

Post-It™ brand fax transmittal memo 7671		# of pages > 3
To <i>Jim Huntton</i>	From <i>DuWayne Gebten</i>	
Co. <i>Southern District</i>	Co.	
Dept.	Phone # <i>266-0245</i>	
Fax # <i>275-3338</i>	Fax # <i>267-3579</i>	

December 21, 1993

Hearing Officer James E. Knowles  
Regulatory Branch, St. Paul District  
U.S. Army Corps of Engineers  
180 E. Kellogg Blvd., Rm. 1421  
St. Paul, MN 55101-1479

DEC 22 1993

Subject: City of Madison Lake Monona Convention  
Center, Section 404 - Clean Water Act, 98-  
04188-1P-JDK

Dear Mr. Knowles:

I am writing you to provide comments on the proposed City of Madison Convention Center to be located on Lake Monona. I have a number of concerns with the project because of nagging environmental issues which, in my professional judgement, have not been adequately addressed or resolved. My professional background includes four years of experience with waste management issues as an environmental engineer.

In order for one to accept the project based solely on environmental criteria, one would need to make an unacceptable number of critical assumptions. The items listed below are important because they are a starting point for challenging some of these assumptions and they help to provide the basis for a better understanding of the real environmental risk associated with the convention center project.

1. Existing subsurface conditions have not been adequately defined because of the following:
  - a. Groundwater flow patterns have not been well established. Vertical and horizontal groundwater flow components were determined by a "minipiezometer" installed in lakebed sediment and six shallow groundwater monitoring wells all installed on the same axis, parallel the lake.
  - b. Degree and extent of existing groundwater and sediment contamination have not been adequately established. It is not clear whether any of the six monitoring wells or lakebed sediment borings define the deepest extent of contaminated fill present under the proposed project. It also appears that only two of the six monitoring wells had groundwater samples analyzed for a limited list of volatile and semi-volatile organic compounds, based on the fact that the other wells did not have detectable quantities (>1ppm) of TRPN. The level of

pilings are placed in permeable till, it is likely that groundwater flow patterns will not change significantly. However, if pilings extend into or through continuous confining units there may be measurable net changes in groundwater movement because of the creation of preferential pathways for groundwater movement, particularly if the pumping of Well #17 is considered.

- c. When degree and extent of groundwater contamination have been defined, and if a remedial plan has been selected, how can this plan be followed given the physical constraints of the completed project?

At present, I have just a few general recommendations for further investigation. These include the following:

1. Confirm existing groundwater quality at the proposed site.
2. Perform a pump test on City Well #17 to see whether the radius of influence includes areas of confirmed groundwater contamination.
3. Assess groundwater quality at Well #17, especially for volatile and semi-volatile organic compounds.
4. Install additional groundwater monitoring wells and piezometer nests to better define both geology and hydrogeology to at least the depth to where the proposed pilings are to be placed.

Thank you for considering my comments, which I express as a concerned citizen.



Benzo(a)Pyrene in groundwater samples collected from one of the shallow monitoring wells exceeds the MCL by over two orders of magnitude. Additional rounds of sampling of the six monitoring wells must be performed using approved sampling, sample preparation, and analytical methods to confirm contaminants detected.

- c. The subsurface conditions beneath the proposed project have been defined using historic soil boring information, subject to misinterpretation, especially considering the complicated geology and the intended purpose of these borings. There are indications that the fill and the till are already in good hydraulic connection due to the apparent absence of any continuous more impermeable confining units. However, site specific information must be obtained to confirm whether deeper low permeability units exist.
  - d. How groundwater movement is effected when the City Municipal Well #17 (which is seasonally in operation, a high capacity well, located approximately 1,000 feet from the project) is pumping has not been adequately addressed. Upward flow of groundwater into the lake was observed when Well #17 was not pumping. If one assumes permeable till below the fill, is contaminated groundwater moving at times toward the Municipal Well which is cased for 200 feet? Has Well #17 ever been sampled for semi-volatiles?
2. A number of serious potential negative environmental impacts associated with the proposed project have not been adequately determined. The items listed below need to be considered.
- a. The fate of resuspended contaminated sediment and soils during construction has not been adequately resolved. The proposed method to control any resuspended sediment, according to the Final Environmental Impact Statement, could be to use industry-standard silt curtains underwater for the entire length of pilings above lakebed sediments. What is the effectiveness of this type of control? Simply stating that contaminated sediment that is disturbed in the lake will settle in deeper portions which contain already contaminated sediment or that resuspended lighter petroleum products will not have any measurable impact on the lake's water quality or biotic communities is not adequate to address environmental concerns.
  - b. The issue of whether the driving of 1725 pilings may exacerbate contaminated groundwater movement into the lake or towards Well #17 has not been addressed. If