

Mr. Matt Thompson
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Date: April 26, 2021

Our Ref: 30064038

Subject: 3M-Wausau, WI

Rail Lots, Railroad Right-of-Way
Investigation Activities Work Plan
BRRTS Activity #02-37-587000

Dear Mr. Thompson,

On behalf of the 3M Company (3M), Arcadis U.S., inc. (Arcadis) is pleased to provide this Work Plan for the supplemental investigation of arsenic in soil at the three lots which consist of railroad track and right-of-way (ROW) located from Sherman Street to West Thomas Street in Wausau, Marathon County, Wisconsin (the Site, **Figure 1**). The purpose of this Work Plan is to describe the scope of work proposed to address the requirements outlined in the Wisconsin Department of Natural Resources (WDNR) letter dated February 26, 2021. *Please note the WDNR letter states the Bureau for Remediation and Redevelopment Tracking System (BRRTS) Activity # for the Site is BRRTS Activity #02-37-375870; however, the BRRTS on the Web Activity # for the Site is shown as BRRTS Activity #02-37-587000.*

Site Background

The Site consists of three lots approximately 0.23 acres (Lot 1), 1.74 acres (Lot 2), and 0.29 acres (Lot 3) in size and consists of railroad track and ROW (**Figure 2**). According to historical aerial photographs and topographic maps, the Site appears to have been developed with railroad tracks since 1898. 3M purchased the Site in November 2020.

The Site is surrounded by BRRTS Activity #02-37-000273 (3M Wausau Downtown Parking Lot, Closed) to the west and #02-37-000006 (Wauleco SNE Corp, Open) to the east. The adjacent properties to the east and west of the Site have been owned by 3M since at least 1961 and the current development footprint surrounding the Site has been consistent since at least 1998.

In September 2020, Arcadis conducted a Phase II Environmental Site Assessment (ESA) of the Site to support a property transaction. A total of five soil borings were advanced throughout the Site with three being converted to temporary monitoring wells.

- Soil data was compared to the Natural Resources (NR) 720 Wisconsin Administrative Code (WAC) Direct Contact Industrial (DCI) and Leaching Soil to Groundwater (LSG) screening criteria and the NR720 WAC

Wisconsin Background Threshold Values (BTVs). Groundwater data was compared to the NR140 WAC Enforcement Standards (ES) and Preventive Action Limits (PALs) screening criteria.

- A total of 11 soil samples (10 investigative and 1 duplicate) were collected from the soil borings. Two samples from each soil boring were collected; surface composite sample (0 to 4 feet below ground surface [bgs]) due to recovery amounts and above the water table. The soil samples were submitted for laboratory analysis of a combination of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), Resource Conservation Recovery Act (RCRA) Metals, polychlorinated biphenyls (PCBs), Wisconsin gasoline range organics (WI-GRO), Wisconsin diesel range organics (WI-DRO), total phenols, dioxin-furans, pH, pesticides, and herbicides (**Table 1**).
 - VOCs were detected in five soil samples. All detected concentrations were below the NR720 WAC DCI screening criteria. Benzene exceeded the available NR720 WAC LSG screening criteria in three soil samples. Based on a review of the groundwater analytical results, there were no detections of benzene in the groundwater. Therefore, no further evaluation of benzene in soil is anticipated.
 - SVOCs were detected in nine soil samples. All detected concentrations were below the available NR720 WAC DCI screening criteria. Benzo(b)fluoranthene, bis(2-ethylhexyl)phthalate, and chrysene exceeded the available NR720 WAC LSG screening criteria in four soil samples. Based on a review of the groundwater analytical results, there were no detections of benzo(b)fluoranthene, bis(2-ethylhexyl)phthalate, and chrysene in the groundwater. Therefore, no further evaluation of benzo(b)fluoranthene, bis(2-ethylhexyl)phthalate, and chrysene in soil is anticipated.
 - RCRA Metals were detected in 11 soil samples.
 - Arsenic (As) exceeded the NR720 WAC DCI screening criteria in four soil samples: SB-01 (0 to 4 feet bgs) at 7.7 milligrams per kilogram (mg/kg), SB-02 (0 to 4 feet bgs) at 3.3 mg/kg, SB-04 (0 to 4 feet bgs) at 55 mg/kg, and SB-05 (0 to 4 feet bgs) at 8.6 mg/kg. Arsenic was detected in three groundwater samples; however, all detected groundwater concentrations were below the NR140 WAC ES and PAL screening criteria. The NR720 WAC Wisconsin BTV (Remediation and Redevelopment Program [RR] 106 publication) and Wisconsin Statewide Soil-Arsenic BTV (RR-940 publication) provides a background value of 8 mg/kg for arsenic. The RR-940 publication documents the US Geological Survey surface soil sampling results of 664 locations throughout the State of Wisconsin. Per the RR-940 publication, "...the RR Program has reviewed the report...and concluded that the data set is of sufficient scope and quality to establish a statewide soil-As background threshold value." The RR-940 publication also states "...the RR Program intends to use 8 ppm as the statewide soil-As BTV. It is then reasonable to conclude that any value above 8 ppm could be the result of a hazardous substance discharge."
 - Based on the RR publications, no further investigation is recommended at SB-01 and SB-02.
 - Further investigation is recommended and included in this Work Plan for SB-04 and SB-05 where concentrations exceeded the arsenic BTV.
 - Arsenic, cadmium, lead, and selenium exceeded the NR720 WAC LSG screening criteria in 11 soil samples. Based on a review of the groundwater analytical results, there were no exceedances of the NR 140 WAC ES or PAL for arsenic, cadmium, lead, and selenium in the groundwater. Therefore, no further evaluation of these arsenic, cadmium, lead, and selenium exceedances in the soil is anticipated.

- PCBs were detected in one soil sample. All detected concentrations were below the NR720 WAC DCI screening criteria. Total PCBs exceeded the available NR720 WAC LSG screening criteria in one soil sample. Based on a review of the groundwater analytical results, there were no detections of total PCBs in the groundwater. Therefore, no further evaluation of total PCBs in the soil is required.
- WI-GRO were detected in seven soil samples. No NR720 WAC screening criteria exists for WI-GRO.
- WI-DRO were detected in four soil samples. No NR720 WAC screening criteria exists for WI-DRO.
- Total Phenols were detected in five soil samples. No NR720 WAC screening criteria exists for total phenols.
- Dioxin-furans were detected in seven soil samples. All detected concentrations were below the available NR720 WAC DCI and LSG screening criteria.
- Pesticides were detected in one soil sample. All detected concentrations were below the available NR720 WAC DCI and LSG screening criteria.
- Herbicides were not detected in any soil samples. All concentrations were below the method detection limits.
- pH results ranged from 5.6 to 8.1 standard units (S.U.).
- A total of four groundwater samples (three investigative and one duplicate) were collected from the three temporary monitoring wells and submitted for laboratory analysis of VOCs, SVOCs, RCRA Metals, PCBs, WI-GRO, WI-DRO, total phenols, dioxin-furans, pH, pesticides, and herbicides (**Table 2**).
 - VOCs, SVOCs, PCBs, WI-GRO, total phenols, pesticides, and herbicides were not detected in any samples. All concentrations were below the method detection limits.
 - RCRA Metals were detected in four samples. All detected concentrations were below the NR140 WAC ES and PAL screening criteria.
 - WI-DRO was detected in three samples. No NR140 WAC screening criteria exists for WI-DRO.
 - Dioxin-furans were detected in four samples. All detected concentrations were below the available NR140 WAC ES and PAL screening criteria.
 - pH results ranged from 6.7 to 7.2 S.U.

Based on the property transaction completed between 3M and Canadian National Railway in November 2020, 3M is the current owner of the Site and has agreed to work with the WDNR to address concerns with the arsenic exceedances at SB-04 (0 to 4 feet bgs) at 55 mg/kg and SB-05 (0 to 4 feet bgs) at 8.6 mg/kg. The *Notification for Hazardous Substance Discharge (Non-Emergency Only) Form 4400-225* (WDNR Notification Form) was submitted to the WDNR on December 18, 2020 by 3M. The WDNR Notification Form included a site map, soil and groundwater analytical result tables, laboratory reports, and identified the arsenic exceedances at SB-04 (0 to 4 feet bgs) and SB-05 (0 to 4 feet bgs) as the reason for the submittal.

The purpose of this Work Plan is to describe the scope of work proposed to address the requirements outlined under *Required Steps #1 Scoping and Work Plan Submittal*, in the WDNR letter dated February 26, 2021, due April 27, 2021. As outlined in the WDNR letter, a technical assistance fee-based review of this Work Plan is being requested of WDNR. The *Technical Assistance, Environmental Liability Clarification or Post-Closure Modification*

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Request Form 4400-237 is included as **Attachment 1**. A \$700 check will be submitted and the supplemental investigation will be initiated within 60 days after receiving WDNR approval of this Work Plan.

Proposed Scope of Work

Soil Sampling

Arcadis proposes to advance up to 12 new soil borings at the Site via direct push to depths of 4 feet bgs at each proposed soil boring location. Five initial soil borings will be advanced laterally approximately 5 to 35 feet from SB04 and SB-05 completed in September 2020. Seven supplemental soil borings may be advanced laterally if deemed appropriate based on the field screening of soils. The soil borings for further investigation will be contained within the parcel boundaries of the Site (rail lots). Soil borings will not be advanced on neighboring properties due to the BRRTS status (3M Wausau Downtown Parking Lot, Closed #02-37-000273 to the west and Wauleco SNE Corp, Open, #02-37-000006 to the east).

Initial Soil Borings

The five initial proposed soil boring locations are presented on **Figure 3**. The sampling rationale for the proposed locations is described below.

- SB-04 – Four initial soil borings are proposed north, south, east, and west of SB-04. Based on the September 2020 analytical results for arsenic (55 mg/kg), additional investigation near this location is warranted.
- SB-05 – One initial soil boring is proposed within 5-feet of SB-05. Based on the September 2020 analytical results for arsenic (8.6 mg/kg), a soil boring will be advanced to re-sample this location.

Arcadis will subcontract a local contractor to complete the drilling. The subsurface at each location will be “cleared” for any utilities by a line locator service, ground penetrating radar, and/or public locator services. Soil cores will be logged using the Unified Soil Classification System and screened in the field by an Arcadis scientist or engineer using a handheld x-ray fluorescence (XRF) analyzer. Two soil samples (0 to 2 feet bgs and 2 to 4 feet bgs) per soil boring will be collected and submitted for laboratory analysis of arsenic using Method 6010B.

Supplemental Soil Borings (if necessary)

The results of the XRF field screening will be used to determine if supplemental soil borings are completed. If supplemental soil borings are advanced, the soil samples will be submitted to the laboratory and will only be analyzed as needed pending the results from the initial soil boring locations.

Vapor Intrusion

Per the WDNR RR-800 publication and the use of the U.S. Environmental Protection Agency Vapor Intrusion Screening Level, arsenic is *not considered sufficiently volatile and toxic to pose inhalation risk via vapor intrusion from a soil and groundwater source*. Therefore, a vapor intrusion investigation will not be conducted at the Site.

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Reporting

Upon receipt of the sample data, Arcadis will prepare a site investigation report to document the soil sampling results and data interpretation. Based on the findings, the site investigation report will include recommendations to secure site closure or conduct additional activities, if warranted. If site closure is warranted based on the data evaluation, a closure request will be submitted to the WDNR.

Closing

Should you have any questions relating to the information presented herein, please feel free to call me at your earliest convenience.

Sincerely,
Arcadis U.S., Inc.



Trena Seilheimer
Certified Project Manager



Jennine Trask, PE
Account Manager

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CC. Mr. Kevin Madson (3M Company)

Enclosures:

- Table 1 – Summary of Soil Analytical Results (September 2020)
- Table 2 – Summary of Groundwater Analytical Results (September 2020)
- Figure 1 – Site Location Map
- Figure 2 – Site Layout Map
- Figure 3 – Proposed Soil Boring Location Map
- Attachment 1 – Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request Form 4400-237

Tables

Table 1
Summary of Soil Analytical Results
3M Company
CN Lots
Wausau, WI

Chemical Name	NR720 Wisconsin Administrative Code Screening Criteria		Location ID	SB-01/TW-01	SB-01/TW-01	SB-01/TW-01	SB-02	SB-02	SB-03/TW-02	SB-03/TW-02	SB-04	SB-04	SB-05/TW-03	SB-05/TW-03
	Direct Contact Industrial	Leaching Soil to Groundwater	Sample ID	SB-01 (0-4)	SB-01 (28-31)	DUP-01 (092620)	SB-02 (0-4)	SB-02 (24-26)	SB-03 (0-4)	SB-03 (24-27.5)	SB-04 (0-4)	SB-04 (24-26)	SB-05 (0-4)	SB-05 (29-31.5)
			Sample Date	9/26/2020	9/26/2020	9/26/2020	9/30/2020	9/30/2020	9/26/2020	9/26/2020	9/26/2020	9/30/2020	9/30/2020	9/30/2020
	Sample Depth	0-4 ft bgs	28-31 ft bgs	28-31 ft bgs	0-4 ft bgs	24-26 ft bgs	0-4 ft bgs	24-27.5 ft bgs	0-4 ft bgs	24-26 ft bgs	0-4 ft bgs	29-31.5 ft bgs		
Dioxin/Furans (Method EPA 1613B)														
1,2,3,4,6,7,8-HpCDD	2190	--	pg/g	21 B	0.46 JB	0.95 JqB	NA	NA	67 B	3.5 JB	NA	NA	230 B	0.11 JB
1,2,3,4,6,7,8-HpCDF	2220	--	pg/g	6.5 B	0.18 JqB	0.43 JB	NA	NA	8.2 B	0.39 JqB	NA	NA	69 B	0.18 JqB
1,2,3,4,7,8,9-HpCDF	2220	--	pg/g	0.71 JqB	< 0.022	0.21 JqB	NA	NA	0.66 JB	< 0.030	NA	NA	3.1 J	< 0.035
1,2,3,4,7,8-HxCDD	223	--	pg/g	0.85 JB	0.27 JB	0.29 JqB	NA	NA	0.46 JB	< 0.033	NA	NA	2.7 J	0.20 Jq
1,2,3,4,7,8-HxCDF	220	--	pg/g	0.85 J	< 0.041	0.20 J	NA	NA	0.32 Jq	< 0.055	NA	NA	4.4 J	< 0.070
1,2,3,6,7,8-HxCDD	223	--	pg/g	1.4 J	< 0.034	0.18 Jq	NA	NA	1.9 J	< 0.042	NA	NA	9.3	< 0.048
1,2,3,6,7,8-HxCDF	220	--	pg/g	0.89 J	< 0.036	0.23 Jq	NA	NA	0.33 J	< 0.049	NA	NA	3.7 J	< 0.062
1,2,3,7,8,9-HxCDD	223	--	pg/g	0.91 JB	< 0.028	< 0.030	NA	NA	0.87 JB	0.082 JB	NA	NA	5.2 J	< 0.044
1,2,3,7,8,9-HxCDF	223	--	pg/g	0.44 J	< 0.028	0.29 J	NA	NA	< 0.13	< 0.042	NA	NA	< 0.41	0.049 J
1,2,3,7,8-PeCDD	22.3	--	pg/g	< 0.15	< 0.097	< 0.11	NA	NA	< 0.14	< 0.10	NA	NA	0.99 Jq	< 0.047
1,2,3,7,8-PeCDF	744	--	pg/g	< 0.18	< 0.049	< 0.060	NA	NA	< 0.094	< 0.050	NA	NA	< 0.58	0.072 Jq
2,3,4,6,7,8-HxCDF	223	--	pg/g	0.82 Jq	< 0.030	0.20 J	NA	NA	0.33 J	< 0.041	NA	NA	3.0 J	< 0.037
2,3,4,7,8-PeCDF	74.4	--	pg/g	0.52 Jq	< 0.053	< 0.071	NA	NA	< 0.10	< 0.059	NA	NA	1.6 J	< 0.038
2,3,7,8-TCDD	21.8	30	pg/g	< 0.21	< 0.15	< 0.15	NA	NA	< 0.18	< 0.13	NA	NA	0.35 Jq	< 0.038
2,3,7,8-TCDF	219	--	pg/g	0.61 J	< 0.071	< 0.084	NA	NA	< 0.11	< 0.068	NA	NA	0.78 JB	0.066 JB
OCDD	74400	--	pg/g	130 B	2.7 JB	6.7 JB	NA	NA	850 B	41 B	NA	NA	1800 B	1.3 JB
OCDF	74400	--	pg/g	13 B	0.79 JB	1.1 JB	NA	NA	40 B	1.8 JB	NA	NA	140 B	0.52 JBq
Total HpCDD	--	--	pg/g	40 B	0.98 JB	2.1 JqB	NA	NA	360 B	21 B	NA	NA	560 B	0.28 JBq
Total HpCDF	--	--	pg/g	17 qB	0.32 JqB	0.98 JqB	NA	NA	31 B	1.3 JqB	NA	NA	180 B	0.18 JBq
Total HxCDD	--	--	pg/g	7.2 B	0.27 JB	0.46 JqB	NA	NA	12 qB	0.43 JqB	NA	NA	68	0.20 Jq
Total HxCDF	--	--	pg/g	16 q	< 0.041	0.91 Jq	NA	NA	7.9 q	0.21 Jq	NA	NA	96	< 0.051
Total PeCDD	--	--	pg/g	< 0.26	< 0.097	< 0.11	NA	NA	< 0.14	< 0.10	NA	NA	21 q	< 0.047
Total PeCDF	--	--	pg/g	17 q	< 0.053	< 0.21	NA	NA	1.0 Jq	< 0.17	NA	NA	69	0.16 Jq
Total TCDD	--	--	pg/g	2.2	< 0.15	< 0.15	NA	NA	< 0.18	< 0.13	NA	NA	13 q	< 0.038
Total TCDF	--	--	pg/g	5.3 q	< 0.071	< 0.084	NA	NA	< 0.11	< 0.068	NA	NA	23 qB	0.11 JqB
Total Phenols (Method MCAWW 420.4)														
Phenolics, Total	--	--	mg/kg	2.5	1.3	0.72	NA	NA	< 0.42	0.52	NA	NA	0.66	< 0.40
RCRA Metals (Method SW846 6020A/6010C/7470A/7471B)¹														
Arsenic	3	0.584	mg/kg	7.7	0.99	1.2	3.3	1.1	1.8	1	55	0.63 J	8.6	1.7
Barium	100000	164.8	mg/kg	53	18	17	120	32	59	22 V	95	12	95	56
Cadmium	985	0.752	mg/kg	< 0.038	< 0.034	< 0.033	0.76	< 0.033	0.079 J	< 0.035	0.38	< 0.032	0.45	< 0.036
Chromium	--	360000	mg/kg	15	11	11	69	20	13	18 F1	24	6.9	24	23
Lead	800	27	mg/kg	35	1.6	1.7	41	4.2	8.9	1.7	48	1.1	87	3.7
Selenium	5840	0.52	mg/kg	1.9	< 0.56	< 0.54	0.94 J	0.68 J	< 0.55	< 0.57	1.0 J	< 0.52	0.81 J	< 0.59
Silver	5840	0.849	mg/kg	< 0.13	< 0.12	< 0.12	0.34 J	0.22 J	< 0.12	< 0.13	0.19 J	0.16 J	0.24 J	0.34 J
Mercury	3.13	0.208	mg/kg	0.023	< 0.0051	< 0.0052	0.021	< 0.0052	0.013 J	< 0.0053	0.029	< 0.0053	0.061	< 0.0058
Pesticides (Method SW846 8081B)														
4,4'-DDE	9380	--	µg/kg	< 1.5	< 0.28	< 0.28	NA	NA	< 0.30	< 0.28	NA	NA	4	< 0.29
4,4'-DDT	8530	--	µg/kg	< 4.8	< 0.90	< 0.89	NA	NA	< 0.94	< 0.89 F1	NA	NA	21	< 0.92
cis-Chlordane	--	--	µg/kg	< 4.6	< 0.86	< 0.86	NA	NA	< 0.91	< 0.86	NA	NA	2.1	< 0.88
Endrin aldehyde	--	--	µg/kg	< 1.5	< 0.29	< 0.29	NA	NA	< 0.30	< 0.28	NA	NA	3.4	< 0.29
Heptachlor epoxide	338	8.16	µg/kg	< 3.2	< 0.61	< 0.60	NA	NA	< 0.64	< 0.60	NA	NA	2.9	< 0.62
trans-Chlordane	--	--	µg/kg	< 2.4	< 0.45	< 0.44	NA	NA	< 0.47	< 0.44	NA	NA	1.8	< 0.46
PCBs (Method SW846 8082A)														
PCB-1260	1000	--	µg/kg	< 8.9	< 8.4	< 8.3	NA	NA	< 8.8	< 8.3	NA	NA	52 / 50	< 8.6
PCBs, Total	967	9.384	µg/kg	< 3.5	< 3.3	< 3.2	NA	NA	< 3.4	< 3.2	NA	NA	52 / 50	< 3.3

Table 1
Summary of Soil Analytical Results
3M Company
CN Lots
Wausau, WI

Chemical Name	NR720 Wisconsin Administrative Code Screening Criteria		Location ID	SB-01/TW-01	SB-01/TW-01	SB-01/TW-01	SB-02	SB-02	SB-03/TW-02	SB-03/TW-02	SB-04	SB-04	SB-05/TW-03	SB-05/TW-03
	Direct Contact Industrial	Leaching Soil to Groundwater	Sample ID	SB-01 (0-4)	SB-01 (28-31)	DUP-01 (092620)	SB-02 (0-4)	SB-02 (24-26)	SB-03 (0-4)	SB-03 (24-27.5)	SB-04 (0-4)	SB-04 (24-26)	SB-05 (0-4)	SB-05 (29-31.5)
			Sample Date	9/26/2020	9/26/2020	9/26/2020	9/30/2020	9/30/2020	9/26/2020	9/26/2020	9/26/2020	9/30/2020	9/30/2020	9/30/2020
	Unit	Unit	0-4 ft bgs	28-31 ft bgs	28-31 ft bgs	0-4 ft bgs	24-26 ft bgs	0-4 ft bgs	24-27.5 ft bgs	0-4 ft bgs	24-26 ft bgs	0-4 ft bgs	29-31.5 ft bgs	
VOCs (Method SW846 8260B)														
1,2,4-Trimethylbenzene	219000	--	µg/kg	54 J	< 32	< 35	210	47 J	< 33	< 32	57 J	< 35	< 39	< 32
1,3,5-Trimethylbenzene	182000	--	µg/kg	< 41	< 34	< 38	56 J	< 34	< 35	< 34	< 41	< 37	< 41	< 34
Benzene	7070	5.12	µg/kg	< 16	< 13	< 14	130 B	32 B	< 13	< 13	48 B	< 14	< 16	< 13
Ethylbenzene	35400	1570	µg/kg	< 20	< 16	< 18	140	36	< 17	< 17	< 20	< 18	< 20	< 16
Isopropylbenzene	268000	--	µg/kg	< 41	< 34	< 38	98 J	< 34	< 35	< 35	< 41	< 37	< 41	< 35
n-Butylbenzene	108000	--	µg/kg	< 42	< 35	< 38	46 J	< 34	< 36	< 35	< 41	< 38	< 42	< 35
N-Propylbenzene	264000	--	µg/kg	< 44	< 37	< 41	140	< 37	< 38	< 37	< 44	< 40	< 45	< 37
Toluene	818000	1107.2	µg/kg	23 J	< 13	< 15	560	120	< 14	< 13	130	< 14	39	< 13
Xylenes, Total	260000	3960	µg/kg	79	< 20	< 22	780	170	< 20	< 20	150	< 21	110	< 20
SVOCs (Method SW846 8270D)														
1-Methylnaphthalene	72700	--	µg/kg	190 J	< 8.3	< 8.3	120	87	16 J	< 8.3 F1	58 J	< 8.3	35 J	< 8.1
2-Methylnaphthalene	3010000	--	µg/kg	200 J	< 6.3	< 6.2	160 *	110 *	20 J	< 6.3 F1	80 *	< 6.2 *	46 J*	< 6.1 *
Acenaphthene	45200000	--	µg/kg	< 33	< 6.1	< 6.1	16 J	< 6.1	< 6.4	< 6.1	< 6.4	< 6.1	6.9 J	< 6.0
Acenaphthylene	--	--	µg/kg	150 J	< 4.5	< 4.5	29 J	< 4.5	16 J	< 4.5	27 J	< 4.5	33 J	< 4.4
Anthracene	100000000	196949.153	µg/kg	110 J	< 5.7	< 5.7	68	< 5.7	24 J	< 5.7	39	< 5.6	45	< 5.6
Benzo[a]anthracene	20800	--	µg/kg	370	7.3 J	< 4.6	280	18 J	42	< 4.6	140	< 4.5	170	< 4.5
Benzo[a]pyrene	2110	470	µg/kg	460	7.1 J	< 6.5	200	15 J	50	< 6.6	150	< 6.5	190	< 6.5
Benzo[b]fluoranthene	21100	478.088	µg/kg	640	9.0 J	7.5 J	370	14 J	97	< 7.3	320	< 7.3	370	< 7.2
Benzo[g,h,i]perylene	--	--	µg/kg	250	< 11	< 11	120	33 J	41	< 11 F1	110	< 11	120	< 11
Benzo[k]fluoranthene	211000	--	µg/kg	220	10 J	< 10	110	11 J	32 J	< 10	88	< 10	130	< 9.8
Benzoic acid	100000000	--	µg/kg	2400 J	< 340	430 J	< 350	< 340	460 J	430 JF1	1500 J	< 340	490 J	< 330
Bis(2-ethylhexyl) phthalate	164000	2880	µg/kg	< 330	< 62	< 62	< 64	< 62	< 65	< 62	930	< 62	4600	< 61
Chrysene	2110000	144.223	µg/kg	430	9.7 J	< 9.2	320	20 J	56	< 9.3	240	< 9.2	240	< 9.1
Dibenz(a,h)anthracene	2110	--	µg/kg	70 J	< 6.6	< 6.5	52	< 6.6	9.4 J	< 6.6	46	< 6.5	43	< 6.4
Dibenzofuran	1040000	--	µg/kg	< 210	< 40	< 40	49 J	< 40	< 42	< 40	< 42	< 40	< 42	< 39
Fluoranthene	30100000	88877.805	µg/kg	580	13 J	7.2 J	400	20 J	77	< 6.3	370	< 6.3	470	< 6.2
Fluorene	30100000	14829.932	µg/kg	< 26	< 4.8	< 4.8	27 J	16 J	< 5.0	< 4.8	19 J	< 4.8	22 J	< 4.7
Indeno[1,2,3-cd]pyrene	21100	--	µg/kg	230	< 8.8	< 8.8	81	< 8.8	34 J	< 8.8	75	< 8.8	82	< 8.6
Naphthalene	24100	658.182	µg/kg	170 J	< 5.2	< 5.2	170	96	14 J	< 5.2 F1	51	< 5.2	37	< 5.1
Phenanthrene	--	--	µg/kg	480	6.8 J	< 4.7	270	48	32 J	< 4.7	130	< 4.7	200	< 4.6
Pyrene	22600000	54545.455	µg/kg	550	12 J	7.1 J	450	21 J	78	< 6.8	310	< 6.7	360	< 6.6
pH (Method SW846 9045D)														
pH	--	--	S.U.	5.6	7.1	7.6	NA	NA	7.4	8.1	NA	NA	7.6	7.7
WI DRO/WI GRO (Method WI-DRO, WI-GRO)														
WI DRO (C10-C28)	--	--	mg/kg	21 B	4.7 B	4.8 B	NA	NA	11 B	5.0 B	NA	NA	29 B	6.2 B
WI GRO (C5-C10)	--	--	mg/kg	12	1.6 J	< 0.030	NA	NA	1.8 J	< 1.4	NA	NA	4.9	< 1.4

Qualifier Definitions:

- * - LCS or LCSD outside acceptance limits
- B - compound found in blank and sample
- q - Result estimated maximum possible concentration, quantitated using theoretical ion ratio, measured io ratio does not meet qualitative identification criteria, indicates possible interference
- < - Result < MDL
- V - Serial dilution exceeds control limits
- F1 - MS and/or MSD recovery exceeds control limits
- F2 - MS/MSD RPD exceeds control limits
- J - Result < RL but ≥ to MDL, concentration is approximate value

Acronyms and Abbreviations:

- "-" - no screening criteria
- ft bgs - feet below ground surface
- ID - identification
- LCS - laboratory control sample
- LCSD - laboratory control sample duplicate
- MDL - method detection limit
- mg/kg - milligram per kilogram
- NA - not analyzed
- NR - Natural Resources
- pg/g - picogram per gram
- RL - reporting limit
- S.U. - standard units
- SVOCs - Semivolatile organic compounds
- µg/kg - microgram per kilogram
- VOCs - Volatile organic compounds

Notes:

1 - NR720 Background Threshold Values: Arsenic (8 mg/kg), Barium (364 mg/kg), Cadmium (1 mg/kg), Chromium Total (44 mg/kg), Lead (52 mg/kg)

Result exceeds Leaching Soil to Groundwater screening criteria **Result exceeds NR720 WAC Leaching Soil to Groundwater and Direct Contact Industrial screening criteria outlined**

Table only shows chemicals with a detection

Table 2
Summary of Groundwater Analytical Results
3M Company
CN Lots
Wausau, WI

Chemical Name	NR140 Wisconsin Administrative Code Screening Criteria		Location ID	SB-01/TW-01	SB-03/TW-02	SB-03/TW-02	SB-05/TW-03
	Enforcement Standard	Preventive Action Limit	Sample ID	TW-01 (092720)	TW-02 (092720)	DUP-01 (092720)	TW-03 (093020)
			Sample Date Unit	9/27/2020	9/27/2020	9/27/2020	9/30/2020
Dioxin/Furans (Method EPA 1613B)							
1,2,3,4,6,7,8-HpCDD	--	--	pg/L	1.3 JqB	11 JB	1.3 JB	1.5 JBq
1,2,3,4,6,7,8-HpCDF	--	--	pg/L	< 0.26	17 JB	1.4 JqB	0.92 JBq
1,2,3,4,7,8,9-HpCDF	--	--	pg/L	0.81 JqB	14 JB	0.84 JB	0.80 JBq
1,2,3,4,7,8-HxCDD	--	--	pg/L	2.3 JB	6.9 JB	2.2 JB	1.9 JBq
1,2,3,4,7,8-HxCDF	--	--	pg/L	< 0.59	6.1 JB	< 0.47	< 0.66
1,2,3,6,7,8-HxCDD	--	--	pg/L	< 0.82	5.5 JB	< 0.80	< 0.42
1,2,3,6,7,8-HxCDF	--	--	pg/L	< 0.62	6.2 JB	< 0.51	< 0.62
1,2,3,7,8,9-HxCDD	--	--	pg/L	< 0.71	5.6 JB	< 0.68	< 0.39
1,2,3,7,8,9-HxCDF	--	--	pg/L	1.0 JqB	5.9 JB	< 0.36	0.84 JBq
1,2,3,7,8-PeCDD	--	--	pg/L	< 0.56	3.6 JqB	< 0.56	< 0.52
1,2,3,7,8-PeCDF	--	--	pg/L	0.83 JB	3.7 JB	0.77 JB	< 0.37
2,3,4,6,7,8-HxCDF	--	--	pg/L	< 0.71	5.6 JB	< 0.55	< 0.37
2,3,4,7,8-PeCDF	--	--	pg/L	< 0.46	4.0 JB	< 0.42	< 0.38
2,3,7,8-TCDD	30	3	pg/L	< 0.47	< 0.44	< 0.43	1.8 JBq
2,3,7,8-TCDF	--	--	pg/L	< 0.29	1.2 JB	< 0.26	5.3 JB
OCDD	--	--	pg/L	4.7 JB	31 JB	4.6 JB	7.3 JB
OCDF	--	--	pg/L	3.1 JB	120 B	3.6 JB	3.1 JBq
Total HpCDD	--	--	pg/L	2.9 JqB	15 JB	1.3 JB	3.1 JBq
Total HpCDF	--	--	pg/L	0.81 JqB	39 JB	2.2 JqB	1.7 JBq
Total HxCDD	--	--	pg/L	2.3 JB	18 JB	2.2 JB	1.9 JBq
Total HxCDF	--	--	pg/L	1.0 JqB	24 JB	< 0.55	0.84 JBq
Total PeCDD	--	--	pg/L	< 0.56	3.6 JqB	< 0.56	< 0.52
Total PeCDF	--	--	pg/L	0.83 JB	7.7 JB	0.77 JB	< 0.39
Total TCDD	--	--	pg/L	5.2 JqB	3.8 JB	5.1 JB	8.3 JBq
Total TCDF	--	--	pg/L	< 0.29	1.2 JB	< 0.26	9.9 JBq
RCRA Metals (Method SW846 6020A/6010C/7470A/7471B)							
Arsenic	10	1	µg/L	< 0.23	0.57 J	0.84 J	0.32 J
Barium	2000	400	µg/L	28	180	180	160
Chromium	100	10	µg/L	< 1.1	3.6 J	8.4	< 1.1
Lead	15	1.5	µg/L	< 0.19	0.54	1	0.91
Selenium	50	10	µg/L	< 0.98	2.1 J	2.2 J	< 0.98
pH (Method SW846 9045D)							
pH	--	--	S.U.	6.7 HF	6.7 HF	6.7 HF	7.2 HF
WI DRO (Method WI-DRO)							
WI DRO (C10-C28)	--	--	mg/L	0.56	0.3	0.42	< 0.036

Qualifier Definitions:

B - compound found in blank and sample

HF - field parameter with holding time of 15 minutes, test performed as requested

J - Result < RL but ≥ to MDL, concentration is approximate value

q - Result estimated maximum possible concentration, quantitated using theoretical ion ratio, measured io ratio does not meet qualitative identification criteria, indicates possible interference

< - Result < MDL

Acronyms and Abbreviations:

"--" - no screening criteria

ID - identification

MDL - method detection limit

mg/L - milligram per liter

pg/L - picogram per liter

RL - reporting limit

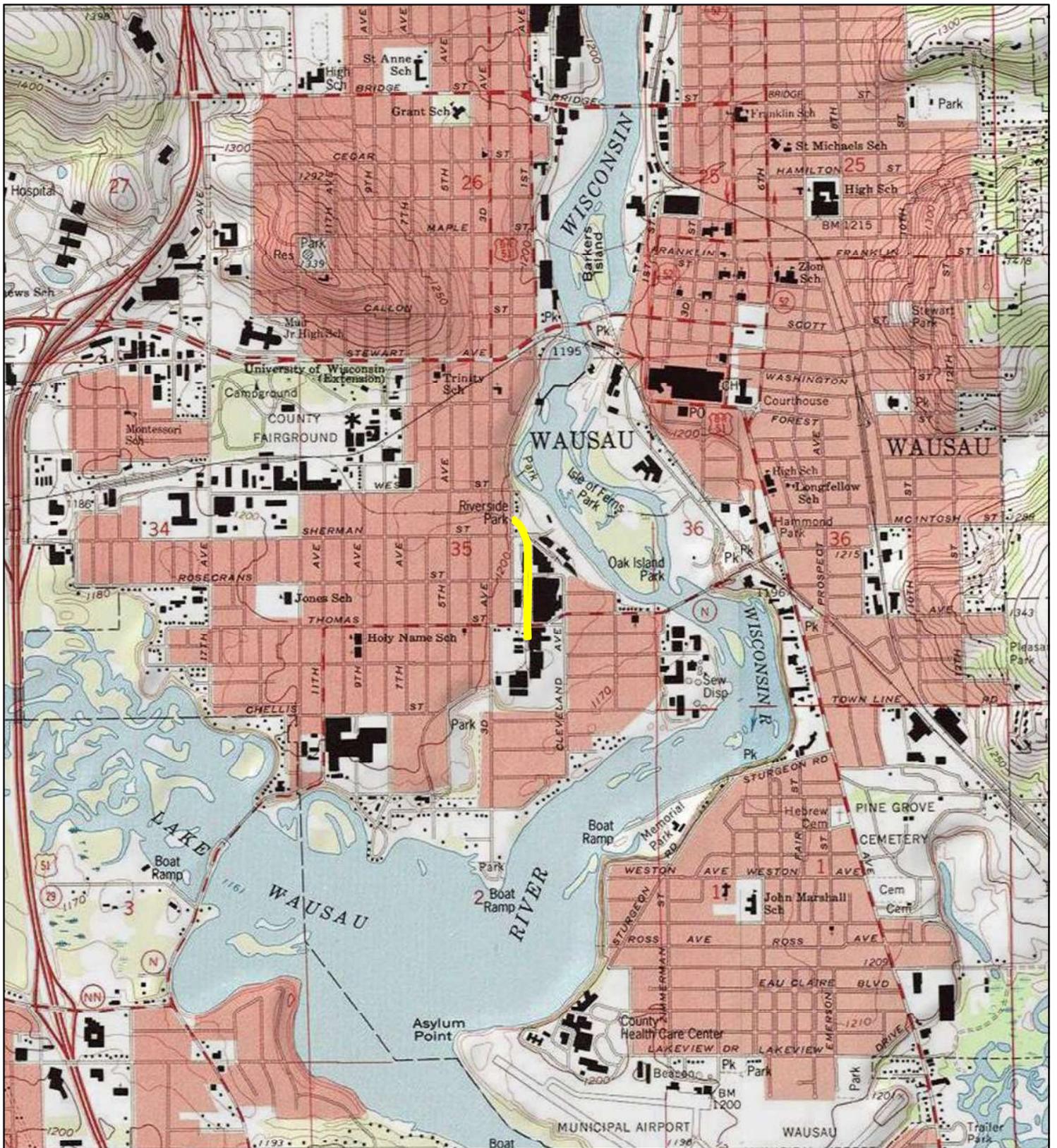
S.U. - standard units

µg/L - microgram per liter

Notes:

Table only shows chemicals with a detection

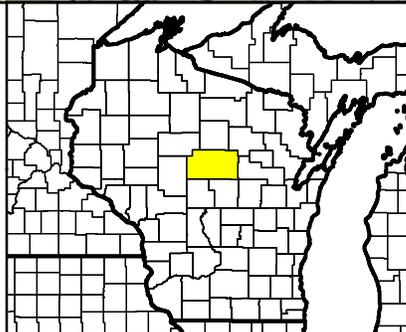
Figures



Legend
 Lot Boundary



0 2,000 4,000
 Feet



**3M COMPANY
 RAIL LOTS
 WAUSAU, MARATHON COUNTY, WI**

SITE LOCATION MAP



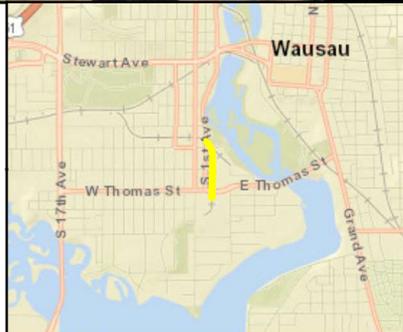
FIGURE
1



Legend
 Lot Boundary



0 230 460
 Feet



**3M COMPANY
 RAIL LOTS
 WAUSAU, MARATHON COUNTY, WI**

SITE LAYOUT MAP



FIGURE
2



Legend

-  Additional Sampling Location
-  Sampling Location
-  Lot Boundary



<p>3M COMPANY RAIL LOTS WAUSAU, MARATHON COUNTY, WI</p>	
<p>PROPOSED SOIL BORING LOCATION MAP</p>	
	<p>FIGURE 3</p>

Attachment 1

**Technical Assistance, Environmental Liability Clarification or
Post-Closure Modification Request Form 4400-237**

Notice: Use this form to request a **written response (on agency letterhead)** from the Department of Natural Resources (DNR) regarding technical assistance, a post-closure change to a site, a specialized agreement or liability clarification for Property with known or suspected environmental contamination. A fee will be required as is authorized by s. 292.55, Wis. Stats., and NR 749, Wis. Adm. Code., unless noted in the instructions below. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

Definitions

"Property" refers to the subject Property that is perceived to have been or has been impacted by the discharge of hazardous substances.

"Liability Clarification" refers to a written determination by the Department provided in response to a request made on this form. The response clarifies whether a person is or may become liable for the environmental contamination of a Property, as provided in s. 292.55, Wis. Stats.

"Technical Assistance" refers to the Department's assistance or comments on the planning and implementation of an environmental investigation or environmental cleanup on a Property in response to a request made on this form as provided in s. 292.55, Wis. Stats.

"Post-closure modification" refers to changes to Property boundaries and/or continuing obligations for Properties or sites that received closure letters for which continuing obligations have been applied or where contamination remains. Many, but not all, of these sites are included on the GIS Registry layer of RR Sites Map to provide public notice of residual contamination and continuing obligations.

Select the Correct Form

This form should be used to request the following from the DNR:

- Technical Assistance
- Liability Clarification
- Post-Closure Modifications
- Specialized Agreements (tax cancellation, negotiated agreements, etc.)

Do **not** use this form if one of the following applies:

- Request for an **off-site liability exemption or clarification** for Property that has been or is perceived to be contaminated by one or more hazardous substances that originated on another Property containing the source of the contamination. Use DNR's Off-Site Liability Exemption and Liability Clarification Application Form 4400-201.
- Submittal of an Environmental Assessment for the **Lender Liability Exemption**, s. 292.21, Wis. Stats., **if no response or review by DNR is requested**. Use the Lender Liability Exemption Environmental Assessment Tracking Form 4400-196.
- Request for an **exemption to develop on a historic fill site** or licensed landfill. Use DNR's Form 4400-226 or 4400-226A.
- **Request for closure** for Property where the investigation and cleanup actions are completed. Use DNR's Case Closure - GIS Registry Form 4400-202.

All forms, publications and additional information are available on the internet at: dnr.wi.gov/topic/Brownfields/Pubs.html.

Instructions

1. Complete sections 1, 2, 6 and 7 for all requests. Be sure to provide adequate and complete information.
2. Select the type of assistance requested: Section 3 for technical assistance or post-closure modifications, Section 4 for a written determination or clarification of environmental liabilities; or Section 5 for a specialized agreement.
3. Include the fee payment that is listed in Section 3, 4, or 5, unless you are a "Voluntary Party" enrolled in the Voluntary Party Liability Exemption Program **and** the questions in Section 2 direct otherwise. Information on to whom and where to send the fee is found in Section 8 of this form.
4. Send the completed request, supporting materials and the fee to the appropriate DNR regional office where the Property is located.

See the map on the last page of this form. A paper copy of the signed form and all reports and supporting materials shall be sent with an electronic copy of the form and supporting materials on a compact disk. For electronic document submittal requirements see: <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>

The time required for DNR's determination varies depending on the complexity of the site, and the clarity and completeness of the request and supporting documentation.

Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

Page 2 of 5

Section 1. Contact and Recipient Information

Requester Information

This is the person requesting technical assistance or a post-closure modification review, that his or her liability be clarified or a specialized agreement and is identified as the requester in Section 7. DNR will address its response letter to this person.

Last Name Meurette	First Mark	MI	Organization/ Business Name 3M Company
Mailing Address 144 Rosecrans Street		City Wausau	State WI
			ZIP Code 54401
Phone # (include area code) (715) 845-0282	Fax # (include area code)	Email mmeurette@mmm.com	

The requester listed above: (select all that apply)

- Is currently the owner
 Is considering selling the Property
 Is renting or leasing the Property
 Is considering acquiring the Property
 Is a lender with a mortgagee interest in the Property
 Other. Explain the status of the Property with respect to the applicant:

Contact Information (to be contacted with questions about this request)

Select if same as requester

Contact Last Name Meurette	First Mark	MI	Organization/ Business Name 3M Company
Mailing Address 144 Rosecrans Street		City Wausau	State WI
			ZIP Code 54401
Phone # (include area code) (715) 845-0282	Fax # (include area code)	Email mmeurette@mmm.com	

Environmental Consultant (if applicable)

Contact Last Name Seilheimer	First Trenna	MI	Organization/ Business Name Arcadis U.S., Inc.
Mailing Address 126 North Jefferson Street, Suite 400		City Milwaukee	State WI
			ZIP Code 53202
Phone # (include area code) (414) 277-6262	Fax # (include area code)	Email trenna.seilheimer@arcadis.com	

Section 2. Property Information

Property Name Rail Lots (former CN/WCL Railroad Track) - Between S 1st Ave and W Thomas St	FID No. (if known)		
BRRTS No. (if known) 02-37-587000	Parcel Identification Number		
Street Address S 1st Ave/E Sherman St, E Sherman St/W Thomas St	City Wausau	State WI	ZIP Code 54401
County Marathon	Municipality where the Property is located <input checked="" type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village of Wausau	Property is composed of: <input type="radio"/> Single tax parcel <input checked="" type="radio"/> Multiple tax parcels	Property Size Acres 2

Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

Page 3 of 5

1. Is a response needed by a specific date? (e.g., Property closing date) Note: Most requests are completed within 60 days. Please plan accordingly.

- No Yes

Date requested by: _____

Reason: _____

2. Is the "Requester" enrolled as a Voluntary Party in the Voluntary Party Liability Exemption (VPLE) program?

- No. **Include the fee that is required for your request in Section 3, 4 or 5.**
 Yes. **Do not include a separate fee.** This request will be billed separately through the VPLE Program.

Fill out the information in Section 3, 4 or 5 which corresponds with the type of request:

Section 3. Technical Assistance or Post-Closure Modifications;

Section 4. Liability Clarification; or Section 5. Specialized Agreement.

Section 3. Request for Technical Assistance or Post-Closure Modification

Select the type of technical assistance requested: [Numbers in brackets are for WI DNR Use]

- No Further Action Letter (NFA) (Immediate Actions) - NR 708.09, [183] - **Include a fee of \$350.** Use for a written response to an immediate action after a discharge of a hazardous substance occurs. Generally, these are for a one-time spill event.
- Review of Site Investigation Work Plan - NR 716.09, [135] - **Include a fee of \$700.**
- Review of Site Investigation Report - NR 716.15, [137] - **Include a fee of \$1050.**
- Approval of a Site-Specific Soil Cleanup Standard - NR 720.10 or 12, [67] - **Include a fee of \$1050.**
- Review of a Remedial Action Options Report - NR 722.13, [143] - **Include a fee of \$1050.**
- Review of a Remedial Action Design Report - NR 724.09, [148] - **Include a fee of \$1050.**
- Review of a Remedial Action Documentation Report - NR 724.15, [152] - **Include a fee of \$350**
- Review of a Long-term Monitoring Plan - NR 724.17, [25] - **Include a fee of \$425.**
- Review of an Operation and Maintenance Plan - NR 724.13, [192] - **Include a fee of \$425.**

Other Technical Assistance - s. 292.55, Wis. Stats. [97] (For request to build on an abandoned landfill use Form 4400-226)

- Schedule a Technical Assistance Meeting - **Include a fee of \$700.**
- Hazardous Waste Determination - **Include a fee of \$700.**
- Other Technical Assistance - **Include a fee of \$700.** Explain your request in an attachment.

Post-Closure Modifications - NR 727, [181]

- Post-Closure Modifications: Modification to Property boundaries and/or continuing obligations of a closed site or Property; sites may be on the GIS Registry. This also includes removal of a site or Property from the GIS Registry. **Include a fee of \$1050, and:**
- Include a fee of \$300 for sites with residual soil contamination; and
- Include a fee of \$350 for sites with residual groundwater contamination, monitoring wells or for vapor intrusion continuing obligations.

Attach a description of the changes you are proposing, and documentation as to why the changes are needed (if the change to a Property, site or continuing obligation will result in revised maps, maintenance plans or photographs, those documents may be submitted later in the approval process, on a case-by-case basis).

Skip Sections 4 and 5 if the technical assistance you are requesting is listed above and complete Sections 6 and 7 of this form Section 6. Other Information Submitted

Identify all materials that are included with this request.

Send both a paper copy of the signed form and all reports and supporting materials, and an electronic copy of the form and all reports, including Environmental Site Assessment Reports, and supporting materials on a compact disk.

Include one copy of any document from any state agency files that you want the Department to review as part of this request. The person submitting this request is responsible for contacting other state agencies to obtain appropriate reports or information.

Phase I Environmental Site Assessment Report - Date: _____

Phase II Environmental Site Assessment Report - Date: _____

Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

Page 4 of 5

Legal Description of Property (required for all liability requests and specialized agreements)

Map of the Property (required for all liability requests and specialized agreements)

Analytical results of the following sampled media: Select all that apply and include date of collection.

Groundwater Soil Sediment Other medium - Describe: _____

Date of Collection: 09/30/2020

A copy of the closure letter and submittal materials

Draft tax cancellation agreement

Draft agreement for assignment of tax foreclosure judgment

Other report(s) or information - Describe: Investigation Activities Work Plan, dated April 26, 2021

For Property with newly identified discharges of hazardous substances only: Has a notification of a discharge of a hazardous substance been sent to the DNR as required by s. NR 706.05(1)(b), Wis. Adm. Code?

Yes - Date (if known): 12/18/2020

No

Note: The Notification for Hazardous Substance Discharge (non-emergency) form is available at:

dnr.wi.gov/files/PDF/forms/4400/4400-225.pdf.

Section 7. Certification by the Person who completed this form

I am the person submitting this request (requester)

I prepared this request for: Mark Meurette
Requester Name

I certify that I am familiar with the information submitted on this request, and that the information on and included with this request is true, accurate and complete to the best of my knowledge. I also certify I have the legal authority and the applicant's permission to make this request.

Trenna Seilheimer
Digitally signed by: Trenna Seilheimer
DN: CN = Trenna Seilheimer email = trenna.seilheimer@arcadis.com
C = US O = Arcadis U.S., Inc. OU = Milwaukee, WI
Date: 2021.04.26 13:50:51 -05'00'

Signature

4/26/2021

Date Signed

Project Manager

Title

(414) 277-6262

Telephone Number (include area code)

