 2020 Green Burial Conference (T. 75).

### **Testimony Regarding ground water and well contamination:**

Mr. Goodnoe, again testified, *under oath*, that concerns regarding ground water and well contamination [from necro-leachate released from decomposing bodies in “green” burials, i.e., buried directly into the ground, in shallow graves such as will occur from the green burials planned by RPI] **are common and understandable and frequently come up in public meetings.** However, he testified he has “always been able to demonstrate that it, is in fact, not a concern.” (T. 91-92).

He further testifies that he completed a literature search from around the world to address these common concerns regarding ground water contamination and well contamination done in the 1980s and 90s and identified several sources he has “*documented for the record.*” The dates he provided for sources ranged from 1980-1992.

Mr. Goodnoe additionally makes the misleading and incorrect statement in his testimony: “*nothing has been done since these then and I think it’s because these efforts pretty much demonstrated that it [ground water and well contamination] was not an issue* (T. 92).

Below, this statement and others I found misleading or false are addressed. Keep in mind the studies that Mr. Goodnoe, accepted as a highly qualified expert for the 2 highly educated, savvy applicants who “wanting to do the right thing,” presented were offered as “documents for the record”(T. 92):

- 1) A cursory, Google search, by a non-expert, will reveal that many studies have been completed well into the 1990s, 2000s, 2010s, and up to the present. A noteworthy place to begin is the 1998 WHO study The Impact of Cemeteries on the Environment and Public Health: An Introductory Briefing (Ucisik, A., and Rushbrok, P.).
  - a. Studies on contamination from cemeteries have been a recent area of concern and increased research focus. The majority of cemetery contamination found in studies I reviewed, including the 1998 WHO study, has been from necro-leachate and not from coffins, vaults, etc.
- 2) The first study Mr. Goodnoe used to extract a “summary” quote in his testimony was a 1992 study he referenced as the Ontario Ministry of the Environment called Cemeteries and Ground Water – an Examination of Potential Contamination.” Mr. Goodnoe offers the following \*misleading\* summary quote : “The analysis of ground water samples collected at wells located down gradient of six cemeteries in Ontario indicated that cemeteries are not a significant source of groundwater contamination.”
  - a. The **actual title** of that 1992 study is Ontario Ministry of the Environment called Cemeteries and Ground Water – an Examination of Potential Contamination by Preservatives Containing Formaldehyde.” Note that Mr. Goodnoe deleted the import words from the study title: **by Preservatives Containing Formaldehyde** . Further, the quote Mr. Goodnoe mentions from p. 6 of this report and actually reads : “The analysis of ground water samples collected at wells located down gradient of six cemeteries in Ontario indicated that cemeteries are not a significant source of groundwater contamination **for formaldehyde.**”
  - b. Thus, this particular study is irrelevant regarding RP. Green burials prohibit the use of embalming chemicals such as formaldehyde. This study and quote would only demonstrate that there is NO benefit to green burial, which directly contradicts a main claim made by the applicants, as it claims no contamination due to the common embalming chemical formaldehyde.
  - c. This report goes on to identify several sources of contamination derived from decomposing bodies, although this was not the main focus of the study.
- 3) The second study Mr. Goodnoe quotes he claims is from a 1992 WHO study. He does not provide a title for the study. He presents the following \*misleading\* summary quote he claims to have extracted from a 1992 WHO study: “Recent work was conducted on groundwater samples beneath the Cheltenham Cemetery located in Australia. The results from these investigations showed no significant presence of pathogens.” The Hearing Examiner (HE) then asked for the exact title. Mr. Goodnoe said he would have to supply her with the exact title. (This was never done. I have emailed to request a copy of said study and title from the HE, but was told she did not have this study or title, nor any other title or study, referenced by Mr. Goodnoe. I was advised to contact the applicants counsel, Mr. Kline, for the studies. Mr. Kline’s office informed me they did not have copies either, and I should look them up myself. Which I did.)
  - a. The exact \*correct\* quote is in fact in the 1998 World health organization (WHO) study The Impact of Cemeteries on the Environment and Public Health: An Introductory Briefing (Ucisik, A., and Rushbrok, P.). However, Mr. Goodnoe again deleted a key part of that quote. The actual quote, p. 5 reads: “Recent work was conducted on groundwater samples beneath the Cheltenham Cemetery located in Australia. The results from these investigations showed no significant presence of pathogens **with the exception of Pseudomonas aeruginosa, a pathogenic bacterium, which is responsible for waterborne diseases.**”
  - b. An extensive search has revealed NO 1992 WHO study regarding cemeteries or in which this sentence is written.

These are striking and alarming omissions and misrepresentations by the highly qualified Mr. Goodnoe, testifying for the highly educated and qualified applicants who hired him!!! How are we to understand this? Was this merely an oversight or something more concerning by both Mr. Goodnoe and those whom we must assume verified Mr. Goodnoe’s

credentials and the substance of his testimony? If there was in reality no danger of groundwater or well contamination, why would either the witness or the applicants need to resort to misquoting data, omitting key sentence fragments, and using out of date studies? For me and others, the answer is clear: existing evidence indicates the Reflection Park Green Burial Cemetery DOES pose health, environmental and safety risks to the public and local residents that require a denial of the applicants Conditional Use (CU 21-06) request.

References:

Chan, Soo G., Scafe, M., & Emami (1992). Cemeteries and ground water: an examination of the potential contamination of groundwater by preservatives containing formaldehyde: report. Ontario: Environment [Toronto].

Transcript of Hearing, Montgomery County Office of Zoning and Administrative Hearing (OZAH; 7/30/2021). Retrieved from

<https://www.montgomerycountymd.gov/OZAH/Resources/Files/pdf/2021/Hearing%2C%20073021%20Condensed.pdf>  
(testimony for Reflection Park LLC)

Üçisik, A. S. & Rushbrook, P. (1998). "The Impact of Cemeteries on the Environment and Public Health: An Introduction Briefing. World Health Organization, Copenhagen.