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Weekly Perimeter Air Monitoring Summary

Client: Massachusetts Department of Conservation and Recreation

Location: Pittsfield, Massachusetts

Period: 11/17/25 - 11/23/25

On behalf of the Massachusetts Department of Conservation and Recreation (MassDCR), AECOM Technical Services, Inc. (AECOM) has prepared this data summary for the Bel Air Dam remediation site (the "Site"). This data summary includes both tabular information and written discussions summarizing the ambient air-quality data collected during the indicated reporting period at the Site. The data was collected during the reporting period at the Site in accordance with the Perimeter Air Monitoring Plan (PAMP) prepared by AECOM (2025). Remedial activities are planned for a 5-day work week, Monday through Friday.

Scope

Air monitoring and sampling activities were conducted during the report period to evaluate conditions at the property line (fenceline) to document ambient air quality conditions at the fenceline and ensure that the measures used to control potential fugitive emissions are effective. The monitoring program consists of the following real-time monitoring and constituent-specific sampling:

- Real-time continuous monitoring for total volatile organic compounds (TVOCs) and particulate matter 10 microns or less (PM₁₀) performed at four (4) air monitoring stations (AMS) in the sediment removal area and one (1) AMS in the sediment processing area during work hours.
- Routine instantaneous hand-held monitoring for TVOCs, PM₁₀, and mercury vapor, as well as observational monitoring for odor and visible dust conducted routinely during periods of construction activities.
- Chemical-specific sampling for naphthalene using Summa[™] canisters and analyzed in accordance with EPA TO-15.
 Samples are collected at each AMS for 24-hour periods once per week during sediment removal in the northern portion of the river.
- Continuous meteorological monitoring for wind speed, wind direction, sigma (wind variability, calculated), temperature
 and relative humidity at an onsite location 24 hours per day, 7 days per week.

The real-time continuous and hand-held monitoring results are compared to a list of Site-specific Alert and Action Levels, and the mercury vapor and chemical-specific sampling results are compared to Acceptable Air Concentrations (AACs) developed for the Site. The Action Levels and AACs are defined in the following tables:

- Table 1: Site-Specific Alert and Action Levels; and
- Table 2: Acceptable Air Concentrations.

Real-Time Monitoring Summary

Real-time continuous TVOC and PM₁₀ monitoring was conducted at each of the five (5) AMS. In addition, hand-held monitoring for TVOCs, PM₁₀, and mercury vapor was conducted, as well as observational odor and visible dust assessments.

During the report period, the TVOC, PM_{10} , and mercury vapor concentrations remained less than the Action Levels, there were no off-Site odor complaints, and no observations of visible dust moving off-Site. The results of the real-time air monitoring are presented in the following tables:

- **Table 3:** Real-Time TVOC and PM₁₀ Concentrations Summary;
- Table 4: Project-to-Date TVOC and PM₁₀ Average Concentrations Summary;
- Table 5: Daily Maximum Hand-held Concentrations Summary; and
- Table 6: Weekly Alert and Action Level Event Summary.

Naphthalene Sampling Summary

Chemical-specific sampling for naphthalene is conducted at each of the five (5) AMS for 24-hour periods once per week during sediment removal activities in the northern portion of the work zone. Samples are shipped to the analytical laboratory for USEPA TO-15 analysis. The results of sampling are provided following receipt from the analytical laboratory and are included in the following table:

• Table 7: Naphthalene Sampling Results Summary.

Meteorological Conditions and Site Map

Meteorological monitoring summaries and a Site map for the report period are included in the following figures:

- Figure 1: Meteorological Summaries; and
- Figure 2: Site Map(s).

Table 1: Site-Specific Alert and Action Levels

Target Constituent	Alert Level	Action Level				
TVOC (15-minute average or instantaneous concentration)	One (1) concentration > 1.0 ppm	Two (2) concentrations > 1.0 ppm				
PM ₁₀ (15-minute average or instantaneous concentration)	One (1) concentration > 150 μg/m ³	Two (2) concentrations > 150 µg/m³				
Mercury Vapor (Instantaneous concentration)	Not Applicable	One (1) concentration $> 0.05 \mu g/m^3$				
Odor (Instantaneous observation related to Site activities)	Not Applicable	On-Site odor > 3 or public complaints that are verified to be related to construction				
Visible Dust (Instantaneous observation related to Site activities)	Not Applicable	Observation of visible dust moving off-Site				

Definitions:

TVOC - Total volatile organic compounds

ppm - Parts per million

PM₁₀ – Respirable particulate matter

μg/m³ – Micrograms per cubic meter

Table 2: Acceptable Air Concentrations

сос	AAC μg/m³	Project Goal μg/m³			
PM ₁₀	150	120			
Mercury Vapor	0.05				
Naphthalene	1.43	1.14			

Definitions:

AAC – Acceptable Air Concentration

COC - Chemical of concern

PM₁₀ – Particulate matter with a diameter of 10 micrometers or less in diameter.

μg/m³ – Micrograms per cubic meter

Notes:

- Project Goal is defined as an internal project goal equal to 80% of the AAC.

Table 3: Real-Time TVOC and PM₁₀ Concentrations Summary

	AMS-1		AMS-A		AM	S-B	AM	s-c	AMS-D			
Date	TVOC (ppm)	PM ₁₀ (μg/m³)	TVOC (ppm)	PM ₁₀ (μg/m³)	TVOC (ppm)	PM ₁₀ (μg/m³)	TVOC (ppm)	PM ₁₀ (μg/m³)	TVOC (ppm)	PM₁₀ (µg/m³)		
Mon 11/17/25	0.0	2.6	0.0	10.1	0.0	2.8	ND¹	ND¹	0.0	1.7		
Tue 11/18/25	0.0	7.3	0.0	15.6	0.0	8.0	0.0	8.5	0.0	5.1		
Wed 11/19/25	0.0	27.6	0.1	27.2	0.0	11.8	0.0	27.1	0.0	55.1		
Thu 11/20/25	0.0	30.4	0.0	38.1	0.0	16.8	0.0	22.8	0.0	28.0		
Fri 11/21/25	ND ²	ND ²	0.1	43.5	0.0	40.7	0.0	34.3	0.0	32.5		
Weekly Summary												
Weekly Maximum	0.0	30.4	0.1	43.5	0.0	40.7	0.0	34.3	0.0	55.1		
Weekly Average	0.0	9.2	0.0	18.1	0.0	7.1	0.0	11.0	0.0	9.8		

Definitions:

AMS – Air Monitoring Station

TVOC - Total Volatile Organic Compounds

ppm - Parts per million

PM₁₀ - Particulate Matter 10 micrometers or less

µg/m³ – Micrograms per cubic meter

PTD - Project-to-date

ND - No Data

NA - Not Applicable

- Highlighted concentrations (if any) require further analysis (see **Table 5**).
- AMS reported TVOC and PM₁₀ data represent 15-minute average concentrations.
- Project-to-date average PM₁₀ concentrations are compared to the PM₁₀ AAC to evaluate the effectiveness of the perimeter air monitoring program with relation to particulates. Compliance will be determined at the end of the project.
- Project-to-date average TVOC and PM₁₀ concentrations are calculated from 6/23/25 through the end of the reporting period.
- Baseline results are not included in project-to-date averages.
- ¹ Data missing due to a solar power issue. The equipment was replaced and is functioning properly.
- ² Data missing due to the unit being inaccessible. Access issue remediated.

Table 4: Project-to-Date TVOC and PM₁₀ Average Concentrations Summary

		AMS-1		AMS-2		AMS-3		AMS-4		AMS-A		AMS-B		AMS-C		AMS-D	
		TVOC (ppm)	PM ₁₀ (μg/m³)														
	PTD Average	0.0	20.1	0.0	27.5	0.0	19.8	0.0	16.6	0.0	15.8	0.0	14.1	0.0	11.0	0.0	9.8

Definitions:

AMS - Air Monitoring Station

TVOC - Total Volatile Organic Compounds

ppm - Parts per million

PM₁₀ - Particulate Matter 10 micrometers or less

μg/m³ – Micrograms per cubic meter

PTD - Project-to-date

Notes:

- Project-to-date average PM₁₀ concentrations are compared to the PM₁₀ AAC to evaluate the effectiveness of the perimeter air monitoring program with relation to particulates. Compliance will be determined at the end of the project.
- Project-to-date average TVOC and PM₁₀ concentrations are calculated from 6/23/25 through the end of the reporting period.
- Baseline results are not included in project-to-date averages.
- AMS-2, AMS-3, and AMS-4 were removed from service on 11/14/25.
- AMS-C and AMS-D were deployed on 11/17/25.

Table 5: Daily Maximum Hand-Held Concentrations Summary

Date	TVOC (ppm)	PM ₁₀ (μg/m³)	Mercury Vapor (μg/m³)	Odor (0-8)	Visible Dust (Yes/No)
Mon 11/17/25	0.0	12	0	0	No
Tue 11/18/25	0.0	21	0	0	No
Wed 11/19/25	0.0	32	0	0	No
Thu 11/20/25	0.0	43	0	0	No
Fri 11/21/25	0.0	40	0	0	No

Definitions:

TVOC - Total Volatile Organic Compounds

ppm - Parts per million

PM₁₀ - Particulate Matter 10 micrometers or less

μg/m³ – Micrograms per cubic meter

ND - No Data

NA - Not Applicable

- Highlighted concentrations (if any) require further analysis (see **Table 5**).
- Hand-held data represents instantaneous concentrations unless stated otherwise.

Table 6: Weekly Alert and Action Level Event Summary

Parameter	Date	Time	Location	Wind Conditions	Elevated Concentration	Comments/Explanation
TVOC (ppm)	NA	NA	NA	NA	NA	TVOC concentrations remained less than the Alert and Action Levels.
PM ₁₀ (μg/m³)	NA	NA	NA	NA	NA	PM ₁₀ concentrations remained less than the Alert and Action Levels.
Mercury Vapor (µg/m³)	NA	NA	NA	NA	NA	Mercury vapor concentrations remained less than the Action Level.
Odor (0-8)	NA	NA	NA	NA	NA	Odor observations remained less than the Action Level.
Visible Dust	NA	NA	NA	NA	NA	There were no observations of visible dust moving offsite.

Definitions:

AMS – Air Monitoring Station

HH - Hand-Held Location

TVOC – Total Volatile Organic Compounds

ppm - Parts per million

PM₁₀ − Particulate Matter ≤ 10 microns in diameter

μg/m³ – Micrograms per cubic meter

mph - Miles per hour

ND - No Data

NA - Not Applicable

- AMS-reported data represent 15-minute block average concentrations.
- Observations represent instantaneous conditions unless stated otherwise.

Table 7: Naphthalene Sampling Results Summary

Date	AAC (µg/m³)	Project Goal (µg/m³)	AMS-1 (μg/m³)	AMS-2 (μg/m³)	AMS-3 (μg/m³)	AMS-4 (μg/m³)	AMS-A (μg/m³)	AMS-B (μg/m³)	AMS-C (μg/m³)	AMS-D (μg/m³)	Dup (µg/m³)
Wed 5/21/25			0.205	0.205	0.205	0.205	0.205	0.205			0.205
Tue 7/22/25			0.205	0.205	0.205	0.098	0.205	0.205			
Wed 7/30/25			0.205	0.205	0.205	0.205	0.205	0.205			
Tue 8/5/25			0.205	0.205	0.205	0.205	0.205	0.205			0.205
Wed 8/13/25			0.205	0.205	0.205	0.205	0.205	0.205			
Tue 8/19/25			0.205	0.205	0.205	0.205	0.205	0.205			
Wed 8/27/25			0.205	0.205	0.205	0.205	0.205	0.205			
Thu 9/4/25			0.205	0.205	0.205	0.205	0.205	0.205			0.205
Mon 9/8/25			0.205	0.205	0.205	0.205	0.205	0.205			
Tue 9/16/25			0.205	0.205	0.205	0.205	0.205	0.205			
Wed 9/24/25			1.400	0.205	0.205	0.205	0.205	0.205			
Thu 10/2/25			0.205	0.205	0.205	0.205	0.205	0.205			
Mon 10/6/25			0.205	0.205	0.205	0.205	0.205	0.205			0.438
Wed 10/15/25			0.205	0.205	0.205	0.205	0.205	0.205			
Thu 10/23/25			0.205	0.205	0.205	0.205	0.205	0.205			
Tue 10/28/25			0.205	0.205	0.205	0.205	0.205	0.205			
Wed 11/5/25			0.205	0.472	0.205	0.205	0.205	0.205			TBD ¹
Thu 11/13/25			TBD ¹			TBD ¹					
Mon 11/17/25			TBD ¹				TBD ¹				
				Pro	ject Summ	ary					
PTD Average	1.43	1.14	0.280	0.222	0.205	0.198	0.205	0.205	TBD ¹	TBD ¹	

Definitions:

AMS - Air Monitoring Station

AAC - Acceptable Air Concentration

PEL – Permissible Exposure Limit

MDL – Method Detection Limit

TBD - To Be Determined

PTD – Project-To-Date

μg/m³ – Micrograms per cubic meter

Bold - Results reported above the MDL

 $\it Italics$ – Compound was analyzed for, but not detected above the MDL (estimated as $\it \%$ the MDL)

NA - Not Applicable

ND – No Data

- Samples are placed in the field at the start of the work activities and collected prior to the start of the following day, unless otherwise stated. The sample date listed represents the day the sample was started.
- Baseline results are not included in project-to-date averages.
- Duplicate samples are collected once per month at AMS-1.
- On Friday, 11/14/25, AMS-2, AMS-3, and AMS-4 were removed from service and AMS-C and AMS-D were placed in new locations on-Site.
- ¹ Samples are pending analysis and results will be reported once available from the laboratory.

Figure 1: Meteorological Summaries



Figure 2: Site Map (11/17/25 - 11/21/25)

