



## RESPONSE JUSTIFICATION DOCUMENT

Middle Spring Creek  
Southampton Townships, Cumberland and Franklin Counties  
South Central Region

### DEP APPROVAL

Based on the facts and findings outlined in this Response Justification Document, Further Investigation or response action is deemed appropriate, pursuant to Section 501(a) of the Hazardous Sites Cleanup Act, 35 P.S. § 6020.501(a).

 Steven DeMars, Regional Group Manager Hazardous Sites Cleanup Program	10/23/2024 Date
 Benjamin Thonus, Regional Program Manager Environmental Cleanup and Brownfields	10/23/2024 Date

### SUMMARY OF FACTS

The Middle Spring Creek Site (Site) is located in Southampton Townships in Cumberland and Franklin Counties, Pennsylvania. The Site is found on the United States Geological Survey 7.5-minute Shippensburg, Pennsylvania topographic map at approximately 40° 04' 12.4" north latitude and 77° 32' 20.7" west longitude. The area is primarily used for agriculture with residential locations in the vicinity.

Surface water and groundwater at the Site is contaminated by Perfluoroalkyl Substances (PFAS). PFAS, which includes Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonic acid (PFOS), Perfluorohexanesulfonic acid (PFHxS), and Perfluorononanoic acid (PFNA), are not found naturally in the environment. They have been used to make cookware, carpets, clothing, fabrics for furniture, paper packaging for food, and other materials that are resistant to water, grease, or stains. They are also used in firefighting foams and in a number of industrial processes.

In August 2023, surface water sample results were provided to the Pennsylvania Department of Environmental Protection (DEP) by Pennsylvania American Water. The notification indicated that Middle Spring Creek had PFOA and PFOS detections up to 29 and 156 nanograms per Liter (ng/L). Surface water samples collected in November 2023 by DEP confirmed that PFOA and PFOS detections up to 21 ng/L and 104.6 ng/L, respectively in the stream. A pond near the stream showed detections of 20.7 ng/L and 101.2 ng/L, respectively. Surface water samples were collected by DEP from Middle Creek in May 2024 showed detections of PFOA at 75 ng/L and PFOS at 446.8 ng/L. The pond was also resampled in May 2023 and showed 89.9 ng/L PFOA and 562.4 ng/L PFOS. In August 2024, five residential wells were sampled. In four of the homes, PFOA and PFOS, and other PFAS compounds were detected with PFOS ranging from 9.7 ng/L to 5,943.5 ng/L, PFOA ranging from 0 to 1,795.3 ng/L, PFHxS ranging from 0 ng/L to 623.7, and

detections of PFNA from 0 to 112.6 ng/L. The Pennsylvania Maximum Contaminant Limits (MCLs) for PFOA and PFOS are both 4 ng/L. The MCLs for PFHxS and PFNA are both 10 ng/L. 25 Pa. Code § 109.202(a)(4)(i) – (ii). Effective June 25, 2024, these MCLs became the Statewide health standard medium -specific concentration (MSC) values for groundwater under the regulations for Act 2 of 1995: Land Recycling and Environmental Remediation Standards Act. 25 Pa. Code §§ 250.1 – 250.708.

At this time, the source and full extent and degree of contamination is not known.

## **RESPONSIBLE PERSONS**

The source of the PFAS groundwater contamination has not been fully determined. Therefore, there are currently no recognized Responsible Parties in accordance with Section 701 of the Hazardous Sites Cleanup Act, Act of 1988, P.L. 756, No. 108, 35 P.S. § 6020.101 *et seq.*

## **FINDINGS AND AUTHORITY TO ACT**

HSCA Section 501(a), 35 P.S. § 6020.501(a), grants DEP authority to undertake investigations and response actions when there has been “a release or substantial threat of release of a contaminant which presents a substantial danger to the public health or safety or the environment or where there is a release or threat of a release of a hazardous substance.” 35 P.S. § 6020.501(a).

DEP considers PFAS to be “contaminant[s]” as that term is defined under Section 103 of HSCA, 35 P.S. § 6020.103:

“Contaminant.” An element, substance, compound, or mixture which is defined as a pollutant or contaminant pursuant to the Federal Superfund Act.

35 P.S. § 6020.103. See also 42 U.S.C. § 9601(33) (defining “pollutant or contaminant”).

Additionally, PFAS constituents PFOA, PFOS, PFHxS, and PFNA may also be “hazardous substance[s]” as defined in HSCA Section 103:

“Hazardous Substance”

(1) Any element, compound or material which is: . . . (iv) [d]etermined to be substantially harmful to public health and safety or the environment based on a standardized and uniformly applied department testing procedure and listed in regulations proposed by the department and promulgated by the Environmental Quality Board.

Id.

The Pennsylvania Environmental Quality Board, pursuant to Section 4 of the Pennsylvania Safe Drinking Water Act, 35 P.S. § 721.4, amended Pennsylvania Safe Drinking Water Regulations to establish MCLs for PFOA and PFOS, effective June 25, 2024:

<b>Contaminant</b>	<b>MCL (ng/L)</b>
PFOA	4
PFOS	4
PFHxS	10
PFNA	10

See 25 Pa. Code § 109.202(a)(4)(i) – (ii).

Ingestion of water containing PFOA, PFOS, PFHxS, and PFNA at concentrations above the MCL poses a threat to human health. Id. See also 25 Pa. Code § 109.1 (defining “MCL” and “MCLG”).

Regulations pursuant to Act 2 of 1995: Land Recycling and Environmental Remediation Standards Act, 35 P.S. §§ 6026.101 – 6026.909, were updated, effective June 25, 2024, to make these MCLs the Statewide health standard medium-specific concentration (MSC) values for groundwater. 25 Pa. Code §§ 250.1 – 250.708.

As described above, DEP determined that PFAS, specifically PFOA, PFOS, PFHxS, and PFNA have been released at the site. Surface and ground water samples taken by DEP indicated that levels of PFOA, PFOS, PFHxS, and PFNA are above the MCL and MSC values of 4 ng/L, 4 ng/L, 10 ng/L, and 10 ng/L, respectively.

Based on these findings, DEP has determined that a further investigation or response is appropriate.

## **REFERENCES**

Email notification from Joseph Mattucci to Marcus Kohl, cc: to Benjamin Thonus, August 29, 2023.

Narrative Inspection Report, 11/16/23, with attached lab results

Narrative Inspection Report, 05/15/24, with attached lab results

Narrative Inspection Report 08/07/24, with attached lab results