

**MEMORANDUM**

**TO:** LISA Humphreys, USACE PBOW Coordinator, and others

**FROM:** Julie Weatherington-Rice, Ph.D., RAB TAPP Coordinator

**RE:** Draft Human Health Risk Assessment and Ecological Risk Assessment Work Plans for Acid Area 1, Former Plum Brook Ordnance Works, Sandusky, Ohio – JE Jacobs

**DATE:** February 2, 2009

Per our current contractual arrangement with US ACE which require both a technical memorandum for each report and an educational explanation to the RAB, this memorandum constitutes the technical review of the J E Jacobs November 2008 “Draft Human Health Risk Assessment and Ecological Risk Assessment Work Plans for Acid Area 1, Former Plum Brook Ordnance Works, Sandusky, Ohio” documents. Please forward to those who need to read this technical review.

**General Comments**

Please develop a section that discusses the date of the latest thorough literature review of “risk assessment” documents that Jacobs has undertaken. The newest general reference report is dated 2005 but it is not clear from the reports if that is the most recent reference document or if that is the date of the last time that Jacobs updated their general risk assessment templates. Clarification on this issue would be helpful. I have asked for this clarification in the text at least once before in the Reservoir No. 2 Burning Grounds review last year.

**Specific Comments - Baseline Human Health Risk Assessment Work Plan for Acid Area 1**

Page 3-19

1. Page break fault here. Please correct.

Page 3-35

2. Page break fault here. Please correct.

These page break faults were noted in earlier Baseline Human Health Risk Assessment Work Plans, most recently the one for the Reservoir No. 2 Burning Grounds.

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**Specific Comments - Baseline Ecological Risk Assessment Work Plan for Acid Area 1**

Page 2-7 Section 2.6.5 Surface Water

1. This paragraph speaks to the issue that surface water at the site is ephemeral and so was dry at the point in time of sampling. The paragraph goes on to state that “Due to the ephemeral nature of the drainage ditch, it does not represent a habitat for aquatic biota or a significant source of drinking water for terrestrial biota.” In an earlier e-mail that I sent to Jacobs last month when reviewing this document, I asked if there was any reason to consider the surface water sites at Acid Area 1 to be vernal pools. If not, why not, and if so, would that change the review process? I stated that I would include their responses in this memo, but to date, I have no reply.

There has been a vigorous effort on the part of the Ohio EPA Division of Surface Water, the Ohio Department of Natural Resources, and the Ohio Biological Survey to identify and inventory vernal pools in Ohio. There was a recent awareness article in the Columbus Dispatch newspaper on vernal pools which brought my question to mind. In thinking back, I do not remember any mention of vernal pools at Plum Brook in any of the reports. However, I don't know if that is because they were never inventoried or because they were inventoried and do not exist. Please clarify.

This concludes my technical comments on these Draft Baseline Human Health Risk Assessment and Ecological Risk Assessment Work Plans for Acid Area 1, Former Plum Brook Ordnance Works, Sandusky, Ohio documents. If you have any questions and/or need further clarification on any point discussed in this memorandum, please feel free to contact me.