

**EPA Review of  
Draft Site Inspection (SI) Report for Per- and Polyfluoroalkyl Substances (PFAS)  
Former Fort Devens Army Installation, Devens, MA – September 28, 2017**

**General Comments**

1. Documentation of the PFAS SI work conducted at the Devens Fire Station, as planned in the Addendum to the Expedited Site Inspection Work Plan for PFAS dated September 2017, and results should be incorporated into the next version of the SI Report, with supporting tables and figures added.
2. The SI Report must better document the preservation of aqueous samples with Trizma. Army's contractor, BERS-Weston, in a June 17, 2017 memorandum to the Army Corps of Engineers discusses a variance to the Final ESI Work Plan that included the preservation of groundwater samples with Trizma, whereas the Work Plan had specified the samples would be unpreserved. The memorandum explains that "the modification to the drinking water method (EPA 537) is intended to remove the requirement to preserve [with Trizma], not disallow it" and "no effects of Trizma have ever been observed". The memorandum further states that BERS-Weston has requested that the laboratory note in the case narrative that samples were preserved with Trizma and to discuss any potential impacts to the detection and quantitation of the target compounds if they exist. The case narratives included in the laboratory data packages in Appendix C did not include this discussion. In addition, within Section 3.1.2, the preservation of existing groundwater monitoring well samples with Trizma is discussed on page 8, whereas there is no mention of Trizma preservation of temporary point groundwater samples within Section 3.1.4. EPA recommends that the June 17, 2017 memorandum be included in an appendix to the report, and the report text, at a minimum, include details regarding the preservation of all sample types (including surface water and sediment). Please address.
3. In order to more fully document PFAS impacts and assist in the scoping of future PFAS investigations, please include well screen intervals and/or sampling depths in one or more tables and illustrate on cross-sectional figures.

**Page-Specific Comments**

1. Page 1, Section 1.0 – The first sentence states that site inspections (SIs) were conducted at nine potential PFAS release areas but the following sentence refers to nine areas of contamination (AOCs) and study areas (SAs). Unfortunately, the proceeding discussion fails to explain the distinction between each or how they relate to the ten areas shown on Figure 1. Please amend this section to more clearly describe the connection between release areas, SAs and AOCs and include reference to the discussion of ongoing CERCLA activities in Section 2.6 (which more clearly defines/describes each AOC and SA).
2. Pages 2 (last paragraph) and 3 (first paragraph), Section 2.4 – The discussion of water supply wells should be expanded to describe the different water supply wells identified (i.e. public, non-transient non-community, and transient non-community) and the specific communities they serve, their current status (i.e. active vs inactive), and applicable operational information (i.e. size of community served, pumping rates, blending and/or treatment, etc.). In addition, please move the discussion of SPIA water supply wells, currently in subsection 2.6.9, to this section.

3. Page 3, Section 2.4 – The fourth sentence incorrectly identifies the twelve 8-inch wells, located to the west of Grove Pond, as components of the Town of Ayer water supply system. During a recent telephone conversation with Jim Moore of Mass Development’s DPW, EPA learned that these wells were actually part of the now defunct Devens wellfield (permanently removed from service several years ago due to constant flooding and limited operational capacity/function). As such, the current discussion should be corrected to more accurately identify and describe these wells.

In addition, please provide specific information (i.e. size, well screen depth, average monthly pumping rates/volumes, and treatment systems, if any) for Ayer (wells 6, 7 and 8) and Devens’ (MacPherson, Shabokin and Patton) water supply wells. A separate section should be created in the document that includes a brief history of PFAS drinking water sampling events (i.e. by whom and when were samples collected/analyzed and validated analytical results for each of the water supply wells sampled).

4. Page 3, Section 2.4, 2<sup>nd</sup> paragraph - Please insert “PFOA was detected at concentrations up to 24 ng/L” after “PFOS was detected at concentrations up to 85 nanograms per liter (ng/L)” in the first sentence.
5. Page 3, Section 2.4, 2<sup>nd</sup> paragraph – The last sentence of the paragraph states “It is noted, however, that the MacPherson well is blended with the Patton and Shabokin wells, both of which showed PFAS concentrations well below the HAL.” Although there may be some mixing of the pumped water from the three Devens wells within the distribution system (and within the connected storage tank once an amount in excess of current demand is pumped), it is misleading to state that it is blended. Based on information provided by the Devens water supplier, it likely that water pumped from each respective well, at least upon system start-up, is distributed to the closest users of that well. The system operation needs to be more clearly and more accurately described within the report.
6. Page 3, Section 2.4 – The current discussion of possible connections between potential release (i.e. source) areas and potentially-impacted water supply wells in the final two paragraphs of the section is premature and should be moved to the discussion of potential groundwater impacts in Section 4.2. While it is acceptable to identify the water supply wells located closest to the AOCs or SAs investigated in the SI, potential connections between PFAS detections in these areas and drinking water wells should appear later in the document with the discussion of sampling results, detailed groundwater flow information and a discussion of proximity to the public water supply wells. (Please note: Text in the third paragraph refers to *two* closest AOCs or SAs to the Grove Pond Wells, but then lists *three* (AOC 5, SA 74, and SA 75). This should be corrected in subsequent discussions.)
7. Page 4, Section 2.5, end of section – Please insert an additional sentence stating “The Final PA Report was issued in September 2017 and included the Devens Fire Station as a potential source area”.
8. Page 4, Section 2.6 – Please amend the first paragraph to read, “Based on recommendations of the Final PA Report, sampling was performed at the following suspected PFAS source areas:”

9. Page 5, Section 2.6 – Please amend each of the subsections (i.e. 2.6.1 – 2.6.9) to include a brief description of work, historic and/or ongoing, performed in accordance with CERCLA (i.e. PA/SI, RI/FS/ROD/RA). The inclusion of this information will also help support prior AOC and SA designations/discussions.
10. Pages 5 and 6, Section 2.6 – While Table 2 provides some information on sampling rationale, each of the subsections should be amended to include a more thorough discussion of the process employed for identifying and investigating each AOC/SA as a potential PFAS release (i.e. source) areas.
11. Page 5, Section 2.6.5, last sentence – The soil and groundwater sampling is discussed in the future tense. Please correct to past tense, since these media were sampled in the SI.
12. Page 6, Section 2.6.8 – Please add a sentence at the end of the discussion acknowledging that remnants from the fire were transported to and disposed of at AOCs 5 and 50.
13. Page 6, Section 2.6.9 – For reasons previously discussed, please delete the current “Previous Sampling” discussion and replace it with a new subsection entitled “SAXX- Devens Fire Station.”
14. Page 10, Section 3.1.4 – It is unclear if the groundwater samples from the temporary points were preserved with Trizma or not. Please clarify. Also, the memorandum detailing the check valve sampling variance should be included in an appendix of the report.
15. Page 11, Section 4.1 – The first paragraph states that groundwater flow diagrams were generated based on measurements from temporary and permanent monitoring points/wells that are *generally consistent* with groundwater flow directions measured as part of the CERCLA-required, annual long-term monitoring programs for AOCs 5, 32, and 50. EPA Based on EPA’s cursory comparison of groundwater flow diagrams in the AOC-specific CERCLA RIs and those presented in Figures 3 through 5, there appear to be significant differences in groundwater flow directions between historic and current documents (likely due to the limited number of data points considered in the latter). Please elaborate on the basis of these discrepancies and describe how the issues will be reconciled in the PFAS RI.
16. Page 12, Section 4.2 – As discussed in comment 6, the discussion of possible connections) between potential release (i.e. source) areas and potentially-impacted water supply wells is premature for a SI Report. While it may be helpful to identify the water supply wells located closest to the AOCs or SAs investigated in the SI, an actual correlation between PFAS detections in groundwater samples and public water supply wells can only be determined through the collection and evaluation of additional site data (i.e. PFAS RI).
17. Pages 16-19, Sections 5.0 and 6.0 – Based on the limited data collected during the PFAS SI, coupled with the fact that site-specific PFAS screening levels have yet to be developed for Devens, any discussion of the potential impacts should be omitted from this discussion. It is premature to postulate on the significance of sampling results in the SI phase.
18. Page 20, Section 8.0 – Based on the foregoing comment, this discussion should be amended to reflect that fact that the PFAS RI Work Plan will include the evaluation of all areas (and all media) with confirmed PFAS SI detections, regardless of the concentrations detected.

19. Page 21, Section 8.0 – Within the last bullet, Army recommends the Remedial Investigation Work Plan focus on addressing any possible impacts to other municipal supply wells not addressed in the SI. The evaluation should include all of the water supply wells discussed in Section 2.4.
20. Table 2 – Please amend the table to include the Devens Fire Station study area.
21. Table 4 – Please amend the table to include data collected from the Devens Fire Station study area.
22. Table 6 – Well location identifiers are missing from the table. Please revise.
23. Table 22 – Please add recommendations for the Devens Fire Station to this table.
24. Figure 2 – Please add the Devens Fire Station to this figure.
25. Figure 9 – Please add the Devens Fire Station to this figure.