# McKnight, Kevin - DNR

**From:** Ken Ebbott <kebbott@fehr-graham.com>

**Sent:** Tuesday, May 29, 2018 3:26 PM

**To:** McKnight, Kevin - DNR

Cc: Gary Gunderson (GG@gundersongroup.com); Don Gallo (dgallo@axley.com); Ken Ebbott; Chris

Steeb

**Subject:** RE: Gunderson Neenah Additional Work and Budget

Attachments: 14-1123-GundersonNeenah01232018Proposed Addl Well Nest.pdf; Change Order 4 GW Sampling

May 2018.pdf; Table A Cost Estimate May 2018.pdf

Kevin,

After review of the off-site information, I thought we and a good case to limit the need for additional testing to the south, as indicated in the email below. However, the WDNR does not agree, and per our discussion last week, I've updated the cost estimate to reflect the installation of three more wells, including one piezometer south of the Goodwill building (PZ-125), and a well nest near the edge of the property to the northeast (PZ-123 / PZ-124).

The location of well PZ-125 will be in te grass in line with the building east wall, at the southern edge of the Goodwill Parking lot. This is not exactly where the WDNR approval indicated the wells should be located - "near TW-12" but since the purpose of the well is to evaluate the southern extent of groundwater impacts in the shallow bedrock, putting the well at the property boundary to the south should address that need. If we put the well adjacent to the Goodwill building n the grass north of the parking lot, and there are some small detections, another well may be requested, so installation south of the parking lot is a more cost effective move.

The installation of the new piezometers brings the total groundwater monitoring locations to 25 for the project. Two rounds of groundwater sampling will be performed, for the first round, I will eliminate sampling from eight wells that have historically been clean or nearly clean (MW-103, PZ-108, PZ-110, MW-112, MW-113, MW-117, PZ-118, and PZ-120).

The second groundwater sample round will obtain samples from all 25 wells. Sampling will be performed after new well installation, and approximately six months after the first sample round.

Per DERF rules, the cost estimate for completion of this work is presented in two ways, Table A showing the hours, rates, and total charges, and Change Order # 4, which shows the total project charges to date. The total cost for this additional work is \$32,552, including \$13,825 in contractor charges, and the remainder in consulting charges.

Please review and approve the Change Order # 4 and we can proceed with lining up the drilling.

Let me know if you have any questions or comments.

Thanks,

Ken

KENDRICK EBBOTT | PG Branch Manager Fehr Graham - Engineering & Environmental

From: McKnight, Kevin - DNR < Kevin. McKnight@wisconsin.gov>

Sent: Friday, May 25, 2018 2:04 PM

To: Ken Ebbott <kebbott@fehr-graham.com>

Cc: Gary Gunderson (GG@gundersongroup.com) <GG@gundersongroup.com>; Don Gallo (dgallo@axley.com)

<dgallo@axley.com>

Subject: RE: Gunderson Neenah Additional Work and Budget

Ken,

Per our phone discussion, you need to add in the costs for the additional piezometer in the vicinity of TW-12 to define vertical extent of contamination to the south. I have attached the previously provided VPLE Committee memos for reference. Once I receive the amended request I will expedite approval of the change order.

Kevin

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Kevin D. McKnight Phone: (920)-424-7890

kevin.mcknight@wisconsin.gov

**From:** Ken Ebbott [mailto:kebbott@fehr-graham.com]

Sent: Thursday, May 10, 2018 5:04 PM

To: McKnight, Kevin - DNR < Kevin. McKnight@wisconsin.gov>

**Cc:** Ken Ebbott < kebbott@fehr-graham.com >; Gary Gunderson (GG@gundersongroup.com)

<<u>GG@gundersongroup.com</u>>; Don Gallo (<u>dgallo@axley.com</u>) <<u>dgallo@axley.com</u>>

Subject: Gunderson Neenah Additional Work and Budget

Kevin,

I understand the WDNR Committee has determined additional groundwater definition is necessary for the Site Investigation to be considered complete under the VPLE program requirements. An additional well nest is considered necessary downgradient to the northeast, near the property boundary with S. Green Bay Road.

The committee also noted that the extent of groundwater contamination for VOC's didn't appear adequately defined to the south, and another well has been requested for that location.

We have reviewed the existing information in the WDNR files for investigation work that was conducted on the Fox Point Express and Twin Cities Diner / Aldi's properties. The information, plus data from our investigation efforts, which have been extensive, indicate the following:

## Southern Extent Defined

We took a look at the available information from previous site investigations to the northeast (Fox Point Express) and south (Twin Cities Diner / Aldi's). I've attached a groundwater chemistry figure that shows relevant available data from both of these locations, and further information can be provided if requested. Information has been obtained from 2004, 2005, 2006, 2013, 2014, and 2016.

South of the Gunderson building there has been no detection of chlorinated VOCs from five southern-location on-site soil and groundwater sampling locations (TW-37, MW-113, B-11, TW-12, and TW-7). In addition, there have been no detections in soil or groundwater from borings installed in the south adjacent Aldi's property (SP-6 / MW-2, SP-7 / MW-3, SP-5 / MW-1, and SP-9 / MW-4). There are nine groundwater sampling locations south of the building that already show the extent of impacts does not extend further south. The direction of groundwater flow is to the northeast in the water table aguifer and the piezometers – not to the south, and regional flow is to the east / northeast.

Based on this information I don't think it is necessary to define the plume to the south-it's already been defined.

## Northeastern Extent Not Defined

To the northeast, the Fox Point Express monitoring wells MW-1 through MW-4 were sampled for full VOCs in December 1992. Since the drycleaning operations at Gunderson Cleaners opened in 1973, approximately twenty years of operation had occurred at the Gunderson Cleaner building at the time the groundwater samples were obtained from the Fox Point Express groundwater.

Fox Point Express monitoring wells MW-3 / MW-4 were located approximately 550 feet downgradient from the Gunderson building, and wells MW-1 and MW-2 are approximately 700 feet downgradient. Well MW-4 was a piezometer, screened just above the bedrock at about 36 to 41 feet below grade, which is the interval that displays the most elevated levels of contamination in groundwater downgradient from the site. Although well MW-4 groundwater shows no detections of VOCs in 1992, there may not have been sufficient time for a release from the Gunderson operations to be spilled, migrate vertically downward to that formation, and migrate 550 feet to be detectable in groundwater from Fox Point well MW-4.

Calculated groundwater velocities include a number of assumptions, but are likely around 20 feet per year, based on measured and estimated hydraulic conductivities, hydraulic gradients, and an assumed porosity of 30%. If flow is 20 feet per year, that would leave the groundwater plume approximately 400 feet downgradient from the Gunderson spill site in 1992. That is still roughly 150 feet short of monitoring well MW-4's location at the time it was sampled for full VOCs in 1992. This calculation also assumes groundwater contamination was generated almost as soon as the facility opened in 1973. Based on these results, unfortunately it appears the groundwater sample from Fox Point Express well MW-4 was obtained too early to be sure it can document the absence of contamination at that location downgradient from the site.

Based on this evaluation, it doesn't appear the Fox Point Express groundwater chemistry information provides adequate evidence that the extent of groundwater contamination is defined in the downgradient (northeast) direction.

#### **Proposed Scope**

A well nest of two piezometers, one to the top of bedrock at approximately 30 feet, and another into the competent bedrock at 60 feet below grade, are proposed for installation at the location on the attached map.

After installation, we will develop, survey, and sample the groundwater from the new wells and 16 of the existing wells. Wells without recent previous significant detections of VOCs (MW or PZ -103, 108, 110, 112, 113, 117, 118, and 120) will not be sampled as a cost savings measure. Six months later, a second groundwater sample round will be obtained, this time from the two new wells plus all 22 of the site monitoring wells and sumps. Eight groundwater samples for methane, ethane, and ethene will also be retained. Upon receipt of the results, brief email updates will be provided.

Assuming the results from the new wells define the extent of contamination, and contaminant trends display stable to decreasing concentrations over time at the test locations, case closure will be pursued.

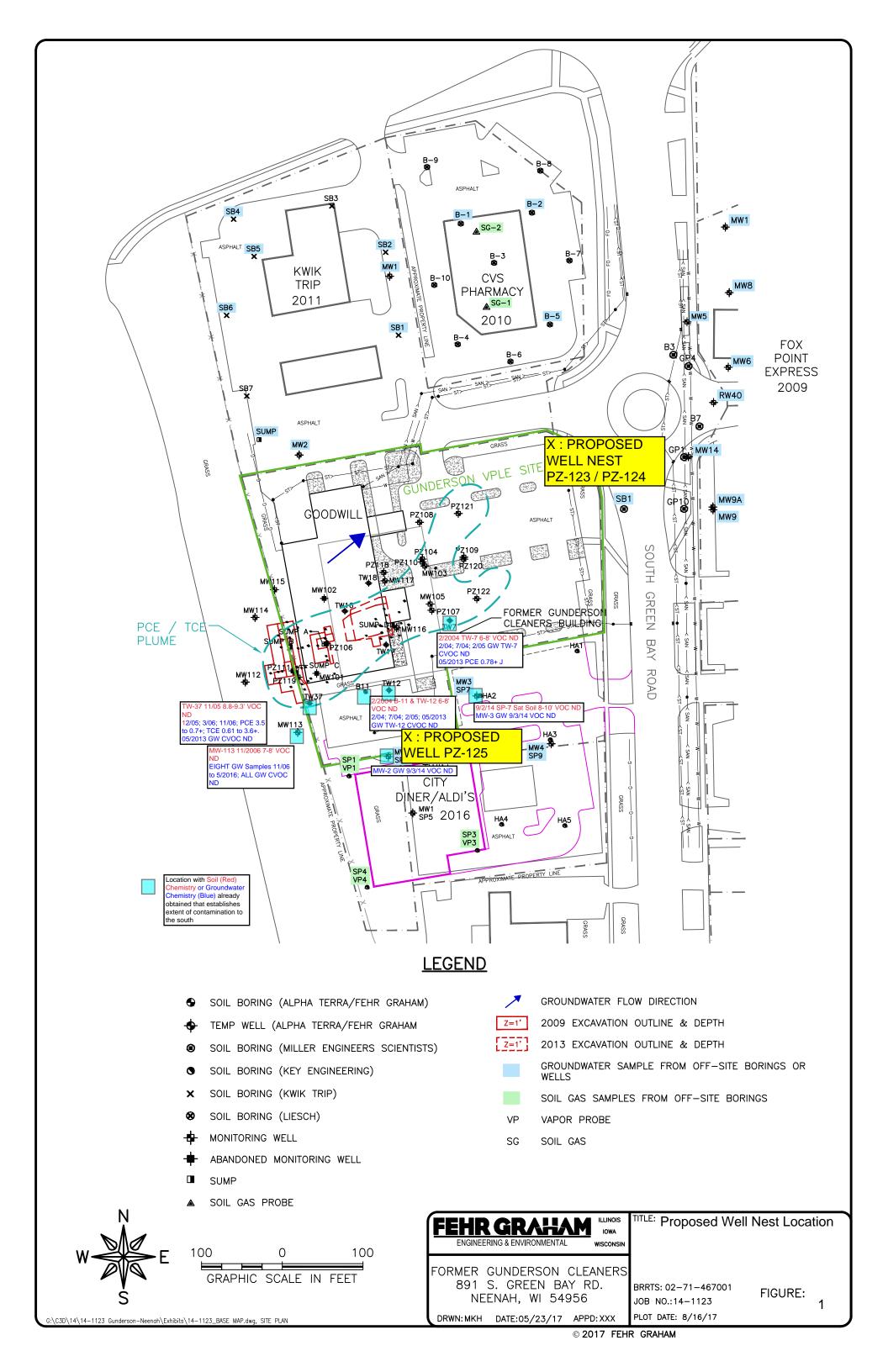
I have attached a Change Order and Cost Estimate for your review and approval for DERF eligibility purposes. Please review and return a signed version of the Change Order back for my records. I know Gary Gunderson is anxious to finally wrap up this site.

Thanks,

Ken Ebbott

KENDRICK EBBOTT, PG | Branch Manager Fehr Graham | Engineering & Environmental

1237 Pilgrim Road Plymouth, WI 53073 P: 920.892.2444 C: 920-980-4231 F: 920.892.2620 fehr-graham.com



## CHANGE ORDER # 4 - Three Additional Wells and Two Rounds GW Sampling: May 29, 2018 Gunderson Cleaners Facility, 891 S. Green Bay Road, Neenah, WI

Guilderson Cleaners Facility, 641 3.	dicell bay Road, Nechan, V	••	
ITEM DESCRIPTION	Total Addl Cost See Table A	Prior Appvd Cost	Total Budge
		SI COST	SI COST
Site Investigation Prior Budget Consulting and Contractor			
Subtotal Task	\$0	\$96,488	\$96,488
		RA COST	RA COST
Consultant Remedial Action Prior Budget			
Subtotal Task - See Detail Below	\$18,727	\$102,412	\$121,139
Contractor Remedial Action Prior Budget			
Subtotal Task - See Detail Below	\$13,825	\$324,023	\$337,848

Subtotal Lask - See Detail Below	\$18,727	\$102,412	\$121,139
Contractor Remedial Action Prior Budget Subtotal Task - See Detail Below	\$13,825	\$324,023	\$337,848
ADDITIONAL REQUESTED SERVICES - REMEDIAL ACTION	Additional Cost		
CONSULTANT SERVICES			
Task 14: PM and Coordination (one year)	\$1,860		
Task 11: Groundwater Monitoring Network (Install Addl Well Nest - 3 Wells 35', 35', 60')	\$4,755		
Task 11: Post Treatment Groundwater Monitoring (2 Events, 17 wells, 25 wells)	\$6,062		
Task 13: Reporting and Data Evaluation (Two Reports after Sampling Rounds)	\$6,050		
Total Additional Consulting	\$18,727		
CONTRACTOR SERVICES			
Task 11: Groundwater Monitoring Network (Install Addl Well Nest - 3 Wells 35', 35', 60')			
Drilling - 3 wells, Air Rotary Drilling Drum Disposal - 9 drums	\$9,625 \$1,700		
Task 11: Post Treatment Groundwater Monitoring (2 Events, 17 wells, 25 wells)			
Groundwater VOCs (2 Events, 42 wells)	\$2,100		
GW Methane ethane (2 Events, 8 wells)	\$400		
en mentale entale entene (E Evente, e Wene)	<b>4.00</b>		
Total Additional Contractor	\$13,825		
TOTAL REQUESTED ADDITIONAL COST	\$32,552		TOTAL SI + RA COST
TOTAL REQUESTED ADDITIONAL FUNDS	\$32,552	\$522,923	\$555,475
TOTAL REMEDIAL ACTION BUDGET (Excludes SI)	Consulting	\$121,139	
TOTAL REMEDIAL FORTON DOUBLE (Exolutes sty	Commodity TOTAL	\$337,848 \$458,987	
Gunderson Cleaners Inc. approves of the site remediation costs described above Graham shall not exceed any of these costs without receiving written authorization apply to these se	n. The terms and conditions of the		
This approval does not guarantee the reimbursement of costs. Final determinat claim review		sts will be determin	ied at the time of
Mr. Kevin McKnight, WDNR	Date		
Kenin Co. Eury			
Mr. Kendrick A. Ebbott, Fehr Graham	<u>5/29/2018</u> Date		

Table A: Cost Estimate: Gunderson Neenah DERF Site MAY 29 2018 Consult and Contractor: Three Addl Wells, Two rounds Groundwater Sampling, Data Evaluation, Reporting Project Management

Prepared May 10, 2018				
TEM DESCRIPTION	Unit Price	Quantity	Units	Total Cost
CONSULTING SERVICES	. Well Installet	lan.		
ask 11: Post Excavation Groundwater Monitoring: Install Three New Piezometers, 2 @ 35', 1 @ 60', D			ocal	
Sr. Hydrogeologist	\$90.00	y, טועוווטואן 8	hour	\$720.0
Sr. Tech. Drill & Soil Oversight, Well Install & Devel		42	hour	\$2,730.0
Sr. Tech - Survey, Logs, Forms, Sample Ship	\$65.00	8	hour	\$520.0
Sr. Tech Soil Disposal Setup	\$65.00	6	hour	\$390.
Bailers, Rope	\$30.00	3	each	\$90.0
PID	\$75.00	1	day	\$75.0
Field Supplies - Expendables	\$15.00	2	day	\$30.0
WL Meter, pump, Tubing	\$100.00	2	day	\$200.
Subtotal Task				\$4,755.0
ask 11: Post Treatment Groundwater Monitoring (2				
WL All, YSI All, MEE 8 wells over two events. Skip v				
Sample 1 - 17 wells 104, 105, 107, 109, 114, 115, 1	16, 119, 121, 1	122, 123, 12	4, 125, Sun	np A, B, C, D
Sample 2 - All 25 Wells / Sumps A, B, C, D	<b>#00.00</b>	0	h	<b>¢</b> 700
Sr. Hydrogeologist	\$90.00	8	hour	\$720.
Sr. Tech. Water Levels, DO, ORP, etc. (2 events)	\$65.00 \$65.00	12	hour	\$780. \$2.730
Sr. Tech - Purge and Sample (2 events) Sample Ship, Forms	\$65.00 \$65.00	42 6	hour	\$2,730. \$390.
Bailers, Rope, tubing	\$65.00 \$25.00	6 42	hour each	\$390. \$1,050.
Multi-parameter meter (D.O., ORP, etc.)	\$125.00	2	day	\$250.
Field Supplies - Expendables	\$25.00	4	day	\$100.
WL Meter	\$21.00	2	day	\$42.
Subtotal Task		_	uuy	\$6,062.0
Second Summary and closure potential Sr. Hydrogeologist/ Engineer Sr. Technician	\$90.00 \$65.00	30 24	hour hour	\$2,700. \$1,560.
Drafting	\$55.00	30	hour	\$1,650.0
Administrative	\$35.00	4	hour	\$140.0
Subtotal Task ask 14: PM and Coordination - One year	K			\$6,050.0
Sr. Hydrogeologist/ Engineer	\$90.00	12	hour	\$1,080.
Sr. Technician	\$65.00	12	hour	\$780.
Subtotal Task			noui	\$1,860.0
ONTRACTOR COSTS				
ask 11: Post Treatment Groundwater Monitoring (\	Well Nest Insta	allation)		
Driller - 3 wells, 2@ 35', 1 @ 60' - Badger State Q	luote			
Mob	\$800	1	lump	\$800.
4.24" Hollow Stem Drilling	\$20		foot	\$1,400.
6.25" Hollow Stem Auger Drill	\$22		foot	\$770.
6" Air Rotary Drill	\$33		foot	\$990.
Well Installation	\$18.5		foot	\$2,405.
Flush Covers	\$225		each	\$675.
Decon / Report	\$600		lump	\$600.0
Per Diem	\$225		day	\$450.
Drums	\$65		each	\$585.0
Compressor Rental Air Subtotal Drille	\$950 .r.	'	day	\$950.0
Disposal Contractor	1			\$9,625.
Drum Disposal Set Up	\$100	1	Lump	\$100.
Disposal Charge	\$100 \$150		drum	\$1,350.
Transport	\$250		lump	\$250.0
Subtotal Disposa		'	۹ه	\$1,700.
Laboratory				. ,
Groundwater 17 + 25 VOC / 8 Methane		42	each	\$2,100.
Groundwater 17 + 25 VOC / 8 Methane Groundwater VOCs	\$50.00			A400
Groundwater 17 + 25 VOC / 8 Methane Groundwater VOCs Methane, Ethane, Ethene	\$50.00	8	each	
Groundwater 17 + 25 VOC / 8 Methane Groundwater VOCs	\$50.00		each	\$400.0 <b>\$2,500.</b> 0
Groundwater 17 + 25 VOC / 8 Methane Groundwater VOCs Methane, Ethane, Ethene Subtotal Lat	\$50.00	8		\$2,500.
Groundwater 17 + 25 VOC / 8 Methane Groundwater VOCs Methane, Ethane, Ethene Subtotal Lat	\$50.00			<b>\$2,500.</b> \$18,727.
Groundwater 17 + 25 VOC / 8 Methane Groundwater VOCs Methane, Ethane, Ethene Subtotal Lat	\$50.00	8		