

Memorandum

To: Stephen J. Hjort
CC: James Folk
From: Randal K. Weltzin, P.E., L.S.
Date: 01/25/00
Re: Lake Koshkonong – Review of WDNR Survey Notes

At the District's request, I have reviewed the WDNR field survey notes dated 7/31/99. These notes include 6 pages of field notes; the instrument person was K.J. and the rod man was B. H. The purpose of my review was to provide a professional opinion concerning WDNR's findings, and the basis for their findings, with respect to the OHWM elevations.

In general, the differential level survey was performed according to well defined survey standards. Temporary benchmarks were established by leveling through and completing the level circuit. Sideshots were not taken. The error of closure for each circuit appears to be within 3rd order survey accuracy. The survey notes have been reduced correctly. The level note format is widely used and is acceptable.

The descriptions of the benchmarks, and the descriptions of the locations where elevation information was collected are only partially documented, or in some cases, not documented at all. This makes it difficult to confirm the locations of the benchmarks or the locations where elevations were surveyed. On pages 3 and 4, some of the field notes are crossed out with an "X" and no explanation is provided.

In the level circuits, Ordinary High Water Mark (OHWM) elevations were surveyed at 6 locations. The description for one of the elevations states "algee on rocks", but doesn't provide a description of where the rocks are located with respect to Lake Koshkonong. A second elevation was also obtained at this unspecified location. Four additional elevations were surveyed at Schmelling Park according to the field notes.

At the first location, the elevation was computed to be 776.69 feet. A second elevation was surveyed in the same vicinity and was computed to be 776.39. In the description, a note was written stating that 0.3 feet had been added for the depth of

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