

July 19, 2024

Mr. Michael Smith, P.E.  
Land Quality Bureau  
Iowa Department of Natural Resources  
6200 Park Avenue, Suite 200  
Des Moines, Iowa 50321



**RE: Request for HMSP Revision – MW-38 & MW-39  
Iowa County Sanitary Landfill 48-SDP-02-79P**

Dear Mr. Smith:

This letter is a request to modify the Hydrologic Monitoring System Plan (HMSP) by abandoning MW-38 and MW-39.

As illustrated on attached Figures 3 and 4 (Attachment A), MW-39 is located along the entrance road going to future Phase B-1. As construction in Phase B-1 is now on-going, it is apparent that MW-39 is in a high-traffic area and creates a "pinch point" in traffic flow into and out of the future cell (Figure 4, Attachment A). The width of the road between MW-39 and Phase A-4 leachate infrastructure (Manhole #6 and adjacent leachate head monitoring points LPZ-105/106) does not allow vehicles to pass side-by-side (traffic will be reduced to one lane).

Furthermore, when exiting Phase B-1, MW-39 is located on the inside of the turn on the blind-side of vehicles putting MW-39 in peril.

Based on the observed construction traffic to date, it seems most likely that MW-39 will be damaged by a vehicle(s) in the course of time.

Although the design of Phase B-2 is not completed, it is anticipated that MW-38 will also be in peril in the future as development progresses and traffic patterns change related to Phase B-2 and B-3. Staff at the Iowa County Landfill would like to proactively address this issue.

**Supporting Information**

MW-38 and MW-39 were constructed in January 2012 and have been sampled semi-annually in the current HMSP since at least December 2014. To date there have been no recorded Statistically Significant Increases (SSI) detected at MW-38 or MW-39.

MW-38 and MW-39 are located near the central ravine bottom near the intermittent drainageway. MW-39 is located approximately 320 feet north of MW-38 and 300 feet south of future well MW-43. Note that MW-43 is under contract to be drilled in August 2024 upon the completion of the Cell B-1 construction.

Observation of the Groundwater Contour Map (Fig 3 in Attachment B) illustrates flow patterns in the vicinity of MW-38 and MW-39. Groundwater from the Original Landfill converges to a point in the central ravine where MW-15 is located. Flow patterns in the ravine below the Original Landfill (near Phase A and Phase B) continues to trend inward to a point north of MW-39. Groundwater flow near the north perimeter of Area A and Area B is monitored at 300 foot spacing (113.10(2)"e"(2)) at monitoring wells MW-30, MW-43, MW-29D, and MW-40 (Figure 3, Attachment B).

### **HMSP Modification Request**

We request that MW-38 and MW-39 be removed from the HMSP. It is proposed that MW-38 and MW-39 be properly plugged and abandoned in accordance with 113.10(2)"d" (over drilling and grouting from the bottom). Water quality compliance can still be documented at the downgradient boundary at monitoring wells MW-30, MW-43, MW-29D, and MW-40 in accordance with the currently accepted HMSP.

Please respond to this request at your earliest convenience, as we would like to have the well plugging completed while the certified drilling contractor is on site constructing MW-43 (if possible). Please feel free to contact our office at (515) 733-4144 with any questions you may have.

Sincerely,

**HLW Engineering Group**

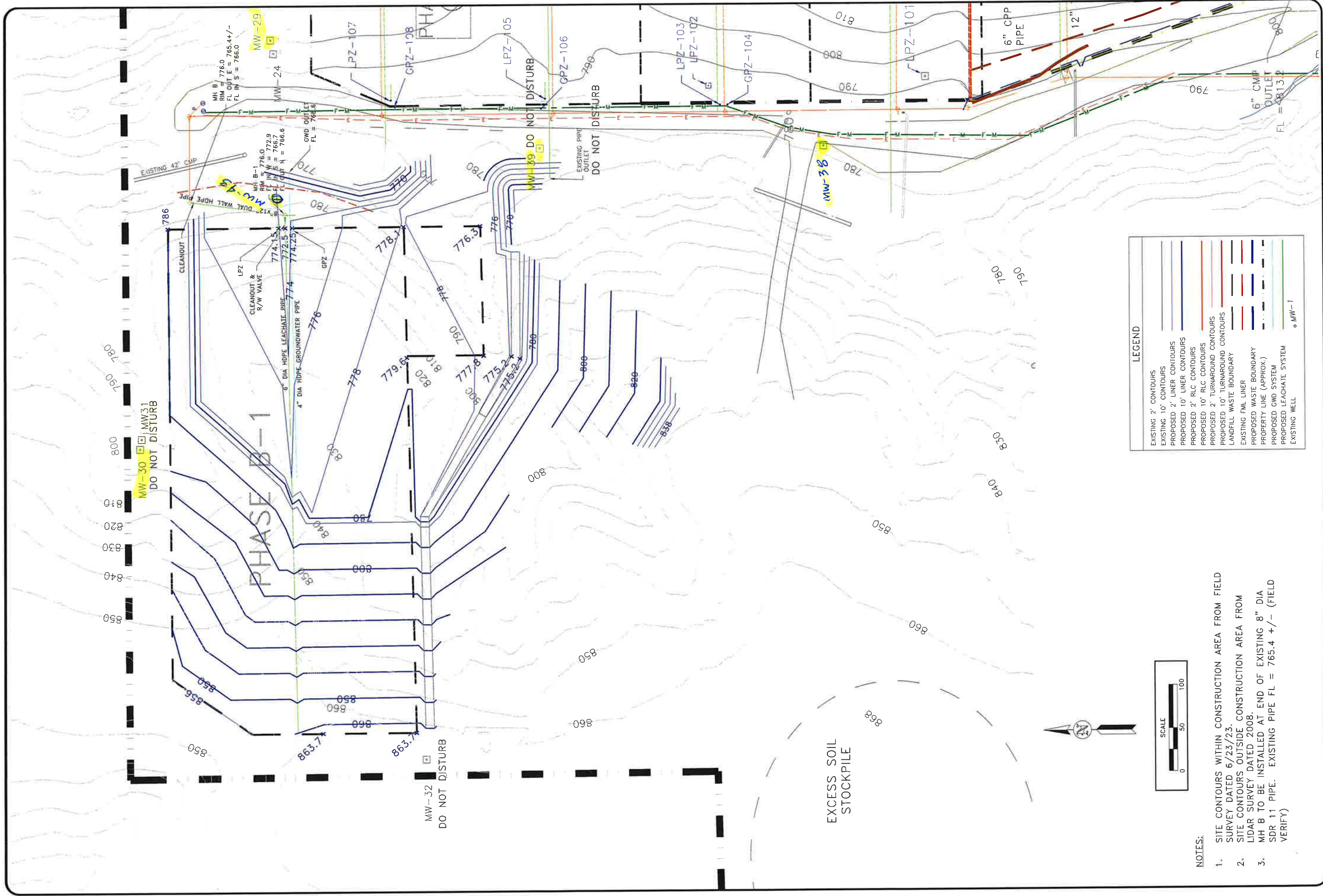


Todd Whipple, CPG.

cc: *David Randall, Director*

**ATTACHMENT A**

**Phase B-1 Drawings**



HLW Engineering Group  
204 West Broad Street, P.O. Box 314  
Story City, Iowa 50248  
Phone: (515) 733-4144  
FAX: (515) 733-4146

**SITE PLAN B-1**  
**PHASE B-1 EXPANSION**  
IOWA COUNTY SANITARY LANDFILL  
HOMESTEAD, IOWA

REVISION		NO.	DATE
DRAWN	JGH		
PROJECT NO.	6005-22B		
DATE	8/04/23		

**FIGURE: 3**





**ATTACHMENT B**

**December 2023 Groundwater Contour Map**



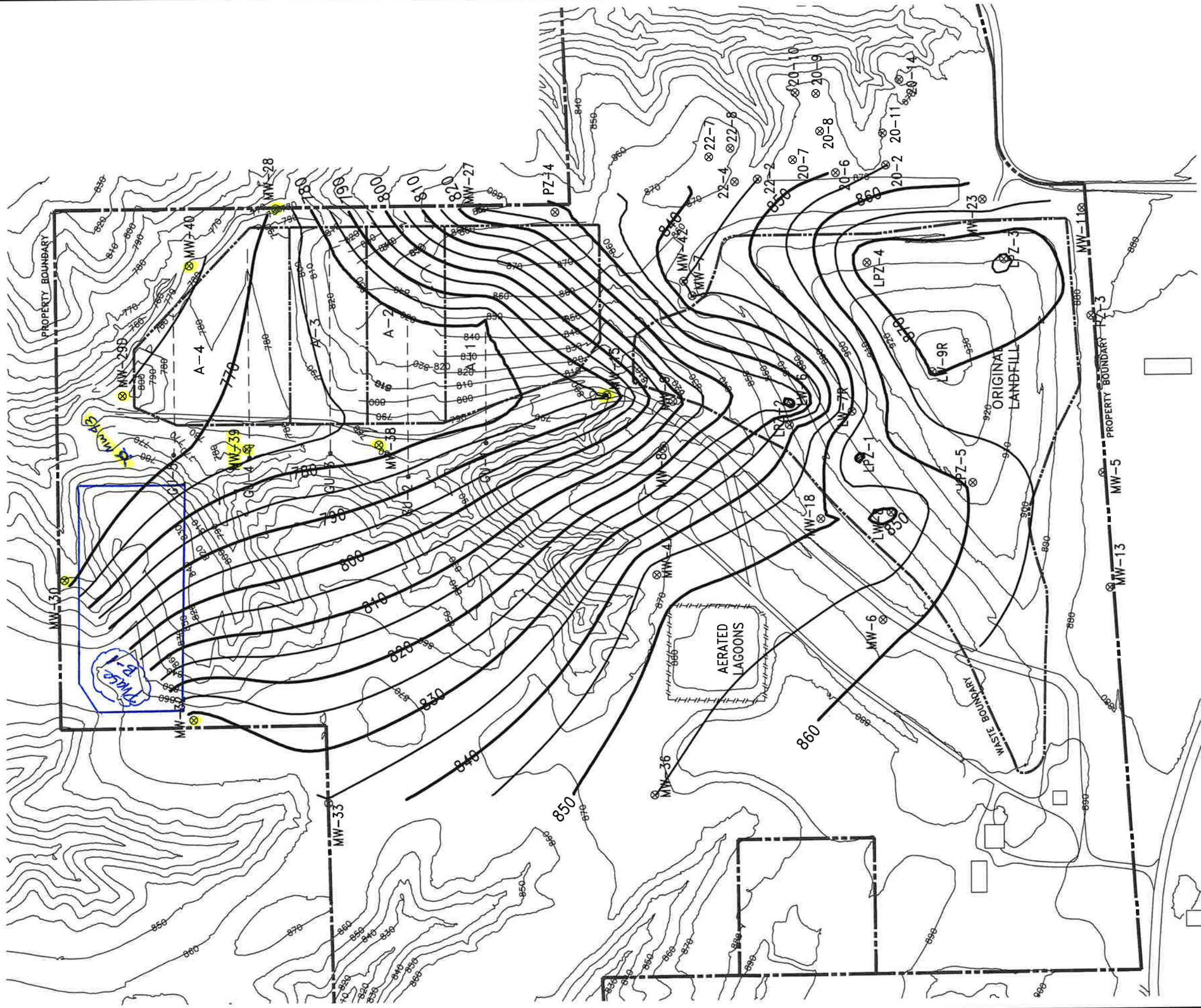
WATER ELEVATION DECEMBER 4, 2023

WELL	ELEV.	WELL	ELEV.	WELL	ELEV.	WELL	ELEV.	WELL	ELEV.
MW-5	869.70	MW-18	849.39	MW-36	854.95	LW-6	817.84	20-2	854.89
MW-6	858.02	MW-23	861.87	MW-38	776.99	LW-7R	850.54	20-6	850.56
MW-7	845.26	MW-27	825.02	MW-39	772.71	LW-8	848.98	20-7	NR
MW-8	NR	MW-28	770.65	MW-40	763.56	LW-9R	870.41	20-8	NR
MW-9	807.03	MW-29D	765.14	MW-41	848.56			20-9	NR
MW-11	866.95	MW-30	767.55	MW-42	845.24	LPZ-1	860.85	20-10	NR
MW-13	869.01	MW-32	832.75			LPZ-2	<839.02		
MW-15	784.55	MW-33	835.43			LPZ-3	<876.05		
				PZ-3	867.72	LPZ-4	874.72		
				PZ-4	828.67	LPZ-5	860.79		



0 50 100 200 400  
LIDAR FLY DATE: 5-12-2009  
PH A1, A2, A3 SURVEY: OCT 2016  
PHASE A4 SURVEY: MAR 2015

TABLE NOTE:  
THE WATER ELEVATIONS FOR THE  
FOLLOWING ARE THE BOTTOMS OF  
DRY WELLS: MW-27, MW-29D,  
MW-32, LPZ-2, LPZ-3.



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GROUNDWATER CONTOURS  
IOWA COUNTY SANITARY LANDFILL  
AMANA, IOWA

FIGURE: 3

REVISION	NO.	DATE
DRAWN	PROJECT NO 6005	DATE 1-8-24